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Yale University. School of Medicine

Yale Medicine

Alumni Bulletin of the School of Medicine / Winter 1973

Cover:

Dr. Thomas R. Forbes, professor of anatomy, found the document shown on the front cover in the Westminster City Library in London last summer:

In 1719 London was struggling with a familiar urban problem. "Whereas great Numbers of poor Sick persons in this Citty languish for want of Necessary's And too often Dye Miserably who are not Entitled to a parochiall Relief: And whereas amongst those who doe receive Relief from their respective Parishes Many suffer Extremely and are Sometimes lost, partly for want of Accomodations and proper Medicines in their own Houses or Lodgings, the Closeness and Unwholesomeness of which is often one great Cause of their Sickness, partly by the imprudent laying out of what is Soe allowed and by the Ignorance and Carelessness and ill Management of those about them. Wee . . . do subscribe the Following Sumes of Money . . . for the procuring furnishing and defraying the necessary Expences of an Infirmary . . . ." Leading the list of subscribers was Elihu Yale, who pledged ten pounds annually. The infirmary became Westminster Hospital. (Photograph courtesy of the Archives Department, Westminster City Library, London.)

REMEMBER MEDICAL ALUMNI DAY — MAY 19.

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Photos on pages 11-13 by Ann Goodman

Guessing and Knowing

Reflections on the Science and Technology of Medicine

By Lewis Thomas, M.D.

This article is reprinted in its entirety from the December 23, 1972 issue of the Saturday Review of Science. *It is adapted from a paper Dean Thomas delivered in November at the Institute of Medicine of the National Academy of Sciences.*

The technology of medicine has certain peculiar features that differentiate this field from all the rest. One difference has to do with the economics that seems to govern all other technological advances but has no discernible influence on the kinds of things we do, or *think* we do, in medicine. For example, engineers do not build new bridges at great cost without knowing in advance, quite precisely, what the transport requirements will be in the future and having some kind of assurance that the bridges will bear the traffic, meet all foreseeable demands, and stand up to all foreseeable stresses. But we will undertake the development of an artificial heart, at the cost of many bridges, without going through any sort of cost-benefit, logistic, or even moral analysis of what it is that we are making. Indeed, in medicine it is characteristic of our technology that we never count the cost, even when the bills begin coming in.

This is plainly a defect in our system—if we can be said to have a system. It is in part explainable by our history, by the brand-newness of any kind of technology at all in this field, and by our consequent unfamiliarity with any methods, or, indeed, any incentive in the first place, for technology assessment in medicine. We have had almost no genuine science to tap into for our technology until just the past three decades. As a profession, we go back a very much longer stretch of time, probably thousands of years. During most of our history, therefore, we have been accustomed to no technology at all or to pseudotechnologies without science. We acquired the habit long since of improvising, of trying whatever came to hand, and in this way we have gone through our cyclical fads and fashions, generation after generation, ranging from bleeding, cupping, and purging, through incantations and the reading of omens, to prefrontal lobotomy and Metrazol convulsions, and we have all gotten quite used to this kind of thing, whether we will admit it or not. Early on we became accustomed to the demand that a doctor must *do* something; doctors who didn't *do* something, no matter what, were not real doctors, just as shamans were not real shamans until they turned on the good spirits and turned off the bad ones. During the long period when we knew of nothing to do about typhoid fever except to stand by and wait for the patient to struggle through while we kept an eye out for the hemorrhages and perforations that might kill him at any time, the highest level of technology was the turpentine stupe—an elaborate kind of fomentation applied to the belly, very difficult to make without ending up with a messy shambles and capable, I believe, of doing absolutely no good whatever beyond making everyone feel that the doctor was *doing* something. This, by the way, is not a baroque item from our distant history. I learned to make a turpentine stupe at the Peter Bent Brigham Hospital in 1937; it is, in my view, a relatively recent, almost modern example of the way we develop technology, and it is not yet all behind us, as we shall see. We still have our equivalents of bleeding and cupping and turpentine stupes, and they are all around us.

The trouble with this kind of pseudotechnology is that it has become unbelievably expensive in its modern forms, and at times it is dangerous. It is particularly dangerous and expensive when it takes the form of strong drugs or bizarre diets or surgery, which it sometimes does.

We may be in danger of forgetting the real reason why we have always done such things in the first place. Why, when we do not understand even faintly the underlying nature of a fatal disease and can do nothing about it to change its course, do we feel an obligation to *do* something—and why does society expect us to try? The answer, of course, is that we must; it is in our nature to try. The best definition ever given to a physician's occupation is the old one: "to cure sometimes, to relieve often, to comfort *always*." It is that word "always" that is operative. And one of the best ways to comfort is to keep trying, no matter what.

But now that science has entered medicine in full force, we must begin to sort out our affairs. From now on we will need, as never before, to keep these central enterprises—"to cure, to relieve, to comfort"—clearly separated from each other in our minds. They do not really overlap, but we tend to view them—and the public, of course, takes the same view—as though they were all of a piece, all the same body of technology, all derived from science, all modern. I think perhaps one reason we do this is because of an unconscious conviction that dollar values must be placed on all human enterprises; we do not like to confess to ourselves that so many of the things that

we do are provided simply for comfort and reassurance. Somehow, these have come to seem less significant products than a cure; so we try, consciously or unconsciously, to pretend that there is more continuity than is really there, that everything we do is directed toward the same end.

In fact, in real life we are engaged in three, maybe four, entirely different kinds of technology in medicine. I have an idea that if we could conduct a sort of technology assessment on ourselves and come to some sort of general agreement about which technology belongs in which category, we might be in a better position to make intelligent plans and forecasts for the future, and we would almost surely be clearer in our minds about how to set priorities for the investment of scientific resources for the future.

Before beginning my own version of a classification, I would like to make a general declaration of faith and a general confession of optimism. My dogmas are as follows: I do not believe, first of all, in the inevitability of disease; I concede the inevitability of the *risk* of disease, but I cannot imagine any category of human disease that we are precluded by nature from thinking our way around. Moreover, I do not believe that when we succeed in controlling or curing one kind of disease, we will necessarily, automatically, find that it has been replaced by another.

Even if I am wrong about this and it should turn out that there is some law of nature that mandates the doling out of new diseases up to some optimal number whenever old ones disappear (which strikes me as a piece of illogic as well as high improbability), I still cannot imagine remaining helpless before all the new ones. Nature is inventive, I grant, but not so inventive as to continue elaborating endless successions of brand-new, impenetrable disease mechanisms. After we have learned enough to be able to penetrate and control the mechanisms of today's diseases, I believe we will automatically be well equipped to deal with whatever new ones turn up. I do not say this in any arrogance, it just seems to me reasonable.

I have no more difficulty in imagining a disease-free human society, or at least a society in which major diseases are held under control, than I do with the idea that valuable stocks of animals or varieties of plants can be maintained *relatively* free of disease.

I believe that disease is fundamentally unnatural. It is not, in my view, a normal or natural part of the human condition for aging human beings to become paralyzed and idiotic for long years before they finally die any more than it is normal for young people to develop acute leukemia. I believe that disease generally results from biological mistakes, misinterpretations of signals on the part of cells and tissues, and misuse of information. I believe that there is a general tendency, amounting to a kind of universal natural force, for living things to attempt to join together, to pool resources, to establish symbiotic relationships. Parasitism is what happens when this fundamental drive forces partnerships upon inappropriate, wildly asymmetric partners. In order to protect against such collisions, we are provided with chemical signals of identity, by which the life of the earth is regulated and kept balanced. Certain major varieties of disease are due to the panic produced by such signals; for example, most mammals, and even certain invertebrates, such as limulus, read the signal of the lipopolysaccharide endotoxin extracted from Gram-negative bacteria as the news of absolute doom, and so violent an inflammatory reaction is set up inside the whole vascular compartment that the circulation of the blood is brought to a standstill. This happens, not because of any intrinsic, poisonous properties of endotoxin, but because of the way the information contained in its molecule happens to be read by an animal host. In my view, much of human disease works in this way, and the mechanisms involved are, I believe, quite open to intelligent intervention and reversal whenever we learn more about how they operate.

Our time for the application of science on a major scale is approaching rapidly and medicine will be totally transformed when it happens.

To say it another way, I do not consider that the ambition to control or eliminate disease, which is an ambition shared by everyone in biomedical science, is either unthinkable or any distance beyond imagining. What makes it seem to many people like an outlandish, even outrageous way to be talking is that it becomes assumed that we are talking about human happiness, which is really quite another matter, or about human mortality, which is also quite another matter. As for the first, it is, of course, true that disease has long been a major cause of human despair and wretchedness, but this is no reason to believe that we will all become happy, well-adjusted people by being rid of it. We will still be left with an abundance of worrisome problems, and we will still have ample reasons for despair, and no medical science—not even psychiatry—has any foreseeable contribution to make in these matters. War and bombs, failure and anomie, clouding of the sun by par-

ticles of our own waste, the shutting off of oxygen, the loss of room to move around in—these are problems that will be with is, healthy or ailing, for some time to come, and I hope that no one will suggest that these are in any sense problems for medicine – or we will never get any of them solved. But perhaps human society will be better equipped to think its way through these imponderables if, at least, we no longer have today's roster of diseases to worry us at the same time.

As for mortality, I have a hunch that we will discover someday that disease and death are not as inextricably interrelated as we tend to view them today. All the rest of nature undergoes, in its variable cycles, the physiological process of death by the clock; all creatures, all plants, age finally, and at the end they all die. Diploid cells in tissue culture have finite life spans, which are different for different lines of cells and characteristic of particular cell stocks. Some live for forty generations and then die, others for seventy. They do not develop fatal diseases. It is not a catastrophe; they simply reach the end of a lifespan programmed for them in their own genomes, and at the end of that span they die.

I believe that we are also like this. If we are not struck down prematurely by one or another of today's diseases, we live a certain length of time and then we die, and I doubt that medicine will ever gain a capacity to do anything much to modify this. I can see no reason for trying and no hope of success anyway. At a certain age it is in our nature to wear out, to come unhinged, and to die, and that is that. My point here is that I very much doubt that the age at which this happens will be very drastically changed for most of us when we have learned more about how to control disease. The main difference will be that many of us will die in relatively good health, in a manner of speaking—rather after the fashion of Bertrand Russell—or we may simply dry up and blow away.

And even if our technology were to become so dazzlingly effective as to rid us of all the major diseases that now kill many of us off before our time of wearing out, I doubt that the increase in population caused by this would make more than a marginal difference to the general problem of world overpopulation. Indeed, it might help some, since there would be smaller numbers of us in hospitals or living out our lives in various degrees of incapacitation and suffering. Overpopulation is bad enough, as social problems go, but to be overpopulated with so many of us disabled by disease, especially by the chronic diseases of the elderly, let alone schizophrenia, presents an unthinkable prospect for the approaching century.

In any case, we do not really owe much of today's population problem to the technology of medicine. Overpopulation has been coming on for several centuries, and the alarming upward slope began long before we had developed a genuine capacity to change the outcome of disease. Modern medical science arrived only recently, when the world population had already been set on what seems to be its irreversible course by the civilizing technologies of agriculture, engineering, and sanitation—most especially the latter. From here on, the potential benefits of medicine greatly outweigh any conceivable hazard; we will perhaps change slightly the numbers of us living at any moment in time, but it lies within our capacity to change very greatly the quality of life.

Well, where do we stand today as a science? This is not the same question, of course, as the one concerning the state of our technology. Our science is the science of the biological revolution, and we have scarcely begun to apply any of it. We do not yet, in fact, know where to begin. In contrast with today's genuinely high technologies of biology and neurobiology or cellular biology, with the immense power of their instruments for exploring the most fundamental questions about the processes of life, the condition of our knowledge of disease mechanisms has a primitive, nineteenth-century look, and our capacity to intervene in disease is not much better. This is the general shape of things today, but tomorrow will be very different indeed. I simply cannot imagine any long persistence of our ignorance about disease mechanisms in the face of all that is being learned about normal cells and tissues. Our time for the application of science on a major scale is approaching rapidly, and medicine will be totally transformed when it happens. The hard problem just ahead will be for us to set priorities and make choices between options. We will be obliged, as never before in our history, to select between alternative possibilities in technology; we will be compelled to make long-range predictions as to the outcome of this course or that; in short, we will be thrust into the business of technology assessment, just like all the other great national enterprises.

Organ transplantation is an outstanding example of a halfway technology, designed in part as a substitute for cures that don't yet exist.

It is a curious position that we are in today, poised as we are between the old world of trial-and-error empiricism, superstition, hunch, and resignation to defeat and the new world just ahead of hard

information and applied science. We seem to work, as of now, with three different levels of technology.

First, and necessarily foremost, is what might be termed the *high technology* of medicine, equivalent in its sophistication and effectiveness to the high technologies of the physical sciences. It is a curious fact that although the accomplishments here represent the major triumphs of medicine to date, most of us tend to take them for granted, and we often forget what they mean for the quality of life in modern society. This is the genuinely decisive technology of modern medicine, exemplified best by methods for immunization against diphtheria, pertussis, and various virus diseases and the contemporary use of antibiotics and chemotherapy for bacterial infections. The capacity to deal effectively with syphilis and tuberculosis represents a milestone in human endeavor, even though full use of this potential has not yet been made. And there are, of course, other examples: the treatment of endocrinologic disorders with appropriate hormones, the prevention of hemolytic disease of the newborn, the treatment and prevention of various nutritional disorders, and perhaps just around the corner the management of Parkinsonism and sickle-cell anemia. There are other examples, and everyone will have his favorite candidates for the list, but the truth is that there are not nearly as many as the public has been led to believe.

The point being made about this kind of technology—the real high technology of medicine—is that it comes as the result of genuine understanding of disease mechanisms, and when it becomes available, it is relatively inexpensive, relatively simple, and relatively easy to deliver.

Offhand I cannot think of any important human disease that medicine possesses the capacity to prevent or cure outright in which the cost of the technology is itself a major problem. The price is never as high as the cost of managing the same disease was during the earlier stages of ineffective technology. If a case of typhoid fever had to be managed today by the best methods of 1935, it would run to a staggering expense. After, say, about fifty days of hospitalization, requiring the most demanding kind of nursing care, with the obsessive concern for details of diet that characterized the therapy of the time, with daily laboratory monitoring and, on occasion, surgical intervention for abdominal catastrophe, I should think $10,000 would be a conservative estimate for the illness, as contrasted with today's cost of a bottle of Chloramphenicol and a day or two of fever. The kind of technology that was evolving for poliomyelitis in the early 1950's, just before the emergence of the basic research that made the vaccine possible, provides another illustration of the point. It is the cost of those kinds of technology and their relative effectiveness that must be compared with the cost and effectiveness of the vaccine.

Pulmonary tuberculosis had similar episodes in its history. There was a sudden enthusiasm for the surgical removal of infected lung tissue in the early 1950s, and elaborate plans were being made for new and expensive installations for major pulmonary surgery in tuberculosis hospitals. Then the drug Isoniazid and the antibiotic streptomycin came along and the hospitals themselves were closed up.

It is when physicians are bogged down by their incomplete technologies, by the innumerable things they are obliged to do in medicine when they lack a clear understanding of disease mechanisms, that the deficiencies of the health-care system are most conspicuous.

This brings me to the second level of technology in this classification, which I have termed the "halfway technology" of medicine. This represents the kinds of things that must be done after the fact, in an effort to compensate for the incapacitating effects of certain diseases whose courses we are unable to do very much about. It is a technology designed to make up for disease or postpone death.

A solution to coronary artery disease will make the artificial heart a sort of instant antique overnight.

The outstanding examples in recent years are the transplantations of hearts, kidneys, livers and other organs and the equally spectacular inventions of artificial organs. In the public mind this kind of technology has come to seem like the equivalent of the high technologies of the physical sciences. The media tend to present each new procedure as a breakthrough and a therapeutic triumph, instead of the makeshift procedure that it really is.

In fact, this level of technology is by its nature highly sophisticated and at the same time profoundly primitive. It is the kind of thing that we must continue to do until there is a genuine understanding of the mechanism involved in disease. In chronic glomerulonephrites, for example, a much clearer insight will be needed into the events leading to the destruction of capillaries in the kidney. There is solid evidence that abnormal immunologic reactions are the basis for this destruction. If more information can be obtained, it should become possible to intervene intelligently, to prevent the process or turn it around. When this level of understanding has been reached, the technology of

kidney replacement will not be much needed and should no longer pose the huge problems of logistics, cost and ethics that it poses today.

An extremely complex and costly technology for the management of coronary heart disease has evolved, involving specialized ambulances and hospital units, all kinds of electronic gadgetry, and whole platoons of new professional personnel to deal with the end results of coronary thrombosis. Almost everything offered today for the treatment of heart disease is at this level of technology, with the transplanted and artificial hearts as ultimate examples. When enough has been learned for us to know what really goes wrong in heart disease, we ought to be in a position to figure out ways to prevent or reverse the process; and when this happens, the current elaborate technology will be set to one side.

The impending development of an artificial heart illustrates the kind of dilemma we are placed in by today's emphasis on halfway technology. Let us assume that heart disease, for all its manifold origins and its complexity, does represent an approachable scientific problem—that if we study the matter with sufficient imagination and energy, making use of all the new information about muscle structure and function and blood coagulation and lipid metabolism and making capital use of new information along other lines as yet unguessed at by any of us, we will eventually solve this problem, and we will then learn how to intervene before the onset of irreversible muscle or valve disease, to prevent the process or to turn it around. As a noncardiologist, an outsider, I have total confidence that this can be done, that sooner or later it will be done, and my colleagues who know a lot about heart disease have, I sense, this same kind of confidence for the long term. This, then, is one option and an altogether wise one to adopt. But the artificial heart represents a completely different, opposing attitude. To be willing to invest hundreds of millions of dollars that will probably be necessary for this one piece of new technology almost demands of its proponents the conviction that heart disease represents an unapproachable, insoluble biological problem. It tends, as I see it, to write off scientific research. It assumes that the best we will be able to do, within the next few decades anyway, is to wait until the underlying mechanisms of heart disease have had their free run, until the organ has been demolished, and then put into the chest this nuclear-powered, plastic-and-metal, essentially hideous engine. I am convinced that this is the wrong way to go. Even if it works—which, I am afraid, is not at all unlikely—I cannot imagine how society will solve the problems of cost, distribution, and priority. Who will be entitled to buy and have installed these engines: those with enough wealth to pay for them? Those who strike the rest of us, or our committees, as potentially useful citizens? Once we have started on this endless line of insoluble problems, there may be no turning back. If there ever was an urgent, overwhelming important problem in biomedical science, it is with us now: someone simply *must* provide us quickly with a solution to the problem of coronary arteriosclerosis. If this can be done, the artificial heart will become overnight an interesting and ingenious contraption, something clever and decorative, with some of the charm of a Tiffany lamp—a sort of instant antique—but no longer a practical thing, and we will all be better off for this transformation. Otherwise, we are in for real trouble just ahead, and I'm not sure we have the collective intelligence in medicine to deal with it.

Much of what is done in the treatment of cancer, by surgery, irradiation, and chemotherapy, represents halfway technology in the sense that these measures are directed at the existence of already established cancer cells, not at the mechanisms by which cells become neoplastic. The policy problems that confront us now, with the nation's declared commitment to conquer cancer, are somewhat like those involved in the artificial-heart question. There will be, for a while anyway, a running argument between two opposing forces. There will be on one side those who believe that cancer is a still unsolved but eminently approachable scientific puzzle, requiring only enough good research by imaginative investigators on a broad enough biological base, and that, provided with enough financial support and enough time, we will, in one way or another, find ourselves home and dry. On the other side there will be those who believe themselves to be more practical men of the real world, who feel we have already come about as great a distance toward understanding cancer as we are likely to come for some time and that we should give the highest priority to applying on a much larger scale what we know today about this disease—that with surgery, chemotherapy, and radiation we can now cure or palliate a considerable number of patients and that what we need at this time is more and better technology of essentially today's model. I do not know how this argument will come out, but I believe it to be an issue of crucial symbolic significance; whichever way it goes may possibly indicate the drift of biomedical science for the next decade. I only wish that we could find a more comfortable zone of middle ground between those who believe that everything remains to be learned about cancer and those who believe that we already know enough to cope with it by today's approaches. Personally, I would prefer a middle ground, for I generally like a comfortable position, but I am afraid that I belong with the first group of extremists in this one—for, to be honest, I regard cancer as an entirely unsolved problem, wide open to research and soluble; and I regard the technology of today's forms of therapy as paradigms of halfway technology, directed at the end-results of the disease rather than at underlying mechanisms.

It is characteristic of this kind of technology that it costs an enormous amount of money and requires a continuing expansion of hospital facilities. There is no end to the need for new, highly trained people to run the enterprise. And there is really no way out of this at the present state of knowledge. If the installation of specialized coronary-care units results in the extension of life for even a few patients with coronary disease (and there is no question that this technology is effective in a few cases), it seems to me an inevitable fact of life that as many of them as can be built will be put together and as mueh money as can be found will be spent. I do not see that anyone has much choice in this. We are obliged by the very nature of our professional responsibility to adopt any new technology that will benefit patients with otherwise untreatable diseases, even when only a very small percentage will be benefited and even when the costs are very high. Neither we nor any other sector of society controls this aspect of our economy. We cannot, like other industries, withhold a technology from the market place because it costs too much money or benefits too small a percentage of patients; the only thing that can move medicine away from this level of technology is new information, and the only imaginable source of this information is research.

Somehow, giving a patient reassurance has come to be a less significant product than curing him.

The best we can do when the economic or logistic problems associated with our technology verge on the insupportable or when the odds are too high against the sources of our procedures is to try to improve the technology or to discover an altogether new technology as quickly as possible. Meanwhile, however, we must continue to employ the less-than-satisfactory ones.

The near-miraculous achievements of the antibiotic drugs in controling or eliminating our most serious bacterial infections—such as typhoid or lobar pneumonia or epidemic meningitis—are useful indicators of the future direction of technology in medicine. They are, in fact, pieces of solid evidence that technology does work. But they should not be mistaken for symbols of the whole situation.

And this brings me to the third level of technology. This is the large body of what is best termed "nontechnology." It is, in effect, the substitute for technology that medicine has always been compelled to use when we are unable to alter either the natural course of disease or its eventual outcome. A great deal of money is spent on this. It is valued highly by the professionals as well as by the patients. It consists of what is sometimes called "supportive therapy." It tides patients over through diseases that are not, by and large, understood. It is absolutely indispensable. It is not, however, a technology in any real sense.

It includes the large part of any good doctor's time that is taken up with simply providing reassurance, explaining to patients who fear that they have contracted one or another lethal disease that they are, in fact, quite healthy.

It is what physicians used to be engaged in at the bedside of patients with diphtheria, meningitis, poliomyelitis, lobar pneumonia, and all the rest of the infectious diseases that have since come under control.

It is what physieians must now do for patients with intractable cancer, severe rheumatoid arthritis, multiple sclerosis, stroke, and advanced cirrhosis. One can think of at least twenty major diseases that require this kind of support medical care because of the absence of an effective technology. I would include in this category a large amount of what is called mental disease and most varieties of cancer.

The cost of this nontechnology is very high and getting higher all the time. It requires not only a great deal of time but also very hard effort and skill on the part of physicians; only the very best of doctors are good at coping with this kind of defeat. It also involves long periods of hospitalization, lots of nursing, lots of involvement of nonmedical professionals in and out of the hospital. It represents, in short, a substantial segment of today's expenditures for health. It is not as great a financial problem for the future as halfway technology, but between them nontechnology and halfway technology will sooner or later drive into bankruptcy any system of health care that we may devise.

If I were a policymaker, interested in saving money for health care over the long haul, I would regard it as an act of prudence to give high priority to a lot more basic research in biological science. This is the only way to get the full mileage that biology has to offer the science of medicine, even though it seems, as used to be said in the days when the phrase still had some meaning, like asking for the moon.

beyond black and white...

By James P. Comer, M.D.

The following are excerpts from Beyond Black and White, *by James P. Comer, M.D. Quadrangle Books (New York) 1972. 272 pp. Dr. Comer is associate professor of psychiatry, Child Study Center and associate dean, School of Medicine.*

Black and white conflict is very real and very painful. In 1971 a black baseball player was the victim of brutality at the hands of white policemen. A white woman out Christmas shopping was severely beaten by a black teenager for no other reason than that she was white. A college in Illinois decided not to play the national anthem before a ball game because black students threatened to protest unless the black national anthem "Lift Every Voice and Sing," was also played. A black parent asked me, "What should I tell my child when the kids call him 'nigger'?" A white parent asked me, "What should I tell my child when black kids beat him up?"

Schools across the country reflect racial tension. The military services are seething with it. The jails remain racial powder-kegs. Yet many whites feel that any favorable response to black protest means that blacks are getting preferential treatment. The father of a white youngster who was sent home from school for fighting charged that his son would not have been sent home if he had been black. Blacks, aware of a history of gross injustice, are angered by such attitudes and the conflict is deepened.

Because the problem is omnipresent, we have trouble looking beyond black and white.

Black and white conflict is a by-product of a more basic problem: the failure of this society to develop a social system that enables all people to meet their basic human needs at a reasonable level. Until this is done, we will not be able to move beyond black and white.

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The anxiety and fear we feel as a nation results from a very clear message that if you can't pay for your every need, look out. The penalty is more than doing without. You are despised and looked down upon. The myth holds that anybody who works hard can be rich and stand alone. Being needy strikes terror in the heart of most Americans. That is why we need people below us. That is why some children on welfare wear $35 shoes. "I am somebody of value. I am. I am!"

Indeed, even if you can pay for your every need, look out. The reaction of the anxious, frightened and unsuccessful affects all of us. The low-level adaptive mechanism of racism is a result of anxiety and fear and affects all of us. Angry, alienated youth is a result and affects all of us. Strike after strike for security that can't be bought is a result and affects all of us. Rising crime is another result and affects all of us. The more anxious and frightened we are as a nation or as a group of people within a nation, the less tolerant we are of differences, of change, of any threat or potential threat. We are likely to pick on or scapegoat the most vulnerable people around us. Thus we are up in arms about welfare cheating of $500 million by 5 percent of the recipients across the nation and less concerned about $1 billion of Medicare cheating by physicians in New York state. An elderly white welfare recipient leaned on his cane and complained about cuts in welfare benefits for himself while charging that blacks who receive welfare didn't want to work. In this state of anxiety, fear and scapegoating, we are all fair game for those who would use the social disequilibrium to advance their personal, political, and economic interest and fortunes.

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The United States attempted to develop policies to head off this burgeoning fear and anxiety, just as most other scientific and technologically advanced societies did. In fact, much reform in human-need legislation is in the legislative hopper right now. It is true that it was easier to develop such policies in smaller, more homogeneous societies. But our size and heterogeneity are not the major causes of our failure. We are trapped and delayed by our inappropriate legacies.

Most early Americans were refugees from destitution and deprivation in Europe. Destitution and deprivation do not produce many people greatly concerned about the rights and needs of other people. It often produces suspicious, distrustful people, grabbing what they can to protect themselves from poverty and insecurity. Until recently we were in a period of vast and rapid business and industrial expansion. The acquisition of great wealth without sufficient concern for the needs of other people was sanctioned by a legacy from the Protestant Reformation—poverty is a sign of sin and wealth is a sign of God's blessing. In addition, we had scapegoats—waves of vulnerable immigrants and slaves. Slavery, even more than the abuse of Indians and immigrants, permitted the society to play ostrich.

The basic rationalization for American slavery—that there was a different and inferior kind of man—gave support to the notion that some others are destined to wealth, power and privilege. The effect of slavery on blacks and whites produced rationalizations and stereotypes that maintained primitive notions about the nature of man, his environment and human needs long after they had been discredited in other countries undergoing scientific and technological development.

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We have now reached the danger point. We do not have the social programs which take the extreme fear and insecurity out of modern living. The people who have been scapegoated are angry. More fortunate but still relatively powerless whites are frustrated, confused and feeling falsely blamed. The level of trust between various interest groups in America is extremely low. Many leaders still view political victory or economic gain by any means necessary as more honorable and American than supporting essential social policies that may lead to political defeat or less immediate financial profit.

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The task confronting Americans is to establish the power balance that will give us a mature national ego. This will require the emergence of a representative leadership group and the concomitant development of specific social programs that take excessive insecurity out of American life. Only then will there be less need for defenses that justify scapegoating and abuse of vulnerable groups. Both will require some basic reforms in our social system. Only a humanist coalition can bring these about.

When a problem is long-standing, complex and painful, everybody wants an immediate solution. Most people expect a dramatic solution. Concerned people want to be personally involved. "What can I do?" they ask.

When a bathtub is overflowing and the faucet is still on, there are a number of things you can do. You can wring your hands in despair or turn away. That's what complaining and copping out are all about. You can curse and abuse the person who left the faucet on. That is what so much anti-establishment action is all about. You can take a thimble and begin to dip water from the flooded floor. That is what so many programs to help the victims of inadequate social policy are all about. You can blow up the bathtub. That is what violence and instant and dramatic proposals are all about. You can turn off the water faucet, pull the plug, and then begin to dip water from the flooded floor.

The solution to black and white conflict and other fear and anxiety-producing social problems will require turning off the water of those who are failing to produce a solution now. The action is not dramatic and resolutions will not be immediate. But there is no faster feasible way.

The water is money. The single most important reform we can make is to take it out of politics. That would break the tie between government, big business, big labor and big industry. It would enable government to better serve as a mediator of conflicting needs and demands. Politicians would have to pay more attention to the social needs of the people.

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Until Americans are certain that the leadership group or national ego operates in our behalf many programs and approaches necessary to create a sense of community will be resisted. The reaction of a significant segment of the black community to family planning programs—particularly when it includes abortion—is a case in point. A leading black specialist in obstetrics and gynecology has said that if family planning and abortion are more than a white plot, the white power structure should show the same dedication to making it possible for blacks to have education and training comparable to that of whites as they have shown to providing family planning programs for blacks.

But because the people have been so long misled in the service of the national id or personal gain, at the moment we are not the informed censors of our government that Thomas Jefferson had theorized we would become. The truth is that even with social system reforms, if every person in America of voting age voted today, some of the most corrupt, racist, selfish and opportunistic men in America would be retained in or elected to public office. Because many Americans have not had evidence that their society operates in their behalf, they have used less healthy psychological and social adaptive mechanisms: the rightness of whiteness, the exclusiveness of labor movements and "ethnic" politics are three prime examples. Many people have "made it" or gained opportunities and advantages for themselves, by belonging to groups that exploit one or all of these approaches. They identify with their leaders and thus experience a sense of power and security. They develop an ir-

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rational loyalty, whether their leaders are right or wrong; effective or ineffective. In fact, if the leaders are challenged from the outside, support from their own group often intensifies. Some politicans have been elected to office from jail, or while under federal indictment. That is why former Mayor Hugh Addonezia of Newark and former Representative Adam Clayton Powell of New York remained powerful long after their indiscretions were revealed. Others, such as George Wallace, are elected in spite of a record of blatantly immoral racist acts.

"But one cannot change those people," says a liberal intellectual. Those people—gun-owning, flag-waving, beer-drinking, nigger-hating, Commie-hunting Middle Americans. Many who fit this description are in the $5,000 to $15,000 family-income group. About two-thirds of all white families have yearly incomes in this range. They are just making it, and they can fall from security with the slightest change in national conditions—inflation, a slow-down in the war effort, an end to job discrimination, cancellation of an industrial contract. Many Middle Americans "need" lazy people, welfare bums, degenerate hippies, blacks, Jews and that entire villainous crew they place themselves above. But the belief that most Middle Americans cannot face the real issues, may reflect the liberal intellectual's own feelings of superiority rather than Middle America's rigidity.

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Programs to reduce the insecurity of all Americans are essential. Many people know that blacks and other minorities have been cheated. Some people know the level of corruption and collusion in and between business, government, labor; that the ego and superego are serving the id rather than mediating conflicting interests. Giving them more proof of these facts just when they are beginning to make economic ends meet simply forces them to turn off the input and turn up the defenses. . . .

The specific programs needed are no mystery. New housing, health care, job and income guarantees, child-care and retraining programs are but a few. The humanist coalition everywhere in America must make certain that all our new social programs are designed to reduce the level of fear, anxiety and insecurity of all Americans.

To overcome the current fear, we need multiple islands of success: models of cooperation, fair play and mature leadership across the country to establish the notion that a climate of community can exist. New towns and model cities provide an excellent opportunity to put bricks and mortar programs, services and people with differing needs and interests together in such a way as to create a sense of community. Only a mature leadership group will appreciate the need to do this. It is more immediately profitable to erect suburban slums with inadequate services, and encourage people to flee the problems of the cities created by similar selfish id practices a generation or more before.

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Am I saying that black-power and black-awareness efforts should be abandoned to establish a sense of national community? On the contrary. It is black awareness and self-appreciation that has enabled some blacks to cease a vain effort to be white, to re-examine society, goals and values. It is the fact of blackness that makes one aware of the fact that accomplishment and money are not enough. It is this re-examination that is forcing us toward an appreciation of the multi-racial, multi-ethnic nature of our country; toward the appreciation rather than fear of difference; toward a community of different people; toward the realization that we must have a representative, mature leadership capable of reconciling conflicting interests. The demand of every group for fair play and justice will bring either community or destruction. Only in a climate of community can we move beyond black and white.

As a child psychiatrist, I must draw from the wisdom of a nursery rhyme:

There were two cats of Kilkenny,
Each thought there was one too many.
So they fought and they fit
And they scratched and they bit
Until there wasn't any.

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Continuing Care

By Harold N. Willard, M.D.

Dr. Willard is professor of clinical medicine and director of Rehabilitation and Continuing Care at the Yale-New Haven Hospital.

More and more, hospitals are facing the problem of patients with chronic disease, physical handicaps and the diseases of the aging. For such patients, the hospital cannot offer a total cure and therefore its responsibility is to help the patient adapt to a new way of life. The patient's initial stay in the hospital may be in the intensive care unit or on a busy medical or surgical ward where principal attention must be given to lifesaving measures. The continuing care unit at Yale-New Haven Hospital was opened in 1969 to help such patients bridge the gap between hospital and home. Transfer to the unit occurs when the patient's acute episode of illness or injury has been stabilized so that attention can be given to the patient's future as well as the immediate present. Such patients will continue to be followed by their own primary physician but will be in a new milieu where they will be encouraged to learn about their disease, their treatment, and to make plans for continuing care after discharge from the hospital.

In reviewing the types of patients transferred to the unit in the last three years, the most frequent primary diagnoses are: cerebrovascular accident, chronic obstructive pulmonary disease, myocardial infarction, cirrhosis of the liver due to alcoholism, colostomies in patients with cancer, arthritis, hip fracture, and dermatological conditions.

The average stay on the unit is 17 days. During this time, medical attention is directed to stabilization of the primary disease, and to diagnosis of possible associated diseases that might affect the patient's future course. Nursing takes responsibility for patient education and the use of medications and also in relearning activities of daily living. By the time the patient leaves the hospital, he should be able to take full responsibility for all his medications, to know the names of each of the pills, and to know why he is taking each of his prescriptions. When the patient first arrives on the unit he may have trouble transferring from bebed to wheelchair, or getting on his clothes, or even in feeding and bathing himself. These activities of daily living may mean the difference between dependence and independence following discharge from the hospital and therefore the nurse helps the patient to help himself in each of these activities. Meals are served in a dining room on the unit rather than being brought on a tray to the patient's bedside, and thishhelps to motivate the patient to adapt to a living pattern that he will have to follow after discharge.

Many patients will need intensive physical therapy. The physical therapy department is located on the same floor and therefore patients can be seen at least twice a day. In addition to this, group therapy sessions are held where patients exercise together and help each other. One of the most popular forms of group physical therapy is bowling.

Since the patient must adapt to the home situation, thorough knowledge of the structure and function of the home is necessary. The social worker is involved early in the patient's stay on the unit and she may ask the Visiting Nurse Association to make an assessment of the home before the patient is discharged. The social worker plans a family conference for almost every patient, with the unit staff present to discuss any possible problems that might arise after discharge. It is at this conference that the family learns what its responsibilities will be for the patient care, and where arrangements are made for services in the home, such as visiting nurse, or physical therapist, or home health aide.

In essence, the unit is set up to treat not only disease but the patient's reaction to disease. Although its pace is not as hurried as on an acute ward, the treatments it provides are just as intensive. It is considered a valuable teaching resource which is being used for medical students, house staff on the medical service, nursing students, and social work students.

The establishment of this unique service was made possible in part by a grant from the Connecticut Regional Medical Program. Patient care studies now being carried out on the unit are being done under a grant from the Kellogg Foundation.

One of the major purposes of the continuing care unit is to help patients become self-sufficient as soon as possible by encouraging them to leave the isolated, passive and dependent patient role and to interact with other patients in the unit as social beings. By resuming some of their normal social activities patients help each other gain self-confidence and independence.

We have found that light hearted competition, often for the first time in many years, is very beneficial to the well being of the patient.

Bowling, which is important as a social as well as physical therapy, is one of the most popular group activities.

It is extremely important for patients to eat together, without staff interference, to have a chance to "let their hair down", and feel free to complain as well as to encourage each other.

In the physical therapy department, below-right, a patient is using muscles she wouldn't ordinarily use, in a rather frivolous way which makes therapy easier.

Care of this unit is managed by a multi-disciplinary team including physicians, nurses, social workers, physical therapists, a dietician, recreation therapist and psychiatrist. They meet regularly to discuss all aspects of the patients' care and discharge planning. Above, from left to right, Dr. Willard; Jane Rysewski, nurse clinician; Marcia Gans, social worker; Dr. Ronald Rosett, associate director; Rita Stasiulewicz, physical therapist and Jan Hale, dietician.

Choosing my children's genes: genetic counseling

By Y. Edward Hsia, M.D.

Dr. Hsia is associate professor of human genetics and pediatrics in the Department of Human Genetics and director of the Genetics Clinic, Yale-New Haven Hospital. He is also a member of the Yale Task Force on Genetics and Reproduction. This article is based on a talk given by Dr. Hsia at a symposium on "Genetics, Man and Society" held by the American Association for the Advancement of Science in Washington, D.C. on December 29, 1972.

We all want our children to be lovable, capable, happy and successful. We expect them to look like us, but may want them to inherit only our strengths and not our weaknesses. We certainly want their lives to be healthyand full. None of us would wish for them a shortened, painful or crippled existence. As you have heard, however, medical science knows not only that a certain number of children will not be born whole, but that certain star-crossed families have a predictable high risk of having children born with specific disorders. The only genetic way we know to influence our children's looks, intelligence and destiny, is by choice of our mates, since inherited characteristics are derived from both parents. There is not other known way to choose advantageiou genes for our children. If, however, we were at risk of bearing children with genetic disorders, would we not want to know? Can we choose not to give our children harmful genes? How can the average couple find out about such risks? If they did know of such risks would it change their outlook and plans, particularly about having children? If families at risk did change their reproductive practices, what would be the consequences for their community and for society? The process of genetic counseling aims to give relevant genetic information to families at risk, so that they can appreciate the nature and extent of such risks. Is genetic counseling reaching families who need it? Is genetic counseling successful in expalining complicated medical information to the average couple? Is genetic counseling inential in changing the family plans of many couples? How should genetic counseling be done, and by whom.

The answers to these questions are of importance to our society, so that societal support for genetic counseling can be appropriately regulated. We believe our experience at the Genetics Clinic at Yale provides some preliminary answers to these questions.

Who need to know?

Of every hundred babies born, three may have obvious or readily detectable malformations of the body and limbs, vital organs, or brain. Some of these babies tragically will not survive. Others, perhaps more tragically, will survive handicapped, enfeebled, or brain damaged. Of every hundred babies born, no less tragic are the two or more born apparently normal who will falter later with innate maladies which might impair their growth, dull their intellect, or curtail their life span. All these are burdens that families would far prefer to be spared. A young couple's hopeful expectations may be cruelly dashed by the birth of an imperfect baby. They may feel anger that it happened to them, guilt that it was their fault, and fear that they are doomed to bear only deformed offspring. The burden of a crippled child may deplete their fortunes, break up their marriage, shatter their self-esteem, and alter their whole lives. They may reject all thought of having more children, or rush to reproduce, seeking the consolation and reassurance that the birth of a normal infant might give. If their true risk of having another similarly afflicted child is small, their fears may have been for nought. If their true risk was great, they may be doubly devastated by the birth of another affected baby. Parents of children bearing innate maladies which do not become manifest for many years, may have many children before realizing that several of their children might bear such a malady. Other couples might be deterred from parenthood for fear that a familial disorder could be passed on to their children.

Couples in any of these situations need to know whether there is a true biological risk of recurrence of a given condition in their family. The need to know is not only for couples aware of a familial disorder, who need clarification; but also for those who are fearful of an imagined risk, who need reassurance; and those who are totally unaware of the existence of a real risk, who need full explanation. The need is greatest if the condition is treatable by appropriate timely intervention, or if medical science can offer a couple an option to choose their children's genes.

How are they answered?

Optimistic advisers may tell anxious families not to worry, and to take any risk. Pessimistic ones may tell them to avoid any risk. Ignorant ones may blithly give inappropriate information or advice, or else evade questioning, possibly depriving a couple of the chance to find answers to their questions. Many families rely on sources familiar to them or accessible to them, so that genetic questions are addressed to clergy, to relatives, to advice columnists, to self styled experts with dubious qualifications, as well as to physicians and geneticists. Some physicians are not as familiar with genetic risks as perhaps they should be, and so do not welcome genetic questions or feel comfortable discussing the answers. Those physicians who know may dictate a course of action, may prefer not to intervene, or may have difficulty explaining complex genetic information to lay persons. An unknown number of families therefore may obtain misinformation, or be denied referral for helpful information. A large number of families undoubtedly receive warm support and accurate sympathetic guidance about genetic risks from their own physicians. Those with inherited anemias or bleeding disorders may be satisfactorily helped by their hematologists; those with genetically determined neurological disorders by their neurologists; those with familial causes of heart disease by their cardiologists, and so forth. Recent published surveys suggest, however, that many families who need to know about genetic choice are not given sufficient informa-

tion by specialist physicians, or are given it in such a way that it is poorly understood or easily forgotten. The question "how are they answered?" still lacks an accurate answer, as does the equally important question "how many are asking?"

Who ask us?

Analysts of the Genetics Service at Yale-New Haven Hospital showed that 177 individuals or families were seen in the thirteen month period from September 1970 through September 1971. Our experience is not necessarily similar to that seen by any other genetic counseling service, but it does give an indication of the types of problems that are referred to a genetic counseling service. About one third of the families (55) were found to have a single mutant gene of large effect, either affecting one member, or segregating a Mendelian pattern among family members. Over one quarter of the families (47) had one or more members affected with a significant chromosomal abnormality. About one tenth were individuals with disorders known to be influenced by polygenic factors with relatively low risks of recurrence (15); the others included individuals with conditions known not to have a genetic cause (10); individuals with diseases that could not be identified as having a known recurrence risk (29); and individuals shown to be normal and free of any genetic disease (21), including some with genetic disease affecting a close relative but sparing themselves.

The large proportion of families found to have no recognized genetic problem is not unreasonable, although it might not have been expected. Many patients with problems that might be genetically determined are referred to us by physicians for diagnostic evaluation. Often, even when the answer turned out to be that not enough was known to answer their questions, it may still have been valid for them to have asked.

The socio-economic and educational backgrounds of these patients were mixed. A disproportionate number, especially of the self-referred, were better educated, from what is usually identified as the middle classes. Genetic diseases know no socio-economic barriers, however, there were patients from every type of background, including members of the medical profession. Many of our patients did come from less sophisticated indigent backgrounds, but most of these came only because their physician had recognized or suspected a serious disorder.

What do they ask?

Perhaps the real basic question is "What can you do for us, and how much will it cost?" Many families come asking: "What is wrong with our child? What does the future have in store? Can you treat this condition? Why will you not cure it?" The public often has unlimited faith in the medical profession. Some families ask "Why did it happen to us?" Most include the unspoken question "Did we do something wrong?" It has not been too unusual for a family to ask "Why are we here? Why did our doctor send us?" Therefore the questions are far more complex than simply "Will it happen again?" In fact, if we inquire, we find occasionally that their real problems may include difficulties with their own marriage, with obtaining optimal care and training for their affected child, or even difficulties in coping with the demands of their other children.

At the time of this survey, few members of the public have yet become aware of what medical genetics can offer, and despite much publicity, relatively few of those at risk know to ask "Can medical genetics tell me if I have a risk of having a child with a genetic disorder? Are there tests for me, or for my unborn child? Is there a genetic counseling service that can help me to choose my children's genes?"

How do we answer?

During this period, in the Genetics Clinic at Yale, a team approach to formal genetic counseling was evolved. This was supposed by a medical service grant from The National Foundation-March of Dimes. Our approach of course included many elements common to all genetic counseling services, but we have tried some innovations that have proven to be valuable.

It is axiomatic that correct genetic interpretation is dependent upon three types of information: 1. an accurate medical diagnosis; 2. complete genealogical information about all known relatives and whether any of them have the same medical diagnosis; 3. adequate knowledge of the relevant scientific literature. In order to prepare for optimal genetic counseling, three interviews are planned. An experienced nurse-coordinator handles all initil inquiries and prepares a complete pedigree at an intake interview. She collects relevant medical reports, and information about all affected family members, from other physicians and medical centers, and presents this data to the physician geneticist for interpretation. The physician geneticist studies all this collected data, reviews the medical literature, determines whether additional tests or information is needed, such as chromosome tests on the patient or parents, and prepares accurate complete genetic information for the family.

The third member of the team has an equally significant role. Genetic information may not be helpful to a family ill-prepared to receive it. If the medical nature of their problem is not known or clear to them, or if they are more concerned about non-genetic aspects of their problem, such as social or financial complications, they may not be ready to listen to a discourse about mechanisms of inheritance. Furthermore, the level of their education, their familiarity with statisti-

cal concepts of risk, and even their general vocabulary may necessitate presenting genetic information in a special way to each specific family. The third member of the team therefore is an experienced social worker, who also has an intake interview with the family to determine their true questions, whether there are other concerns, and their understandings of the medical nature of their problem. Their educational level and psychosocial background are determined well as their religious views, since these all influence significantly a family's attitude toward how they might choose their children's genes.

Adequate preparation enables the genetic counseling team to approach the counseling session with a clear plan and with confidence. Evidence of thorough preparation also gives the family more assurance that they will receive answers to their own specific questions, enabling them to approach this session with less anxiety or tension.

Accepted principles of genetic counseling are followed. We try to give a balanced understanding of the nature of the medical problem, its severity and variability, how successful treatment has been, and whether prospects for improved methods of treatment can be foreseen. We indicate the degree of confidence we have about the accuracy of the diagnosis, which family members are affected, and on what facts the diagnosis is based. We give an estimate of the recurrence risk in numerical terms,expressed both as likelihood of another child becoming affected, and likelihood of him or her being unaffected. We inform the family about availability of prenatal tests for their condition, and when applicable we describe the procedure to them. We include information about the empiric risks that all couples have of bearing a child with birth defects (three percent). Our policy is to try to avoid being directive, emphasizing that the information is for their benefit, but that they have a right to utilize the information as may seem best to them, including the right to ignore it. Usually we do not tell them what other couples in their situation have done, and when asked we urge them to arrive at their own decisions. We do not ask at the counseling interview whether they have made a decision. When it seems indicated, however, we inquire whether they wish to be directed to family planning services, adoption agencies, or to special facilities for their child.

Our social worker participates in the counseling session as an objective observer and as an advocate on the behalf of the family. Her role is to ensure that the family understands what is explained, that all their special questions are considered, and to observe the effect of the counseling on the family. If necessary, she intervenes to ask discretely for simplification or clarification, or to pose a question the family may not have vocalized. Ample opportunity is given to the family to ask questions and to discuss their concerns.

The counseling session is concluded by reassurance that both the physician and the social worker are available to answer further questions that may arise. If other family members are at risk, they are encouraged to come for counseling too.

Finally, and probably most important, we cannot expect verbal communication to be remembered accurately, especially when unfamiliar, complicated, and emotionally laden information is presented all at once. That is why additional contact is encouraged, but the major reinforcement and follow up, in our opinion, is that we write them a letter a few weeks later, in which the salient counseling information is summarized. If clarification of some points was necessary, or if further information needed to be presented, this was included in the written account.

The written account thus prevents misunderstanding, which is always a danger with verbal communication, and reinforces their memory of the facts. It also has several other beneficial functions. It is a permanent record to which they can refer at any time, and it often contains information of vital importance to other family members to whom the letter can be shown. The family's physicians benefit from this account, for they each receive a copy and so know exactly what was told their patients. Furthermore, the account is educational; giving genetic information to physicians and indicating how we give this genetic information to patients. In this way it is hoped that physicians will be encouraged to give genetic information to other patients with similar problems, or to refer these patients for genetic counseling too.

This past Spring, we sent a questionnair to our patients which askedwhether they remembered the counseling information accurately, and whether they had made or implemented decisions about choosing their children's genes. This has also served to reinforce the genetic counseling information we gave them, allowing them again to raise more questions, and allowing us to confirm that they had indeed understood.

Was it worthwhile?

It should be obvious by now that it is entirely false to imply in 1972 that there is any way to choose genes for one's children. Rather, the real choice is whether one should have children at all if there is a predicted risk that one's child would carry a delcterious gene or genes, or whether one should choose selectively to have children proven by prenatal tests to be unaffected by genetic or chromosomal defects. What criteria can be used to determine whether genetic counseling was worthwhile?

Diagnosis followed by successful treatment of a genetic disease would seem to be worthwhile. Forewarning of a family

with a major genetic risk who then refrain from having children, or reassurance of a family with negligible genetic risk who then have more children also appear worthwhile. Other less objective criteria might be equally valid. If a family had been given a better understanding of the nature of their problem, even if their plans for future children remain unaltered, they may consider that they have received a worthwhile service.

In our questionnaire, we asked not only whether they had been satisfied with the counseling, but also whether they had felt it was worth the cost. Only 10 percent of those who answered felt it was not worth the cost. This data is obviously biased, because some families had medical insurance, others were on welfare, many were not charged the full fees. Even allowing for these factors, over half of all the 131 surveyed, and 90 percent of those who answered this question, felt that the cost was worth whatever they had been asked to pay.

The cost to each individual family perhaps should be considered also in terms of what their response to this expensive service should be. Does the family receiving genetic counseling have an obligation to utilize the genetic information that has so painstakingly been given to them?

My own view is that each family has a right to health facilities, and if there is relevant genetic information, it should be made available to them. I see no conflict between this view and the view that every one has a right to utilize this information or to ignore it. The precious birth-right of individuals in our society includes the right to choose our mates by mutual agreement and the right to procreate if physically and medically possible. Unfavorable genetic information may deter a family from exercising their right to procreate, but it is their right to choose whether to have children even if they cannot choose their children's genes.

What should you do?

If genetic counseling is worthwhile, and is of benefit to most of those who ask, we as individual members of society have at least a moral obligation to encourage and support genetic counseling services. If the services are too complicated and costly to become readily available to all who need it, society has a right to demand that the cost be reduced.

The cost can be reduced by improving the efficiency of genetic counseling. If our school children are given a better understanding of genetic mechanisms in biology, eventually fewer of them will need to receive individual genetic instruction the way it is presented at Yale. If, by surveys and analysis of studies like the present one, parts of the genetic counseling service is found to be of lesser value, these parts can be de-emphasized or eliminated so that the essential elements of genetic counseling can be presented more efficiently. If these essential elements can be given by physicians to meet the needs of their patients, or if non-medical geneticists can readily be trained to give these elements of genetic counseling, the service can be made available to many more families economically.

These objectives imply that some form of quality control is required, and either professional self-regulation, or some form of societal regulation of the quality of genetic counseling should be established to ensure the families receive accurate information, suitable for their needs.

Societal responsibility perhaps should also regulate the response of individual families. Perhaps the individual right to procreation must be restricted. If a family have a major risk of bearing children with major genetic deficiencies, it is not only a tragedy for the individual and the family, but society may have to shoulder a major share of the medical and social cost of caring for such an individual. If such a family should choose to ignore the risk, and continue to procreate, the cost to society will be multiplied by the birth of each affected individual. In such a situation, can society take upon itself the right to limit the number of children such a family might bear? Can society insist upon prenatal detection tests or on appropriate preventive treatment for affected individuals? These become public health measures analogous to the right of a community to restrict the movement of an individual with a highly contagious disease such as small pox. Genetic diseases are not contagious, but they are transmissible. What should you do?

A Connecticut Lobster Tale

Just for the Fun of It

By Hastings K. Wright, M.D.

The second of a random series, written by faculty about their extracurricular activities. Dr. Wright is a professor of surgery as well as a licensed lobsterman.

It may interest neurologists that I have recently discovered a reproducible method of producing focal seizures in perfectly normal friends by telling them that my family is considering feeding lobsters to our two cats to avoid the exorbitant 1972 price of cat food. My wife has a different perspective, claiming that the "war on inflation" is in a sorry state when human beings have to eat lobsters instead of hamburger. Neither of us exaggerates, for we currently obtain lobsters in Connecticut for less than 25¢ a pound, while buying canned cat tuna fish for 76¢ a pound and hamburger for 92¢ a pound.

My interest in lobsters was not originally an economic one and began quite innocently on a summer day in 1970. While I slept on the beach, two optimistic sons dragged Branford Harbor for sunken treasure (Captain Kidd is said to have hidden untold millions of bullion in or near Long Island Sound at one profitable point in his career, but unfortunately my children have not yet located it). To my amazement, "sunken gold" suddenly appeared at the end of their hook in the form of an unbuoyed, abandoned lobster pot containing six one-pound LOBSTERS! Staggering to my feet, I immediately became conscious of the fact that my next meal had taken a decided turn for the better — but I was only dimly aware that I was soon to leave the peasant class.

I had never realized that my favorite food existed in a state of nature south of Maine and was one of those fools who trek to Kennebunkport yearly just to eat a "fresh" one. The evidence clearly indicated that I was mistaken, but I was still afraid that the warm southern New England waters rendered them totally inedible. The most rapid and intense research which I have ever done quickly exploded all these myths however, for the "Maine lobster" is trapped and sold at the same high price from Labrador to the Virginia Capes.

The reader will appreciate that after this revelation I really had no choice but to abandon my sedentary habits of the past. I have no wish to encourage competition, and will soon detail enough hazards of lobster trapping to discourage all of you, but I must admit that it is at least possible to get started *trying* to catch this famous crustacean in Connecticut.

The first requirement is permission to do so from the state, and Connecticut rightfully requires that you know something about the lobster besides its taste before licensing you. Lobsters live an incredibly dangerous existence as bottom scavengers, starting off as ova and then spawn attached to the mother's tail for days on end, and as attractive as caviar to fish. A lobster is defenseless for most of its first year of life, and each of the 19 molts to sexual maturity and then to legal size is a terrifying, naked experience. The process takes over five years in Connecticut waters, and eight years in colder Maine waters. It is a wonder that any survive to reach our tables, and one reason they do is because of rigidly enforced prohibition against the harvesting of pregnant females, or males before late sexual maturity. Thus, the would-be-lobsterman must learn to determine size, sex, and current gestational state while wrestling with an animal intent on never being taken alive, and capable of cutting your thumb off while you attempt to do so.

Once licensed, my next problem was to find, trap, and harvest lobsters. This is an art, not a science, and those who knew this art in September, 1970, were not about to share their knowledge. Actually, the two commercial lobstermen in the area soon got to know us, and at least kept us out of trouble once they were convinced that we were trapping with only three pots and only for our own palates. The hazards were many. Marine worms destroyed our pots. Human predators pulled our catch into $50,000 powerboats at night until our commercial friends chased them away from our pots as well as theirs. Speedboats carelessly cut our

buoy lines. At first, the few lobsters we trapped threatened to end my surgical career — a fact of the lobsterman's life which my two friends constantly reinforced as they waved greetings across the water with three-fingered hands.

Nevertheless, that first brief season produced thirty lobsters from three traps tended three times a week. I could barely stand the wait until the following year.

In 1971, we did much better. Previous mistakes were avoided, and over 70 lobsters were trapped from May through October at a cost under 25¢ a pound. My wife learned uncounted, delicious ways of cooking their meat, and we began to notice a decided change in our youngest son - previously synthesized almost entirely from peanut butter and potato chips, and now made largely from gourmet food.

This year, we did even better. So many lobsters were harvested that my wife was reduced to a blithering idiot as she struggled to prepare something "new". I was almost tempted to start selling the excess until the experience of two teen-aged boys taught me otherwise.

As the lobstermen tell the story, these two young men had grown lazy in the summer heat but were burdened by the need to mow ten lawns a day in order to feed and comfort their voracious and unhealthy 1952 Ford runabout. Both seized on my casual success as a magic way out of their difficulties. As soon as they could force the necessary knowledge for a lobster license into vacant minds unused for much of a school vacation, the harbor blossomed out with uncounted new lobster buoys cunningly set as close as possible to those of the commercial operators – and tended only sporadically in late mornings after 12 to 14 hours of sleep. But, for some unexplicable reason which neither youth could ever fathom, within two weeks they had only three recoverable pots. I have been told that both are still deeply in debt to their father, a prominent Yale alumnus who has since developed a noticeable allergy to lobster meat.

At my wife's urging, and at considerable cost to my personal budget, my own three pots finally came in for a winter's rest on Thanksgiving Day, at which time we leaped to the table with a sigh of relief to eat that *most marvelous of all meats*, the American turkey.

Connecticut commercial lobster fishing boat #230 underway on a gray, mid-November day. The ship's cat is not a licensed crew member but has a personal interest in each day's catch.

$$$ the cost of medical education: who will foot the bill ???

By Michael J. Coleman

Mr. Coleman has been Director of Financial Affairs and Management at the School of Medicine since 1969.

The cost of a medical education at Yale is estimated to be in excess of $10,000 per year per student. The student pays a tuition of $3,200 per year. Where does the balance come from? In probing this question, one comes to grips with a weakness in the stability of the financial structure of the Yale School of Medicine, i.e., the relatively limited support contributed to medical school operations from endowments and gifts and the great dependency placed on income for research and service.

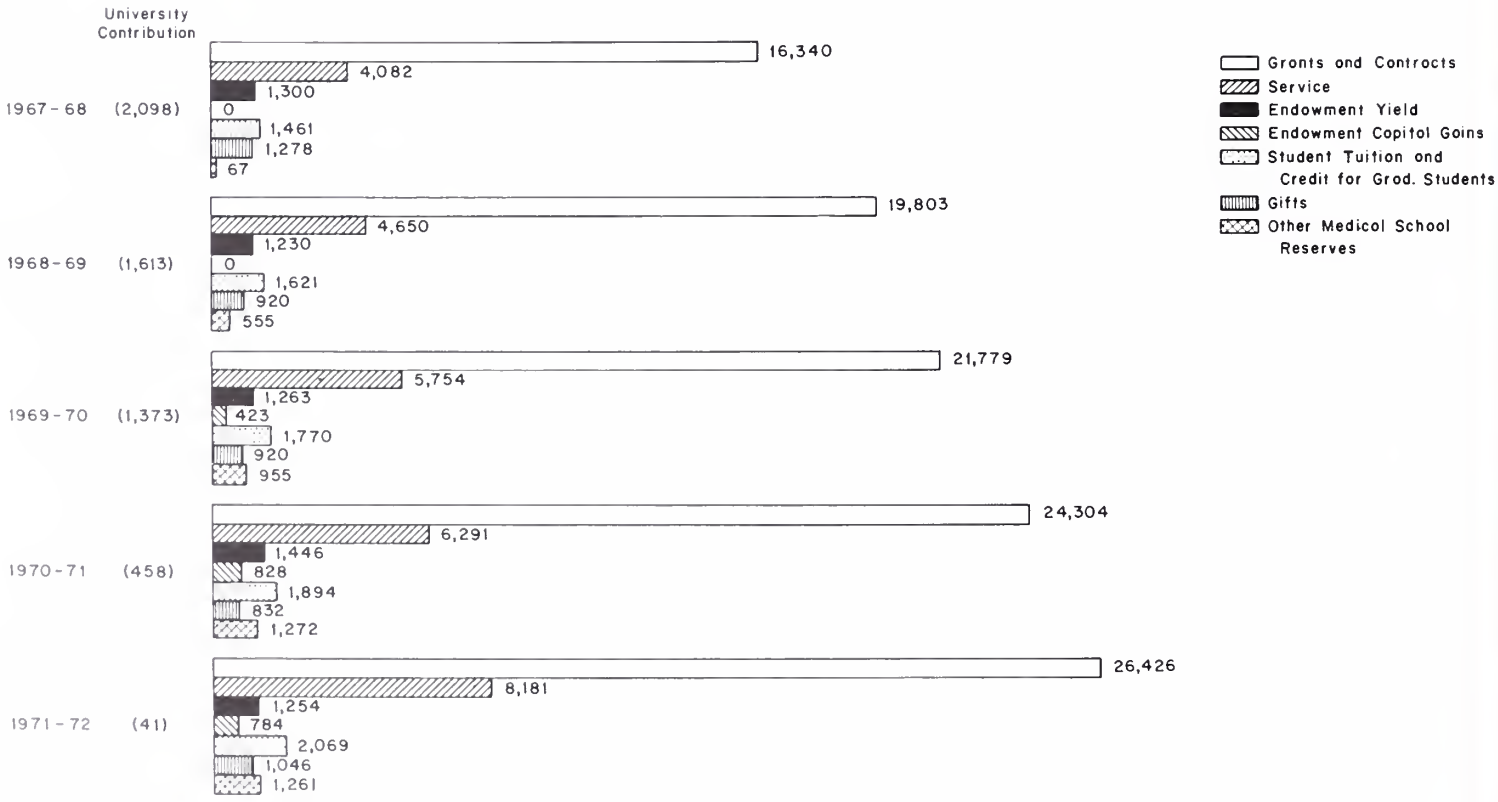
At first glance, one is tempted to acknowledge that the medical school is financially well-off; after all, the Yale School of Medicine spends over $40,000,000 a year for its current operations. Ostensibly, this is a wealthy institution—one that is not threatened with imminent financial disaster. But, when the components of the school's total resources are examined one finds that a serious problem exists.

The medical school has three basic commitments: education, service, and research. It is the medical education function which needs financial support. While support for the research and service functions has been substantial, the support of medical education has not been significant. The net effect is that traditional resources supporting the cost of medical education have become increasingly inadequate. Pressure to meet the financial needs has manifested itself in faculty efforts to generate more income for the school through research and service commitments.

Tables 1 and 2 present the sources of support and the nature of expenditures for medical school operations over the last five years. The yield income from endowments has remained

TABLE 1
YALE SCHOOL OF MEDICINE
FISCAL YEARS 1968-1972

SOURCES OF INCOME FOR FIVE YEAR PERIOD



SOURCES OF INCOME ARE INCREASINGLY DEPENDENT UPON RESEARCH AND SERVICE ACTIVITIES

static at about 1.3 million dollars. The income from gifts is off by $200,000. The University's contribution to the medical school has been reduced significantly. Yet the rising costs of education have demanded increasing support. Where did it come from? It has been necessary to utilize capital gains on endowments (currently at about $800,000 a year). Medical school reserves have also absorbed operating deficits. Tuition income increased from $800,000 to over 1.3 million dollars in five years. Research and service income increased 14.8 million dollars, absorbing to a large extent the increasing cost of medical education.

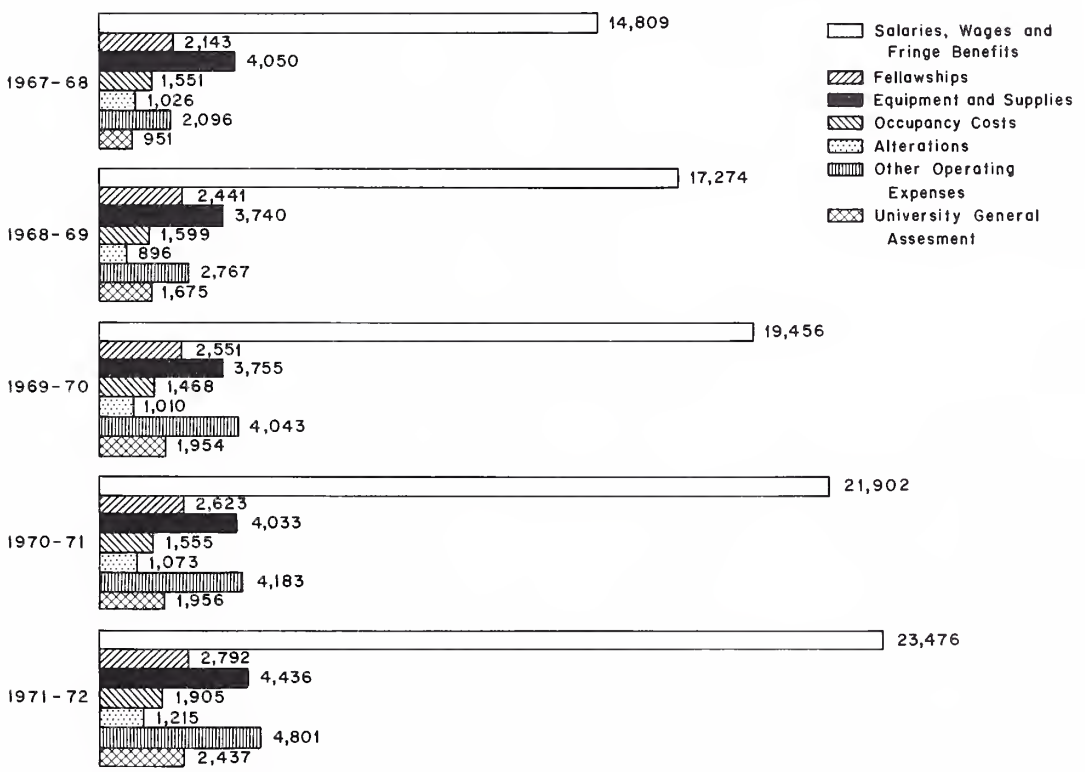
All this indicates greater need on the part of the medical school to support itself. This places the faculty under the undesirable stress of constantly seeking renewed or continued funding of their programs.

Salaries and wages are a major element of the cost of education. The sources of funds for salaries are presented in Table 3. As can be seen, most of the salary support comes from grants and contracts and service income generated by the faculty. Endowments and gifts, the most stable sources of funding, account for the least amount of support.

What do these sources of income in support of medical education mean, and how do they relate to the real crisis of supporting medical education costs?

As Table 1 indicates, the bulk of the $40,000,000 available to the medical school is restricted funds intended to support the expenses of research and service; the only unrestricted funds to support medical education are the $2,000,000, derived largely from tui-

TABLE 2
YALE SCHOOL OF MEDICINE
FISCAL YEARS 1968-1972
NATURE OF EXPENDITURES FOR FIVE YEAR PERIOD



PAYMENTS TO FACULTY, STAFF, FELLOWS AND STUDENTS ACCOUNTED FOR 65% OF ALL EXPENDITURES

tion and unrestricted endowment income. This is hardly a resource that permits growth, versatility, and support of new programs, let alone adequate funding of existing programs at the medical school.

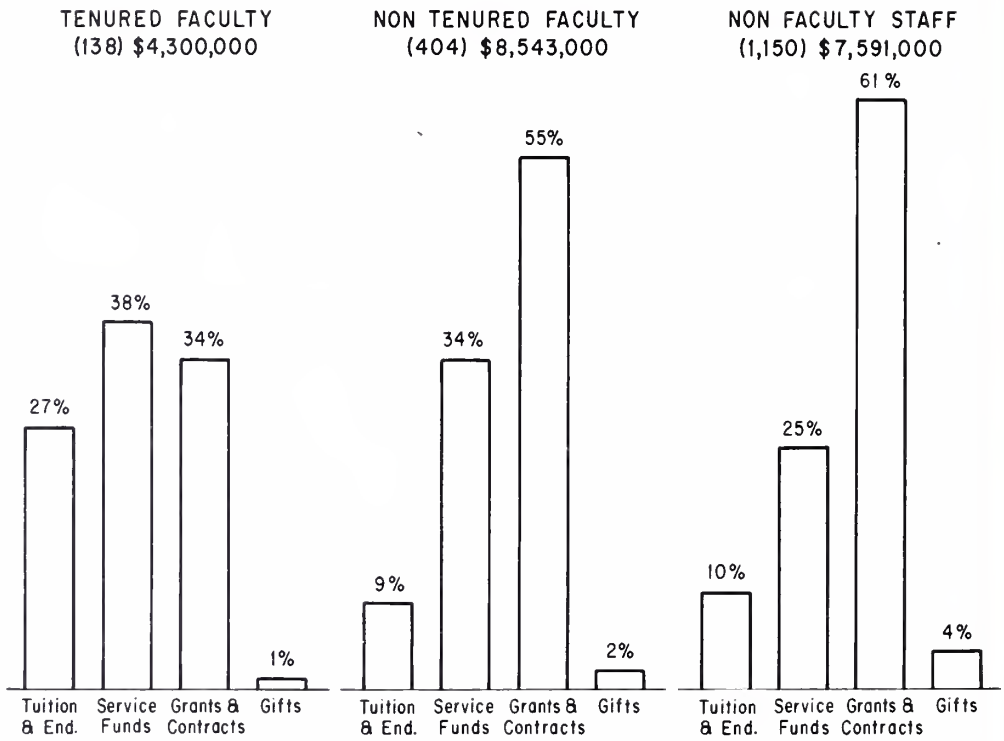
From what sources must the real cost of medical education evolve? It does not seem reasonable to pass increasing costs onto the medical students by continually increasing tuition. The Yale tuition has already been increased 33% in the last five years and currently at $3,200 is one of the highest in the nation. It is not desirable to ask faculty members to continue to increase service activities to generate the needed income; it would be paradoxical to ask the faculty to spend less time teaching and more time practicing in order to support the teaching function. Neither would it seem fair to increase service rates and thereby pass the cost of education onto the patients.

Finally, medical schools cannot be expected to derive support from research money for the costs of education. There are clear signs that government research money will be even more tightly controlled, providing less opportunity for research money to be used indirectly in support of education costs.

There is federal legislation for some direct support of medical education but the legislation permits such support only through June 30, 1975. What happens then if such legislation is not extended? Even with the legislation, one is always a bit uncertain of the level of funding. Such funding, though certainly of invaluable assistance, provides less than adequate security and support for fundamental education programs which require a permanent source of funding.

Thus, the only remaining sources of secure and stable funding to support the cost of medical education at Yale are endowments and gifts. The critical need of the medical school is to expand financial support of the educational program through increased endowments and gifts. The rapid growth of the school over the past few years has been stabilized. It is essential now that the funding for its continued operation at this level be stabilized.

TABLE 3
YALE SCHOOL OF MEDICINE
FISCAL YEAR 1972-1973
SOURCES OF SALARIES



THE CRITICAL NEED OF THE SCHOOL OF MEDICINE IS TO STABILIZE FUNDING FOR SALARIES BECAUSE OF THE TENUOUS NATURE OF GRANTS

in and about

Dean Thomas to Resign in June

At a special meeting of faculty and students on February 5, President Kingman Brewster Jr. announced that Dr. Lewis Thomas will resign as dean of the Yale School of Medicine and chairman of the Department of Pathology. In making the announcement President Brewster said Dean Thomas will leave Yale in June to become president of Memorial-Sloan-Kettering Cancer Center in New York City.

Dean Thomas, who became dean of the School of Medicine last July first, joined the Yale faculty in September 1969 as chairman of the Department of Pathology. He was elected to the National Academy of Science in Spring 1972 and last fall he was appointed by the Academy's Institute of Medicine to be chairman of a review committee to study the national cancer plan of the National Cancer Institute. Their report was issued this winter.

Prior to coming to Yale Dr. Thomas served as dean of the New York University School of Medicine from 1966 until 1969. At N.Y.U. he was professor and chairman of the Department of Pathology from 1954 until 1958 and of the Department of Medicine from 1958 until 1966.

President Brewster is appointing a committee of medical school faculty to help him select a new dean.

Chairman Appointed for New Department of Therapeutic Radiology

Dr. James J. Fischer has been appointed chairman of the Department of Therapeutic Radiology and chief of Therapeutic Radiology in the Yale-New Haven Hospital.

In a move to define differences in practice and training between therapeutic and diagnostic radiology, two separate departments have been established to replace the former Department of Radiology at Yale. The Department of Therapeutic Radiology, which deals specifically with cancer treatment and research, will include the Sections of Radiobiology and Radiation Physics. The Department of Diagnostic Radiology will include the Section of Nuclear Medicine.

Dr. Fischer was born in Hazleton, Pennsylvania in 1936. He received a B.S. degree in biophysics from Yale University in 1957 and holds both an M.D. and Ph.D. from Harvard University. Dr. Fischer received his clinical training at the Yale-New Haven Medical Center as an intern in internal medicine and a fellow in the Department of Radiology. In 1968 he joined the staff as an assistant professor of radiology and attending radiologist in the Yale-New Haven Hospital. He was promoted to associate professor of radiology in 1970.

Dr. Fischer's list of membership in professional societies includes the American Association for Cancer Research, the American Society of Therapeutic Radiologists, the Radiation Research Society and the American College of Radiology.

Expanded Coronary Care Unit Opened in Memorial Unit

An expanded coronary care unit was opened in the Memorial Unit of Yale New Haven Hospital in December. The 15-bed unit has one of the most sophisticated coronary patient monitoring systems in the country and a staff of nurses specifically trained to handle emergency coronary situations.

Each bed is equipped with an individual monitor connected with a central monitor at the nurses station. These monitors provide continuous electrocardiographic traeings which are displayed on a television screen. Five beds in the unit are reserved for acute coronary patients; for these the monitoring device measures arterial and venous pressure as well.

It is possible to slow down the tracing for a closer look, and to freeze it for a printed report. If any abnormal heart activity occurs the computer automatically prints a report, and if the abnormality is serious it sounds an alarm in the nursing station.

The machines are watched 24 hours a day by a staff of 27 nurses and nurses aides. There are three interns and one resident in attendance [as well as a doctor] on the floor 24 hours a day. The specialized care in the Coronary Care Unit is supplemented by the patinet's attending physician and senior physicians who make daily rounds. Dr. S. Jack Landau, assistant clinical professor of medicine and public health, is medical director of the unit.

First Physicians Associate Class Graduates

Graduation exercises were held for the first class in Yale University's new Physicians Associate Program on Saturday, January 20, exactly two years after the program was started in the School of Medicine. *(Yale Medicine*, Fall, 1972.)

The five-member class including **James Brown, Burdeen Camp, Richard Hall, William Laurent** and **George Smith,** received their certificates at a ceremony followed by a celebration of dining and dancing at the Park Sheraton Hotel in New Haven. Dr. Eugene A. Stead Jr., professor of medicine at Duke University, and founder of the physician's assistant concept in the United States, was guest speaker.

Dr. Alfred M. Sadler Jr., director and Blair L. Sadler, legal counsel for the program, Dr. Jack W. Cole, chairman of the Department of Surgery and Paul F. Moson, executive director of the Physician's Associate Program took part in the ceremony. Among the guests attending were Donna K. Diers, dean of the Yale School of Nursing, Dr. Howard Levitin, associate dean for student affairs of the School of Medicine and Charles B. Womer, director of the Yale-New Haven Hospital.

The Yale Physician's Associate Program has been developed under the auspices of the Trauma Program of the Department of Surgery, as one of the University's attempts to help alleviate the nation's health manpower shortage. The two-year program was designed to train medical personnel who would provide efficient and quality health care in acute emergency situations as well as routine conditions in hospitals or private practice settings, under the supervision and control of a physician.

Now in its third year, the Physician's Associate Program at Yale has increased to nine students in the second class and fifteen students, chosen from over 450 applicants, in the third class. All students in the program have had some previous medical experience and most hold college degrees. The wide variety of settings and conditions for which they are trained is demonstrated by the diversity of placements for the first five students.

James H. Brown will be assuming some of the responsibilities previously held by interns in Greenwich Hospital in Connecticut, which is phasing out its internship program. Mr. Brown, who received a B.S. degree from the University of Iowa, was a surgical technician in Riverside, California before coming to Yale. He has also been an orderly for operating room, emergency room and physical therapy programs.

Burdeen Camp will be working in the Yale-New Haven Hospital's cancer chemotherapy section, caring for patients receiving strong anti-cancer drugs. A graduate of Clark University, she has experience as a research technician and a nurse's aide.

Richard Hall, who was a VISTA volunteer on the Northern Cheyenne Indian Reservation in Bushby, Montana, before joining the Physician's Associate Program, will be going to Adair, Iowa, which has a population of 700. He will operate a satellite out-patient clinic which is part of a group medical practice, working under remote supervision through a Watts telephone line open 24 hours a day to an emergency department in nearby Des Moines. A graduate of Ohio State University, Mr. Hall's experience includes being a surgical specialist in the U.S. Army Medical Corps for six years, as well as an open heart technician and an animal operating room supervisor.

William E. H. Laurent, who was an operating room technician in the Yale-New Haven Hospital before joining the program, will work in the Emergency Department at Danbury Hospital, Connecticut. He will help treat acute trauma and medical problems as well as non-urgent walk-in cases. Mr. Laurent, a native of the British West Indies, received an accounting degree from Headington College, Oxford, England and attended the University of Bridgeport.

George F. Smith is going to Portland, Oregon, to work in the medical outpatient clinic of the Kaiser Permanente Health Plan. Before becoming a student in the Physician's Assistant Program, he had been a senior research technician at Pfizer, Inc., Groton, Connecticut, where he had worked for eight years. He has also served as an operating room technician while a corpsman in the U.S. Coast Guard. Mr. Smith attended Luther College, Decorah, Iowa, and Joliet Junior College.

New Books by Faculty

Postnatal Development of the Ovary in Homo sapiens and Macaca mulatta and Induction of Ovulation in the Macaque, **by Gertrude van Wagenen, lecturer in obstetrics and gynecology, and Miriam E. Simpson. Yale University Press (New Haven) 1973. 384 pp, illus. $27.50**

In an effort to understand the complicated and dramatic tissue changes that precede ovulation, the authors have followed the histological changes in the ovary of the human and the macaque monkey from birth to menarche, and through the periods of full function, waning and cessation of activity.

Functional Anatomy of the Newborn, **by Edmund S. Crelin, professor of anatomy. Yale University Press (New Haven) 1973. 96 pp, illus. $8.00 cloth; $3.95 paper**

This is a synopsis of Dr. Crelin's large and detailed atlas of the anatomy of the newborn infant, first published in 1968. Professionals and paraprofessionals who deal with the newborn will find it a useful and eonvenient reference.

Jaeger's Atlas of the Diseases of the Ocular Fundus, **Daniel M. Albert, M.D., associate professor of ophthalmology. B. Saunders Co. (Philadelphia) 1972. 165 pp, illus. $50.00**

Dr. Albert has revised and up-dated this classic atlas, first published a century ago, to serve as a eontemporary diagnostic tool, teaching aid and reference. The appearance of the fundus is presented in both the normal eye and in a wide range of pathological conditions. The volume ineludes a collection of medical paintings by Eduard von Jaeger, some of which have never before been published.

Diagnostic Virology, an Illustrated Handbook, **by G. D. Hsiung, associate professor of laboratory medicine. Yale University Press (New Haven) 1973. 176 pp, illus., $10.00.**

This revised and enlarged edition is intended as a guide to physicians who wish to submit specimens to a virus diagnostic laboratory, as well as a teaching guide and text for graduate courses in medical virology and a handbook for laboratory investigators.

The Arthropod-Borne Viruses of Vertebrates, **by Max Theiler, (1899-1972), former professor of epidemiology, and Wilbur Downs, M.D., professor of epidemiology. Yale University Press (New Haven) 1973. 544 pp, illus., $25.00**

All currently recognized arboviruses, plus certain other viruses encountered in arbovirus studies, are presented in an extensive section of this book. Other chapters cover epidemiological topics, including a discussion of global distribution arboviruses and the involvement of vertebrate populations in the maintenance of viruses in nature. The patterns of human disease are described and the tests commonly used for diagnosis of infections and for identification of the viruses themselves are explained.

The American Disease, Origins of Narcotic Control, **by David Musto, M.D., assistant professor of history and psychiatry. Yale University Press (New Haven) 1973. 400 pp, illus., $10.95**

By following the history of narcotic control from the popularity of opium in America in the nineteenth century to today's proposals for heroin maintenance and the legalization of marijuana, Dr. Musto traces two major themes in attitudes towards drug users: tolerance and repression. The story of the development of narcotic use, legislation, and control involves American foreign policy, attitudes toward minority groups associated with particular drugs, the developing medical and pharmaceutical professions, and the gradual growth of federal policing power.

The Crisis Team, a Handbook for Mental Health Professionals, **by Julian Lieb, M.D., instrustor in psychiatry, Ian Lipsitch, M.D., and Andrew E. Slaby, M.D. Harper and Row (New York) 1973. 208 pp, $6.95**

The authors present an innovative and pragmatic approach to the management of acutely ill psychiatric patients in a community based crisis unit. A multidisciplinary approach is employed in which clinicians of various social, cultural and educational backgrounds are accorded primary responsibility for patient care.

Manual of Histopathological Staining Methods, **by Frederick A. Putt, research assistant in pathology. John Wiley and Sons, Inc. (New York) 1972. 335 pp**

Routine, special and histochemical staining methods, as carried out in the histological laboratory in the Department of Pathology at the Yale School of Medicine, are presented in this book. A discussion of the accessory procedures to staining, fixation, decalcification, dehydration, embedding, and sectioning is also included.

The Manipulator, A Psychoanalytic View, **by Ben Bursten, M.D., associate clinical professor of psychiatry. Yale University Press (New Haven) 1973. 277 pp, illus., $10.00**

In his study of the practical and theoretical problems raised by manipulators, Dr. Bursten brings together broad clinical data, firsthand experience of hospital situations and an understanding of Freudian theory. The author shows how certain people use this exploitative relationship as a characteristic way of dealing with others and suggests that the analysis of these manipulative personalities is part of the larger problem of the analysis of narcissistic personalities.

New Professors

Dr. James W. Maas joined the Yale faculty on October 1 as professor of psychiatry. Dr. Maas, who was previously at the University of Illinois College of Medicine, is nationally recognized for his research in the field of clinical psychopharmacology, particularly the role of biogenic amines in the major psychoses.

Two promotions to the rank of professor were **Dr. James J. Fischer**, professor of therapeutic radiology effective July 1, 1972, and **Dr. William K. Chandler**, professor of physiology effective January1, 1973.

Four members of the part-time faculty in the Department of Psychiatry were promoted to the rank of clinical professor of psychiatry as of January 1, 1973; these were **Dr. Walter W. Igersheimer, Dr. Stanley A. Leavy, Dr. Hans W. Loewald,** and **Dr. Henry Wexler**.

Faculty Notes

Dr. George B. Darling, professor of human ecology, has returned to the United States from Hiroshima, Japan, where he has been director of the Atomic Bomb Casualty Commission for nearly 16 years. Effective in April Dr. Darling will be resident scholar at the John E. Fogarty International Center for Advanced Study in the Health Sciences of the National Institutes of Health.

The Connecticut Division of the American Cancer Society presented its 1972 Bronze Medal Award to **Dr. Ira S. Goldenberg**, professor of clinical surgery. The award recognizes his two decades of outstanding research and service related to cancer. Dr. Goldenberg has served as a member of the board of directors of the Cancer Society's Connecticut Division and during the past two years has been medical advisor to its "Reach for Recovery" program, a rehabilitative program for patients who have had surgical treatment of breast cancer.

Dr. Howard Levitin, associate dean and director of student affairs, is chairman-elect of the National Committee for the Group on Medical Education of the Association of American Medical Colleges for the academic year 1972-73 and will assume the chairmanship at the annual meeting of the AAMC in November of 1973. The Group on Medical Education was formed one year ago as a new division of the AAMC addressing itself to the problems of curriculum and medical education.

Dr. Arend Bouhuys, professor of medicine and epidemiology and director of the Yale Lung Research Center, has been elected secretary-treasurer of the new Society of Occupational and Environmental Health.

Dr. Geroge Rosen, professor of the history of medicine and epidemiology and public health, returned to the United States at the beginning of September after several months of research and lecturing in Europe. While abroad, he gave the opening address at the Third International Conference on Social Science and Medicine, Elsinore, Denmark, on "Health, History and the Social Sciences" and gave the Presidential Address of the Society for the Social History of Medicine, London, on "Social Variables and Health in an Urban Environment, The Case of the Victorian City".

The class of 1973 awarded the Francis Gilman Blake Award for Teaching posthumously to **Dr. Hyman Chernoff**, who was associate professor of clinical medicine. The award was presented to Dr. Chernoff's widow and children at a brief ceremony on November 29, 1972. This award is given annually by the graduating class of the Yale School of Medicine to that member of the medical school faculty who the class feels has contributed most to their education.

Dr. Byron H. Waksman, professor of microbiology, was cochairman of a session on "Acute Inflammation" at the International Conference on Pulmonary Reactions to Organic Materials, sponsored by the New York Academy of Sciences in New York from November 8-11.

Herbert K. Thoms, M.D.

Dr. Herbert King Thoms, professor emeritus of obstetrics and gynecology and former chairman of the department died on October 27, 1972.

Born in Waterbury, Connecticut in 1885, he entered medical school at Yale directly after graduating from high school and received his M. D. degree in 1910. Following internships at the Backus Hospital in Norwich and Memorial Hospital in New London, he took further training in obstetrics at Sloane Hospital for Women in New York City and at the Johns Hopkins Hospital in Baltimore.

He then returned to New Haven as an assistant in the Department of Obstetrics and Gynecology and was a member of the Yale medical faculty from 1915 until 1953 when he retired. In 1947 Dr. Thoms was appointed professor and chairman of the department, positions he held until his retirement.

In his retirement he remained active as a writer and medical historian, particularly on the early colonial period of Connecticut. He also served as a medical advisor to the Connecticut Planned Parenthood League and was at the forefront in the successful legal fight to upset the State laws prohibiting the dissemination of birth control information. He is survived by his daughter, Margaret A. Thoms, two brothers, and a sister.

The following memorial tribute to Dr. Thoms was prepared by Dr. Thomas Forbes:

Herbert Thoms died in October at 87. One of the last of the Connecticut Yankees as they used to be, he went

his quiet and unswerving way, content to do the job well and not for glory. Women's Lib stirred his dusty chuckle, but he fought for half a century for woman's right to bear children when she wanted them, in safety and without fear or regret. Countless babies were delivered by his obstetrician's hands and heart and brain, and countless young doctors learned in the delivery room where he was master.

In the other hours that somehow he always found, his strong fingers knew the tug of fishing rod and boat's tiller, the patient, delicate strokes of artist's brush and etcher's needle, pleasurable fatigue at the typewriter, and, in his last years, the seductive touch of a pipe organ's keys. Scientific and historical articles, a dozen books, paintings, etchings, and photographs revealed to all who knew him and thousands who did not, his wisdom, understanding, imagination, and love of life.

One of Thoms' greatest fascinations was with medical history, especially the heritage of Connecticut medicine. His knowledge of the doctors of his native state, many of them like him graduates of, and later teachers in, this School, was vast and lively. Nathan Smith, Jared Eliot, Eneas Munson, Eli Ives, and their colleagues were old friends of Herbert Thoms. Now he has joined them, and it is pleasant to think of celestial meetings of the New Haven Medical and Historical Society.

His contributions to his profession, university, and community won him a departmental chairmanship, the Yale Medal, the Lasker Award, many other formal honors, and international respect. Through it all he went unchanged, calmly and skillfully doing the work he loved. He was conservative, critical, and, on occasion, crotchety. He was also sagacious, kindly, forthright, and untiring, finding old facts and new ideas where his juniors had not thought to look. As another New England doctor once said, "The young men know the rules, but the old men know the exceptions." Leaders like Herbert Thoms made this School great; adherence to their principles must not falter if it is to remain so.

John D. Marshall, Jr., M.D.

Dr. John Douglas Marshall, Jr., associate clinical professor of psychiatry, died suddenly of a heart attack on January 11 at his home in Westport. He was 49 years old.

Dr. Marshall, who was born in New Orleans, served as a pilot in the U.S. Navy during World War II. He graduated from Yale College in 1948 and received his M.D. degree from the School of Medicine in 1952. After interning in medicine at the Grace-New Haven Hospital, he completed his psychiatric residency at Yale. He also studied at the Western New England Institute for psychoanalysis.

On completion of his residency in 1956, he entered private practice in Westport, Connecticut. He was appointed to the faculty as a clinical instructor in 1957. He then served as an assistant clinical professor and was promoted to associate clinical professor in 1971. Throughout this period he taught and supervised residents and medical students in various components of the department and from 1957 to 1962 also took an important role at Hall-Brooke Hospital in its reorganization as a therapeutic community. In 1970 Dr. Marshall became chief of a new community psychiatry ward at the Veterans Administration Hospital in West Haven.

In addition to his wife, Robin and three children, Dr. Marshall is survived by his mother, Mrs. Velma Marshall, and four brothers.

Richard A. Stamm, M.D.

Dr. Richard Allen Stamm, assistant clinical professor of psychiatry, died on November 17 of a head injury received in a mugging a week earlier in Bridgeport, Connecticut. He was 45 years of age and had been in private practice in Norwalk, Connecticut for ten years.

After completing his undergraduate studies at Western Reserve University, Dr. Stamm attended Ohio State University College of Medicine and received his M. D. degree in 1955. He interned at Cleveland City Hospital and completed his residency in psychiatry at the Veterans Administration Hospital in Topeka, Kansas and the Menninger School of Psychiatry. From 1957 to 1962 he served in the U. S. Public Health Service and at the time of his discharge was chief of psychiatry at the Medical Center for Federal Prisoners in Springfield, Missouri.

Dr. Stamm first joined the Yale medical faculty in 1963 as a clinical instructor and in 1968 he was promoted to assistant clinical professor. He was involved in the teaching of medical students and residents at the Veterans Administration Hospital in West Haven, where he was an attending psychiatrist. He was also on the staff of the Norwalk Hospital. He was a member of the American Psychiatric Association and a past president of the Fairfield-Litchfield chapter of the Connecticut Psychiatric Society.

In addition to his interest in prison reform and his active efforts to improve prison conditions, Dr. Stamm and his wife had turned their attention to raising funds to provide bail money for accused persons in the poorer neighborhoods of Bridgeport. He had been mugged and robbed outside a low income housing project where he had gone to deliver bail money to someone in need.

Surviving besides his wife, Elizabeth, are two sons, his mother, a sister, and two step-brothers.

alumni news

1923

Samuel Karelitz, Director Emeritus of the Long Island Jewish Hillside Medical Center, New York City, will receive the 1972 Clifford G. Grulee Award for outstanding service to the American Academy of Pediatrics. The award, consisting of a gold medal, is specifically for Dr. Karelitz's 18 years of continuous service with the A.A.P., as chairman of the Committee on Adoption and Dependent Care and the Committee on Infant and Preschool Child. He is particularly recognized for his work in developing the first Academy statement on the battered child syndrome published in 1966.

1926

Stanton Allison of Essex, Connecticut has written to inform us of the death of **John Griggs** on December 3 at the age of 73. He noted.

"A graduate of Yale College 1922 and of the Yale Medical School 1926, Dr. Griggs interned in general medicine in Providence, R.I. and in pediatrics at the Massachusetts General Hospital, Boston. He practiced pediatrics in the Greater Hartford area, retiring in 1970. In his early practice he was on the staff of University-McCook Hospital, Hartford Dispensary and Children's Village. He served on the staff of the Newington Children's Hospital for more than 25 years, starting in 1933.

Dr. Griggs served as chief of the pediatrics department of the Hartford Hospital from 1951 to 1959 and was chief emeritus at the time of his death. He was also consultant to the staffs of New Britain, Manchester, Willimantic, Torrington and Winsted hospitals. He was a member of the Hartford and Connecticut medical societies, the Hartford County Medical Association and the New England Pediatrics Society.

1931

Benjamin Castleman has been made an honorary fellow of the Royal College of Physicians and Surgeons of Canada.

1934

Leona Baumgartner made the following comments about her decision to attend the Yale School of Medicine in the November/December 1972 issue of the *Harvard Medical Alumni Bulletin*.

I have been asked why I went to Yale rather than Harvard several times since coming to Harvard Medical School in 1966.

I had wanted desperately to work with Dr. Hans Zinsser, Harvard's famous immunologist, who in those days carefully went over the records of the many who wanted to do graduate work with him. I sent him the list of my undergraduate and graduate courses at the University of Kansas together with a description of how I had spent my time in a winter of work at the labs founded by Kraepelin at the Kaiser Wilhelm Institute in Munich where the biochemist Willstaetter was in charge. I also sent reprints of the two scientific papers I had published. Dr. Zinsser was sufficiently satisfied to write that he thought I would be accepted as a candidate for the Ph.D. degree, but I would have to come for an interview. The gates of Heaven were really opening!

When I saw him, he explained my degree would come from Radcliffe, not Harvard. I cared not a whit; my sole ambition was to work in Zinsser's labs on the subject of host factors in determining immunological status, if he thought this an appropriate subject for a thesis. He did.

What else did I want to take? Gross Pathology. Why? I carefully explained that though I knew something of comparative anatomy from a course that had allowed for a great deal of laboratory dissection on mammals and had taken another that dealt with the microscopic features of normal and diseased human tissues, I had no gross human pathology.

He seemed a little less enthusiastic and hinted I might not need to know gross pathology to go ahead with my degree. I argued that I failed to see how I could really deal adequately with my field of interest without a solid grounding in human pathology. He seemed to agree that it would be useful.

In a most embarrassed manner, he explained.

"You'll have to take human anatomy first," he said.

"So what?" was my reaction.

If Harvard thought I had to have it as a prerequisite, I was perfectly content to spend a year in the anatomy lab.

Then came the blow. In an apologetic tone he announced, "We can issue you a cadaver." It took a few minutes for the meaning of those words to sink in. Because I was a woman, I would not be allowed to dissect in a laboratory at HMS, but if I paid my tuition, I could have the essential body to work on.

But where? I had visions of sharing a room with my new companion and quickly gave that up. Rentals had seemed high to me already and what would the police or my landlady say? Sadly, I left Dr. Zinsser's office. He seemed sad, too, and again suggested I give up gross pathology.

I decided to try Yale and Toronto before I made up my mind. The train ride to New Haven was short. So was the conversation regarding gross pathology and the degree in immunology. Why didn't I try pathology? If I made it, fine; if not, I could always go back to the anatomy laboratory.

Finally, I did take an abbreviated human anatomy course but that was to complete the requirement for an M.D. degree which I had finally been persuaded to add to my Ph.D. degree and what a glorious experience — gross anatomy, physical diagnosis, and muscle testing on polio cases simultaneously — all many years ago in the innovative, free wheeling medical school which Yale was under the direction of Milton C. Winternitz. I don't even know if Yale had a curriculum committee but if so, they even let me substitute a cultural, historical course on physics as an entrance requirement with that similar remark, "When you need more physics, you'll be intelligent enough to get it."

William Willard, former special assistant to the president for health affairs at the University of Kentucky, and current dean of the College of Community Health Sciences at the University of Alabama at Tuscaloosa, was the 1972 recipient of the Abraham Flexner Award of the Association of American Medical Colleges. The Flexner Award was established in 1958 to recognize extraordinary individual contribution to medical schools and to the medical community as a whole.

Dr. Willard served his internship at Johns Hopkins Hospital and his residency in pediatrics at Strong Memorial Hospital in Rochester, New York. Returning to Yale he received his Dr. P.H. degree in 1937. He then was deputy state health officer in the Maryland State Health Department from 1937 to 1944. After military service he was appointed assistant professor of public health at Yale and in 1948 was named assistant dean in charge of postgraduate medical education. He was promoted to professor in 1951. Later that year Dr. Willard accepted the deanship at the State University of New York Upstate Medical Center as it was making the transition from a private to a state institution. Dr. Willard's move to the University of Kentucky came in 1956 when he was named vice president for the Medical Center and dean of the College of Medicine. In 1960 he was appointed professor of community medicine. Relinquishing the deanship at Kentucky in 1966, Dr. Willard continued as vice president for the Medical Center until 1970, when he accepted the position as special assistant to the president for health affairs. Earlier this year he was named to the deanship at Alabama.

1943

At the American College of Surgeons Clinical Congress in San Francisco this fall, **Ralph Alley** was elected as the representative of thoracic surgery on the Board of Regents of the College. Dr. Alley is clinical professor of thoracic surgery at the Albany Medical College. Among his other professional activities he is a member of the American Board of Thoracic Surgery and has served as secretary of the Society of Thoracic Surgeons since January 1969.

Ross Wilson received Bowdoin College's 1972 Alumni Service Award at the 169th Commencement Exercises in June. This award, the college's highest honor to an alumnus, is made annually to one of approximately 10,000 living alumni. Dr. Wilson graduated from Bowdoin cum laude in 1940.

1955

William Lattanzi has recently been appointed chairman of the Perinatal Morbidity and Mortality Committee of the Connecticut State Medical Society. Dr. Lattanzi is chief of pediatrics at the Hospital of St. Raphael and is an associate clinical professor of pediatrics at Yale.

1957

Howard Minners, who is chief of the Geographic Medicine Branch at the National Institute of Allergy and Infectious Diseases in Bethesda, continues to be a world traveler. In addition to his usual trips to Asia and South America, Dr. Minners was invited to go to Bangkok this past July as a National Academy of Sciences consultant for a workshop on science policy in Thailand.

1960

Jerrold Post wrote this past fall as follows: "This past summer I attended an International Psychiatric Conference in Nairobi, Kenya which was followed by a two week camera safari through the game parks of Kenya and Tanzania. My wife Sharon and I found the trip tremendously exciting." He also reported that he was saddened to learn of the death of **Brian Welch** earlier in the summer. Dr. Welch, who was practicing psychiatry in New York City and on the clinical faculty at the Albert Einstein College of Medicine, apparently died while on holiday in Amsterdam but Alumni Records has no further details.

1963

Lawrence Tremonti recently sent the following information to Craig Llewellyn:

"I am presently at the University of Illinois Abraham Lincoln School of Medicine, as assistant professor of medicine and director of ambulatory services for the Department of Medicine. I am involved in curriculum development of the Abraham Lincoln School as well as setting up more efficient health care delivery in the University Hospital Clinics.

"I am married and have six children, a record for our class, probably. At the present time, my plans are to remain in Chicago, going through the usual academic shifts after five years.

"I had served a two year stint with the Air Force, stationed in Tachikowa, Japan, and have been at the University here for a little over two years. My research activities have been about nil since coming back from Japan, although I am dabbling in research in student education.

"I would welcome hearing from anybody in the local area as well as from old friends of ours."

1964

Lewis Landsberg has been appointed an associate professor of medicine at Harvard Medical School. Dr. Landsberg was previously assistant professor of medicine at Yale.

1965

John Albert Parrish has been promoted to assistant professor of dermatology at Harvard.

1966

Gary Townsend is completing his last year in the Air Force and is currently stationed at Dyess Air Force Base in Abilene, Texas.

1968

Following is an interesting letter sent by **Harry Holcomb** this past October from McMurdo Sound, Antarctica, where he served as the chief medical officer for the Navy's Operation Deep Freeze:

"Ten months have elapsed since my last letter from Antarctica. Much has happened since then and I will try to describe to you a few of the events. The last plane departed on March first. This marked the beginning of the Antarctic winter and our six months of isolation from the outside world except for radio contact. The winter experience contrasts sharply with that of the summer. The population is much smaller (about 175) and the atmosphere is much more congenial. The absence of mail soon became an accepted fact of life. We had four months without sunlight, and two months of total darkness. Numerous storms with high winds and blowing snow lasted days at a time. The perpetual darkness and the severe weather were confining and although morale suffered a bit (as was expected) everyone weathered it well and I have not had to treat any psychiatric illness. The secret to survival here is having plenty to do.

"The return of sunlight in late August was a much celebrated event. The beauty of an Antarctic sunrise is incomparable. The whole evolution takes about a month and begins with the appearance of rich hues of red and gold in the northern sky. Finally the sun peeps above the horizon, but only for a few minutes on the first day.

"I have treated very little illness and I have not seen one 'cold' all winter (frigid temperatures per se do not cause colds). Since my medical duties were minimal I took on other responsibilities as Officer in Charge of Operations, the Weather Unit, Search and Rescue, and William Field (the small airbase 7 miles distant from McMurdo). In March we trained two search and rescue teams. This training included numerous expeditions into the field and on one such trip we joined the New Zealanders and their dog team. I learned that dogs are more reliable than motor vehicles under certain conditions and that it is much easier to harness up a dog team than to start a motor toboggan at 40 below zero!

"I enjoyed plenty of leisure time for reading, projects in the woodshop, and studying Russian under the able instruction of our Russian exchange scientist. He is a geologist studying the origin of rock formations in the MuMurdo area. His presence symbolizes the international cooperation and friendship that prevails in Antarctica. Also we have developed very close friendships with the 11 New Zealanders wintering over at Scott Base.

"The Navy's immediate purpose in Antarctica during the winter is to maintain stations, support science, and to serve as an advance party for the massive scientific exploration that is carried out during the summer. In the winter at McMurdo we support several science projects. One of these involves the study of cosmic rays, which are best described as small energetic particles that bombard the earth from the sun and from outer space. (Because of the influence of the earth's magnetic fields more of these particles reach the earth's surface in polar regions than elsewhere). We maintain a Riometer laboratory which measures the effects of solar radiation on the upper atmosphere. This radiation often causes total communications blackouts such as the one we had in mid-winter which lasted for five days. Solar radiation is responible also for the aurora which we saw overhead numerous times in brilliant and spectacular forms during our days of total darkness. Finally, we maintain a satellite tracking laboratory, the only one in Antarctica, which helps to pinpoint the position of five polar orbiting satellites.

"Antarctica remains a very unexplored continent. The United States has an important stake in the scientific work being conducted here. Discoveries in Antarctica already have provided significant contributions to our basic knowledge of biology, geology, and physics. We have a political stake in Antarctica too. The Antarctic Treaty, signed by the United States and 11 other nations in 1961, states that this continent will be used for peaceful purposes only. It provides for the exchange of scientific information and for mutual inspection of installations. One of the most significant aspects of our work here is that it is setting precedents for future cooperation among nations, and even for cooperation in the exploration of outer space.

"I have no regrets about spending a year in Antarctica. In addition to enjoying many unusual experiences and the desolate beauty of this continent, I have had the satisfaction of completing my military obligation by serving the constructive interests of scientific investigation and international cooperation."

Dr. Holcomb has now returned to this country and received his discharge from the Navy in December. He is planning to begin his residency in orthopedic surgery at the University of Virginia Hospital in July. Meanwhile his address is 804 Hale Street, Beverly Farms, Massachusetts 01915.

House Staff

1966

Louis J. Elsas, II, won the University of Virginia's John Horsley Memorial Prize in medicine for his research in metabolism and genetics. Dr. Elsas, who came to Yale-New Haven Hospital in 1962 as an intern in medicine after receiving his M.D. from the University of Virginia, is now an assistant professor of pediatrics and medicine at Emory University in Atlanta.

Public Health

1957

Three graduates of the Yale program in hospital administration have wound up at the Hospital of the University of California, San Diego. **Sheldon King** (MS 1957) is the executive director, **Michael Kove** (MPH 1965) is an assistant to the executive director, and **Robert Sillen** (MPH 1972) is assistant director for professional services.

1959

Marvin Lavenhar, who received his Ph. D. from Yale in 1969, is associate professor at New Jersey College of Medicine and Dentistry and is director of the division of biostatistics. He is conducting research programs on drug abuse.

1960

John Pearson left his Yale post as associate dean for regional activities and is now associate professor of epidemiology at the University of Ottawa School of Medicine. The Pearsons (John, Joyce, Danny, Jeffrey and Amy) visited Gail and **Jack O'Connor** (MPH 1959) last summer and report a happy adjustment to life in the Canadian capital.

1961

Anthony Bourke is doing teaching and research in the Department of Microbiology, McGill University in Montreal.

1963

Samuel Webb, who is an assistant professor of public health (hospital administration) at Yale, has recently been appointed to the medical advisory committee of Gaylord Hospital, Wallingford, Connecticut.

1964

Earl Byrne, MPH 1964, is associate professor of community and preventive medicine at Thomas Jefferson University College of Medicine, Philadelphia.

Hans Otto Lobel, has returned to the Communicable Disease Center in Atlanta after several years working on disease control programs in Haiti.

1965

William Harvey is executive director of the Roger Williams Hospital in Providence, Rhode Island.

Warren Kessler has gone home to Maine and is administrator of the Augusta General Hospital.

Peter Levin, who received his Sc.D. degree from Johns Hopkins in 1969, became executive director of New Haven Health Care, Inc., on November 1. This is a federally funded coalition of private and public agencies, the county medical association, and consumers who have joined together for research and planning. Their goal is to utilize existing facilities and resources to provide better health care.

1966

Richard Prescott is director of health education for the Department of Health and Hospitals, City and County of Denver, and doing imaginative programming that ranges from air pollution control to venereal disease control.

1967

Joel Kavet, who received his Sc.D. from Harvard in 1972, is working as special assistant to Dr. Paul Densen at Harvard's Health Services Research center.

Patricia D. Mail was transferred from the Papago Indian Reservation in Arizona to the Western Washington Service Unit of the Indian Health Service, based in Seattle. She will be providing health education services to eight separate reservations in the Puget Sound area, and serving as coordinator for the Community Health Representative program in the area. Her new address is: IRS, Western Washington, 1212 South Judkins, Seattle, Washington 98144.

Steven Jonas is an assistant professor in the newly created Department of Community Medicine at the State University of New York at Stony Brook.

1968

Arnold Saslow, with a subsequent Dr. PH from Pittsburgh, after finishing his stint with the USPHS in Alaska, has been teaching at the University of Pittsburgh's Graduate School of Public Health. In July he will move to the University of Pennsylvania, where he will be doing research on trials of new vaccines.

1969

Susan Addiss has been appointed the first director of the Lower Naugatuck Valley District Health Department, serving a four town region of more than 70,000 residents. Prior to the formation of the district health department each of the towns was served by a part-time health officer.

Although the department has been operating for only a few months, Mrs. Addiss has already established programs in several public health areas that had been relatively untouched in the region. Environmental health protection with particular emphasis on septic systems, regular restaurant and food store sanitation checkups, epidemiological investigations, a local VD treatment center, maintenance of a TB registry, a sickle cell anemia screening program, and the merging of the three Valley home care agencies are high on her list of priorities for the new department.

Mrs. Addiss, who was formerly a health educator with the New Haven Health Department, received a Master of Urban Studies degree from the Yale School of Art and Architecture in 1969, the same year she received a Master of Public Health degree from the School of Medicine. The mother of two children and a graduate of Smith College, she is also an accomplished musician.

Robert Merritt is executive director of National Health Services Administrators in New York City.

Gary Weygant has completed his stint with the Medical Service Corps of the Air Force and is now assistant administrator at Englewood Hospital, Englewood, New Jersey.

1971

Jospeh McManus, in addition to having been married recently, has been named director of health for the Model Cities program in Bridgeport.

David Osgood is deputy director of special projects in the Office of Child Development of the Vermont Department of Health. He is developing innovative materials in the area of self-help, particularly for those living in communes.

1972

Steven Beloff is assistant director of Beth Israel Hospital in Boston.

Thomas Jones is director of professional services at Harlem Hospital in New York City with an appointment in the Dean's Office at Columbia University School of Medicine.

Paul and **Kathy Bushnell,** proudly announce the birth of a daughter October 30, 1972. Paul is assistant director of Boston Children's Hospital.

Karen Sampson is doing public health education for the Boston Heart Association, primarily concerned with emergency medical treatment and cardiopulmonary resuscitation.

John Drew is assistant director of the Middlesex Memorial Hospital in Middletown, Connecticut.

Kent Stevens has been appointed to the National Advisory Council on Health Manpower Training of the Department of Health, Education, and Welfare.

Laurence Tanner is assistant director of the Waterbury Hospital in Waterbury, Connecticut.

The editors of Yale Medicine *welcome news items for the Alumni News section. We would like particularly to know of honors and awards, election to office in professional societies, foreign travel, and similar news about your classmates. Items should be sent to the Editor, Yale Medicine, 333 Cedar Street, New Haven, Connecticut 06510.*

MEDICAL ALUMNI DAY and CLASS REUNIONS will be held Saturday, May 19, 1973 Plan now to attend.

NOMINATIONS FOR REPRESENTATIVES TO THE AYA

Nominations are in order for the election of six representatives from the Association of Yale Alumni in Medicine to the assembly of the Association of Yale Alumni — A.Y.A.

The A.Y.A., organized in 1972, replaces the Alumni Board which had existed since 1906. The founding Board of Governors, working under a charter from the Yale Corporation, has created a constitution and by-laws. For the first time in the University's history all Yale alumni have the opportunity to choose their own representatives to the A.Y.A. Representatives from the graduate and professional schools will be chosen from the schools' alumni associations.

The goal of the assembly is to enable alumni to support Yale through greater and better informed participation in University affairs. It will meet twice yearly, or on call. The first assembly met in New Haven early in November, 1972. Representatives are expected to take an active part in national and regional activities and to attend all meetings called by the assembly.

At the June 2nd meeting of the Association of Yale Alumni in Medicine six members were elected to the assembly. They were Dr. James Dowaliby ('67), Dr. John Ogilvie ('34), Dr. Michael Puzak ('42), Dr. Louis Silcox ('35), Dr. Rosemary Stevens (P.H. '63), and Dr. Malvin White ('39). These representatives were elected for one year with the understanding that there would be an election of six new representatives this year, with two each serving one, two, and three year terms. Hereafter, two representatives will be elected annually to represent the Alumni in Medicine.

All alumni and former house staff of the Yale School of Medicine are invited to submit one nomination, giving the nominee's class and designation (graduate or house staff) as well as a brief description of his or her qualifications. Each nomination must be signed and mailed to the Association of Yale Alumni in Medicine no later than March 25, 1973.

The nominations will be tabulated and the list of candidates with a ballot will be published in the Spring 1973 issue of *Yale Medicine*.

The Nominating Committee of the Association of Yale Alumni in Medicine will determine the length of term to be served by the six members elected to represent the Association.

Please fill out, cut out and mail by March 25, 1973

To: Association of Yale Alumni in Medicine
Yale University School of Medicine
333 Cedar Street
New Haven, Connecticut 06510
Attention: Nominating Committee
YA. Rep.

I hereby nominate _____

address _____

☐ M.D. Graduate, class of _____

☐ Public Health Graduate, class of _____

☐ House Staff, years _____

Brief description of nominee's qualifications:

Has nominee given his consent? _____

Signed _____ class of _____ or House Staff _____

YALE MEDICINE

333 Cedar Street

New Haven, Connecticut 06510

Mr. Stanley D. Truelson, Jr.,
Librarian, Medical School.

Yale Medicine

Alumni Bulletin of the School of Medicine / Spring 1973

Yale Medicine

Alumni Bulletin of the School of Medicine/Spring 1973. Vol. 8, no. 2

Contents

Yale Medicine is distributed to members of the Association of Yale Alumni in Medicine, students and others interested in the School of Medicine. Communications may be addressed to the Editor, 333 Cedar Street, New Haven, Connecticut 06510

Editor: Arthur Ebbert, Jr., M.D.
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Photos: p. 1, Howard Drysdale; p. 2 top, Fred Eberstadt, bottom, Maxine Rude, Pan American Sanitary Bureau Photo; p. 3, Marc and Evelyne Bernheim, courtesy Rockefeller Foundation ; pp. 4, 5, 7, 14 (except bottom), 15, Anne Goodman; p. 14 bottom, Miller/Swift; pp. 17, 18, 20, Yale News Bureau

Cover: pen and ink drawing of *Phlebotomus papatasi*, by an unknown artist in Cairo, Egypt in 1943. Courtesy, Dr. Richard Aitken

stalking the arbovirus

"I am taking the liberty of sending you enclosed serum from a patient on which we would like some help. The 59 year old Caucasian female visited the East and West coasts of Africa (Senegal, Mali, Sierra Leone, Cote d'Ivoire, Ghana, Kenya, Tanzania) during February. After 30 hours in Nairobi she became acutely ill with high fever, chills and general malaise. This was followed after three days by recurrent fever accompanied by severe muscle pain in both legs and lower back . . .," wrote a Chicago physician.

"URGENT NEED YELLOW FEVER AND CHIKUNGUNYA DIAGNOSTIC ANTIGEN STOP EPIDEMIC WITH MANY DYING," cabled the U.S. embassy from an equatorial African nation.

A twenty-year old coed was hospitalized on 7 West (Yale New Haven Hospital Memorial Unit) with high fever, rash and joint pains following her mid-winter college recess, spent at Tarpum Bay in the Bahamas. "Could this be dengue fever?", asked the resident physician.

These are typical and actual requests for help. The Yale Arbovirus Research Unit, or YARU for short, is a team of ten professionals who specialize in tropical virus disease research in the Laboratory of Epidemiology and Public Health. YARU's research is aimed at elucidating critical areas in the survival, spread, and transmission of certain arboviruses, and to provide data on ecology, epidemiology, immune response and infection mechanisms in vertebrate and invertebrate cells. The long-term objective is the prevention and control of arbovirus infections of man and his domestic animals. By responding to such requests, the unit maintains a close and critical connection with epidemic and other disease situations throughout the world. An amazing number of original research projects have been born by answering such pleas.

Most of the Unit came to Yale in 1964 from the Rockefeller Foundation Virus Laboratories in New York City, which for over ten years had been the base for a worldwide network of laboratories involved in the study of arbo (ARthropod-BOrne) viruses and their natural history in tropical exotic regions. This study stemmed from the earlier work on yellow fever which culminated in the development of the 17D vaccine, largely by Nobel laureate Dr. Max Theiler, an active member of the Yale Unit until his death last year.

Dr. Thomas Aitken dipping for larvae in Bush Bush Forest in the Nariva Swamp, Eastern Trinidad. An important mosquito specimen, the Culex portesi larvae, were found in the buttresses at the base of the tree. These specimens were infected with many different viruses.

In 1963 Dr. Theiler and Dr. Wilbur Downs, who was the founder of the unit at Yale, contributed an article to the *Yale Scientific Magazine*, entitled "Oropouche, the Story of a New Virus", relating the history of the finding, identification and later epidemiological events of this newly recognized disease. Indeed, the post-World War II period was marked by the recognition by several teams of workers, of many new tropical fevers which were previously thought of as malaria, or given other catch-all diagnoses. These fevers were caused by viruses enzootic in wild animals such as monkeys, birds, reptiles, and small animals, which were transmitted by mosquitoes, ticks, sandflies, and midges. Among these and other arboviral diseases were dengue, Colorado tick fever, O'nyong-nyong (African scourge), and the equine encephalitis.

Three of the present YARU staff, Drs. Sonja Buckley, Delphine Clarke and Jordi Casals were instrumental in developing diagnostic methods and a basic serological classification of these exotic viruses. Three others, Drs. Charles Anderson, Thomas Aitken and Wilbur Downs, worked in the field in such far-flung places as Port-of-Spain, Trinidad, Belem, Brazil, and Poona, India. They saw tropical disease in the raw and helped unravel the intricacies of the complicated cycles of these viruses—parasites equally at home in the insect as in their natural wild-animal hosts, waiting for man and his domestic animals to dare enter their native territory.

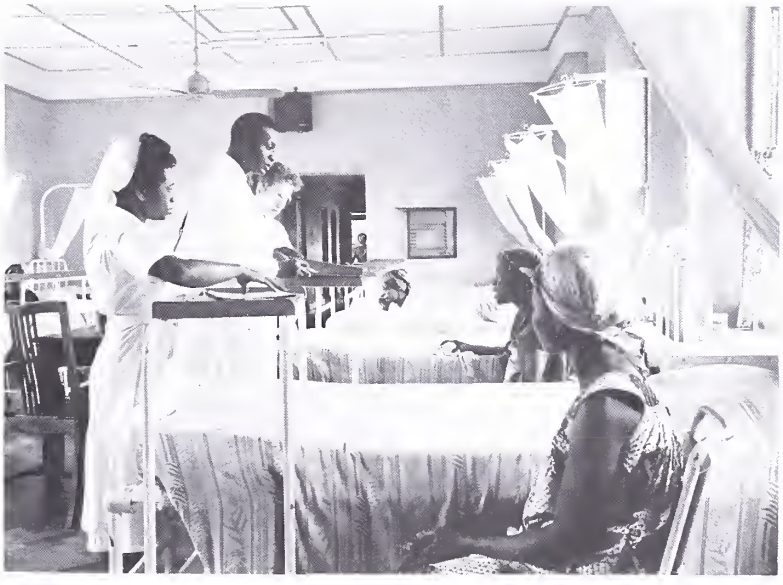
Another member of the team, Dr. Robert E. Shope, who is the son of the well-known virologist, Dr. Richard E. Shope, and now director of the unit, joined the staff in 1958 after finishing a medical residency at Yale, followed by two years of tropical service with a U.S. Army research unit in Kuala Lumpur, Malaya. He worked for six years in the Amazon region of Brazil before returning to the Yale-New Haven Medical Center.

A recently discovered new disease in which the YARU staff was involved is Lassa Fever. Early in 1969 an American missionary nurse, working in the little village of Lassa, in Western Nigeria, came down with a fever, pain in her joints and ulcers in her mouth and throat. Thirty hours later she was dead. By March of that year a second nurse had died and a third was gravely ill. She was flown to New York where she was hospitalized at Columbia-

A trap for collecting flies in Brazil, top left, is readied to be hoisted to the canopy of trees above. The tray is painted with castor oil, which traps flies as they are going for bait in the cage. YARU isolates viruses from these specimens.

An inspector from the Government Health Department Malaria Division is responsible for mosquito control in Trinidad, bottom.

At right, a child is undergoing a routine checkup at the clinic in the University of Ibaden, Nigeria. Below is a scene from the hospital there. A number of specimens used by YARU come from this hospital, either in the form of blood specimens or isolated viruses.



Presbyterian Hospital.

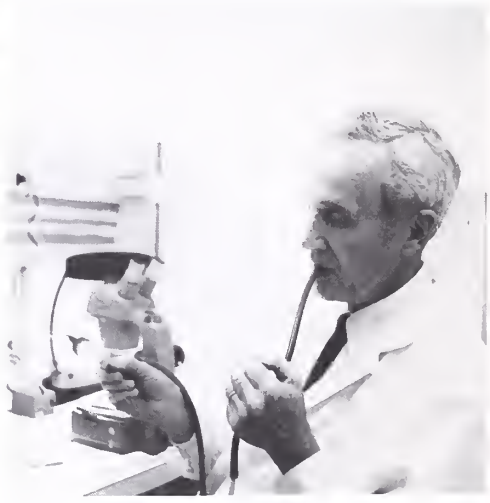
Seventeen days after specimens had been received at YARU, the laboratory issued a report announcing the isolation and characterization of a new, highly contagious and virulent virus. Since the 1969 episode in Lassa and Jos, Nigeria, there have been further outbreaks—in Jos, Nigeria in 1970, at a mission hospital in Zorzor, Liberia in 1972 and again in 1972, a large outbreak reported from mission hospitals in Sierra Leone. All of these outbreaks share a common feature of high mortality among those afflicted. Lassa Fever seems destined to occupy an unenviable position as a continuing scourge of West Africa.

Not all of the activities are worldwide. Dr. Robert Wallis, well-known in Connecticut as a medical entomologist, Dr. Anderson, and Dr. Aitken have been trying to unravel the mystery of eastern equine encephalitis in Connecticut. This viral disease attacks horses, pheasants and at times turkeys, in Connecticut with a rapidly fatal central nervous system disease which may have severe economic impact. The disease had its worst year in history in 1972. The first pheasant cases were diagnosed in Meriden, Connecticut in the third week of August in a flock of about 800. Early in September virus was isolated from pheasant flocks as widely separated as Wilbraham, Massachusetts and Clinton, Connecticut, along the coast. The outbreak continued unabated through September and into October. The last virus isolations from infected pheasants were made in the last week of October, well after the first frosts had occurred. Horse cases appeared during the latter part of September and early October. In all, virus was isolated from 29 different localities, mainly in the Connecticut River Valley.

In addition, large numbers of English sparrows succumbed to the disease. One farmer reported hundreds of sick sparrows, and indeed when he was visited the next day he demonstrated 20 dead sparrows in his refuse barrel and a liberal coating of droppings from the birds under each of the trees near the pheasant pens.

Eastern encephalitis is not a new disease in Connecticut, yet it holds some mysteries which the years of study have not solved. Connecticut has never reported a fatal human case, yet in Massachusetts where it was first recognized in 1933, there have been several severe epidemics. Epidemics have also been recorded in New Jersey. Since the virus kills a large percentage of persons infected, they are dreaded. Why has Connecticut escaped these frightening epidemics? What is there about its epidemiology which is different from Massachusetts and New Jersey?

The YARU staff have some clues. Eastern encephalitis virus is believed to be maintained in nature by a bird-mosquito-bird cycle. Horses, pheasants, and man are only accidentally infected when they coincide in time and place with natural transmission. For some time a shy, bird-feeding mosquito called *Culiseta melanura* has been suspected as the natural vector. Only recently was Dr. Wallis able, for the first time, to colonize the mosquito in the laboratory on the sixth floor of the Laboratory of Epidemiology and Public Health in specially heated and humidified chambers. As suspected, *Culiseta melanura* proved to be an exceptionally efficient vector of eastern encephalitis virus. Dr. Wallis now feels that this shy mosquito, which seems almost never to feed on people, maintains the cycle in birds. In 1972, the population of *Culiseta melanura* was more than double normal levels and specimens were found in areas not normally inhabited. This could explain the widespread disease in pheasants. Why no human cases though? The clue may lie in population levels of other mosquitos; the *Aedes* (salt marsh) biters were sparse this past year. Could it be that *Aedes*, which feed on man, for some reason are more common in Massachusetts and New Jersey than in Connecticut, and thus man is spared the disease in this state? Could future ecological conditions in Connecticut change to support these mosquitoes? Whatever happens, YARU plans to continue to seek the answers in Connecticut.



Yellow fever was at one time a major killer in our southern port cities. Today with the Federal government having discontinued the *Aedes aegypti* eradication program and with current drastic cuts in the surveillance programs of the Center for Disease Control, yellow fever and its first cousin, dengue fever, again could flourish. The Yale Arbovirus Research Unit maintains the World Health Organization International Reference Center ready to diagnose and advise when needed. Active research on the yellow fever mosquito and

its ability to transmit yellow fever and dengue by bite is in progress.

Yellow fever itself has never been found in Asia although on the surface it appears that all the necessary conditions are right for large epidemics there; many people, hordes of *Aedes aegypti* mosquitoes, and daily arrival of ships and planes from Africa and South America where yellow fever is now located. Could it be that there are genetically different races of *Aedes aegypti*, some of which, in Africa and South America, easily support the virus, and others, in Asia, which are resistant?

One does not ordinarily think of rabies as even remotely involving insects. One day nearly four years ago, Dr. Shope noted an unusual reaction when trying to identify some viruses from Africa. These viruses had a resemblance, in their laboratory characteristics, to certain mosquito-borne viruses and, in fact, one of them had been isolated in the Sudan from mosquitoes coming to feed on people.

The unusual reaction was with rabies virus and repeated tests confirmed that indeed the African viruses were antigenetically related to rabies virus. Dr. Shope reported his findings to the scientists at the University of Ibadan, Nigeria, who had originally isolated one of the rabies-related pathogens from a wild shrew. Subsequently they were able to find human cases of "rabies" among patients in the Ibadan University Clinics, only these were caused by the shrew virus and not by rabies virus itself.

Africa is a long way off and the possible failure of our current rabies vaccine to protect against rabies in Africa is of little consequence to most public health officials. However, in working with these rabies-related viruses, Dr. Gregory Tignor, who joined the YARU staff more recently, noticed a peculiar thing. The animals he had vaccinated with Lagos (one of the rabies group) in hopes of protecting them against rabies virus later on, paradoxically died sooner of rabies than the unvaccinated control animals. Could these animals have been sensitized by the rabies-related virus and be dying from an immunological destruction of their central nervous system cells when later infected by rabies virus?

Dr. Tignor enlisted the help of Dr. Richard Gershon, associate professor of pathology, and Dr. Byron Waksman, professor of microbiology. Through an elaborate set of experiments he has indeed confirmed his original hypothesis of an immunological death with the Lagos bat virus. As usual the observation has led YARU staff to ask additional questions. Dr. Tignor does not claim to be able to cure rabies or even understand more than a part of its pathogenesis, but his research is an important step in this direction. Where is YARU going and what will be the next new and exotic viral disease on the horizon? Dr. Shope feels that by being ready to answer the requests for aid that arrive regularly by letter and cable from all over the world, the unit will continue to keep the channels of communication open and will be ready when the next challenge comes.

–This article was prepared by Elizabeth A. Young, Administrative Assistant of YARU.

Back in the laboratories of the Yale Arbovirus Unit in the Epidemiology and Public Health Building, scientists continue to unravel the mysteries of the arthropod borne viruses gathered from the world over and often bred in the laboratories. From left to right, Dr. Sonja Buckley; Dr. Aitken; Dr. Robert Shope, Dr. Wilbur Downs with a student; Dr. Jordi Casals; and Dr. Gregory Tignor.

The Chaplain

It was a bitter cold morning in New Haven. The streets were rutted with icy snow and cars were skidding and stalling bumper to bumper down Cedar Street. At 8:30 sharp David Duncombe, bundled from head to toe in bright orange snow pants and a hat with ear flaps pulled firmly down, rounded the corner on two wheels and navigated his bicycle adroitly through the mess of disabled cars. David Duncombe is the chaplain of the Yale School of Medicine.

How come the School of Medicine has a chaplain of its own?

The office of "Chaplain of the School of Medicine" was established at Yale six years ago, primarily to fill the need for someone to take direct responsibility for the human side of medical education–someone who would get to know medical students and work supportively with their humanistic needs and interests. This includes teaching medical ethics as well as counseling medical students.

Reverend Duncombe is the first full-time chaplain of the School of Medicine. "I came to Yale in the summer of 1967 to fill this post," he said. "My previous experience included five years as a boarding school chaplain, some graduate work and teaching the psychology of religion at Yale, and most recently, a year's clinical training at a state mental hospital. I had no background in medicine, biological science or even medical ethics. Apparently the selection was based on faith alone."

When Rev. Duncombe first assumed his post he was presented neither with a job description nor a defined set of goals and objectives. He was to create these by becoming sensitive to the needs around him.

"I found myself somewhat of a walking curiosity to students and faculty at first," he recalled. "Chaplain? What do you do there?" He was open to suggestions.

"Quite early in the game Ed Crelin, who is professor of anatomy, approached me about helping out in the laboratory. Although he is really extremely sensitive to the feelings and needs of others he said he felt inadequate answering the questions of first-year students about death and about the many related ethical and emotional issues that come up while students dissect their cadavers."

Rev. Duncombe admits that he had as many feelings and questions as any student in the lab, but this common experience of confronting death, as well as having to study anatomy, began to open doors.

"If I ever lucked out on something, that was it," he remarked. For one thing it offered a natural and relaxed context for students to talk about their problems. It also gave him a feeling for the crushing academic and emotional demands on medical students.

"As I have gone from table to table talking with first-year students, I have learned that a medical student's needs are complex and change rapidly in the medical school environment." he said. "One day a particular student will have an ethical or religious question on his mind, the next day he may need to talk about an emotionally upsetting experience. The next day it may be an anatomical problem that most concerns him or he may want to work without interruption. For a chaplain to be able to pass easily between the humanistic and the technical with reasonable competence suits the students' needs. It also, I think, allows for the greatest trust to grow between student and chaplain."

Rev. Duncombe explained that many medical students experience an identity crisis, mostly in the first two years. He thinks this is mainly due to the fact that they are very bright, with great ability and idealistic bents. Most of them have had brilliantly successful academic careers. When they are first confronted with preclinical courses, where there are no grades for self-evaluation, or when they suddenly think about the realities of medicine, they get a sudden feeling of failing–something most of them have never before experienced in their academic lives.

"Now for the first time they are unable to do all the reading assigned and understand everything said in a lecture. This might have happened occasionally in college, but the pressure soon let up and there was always a willing roommate to help, the weekend to study through and the exam a week or two later that confirmed their superior ability to cope with academic crisis," Rev. Duncombe pointed out. "Here they are finding few of these resources and for months on end they flounder in depression, feeling overwhelmed and defeated.

"I have a strong feeling that students accepted to the Yale School of Medicine should and can stay on," he continued. "We try to make them realize they are not the only ones who experience this feeling of failure, often by getting them together to talk about their depression and frustration."

As I puffed and wheezed my way up the four steep flights of steps to the Chaplain's Office on the top floor of the Sterling Hall of Medicine for this interview, I wondered why on earth it was in such an out of the way, inaccessible place.

"We were offered space on 'dean's row' and in the dormitory, but we chose this place instead because it was more private and more closely related to medical education than to the student's private life," Rev. Duncombe replied. "This is a safe place, out of the way, where no one can see you coming and going," he added.

The Chaplain's Office, informal and cheerful, is crammed with chairs, books, magazines, newspapers and a pot of hot coffee.

"The students know they can come up here anytime, for a hundred and one different reasons. This gives them a chance to look me over and if I'm the guy who can help them, they come back."

And many do. Last year twice to three times as many students came to the office for counseling than in any previous year.

The Chaplain's teaching programs evolved in much the same way as the counseling did. "Someone identifies a need, I talk with students and faculty about it, and if it seems significant enough and is not being, or cannot be, met by anyone else, I try to fill the gap," he said. "As passive a posture as this sounds, it has involved me in some rather forthright experiments in medical education."

Rev. Duncombe conducts a seminar on the chronically ill patient which brings together medical, divinity, law, nursing and public health students around the problems of sustained and terminal illness. Each student is assigned a patient to see each week with the single purpose of attempting to understand how illness affects his life, in all its physical, social, religious, emotional and often legal dimensions. The students meet once a week in small, interprofessionally mixed groups of five, with two supervisors. Through this method students gain interviewing skills and insights into their patient interviews. Every two weeks there is a general seminar for all students on some common aspect of chronic illness.

"The thing I like best," Reverend Duncombe said, "is crossing the line between profession and friendship."

Last year, one morning a week Rev. Duncombe and a theologically-trained psychiatrist conducted a preceptorship with third- and fourth-year medical students in the Yale-New Haven Hospital's medical outpatient clinic. They interested students in their approach to patient care through taking an interest in the students' patients. They were often invited to sit with the student and his patient and observe the interaction. Later they talked with the student, and in a socratic manner, tried to discover what was going on of human, ethical or religious importance that the student might have missed. Rev. Duncombe hopes this preceptorship will be repeated.

In addition to these programs Rev. Duncombe is very much involved with the Yale Task Force on Genetics and Reproduction as well as the Medical Committee for Human Rights.

"After many student and faculty discussion groups on medical ethics had run out of steam, a poll of former participants showed a desire to do more than talk about the ethical problems posed by recent advances in genetics," he said. "A year ago two students and I brought together some thirty interested people from medicine, divinity, law and other backgrounds to work on specific tasks. These projects have emerged with their own task force groups. One group is looking closely at the ethical presuppositions of the genetic counseling in our hospital's genetics and birth defects clinics. Another is investigating the ethical implications of amniocentesis as an experimental method. The third group is working on a complex scheme of decision-making for the screening of heterozygous carriers. The end result," he added, "will be a report of some kind, possibly in the form of proposed state or national legislation."

The Medical Committee for Human Rights has provided a good vehicle for involving medical students and faculty in health-related community and national issues. Rev. Duncombe has been an officer of the local chapter for four years and he sees his role as one of supporting and enabling (not always uncritically) group effort around controversial issues. M.C.H.R. is presently involved in New Haven with prison health, occupational health and free clinics. On the national scene it is involved with health insurance proposals now before Congress.

I first became aware of Rev. Duncombe in the spring of 1970, during the hectic days of preparation at Yale for the giant May Day Rally on the New Haven Green. He was helping to organize the extremely efficient emergency medical preparations for what could have been, but fortunately was not, an explosive weekend.

I asked him recently if he thought of himself as an activist chaplain.

"No, not in the sense of William Sloane Coffin," he replied. "I am not an initiator. I guess I see myself as an enabler, a supporter of people so they are able to morally reflect on the meaning of a situation as well as the consequences of taking a course of action. I have helped organize medical school rallies for different causes, and I went with medical school groups to Washington to protest the war in Vietnam, but this is sort of Boy Scout Work."

The Chaplain's Office is related administratively to four bodies. The United Ministries in Higher Education Board finances and directs the chaplaincy. Within the medical school he is directly responsible to the Dean's Office which provides office space, part-time secretary and an "amazing amount of freedom to shape my own program."

To facilitate access to clinical services, the medical school chaplain is a member of the Department of Religious Ministries at the Yale-New Haven Hospital. Finally he is a member of the Yale Religious Ministry, the interdenominational organization of campus ministers at Yale. Besides a secretary, the office includes the part-time services of an assistant chaplain, Reverend Bruce McLucas, who is himself a second-year medical student.

Rev. Duncombe conceives his chaplaincy in fairly strategic terms, using as his model the vision of Kenneth Underwood in *The Church, the University and Social Policy.*

"Underwood saw both the need and the opportunity for the church in the university to play a key role in contemporary society. This is the role of bringing to rapidly evolving technical knowledge the kind of theological and ethical reflection that would enable the university to become the shaper of social policy for the decades ahead," he said. "For me this means being where the student is struggling to understand and sort out the data with which he is deluged each day. It is not so much teaching in the sense of adding new information as it is suggesting other ways of valuing and sorting out the information he is already learning. In the final analysis," he added, "I see the chaplain's job as helping the student become a better medical scientist and practitioner. He does this by calling attention to the great complexity of forces bearing upon a patient and his illness. I see the chaplain constantly introducing more variables into the picture and socratically raising thorny questions of values, of ethics, and of life and death. Other faculty may do this far better than he, or they may not, but probably no one else sees this as his major responsibility within the medical school." M. B. N.

check true or false: there is a major doctor shortage

Transcript of the Yale Reports Radio broadcast of February 4, 1973 on Station WTIC. Yale Reports is the weekly broadcast review from Yale University which brings to a wide audience the ideas and endeavors of artists, scholars and scientists.

We have all heard stories about the shortage of physicians in this country, about crowded emergency rooms with a wait of hours before the patient is seen, about the lack of physicians in rural areas. Yet this is a situation filled with contrasts. The United States has an enormous supply of physicians compared with countries in the rest of the world and it's been increasing over the past 10 years.

What then, if anything, is the problem? Do we really need to train more physicians or is there some other way to deal with this state of affairs? Today on Yale Reports, three people concerned with this issue discuss the physician shortage. They are Ms. Rosemary Stevens, associate professor of public health; Ms. Donna Diers, dean of the School of Nursing; and Dr. Louis Welt, professor of medicine and chairman of the Department of Internal Medicine.

Ms. Stevens: Last year there were several statements in Congressional hearings on health manpower that we had a deficiency of 50,000 physicians in this country, a really major shortage. Yet we are aware that we have a situation filled with contrasts. This country has an enormous supply of physicians compared with most countries in the world and it's been increasing in the last 10 years both absolutely and relative to the population; yet there are gross geographical and socio-economic maldistributions of physicians. We hear cries of overcrowded outpatient departments, lack of physician care in rural areas, pleas for an increased number of physicians to give primary medical care. The question is, do we have a doctor shortage? If so, what kind of shortage is it given the large numbers of physicians that we do have? Donna, what are your views?

Ms. Diers: One could answer the question of is there a doctor shortage with two other questions. One, what are the doctors doing not enough of that makes it perceived as a shortage? Two, is it so much that there's a doctor shortage or is it that there is a demonstrable shortage in health services, a part of which is medicine, a part of which is other things? It has always seemed to me that any way one calculates the doctor shortage, any population base one uses, any statistical operation one applies, misses the point somehow because it's a warm-body count as opposed to the quality or the kind of health service people apparently are missing and that is being called a doctor shortage. Is that an unfair way to characterize it?

Dr. Welt: I think that's reasonable. One thing that everyone would agree with is that there is a shortage of health care delivery. In some instances this may very well be a consequence of an inadequate density of physicians with relationship to the population being served. In other areas there is an overabundance of physicians but they may not be available to certain populations within that environment. Our problem is not to look for an either/or answer or a single cause but to look at the entire problem that relates to health care delivery for over 200-million Americans, to look at the number of physicians and all other types of personnel that are involved in the health care industry, their need, and try to make some sense out of a system which at the moment does its best to meet the needs but from the consumer's standpoint is considered inadequate.

Ms. Stevens: Let me be a devil's advocate here and come back to you on this one. The number of medical students has been increasing quite steadily over the last few years, in part because of concern by the medical profession, in part because of a stimulation of federal concern. There has been public money put into medical schools specifically for expansion in the number of medical students. The figures as I recall, are that there were 7,000 graduates of medical schools in 1961 and 9,000 graduates of medical schools in 1971 and this number is going up steadily. Do you think this kind of action is important or irrelevant? How would you link this up in terms of looking at the whole health manpower situation?

Dr. Welt: This has been a response to what has been considered to be a shortage of physicians *per se.* I'm not arguing that there might not be a shortage. (The numbers quoted may be incorrect. I'm not quite sure of what the source of the data really is. I've been told it may be non-representative of real needs.) Everyone would be willing to admit as an *a priori* assumption that we may need more physicians but that's far from answering the problem of the delivery of health care to all the people in the United States. If one made any realistic appraisal of the functioning, working lifetime of a physician, the kind of distribution which exists now (which albeit could be improved), it would be most unlikely that we could create in the course of the next two decades a sufficient number of physicians of high quality to meet the needs for all health care delivery. Many people are turning to other kinds of personnel for the delivery of a large bulk of health care which does not need the long type of training that is currently designed for the physician.

Ms. Diers: Would you agree that one of the reasons why simply cranking out more and more physicians isn't a solution to the problem is that it's not an economical way to solve it because of what it costs per man or woman to train a physician?

Dr. Welt: That's true, it's not an economical way. The other question is to what extent are there that many people who are motivated to take that much training to fulfill the complete role of a physician? Then there is a very real question of to what extent is a physician necessary for 50 or 60 or 80 percent of the complaints which patients have and for which they seek advice and counsel? It may well be that a whole host of other types of health care deliverers which are called by a variety of names and for these purposes to which I'll refer as the middle-level health worker may very well be the person who can subserve the largest bulk of health care delivery in this country.

Ms. Stevens: Donna, you are in the process of training one possible practitioner in terms of nurse-practitioners, nurse-midwives. How far do you see these kinds of people doing things which otherwise physicians would do or as creating a totally new type of medical care role?

Ms. Diers: The nurse practitioners (of which nurse-midwives is one category) are creating a new kind of role in health delivery. Part of what they do, indeed, is what a physician might do. In the case of the nurse-midwife, delivering the baby is an

obvious example, but people who are prepared as nurse-practitioners also bring other things to the health delivery situation. They bring their nursing background which, put together with the things that have been more traditionally the province of medicine, results in a different kind of role and a different kind of a service. Along with that I must say I was smiling when Lou used mid-level health practitioners because that title says something about the way we often characterize the problem of the lack of health care. To talk about something as mid-level assumes that there is a high level and a low level. It assumes that it's a linear continuum at the top of which, of course, would be physicians; I don't know what the bottom end is but obviously somewhere in the middle would be nurses. It's critical to distinguish between nursing and medicine, and between nursing and medicine on the one hand and all of the other aspects of health delivery if we are going to talk about the full nature of the problem of a lack of this kind of resource.

Dr. Welt: I'd like to get back to one part of the question you asked before, Rosemary, which has to do with the training of more physicians. One avenue which has been opened up as an option is to train physicians in three years in lieu of four. I won't hold for any magical value in the four versus three but I would like to point out a few things. First of all, the arithmetic isn't necessarily completely understood when people talk about making more physicians by virtue of a three-year program as opposed to a four-year program because, after all, the number of physicians who come out at one end can't be any more than the number of physicians who go in at the beginning. The number you graduate will equal the number you matriculate initially less the fallouts. Nevertheless, by doing it in three years as opposed to four, you do add one physician-year to each person who is involved.

Perhaps a more important consideration is the question of the validity of shortening the curriculum at a time when the amount of information that is available and which is useful has increased by orders of magnitude. To expect the acquisition of understanding and some knowledge of the data that are useful plus the maturation that comes with time in three years as opposed to four seems to me to pose a very difficult question in kinetics. Furthermore, if, in fact, the pathway of the future or the near future will be the delivery of health care in great abundance by people who are nurse-practitioners or physician's associates, then the physician who is going to be involved with the first line of defense along with these personnel has, if anything, to be better trained than he ever was before. If he's going to function primarily as an internist and pediatrician, he has two disciplines to encompass. In addition to that, he has to be aware of the resources for the health care delivery system in his community, he has to be aware of those deficits that obtain and he has to have some insight as to how to go about improving the situation. He has to be in a position not only to continue his own education but to help in the education of the people with whom he's working. All of this is going to be very demanding of a training program, so that independent of how many years he spends in medical school it's still going to take a significant number of years (I would assume no less than two and probably closer to three and four years following the granting of the M.D. degree) to train this person to be an effective leader in a community in terms of health-care delivery.

Ms. Stevens: This is interesting because I was going to come back and ask what you see the future role of the physician to be. You see the physician as an organization man, really. When you say a 'leader of a community,' you are not thinking of a single physician in an office practice but of a much closer role between physicians and health care organizational structures than there is at present.

Dr. Welt: I think there will be. I would be very reluctant to even dream up a plan of organization which would be rewarding and fulfilling for every person in health care or every community because there is a fair amount of heterogeneity in this country. That's great and it provides all kinds of interesting flavors and new experiences from which we can all learn. Nevertheless, there will be an overall theme in that physicians will practice more and more in relationships to each other and to all the other people in the health-care delivery system. You will very rarely, I would assume, in the future be in totally solo practice. This is not to exclude that option but I think it will become less frequent than usual. The consideration of this man's or this woman's responsibilities have to take on a larger role than they ever had before. He will have responsibility not only for patients and for other physicians, both around him laterally and up the line to other types of installations, but with the middle-level health worker as well.

You speak about the organization man; we are either all-organization or anti-organization or some combination in between, but I don't see him solely as an administrator, by any means. If you forgive the pure guesswork (and I'd like to emphasize that I have no hard data upon which to base this) let me use some numbers for illustrative purposes. Some of the studies that have been done with the use of nurse-practitioners, for example, suggested that within the confines and constraints of the studies nurse-practitioners can take care of about 80 to 85 per cent of the people who walk into a physician's office in terms of complaints—and take care of them quite well. That leaves 10 or 20 per cent who represented problems for which they were not prepared. Of that 10 or 20 per cent, the front-line physician who's well trained as an internist, pediatrician, gynecologist and so forth, can probably handle a fair percentage. There will be some small percentage of the rest (and I hesitate to use a number because I have no idea of what it is) who very likely will end up in a sub-specialist category. The first person who makes a triage decision will be, in many places, this nurse-practitioner. The next person who makes the triage decision is going to be the physician who functions in this capacity, and then up the line to the very well-trained, in-depth trained specialists who are available for the unusual patient.

Ms. Stevens: I can see all of this in terms of looking at models. The question is, is it realistic to talk about from here to there? What you are describing and what we have all been talking about here is a very complex, highly organized system of care. In the system you've been talking about the physicians would play an increased role of consultation and maybe a decreased role of seeing relatively well patients coming in with relatively simple complaints. In that kind of situation, one might, in fact, find that we already had enough physicians or maybe were beginning to train too many physicians for a highly sophisticated con-

sultative role. I can see here that we have a professional system, maybe a series of professional systems, in transition. We have a medical profession which was based initially on solo practice. We have a nursing profession which has a long history of tradition. We have many other health professions. Yet we are speaking here of questions which are organization questions setting up some kind of structure in what is becoming a major industry. Maybe we have got to the point where it's very luxurious for us to continue to train highly expensive people when we know perfectly well that if we had a better organizational structure for health services it's possible that we wouldn't need quite as much waste and disorganization as we have shown that we do have at the moment.

Dr. Welt: What you are fetching at, I suspect, is will the American scene become something similar to the system in the United Kingdom where the number of physicians is controlled, where the number of general practitioners is controlled, certainly the number of specialists is controlled and where they go is controlled? I am reminded that that really has a long history. You had long experience with a health insurance program. After World War II the Bevan Report was implemented and it went through some very stormy days. Now, many years later, the physicians (at least the ones I've met and what I hear and read in their professional organization papers) seem to be quite happy with this system, but that really represents a 40-to 50-year process.

Ms. Stevens: I wonder if it does because the number of physicians is being controlled now in the United States in terms of the number of students entering medical school.

Dr. Welt: Yes, but not the number of specialists nor where they practice. We are a very independent people and there is a great thing about that independence. One has to examine very carefully what the give and take represents and how much independence can one give up and still have an aggressive, robust enterprise. Surely, one could make it more efficient but I don't think we want to worship efficiency as the first lord. It's nice to be efficient but a lot depends on what price is paid for that efficiency because there are a lot of other ways to measure the value of a service in addition to its efficiency. I can think of a lot of things that could be done more efficiently that would be very unattractive.

Ms. Stevens: I agree with you. I am pushing quite clearly because we keep running up against the lack of policies in organizations to spread services in such a way that they are reasonably equitable compared with the vast resources that we have in this country. One aspect of the so-called shortage of physicians in the United States is that this country is importing large numbers of foreign physicians every year in part to make good the apparent gaps that we have in the number of physicians. At this point in time almost one-fifth of all physicians have been trained in schools outside the United States. Many of these physicians come from countries which can ill afford to lose them and maybe can far less afford to lose them than the United States. If, in encouraging independence we are, in fact, exploiting manpower from elsewhere, then we have a large number of ethical questions, managerial questions, and underlying cost questions to face in looking at how we want the supply of physicians distributed and the ways we go about encouraging a redistribution.

Dr. Welt: Maybe we can take a lesson from the reasons that physicians who are foreign graduates come to the United States for training and stay here. They weren't sent here, we didn't buy them; they came for their own reasons. They find it a more attractive place to live. One of the big messages in all of this is not so much to dictate where people will set up practice but to decide where there is a great need for a variety of specialists and non-specialists and make it so attractive that they'll want to go there. People will emigrate, they will move, they will migrate within a country, within a state. Obviously, they come from across the seas, but they will move around if we make the opportunities attractive enough to prompt them to do it. In the long run the approach with the carrot is likely to be much more constructive than the stick. We are not going to react well to the stick. I don't think we should.

Ms. Stevens: I'd like to come back to this idea of transition, that health services not just here but in other parts of the world, for purely technical reasons, are in a state of transition. What do you feel are going to be the most urgent needs in, say, ten years in terms of looking at this kind of redistributive function?

Dr. Welt: One of the basic themes has got to be what is the physician doing now which he need not do? To what extent is his day consumed with chores that could be done as well, and sometimes even better, by someone else which, in turn, relieves him for his unique contributions? There are certain things that one could list with which there would be very little argument. On the other hand there are a whole host of things about which there has to be argument and so long as there is argument that means we don't know. When we don't know, we have to do research. It's quite possible to research this very carefully under properly controlled circumstances both in an ambulatory and inpatient setting to find out just what things can be properly done by people other than physicians and what things are best left for the physician or what combination, what interrelationship, what coupling ratios one can make in health care delivery; but it's got to be researched.

Ms. Stevens: So it's coming away from the gross idea of shortage into a much more sophisticated idea of differential services.

Dr. Welt: That's right. On the basis of this research will evolve a curriculum which will modify the curriculum for physicians and will establish in great measure the core of the curriculum for the other types of health care deliverers.

Ms. Diers: I agree with Lou about what is necessary there. There are a number of other things that are going to be necessary, not only to decide what should be done (because in some sense I think we already know what should be done) but in order to be able to do that, there are some very complicated negotiations that are going to have to go on particularly between nursing and medicine and administration. There will need to be an enormous shifting of attitudes on the part of the professionals involved and on the part of the public about what the best expectation is for health care.

planning a cancer center

In the decade or so since the National Cancer Institute activated its Cancer Research Centers Program there has been an increased emphasis on centers which would provide a comprehensive, interdisciplinary attack on cancer problems. The National Cancer Act of 1971 stressed the importance of this approach when it provided for the establishment of fifteen comprehensive cancer centers.

Two years ago, recognizing that the Yale School of Medicine had a significant amount of talent and resources in cancer, both in the basic sciences and in the clinical areas, we began planning the expansion of cancer related activities at Yale. A cancer committee, chaired by Dr. Lewis Thomas, was formed and a year later, after much deliberation, the Division of Oncology was established. This interdepartmental organization is making plans for further integration of existing cancer studies at Yale as well as new programs of cancer research, patient care and education. It is our hope that this effort will result in a program that will make the Yale School of Medicine one of the most outstanding comprehensive cancer centers in the country.

According to the NCI's *Information and Guidelines on Cancer Support Grants* brochure, comprehensive cancer centers are "those conducting long-term multidisciplinary programs in the following areas: cancer biomedical research; cancer clinical services and investigation; cancer training and education; and community programs of cancer diagnosis, epidemiology and preventive medicine." Among the other characteristics required are an environment of excellence in basic science which will assure the highest quality of basic research, and a high quality of interdisciplinary capability in the performance of diagnosis and treatment of malignant disease.

Cancer as a disease entity takes on many forms with the common element the production of abnormal cells or the mutation of healthy cells. Almost every organ in the human body is vulnerable to some form of cancer. Understanding the basic breakdown of cell function or production is critical to the elimination of cancer. Therefore, an interdisciplinary approach by multiple basic and clinical sciences is essential.

Cancer Related Basic Science Studies

There are a number of strong basic science groups at Yale who would participate in varying degrees in the cancer center. Their activities are directly relevant to the cancer problems and are nationally and internationally recognized. Scientists like Dr. Paul Howard-Flanders and Dr. Charles Radding represent international authorities in the field of recombination of genetic material and related phenomena, fundamental for understanding the basis for mutations and ways in which viruses can become associated with cells and change their behavior. These two men and their colleagues in the Department of Molecular Biophysics and Biochemistry have played pioneering roles in introducing new concepts into the understanding of the molecular basis of genetic recombination. Faculty in the Departments of Pathology, Radiology and Microbiology have made similar significant contributions to the understanding of cancer.

Several scientists working in the Kline Biology Tower on the other side of the campus have also been involved in cancer related programs. For example, Dr. Peter Lengyel, professor of molecular biophysics and biochemistry and human genetics, who is recognized internationally as a leading authority in the field of protein biosynthesis, has recently turned a major portion of his laboratory toward the investigation of protein synthesis in virus infected cells and the mechanism of the action of interferon. Understanding the mechanism of protein synthesis and regulation of protein synthesis in higher cells is extremely critical to cancer research.

The Department of Pharmacology at Yale is one of the foremost in the country and has played a leading role in cancer chemotherapy for a number of years. Several important chemotherapeutic agents have been developed in these laboratories and others have been extensively investigated. The department has had a long tradition of working closely with members of the Department of Internal Medicine, especially members of the Section of Medical Oncology, to develop these drugs further and establish their value in cancer patient treatment.

Our Clinical Strength

Cancer research is carried out in almost every clinical department in the medical school. Strong programs in medical oncology, surgical oncology, gastroenterology and gynecological malignancy have existed at Yale for many years.

In the Department of Internal Medicine, in addition to the major focus of research in the oncology section, each of the sections in the department conducts research activities related to its own particular organ system. For example, the gastroenterology group with Dr. Howard Spiro and Dr. Frank Troncale and the hematology group under Dr. Stuart Finch, have active interests in cancer.

The Department of Dermatology participates in extensive and varied cancer research activities. Dr. Aaron Lerner, chairman, and members of this department, have been conducting an intensive study of normal and abnormal pigment cells, which will have broad implications for malignancies in general.

The Pediatric Oncology Service is responsible for the care of all children with leukemia and other childhood malignancies in the Yale-New Haven Hospital. A children's cancer clinic is conducted jointly by the Departments of Pediatrics, Surgery and Radiation Therapy, and they see approximately 20 new untreated cases of acute leukemia and 20 new patients with solid tumors each year. There are more than a thousand outpatient clinic visits for pediatric oncologic patients each year.

Collaboration between the basic science and clinical departments has resulted in some important advances in the treatment of childhood leukemia and Wilm's tumor. By using a combination of chemotherapy

and X-ray therapy to the brain, in the treatment of childhood leukemia, a good percentage of five-year disease free survivors is anticipated. It could be that some of these children will be cured of their disease. Dr. Howard Pearson, professor of pediatrics, together with the oncology-chemotherapy group from the Departments of Internal Medicine and Pharmacology have developed a new bi-weekly combination chemotherapy program which can be administered on an outpatient basis to children with leukemia.

Several thousand patients with malignant disease are treated surgically in this medical center each year, both at Yale-New Haven Hospital and the West Haven Veterans Administration Hospital. Most members of the Department of Surgery are directly involved in clinical care and their interest is directly related to ongoing research activities in oncology.

In 1958 Yale University committed itself to a long-range program in support of research in clinical radiation therapy and radiobiology. Since then a group of radiation therapists and basic scientists have carried out laboratory and clinical research in areas related in the broadest sense to the radiotherapy of cancer. The Radiation Therapy Clinical Service treats approximately 900 new cancer patients a year in the Yale-New Haven Medical Center and an additional 600 patients at affiliated institutions which are entirely staffed with Yale personnel.

Weekly conferences bring together faculty of the sections of plastic surgery, oral surgery, and otolaryngology with chemotherapy and radiation therapy to discuss patients with head and neck cancer. Interdepartmental conferences are also held in gastrointestinal malignancy. There are, in addition, joint lymphoma staging conferences and joint chemotherapy-hematology research and clinical conferences.

In treating adult malignancies we have made our greatest progress in the treatment of Hodgkins Disease. The Department of Radiation Therapy has been one of the pioneer groups in the use of extended field radiation therapy. Their work has demonstrated that Hodgkins Disease can be cured in many cases when detected in its early stages. Further, the oncology-chemotherapy group has developed a program, which when used in combination with X-ray treatment, has given hope that 25 to 50 percent of patients with advanced Hodgkins Disease can be cured as well.

The National Cancer Institute is turning most of its attention to the treatment of common solid tumors of breast cancer, cancer of the colon and lung cancer, where there has not yet been a great deal of progress in terms of new treatment. At Yale we will also be devoting a larger portion of our time and efforts to developing better treatments for these tumors.

Organization of the Division of Oncology

The organizational enterprise necessary to cope with such an all-pervasive disease cannot be reduced to a small working group. Rather, what is needed is a research, teaching and patient care network to promote interdisciplinary efforts and provide information feedback loops from clinical to preclinical groups and within each of these segments.

Therefore, in response to these needs a division rather than a department was established. The Division of Oncology will draw on existing strengths of the School of Medicine and the rest of the University. Each member of the division will have a primary appointment in an existing department and secondarily belong to the division. While maintaining prime contact within a specific discipline, they will accrue the benefits of understanding what others are doing.

The Division of Oncology will have a director and an assistant director who will be assisted by an executive committee of members of both the basic science and clinical departments. At present Dr. Joseph Bertino, professor of medicine and pharmacology, is acting director. A clinical division headed by Dr. James Fischer, chairman of the Department of Therapeutic Radiology and a basic sciences division headed by Dr. Sherman Weissman, professor of human genetics, medicine and molecular biophysics and biochemistry, have begun to create groups or clusters of scientists and clinicians who will communicate and work with each other.

Some of these groups have already begun to meet at regular intervals and to organize seminar and teaching programs, as well as research activities. The plan has worked especially well in the basic sciences, where there are six or seven groups who have been meeting and finding out they have common interests and have been able to think about cancer related problems in a way they would not have been able to before.

The various sections plan to meet monthly in sessions somewhat like grand rounds, to discuss major problems related to human oncology. This kind of organization will provide a flexible mechanism for identification of shared needs, the exchange of information and the development of collaborative research projects among both the basic scientists and the clinicians.

We are emphasizing the interrelation of the clinical departments with the basic science departments because we think that is our strongest point and the thing we do best here. We have already established a tradition of integration between preclinical and clinical research in the Departmnts of Pharmacology, Internal Medicine, Human Genetics and Radiation Therapy.

Committees have been formed to strengthen certain areas. A committee for affiliated hospitals, headed by Dr. Robert Scheig, associate dean for regional activities, will open up ways for some of the area hospitals to participate in research and will assist with their programs of continuing medical education in cancer. Another committee, headed by Dr. John Cornog, associate professor of pathology, is exploring needs for improved inpatient and outpatient facilities, as well as ways to facilitate clinical research.

A comprehensive cancer center at Yale would play a major role in tumor registry, data retrieval and recording in the entire

State of Connecticut. A committee will consider the problems of the tumor registry in Yale-New Haven Hospital as well as for the rest of the state, so that perhaps we can evolve a common system of recording cancer patient data in all hospitals in the state as part of the national cancer center program.

A most important aspect of our cancer planning is cancer teaching. We have had good cancer teaching courses but they have not been integrated and coordinated. A committee headed by Dr. Robert Handschumacher, American Cancer Society Professor of Pharmacology, is working on plans for a comprehensive teaching program at all levels from the undergraduate through to the doctor who comes back to take postgraduate courses. One of the exciting things planned as a major function of the teaching program is an Oncology Division grand rounds. Once a month a cancer problem will be discussed in depth from both the basic and clinical aspects.

In order to have a cancer center, a central facility is needed to provide administrative offices and some laboratory facilities. Since so many faculty members work in cancer research or what may be called cancer related research, such a facility could not possibly house all of those faculty. The tentative plan at present is to have a core facility housing some of the cancer center scientists, with the majority of cancer research taking place within existing departments, thus preserving the department structure.

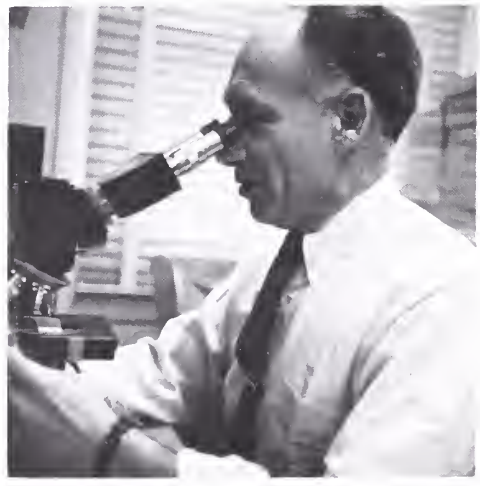
Cancer researchers at Yale, as well as at other medical centers, are going to be under tremendous pressure in the next few years to show Congress and the public that we are making progress in treating cancer and proving that patients are living longer with certain cancers because of the things we are doing in basic research.

One of Yale's concerns about the National Cancer Plan is that the programs are going to be very costly. We must avoid the temptation to utilize the bulk of these funds for short-term gains and for patient care and patient research only. This approach may not provide the long-term payoff that we are really looking for in cancer research. We must make sure that we maintain a broad scientific base for all cancer research and that we don't cut off basic science studies linked to cancer even when they are not so easily identified with cancer.

Dr. Robert Handschumacher, second from left

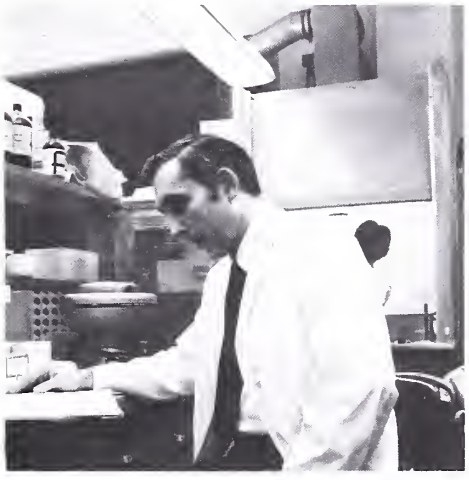
Dr. Sherman Weissman

Dr. Joseph Bertino



Dr. Byron Waksman

Dr. James Fischer



Dr. Alan Sartorelli

Dr. William Summers

There is a strong nucleus of scientists working on cancer research at Yale. The arrival next fall of Dr. George Palade, who will be chairman of the new Section of Cell Biology, and his group will add significant support to Yale's efforts in cancer research.

The Department of Pharmacology has been outstanding in cancer chemotherapy through the years. Members of the department have played a leading role in developing and studying several groups of anti-tumor agents. Dr. Robert Handschumacher is recognized as a leader of cancer studies, as are Drs. William Creasey, William Prusoff, Alan Sartorelli, John Marsh, Roland Skeel, Ronald DeConti, Robert Capizzi and Joseph Bertino.

Several other groups are actively concerned with different phenomena related to viral oncology. Dr. George Miller, associate professor of pediatrics and epidemiology, has been actively investigating the biology of herpes viruses and cells transformed by them. Dr. William Summers, associate professor of radiology and molecular biophysics and biochemistry, has recently initiated a research program of the molecular biology of herpes viruses, which have been speculatively suggested as related to more than one kind of cancer. Dr. Summers also has a program in the mechanisms of controlled genetic expression, including fundamental work in the molecular biology of a group of bacterial phage.

Dr. Sherman Weissman has an active program in the molecular structure of genetic material of the SV40 virus. Dr. Mark Bitensky, associate professor of pathology, has organized a cell biology group with a broad program of activities related to the basic functions of cells, somatic cell genetics and the biochemistry of cell regulation. Dr. Paul Greengard, professor of pharmacology and Dr. Bitensky are both recognized for their research in cyclic AMP, a molecule of fundamental importance in regulation of behavior in a variety of higher cells.

Dr. Byron Waksman, professor of microbiology, has long been recognized as a leader in lymphocyte biology. Understanding the function of lymphocytes appears to be important in the body's defense against cancer. Dr. Richard Gershon, associate professor of pathology, has been working on a program of immune reactions that modify tumor growth and transplantation. Dr. Malcolm Mitchell, assistant professor of medicine and pharmacology, has also been investigating tumor immunology.

In addition, many others in both the basic science and clinical areas have been involved in cancer research and treatment. Dr. Jack Cole, chairman, and Drs. John Kirchner, Thomas Krizek, Ira Goldenberg, and Mark Hayes, all of the Department of Surgery, have made important contributions to cancer treatment, as have Dr. John Morris, professor of gynecology and Dr. Ernest Kohorn, associate professor of obstetrics and gynecology.

Collaboration between departments has resulted in a number of significant developments in cancer treatment. Dr. Howard Pearson, professor of pediatrics, and members of the Departments of Therapeutic Radiology and Pharmacology have developed a promising treatment for childhood leukemia. Similarly, Dr. Leonard Prosnitz, assistant professor of radiology and Dr. James Fischer, chairman of the Department of Therapeutic Radiology, have collaborated with Dr. Leonard Farber, assistant clinical professor of medicine and Dr. Bertino to develop a new concept for treating advanced Hodgkins disease with a combination low dosage radiation and chemotherapy.

in 1777...

In 1777 Ezra Stiles who was president of Yale from 1778 to 1795 presented a "Plan of a University" to the Yale Corporation. The following is a portion of his plan, proposing a program of medical studies.

Plan of a University

"To induce the General Assembly of Connecticut to enlarge the Plan of Education in Yale College by additional Institutions, it may be proper to show the exceeding great Utility and Benefit particularly of the two Professorships of *Law* and *Physic*. And perhaps this cannot be done more effectually than by exhibiting an Idea of the Course of Lectures in these two important Branches of Literature. To begin with that of *Physic* which may be judged of the highest Importance,

PHYSIC

"There may be 200 Physicians in the State of Connecticutt. Their Profession is very important to the public; these being entrusted with the Health of the Bodies of the People at large, as the 200 Ministers are by their profession called to attend to their spiritual State. To increase and circulate medical Knowledge must therefore be an Object worthy the attention of this and every other well regulated State. The medical Lectures may be divided into three Series.

"I. The first series of Lectures to be upon the *Anatomy* of the human Body, vascular System, muscular Motion, the Circulation of the Blood, Osteology, and in general whatever tends to give a complete Idea of the animal Frame the Subject of Diseases and Health. The most of this Series of Lectures may consist of extemporaneous Descriptions on a *Skeleton*, the *arterial* and *venal System in Wax*, and occasional *Dissections:* together with Explanations of Plates and Drawings in *Cowpers Anatomy*, and *Cheseldens Osteography*.

"II. Lectures upon the *Materia medica*. Let a Room be well furnished with Drugs, as in an Apothecarys Shop, being a good and copious Collection of Simples and the capital efficacious Medicines, with some of the officinal preparations, to the Value of perhaps £50 or £100 sterling, which will be abundantly sufficient. And then instead of written Lectures after the manner of *Cullen*, let the professor so arrange the Room and class the Drugs, that he may go round and give extemporanious Lectures or Descriptions of each Class till he has finished the whole Arrangement, and thus led his Pupils thro' the whole Materia medica. In connexion with this, or as a different Series, should be exhibited some *chemical Lectures*—in order to give the Pupils a general Idea of *Chemistry*, at least so much as it would be desireable every practical Physician should know, especially towards compounding and preparing some of the most efficacious and important Medicines. *Boerhaave's* or *Newman's* Writings on Chemistry would greatly assist the Professor in selecting and composing some public entertaining and useful Lectures on this Subject. A few Botanical Lectures after the manner of Linnaeus should be superadded to enable the Students to profit by the Botanical Garden which must soon be provided.

"III. The last Series will be upon the *Nature of Diseases*, the *Ars medendi*, and *Surgery*. These will be written and composed judiciously and learnedly, and delivered publickly from the Professors Chair. Here undoubtedly the Writings of *Hippocrates, Boerhaave, Van Swieten, Heister, Holler, Sydenham, Mead,* will be capital with the Professor, as well in assisting his own entertaining Compositions as to be recommended to the medical Students for private Reading and Study. The Obstetrical Art ought to be forever abandoned from men to women; except in a few singular difficult cases which all physicians know are one Birth in a hundred.

"Let the medical Students diligently attend these 3 Series of Lectures, and they must be excellently prepared for further improvement. It is not proposed that they should proceed any further at College. But having gone thus far, they may take the Degree of *Bachellor in Physic*. Thereupon leaving College, they will apply themselves to some Physician in full and large Practice, and attend a course of *Clinical Lectures* and the *Praxis medendi* or Operations in *Surgery*, one year. They will be thus well qualified for a safe beneficial and honorable Practice. And having, by perservering Application to Books and Observation, made a laudable Proficiency in this Esculapian Art, they may at length be prepared to receive the Degree of *Doctor of Physic*. How preferable would such a course of medical Education be, to that usually pursued? The public would experience the Benefit, when the main Body of Physicians in a State are thus formed for Usefulness & Honor."

in and about

A Message from the Dean

When I met with the Medical Alumni Executive Committee in February, I spoke with them about my decision to relinquish my position at Yale in June to assume the presidency of the Memorial-Sloan Kettering Cancer Center in New York. This decision was the hardest I have had to make, and I shall leave Yale with considerable regret. I believe that this School has a unique potential, and a bright future.

At that executive committee meeting we discussed the recently announced Federal budget cuts, which will profoundly affect medical education and research. The financial picture at this School will be influenced particularly by the phaseout of postdoctoral training programs, the elimination of the Regional Medical Program, loss of support for public health education and training, reduction in general research support, diminished funds for basic biomedical research, and the cutback in student scholarship funds. With careful planning, limitations on new appointments, and shift of funds from other sources, I am confident that this School can successfully cope with these cuts and come through the next two years in good shape. This will require cooperation and support of all departments within the School, and I know that the departmental chairmen and faculty will respond. At present, there is no need to fear a large reduction in numbers of faculty or major cutbacks in our educational programs. However, it is inevitable that postdoctoral fellows will be reduced in number, some junior faculty will be affected, and some research and training programs will be curtailed or terminated.

It is more difficult to predict beyond the next two years. Obviously, new funds will have to be raised from the private sector and a new development office for the Yale-New Haven Medical Center will be of crucial importance. I am sure that this School has the ability to attract the attention and support of private donors, foundations and industry, both locally and on a national scale,to support medical science and education at this School. Since our alumni are widely distributed geographically and have influential contacts within their communities, they can be of invaluable assistance in advising and guiding our development staff.

In spite of the difficulties caused by the cuts in the Federal health budget, Yale is in a relatively strong position financially. The faculty is outstanding, the students phenomenal. The School of Medicine has a reputation for excellence and should grow stronger over the next four or five years, even though expansion will be limited. It is with great regret that I am leaving the deanship at this exciting period in the history of Yale medicine.

New Chairman Appointed for Department of Diagnostic Radiology

Dr. Richard H. Greenspan has been appointed professor and chairman of the Department of Diagnostic Radiology at the Yale School of Medicine and chief of diagnostic radiology at the Yale-New Haven Hospital. Dr. Greenspan, who is professor of radiology at the University of California San Francisco Medical Center, was with the Department of Radiology at Yale from 1960 until 1968.

Last fall the Department of Radiology was replaced by two separate departments in a move to define differences in practice and training between therapeutic and diagnostic radiology. The Department of Diagnostic Radiology, which includes the Section of Nuclear Medicine, is involved in the study and techniques of diagnosing a wide range of illnesses. The Department of Therapeutic Radiology, chaired by Dr. James J. Fischer, is concerned specifically with cancer research and treatment.

Born in New York City in 1925, Dr. Greenspan attended Columbia University where he received his B. A. degree in 1944. He received his M. D. degree, magna cum laude, from Syracuse University College of Medicine in 1948.

Dr. Greenspan was an intern at Michael Reese Hospital in Chicago and then worked in the Department of Gastrointestinal Research at that institution. He was a resident in internal medicine at the University of Minnesota from 1950 until 1952.

Following a tour of duty with the United States Air Force, he returned to the University of Minnesota Hospitals in 1954 for training in radiology and in 1957 became an instructor and later an assistant professor in the Department of Radiology there.

Dr. Greenspan came to New Haven in 1960 as assistant professor of radiology at the Yale School of Medicine. He was promoted to associate professor in 1961 and was made professor of radiology in 1964.

In 1966 he was elected to the Alpha Omega Alpha Honor Medical Society by the students at the Yale School of Medicine. That same year he was also a National Science Foundation Senior Post-doctoral Fellow. His list of membership in professional societies includes the American Association for the Advancement of Science, American College of Chest Physicians, American College of Radiology, American Roentgen Ray Society, The Royal Society of Medicine and the Fleischner Society, of which he is a founding member.

Louis H. Nahum Lectureship Established

The first annual Louis H. Nahum Memorial Lecture was given by Dr. Hebbel E. Hoff on Thursday, April 5th. Dr. Hoff, who is professor and chairman of the Department of Physiology at Baylor College of Medicine, Houston, spoke on "Pulmonary Control of the Heartbeat."

The Nahum Memorial Lectureship was established in the Department of Physiology at the Yale School of Medicine through the gifts of friends and colleagues as a tribute to Dr. Nahum, who was lecturer emeritus of physiology at the time of his death last July. During his lifetime he had earned a reputation as a distinguished physician, humanitarian, educator, and editor of *Connecticut Medicine*, the journal of the State Medical Society.

Dr. Hoff, who joined Yale's Department of Physiology as an instructor in 1932, first met and later collaborated with Dr. Nahum. The two men worked closely on electrocardiographic research for the decade between 1932 and 1942 when Dr. Hoff was at Yale. During this time Dr. Hoff became an assistant professor of physiology in 1936 and an associate professor in 1939.

Recent Advances in Diagnosis and Treatment of Tumors to be Presented in Postgraduate Course

A postgraduate course in oncology will be held at the School of Medicine next November 8, 9 and 10. The course, which will present recent advances in diagnosis and treatment of tumors, will be sponsored by the Oncology Division at the Yale-New Haven Hospital and the Section of Oncology in the Department of Medicine. It is hoped that many alumni will attend. Inquiries may be addressed to Office of Regional Activities and Continuing Education, School of Medicine, 333 Cedar St., New Haven, Conn. 06510.

Yale Trauma Program Submits Report on Emergency Medical Services to Governor of Connecticut

The Yale Trauma Program presented a 700-page report and analysis of emergency medical services in Connecticut to Governor Thomas Meskill. The report, which included a priority list of recommendations, was the result of an 18-month study conducted by the Yale Trauma Program under the supervision of the Connecticut Advisory Commission on Emergency Medical Services.

The Yale Trauma Program was established by a grant from The Commonwealth Fund of New York in 1970, and includes personnel from medicine, law, psychology, communications engineering, epidemiology and public health. Dr. Alfred M. Sadler Jr. and Attorney Blair L. Sadler are director and co-director of the program, which is in the Department of Surgery. Dr. Sadler is also chairman of the Connecticut Advisory Committee on Emergency Medical Services.

According to a statement by the National Research Council of the National Academy of Sciences, "Accidents are the leading cause of death among persons between the ages of one and 37; and they are the fourth leading cause of death at all ages. Among accidental deaths, those due to motor vehicles constitute the leading cause for all age groups under 75 . . . the human suffering and financial loss from preventable accidental death constitute a public health problem second only to the ravages of ancient plague or world wars."

The U.S. Department of Transportation further states that, "Many of those injured in highway crashes die needlessly or are permanently disabled because they did not receive prompt and proper emergency care. Few areas of the United States now have adequate emergency services. In most areas there has been inadequate planning of emergency logistics, communications and transportation facilities, and present services are inadequately managed . . ."

According to the Trauma Program report there is no well-planned and organized system for emergency care in Connecticut. It cites several reasons for the lack of such a system including the fact that many state agencies and private and volunteer organizations are concerned with only a segment of the problem. "Integration and cooperation among these groups is a major and complex undertaking," the report states. "A thorough study of a problem of such complexity, involving many variables, is difficult and requires concentrated input from many disciplines . . ."

Because of the many questions and organizational issues involved, a statewide study is costly. Only recently have funds become available through the U. S. Department of Transportation's National Highway Traffic Safety Administration to match state and local contributions for undertaking an in-depth and comprehensive assessment.

A group of concerned Connecticut citizens formed an ad hoc committee on Emergency Medical Services in December 1970 to begin work toward improvements in emergency medical services throughout the state. The ad hoc committee has since been designated the Connecticut Advisory Committee on Emergency Medical Services by the State Health Commission and the State Department of Transportation for Highway Safety.

The first major effort undertaken by the committee was allocating approximately $30,000 of Department of Transportation funds for the training of emergency medical technicians in the spring of 1971. Approximately 1,200 emergency medical technicians in twenty communities throughout the state have taken the course.

The advisory committee gave top priority to assembling information necessary to planning effective statewide emergency medical services. In May 1971 the Yale Trauma Program was given the major charge to carry out the study under the supervision of the advisory committee, with assistance from Dunlap and Associates, Inc., a consulting firm with experience in various aspects of emergency medical service.

The purposes of the study and analysis of emergency medical services were to identify the deficiencies in the emergency care system in Connecticut; determine the steps necessary to remedy these deficiencies; project the cost of such steps; establish priorities and schedules to achieve the identified goals; and to establish a system for program review, evaluation and accountability. In carrying out these objectives, the study has analyzed the demand for emergency ambulance services; the performance of the emergency ambulance services; hospital emergency departments; emergency medical communications; physician manpower in hospital emergency departments; non-physician manpower in emergency medical services; economic aspects of emergency medical services; and the legal and regulatory aspects of emergency medical services.

Nine candidates for the Master of Public Health degree in hospital administration from the Department of Epidemiology and Public Health participated in the design of the study, collected data and completed a preliminary analysis of data under the direction of Dr. Sadler, Mr. Sadler and Dr. Samuel Webb, Jr., associate director of the Yale Program in Hospital Administration.

The final report was submitted to the Governor and the Department of Transportation on December 15, 1972. A summary document has been prepared for distribution to inform citizens of the goals and priorities developed by the study team and the Connecticut Committee on Emergency Medical Services and their recommendations for change. It is hoped that the report will raise the level of awareness about emergency medical services and encourage public support for legislation that it proposed.

Former Medical School Librarian Receives Award

Miss Madeline E. Stanton was one of four recipients of the Smith College Medal on February 28, when it was presented in a public convocation by the President of Smith. The medal, designed by Leonard Baskin, is awarded "to those who in the judgement of the Trustees of the College exemplify in their lives and service to their community or to the College, the true purpose of liberal arts education." Miss Stanton retired as librarian of historical collections at the Yale Medical Library in 1968 and since then has been a part-time consultant.

Student on Staff of New Chinese Medical Journal

John J. Kao, a first-year medical student, is the managing editor of *The American Journal of Chinese Medicine*. His father, Dr. Frederick F. Kao, professor of physiology at Down State Medical Center, State University of New York and a former instructor of physiology at Yale, is the editor-in-chief. The new journal is devoted to the scholarly and objective examination of all aspects of Chinese medicine and will try to advance the cultural exchange of theories, techniques and attitudes between East and West.

Faculty Notes

The Benedict R. Harris Award was presented this year to **Dr. Richard E. Fearon**, assistant clinical professor of medicine. Established in 1967, the award is made to the private physician who has contributed the most to the teaching of the first-year residents, who make the selection.

Dr. Jack R. Cooper, associate professor of pharmacology, will be a visiting professor at Hebrew University in Jerusalem for six weeks starting in mid-May. Dr. Cooper will lecture on neuropharmacology as part of a new program in neurobiology at the University.

Dr. Robert E. Shope, associate professor of epidemiology and public health, participated as an *ad hoc* member of the International Centers Committee of the NIH in site visits to U.S. university programs in medical science in Malaysia, Bangladesh, India and Pakistan from February 23 to March 5.

Dr. David Musto, assistant professor of history and psychiatry, spoke at the "Contemporary Problems of Drug Abuse" national symposium for law and medical students, on March 24. Dr. Musto's talk was titled "An Historical Perspective on Legal and Medical Responses to Substance Use." The symposium was sponsored jointly by the American Bar Association and the American Medical Association.

Lowell S. Levin, associate professor of public health, gave the keynote address at the annual meeting of the Society for Health Education in London on March 21. The paper, titled "New Perspectives and New Initiatives in Health Education", came at a time when Britain is undertaking major reorganization of the National Health Service. Dr. Levin stressed the potential for health education within the framework of the revised service, particularly the role of the Community Physician and the Community Health Council.

Dr. Robert Jay Lifton, professor of psychiatry, received the Mount Airy Gold Medal for "distinction and excellence in psychiatry" in a ceremony on February 3 in Denver, Colorado. The annual award by the Mount Airy Foundation goes to the person who the judges believe has contributed the most to the psychiatric profession during the previous year.

Harold Saxon Burr, Ph. D.

Harold Saxon Burr, Ebenezer K. Hunt professor emeritus of anatomy, died February 16, 1973 at his home in Lyme, Connecticut at the age of 83. Born in Lowell, Massachusetts in 1889, he attended Yale, where as an undergraduate he received a Ph. B. degree in 1911. He then entered the Yale Graduate School and worked in the field of experimental embryology under the direction of the famous Professor Ross G. Harrison in the Department of Zoology.

His dissertation for the Ph. D. degree, which he received in 1915, was concerned with the transplanted nasal placode in salamander embryos of Amblystoma punctatum. He was the first investigator to demonstrate hyperplasia of the central nervous system in the presence of a transplanted organ system normally associated with the brain.

Soon after he completed his graduate work he became an instructor in the Department of Anatomy in the School of Medicine, where he carried on his investigations in experimental embryology and developed courses on the anatomy and functions of the nervous system. Professor Harry Burr Ferris was at that time chairman of the department. He rose through the rank of assistant professor to associate professor by 1926, when he received a Sterling Fellowship to study with Arrion Kappers in the Neurological Institute in Amsterdam.

Dr. Burr was a popular teacher, and both medical students and graduate students sought his guidance in research for their theses. He became full professor in 1929 and was appointed Ebenezer K. Hunt Professor in 1933 after the retirement of Professor Ferris. Beginning in January 1958 when he became of retirement age, he spent three years writing and publishing accumulated data from many experiments. In October 1961 he was given an appointment as lecturer to September 30, 1965 to carry on

his pioneering investigations employing micro-techniques he developed for studying electrodynamic systems in developing parts of the embryonic nervous system and the flow of living protoplasm. He published with Professor F. S. Northrup a philosophical treatice on a theory of electrodynamic theory of life.

He was a member of Sigma Xi, American Association of Anatomists, American Association of Neurologists, Research in Nervous Diseases and for a short period Assistant Editor of the *Yale Journal of Biology and Medicine* and also *Growth*. Through his interests in the history of medicine he was a member of the Beaumont Medical Club. Among other affiliations he was a fellow of Silliman College at Yale. His long devotion to his hobby, painting, brought him wide recognition as an accomplished artist. This hobby he followed with great pleasure at his home to the time of his death. A portrait of Dr. Burr by Artzybasheff hangs in the Sterling Hall of Medicine.

He was the husband of Jean Chandler and is survived by his son, Peter Saxon Burr, and two grandchildren, Edward Saxon Burr and Margaret Chandler Burr.

L. S. S.

D. Clint Smith, M.D.

Dr. D. Clint Smith, assistant clinical professor of psychiatry, died at age 39 of a metastatic melanoma on March 10, 1973. After graduating from the University of Chicago (B.A.), he received an M.D. from the Medical College of Virginia in 1959. He interned at Johns Hopkins and did his psychiatry residency at Yale in the years 1960-63. He then became an assistant professor of psychiatry in the Psychiatric Outpatient Clinic until 1966. At that time, he began a private practice as a psychotherapist and psychoanalyst. He graduated from the Western New England Institute for Psychoanalysis last year.

Although he served as an advisor to several community agencies, his major interest was to become a more perceptive and skillful psychotherapist and psychoanalyst. He organized his own life to that end, and had begun to develop a program of continuing education within the psychiatric society. Until his illness recurred, he had been working to strengthen the teaching of individual psychotherapy within the Department of Psychiatry as a supervisor at the Connecticut Mental Health Center.

Although he played tennis regularly, he made sure that he had time to spend with his family and at their farm in Chester, Massachusetts, where he was buried.

In addition to his wife, Shirley, and their three children, Douglas, Mandeleine, and Emily, he is survived by a sister, Mrs. Ruth Craig, and four brothers, Lester, Timothy, Joseph, and Samuel. R. L. M.

Victor H. Rosen

Victor H. Rosen, clinical professor of psychiatry, died at his home in Deep River on February 5 at the age of sixty-one. An outstanding teacher, a leading psychoanalytic theorist, a superb therapist, and an old and cherished friend of many psychiatrists in the area, he was warmly welcomed when he joined the Department of Psychiatry in July and deeply mourned in February.

Born and educated in New York, Dr. Rosen received his A.B. and M.D. degrees from Columbia University and his neurological training at Montefiore Hospital. He had his psychiatric resident training at the Phipps Clinic of the Johns Hopkins Hospital. During World War II he became chief of the Neuro-psychiatric Service of the 98th General Hospital in Europe. He returned to New York after the war and after completing his psychoanalytic training became a leading figure in the new York Psychoanalytic Institute, serving as medical director of its treatment center from 1957-1961. He was chairman of its educational committee in 1964-1965, leaving the position to become president-elect and then president of the American Psychoanalytic Association. Prior to joining the Yale faculty, Dr. Rosen was a clinical professor at Albert Einstein College of Medicine.

Dr. Rosen's many contributions to the psychiatric and psychoanalytic literature were notable for their originality, clarity, and perspicacity. His papers on various apsects of the creative process were outstanding. He exerted a major influence on psychoanalytic ego psychology by his work on integrating linguistics into analytic theory. His achievements and influence were great; he was one of our outstanding analysts, but those who knew him well, will miss most his warmth, wit, modest charm, and his devoted friendship.

He is survived by his widow, Dr. Elise Snyder of Deep River, an assistant clinical professor of psychiatry at Yale, his daughters Barbara Garber of New Haven and Winifred Rosen of New York, and their mother, his former wife, Mrs. Elizabeth Fraenkel of New York. T. L.

alumni news

1925

Alice Whittier, class secretary, recently reported on activities of two members of the class.

Morton Tendler has retired from general surgery and teaching but has taken on new medical work. For the past three years, he has been rendering great service in charge of the Medical Department of the Shelby County Jail in Memphis, Tennessee working five to six hours a day five days a week.

Another very active member is **Christopher Wood**. He states that he is in his office from 8:30-5:00 and is "busy as can be." He finds ophthalmology is an excellent specialty in which to continue working. Chris lives in Myrtle Beach, South Carolina.

1943 (March)

On March 16, **Dr. Rocko Fasanella** was guest speaker at New York Eye and Ear Infirmary lecturing on "Pitfalls in Glaucoma." In July he will be in England for the Oxford Ophthalmological Congress and will speak on "Surgery for Minimal Ptosis–The Fasanella-Servat Operation 1973."

1944 (September)

Robert Cooke, professor of pediatrics at Johns Hopkins University, has been appointed to the new position of vice chancellor of the University of Wisconsin Center for Health Sciences. Dr. Cooke will also hold the post of professor of pediatrics at Wisconsin.

1946 (March)

Julian Sachs of Avon, Connecticut, has discontinued private practice and is now at New Britain General Hospital as emergency room physician. His second son has just taken a position as an orderly at the same hospital.

Thomas J. Whelan, Jr. of Bethesda, Maryland, has written that he has been surgeon general of the Army's special assistant for Medical Corps Affairs with the rank of brigadier general. He is also director of professional services, office of the surgeon general.

1949

DeWitt Baldwin, Jr. has sent in the following progress note updating his career: "I recently resigned as Director of the Division of Behavioral Sciences at the School of Medical Sciences at the University of Nevada, Reno to assume the directorship of the Health Sciences Program at the University, under a million dollar grant from the Robert Wood Johnson Foundation. The Health Sciences Program represents a University-wide effort at collaborative planning and teaching of a common core curriculum for all students in the health sciences. A special emphasis of the Johnson Grant will be on an Interdisciplinary Health Care Team which will function both in the classroom and in the community teaching principles and practice of comprehensive care from the earliest point of entry of students into the health field. I will be continuing as Professor of Psychiatry in the School of Medical Sciences. I continue to be interested in Yale and New Haven and enjoy reading the Bulletin."

Joel Ehrenkranz has been appointed to the new position of chief, Department of Medicine, Cedars of Lebanon Hospital in Miami, Florida. Previously professor and acting chairman of the Department of Epidemiology and Public Health, University of Miami School of Medicine, Dr. Ehrenkranz will continue his appointment as professor of medicine at the University.

1962

Dr. Anthony Robbins was appointed health commissioner for the State of Vermont. Previously he had been the director of community health development with the Northern New England Regional Medical Program in Burlington.

1964

Joseph Curi, class secretary, writes that he is planning a newsletter for the class in the fall of 1973. Dr. Curi is now chairman of the Department of Pediatrics at the Charlotte Hungerford Hospital in Torrington, Connecticut and is a fellow of the American Academy of Pediatrics.

1972

Richard Robbins, now a medical intern at Yale-New Haven Hospital, has been selected as the recipient of the Samuel D. Kushlan Award for 1973. This is given annually to the intern who is judged to have contributed the most to patient care during his rotation through the Memorial Unit Medical Service.

Are you moving?

Please send us your new address so that the mailing list for Yale Medicine *can be kept up to date.*

We welcome news items for the Alumni News section of Yale Medicine. *We would particularly like to know of honors and awards, election to office in professional societies, foreign travel, books published and similar news about your classmates and yourself. News should be sent to the Editor,* Yale Medicine, *333 Cedar Street, New Haven, Connecticut 06510.*

Public Health

1950

Constance A. Bean has written a book, "Methods of Childbirth: A Complete Guide to Childbirth and Maternity", published by Doubleday and Company. A past president of the Boston Association for Childbirth Education Inc., she has helped organize classes in childbirth education in the Boston area.

Shirley (Lefkovich) Handler is working on a special training project for high school students enrolled in the City of Boston flexible campus plan. The students are being trained as health education aides to work in outpatient clinics at Children's Hospital Medical Center. The project is funded by the Division of Occupational Education, Massachusetts Department of Education and is affiliated with the new Occupational Resources Center in Boston.

1951

Joanne Finley, now in Philadelphia, was one of the twenty-eight persons recently certified as diplomates in public health by the American Board of Preventive Medicine.

1954

Milton Hamilt has been elected to the Board of Directors of the Hospital Educational and Research Foundation of Pennsylvania. He presently holds the rank of professor of health administration at Temple University.

1955

Robert Kramer, associate professor of pediatrics, has been named associate dean for continuing medical education at the University of Connecticut School of Medicine.

1956

Kay Howe has been nominated for a second term to the Executive Committee of the Association of Yale Alumni in Medicine. With **Joe Axelrod** (M. S. 1951), she serves as co-chairman for Public Health alumni for the Yale Medical School Alumni Fund.

Kay has continued her activities with several voluntary health agencies and currently serves as the representative director from Connecticut to the Board of the American Lung Association (formerly the National Tuberculosis and Respiratory Disease Association) and is chairman of its Committee on Community Health and Welfare. She also reports that in November she was appointed a fellow of Timothy Dwight College at Yale.

1958

Thomas Georges, Jr. is a member of the Medical Assistance Advisory Council which consists of twenty-one members and is responsible for advising the Secretary of Health, Education, and Welfare on the administration of the multi-billion dollar medical assistance program for the poor (Medicaid). Dr. Georges is the associate vice president for community health services, Temple University Health Services Center in Philadelphia.

1962

Stella Booth was recently appointed chief of the Respiratory Diseases Branch in the Collaborative Studies Program of the National Heart and Lung Institute. Prior to this assignment Dr. Booth was the coordinator of clinical activities in the Endocrine Evaluation Branch, National Cancer Institute.

1967

Lawrence Krone is currently with the Bureau of Vector Control and Solid Waste Management of the California State Department of Health and is living in Los Angeles.

1968

Sonia Colón decided to return to graduate school and has been accepted at the University of California, San Diego, where she will be a candidate for the Ph. D. in immunology.

1970

Since receiving his M.P.H., **Kevin Kinsella** has completed his doctorate in education and public health at the University of Massachusetts. Currently he is involved in directing a drug treatment program at the Connecticut Mental Health Center along with his duties as assistant professor of psychiatry at Yale.

Fred Adams has been appointed dean of the School of Allied Health at the University of Connecticut.

1971

William Carey, Jr. is in Rio de Janeiro, Brazil, where he has a professional internship in urban planning supported by the Ford Foundation. He is working with the National Housing Bank of Brazil and had as his first assignment an objective evaluation of the metropolitan planning scheme of Sao Paulo, a city of nine million inhabitants.

1972

Stephen Baruch writes that he is employed as a senior environmental scientist, Division of Environmental Quality, New Jersey Department of Environmental Protection. After receiving his M.P.H. degree, he was enrolled in the summer graduate course, 'Environmental and Social Planning in Britain", at the University of Manchester.

Daphne Gammill is a quantitative analyst with the Department of Air Resources, City of New York.

alumni day program

REGISTRATION – Medical Library, Sterling Hall of Medicine

9:00-11:00
COFFEE SERVICE – Beaumont Room

9:30-10:30
MEDICAL SURGICAL CONFERENCE
Fitkin Amphitheater
"The Management of Chronic Renal Insufficiency and End Stage Kidney Disease"
Bernard Lytton, M.D., Professor of Urology
John P. Hayslett, M.D., Associate Professor of Medicine and Pediatrics
Barry S. Strauch, M. D., Assistant Professor Medicine

10:30-12:00
SPECIAL ROUND TABLE DISCUSSIONS

I. "Medical School Admissions – An Annual Challenge"
Lawrence K. Pickett, M.D. ('44)
William H. Carmalt Professor of Clinical Surgery and Pediatrics
Thomas L. Lentz, M.D. ('64), Associate Professor of Anatomy
Mary E. Swigar, M.D., Assistant Professor of Psychiatry in Obstetrics and Gynecology

II. "Current Approaches in the Treatment of Drug Abuse"
Herbert D. Kleber, M.D., Associate Professor of Clinical Psychiatry
Mr. Carl Calabrese, Director, Veritas Program
Mr. Thomas Edwards, Program Coordinator for Methadone Maintenance

III. "Health Care Policy: What Comes Next?"
Rosemary Stevens, Ph.D., Associate Professor of Public Health
David A. Pearson, Ph.D., Assistant Professor of Public Health
Samuel B. Webb, Jr., Ph.D., Assistant Professor of Public Health

IV. "Cancer Planning at Yale and the National Cancer Plan"
Joseph R. Bertino, M.D., Professor of Medicine and Pharmacology
James J. Fischer, M.D., Chairman, Department of Therapeutic Radiology
Sherman Weissman, M. D., Professor of Human Genetics, Medicine, and Molecular Biophysics and Biochemistry.

12:00-12:30
SHERRY – Edward S. Harkness Lounge

12:30-2:00
BUFFET LUNCHEON – Edward S. Harkness Dining Room

2:30-4:00
AFTERNOON PROGRAM – Mary S. Harkness Memorial Auditorium

ANNUAL MEETING OF THE ASSOCIATION OF YALE ALUMNI IN MEDICINE
Welcome and introductory remarks
Malvin F. White, M.D. ('39), President of the Association

ALUMNI DAY SPEAKER
Lewis Thomas, M.D., Dean, Yale University School of Medicine,
Anthony N. Brady, Professor of Pathology
"A view of the Future of Yale Medicine"

4:30-6:00
SOCIAL HOUR – Edward S. Harkness Lounge

MEDICAL LIBRARY EXHIBIT
"Pellagra: A Man Made Disease"
George Rosen, Professor of History of Medicine

INDIVIDUAL CLASS PARTIES AND DINNERS
for the five year reunion classes ('23, '28, '33, '38, '43, '48, '53, '58, '63, '68) will be held in the evening. Information will be available at the Alumni Registration Desk.

DON'T MISS THE YALE MEDICAL ALUMNI COCKTAIL PARTY
at the AMERICAN MEDICAL ASSOCIATION CONVENTION in New York City

ALL ALUMNI, FACULTY, FORMER HOUSE STAFF, AND FAMILIES ARE INVITED TO A DUTCH TREAT COCKTAIL PARTY

DATE: Monday, June 25, 1973

TIME: 5:00 to 7:00 P.M.

PLACE: The Yale Club, Vanderbilt Avenue at 44th Street,
New York City, New York.

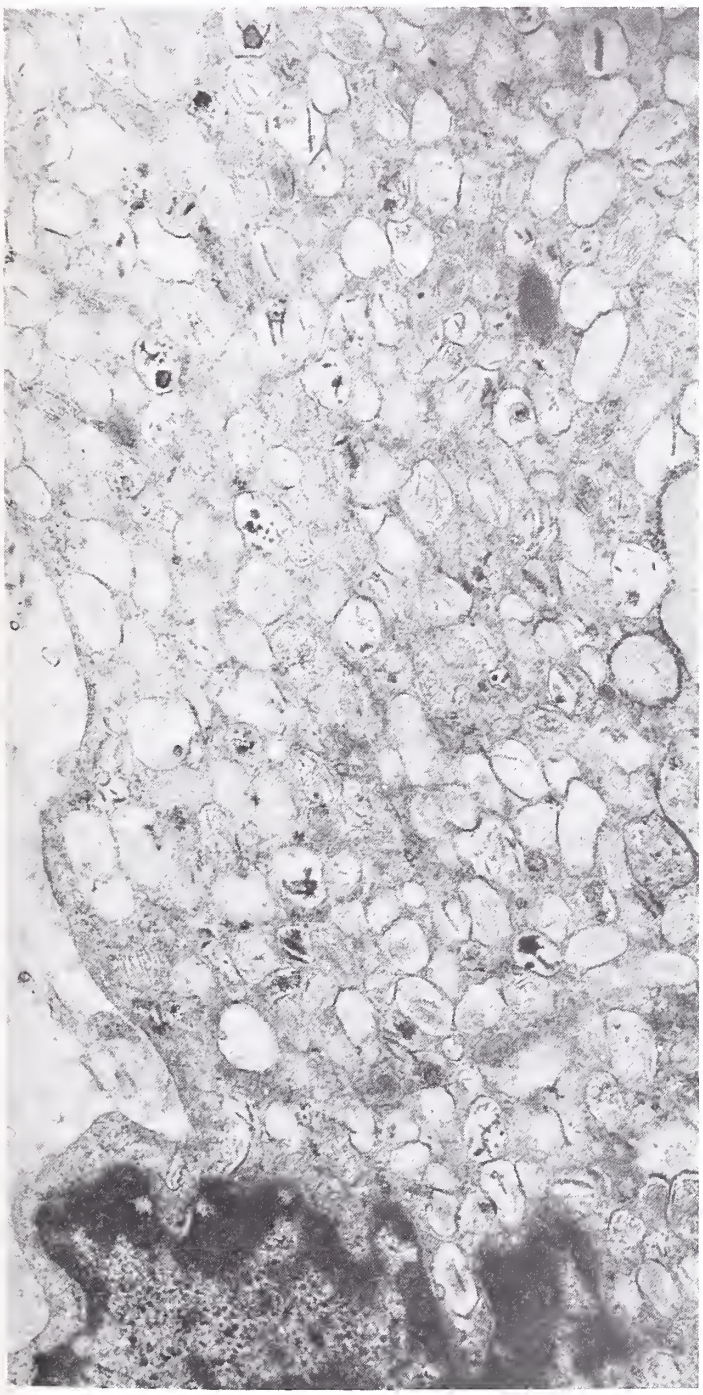
YALE MEDICINE

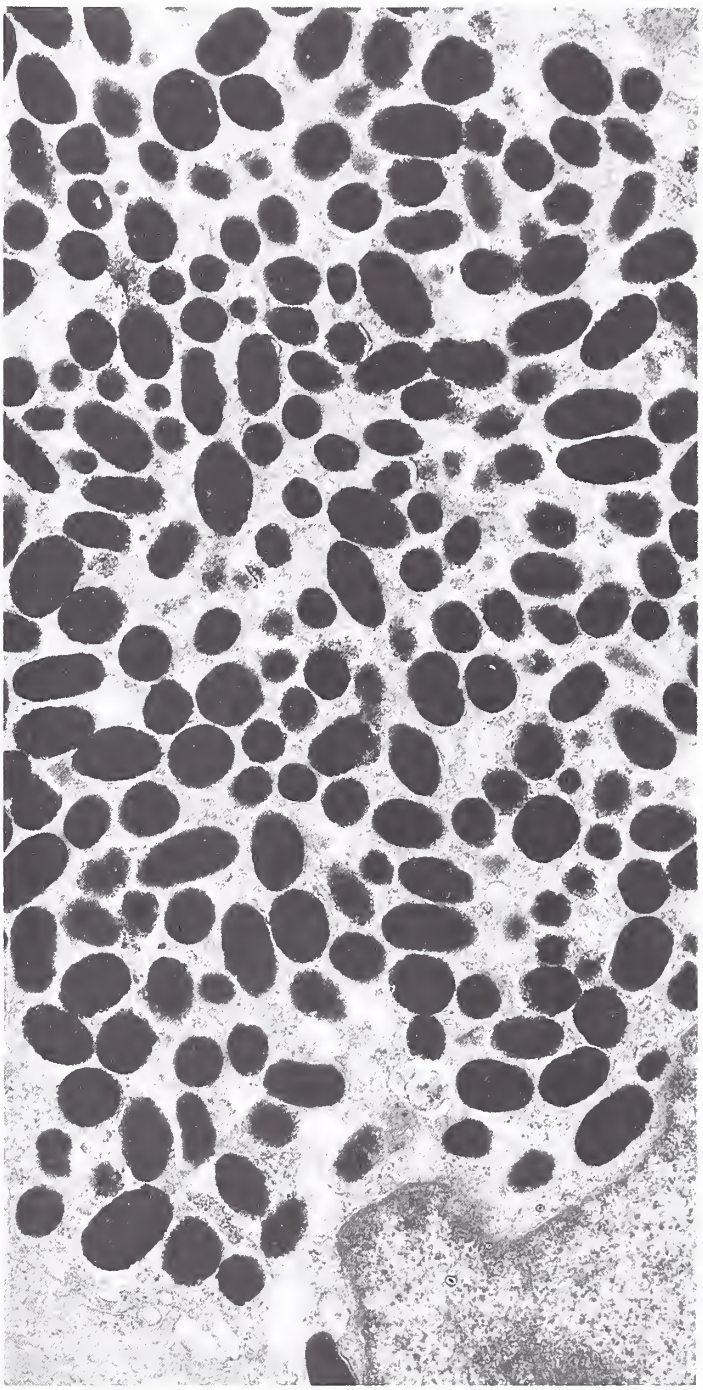
333 Cedar Street

New Haven, Connecticut 06510

Yale Medicine

Alumni Bulletin of the School of Medicine/Fall 1973





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Editor: Arthur Ebbert, Jr., M.D.
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Photos: Cover, Gisela Moellmann; pp. 1, 15, Yale News Bureau; pp. 3-5, John Kao; pp. 6-9, 17, 19-21, Anne Goodman

Cover: A composite electron micrograph showing comparable portions of melanocytes of an albino (left), and a wild-type (right), specimen of Rana pipiens. See Department of Dermatology, pp. 6-13

the new dean

The School of Medicine has a new dean. He is Robert W. Berliner, M.D., who has been deputy director for science, National Institutes of Health since 1969. He succeeds Dr. Lewis Thomas, who resigned on June 30 to become president of Memorial-Sloan Kettering Cancer Center.

An alumnus of Yale College, Dr. Berliner is highly regarded in medical circles as a research scientist. His work on renal physiology has earned him membership in the National Academy of Sciences as well as an honorary doctor of science degree from his alma mater.

Dr. Berliner was with NIH for 23 years, starting as chief of the Laboratory of Kidney and Electrolyte Metabolism, National Heart Institute in 1950. He became director of Intramural Research, National Heart Institute in 1954 and for the year prior to his appointment as deputy director of science, he was director of laboratories and clinics, NIH.

In the June 29, 1973 issue of *Science*, Barbara J. Culliton wrote, "As deputy director for science at NIH Robert Berliner, because of his own reputation and his position, came to be regarded as the symbol of all that is excellent about NIH." Later in the article she noted, "His colleagues respect him not only for his contributions to science, but for his strict—some would say rigid—insistence on high quality. He is, therefore, exactly the kind of person that the biomedical community wants at the top."

The new dean is no stranger to the academic world. He has combined leadership at the NIH with an academic career since 1951, when he was appointed special lecturer at George Washington University School of Medicine. He held that position as well as that of professorial lecturer at Georgetown University School of Medicine and Dentistry, until his appointment at Yale. Berliner received his B.S. degree from Yale in 1936, although he left in his junior year to begin his medical education at the College of Physicians and Surgeons, Columbia University. He received his M.D. degree in 1939.

After interning at Presbyterian Hospital in New York City, Dr. Berliner was a resident physician in Goldwater Memorial Hospital for a year prior to becoming a research fellow in the Third Division of Research Service there and an assistant in medicine at New York University College of Medicine. From 1944 until 1947 he was research assistant at Goldwater Memorial Hospital and instructor in medicine at New York University. In 1947 he became assistant professor of medicine at Columbia University and research associate in the Department of Hospitals, City of New York.

He has received a number of awards, including two from his medical alma mater. In 1962 he received the Distinguished Service Award, Department of Health, Education and Welfare. The College of Physicians and Surgeons, Columbia University honored him with the Alumni Award for Distinguished Achievement in 1966 and the Bicentennial Medal (for achievements in Internal Medicine), in 1967. He also has received the Homer W. Smith Award in Renal Physiology in 1965 and the American Heart Association's Research Achievement Award for 1970.

Dr. Berliner is a member of many medical societies including the American Academy of Arts and Sciences, the American Association for the Advancement of Science of which he is vice-president, and the American Heart Association. He has also been president of the American Physiological Society (1967), the American Society for Clinical Investigation (1959), and the American Society of Nephrology (1968). He is a member of Alpha Omega Alpha and Sigma Xi, honorary societies.

Health Care in New China

A report on a recent visit to the People's Republic of China
By John J. Kao.

Health care in China has made the transition from the past to the future in the 24 short years since the liberation of 1949, a year which marks a dividing line separating two eras of medical practice contrasting in ways almost too numerous to mention.

Prior to 1949, public health in China was at a catastrophically low level. Infectious and degenerative diseases such as TB, cholera, schistosomiasis, typhoid, dysentery and malaria were widespread. Outbreaks of the Plague were reported as late as 1944. Nutrition was extremely poor. Thousands starved to death; food sources of protein, vitamins and trace elements were few. Opium addiction was rampant. Estimates on use ranged as high as 25 per cent in urban areas and one to five percent in rural areas. Treatment for mental illness consisted primarily of binding and restraint. It was not uncommon to see schizophrenics roaming the streets uncared for in the larger cities. Furthermore, the general respect for life was low. Children were often sold by poverty-stricken parents to provide extra income. Millions were confronted with the insecurity of inadequate food, clothing and shelter.

Health care delivery reflected the divisions of social class. The great majority of China's people were and are rural peasants, and 80 per cent of the population still tills the land. However, the great majority of physicians lived in urban areas and catered to those fortunate enough to be able to pay their fees. The *China Handbook* of 1949 reports that for all of China there were only 12,827 doctors, 347 dentists and 5,955 nurses. Tales in China abound of how people had died through untreated illness, or through the not-so-tender ministrations of a charlatan.

The training of physicians was thoroughly grounded on the Western model of eight years of study. Doctors were usually Western-trained or studied at such Western-run institutions as the Peking Union Medical College, paid for with Rockefeller money. Chinese traditional medicine, widely practiced in rural areas and most often taught in a master-apprentice style, was suppressed by the Nationalist government as being unscientific and "unwestern." Pharmaceuticals were entirely manufactured abroad as were sophisticated types of medical equipment. Many of the intelligentsia, including doctors and scientists, emigrated to foreign countries. All in all, China's low level of national health prior to liberation was typical of many developing nations.

Prior to my trip, I had done extensive reading on China, especially in the realm of health-care delivery and medical practices. But China remained elusive in print. It was difficult to separate fact from fancy on paper. The contemporary solutions to China's desperate health problems seemed so complete, so adequate. What was one to believe?

During the months of July and August, 1973, *The American Journal of Chinese Medicine* sponsored a medical delegation on a visit to the People's Republic of China, and I was fortunate enough to be included. As guests of the Chinese Medical Association, we were privileged to visit 25 hospitals, medical research centers, clinics and training institutions, and also were able to observe the extension of health care in such facilities as communes, schools and factories. Our travels took us over 10,000 kilometers in 10 cities and it would not be remiss to say that we met close to 1,000 medical workers there of every level. Discussion and exchange were initiated in the areas of basic research, clinical medicine, public health, medical education, dentistry, nursing, mental health, acupuncture anesthesia, acupuncture therapeutics, Chinese herbology and pain control. Forty days is both a long and a short time. What I have set forth here are only impressions. But my impression was and remains strong that China has solved many pressing health care problems with pragmatic and effective programs in clinical work, training, research and health-care delivery.

First and foremost, everyone in China today has access to some form of low-cost health care. The economics of care in China today alone should make us stop and think. For example, the complete cost of a caesarean section is roughly the equivalent of three dollars. Complete orthodontristry can cost as little as four dollars, including materials. Annual all-inclusive medical insurance for factory workers is no more than two dollars per year. All pharmaceuticals are now manufactured domestically, and the cost of such drugs as antibiotics has decreased by several hundred percent in the past two decades.

Many of the diseases which plagued China have been virtually eradicated, according to available reports and our own experiences. We could find no evidence of such problems as drug addiction or venereal disease. Schistosomiasis has been reportedly eradicated as have other infectious diseases. The extermination of pests and other vectors of disease has been devastatingly thorough. I saw only two flies during my entire stay. Birth control is now widespread. Mere confinement in cases of mental illness has been completely done away with in favor of insight and medical treatment.

It is significant, perhaps, to note that all of these advances in medical care are universally attributed by the Chinese to social change and political awareness—to a system which really works. Marxism and medicine have at first glance little to do with each other in a practical sense. Medicine, the presumably value-free application of science to the best possible treatment of man's suffering; Marxism, the application of science to the problems of society and man in the collective. But China's experience presents the first instance of an overt alliance between politics and medicine in terms of medical training, thrust of research, medical theory and health-care delivery. The relationship seems to have been synergistic. Medicine has confirmed the political validity of Maoist thought: for the first time in their lives, many of China's citizens are receiving medical attention from concerned professionals. On the other hand, it would certainly not be an exaggeration to say that political ideology has revitalized and transformed the face of academic and clinical medicine as we know it here.

In the China of today, politics is "in

John J. Kao is a second year student in the School of Medicine as well as managing editor of *The American Journal of Chinese Medicine*.

command" and medicine is no exception to this. It must be realized that the study and discussion of Chairman Mao's writings as well as the other Marxist canons is an integral part of the daily and weekly activities of every member of contemporary Chinese society. The emphasis is placed upon understanding Maoist thought in an immediate way so that this theoretical tool may be applied in one's concrete daily life circumstances.

Every medical institution, from the general hospital to the research institute to the small commune clinic, organizes its personnel into production units analogous to those in the agricultural and industrial work force. Marxism is discussed and related to daily life, and vice versa. Ideology in China's medical establishment comes to the fore in the selection and training of medical students, in setting priorities for research, in research methodology, in assigning priorities in health-care delivery, in the doctor-patient relationship, and in the student-faculty relationship.

However, this should not be construed as abandonment to dogma and abstract theorization. Simplicity in doctrine seems to serve the purpose of China today.

For example, I learned about the significance of the simple phrase "serve the people" and its relation to medical care in the course of a conversation about ditch-digging. To my mind, the notion "serve the people" had seemed somewhat of a rhetorical truism. It's important to help other people, right? But my understanding of these words deepened during a conversation I had with Wong Sheng-Nien and Huang Ta-Wei, two first-year medical students at the Second Medical College of Shanghai. We had been talking about their experiences prior to medical school. At the present time in China, graduates of middle school, which corresponds to high school in the United States, engage in *lao dung* or productive labor and activity for a minimum of two years before being considered for higher education. *Lao dung* usually consists of working in the fields together with peasants or in the factories; actually living, working and sharing the life of China's working people.

They told me of their experiences working in the fields, and constantly mentioned how they had "learned from the peasants"; how being with the working people and

Left to Right, Huang Ta-Wei, John Kao and Wong Sheng-Nien at the Second Medical School of Shanghai. The sign behind us reads, "Welcome to the Chinese-American Medical Scholars Delegation."

sharing in their lives had been a crucial developmental experience for their feelings and attitudes towards their medical studies. I still had problems understanding this. Medical school was still medical school, was it not? How could planting rice all day be so important?

Wong Sheng-Nien explained with an example. He had been assigned to dig a ditch for irrigation purposes and had worked for long hours in the hot sun. Despite his best efforts, however, the ditch was crooked. An elderly peasant chanced to pass by, and inspected the ditch. He said in a gentle way, "If the ditch is not straight, then water cannot pass through easily. The rice crop will not be successful and people will then not have food to eat." In China there is and has been a universal connection between the results of labor and the security in livelihood of the people. Inadequately dug ditches result in starvation. Wong Shen-Nien then completely redug the ditch the same day despite his tired state, and I had learned more deeply the meaning of the words "serve the people."

Teams of doctors from hospitals and universities have been dispatched to remote and rural areas of China in great numbers to do "sabbaticals" of clinical work, public health education and medical training which often last well over a year. Similarly, medical students upon graduation are sent by the government to areas where doctors are most needed. This often entails settling down in an area where one is thousands of miles from home, friends, and family, but the medical students I spoke to seemed eager to be sent where "necessity" dictated, in order to most thoroughly "serve the people." Quality in medical care to the Chinese thus means the decentralization instead of centralization of resources, something possible only with the willing cooperation of medical professionals. It seemed clear to me that medical workers in China would only be satisfied when high-quality health care was available to all, and that there was much of the pioneer spirit in contemporary China.

The emphasis in research is similarly pragmatic and goal-oriented. The lion's share of research in China is clinical in nature. Efforts are being made to search out the causes of common recurrent diseases such as heart disease, bronchitis and cancer. In this effort, Chinese research workers have taken to heart the maxim of Chairman Mao that "Chinese medicine and pharmacology are a great treasure-house. Efforts should be made to explore them and raise them to a higher level." Clinical research is underway to find therapeutic methods combining both Eastern and Western techniques. For example, we observed acupuncture, Chinese herbs and Western medication being used simultaneously to treat conditions as varied as peptic ulcer and schizophrenia. Chinese herbs are being investigated for use in many areas, most notably in the field of cancer chemotherapy. Acupuncture anesthesia is widely used in surgery. Needles and herbs are often used with great success in place of surgery for such acute abdominal conditions as appendicitis. The ratio between Western and Eastern pharmaceuticals produced in China is about 50-50. In other words, roughly half of all the medication produced in China today is derived from Chinese herbology and its classical pharmacopoeia.

Neurophysiologist Chang Shang-Tung at his laboratory in the Institute for Physiological Studies in Shanghai. Formerly of the Yale School of Medicine, Dr. Chang is now actively investigating the principles of acupuncture anesthesia.

We spoke to Professor Chang Huang-Tung of the Institute for Physiological Studies in Shanghai several times. Dr. Chang received his Ph.D. in Physiology at Yale and was on the faculty of the Yale School of Medicine in the early 1950's. His comments gave us considerable insight into the field of medical research in China. Acupuncture's mechanism is being actively investigated nationwide. Dr. Chang himself is doing experiments in acupuncture anesthesia, exploring the interactions between pain response, acupuncture treatment and nervous system integrity. He told us that the study of acupuncture's mechanism had given a tremendous boost to the development of the neurosciences in

China. Basic research in China today stems from the identification of a concrete problem, relevant to daily life and welfare.

The emphasis in research is similarly tied to the notion of public service. Papers are published by teams of workers, not by individuals. The publish-or-perish syndrome is thus conspicuously absent. Furthermore, all research workers combine their research activities with their clinical work. All research workers also see patients, since the overriding priority remains to develop and improve the national health.

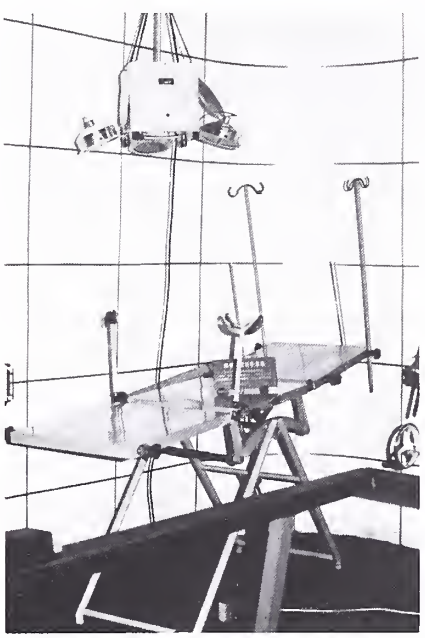
The medical school curriculum in China has been shortened to three or three and one-half years; this includes all of what we in America would consider as premedical courses. More doctors are being trained faster to provide medical care to the people. It is interesting to note that many research and clinical workers have no plans for retirement, although retirement age and benefits are clearly defined.

Medical students are typically 20 years of age, and they must be unmarried and of good health. They are selected according to criteria which not only include academic excellence but also political understanding and the recommendation of one's production team and peers concerning one's character and willingness to be of service in a conscientious and creative way.

Prior to the Cultural Revolution, the doctor shortage was still critical in China, and medical workers and resources were still needed in rural areas. The answer to this problem was as simple as it was dramatic. Since 1967, over 1,000,000 "barefoot doctors" have been trained to provide supplementary medical care to the Chinese people. The work "barefoot" comes from the agricultural background of most of these paramedical workers who have responsibilities determined by need and circumstance and not by predetermined social definitions. The course of study for barefoot doctors is not strictly standardized but is fitted to the requirements and practical limitations of a particular situation. Usually, bright young people are chosen to participate in work-study sessions with physician instructors which typically last about three months. Then the barefoot doctor returns to production, and divides his time between productive labor and delivering health care. The beauty of this system is that the barefoot doctor provides a first line of defense in primary health-care. He or she is responsible for the health of the production group with which he works every day. Consequently, in cases of illness or emergency, the doctor-patient relationship is already established. Furthermore, the majority of patients can be treated on the spot by the barefoot doctor, thus easing the load on hospitals and clinics. The barefoot doctor also provides a highly effective means for early identification and early prevention of disease, as well as for followup after the illness. If the patient's condition is serious beyond local means of treatment, the barefoot doctor know how to get the patient to more sophisticated facilities.

The word "sophisticated" in this context is somewhat misleading. The emphasis in Chinese health-care delivery has been on the decentralization of personnel and facilities so that all sectors of society receive care of a uniform standard. Essential pieces of medical equipment such as operating tables and EKG machines have been redesigned for portability and use in rural or remote areas. At the Shanghai Industrial Exhibit, we saw an X-ray machine which weighed 22 pounds and which had the capability of being run off of a gas motor in case electrical power was not available.

The word "sophisticated" is a misnomer in another sense. For example, at an agricultural commune on the outskirts of Peking, we met a barefoot doctor who through experience and association with doctors was now taking responsibility for performing surgical operations. She had just finished an appendectomy prior to our arrival. Such assumption of responsibility and blurring of fixed roles is quite common in China at the present time, and it serves the useful function of allowing people to provide service as their ability, and not their label or educational degrees, dictate. Nurses who have studied and worked under the supervision of doctors may themselves become doctors without the often redundant experience of having to start at the bottom of the heap as medical students. A barefoot doctor may similarly become a doctor when his experience and knowledge warrant it.



A portable operating table and lighting system.

We were somewhat flabbergasted to find 11-year-old children at the Shanghai Children's Palace learning the essentials of Chinese herbology, how to identify and grow herbs, and how to use them therapeutically. They were also learning the fundamentals of acupuncture, and were gaining practical experience by sticking needles into themselves and into each other. This is truly an example of treating disease by prevention through education at the grass-roots level.

Every citizen of China is encouraged to take as much responsiblility as possible for his health and bodily existence. This has the ultimate effect of making medical professionals even more effective in their work since they do not have to deal as often with the routine common disorders which can be easily dealt with on an individual level. The Chinese are a healthy people. Morning exercises are universally practiced, whether in ancient or modern style. The streets of Shanghai at five a.m. are clogged with people practicing Tai Ch'i Chuan, Chinese sword fighting, *Shao Ling Chuan*, acrobatics, and more contemporary forms of calisthenics. It is a beautiful sight to see. All in all, the Chinese people demonstrate great concern on many levels for personal and collective health. Standards of health care and clinical techniques have integrated both East and West, and we "Westerners" would do well to understand more of what the Chinese are doing, and what light and stimulation they may provide for our own work and development.

Yale's research program for skin diseases

Dr. Aaron B. Lerner, *professor and chairman of the Department of Dermatology, has been studying the chemistry and biology of melanin pigmentation for over thirty years. Dr. Lerner has conducted experiments in many different aspects of melanin formation and melanocyte activity. His research has been directed to understanding the basis for abnormalities in hyperpigmentation and hypopigmentation and in developing a method that will be useful to control the growth of melanoma. In the 1950's he isolated from the pituitary gland a peptide which causes darkening of animal and human skin. He subsequently isolated a chemical from the pineal gland which lightens amphibian skin. This compound, melatonin, has been related to other aspects of mammalian physiology, including the relationship between the estrous cycle and exposure to light. His contribution to pigment cell biology continues with ongoing studies of vitiligo and melanoma, a malignancy of the pigment cell.*

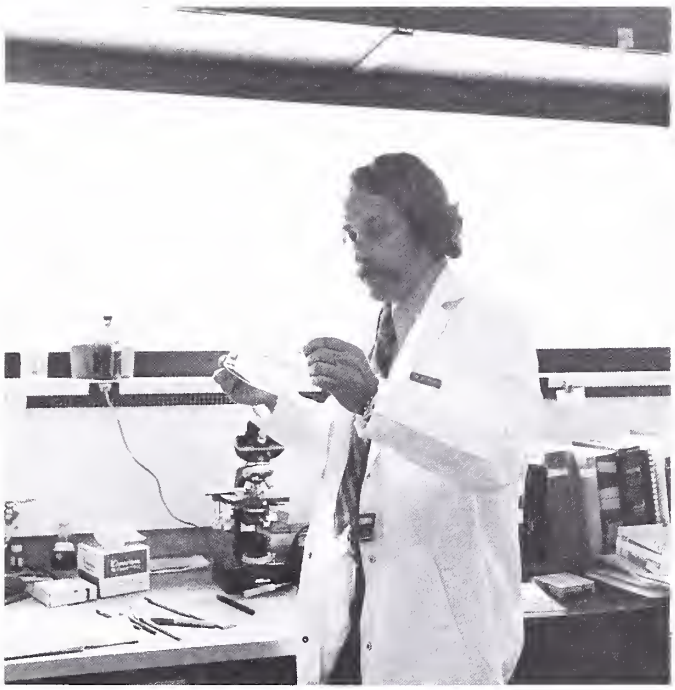
The Department of Dermatology is one of five departments established in the School of Medicine in 1971. Previously a section in the Department of Internal Medicine, it has developed one of the most active and varied research programs in the school under the leadership of Dr. Aaron B. Lerner, the department's chairman.

The research group associated with Dr. Lerner is probably the most productive group of investigators in the field of pigment cell biology assembled in any one institution. Most of their work is at both basic and clinical levels and is related to pigment cells, disorders of pigmentation, and melanomas. A major thrust of the research is aimed at malignant melanomas.

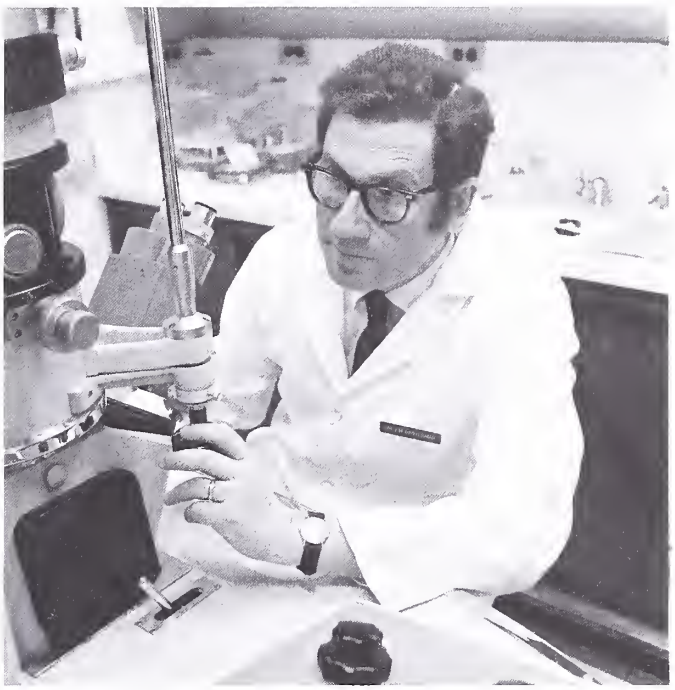
Other interests include autoimmune and connective tissue diseases, disorders of keratinization such as psoriasis and ichthyosis, genetic abnormalities and photobiology. One of the important research achievements of the department was the isolation and characterization of the melanocyte stimulating hormone (MSH) from the pituitary gland.

Ten full-time faculty, some with joint appointments in other departments, participate in the intensive clinical, teaching and research program of the Department of Dermatology. There are usually ten trainees—residents, research fellows or graduate students—working with them in the research facilities on the fifth floors of the Laboratory of Clinical Medicine and the Laboratory of Medicine and Pediatrics, as well as on the sixth floor of the Hunter Building. Their research on pigmentation has involved many aspects of biochemistry, biology and clinical medicine and many of the projects are carried out in collaboration with people in other departments and institutions.

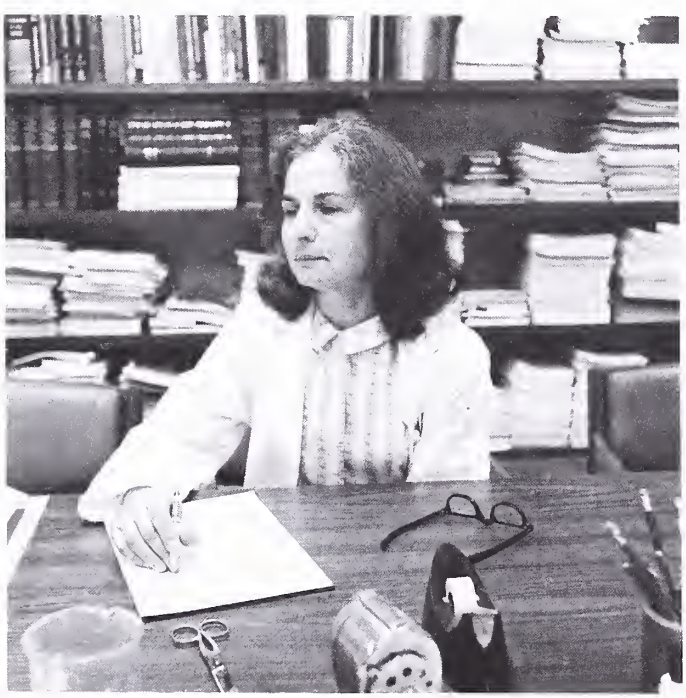
Last January the department sponsored a conference on pigment cell biology that attracted more than 160 scientists from all over the world. The proceedings of that conference will make up the entire 400-page December issue of the *Yale Journal of Biology and Medicine.*



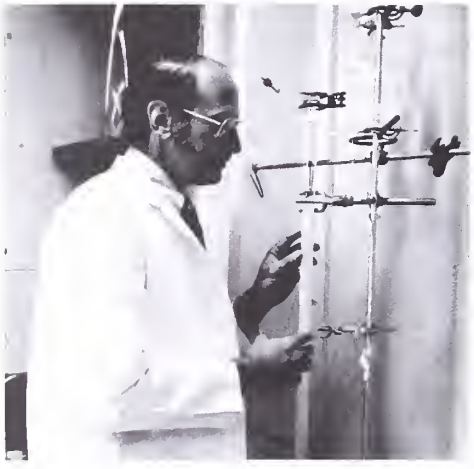
Dr. Joseph S. McGuire, *professor of dermatology, is interested in the biology of normal and malignant melanocytes, as well as clinical abnormalities involving pigmentation. His research has been directed so that he can learn more about control processes of biological systems. He has studied the mechanism by which a protyrosinase is activated to tyrosinase; the characteristics of microfilaments and tubules; and the nuclear acidic protein of pigment cells.*

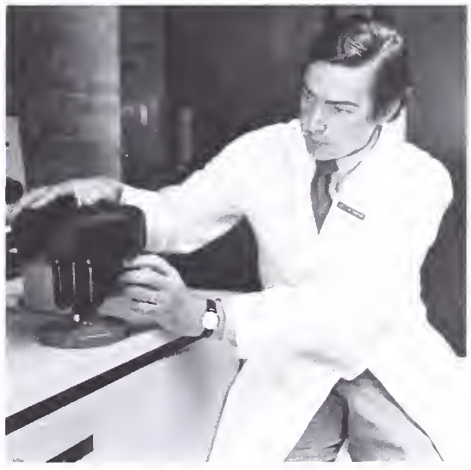


Dr. Irwin Braverman, *professor of dermatology, has carried out research on disorders involving connective tissue and autoimmunity. In addition, he has been studying the ultrastructural changes of the microcirculation system in skin as these changes relate to various diseases and is the author of the book* Skin Signs of Systemic Disease. *Of special interest has been a study of the microcirculation in the skin of patients with psoriasis and small vessel angitis.*



Left, Dr. Marguerite R. Lerner, *professor of clinical dermatology, has worked on clinical investigations of psoriasis. She showed that a large intake of protein or amino acids increased the scaling in patients with psoriasis whereas a restricted intake of nitrogen was associated with reduction in scaling. More recently she has been interested in trying to extend pigment loss in patients with vitiligo. People who have vitiligo nearly always want to be re-pigmented. But re-pigmentation, particularly in those with extensive vitiligo, usually does not work. The opposite approach, that is, removal of all pigment so that the skin does not look spotted, would be satisfactory to the patient. To achieve this, the effect of an induced contact dermatitis on the color of the normal skin of patients with vitiligo will be studied.*





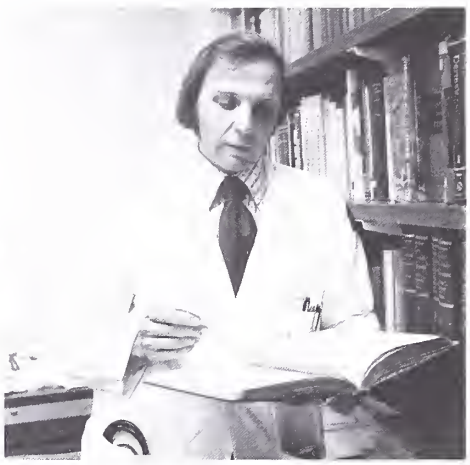
Dr. Gisela E. Moellmann, *right, an assistant professor in dermatology and anatomy, obtained her PhD degree in anatomy from Yale six years ago. She is in charge of the facilities for electron microscopy. She also takes part in teaching the cell biology course given by the Department of Anatomy. Her particular interest is studying the intracellular dynamics associated with the fine structure of melanocytes with reference to microtubules, filaments, and virus-like particles that resemble RNA tumor viruses of murine leukemia and mammary carcinoma.*

Top, Dr. Sidney N. Klaus, *an associate professor, is chief of the Dermatology Service at the West Haven Veterans Hospital. His interest in pigment cell biology began when he was a research fellow at the Mayo Clinic. He has been studying the mechanism of interaction between pigment cells and epidermal cells. Much of his research has centered on determining how pigment granules made in melanocytes are transferred to keratinocytes during the normal process of pigmentation. Because the ends of the dendrites from melanocytes are either injected into or taken up by keratinocytes, he has been interested in the factors that determine the growth and activities of the dendrites of pigment cells.*

Far left, Dr. Saul Lande, *who holds a degree in biochemistry, took a leave of absence to become a medical student at Yale. On completion of his medical studies and an internship, Dr. Lande will rejoin the department. During his leave, Dr. Lande has continued his research on peptide chemistry in the dermatology research laboratories on a part-time basis. He has been responsible for fractionation on a large scale of pituitary peptides having a variety of activities. He has studied new ways to synthesize peptides and to determine their amino acid sequences. Some of the peptides that he has isolated from pituitary gland extracts influence conditioned responses in rodents. A knowledge of the action of these substances may contribute to a better understanding of the interactions between the pituitary gland and the brain as related to learning and memory.*

Left, Dr. D. Martin Carter, *an investigator of the Howard Hughes Medical Institute, is an associate professor in the Yale Department of Dermatology. His major interest is in genetics with emphasis on the defenses that cultured cutaneous cells exhibit against DNA injuries produced by ultraviolet radiation. Psoralens are naturally occurring photopotentiating compounds that are used clinically to promote pigmentation. These substances become tightly bound to cellular DNA after exposure to ultraviolet radiation and must be excised for cellular function to be restored. Dr. Carter is attempting to define enzymic steps available to keratinocytes for repairing the psoralen DNA complex. The shielding effect of melanin against this and other UV mediated DNA injuries are also under investigation. Dr. Carter, with Dr. Nordlund and Dr. Moellmann, has been able to isolate a virus found in melanoma cells from mice.*

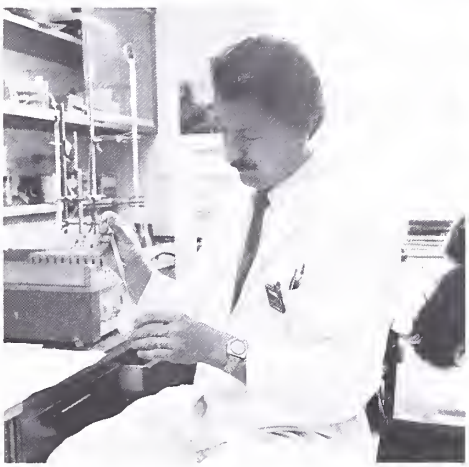
Top right, Dr. John Pawelek, *is an assistant professor in dermatology and anatomy. His main interest is in biochemical and genetic factors that control phenotypic expression of mammalian cells. He uses melanoma cells in culture for his study. Working with a graduate student, Glenda Wong, Dr. Pawelek discovered a mouse melanoma cell line which showed dramatic increase in pigmentation when exposed to melanocyte stimulating hormone (MSH). In another project, Dr. Pawelek has been studying substances that prevent the growth of melanoma cells in culture and in animals. He found that the amino acid tyrosine, which is a substance necessary to form melanin, is highly toxic to melanoma cells in culture and can bring about a reduction in tumor size when fed to hamsters and mice innoculated with melanoma. These findings will be tested in patients with melanoma in the next few months.*



Far right, Dr. James J. Nordlund *is an assistant professor who has had training in dermatology as well as internal medicine. His research involves studying the induction of an immune response against melanomas in animals. In addition, he is concerned with the evaluation of different treatment programs in patients having melanomas, a project currently in progress on the Hunter fifth floor clinical research unit of the hospital. Dr. Nordlund is also interested in the factors that regulate the release of MSH from the pituitary gland in human subjects.*

Center, Drs. Muriel Wikswo *and* Roger Boshes *are postdoctoral research trainees. They are studying nuclear acidic proteins associated with chromatin to determine whether or not those proteins are involved in the regulation of genetic expression in eukaryotes. During the last two years they have developed a method utilizing murine melanoma cells to investigate this proposition. They are comparing nuclear acidic proteins from melanontic and amelanontic cells grown in culture from Cloudman melanomas.*

Below right, Dr. Janos Varga, *a postdoctoral research trainee, has developed a method to label MSH with high specific radioactivity. The labelled hormone binds to receptors on the surface of pigment cells and can be used as a marker in the isolation and characterization of MSH receptors. Dr. Varga is studying the chemistry of the interaction between MSH and its receptors.*



Albert DiPasquale, *far right, is a postdoctoral research trainee studying the affects of cyclic AMP on the morphology, size, growth and tyrosinase activity of cultivated melanoma cells in relation to the cell cycle. In addition, he is investigating the mechanism of melanoma cell locomotion in culture.*

admissions: how do you choose 103 students from 2886 applicants?

Thomas L. Lentz, M.D.

There are 102 students entering the first year class this year. They were selected from 2,885 applicants, the largest number ever to apply for admission to the Yale School of Medicine.

Nationally, there has been a large increase in the number of applicants to medical school while the increase in the number of available places has been much smaller (Table 1). Until about 1970 the ratio of applicants to acceptances was approximately two to one, but for the fall's entering class there were 40,000 applicants for 14,000 places, a ratio of nearly three to one. At Yale, the number of applications has increased from 1,925 in 1971 and 2,591 in 1972 to 2,886 for the class entering in 1973 (Table 2).

Why the Increase?

There are several reasons for the large increase in the number of applicants to medical school. Young people today seem to show greater awareness and concern for human and community problems. While a few years ago these same concerns were often expressed in a variety of "activist" causes, the student today seems to show a greater willingness to achieve the same goals through a longer process of work, education, and research. They are attracted to medicine because it offers opportunities to work with people and to achieve solutions to the problems affecting people. Similarly, many students interested in research want their efforts to be applied to the solution of diseases and to be of more immediate benefit to people.

Medicine seems to afford greater flexibility as well as security. At the same time, other career opportunities appear less attractive. In other areas of science, especially physics and engineering, there are fewer opportunities for employment. Reduced governmental support of graduate and post-doctoral programs and faculty cutbacks and freezes by universities have made graduate programs in many other areas less available and attractive. As a result, the number of applicants to medical school already holding baccalaureate, masters, or Ph.D. degrees has increased and many college students who would otherwise have entered graduate school are now applying to medical school.

Other factors are the post-war baby boom and the increased recruitment of minority and women students by medical schools. The draft has been considered a factor but may not have been significant as its termination has not lessened the number of applicants.

There are a number of consequences of the increase in applicants to medical school. One is that medical schools are able to be extremely selective in the admission of applicants. Thus, the gradepoint averages and MCAT scores of entering classes have risen steadily. In 1961, 12.2% of medical students had premedical grade averages of A and 17.4% averages of C while in 1971 24.0% had averages of A and 6.0% averages of C. On the other hand, each year thousands of students perfectly well-qualified for the study of medicine are unable to gain entrance to medical school.

The growth in number of applicants shows no signs of abating; for example, nearly half of the freshmen at Yale, Harvard, and many other colleges have declared an interest in medicine. The undergraduate experience has become increasingly competitive to the point where it is destructive. The process of applying to medical school in the fourth year is time-consuming, expensive, and filled with anxiety.

There appear to be no easy solutions to these problems at the present time. The number of medical school seats is not likely to increase significantly, especially in view of the financial difficulties being experienced by medical schools. Students are unwilling to consider alternate opportunities in other health fields such as pharmacy, dentistry, physician associate programs, epidemiology, public health, psychology, and many others because they feel that greater prestige, responsibility, and income are associated with the physician. Various plans under consideration such as early decision plans, uniform acceptance dates, and matching programs may simplify the admissions process and reduce the anxiety in the fourth year but will not reduce the number of applicants. Some self-adjustments may take place eventually. As the chances of acceptance continue to diminish, students may be forced to view the situation more realistically and give greater consideration to the alternatives. Informed and capable pre-medical advisors can be of great assistance in this area.

Responsibilities of the Admissions Committee

Although it is obvious that one of the major functions of a medical school is the education of physicians, the significance of the admissions process to the school is not as well appreciated. The quality of students is directly related to the general level of intellectual activity of the school and determines to a great degree the school's long-range ability to meet the needs of society and advance knowledge and quality of life. Yale presently is in a position where it can effectively compete for the top few hundred pre-medical students in the country; students who will be the leaders in medicine tomorrow. In view of this, admissions deserves a high priority in the medical school. Those serving on the committee should be carefully selected, knowledgeable about admissions and the school, and willing to make the necessary commitment. The admissions process should be organized so that all applicants are given thorough consideration. Even though most applicants are rejected, the process must function in an equitable, fair, and humane manner. Efforts are necessary to obtain objective information concerning the usefulness of the criteria employed in considering applicants.

The members of the Admissions Committe are appointed by the Dean from a slate prepared by the Steering Committee of the Medical School Council. Presently, many segments of the medical community including clinical sciences, basic sciences, women, and minorities are represented on the committee. Members of the committee spend from 10 to 16 hours a week on admissions from October through April. The full committee meets once a week and each member of the committee conducts several interviews and screens applications during the week.

Dr. Lentz is associate professor of anatomy and chairman of the medical school's Admissions Committee.

Processing the Applications

Efficient processing of the applications, an essential part of the admissions procedure, is very capably performed by Lillian Dalton, the Registrar, and her staff in the Student Affairs Office. Included in this process are the handling of the tens of thousands of pieces of mail associated with 3,000 applications, organization and assembling of the folders for review, scheduling interviews, and answering the numerous queries of applicants. Students participate in the admissions process by conducting a lunch program in which applicants invited to Yale for interviews, have an opportunity to meet and talk with medical students over lunch. O'dell Owens, a third-year medical student, conducts a similar and highly successful program to attract minority students to Yale.

The application to the Yale University School of Medicine consists of the application form, college transcripts, Medical College Admission Test (MCAT) scores, and recommendations. When all of the applicant's credentials are received, the application is reviewed by two members of the Admissions Committee who assign ratings to determine the priority for interview. About 700 applicants, or one-fourth of the total, are granted interviews and, whenever possible, the applicant is interviewed by two members of the Admissions Committee. Upon visiting Yale for the interview, the applicant is also given the opportunity to have lunch with students and learn more about the school. The week following the interview, the applicant is considered by the full committee. The interviewers summarize the applicant's record and accomplishments, present their impressions from the interview, and answer questions raised by other members of the committee. With the agreement of the committee, the applicant is placed in a tentative decision category (reject, 5 hold categories, accept). After each one-third of the total number of applications have been reviewed in this manner, the entire group is reconsidered. Approximately one-third of the class is accepted, other applicants remain in a hold category, and some are rejected. Students are then notified of these actions. At the last meeting, all available positions are filled and a waiting list established. Students are accepted from the waiting list as vacancies created by withdrawals occur. When a student withdraws after acceptance, he is replaced by a student of similar profile and background.

The Admissions Committee in general seeks to admit students who conform to the philosophies and goals of the school which include providing an education in the scholarly and humane aspects of medicine and fostering the development of leaders who will advance medical practice and knowledge. Although the purposes and goals of the school are not explicitly stated, a diversified and representative committee insures that all segments of the medical community will have input into the decision making process and that the decisions, in fact, correspond to the actual directions and orientation of the school. The committee also seeks to ensure an adequate representation of minority groups and a diversity of interests and backgrounds. All applications to the Yale University School of Medicine are given careful consideration without regard to sex, race, religion, national origin, or financial status.

Admissions Criteria

The task of selecting a relatively small number of applicants for admission to Yale from a large group of qualified candidates is extremely difficult. Since there is little objective data on the correlation of specific parameters such as grades or MCAT scores with future success in medicine, the committee tends to select students whose overall level of achievement is already extremely high on the assumption that these students will continue to perform in an outstanding manner. In making comparative evaluations, the committee attempts to view the individual as a whole, taking into consideration his or her intellectual abilities, accomplishments, personal qualities, and suitability for Yale. It is possible in some instances for an applicant to be lower in one or another area and have this balanced by unusual strength in another. A large number of applicants have attained a high level of academic achievement as indicated by their grades and test scores. Activities and accomplishments are of considerable importance in distinguishing candidates as individuals and demonstrating an ability to make significant independent contributions. These achievements may be in the areas of medicine and scientific research but can be in any field including art, music, literature, political science, journalism, athletics, campus governance, etc. The Admissions Committee also considers very carefully personal qualities such as integrity, sincerity, concern for others, ability to relate to people, personal stability, and similar attributes thought to be important in a physician. Finally, the committee seeks to admit students who will benefit from the Yale program of medical education which

TABLE 1

Applications and Acceptances to United States Medical Schools
(based on figures of the Association of American Medical Colleges)

Entering Year	Individuals Filing Applications	Applications Filed	Enrollees	% Applicants Enrolled
1967–68	18,724	93,332	9,473	50.6
1968–69	21,118	112,195	9,863	46.7
1969–70	24,465	133,822	10,422	42.6
1970–71	24,987	148,797	11,348	45.4
1971–72	29,172	210,943	12,361	42.4
1972–73	37,000*	250,000*	13,570	36.7*
1973–74	40,000*	288,000*	13,822	34.6*
1974–75	43,000*	322,500*	14,300*	33.3*

*estimated

is oriented toward the solution of problems and which allows considerable freedom for individual curriculum planning. It looks, therefore, for evidence of maturity, self-discipline, strong motivation, creativity, enthusiasm, and imagination.

All applicants to Yale go through the same general procedure and must meet the same high criteria. For some groups, however, there are slight differences in the processing of applications. Applicants to the MD/PhD program are acted upon separately by the medical school, graduate school, and MD/PhD committees and must be acceptable to all three to gain entrance to the program. The medical school admissions committee considers only the suitability of the candidates for medical school.

Woman and Minority Students

Women are considered on the same basis as men. Whenever possible, a female applicant receives one interview from a female member of the committee. In the past, the percentage of women applicants accepted has generally been about the same as in the case of men although last year the percentage of women accepted was higher because of the high quality of the applicants.

The minority subcommittee recommends that the representation of minority students in the class be at least equal to the proportion of minorities in the general population. Minority groups include Black Americans, American Indians, Spanish and Mexican Americans, and Oriental Americans. Minority applicants receive at least one interview with a minority member of the committee. In evaluating the candidate's record and accomplishments, the committee takes into consideration all aspects of the applicant's background, including socio-economic disadvantages that may have affected his/her performance. Those applicants admitted are considered strong candidates capable of performing successfully at Yale.

Students with Yale Backgrounds

All Yale undergraduates applying to the medical school receive an interview with a fellow of one of Yale's residential colleges who is a member of the medical faculty. On the basis of the interview and screening by the committee, some applicants receive an additional interview with a member of the Admissions Committee. Other Yale students including graduate students and post-doctoral fellows, members of the Yale community such as technicians, and sons and daughters of faculty or alumni are granted interviews when selected on screening. Recommendations of the faculty supervisors of applicants belonging to these groups are included with the application where they can be taken into consideration along with the applicant's other credentials during screening. When the sons and daughters of Yale medical graduates apply, the Committee will communicate with the parents to assure them of our awareness and interest in the applicant. In the case of alumni children not selected for interview, the student will be given the opportunity to obtain advice and counsel concerning his or her efforts to enter medical school.

The Class of 1977

Some of the characteristics of the class entering in the fall of 1973 are presented in Table 3. There has been a steady rise in recent years in the number of women and minority students admitted to Yale. Although the increases in these groups reflect national trends, the percentages at Yale exceed the national averages. The national averages for the first year classes entering in 1972 were 16.8% women, 10.4% total minority, and 7.1% Black American. It seems likely that since Yale's record in regard to women is better than that of most schools, a larger proportion of the outstanding women students are encouraged to apply here. Yale this year was very fortunate in being able to attract a group of highly-qualified minority students, especially in view of the fact that the pool of minority applicants nationally has not increased significantly and that competition among schools is intense for the best students. Approximately 17% of the class already hold a masters or Ph.D. degree, reflecting the large number of applicants in this category. The age of accepted applicants ranges from 19 to 36, with an average of 22.7. Although five colleges account for 50% of the class, a total of 55 colleges are represented (including undergraduate and graduate schools). Academically, the class is highly qualified with a mean grade average of 3.5 and MCAT scores above the 90th percentile. The most frequent major was biology and a large proportion of the class majored in a science. Most of the

TABLE 2

Applications for Admission to the
Yale University School of Medicine

Class Entering	Applications	Applicants Interviewed	Acceptances	Matriculated
1928	360	177	63	53
1934	400	171	75	50
1941	481	107	71	50
1943 (Dec.)	1,005	188	97	65
1946	794	147	67	52
1950	1,401	253	108	65
1955	1,023	281	134	78
1960	916	311	161	80
1964	1,178	330	155	84
1967	1,200	390	168	91
1968	1,514	428	153	91
1969	1,556	494	148	89
1970	1,901	587	166	92
1971	1,925	787	166	102
1972	2,591	789	169	102
1973	2,886	822	175	102

students have engaged in scientific research or independent study and have some experience in medically-related fields. The number of students admitted who majored in science and engaged in research reflects the large number of students with these qualifications applying to Yale because of its program which permits research.

A Study to Improve Admissions Policies for the Future

One of the major problems faced by the Admissions Committee is how to select a relatively small number of candidates for admission from a large group of applicants, most of whom appear qualified for the study of medicine. The usefulness of the criteria for the selection of students in predicting success in medical school and medicine and, indeed, the definitions of success are unclear. A study of the admissions process is presently being conducted by Dr. Gerard Burrow, associate professor of medicine, and Robert Milstein, an MD/PhD student, in an effort to answer these questions. The study will first determine what Yale medical school's actual working criteria for a successful medical student are. Secondly, the weight of factors such as grades, MCAT scores, recommendations, extra-curricular activities, previous research experience, science background, and ethnic and demographic information in the selection process will be assessed. Then, the actual correlation between the prediction factors utilized and eventual performance will be examined.

The comparison of a randomly-selected group of students and a committee-chosen group represents a specific example of the manner in which the study is being conducted and the type of information that will be gained. One hundred fifty students will be chosen at random from the 600 students to be interviewed. The Admissions Committee will follow its normal procedure and select approximately 150 students to fill a class of 100. Comparison on selection factor scales (e.g., grades, MCAT scores, etc.) will be made between the two groups and significant differences noted and evaluated. The 300 students will then be followed as closely as possible for a ten-year period, undergoing group comparisons as information on their performance becomes available; for example, performance in the basic sciences, performance on the wards, National Board scores, attrition rate, performance in internships and residencies, productiveness in research, etc. This study may determine which criteria are correlated with future performance, thus allowing greater confidence to be placed on these factors in the selection of students. This information will have national significance and usefulness in placing the admissions process on a more rational basis.

TABLE 3

Characteristics of Class Entering in 1973

Total Applicants	2,886
Class Size	102
Men	71
Women	31
Minorities	20
Black American	13
American Indian	1
Spanish American	2
Oriental American	4
Predominant Colleges	
Yale	16
Harvard	14
Stanford	7
Radcliffe	8
MIT	7
Majors	
Biology and pre-med	44
Chemistry and biochemistry	25
Physical sciences and math	8
Engineering	5
Psychology and anthropology	10
Social studies and political science	8
History	7
Philosophy	4
Literature	4
Other	4
Masters degree	14
Ph.D. degree	3
Average age	22.7
Grade average	3.5
MCAT	625-649-610-637

FIFTIETH ANNIVERSARY

On Its Fiftieth Anniversary the Yale School of Nursing's Dean Speaks Out for the Future of Nursing

This year marks the fiftieth anniversary of the Yale School of Nursing and over 180 alumnae turned out to celebrate the occasion on June 1 and 2. "Change and Progress" was the theme of the weekend which included an exhibition of memorabilia and a full schedule of educational programs, alumnae meetings and ceremonies. Cocktails, a banquet and a multi-media "total experience" program on the history of the school brought the weekend to a festive close.

The fiftieth anniversary weekend began on Friday with the 16th annual Alumnae College—a full day of panel discussions on "Innovations in the Nurse Practitioner Role." Topics in the morning sessions led by faculty, graduates and students included midwifery, psychiatric liaison nursing and prison nursing. In the afternoon Eva M. Reese, R.N., executive director of the Visiting Nurse Service of New York addressed the participants on the "Implications of the Extended Nurse Role on Education, Research and the Delivery of Health Care Services."

A departmental "open house," followed by the annual meeting of the Alumnae Association opened the activities on Saturday. Dr. Faye G. Abdellah, Assistant Surgeon General and Chief Nurse Officer for the U.S.P.H.S., was the keynote speaker for the convocation held that afternoon. Dr. Abdellah, a former faculty member of the school, spoke on "The Yale School of Nursing—Fountainhead of Leadership for Professional Nursing 1973–2023."

During the Saturday evening festivities the School of Nursing and the Alumnae Association bestowed honors on six of its alumnae. Those honored are Jeanne M. Radow, Margaret M. Field, Elizabeth B. Torrey, Elizabeth S. Barrnett, Anna Ryle and Helene Fitzgerald.

Dean Donna Diers presided over the weekend's events. Although she has been dean of the School of Nursing for little more than a year, it is quite obvious that she intends to wage a fierce battle against the stereotype of nursing and to put Yale on the map as a leader in the new era of nurse education.

"For a very long time we knew what nursing was," she told her alumnae audience. "It was care of the sick, comforting the injured, the bringing of physical, emotional and spiritual help to those in need. We scrubbed floors, and changed beds, mopped fevered brows, cuddled babies and saw to it that everything was neat and clean and in its place."

Then, according to Dean Diers, improved health care, antibiotics and improved surgical procedures began to cure what had been treated by nurses, and coincided with the movement of nursing education into the university and out of touch with service.

"This produced a nervous state of questioning and a period of retrenchment that is only now ending," she said. "Shorn of the impossible burden of trying to save all of humanity alone, we can now concentrate on fulfilling that particular societal mandate that is nursing's, in full partnership with others, sometimes leading, sometimes following, always changing as the needs and requirements of those we serve demand."

Far from being a stereotype of the nurse with flat heels, blue stockings and a subservient demeanor, the dean is a leader with contemporary views and a sharp wit. A staunch supporter of women's rights as well as the nursing profession, she pulls no punches when she discusses the medical profession's strong tendency to relegate the nurse to the second class citizen level—a step or two lower than the doctor in the professional hierarchy.

"Nursing is not medicine," she says emphatically. "Both medicine and nursing are parts of something larger, usually called health care. Our profession suffers from the image—and worse, the reality—of traditional male-female relationships," she continues. "Nursing's early tradition of slavery and subservience attracted many women and few men to the profession. The health professions seem to function in a crisis stereotype, and in crisis situations there has to be someone in charge—preferably Daddy, the doctor. As long as the myth persists it will be difficult to change the male-female construction of nursing and medical relationships."

As the only woman dean in the University, Dean Diers is aware of the historical attitude of Yale towards its School of Nursing. Treated somewhat like the women's auxiliary which must, for the sake of protocol and good manners, be invited to official functions, the nursing school has received only the most perfunctory attention. Somehow, while listening to her discuss the reasons for this attitude and its ramifications, one gets the distinct feeling it will soon change.

"It's a good time for nursing and for women," according to Dean Diers, "and if we do the job right, it will soon be a better time for people who need health care. Along the way we may foment a revolution in medical education and nursing. Yale has the resources—in history, good will and people—to bring it off."

The first school of nursing in the U. S. to be independent of hospital control, the Yale School of Nursing, under Annie R. Goodrich, its first dean, established new concepts for nursing education. Her program was based on an educational plan rather than an apprenticeship system. Today the school provides a graduate program for nurses who have had basic professional preparation as well as a baccalaureate degree. The program, which leads to a Master of Science in Nursing degree, prepares nurses in maternal, new born, pediatric and public health nursing as well as in mental health and psychiatric nursing. In addition the school awards a Certificate in Nurse Midwifery for students fulfilling qualifications in this special field.

Plans are under way for a new program offered to young men and women college graduates searching for careers in health service, but who don't want to be doctors.

in and about

Professor Franklin Hutchinson

Professor Joseph F. Hoffman

New Chairman Appointed For Molecular Biophysics and Biochemistry

Professor Franklin Hutchinson, one of the nation's leading scientists in radiology, has been named chairman of the Department of Molecular Biophysics and Biochemistry. He succeeds Dr. Frederic M. Richards, Henry Ford 2d professor of molecular biophysics, who is returning to research and teaching in the department.

Dr. Hutchinson, who is professor of biophysics, has conducted research on the biological effects of radiation for many years. He is also interested in using very high resolution microscopy to study the structure of biological molecules.

Known as "Hutch" to his colleagues, he was one of the original members of a small group of biophysicists which emerged in Yale's Physics Department under the leadership of Professor Ernest C. Pollard in 1948. When the Biophysics Department was organized in 1954 he was one of the charter members, and was its chairman from 1960 to 1963, and again from 1967 to 1969. A native of Brooklyn, New York, Professor Hutchinson received his B.S. in 1942 from the Massachusetts Institute of Technology, and his Ph.D. in Physics from Yale in 1948. He was a staff member of the Radiation Laboratory at MIT from 1942 to 1945.

He joined the Yale faculty as an instructor in physics and radiology in 1948, devoting much of his time to a study of the physics problems involved in treating cancer with x-rays and radium. He became assistant professor of physics in 1951, then associate professor of biophysics in 1957 and professor of biophysics in 1960. In 1963-1964 he was awarded a Guggenheim fellowship to do research at King's College, London.

Professor Hutchinson is chairman of the Committee on Education, and a counsel for the International Union of Pure and Applied Biophysics; a member of the Advisory Committee of the Atomic Bomb Casualty Commission; and chairman of the Division of Biophysics, American Physical Society. He is a consultant in radiology for the Yale-New Haven Hospital and the Hartford, Connecticut, Hospital.

Physiology Chairman Named

Joseph F. Hoffman, professor of physiology and a noted authority on cellular and comparative anatomy, has been named chairman of the Department of Physiology in the School of Medicine. He will succeed Dr. Gerhard H. Giebisch, Sterling Professor of Physiology, who plans to return to full-time teaching and research activities.

Before coming to Yale in 1965, Professor Hoffman was head of the Section of Membrane Physiology in the Laboratory of Kidney and Electrolyte Metabolism, National Heart Institute, at Bethesda, Md. He was also on the faculty of the National Institutes of Health Graduate Program and a lecturer in physiology at George Washington University School of Medicine at the time. He is best known for his investigations of the mechanisms by which substances are transported across cellular membranes.

From 1959 until 1961 Dr. Hoffman was on the faculty of the U. S. Department of Agriculture Graduate School and was a research assistant, and then a lecturer and research associate at Princeton University from 1952 to 1956.

Professor Hoffman held the John Dwight Sterry Fellowship in Biology in 1949–1950 and the William Greig Lapham Fellowship from 1950 to 1952, both at Princeton University. He was a Visiting Associate Biologist during the summers of 1954 and 1955 at Brookhaven National Laboratory, a Special Fellow with the U. S. Public Health Service and a Research Fellow with the Department of Colloid Science, Cambridge University, from 1956 to 1957. He was a Research Collaborator at the Brookhaven National Laboratory for three years, starting in 1956.

Professor Hoffman is a native of Oklahoma City, Okla., and received his B.S. and M.S. degrees from the University of Oklahoma, and M.A. and Ph.D degrees from Princeton University.

Dr. Pickett Receives Joint Appointment in Hospital and Medical School

Dr. Lawrence K. Pickett has been named chief of staff and chairman of the medical board at Yale-New Haven Hospital, and associate dean of the Yale School of Medicine. This is the first time a joint appointment with the two institutions has been made on this level.

He succeeds Dr. Courtney C. Bishop as chief of staff. Dr. Bishop is retiring after 35 years of service to the Yale-New Haven Medical Center.

Dr. Pickett, who is William H. Carmalt professor of clinical surgery and pediatrics and chief of pediatric surgery, is an authority on the correction by surgery of complex congenital malformation in infants. He has been a member of the Yale faculty since 1964 when he was appointed professor of surgery and pediatrics, and chief of the newly formed Section of Pediatric Surgery. Before coming to Yale he was in private practice in Syracuse, New York and held an associate professorship at the State University of New York.

James H. Gilbert, president of the Yale-New Haven Hospital Board said, "Having served as both a community physician in Syracuse and as a full-time faculty and staff member at Yale-New Haven, Dr. Pickett has the ideal background for bringing together the community physicans and the full-time faculty on the staff."

New Scholarship Fund Honors Dr. Baumgartner

The Leona Baumgartner Scholarship Fund was established in 1973 to be used to provide scholarship or loan support to worthy and needy students in medicine or public health. Preference is to be given to women students. The scholarship is in honor of a distinguished Yale alumna, Leona Baumgartner, Ph.D. 1932, M.D. 1934. The fund of $50,000 was the gift of an anonymous donor.

Dr. Hiscock to Receive Honorary Degree

On December 13, Ira V. Hiscock, M.P.H., Sc.D., will receive an Honorary Degree in Medicine from the Connecticut State Medical Society for his notable contributions to the science of medicine in the field of public health and epidemiology.

Dr. Hiscock, who is Anna M.R. Lauder Professor emeritus of public health, was born May 7, 1972 in Farmington, Maine. He received his B.A. and M.A. degrees from Wesleyan University and his M.P.H. degree from Yale in 1921. In 1939 he received an honorary Doctor of Science degree from Wesleyan University.

Dr. Hiscock started his career in public health as a bacteriologist in the Connecticut State Department of Public Health Laboratory in 1914. After World War I he became the director of The Public Health Laboratory in Columbia, South Carolina, where he remained until he joined the faculty of Yale in 1921.

He became a full professor of public health in 1931 and, in 1945 he became chairman of the Department of Public Health and Anna M.R. Lauder professor of public health. On retiring from Yale in 1961, after forty years of service, Dr. Hiscock was awarded a Carnegie Visiting Professorship in public health at the University of Hawaii.

He has served on the Connecticut Public Health Council and on the board of the Connecticut Diabetes Association. As president of the American Public Health Association, he was the recipient of the Sedgwick Memorial Medal. He has also served as president of the National Health Council and of the Association of Schools of Public Health of the U.S. and Canada, as well as the National Society for the Prevention of Blindness. Dr. Hiscock is an Associate Member of the Connecticut State Medical Society.

The Honorary Degree in Medicine will be awarded to Dr. Hiscock at the semi-annual meeting of the House of Delegates of the society at the Sheraton Park Plaza in New Haven. Dr. Hiscock will be guest speaker at the meeting.

Dr. Lerner Elected to the National Academy of Sciences

Aaron B. Lerner, M.D., professor and chairman of the Department of Dermatology, has been elected to the National Academy of Sciences. Although Yale has previously been represented in the Academy, he is the first clinician-scientist here to be so honored.

The National Academy of Sciences was incorporated by an act of Congress in 1863. Its charter, signed by Abraham Lincoln, named the first 50 members. Up to 100 new members are elected annually, and in September 1972 there were 930 members. The membership comprises all the natural sciences and engineering.

Dr. Lerner, who has been professor of dermatology at Yale since 1957, was born in Minneapolis and attended public schools there. He obtained multiple degrees from the University of Minnesota including a bachelor's degree in mathematics and chemistry, a master's degree in physiological chemistry, a PhD in physiological chemistry and in 1945, the MD degree.

He began his investigative career early, and since the mid-1940's has been recognized internationally as a major contributor to the science of skin pigmentation (see p. 6). Dr. Lerner, who has written scores of papers and contributed to many books, has been the recipient of many awards. He is the past president of the Society of Investigative Dermatology and in 1971 he received the Steven Rothman Award, the highest award of that society. In addition to his scientific studies, he has written a comparative biography of Newton and Einstein, which, in addition to providing a unique insight into their achievements, probes the basis of their remarkable motivations as scientists.

Dr. Lerner considers himself a transplanted midwesterner and is an active civic member of the Town of Woodbridge.

Commencement 1973

Eighty-nine students received Doctor of Medicine degrees, 52 received Master of Public Health degrees, and two received Doctor of Public Health degrees from Yale University in June.

The M.D. degree *cum laude* was awarded to **Francis S. Cole III, Joseph M. Connors, Richard J. Fingeroth, Lee Goldman, Michael S. Kramer, George Lister Jr., John W. Popp, Jr., Donald A. Schon, Robert A. Sirota, James F. Sullivan, Marc A. Weinberg** and **Randall M. Zuzman.**

Marc Weinberg received the Campbell prize for the highest rank in the examinations of the course. The Miriam Kathleen Dasey Award for that student who by strength of character, personal integrity and academic achievement gives promise of fulfilling the ideal of the compassionate physician, was awarded to **John Popp, Jr.**

Three prizes were awarded for outstanding research: the Ferris Prize to **Lee Goldman**; the Keese Prize to **John Kirkwood**; and the Louis H. Nahum Prize to **Randall Zusman**. The Parker Prize, for the student who has shown the best qualifications for a successful practitioner, was awarded to **Richard Fingeroth**. Mosby Scholarship Book Awards were presented to **John Kirkwood, John McQuade III, Claes Nilsson, James Robertson** and **Thomas Sweeney**. The Lange Medical Publications Award was awarded to **Joseph Connors** and **Marjorie Tripp** and the Upjohn Achievement Award was presented to **Randall Zusman.**

New Faculty Appointments

Newly appointed members of the full-time faculty include: **Ronald C. Ablow, M.D.**, professor of clinical diagnostic radiology; **Robert M. Donaldson, Jr., M.D.**, professor of medicine; **Marilyn G. Farquhar Ph.D.**, professor of diagnostic radiology; **James D. Jamieson, Ph.D.**, associate professor of cell biology; **Allan L. Simon, M.D.**, professor of diagnostic radiology; **Yung H. Son, M.D.**, associate professor of clinical therapeutic radiology, and **Joseph B. Warshaw**, associate professor of pediatrics and obstetrics and gynecology.

Promotions to Professor

The following members of the medical faculty have been promoted to the rank of professor: **Irwin M. Braverman, M.D.**, professor of dermatology; **Charles H. Gillis, Ph.D.**, professor of anesthesiology; **Wilbur D. Johnston, D.D.S., M.D.**, clinical professor of dental surgery; **Albert M. Jonas, D.V.M.**, professor of laboratory animal sciences and pathology; **Fred S. Kantor, M.D.**, professor of medicine; **Paul E. Kaunitz, M.D.**, professor of psychiatry; **Thomas J. Krizek, M.D.**, professor of surgery; **Marguerite R. Lerner, M.D.**, professor of clinical dermatology; **Jacob Levine, Ph.D.**, clinical professor of psychology in psychiatry; **Robert J. Levine, M.D.**,, professor of medicine; **William B. Scoville, M.D.**, clinical professor of neurosurgery; **Alexander W. C. von Graevenitz, M.D.**, professor of laboratory medicine; and **Benjamin B. Whitcomb, M.D.**, clinical professor of neurosurgery.

Professors Emeriti

At the close of the 1972–73 academic year, six individuals were given emeritus titles on their retirement from the medical faculty. Those honored were as follows: as professor emeritus of epidemiology and physiology, **Dr. James D. Hardy**; as clinical professor emeritus of psychiatry, **Dr. Richard Newman**; as associate clinical professor emeritus of psychiatry, **Dr. Felice M. B. Emery**; as associate clinical professor emeritus of pathology, **Drs. Paul D. Rosahn**, and **Robert Tennant**; and as assistant professor emeritus of social work (Child Study Center), **Laura V. Codling.**

New Books by Faculty

Foreign Trained Physicians and American Medicine. *By Rosemary Stevens, associate professor of public health, and Joan Vermeulen. 184 pp. Washington, D.C.: U. S. Department of Health, Education and Welfare.*

This book is the result of a study on the location, activity and function of the more than 63,000 foreign trained physicians who comprise one-sixth of the physicians in the U. S. The study reveals that the majority of foreign medical graduates in internship and residency positions in this country choose to remain in the U. S., which is thus reaping the rewards of investments made by other nations in the education of physicians. At the same time, those countries suffer a long term loss of physician services. The authors examine the various interlocking elements, including immigration and educational exchange policies, as well as qualification standards, which have created the "foreign medical graduate" situation and offer basic information from which, they hope, new and responsible policies will be developed.

Home From the War: *Vietnam Veterans Neither Victims nor Executioners. By Robert Jay Lifton, professor of psychiatry. 478 pp. New York: Simon & Schuster.*

Based on Dr. Lifton's discussions with a group of Vietnam Veterans Against the War, "Home from the War" examines the psychological effects of the war on the American soldier. As he has in previous books, the author advances his hypothesis that history and psychology cannot be separated and "that even the relatively narrow sphere of 'effectiveness' of treatment and 'prevention' is inextricably bound up with ethical issues."

Faculty Notes

Dr. Leon Rosenberg, professor of pediatrics and medicine and chairman of the Department of Human Genetics has been selected as a joint recipient of the Borden Award for his significant contributions in the field of human genetics and inherited metabolic disorders. He and Dr. Charles Scriver will receive the award from the American Academy of Pediatrics at their annual meeting on October 23 in Chicago.

Dr. Rosemary Stevens, associate professor of epidemiology and public health, and **Dr. Louis G. Welt**, professor and chairman of the Department of Internal Medicine, have been elected to the Institute of Medicine of the National Academy of Sciences. The Institute was established in 1970 to address the major issues confronting the United States in respect to the provision of health care, education for the health professions and sciences, and the promotion of biomedical research.

The new editor of *Yale Biology and Medicine* is **Dr. Alfred S. Evans**, professor of epidemiology. Dr. Evans succeeds **Dr. Lawrence R. Freedman**, who left Yale to become the head of the Department of Internal Medicine at the University of Lausanne.

Dr. Morton Reiser, professor and chairman of the Department of Psychiatry, attended the 2nd Congress of the International College of Psychosomatic Medicine held in Amsterdam from June 7 to 22. Dr. Reiser is president-elect of the College and a member of its executive committee.

The American Society for Experimental Pathology presented its 17th Parke-Davis Award to **Dr. Vincent T. Marchesi**, associate professor of pathology, for his outstanding research in the basic cellular mechanisms of disease. The award is presented annually to an ASEP member under forty years old who has contributed most to the conquest of disease. Dr. Marchesi's studies of the structural proteins of mammalian cell membranes may be of significance in understanding the interactions between blood cells and blood vessel walls, as well as the basic processes involved in neoplasma.

Dr. Wilbur G. Downs, lecturer in epidemiology, logged an impressive number of traveling miles last April. First he visited Entebbe, Uganda as World Health Organization Consultant to the East African Virus Research Institute. Then he flew to St. Lucia to review the activities of the Research and Control Department of the Health Services in connection with The Rockefeller Foundation program on schistosomiasis there. Finally, he went to Trinidad as a member of the scientific review board for the Trinidad Regional Virus Laboratory's annual meeting.

Professor William Gardner and alumnus chat during sherry hour on Alumni Day.

alumni news

Alumni Day 1973

Alumni Day was held on May 19th this year—a bit too early in the New England spring for outdoor festivities. However, 270 Yale Alumni in Medicine and their guests sipped sherry and enjoyed an elegant buffet lunch in the Mary S. Harkness Hall, following a morning of stimulating round table discussions and a medical surgical conference.

These educational programs are planned to give returning alumni some indication of current trends and thinking at the School of Medicine. The conference this year presented trends in the management of chronic renal insufficiency and end stage kidney disease. The discussions covered medical school admissions, current approaches to treatment of drug abuse, views on the future of health care policy, and planning the cancer program at Yale.

The morning's events provoked many conversations which carried on through the sherry hour. It wasn't all serious business though. There was a great deal of laughter, handshaking and renewing of friendships.

The annual business meeting of the Association of Yale Alumni in Medicine was called to order by President Malvin White at 2:30. Dr. White extended special greetings to the five-year reunion classes and introduced a number of senior alumni attending the meeting, including: Dr. George Goldman, '10, Dr. Arthur Griswold, '21, Dr. Maurice Grozin, '22, and Dr. Joseph Petrelli, '25; and Drs. Frank Amatruda, William Cohen, Joseph Epstein, Samuel Karelitz, Jacob Mellion and Hyman Weinstein, of the Class of 1923.

Dr. Nicholas Spinelli, chairman of the nominating committee, presented the slate of officers for 1973–1974. They are: John B. Ogilvie, M.D., '34, president; William Kissick, M.D., '57, vice-president; Courtney C. Bishop, M.D., '30, secretary; and Malvin F. White, M.D., '39, past-president. There were no nominations from the floor and the slate was approved.

Three new members were also elected to the executive committee: Harvey Young, M.D., '52; Carter Marshall, M.D., '62; and Edith Jurka, M.D., '44. Dr. White expressed his appreciation to Dr. Lycurgus Davey, Dr. Sidney Lee and Dr. Kenneth Steele, whose terms expired this year and offered congratulations to Dr. Ogilvie and the newly elected members.

Left to right, Dr. Malvin White, Dr. Edith Jurka, Dr. Nicholas Spinelli, Dr. Richard Breck, Dr. John Ogilvie and Dr. Lawrence Pickett.

Before Dr. Spinelli presented nominations for representatives from the Association of Yale Alumni in Medicine to the Association of Yale Alumni, Dr. White explained that although every effort had been made to make the selection of representatives as democratic as possible, response to requests for nominations had been poor, leaving the decision to the nominating committee. Nominated and elected to serve as representatives to the AYA were: Edward Nichols, M.D., '38, and Dorothy Brockway, M.D., M.P.H., '63, to serve one year terms; Malvin White, M.D., '39, and John Ogilvie, M.D., '34, to serve two year terms; and Peter Levin, M.P.H., '65, and Robert Frelick, M.D., '44, to serve three year terms.

Business completed, Dr. White introduced the Alumni Day speaker, Dean Lewis Thomas. Before giving his talk, Dean Thomas presented an official Yale scroll to Dr. White in appreciation of his services as president of the Association of Yale Alumni in Medicine for the past two years.

Letter from the New President of the Association of Yale Alumni in Medicine

It has been my privilege for the past four years to serve on the Executive Committee of the Association of Yale Alumni in Medicine. Recently I have been honored by election as the president. For this I wish to thank you.

I realize I am following eminent people who have made significant contributions to medicine in general and to Yale medicine in particular. I shall do my best.

A natural aim of any alumni association must be to generate, stimulate and perpetuate the interest of a person in his or her school. This need not reach the proportions of sentimentality which is so commonly associated with undergraduate schools—but should be on a sensible, balanced basis. Included in this may be a realization of what the school has done for us, what we might be doing if we had not gone to Yale, and a mature, unemotional approach to how the school could and should be improved.

The problems encountered in running any medical school are countless; from what I know about this one, Yale is no exception.

All of us who are alumni realize the high standards which Yale has set for at least 50 years. We have reason to be proud of them, they should be perpetuated.

An active, interested alumni group should contribute with comments—both laudatory and critical. The officers of this alumni organization will welcome your support.

John B. Ogilvie, M.D., '34

The following are notes from some of the classes which held reunions on Alumni Day. Due to a lack of space, other class notes will be withheld until the Winter issue of Yale Medicine.

1923

William Cohen sent the following information: "Six members of the class of 1923 attended our fiftieth reunion. They were **Frank G. Amatruda, William Cohen, Joseph Epstein, Samuel Karelitz, Jacob Mellion** and **Hyman Weinstein.** Long distance honors go to Della and Hyman Weinstein who travelled from Encino, California to be with us on this occasion.

"Frank Amatruda still maintains an active practice with his usual zest and enthusiasm. A large and festive celebration in honor of his fiftieth year since graduating from the Yale Medical School took place in the Quinnipiack Club in New Haven on May 12th.

"Sam Karelitz has officially retired but has a number of medical historical research problems to keep him interested and occupied for a long time.

"Gertrude and Frank Amatruda hosted our reunion dinner in their home as they have done so generously and graciously in our past reunions. We were delighted to find that Dr. and Mrs. Maxwell Lear (M 11) had been invited to join us and they participated in our discussions and reminiscences.

"While this is our last official reunion we all parted with the desire and intention to have informal meetings again in the near future. We also take this opportunity to extend our warm greetings to the remaining members of our class who were not present at our reunion."

1928

Although no reunion dinner was held, the following members of the class did meet and lunched together on Alumni Day: **Dr.** and Mrs. **Max Alpert, Dr.** and Mrs. **Clement Batelli, Dr.** and Mrs. **Berthold Comeau, Dr. Ferdinand Kojis,** and **Dr.** and Mrs. **Robert Rubinstein.** Dr. Batelli reported: "It was real fun to meet and talk again with my classmates and to reminisce. I also received letters from **Drs. Ralph Knutti** and **Norman Gissler** who could not make Alumni Day but wished us well. Norman Gissler is not well and classmates who would like to communicate with him can reach him at Apt. 503-2600 N. Flagler Dr., West Palm Beach, Florida 33407. I am sure he would like to hear from all of us."

1933

Frederick Wies wrote as follows regarding the class reunion: "Not many of our class of 1933 attended the Alumni Day Reunion on May 19, 1973. However, the ones who did attend were enthusiastic about the meeting and all enjoyed reminiscing about times past.

"In the evening the following members came to our home in Branford, had dinner and further renewal of friendships. Those present were **Dr. Fred Buse** of Manhassett, Long Island, **Dr.** and Mrs. **Sidney Stringer** of Manlius, New York, **Dr.** and Mrs. **Franklin Foote** of Wethersfield, Connecticut, **Dr.** and Mrs. **Irving Friedman** of New Haven, **Dr.** and Mrs. **Frederick Wies** of Branford, Connecticut, and **Dr.** and Mrs. **John Wolfe** of Louisville, Kentucky.

"The Stringers arrived in their motor cruiser, and spent the evening parked outside our house. The previous evening they had spent with my brother, Dr. Carl H. Wies of New London, of the class of 1932. Following a combination breakfast from our kitchen and their camper kitchen, they departed for their own home in New York."

1938

Agnes Bartlett prepared the following account of the thirty-fifth reunion:

Ordinarily, one would have been disappointed, statistically, over the small turn-out for the May 19th Reunion and Alumni Day. As Dr. Winternitz so often pointed out, however, this is no ordinary class. Despite the discovery that a *retired* pathologist working *part-time* at my own institution is one of "Roy Barnett's boys" it is quite clear that it is not senile apathy that prevents attendance at nostalgic gatherings: everyone seems to be just too much involved in "keeping on" to drop everything and come. Some of us planned to reserve the month of June for the 35th as much as a year ahead of time. **Charles Petrillo** and wife therefore took the month of May as a suitable time to go to Europe. **Ben Lyons** and his wife went to the Orient. The rest of us realise that the on-coming generation also has important events for June—weddings, graduations, and some of us even get honorary degrees in June—so all in all, May reunions and Alumni Days do

make sense. Plan *now* for the 40th, please.

It is obvious that the demarcation between Human Being and Senior Citizen, as far as the class of '38 is concerned, is not precisely at the 55th birthday. Emotions flooded over your class secretary as we gathered in Fitkin to hear the forefront of renal physiology expounded: dialysis and renal transplants. Faces that we will not be able to see at future reunions seemed to appear along with the living: Hank Carideo, Norm Ruud, Charlotte Stewart Worthington, Bill Kober, Stan Durlacher, Ed Chapman, Sully, Ed Rossett, Bill Scanlon, and last but not least, Blake and Peters who seemed to be flanking the seat occupied by their successor, our own **Lou Welt**.

Roy and Lou were the local arrangements committee and eight of us including wives were royally entertained at the Faculty Club for dinner. No speeches or orations were performed. Much reminiscing and relaxation as we revived the Howard Arms and 34 Park Street days. **Joe Reynolds** had come the farthest—his daughter married a Yale Medical School man. He keeps busy with five hospital affiliations in and around Havertown, Pennsylvania. **Tet Thomas**, who has his own advertising agency in Philadelphia wrote that he was about to attend his 41st performance of the Bach B Minor Mass at Bethlehem—but would make time to tell us about it in the future. **Joe Bliss** was apparently detained at the last minute in Woonsocket—and we missed him. **Jack Dillon**, an internist with subspecialties of cardiology and thyroidology appears from his affiliations, to be covering the Rhode Island waterfront. **Jack McGillicuddy** seems to find May a busy month for Orthopedics in Boston. Vermont had 100% representation: The **Wallmans**, despite the need to participate in the 150th anniversary of the University of Vermont Medical School (where he is professor of clinical neurosurgery) joined us for the whole day's activities in New Haven. The East Coast of Vermont accounted for the other 50% where your secretary, at the White River Junction V.A., as clinical assistant professor of anesthesiology at Dartmouth Medical School, attempts to render aid and comfort to the surgeons in training and patients alike. Roy is still the intellectual—his list of publications is beyond belief. As for Lou—his works are a Bible to many.

We tried to catch up by word of mouth on the activities of the rest as so far we have not received *curricula vitae* from the whole class. **Brad Simmons** is said to be doing fine outside of San Francisco; **Joe Criscuolo** who when last seen was commuting from New York City to California, now appears to have joined permanently the Horace Greeley crowd which includes **Roberta Crutcher**, **Bud Brown** and **Dick Worthington** in California. I get word of **Bill Wawro** from time to time from his old residents and from some of my anesthesia colleagues, so it was not exactly as strangers that we met in the Halls of Ivy. **Ed Nichols** came from Hartford—but previous engagements prevented his staying for dinner.

In 1938, after the orals we kidnapped THE DEAN and seated him in the one remaining chair in an almost vacated apartment. Seated on the floor before him, Bill Wawro said, "For four years I have been bothered by one question: what on earth made you decide to let us all into medical school?" The Reply: "You were all so goddam crazy, I knew there was something to you." After 35 years we again have proof—THE DEAN knew what he was talking about. See you at the 40th.

1953

Allen Chetrick writes: "Our Twentieth Reunion was a memorable occasion. A blending of academia, renewal of acquaintance and nourishment was the order of the day and night. **Jose Rameriz**, now in Puerto Rico, combined business with pleasure on his visit. **Claude Block** felt it was a lovely day to stroll thru the ivy with wife and young offspring. **Fred** and Evelyn **Lane** made the trip for the afternoon's festivities.

"The evening spent at the beautiful Oak Lane Country Club was highly successful. Those attending were **Hal** and Maureen **Bornstein**, **Al** and Mary **Keroack**, **Bert** and Suzanne **Kusserow**, **Irv** and **Barbara Rosenberg**, **Jim** and Mary Lou **Young** and **Al** and Joan **Chetrick**. Lively conversation, a delicious high cholesterol menu, music and dancing caused the time to dwindle much too quickly. New as well as old faces are anticipated for our Twenty-Fifth."

1958

Fifteen members of the class and their spouses were present for the 15th reunion dinner at the New Haven Lawn Club: **Dave Carlson**, **Larry Dubin**, **George Hulme**, **Ted Lieberman**, **Al Muggia**, **Al** and Carol **Phillips**, **Jack** and Pauli **Wood**, **Gooch Gershon**, **Bob Parente**, **John Creatura**, **Bob Donahue**, **Phil Fazzone**, and **Mike Kashgarian**.

Mike Kashgarian sent the following report: "We discovered that, despite 15 years, we had not lost the insight and ability which distinguished our class as one of the best ever graduated from Yale. In addition to our capabilities as physicians, an appreciation of the finer things in life was demonstrated as we relished our fillet de boeuf bordelaise and Chassagne Montrachet followed by dessert and champagne.

'All seemed well settled into their own niche, be it private practice or academic medicine, and generally happy with their choice.

"The joy of reunion was genuine with a background hum of 'Do you remember. . . ?' and 'What are you doing now?' and 'We should get together. . .' A resolution was made by all present to actively recruit delinquent classmates for a bigger and better 20th."

Name of Student	Type of Internship	Hospital name
David Abram Adler	Psychiatry	Massachusetts Mental Health Center, Boston
Peter Baily Anderson	Medicine	Mary Hitchcock Memorial Hospital, Hanover
John Crest Anes	Medicine	Syracuse Medical Center
David Alan Baggish	Medicine	Yale-New Haven Medical Center
David Nelson Bailey	Laboratory Medicine	Yale-New Haven Medical Center
Stephen Theodore Baker	Medicine	University Hospitals of Cleveland
Bennett Lloyd Blitzer	Medicine	Yale-New Haven Medical Center
Helene Linda Posner Blitzer	Pediatrics	Yale-New Haven Medical Center
Clement Richard Boland	Medicine	St. Francis Hospital, Hartford
Michael Laird Bramley	Pediatrics	North Carolina Memorial Hospital, Chapel Hill
John Ollis Langford Brown, Jr.	Medicine	Strong Memorial Hospital, Rochester
Mary-Ann Brunstetter	Pediatrics	University Hospital of San Diego County
Robert William Bucholz	Surgery	University of Colorado Affiliated Hospitals, Denver
James Norman Campbell	Surgery	Johns Hopkins Hospital, Baltimore
Marvin Micah Chassin	Medicine	University of Michigan Affiliated Hospitals, Ann Arbor
William Thomas Choctaw	Surgery	Yale-New Haven Medical Center
Francis Sessions Cole, III	Pediatrics	Children's Hospital Medical Center, Boston
Joseph Michael Connors	Medicine	North Carolina Memorial Hospital, Chapel Hill
David Louis Coulter	Pediatrics	Duke Medical Center, Durham
Jorge Luis Hernandez Denton	Medicine	University Hospital, San Juan, Puerto Rico
Christopher Miller Doran	Medicine	Mary Imogene Bassett Hospital, Cooperstown
Joseph Walter Eichenbaum	Medicine	Washington Hospital, Washington, D.C.
Jane Hough Ferguson	Pediatrics	Boston City Hospital
Richard Jay Fingeroth	Medicine	Yale-New Haven Medical Center
Robert Allan Florin	Psychiatry	Yale-New Haven Medical Center
Glenn Sherman Forbes	Radiology	Mayo Graduate School of Medicine, Rochester
George Ivor Frank	Medicine	University of Washington Affiliated Hospitals, Seattle
Robert Edward Galloway	Medicine	Maimonides Hospital, Brooklyn
Lee Goldman	Medicine	University of California, San Francisco
Gary Victor Gordon	Medicine	University of Michigan Affiliated Hospitals, Ann Arbor
Gary Thomas Grimes	Pediatrics	Los Angeles County Harbor General Hospital, Torrance
Neal Handel	Surgery	University of California Hospital, Los Angeles
Frederick Michael Henretig	Pediatrics	St. Christopher's Hospital for Children, Philadelphia
Howard Steven Honig	Medicine	Georgetown University Hospital, Washington, D.C.
Wanda DeVora Huff	Medicine	Harlem Hospital, New York
Eileen O'Brien Jennings	Psychiatry	Yale-New Haven Medical Center
David Charles Johnson	Surgery	George Washington University-D.C. General Hospital, Washington, D.C.
Andrew Gabor Kadar	Surgery	University Hospital of San Diego County, San Diego
Michael Alan Kaufman	Pediatrics	Presbyterian-University Hospital, Pittsburgh
John Munn Kirkwood	Medicine	Yale-New Haven Medical Center
Michael Stuart Kramer	Pediatrics	Yale-New Haven Medical Center
Christine Ann Kull	Pediatrics	Presbyterian Hospital, New York
Ruth Lyon Lasell	Rotating	Mount Zion Hospital, San Francisco
Lynne Miriam Liptay	Pediatrics	Montefiore Hospital, New York
George Lister, Jr.	Pediatrics	Yale-New Haven Medical Center
Jeffrey Stuart Lustman	Psychiatry	Yale-New Haven Medical Center
William McBride	Medicine	Bellevue Hospital Center—New York University, New York
Mark Gerald Fielding McCormick	Pediatrics	Presbyterian-University Hospital, Pittsburgh
John Anders McDowell	Pediatrics	Children's Hospital of Philadelphia
John Francis McQuade, III	Medicine	North Carolina Memorial Hospital, Chapel Hill
Harold Raymond Mancusi-Ungaro, Jr.	Surgery	Yale-New Haven Medical Center
Douglas Ernest Mattox	Surgery	Stanford University Hospital
Mika Omieri Mitoko	Surgery	Mount Sinai Hospital, New York
Jerry Nagler	Medicine	Presbyterian Hospital, New York
James Andrew Nathanson	Medicine	Hartford Hospital
John Frederick Neil	Rotating	Denver General Hospital
James Anthony Neviackas	Medicine	Roger Williams Hospital, Providence
Claes-Göran Mats Nilsson	Medicine	Medical Center Hospital of Vermont, Burlington
Nii Akwei Pappoe	Medicine	Harlem Hospital, New York
David Edward Peach	Medicine	University of Oregon Medical Schools Hospitals, Portland
David Pickar	Medicine	University of Kentucky Medical Center, Lexington
Robert Joseph Polackwich	Medicine	Boston City Hospital
John William Popp, Jr.	Medicine	Yale-New Haven Medical Center
Robert Hugh Posteraro	Surgery	Georgetown University-D.C. General Hospital, Washington, D.C.
Charles Felder Reynolds, III	Medicine	Royal Victoria Hospital, Montreal
James Stephen Robertson	Medicine	University of Colorado Affiliated Hospitals, Denver
Thomas James Romano	Medicine	Roger Williams Hospital, Providence
Harry Solomon Romanowitz	Pediatrics	Strong Memorial Hospital, Rochester

Name of Student	Type of Internship	Hospital name
Jerrold Frank Rosenbaum	Rotating	Denver General Hospital
John Rugge	Medicine	Albany Hospital
Donald Allen Schon	Medicine	University of Pennsylvania Hospital, Philadelphia
John Paul Sherck	Surgery	Stanford University Hospital
George Daniel Shoup	Surgery	Case Western Reserve University Affiliated Hospitals, Cleveland
Joseph Frank Simeone	Radiology	Yale-New Haven Medical Center
Robert Alan Sirota	Medicine	Yale-New Haven Medical Center
Michael Edward Solin	Family Practice	Medical College of Virginia, Richmond
Carole Harmon Stashwick	Pediatrics	Yale-New Haven Medical Center
John Russell Stratton	Medicine	Toronto General Hospital
Charles Frederick Stroebel, III	Psychiatry	Institute of Living, Hartford
James Francis Sullivan	Medicine	Yale-New Haven Medical Center
Thomas Francis Sweeney	Surgery	Yale-New Haven Medical Center
Marjorie Ellen Tripp	Pediatrics	University Hospital of San Diego County
Robert Joseph Ursano	Psychiatry	Wilford Hall U.S.A.F. Medical Center, San Antonio
Bruce Thomas Volpe	Medicine	University of Chicago Hospitals and Clinics
Marc Alan Weinberg	Medicine	Yale-New Haven Medical Center
Richard Sai Kin Young	Pediatrics	University of Washington Affiliated Hospitals, Seattle
Randall Mark Zusman	Medicine	Massachusetts General Hospital, Boston
Other Appointments:		
Richard Philip Bozof	Law	University of California Law School, Berkeley
Peter William Scherer	Mechanical Engineering	Massachusetts Institute of Technology, Cambridge

YALE MEDICINE

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New Haven, Connecticut 06510

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Yale Medicine

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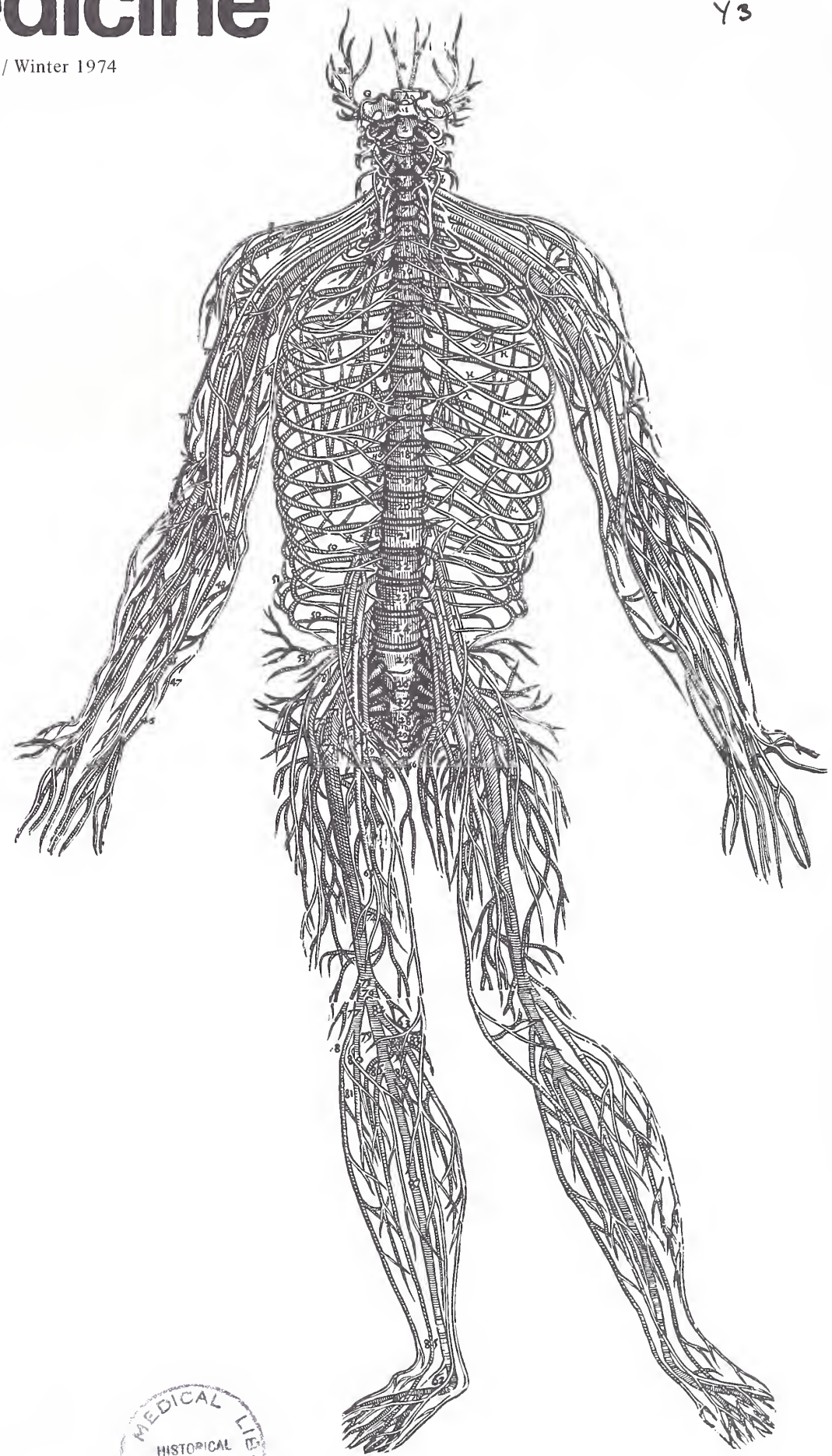

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Cover: *A delineation of the thirty pairs of nerves which take origin from the dorsal medulla contained in the backbone. . .* From the *De Humani Corporis Fabrica* by Andreas Vesalius of Brussels. (1514-1564)

opinion:

Yale medical students' and graduates' attitudes toward national health issues

By Lee Goldman, M.D.

Dr. Goldman received his M.D. degree from Yale in June, 1973. This article, which is an excerpt from his M.D. thesis, was one of several papers presented at the Student Research Day Program in May, 1973.

The prominence of the current debate on the merits of the various national health proposals needs no emphasis. Throughout the debate, the American Medical Association has voiced its views, but there is surprisingly little data on the attitudes of American doctors at the grass-roots level. My thesis was undertaken to help rectify this omission.

I began by mailing a questionnaire to a random one-seventh sample of the members of each Yale medical school class from 1930 to 1976. The questionnaire elicited opinions on all the main planks of the major pending national health legislation proposals. In the questionnaire, no specific bill was ever actually mentioned by name; instead, a given respondent's feelings toward an overall bill were compiled from his opinions toward its many specific planks. For the purpose of this study, it was assumed that if a respondent was not opposed to any key aspect of a given bill, then he would accept the entire proposal.

The overall response rate to the questionnaire was 67.5 percent. The return rate was above 63 percent among all decades of respondents.

Table 1 shows that the most popular single bill was the AMA's Medicredit proposal; its provisions were acceptable to 53 percent of the respondents. The Javits plan, which would extend Medicare to all ages and also encourage Health Maintenance Organizations, was acceptable to 37 percent. The catastrophic health plan of Senator Long was approved by 27 percent. A total of 24 percent of the respondents would accept the plan of the Health Insurance Association of America. The wide-sweeping reforms of the Kennedy-Griffiths Health Security Program were acceptable to only 10 percent. The bill that President Nixon introduced in the 92nd Congress, which encouraged HMO's but would give inferior insurance coverage to poor people, was approved by only 9 percent.

These attitudes were then analyzed further. Table 2 demonstrates that certain types of respondents were significantly more likely to accept bills which would encourage Health Maintenance Organizations, while other types tended to prefer a much more conservative bill such as the Medicredit proposal or the Long plan.

When analyzing by age, medical students were the most reform-minded,

Table 1. ATTITUDES TOWARD SPECIFIC BILLS

	% of Respondents who accept the provisions of each bill
AMA-SPONSORED MEDICREDIT (financed by tax credits, no change in organization)	53%
JAVITS PLAN (extend Medicare, encourage HMO's)	37%
LONG PLAN (catastrophic coverage for employed and disabled)	27%
HEALTH INSURANCE ASSOCIATION (tax credits for employed, risk pools for poor)	24%
KENNEDY-GRIFFITHS (widest coverage, HMO's)	10%
NIXON PLAN (less coverage for poor; encourage HMO's)	9%

The percentages add up to greater than 100 percent because many respondents would accept the provisions of more than one bill

followed by house-staff members and then by older graduates. The most conservative age group was the young practicing doctors. It seemed as though those in training believed most in reform, the older doctors may welcome the security of a possible position in a more organized health care system, but the young practitioners do not want the restrictions imposed by HMO's.

In terms of organization of present practice, medical school faculty especially, and multi-specialty group members to a lesser extent, favored HMO's. Solo practitioners and members of single specialty groups did not.

Pediatricians and internists were the most reform-minded specialists, surgeons and general practitioners were the most conservative. I would hypothesize that pediatricians and internists see themselves as key participants with an increased status in a reorganized health care system. Surgeons may fear the restrictions and potential loss of income; general practitioners may fear a loss of status such as has occurred to G.P.'s in England's national health service.

People who said they were politically liberal also tended to favor HMO's. An exception were psychiatrists, who as a group never gave majority support to any single bill. Their philosophical liberalism seemed to preclude acceptance of the conservative plans, but the psychiatrists apparently so prized their independence that they were unwilling to accept the restrictions imposed by the more reform plans. Democrats, and those who said they had favored Medicare back in 1964 also tended to favor bills which encouraged HMO's. All of the variations shown in Table 2 were significant to at least the .05 level. There were no variations of feelings toward national health insurance proposals with respect to a respondent's social class origins or his religious upbringing.

The results in Tables 1 and 2 have amply demonstrated the striking fragmentation of opinions. The AMA's Medicredit plan was the leading vote-getter, but many who would accept it would also accept other bills. Thus, Medicredit seemed more of a lowest common denominator than an overwhelming ideal.

Meanwhile, in Washington D.C., in a rare display of philosophical agreement,

Table 2. VARIATIONS OF ATTITUDES OF DIFFERENT SEGMENTS OF RESPONDENTS

tend to favor bills encouraging HMO's	tend to favor long plan or Medicredit Bill
medical students	practicing doctors, ages 30–49
medical school faculty; multi-specialty group members	solo practitioners
pediatricians	surgeons
political liberals (except psychiatrists)	political conservatives
Democrats	Republicans
those who favored Medicare in 1964	those who opposed Medicare in 1964

both the Nixon Administration and the Democratic Party have expressed support for bills which would encourage HMO's. In fact, several national surveys have shown that although most American doctors do not like the HMO bills, even they believe that within the next decade much, most, or even nearly all U. S. medicine will be practiced in Health Maintenance Organizations. In view of these practical political realities, it is important to consider how doctors would react if legislation enacted is more reform than they prefer.

Table 3 shows how doctors reacted to the most obvious precedent, Medicare. In 1961, only 20 percent of national doctors liked Medicare. In 1964, before the law was passed, 38 percent of New York State private practitioners approved of the bill. Later that year, after the law had passed but before it had been implemented, 70 percent approved of Medicare. Five years later, an outstanding 92 percent *of the same sample* of New York State doctors liked Medicare.

Thus, the Yale respondents, who have general political attitudes similar to those of the New York State practitioners, presently give just as much support to a reform bill like the Javits plan, as was given to Medicare shortly before it was passed. Of course, there is no guarantee that if a reform national health insurance bill is passed, there would be a similar trend of markedly increasing support. Medicare mainly added more money to an existing system, and it proved financially advantageous to most physicians. On the other hand, many doctors fear HMO's will lead to a reduction in physicians' independence and income.

But if a bill such as the Javits plan, or the Nixon bill, or the Kennedy-Griffiths bill were passed, how would even the most intransigent doctor react? He could refuse to work within the new system, but if he did refuse, some segments of physicians, particularly the present medical students, seem ready to take the places of any boycotters. In fact, a full one-third of the current Yale medical students indicated that the *most* desired form of medical practice for them would be a multi-specialty group. (By comparison, only 10 percent of the established graduates presently practice in multi-specialty groups.) Also, over 85 percent of the medical students, compared to

Table 3. PROGRESSION OF ACCEPTANCE OF MEDICARE

	% who liked Medicare
National doctors, 1961	20
New York State doctors,* 1964 before law passed	38
New York State doctors, after law passed, but before law was implemented	70
New York State doctors, 1969	92

*The political attitudes of N.Y. doctors are very similar to those of the Yale respondents

Source: Colombotos, John. "Physicians and Medicare: A Before-After Study of the Effects of Legislation on Attitudes." *American Sociological Review* 34:318–34, 1969.

60 percent of the established graduates, would be willing to be reimbursed by mechanisms other than fee-for-service.

Despite the current attitudes of the present medical students, one might ask whether they will not change their feelings over time and thus become just as conservative as the practicing graduates. Probably not, according to my study.

Table 4 shows that older Yale graduates are more likely than students or house staff to have changed their political ideologies since they entered medical school. However, among no age group is there a significant difference between the number of respondents who have become more conservative compared to the number who have become more liberal. Based on the strong correlation between political attitudes and medical attitudes which was discussed earlier, it is likely that these students will also remain medically liberal.

Because this demonstrates the most surprising, and perhaps the most intellectually interesting finding of my study, I think it is worth a brief digression. In the 1950's, while educators in general were stressing the effects of education on students, medical educators in particular emphasized that medical students became less idealistic, less humanitarian, and more cynical as they went through medical school. Recently, however, evidence has accumulated which indicates that such changes are not uniform, and that when they do occur they are more often merely an accentuation of existing beliefs rather than a true conversion to new values. Thus, a given medical student seems likely to remain relatively consistent in his beliefs. The most important practical application of this finding rests in the hands of medical school admissions committees. Based on the consistency of students' values and attitudes, it seems that medical admissions committees may possess a potentially greater power than curriculum committees, medical faculties, and perhaps even national health legislation in shaping the future of the American medical profession.

In summary, then, Medicredit is the most popular bill, but there is marked fragmentation of attitudes. Meanwhile, the practical political realities indicate that legislation which is more reform than Medicredit may be on the way. If such reform legislation is passed, it is likely that American doctors, either willingly or under duress, will conform to the new legality. If they refuse, a generation of liberal medical students seem ready to take their places in a reformed health care system.

Table 4. CHANGES OF POLITICAL ATTITUDES OVER TIME

	since entering medical school have		
age group	a. not changed	b. become more conservative	c. become more liberal
First year students	88%	5%	7%
Third year students	89%	8%	3%
Interns (Class of 1971)	69%	10%	21%
Class of 1968	77%	12%	10%
Graduates who have finished training	52%	23%	24%

Although older graduates are more likely to have changed their political philosophy, respondents in every age group are just as likely to have become more liberal as to have become more conservative

a new approach to acute spinal cord injury

Nearly 200,000 Americans are paraplegics, and every year 10,000 more will be at least partially paralyzed with little hope of recovery, as a result of acute spinal cord injury. The majority of victims are young men between 18 and 30 years old, casualties of violent automobile accidents.

Compounding the personal tragedy of each new paraplegic is the cost of care, which has been estimated as high as $900,000 from the time of injury until death. Furthermore, the loss of the lifetime income of an age group that remains largely unemployed, and the tremendous sociological and psychological implications to a young patient who is paralyzed, underscore the enormity of the problem.

Unfortunately, in spite of thousands of dollars and years of intensive research spent in developing new techniques for regeneration of damaged spinal cords, there is at present little hope for reversing the effects of acute spinal cord injury. Research is this area is continuing, but it is obvious that other possibilities for saving spinal cord function and rehabilitating these patients must be explored.

The Yale School of Medicine has undertaken a program to study all aspects of spinal cord injury. Under a $3,037,000 contract with the NIH, it is establishing an acute spinal cord injury center in the Yale-New Haven Medical Center to investigate a broad range of epidemiological, clinical and laboratory factors related to spinal cord injury. Dr. William F. Collins Jr., professor and chief of the Section of Neurosurgery, is the director of the Center which includes a staff of clinical, laboratory and public health personnel participating in a five-year program, divided into five interrelated investigative categories: epidemiology of spinal cord trauma; emergency care; hospital care; laboratory studies of spinal cord injury; studies of spinal cord and spinal column structure and function.

One of the Center's major concerns will be focused on the initial period following injury, since, according to Dr. Collins, there is evidence that the first four hours after an accident are the most crucial for patients with spinal cord injury.

"Recent experimental work with animal models shows a progressive neural tissue loss with spinal cord hemorrhage occurring during the first three or four hours following injury," he explained. "Although it has not been confirmed that treatment during this period will change the degree of the injury and the ultimate anatomical and functional results, there are indications from a number of studies that this is the case."

If these studies prove correct, it would mean that the type and timing of emergency care may be a, or even *the*, key factor in determining the ultimate results of an acute spinal cord injury. Therefore, it would be imperative for personnel caring for the patient at the scene of the accident or in the emergency room, to be trained to recognize possible spinal cord injury and to deal with the immediate problems of rapid transportation and effective treatment.

Emergency medical care in this country is appallingly inadequate, according to Dr. Collins. His views reflect the opinion of the National Science Foundation, which issued a sharply critical report last year, charging that thousands of Americans die needlessly each year as a result of inadequate emergency medical services.

"It is well known that the emergency medical services in the United States need to be evaluated," Dr. Collins said. "At present the training of emergency medical personnel is haphazard at best, and communication, transportation, and emergency care is fragmented with no central, or even regional, organization or control in most of the nation. The cost of such fragmentation and lack of control, in terms of mortality, morbidity and finances, is unknown, but pilot studies indicate that it is considerable."

Members of the Yale Acute Spinal Cord Injury Center's program will study the epidemiology of spinal cord injury in an effort to determine what are its causes and what could be done to decrease its frequency and severity. They will also investigate the emergency care of spinal cord injury starting at the scene of the accident and continuing through the first ten days of hospital care. Included will be evaluations of personnel who have cared for the patient, transportation, hospital emergency room treatment and early definitive medical care. It is hoped that these studies will lead to information in determining whether any phase of this early treatment is important in the total morbidity or mortality of the patient.

Participants in this part of the study will work closely with the Department of Surgery's Trauma Program, which has conducted an extensive study of trauma, including emergency care, transport and communications, in Connecticut. As a result of their findings they are launching a vigorous campaign for cooperation and coordination of all emergency medical services on a statewide basis.

Another major facet of the Center's activities is experimental studies of spinal cord injury with animal models. This involves investigations of the origin of

lesions that follow trauma, using light microscopy and electron-microscopy. Research scientists in the study will also investigate the biochemical changes that occur above, below, and at the site of the lesion to be certain there is no aspect in the changes of the chemistry of the injured spinal cord that could contribute to the loss of neural tissue.

Studies are also being conducted which can give objective evidence of spinal cord function or malfunction, so that a more rapid evaluation of treatment of both the experimental animal and the patient with a spinal cord injury can be made. The importance of such a study becomes evident when it is realized that it may take a spinal cord injury as long as 15 to 18 months to recover, if recovery is possible at all. Objective evidence of recovery—and the degree of recovery—are probably present, but at this time there is no way to accurately record this in the early weeks after injury. The ability to be able to evaluate a treatment program in the early stages would improve the program.

Yale's Acute Spinal Cord Injury Center is also focusing attention on the psychological and sociological rehabilitation of the patient, as an integral part of the over-all treatment program. According to Dr. Franklin C. Wagner, assistant professor of neurosurgery and director of the clinical section of the Center, these are vital elements in the recovery of the patient and his ability to reenter family and community life. It is important that psychological and sociological counseling begin almost immediately after the patient enters the hospital.

"One of our important aims is to overcome the pervasive pessimism associated with acute spinal cord injury," Dr. Wagner stated. "It is generally assumed that these patients will spend the rest of their lives confined to a bed—or at best, a wheel chair, incapable of assuming job or family responsibilities. This pessimism can be devastating to the majority of our patients who are young males, mostly in unskilled or semi-skilled labor groups."

Ninety percent of spinal cord injured patients in England return to community life as active, viable citizens. This is largely due to programs of sociological and psychological adjustment, set up in spinal cord injury centers such as the Stoke-Mandeville General Hospital, which has served as a model for other centers.

In the United States only about 50 percent of the patients experience this type of rehabilitation. Dr. Wagner explained that this is due, in a large measure, to a general lack of coordination and continuity of treatment of spinal cord injured patients in most medical centers here.

"At Yale we intend to take an overview of the entire treatment program, including sociological and psychological adjustment, as well as emergency care treatment and physical rehabilitation," he said. "We must help these patients realize that it will be possible for the majority of them to resume most of the activities in which they formerly participated. This can be done by encouraging them to anticipate many sociological and physiological aspects of rehabilitation not previously considered possible for the acute spinal cord injured patient."

Photos from a film on emergency medical care for the Section of Trauma, Department of Surgery. William Guth is director and Susan Wheeler is producer of the medical school's Communication Media Group, producers of the film.

review:

A Look at the Yale Journal of Biology and Medicine

By Jason S. Zielonka

The student editors in 1910. Standing left to right. Frank Johnson, Samuel Harvey, Louis Levy. Sitting: William Beardsley, Herbert Thoms, Chairman, *Harry Reynolds. Dr. Harvey was the Chairman in his fourth year (1912).*

Yale numbers among its faculty innumerable contributors to journals and many editors of publications; Yale also serves as the editorial headquarters of several publications, but among all these, one is unique in its editors, its contributors, and its relation to Yale. The *Yale Journal of Biology and Medicine*, now in its 46th year, is the only journal of its size and stature to have students actively participating on its board of editors. Before discussing its present condition and the growth and development planned for the future, it would be appropriate to describe how this journal and its student editorship came to be.

I. Yale Medical Journal (1894–1912)

In November, 1894, there appeared the first issue of the *Yale Medical Journal*, to be "published monthly from November to June, by students of the Yale Medical School." The subscription price was two dollars a year; single issues were available for thirty cents. The editorship was in the hands of students: six student editors, aided by a five-member faculty advisory board, elected a student chairman and managed the affairs of the *Journal.*

The *Yale Medical Journal* may be considered the parent of the present journal, not only because of its student management, but also because of its purpose: to offer students of medicine closer contact with the leaders of their profession and with each other and to provide a medium through which physicians, especially in Connecticut, could communicate with each other professionally.

Jason S. Zielonka is a fourth year medical student and a member of the Board of Editors of the Yale Journal of Biology and Medicine.

Until 1912, when it was discontinued, the *Yale Medical Journal* mirrored the progress of the Yale Hospitals and Clinics and the education and research of the students and faculty of the Yale Medical School. The first article in Volume I, Number 1, a "Preliminary report of an epidemic of paralytic disease, occurring in Vermont, in the summer of 1894," by C. S. Caverly, president of the Vermont State Board of Health, was the first published account of a poliomyelitis epidemic in the United States. Later issues in Volume I included several papers on the pathophysiology and treatment of appendicitis, a topic of great and current interest ever since Reginald Fitz's classic paper defining the condition and its surgical cure had appeared in 1886. Later articles dealt with diphtheria, tuberculosis, and typhoid; the new frontiers of X-rays and the use of electricity in medicine were described.

In subsequent volumes, the *Yale Medical Journal* carried articles by men whose names bring to mind the tremendous growth and improvement in medical teaching, research, practice and organization: S. Weir Mitchell, William Henry Welch, Simon F. Flexner, William Osler, Henry M. Hurd, William Stewart Halsted, Harvey Cushing, W. W. Keen, Eugene L. Opie, Frederick C. Shattuck, and W. H. Howell. The authors clearly indicate the *Journal* neither limited itself to Yale faculty only, nor to the restrictive subject matter of most medical publications.

The remainder of the magazine was divided into sections entitled: Hospitals and Clinic Notes (covering developments and activities in the clinical services); Abstracts (covering articles published in foreign journals); Medical Society Reports (covering the meetings, publications, and activities in Connecticut and New England); and Alumni and School Notes. In short, the *Journal* was broadly-based, appealing to students, faculty, alumni, and practitioners, with a nationally recognized group of contributors, not all located at Yale, and with no restriction on the topics which could be discussed within its pages. It was indeed an educational instrument, for its student editors as well as its readers.

In 1912 with Number 9 of Volume 18, the *Yale Medical Journal* ceased publication. According to the editors, this occurred because there was an abundance of available current medical literature for all desiring it, and "because of the belief that the value of the *Journal* in the limited field which it has attempted to cultivate is not sufficient to justify the effort necessary for its continued publication." There may have been an additional, financial, factor: when the *Journal* began to publish the *Proceedings of the State Medical Society*, a revision in the advertising policy, meant to make the *Journal* conform to the standard of the *Journal of the American Medical Association*, resulted in approximately half the ads being dropped, a considerable loss of income.

II. Yale Journal of Biology and Medicine (1928– . . .)

During the next twenty-five years, medicine, from both the clinical and experimental aspects, changed drastically. This was especially evident at Yale, which participated directly in so many changes. It was especially obvious to the student body, and, from time to time, petitions and requests for the re-establishment of a student-run journal were presented. Their purpose and hopes are nowhere better expressed than in the editors' opening comments in the first issue of the new *Yale Journal of Biology and Medicine*:

> "The natural and proper amalgamation of the Biological Sciences with Medicine which is obviously taking place in the scientific world is well demonstrated by the present interrelation and development of these branches at Yale. As a medium of expression of these departments at this University this JOURNAL has been inaugurated."
>
> . . . The addition of another publication to the already abundant field of scientific journalism has not been attempted without consideration and it is hoped that this JOURNAL will have certain characteristics which will prove its usefulness. In other words that it will represent something other than one more journal.
>
> Conceived by a small group of students in the Yale School of Medicine the JOURNAL is essentially a publication of and by the students in Medicine and the Biological Sciences in Yale University. In its pages it is purposed [*sic*] to present such subjects as will be of educational value and will further develop the concept of Biology and Medicine as it is envisaged by those working in these fields in this University. . . ."

A more pragmatic view, which emphasizes the educational value of the *Journal* was presented by Dr. Milton C. Winternitz, Dean of the Medical School, in his Annual Report for 1928–29:

> "One important project that may be considered beyond the scope of what is usually included in the curriculum has been most successfully inaugurated this year; namely, the publication of the *Yale Journal of Biology and Medicine*. It may be remembered that the *Yale Medical Journal*, a very successful publication for some years, was discontinued in 1912, and, from time to time since, both students and faculty have expressed the hope that it might be revived or that some other publication would fill what was deemed to be a growing need. The enlarged School, its affiliation with the biological sciences and the many activities now being pursued, make it impossible for an individual to have timely and accurate information of many of the enterprises with which all should have a general familiarity. Further, the educational value for a limited number of students, derived from service on the editorial board of a supervised publication, cannot be disputed."

The format of the new *Yale Journal* was quite similar to that of its predecessor: following the original papers were sections entitled: Comments (news of people and new developments at Yale); Events (usually abstracts of papers presented to the Yale Medical Society and to various state medical society functions); and Abstracts and Reviews. In addition, a tradition followed for many years, was the inclusion of a paper dealing with a historical topic in each issue; the resulting papers are today still models of erudition and expression.

Many of the contributors to the *Journal* at this time are familiar to today's readers, either through personal contact or the results of their work; these include Samuel C. Harvey, Francis G. Blake, Ira V. Hiscock, John P. Peters, Harold S. Burr, Hubert B. Vickery, Herman Yannet, Allan K. Poole, George R. Cowgill,

William J. German, and C.-E. A. Winslow. To these we may add more recent names who have continued their interest in (and support of) the *Journal*: Elisha Atkins, Phyllis Bodel, Philip K. Bondy, Lawrence R. Freedman, Averill A. Liebow, Levin L. Waters, and Louis G. Welt.

In the comments section of the first issue, the physical growth of Yale was noted with descriptions of three new buildings being added to the medical complex; the intellectual growth of Yale was noted in an article by Dr. Raymond Hussey, chairman of the Curriculum Committee, entitled "The study of medicine at Yale," in which the present evaluation system was formally described.

Subsequent issues detailed the million dollar endowment gift from the Rockefeller Foundation to the Yale School of Nursing, "permitting this novel experiment in nursing education, (its students were required to have a bachelor's degree for entrance)," to become permanently established. Also announced were the gifts resulting in the Fitkin Pavilion, a new clinic building, the Laboratory for Medicine and Pediatrics, and the Institute of Human Relations. In short, as Yale grew, the *Journal*, ever-present and participating, matured with it.

As can be imagined, to manage such an undertaking and to balance research papers with clinical applications and cultural aspects to produce a well-rounded publication, required much time and energy. That the first editor-in-chief of the *Yale Journal* met the requirements *and* provided the educational experience desired, can be seen in the following quotation from Dean Winternitz's Annual Report for 1930–31:

> "In as much as Professor Smith of this department [immunology] is editor-in-chief of the *Journal of Biology and Medicine*, it is in place to mention here the outstanding success of the *Journal* during the three years it has been in existence. The *Journal* has proved to be of increasing value as a literary and informative organ, and it will depict the activities of the School of Medicine and, in an increasing degree, those of the biological sciences at Yale accurately and uniquely for the historian of the future. More than this, it is proving to be a valuable part of the educational procedure, and it is hoped that an endowment will ultimately become available for it as such. It should also become an elective curricula activity."

Following Dr. Smith, the *Yale Journal* continued to maintain an excellent board of senior editors and an especially impressive group of editors-in-chief (marked with *), as can be seen from this partial list: George H. Smith,* John R. Brobeck,* Max Taffel,* Paul B. Beeson,* Lawrence R. Freedman,* Alfred S. Evans,* Gerald Klatskin, Frederick G. Kilgour, Averill A. Liebow, Vernon W. Lippard, Gerhard Giebisch, Elisha Atkins.

Judging the success of any journal is a difficult task; in one so entwined in education, as is the *Yale Journal*, it becomes even more difficult. As a partial measure, one can examine those papers considered "definitive" or "classics" in their field; while they may now be superceded, their importance remains obvious.

III. Yale Journal: Present and Future

Having reviewed the history of the *Journal*, it is now appropriate to consider how the present *Journal* differs from the above descriptions and what changes are being planned in the future.

Briefly, the structure and function of the editorial board remains intact. Board meetings are held every other week and manuscript presentations are made exclusively by students, after consultation with senior faculty reviewers selected for their expertise in the area under consideration.

The sections of the *Journal* described above have gradually disappeared, so that today it contains original research papers, book reviews, and editorials only. The Connecticut State Medical Society has its own publication, as do alumni. The Comments section has been incorporated into *Yale Medicine*, while the Abstracts section has disappeared entirely. The Events section, while losing its distinct title, has been retained: most endowed lectures, presentations to Yale groups or special conferences and symposia are printed in their entirety in the *Yale Journal*.

In general, then, the present *Journal* format and *modus operandi* remain similar to that of the original *Journal*. What has changed markedly is the publications environment; whereas once most journals were generalized and the spread of knowledge was via reading the articles directly, today's publishing explosion is primarily in highly-specialized journals, while indexing services (*e.g.*, Index Medicus, Science Citations Index), alerting services (*e.g.*, Current Contents), and computerized retrieval services (*e.g.*, MEDLINE), make it possible for a researcher to discover and, through reprints, obtain valuable papers in many journals he never knew existed, let alone read regularly.

The above situation results in several peculiar advantages for the *Yale Journal of Biology and Medicine*: because it has a large enthusiastic group of editors, decisions on most papers submitted for consideration can be received in four to six weeks and a final revised accepted paper can be published in six to ten weeks, compared to the delay to most other journals of six to twelve months; because most libraries, hospitals, and other institutions have subscriptions, it is readily available to even the non-subscribing public, and its presence in the indexing and retrieval systems mentioned above ensure wide-spread exposure of articles; because the *Journal* circulation is at a reasonable level (although an increase would certainly not be unwelcome!), the

cost to the author of publishing an article—page charges, photo charges, reprints, etc.—is far more reasonable than most other journals; finally, because the *Journal* is a generalized one with a wide readership, it is an excellent location for multi-disciplinary articles or studies which could not fit neatly into most of the specialty journals.

What, then, is the present status of the *Journal* and what does the editorial board see in the future? The *Yale Journal* has lost its alumni and Yale events columns; to most people, however, it has not lost the image of being "Yale's private journal." As the Board and the publisher (Academic Press—certainly not a locally limited group) point out, the work being done at Yale, and outside of Yale, whether by Yale alumni or others, is all of equal validity and equal merit for publication. Certainly an examination of recent volumes shows the international flavor of the *Journal's* contributors. It is the hope of the Board that this broader acceptance will continue and will grow.

The future of the *Yale Journal* has always hinged on finances. In the past, questions regarding special issues, such as issues entirely devoted to one person or to one subject, or page or photo overruns, have resulted in the *Journal* maintaining itself precariously "in the black." The association with Academic Press and the hoped-for increase in circulation, especially among Yale alumni and other individuals, advertising, and articles, again, especially from Yale alumni and other individuals, should place the *Journal* on a firmer financial footing and permit further services to be made available to *Journal* authors and subscribers.

The *Yale Journal of Biology and Medicine* has always had an international following, but a reputation as a "local" journal; the hope of the present Board of Editors is that it can retain and improve its personal, rapid service and continue to build the *Journal*'s following, with a reputation to match. Is this an unreasonable goal? Perhaps, . . . but then, the *Yale Journal* has never backed away from a unique situation or a difficult challenge, and that, in the final analysis, may be why it is the educational experience that generations of students and faculty have found it to be.

The Board of Editors of the Yale Journal of Biology and Medicine at a recent meeting. Left to right: Carole Kandall, Howard Ozer, Jr., Neil Blumberg, Paul Copeland, David Kawanishi, Mrs. Jean Brunjes, Managing Editor, *Alfred Evans,* Editor-in-Chief, *Elisha Atkins,* Associate Editor, *Douglas Zusman, Jason Zielonka. Not shown were Gerhard Giebisch,* Associate Editor, *Roger Bosches, Hanlon Fong, Ary Goldberger, James Rosenbaum and Edward Wolin.*

Acknowledgment

Grateful acknowledgment is made to Vernon W. Lippard, M.D., and to Miss Elizabeth H. Thomson for their assistance and knowledge, both written and oral; in their aid, graciously offered and freely given, they personify the spirit of the Yale Journal.

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student financial aid

The cost of medical education has skyrocketed in recent years and there are clear indications that it will continue to soar ever upward. It costs a single Yale student approximately $7,000 a year to attend medical school, on a bare-bones budget. Multiplied by four years, this amounts to a minimum of $28,000 for an education at the Yale School of Medicine. When added to the cost of four years at college the total is well over the amount the average family spends on buying a home. This staggering figure is standard for private medical schools across the country.

How can anyone other than the son or daughter of a millionaire attend medical school today? Two hundred and sixty of the 400 students attending Yale School of Medicine require financial aid of some sort for the 1973–74 academic year. Most of Yale's medical students come from moderate income families with two or more children to educate. Medical education puts a tremendous strain on these families, even if they have been saving for it for years.

Of even greater concern are qualified students from low income families with few, if any, resources to call on. The Yale School of Medicine adopted a policy of open admissions several years ago in order to attract the best students from all income brackets, who are expected to enter a wide variety of medical careers. Despite severe financial strains on the school, Dean Robert Berliner recently reaffirmed its commitment to this policy.

The financial crunch in medical education comes in part from the same things that affect all of our budgets–mainly the rising cost of living. Added to that are the federal cutbacks for funding medical scholarships. The problem is further compounded by an almost 12-month academic year which prevents all but third year medical students from taking significant wage-earning summer jobs.

This year Yale administered over one million dollars in financial aid to help alleviate the burden of the high cost of medical education. This is more than double the amount offered in the 1969–70 academic year and plans indicate an additional $200,000 will be necessary next year. Roughly 30 percent of current aid is in scholarships; the remaining 70 percent is applied to loans with varying interest rates and repayment schedules.

To assure an equitable distribution of available student financial aid, Yale has adopted a standardized formula similar to systems used by other private medical schools to determine a student's needs and resources. The basis of the Yale formula is a minimum budget required for each of the four years in medical school. Each year's budget is established from a list of expenses compiled by a committee of the Medical School Student Council. It is a very thorough assessment, taking into account such details as laundry, dry cleaning, occasional entertainment and transportation. It assumes dormitory living, and eating on a meal ticket, and includes tuition, books, and microscope rental from the medical school, as well as living expenses. It does not include the cost of buying, maintaining or insuring an automobile.

A total budget of $6,900 a year for single students and $9,800 for married students, with an additional $500 for each dependent, was established from this assessment for 1973–74. The amount each student is able to pay is determined by a computer analysis prepared by the Graduate and Professional School Financial Aid Service (GAPSFAS), a national service which offers a uniform method for determining student financial needs and resources. All students who request financial aid, regardless of age or marital status, must have their parents complete a GAPSFAS form. The form includes information about the student's own resources (assets, bank account, liabilities, employment status and anticipated expenses), spouse's income where applicable, and family contribution based on annual income, assets and equities, as well as other financial responsibilities.

The net resources of the student and his family are applied to the basic budget of $6,900 or $9,800. The difference between the budget and the amount of money expected from all available resources constitutes the amount of the student's financial aid from the university. The first $3,000 of any deficit is met by Yale University guaranteed loans. Deficits over $3,000 are met by direct payment in the form of scholarships. The maximum scholarship is $3,900 for the 1973–74 academic year.

In order to avoid a "buying off" practice among medical schools to persuade talented students to attend one school or another, Yale and ten other schools with comparable tuition and living standards have joined in a consortium to find solutions for standardizing financial aid so that students' decisions can be based on academic, rather than

Financial Aid Statistics 1969-1973

Academic Year	M.D. Students Enrolled	Students on Aid	Financial Aid Awards		
			Loans	Scholarships	Total
69/70	364	166	156,000	264,000	420,000
70/71	365	160	192,000	258,000	450,000
71/72	377	222	373,000	313,000	686,000
72/73	395	229	419,000	351,000*	770,000
73/74	404	260	737,000	270,000	1,007,000

*Despite decreases in Federal Funding, the large increase in scholarships awards in 72/73 was made possible by a one-time gift of $76,000 in that year.

Present trends indicate that for 74/75 over $1,200,000 in aid will be required with a potential scholarship need of over $350,000.

financial factors. The system instituted by Yale is compatible with the goals of the consortium.

In order to be consistently applied this system requires an input of scholarship funds which are beyond the funds currently available at the Yale School of Medicine. This lack is due, in part, to a cutback in federal support of Health Profession Scholarships from $69,000 in 1969–70 to $30,000 this year.

The medical school met the $270,000 required for scholarships this year with $100,000 from operating funds, $30,000 from government support, $40,000 from endowments and $50,000 from alumni contributions. This left a deficit of $50,000 which was temporarily covered by a transfer from other sources. This money must be recovered, either by taking it from operating funds sorely needed for educational programs, or from increased alumni contributions and endowments.

Because of a lack of sufficient endowments for medical school scholarships, Yale is one of the few schools participating in the consortium which uses any operating funds for scholarships. With the shortage in scholarship funds and with an increasing need by worthy and needy students for this type of support, increased funds and gifts must be obtained.

As can be noted in chart , the ever increasing need for student financial aid has been met by increases in loans to students. Yale University's recently established Tuition Postponement Option Plan for all professional schools is largely responsible for the increase in the medical school's quaranteed loan support. TPO allows professional students at Yale to defer payment of part of the cost of tuition by permitting them to make payments based on their income after they complete their education. The plan provides for recovery by Yale of amounts deferred under the plan, plus the costs of financing and administering the plan. In 1972–73 TPO accounted for $56,000 in medical student aid. This year $300,000 in student loan awards are under the TPO plan.

There are a number of other sources for Yale guaranteed loans, with interest rates varying between three percent and eight-and-a half percent, depending on the source. The lower interest rate loans are distributed equally among students with the greatest need.

The Yale revolving endowment loan funds and the federal health professional loan fund have low interest rates. The United Student Aid Fund (USAF) loan has a seven percent rate this year. In the case of the USAF loans, the university deposits ten percent of the amount needed for student loans and USAF guarantees repayment of the loan with money made available through local banks. In the last two years, the school has deposited $25,000 with USAF to generate $250,000 in loans. As additional loans to students are necessary, the school must deposit an additional ten percent for each loan issued. The original deposit of $25,000 providing for $250,000 in guaranteed loans has been depleted.

This year a new student loan program was made available by Student Life Funding, Inc., which is financed by the Equitable Life Assurance Society of America. These loans are also processed through USAF. However, they have an eight-and-a half percent interest rate which must be paid annually by the student. Students are encouraged to find alternatives such as family loans, state aid to higher education loans and other sources, rather than assume this extra financial burden.

Gloomy as the present financial aid picture is, it is bound to get still worse in the years to come. For one thing, if the cost of living continues to increase, the cost of medical education will increase. This will cause a further escalation in the number of students requiring financial assistance. Add to this the steadily decreasing federal aid for health profession scholarships and you get an indication of the dilemma medical schools and their students must face.

Clearly, the greatest need for medical student financial aid at this time is a substantial increase in endowed monies which would assure a continuing reserve of investment funds for scholarships and a revolving loan fund. Contributions to the Medical School Alumni Fund have made it possible for the school to expand its scholarship program in recent years. A great deal—and many students—depend on the continued success and increased support of this program.

in and about

Veterans Administration Hospital celebrates its twentieth anniversary

A rededication ceremony held on September 13th marked the twentieth anniversary of the West Haven Veterans Administration Hospital. Exactly 20 years ago to the day, the Hospital had been formally dedicated, with Dr. Lewis G. Beardsley as its first director. On this anniversary Yale president Kingman Brewster, Jr., participated in the ceremonies and joined state and local leaders, in congratulating the Hospital and its present director, Willis O. Underwood.

The West Haven V.A. Hospital was established on the site of the William Wirt Winchester Hospital, which was built in 1918 as a tuberculosis facility for the community. However, before it was opened, the War Department, under pressure for tuberculosis beds, designated the Hospital as the parent hospital for all Army T.B. institutions in the country and it became the U.S. Army General Hospital No. 16. After the war the Hospital changed hands several times before closing in 1946.

The modern history of the West Haven V.A. Hospital begins on April 12, 1948, when the property was purchased by the U.S. Government for construction of a new hospital to provide treatment of veterans. Ground breaking ceremonies were held on February 26, 1950 and the Hospital was formally dedicated on September 13, 1953.

The Yale School of Medicine and the V.A. Hospital established an affiliation agreement that same year. This has resulted in teaching programs for medical students and integrated residency training programs with Yale-New Haven Hospital.

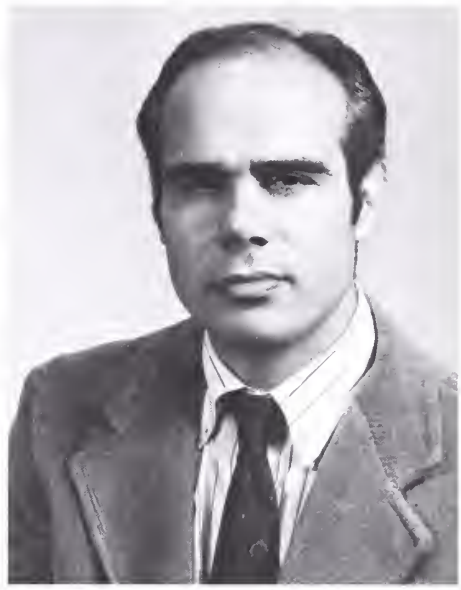
Dr. Vincent T. Marchesi named chairman of the Department of Pathology

The Yale Corporation has appointed Dr. Vincent T. Marchesi chairman of the Department of Pathology and Anthony N. Brady, Professor of Pathology. He succeeds Dr. Lewis Thomas, who resigned this post, as well as that of dean of the Yale School of Medicine, to become president of Memorial Sloan-Kettering Cancer Center in New York.

Dr. Marchesi, who is 38, is a graduate of Yale College and the Yale School of Medicine. He joined the medical school faculty as associate professor of pathology and cell biology a year ago, after serving for four years as medical officer and chief of the Section on Chemical Pathology, Laboratory of Experimental Pathology at the National Institute of Arthritis and Metabolic Diseases, NIH.

He views the Department of Pathology at Yale as an important link between areas of research in the basic sciences of disease and the clinical diagnosis of human disease. "Historically pathology has been mainly concerned with the diagnosis of patients and post mortem autopsies," he explained. "Although it requires years of training and skill, it is not yet a very precise science because there are many variables and not much information about human disease mechanisms. However, the picture is changing, largely because of the advances in basic science research in the past twenty years, which have produced a great deal of information about the biochemical mechanisms of disease. Although this research has been mainly restricted to model systems of bacteria and simple animals in the past, it now offers a tremendous resource of information for research into human disease and its application on the clinical level."

According to Dr. Marchesi there is increasing interest in applying this research to human disease, and expanding interactions between basic scientists and pathologists. "In recent years the Department of Pathology has recruited investigators with a basic science background to join the staff of clinical diagnosticians," he said. "Ideally we will be working side by side in both the research and the diagnostic laboratories on problems of basic disease mechanisms as they relate to



human disease at the clinical level. In this way we hope to be able to develop more precise information for diagnosing patients and understanding the causes of different diseases."

Dr. Marchesi is one of the members of the pathology department with a strong background in basic sciences. He was granted a leave of absence from the Yale School of Medicine in 1959 to attend Oxford University, where he studied under the late Lord Howard Florey, co-discoverer of penicillin. He received a Ph.D. degree in experimental pathology from Oxford in 1961, before returning to Yale to complete his medical studies. After receiving his M.D. degree in 1963, he was an intern and resident in pathology at Washington University, St. Louis, until 1965. The following year he was a research associate in the Department of Cell Biology at The Rockefeller University in New York, where he worked with Dr. George Palade, who is now chairman of the Section of Cell Biology at Yale. In 1966 he joined the NIH as a staff associate in the macromolecular biology section of the National Cancer Institute.

Dr. Marchesi is married to Dr. Sally Lockwood Marchesi, who is assistant professor of medicine and pathology at Yale. They have five children.

Chairman named for the Department of Anesthesiology

Dr. Luke M. Kitahata has accepted the chairmanship of the Department of Anesthesiology at the Yale School of Medicine. Dr. Kitahata, who has been a member of the Yale faculty for nine years, is noted for his investigations of the effects of anesthetics on the central nervous system, and specifically for his use of advanced microelectrode recording techniques for the clarification of the modes and sites of the action of anesthetics.

A native of Osaka, Japan, Dr. Kitahata received his M.D. degree from Tokyo Imperial University in 1947. After an internship and year of surgical residency he came to Bowman-Gray School of Medicine in Winston-Salem, N.C., where he received surgery and neurosurgery training from 1949 to 1955. He returned to Japan and became chairman of the Department of Surgery at the Japan Baptist Hospital in Kyoto in 1956. During this time he was also a research associate in neuropharmacology, and for this work he received the Ph.D. degree from Kyoto University in 1960. A rotating internship at Kings County Hospital in Brooklyn, N.Y., and a postgraduate year at New York University School of Medicine led to an anesthesiology residency under Dr. Joseph F. Artusio Jr. at New York Hospital-Cornell Medical Center. On completing this residency he came to Yale where he became assistant professor of anesthesiology in 1966 and associate professor in 1970.

Until recently the goal of anesthesiology has been to render the patient painless by anesthesia during surgery. While this important role is still being carried out in the operating room by anesthesiologists, their care of the patient now extends to the recovery room and intensive care areas.

"When the illness involves vital organs such as brains, lungs and hearts, the anesthesiologist is ready to care for critically ill patients in the emergency room and on the wards," Dr. Kitahata said. "He is specifically trained to administer aid to the comatose patient, to maintain cardiovascular stability and to restore normal lung function." Dr.

Kitahata regards the anesthesiologist as the physician best equipped for this type of critical care.

New anesthetic agents and techniques are being continually tested in the Department of Anesthesiology. Recent advances in understanding the autonomic nervous system have led to new techniques and concepts of anesthesiology which demonstrate that it is not necessary for a patient to be unconscious during surgery. The recent resurgence of "acupuncture anesthesia" tends to reinforce this concept, according to Dr. Kitahata, who plans to continue his own investigations into the mechanisms of anesthesia and the management of pain relief.

Dr. Kitahata is a diplomate of the American Board of Anesthesiology, a member of the Association of University Anesthetists, the Society of Sigma XI, the American Society of Anesthesiologists, the American Society for Pharmacology and Experimental Therapeutics, and the American Society for the Advancement of Science.

Yale School of Medicine rated among top five in U.S.

The Yale School of Medicine ranks among the top five medical schools in the country according to a survey published recently in *Change*, a monthly magazine devoted to higher education. The survey, which was conducted under a grant from the National Science Foundation by Dr. Peter N. Blau, president of the American Sociological Society, lists Yale as tying for third place with the medical schools at Stanford and Duke, with the Harvard Medical School ranking first and Johns Hopkins School of Medicine in second place.

The rankings were the result of responses to questionnaires sent to deans of professional schools in each of 17 disciplines. Each dean was asked to name the five best schools in his field. The schools that appeared on the most lists were the ones that the survey ranked as first in each discipline.

In addition to ranking the professional schools, the study reports that 69 percent of the students in professional schools are men, ranging from four percent in nursing to 98 percent in engineering. Nine percent of all professional school students are members of minority groups.

from left to right: Sydney Spiesel, Dahlia Kirkpatrick, J. Paul Nicosia of the Ciba Pharmaceutical Company, and Louis Kaplan, assistant to the dean for community and government relations.

Henry Chauncey Jr., secretary of Yale University, Shih-ju Niu, head of the medical professional delegation from the People's Republic of China and Dr. Lawrence Pickett, associate dean for clinical affairs of the School of Medicine, during the social hour that followed a day of discussions and demonstrations of medical techniques.

Yale medical students receive Ciba Award

Dahlia Kirkpatrick and Sydney Spiesel have been awarded the *Ciba Collection of Medical Illustrations*, which is presented by the Ciba Pharmaceutical Company to medical students who have made outstanding contributions to the community. The seven-volume collection is illustrated by Frank Netter, M.D., well known medical illustrator.

Ms. Kirkpatrick, a fourth year medical student, was actively involved in the organization of the Joe Huggins Free Health Center, a walk-in health center in the Dixwell community in New Haven. She and other health care personnel, including physicians on the Yale faculty, work at the center which is open four nights a week, giving physicals, screening for sickle cell anemia, hypertension and V.D., and offering health counseling and medical referral services.

Mr. Spiesel is the educational coordinator of the Teen Clinic of the Planned Parenthood League of New Haven. The clinic counsels from 20 to 30 young people each session in addition to giving V.D. screening tests and physical examinations. Mr. Spiesel, who holds a Ph.D. degree in microbiology, is a third year medical student.

New loan fund honors Dr. William Gardner

The William U. Gardner Loan Fund was established in the fall of 1973 to provide financial aid to worthy and needy medical students. This loan fund, established by a gift from an anonymous donor, honors a distinguished Yale faculty member. Dr. Gardner has served on the faculty since 1935 and as the Ebenezer K. Hunt Professor of Anatomy since 1958. Friends and colleagues of Dr. Gardner are welcome to make additional contributions to this loan fund.

Medical professional delegation for the People's Republic of China visits School of Medicine

The Yale School of Medicine was host to a medical professional delegation from the People's Republic of China on December 7th. The eight member delegation spent four weeks in the U.S. visiting medical facilities to study current research in two medical-related fields—pain and biomedical engineering.

Their visit to Yale included discussions and demonstrations with Yale faculty involved in these areas. Besides the medical school, the delegation visited laboratories in the Becton Engineering and Applied Science Center, The Connecticut Mental Health Center and the John B. Pierce Laboratory, as well as the West Haven Veterans Administration Hospital.

The delegation is headed by Shih-ju Niu, Deputy Director of the Public Health Research Section, Institute of Public Health, Chinese Academy of Medical Sciences. It is the third of four delegations to visit the U.S. this fall as a result of exchange agreements reached in China last May between the Committee on Scholarly Communication with the People's Republic of China and the Chinese Scientific and Technical Association. The Committee is jointly sponsored by the American Council of Learned Societies, the National Academy of Sciences and the Social Science Research Council.

Weinerman Memorial Reading Room is dedicated

On September 28, over 100 family and friends of the late Dr. E. Richard Weinerman attended dedication ceremonies for the Weinerman Memorial Reading Room. Dr. Weinerman and his wife were killed on January 21, 1970 when the plane they were flying en route to Tel Aviv exploded, presumably due to sabotage.

The reading room, which is located on the third floor of the Laboratory of Epidemiology and Public Health Building in the Yale School of Medicine, is a gift of the Weinerman Memorial Committee. It will house the Weinerman papers, covering the years from 1942 to the end of 1969, and dealing with the formation of the principles and practice of social medicine and group health care in the United States.

Dr. Robert W. McCollum, chairman of the Department of Epidemiology and Public Health at Yale, presided over the ceremonies. The principal address was given by a life time friend of Dr. Weinerman, Dr. Leslie Falk, who is chairman of the Department of Family and Community Health at Meharry Medical College in Nashville. Robert Weinerman, Dr. Weinerman's brother, spoke on behalf of the family.

Dr. Weinerman received his B.A. degree from Yale in 1938 and his M.D. degree from the Georgetown University School of Medicine in 1942. After serving as Captain in the U.S. Army Medical Corps and chief of a combat shock team in Europe during World War II, he returned to the academic world as a student in the Harvard School of Public Health. He received his MPH degree in 1948. Dr. Weinerman came to Yale in 1962 after practicing internal medicine in Berkeley, California for ten years.

From the time of his graduation from medical school until his death he devoted himself to the study of social medicine and the implementation of numerous group health plans. The thrust of his work was twofold. Noting the disparity between standards of teaching medical students and the quality of care rendered in rural and underprivileged communities, he worked to change the prevailing medical opinion and practices. At the same time he studied, wrote about, and actively participated in numerous group health plans, becoming one of this country's leading spokesmen for social medicine.

Luther K. Musselman, M.D.

Luther K. Musselman, professor of obstetrics and gynecology in the Yale School of Medicine for 43 years, died on October 27 at the age of 78. Dr. Musselman, who received his medical training at Johns Hopkins University, became an instructor at Yale in 1921 and earned a Ph.D. in 1923. He was promoted to assistant professor of obstetrics and gynecology in 1924 and became assistant clinical professor in 1925 and associate clinical professor in 1931. He was named full professor in 1946 and on his retirement in 1963 was named clinical professor emeritus.

faculty notes

Dr. Gilbert H. Glaser, professor and chairman of the Department of Neurology, was elected president of the American Academy of Neurology for a two year term. During May he was visiting professor of Neurology at The Park Hospital, Oxford, England, and in September he attended the International Congress on Epilepsy in Barcelona, Spain, where he presented a lecture at the symposium on "Recent Advances in the Neurophysiology of the Epilepsies". Dr. Glaser has also been appointed chairman of the Research Programs Council of the Multiple Sclerosis Society.

The Connecticut Digestive Disease Society has named **Dr. Howard Spiro** "Physician of the Year" in recognition of his more than two decades of experience in the field of gastroenterology in Connecticut. Dr. Spiro, who is professor of medicine, has been instrumental in helping to recruit and train physicians to improve the care of patients with digestive diseases and in sponsoring research in digestive diseases through the Yale Affiliated Gastroenterology Program. The program involves physicians in 14 Connecticut hospitals.

During his sabbatical leave year **Dr. David Weinman**, professor of microbiology, will continue his investigations on human and primate trypanosomiasis. His base laboratory is at the Institute for Medical Research, Kuala Lumpur, Maylasia. Field trips with regional collaborators are planned for West Maylasia and North India.

Dr. Nicholas M. Greene has been appointed editor-in-chief of the journal *Anesthesiology*. Dr. Greene, who is professor of anesthesiology and former chairman of the department, is currently on a sabbatical leave of absence.

On September 29th **Dr. James Maas**, professor of psychiatry, was awarded second prize by the Anna Monila Foundation for his research into the causes of depression in man. The awards ceremony was held in Basel, Switzerland.

Dr. Russell J. Barrnett, professor and chairman of the Department of Anatomy, has been elected president of the Electron Microscopy Society of America. He has also been appointed visiting professor by the Japanese Society for the Promotion of Science for a three month visit proposed for sometime within the next year.

Dr. Etsuro K. Motoyama, associate professor of anesthesiology and pediatrics, is chairman-elect of the American Thoracic Society, Pediatric Assembly. He was a panelist at the 6th International Cystic Fibrosis Congress held in Washington D.C. last March, and spoke on "The Assessment of Lower Airway Obstruction in Cystic Fibrosis."

Dr. George E. Palade, professor and chairman of the Section of Cell Biology, was the recipient of two honorary degrees in recent months. In August the University of Michigan awarded him an honorary Doctor of Science degree and The Medical College of Ohio conferred on him the same degree in October. In July Dr. Palade was plenary lecturer at the International Congress of Biochemistry held in Stockholm, Sweden.

Dr. Byron H. Waksman delivered the Charles A. Stuart Memorial Lecture at Brown University on November 2, on "The Biological Role of Suppressor T-Lymphocytes". Dr. Waksman, who is professor and chairman of the Department of Microbiology, also participated in a "Meeting of Investigators on the Immunology of Chagas' Disease" in Mexico City from December 3–7 and a PAHO/WHO Immunology Research and Training Center course on "Mechanisms of Immune Damage", from December 10–14.

Dr. William W. L. Glenn, professor of surgery, was one of two physicians awarded the American Heart Association's highest honor for volunteer leadership, the Gold Heart Award. He shared the honor with Dr. Theodore Cooper, director of the National Heart and Lung Institute. The award cited Dr. Glenn as "an active and dedicated volunteer who has united the resources of both the scientist and the layman in strengthening the Heart Association's programs to help us reach our ultimate goal of substantially controlling the nation's number one cause of death."

Dr. George Rosen, professor of history of medicine and epidemiology and public health, was elected president of the International Academy of the History of Medicine at its meeting in Vienna in September. On this occasion he presented a paper on "Nostalgia, a 'Forgotten' Psychological Disorder".

On November 15th **Dr. Robert J. Lifton** received the Hofstra Faculty Distinguished Scholar Award at the inauguration of the fifth president of Hofstra University. Dr. Lifton, who is professor of psychiatry, spoke on "Surviving Vietnam–Veterans and Healers".

Dr. Marshall Edelson, associate professor of psychiatry, was selected by the New York Psychoanalytic Institute to receive the Heinz Hartmann Award. This award is given each year for an outstanding work in psychoanalysis. Dr. Edelson was selected to receive it in recognition of his article "Language and Dreams: The Interpretation of Dreams Revisited", which appeared in *The Psychoanalytic Study of the Child*, volume 27. He will share the award with Dr. Ruth S. Eissler.

Dr. F. C. Redlich, professor of psychiatry and former dean, presided at the Conference on Health Care and Changing Values, sponsored by the Institute of Medicine on November 27–29 at the National Academy of Sciences, Washington, D.C. Dimensions of the problems and the research that is needed to understand the nature of current medical decision making was discussed.

Dr. Alexander von Graevenitz, professor of laboratory medicine, had a busy travel schedule in September when he attended three meetings, each in a different country. He presented papers at the First International Congress of Bacteriology in Jerusalem, the 8th International Congress of Chemotherapy in Athens and the Symposium on Pathophysiology and Immunity in Gram-negative Infections, which was held in Vienna. He has also been named a diplomate of the American Board of Medical Microbiology.

Dr. Martin C. Robson, assistant professor of surgery and director of the Trauma Program, has won one of the Lambert Awards for 1973. He shares the award with Major John Heggars of the Armed Forces Institute of Pathology, who collaborated with him on the development of a rapid-slide bacterial quantification technique, which can identify bacteria in a wound more rapidly than routine techniques. The Lambert Awards winners were chosen from 1400 entries and are based on ideas or innovations which result in better patient care and/or savings.

Dr. Luke M. Kitahata, associate professor and chairman of the Department of Anesthesiology, attended the 5th World Congress of Anesthesiologists held from September 19–23 in Kyoto, Japan. He participated in the Symposium on Neurophysiology of Anesthesia, and a round-table discussion on neurosurgical anesthesia. He also gave a paper entitled "The second look at the gate control theory of pain".

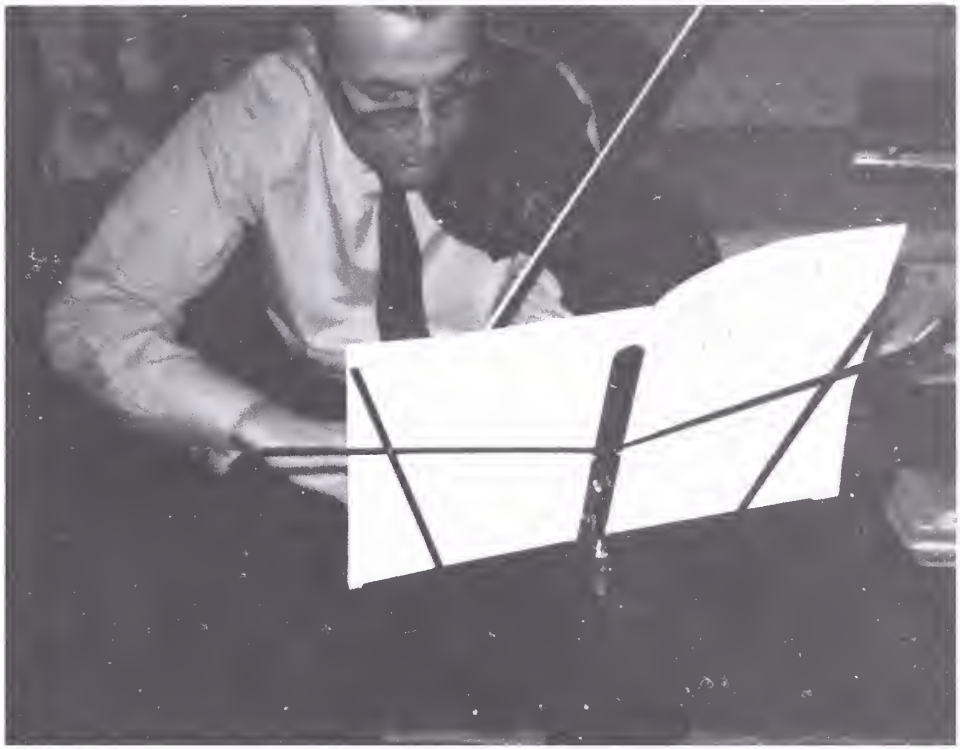
Dr. C. Norman Gillis, associate professor of anesthesiology and pharmacology, was a member of a World Health Organization committee which met in Geneva, Switzerland from October 15–17 to consider clinical and experimental aspects of primary pulmonary hypertension.

A Correction

Marilyn G. Farquhar, Ph.D., professor of cell biology and pathology, was among those newly appointed to the full-time faculty in July 1973. Dr. Farquhar's title was incorrectly listed in the fall issue of *Yale Medicine*.

alumni news

a physician who is a musician



Many people tend to think of physicians as hard working, solid citizens who are so thoroughly dedicated to their careers that they have little time for much else—maybe some puttering in the garden or playing tennis on weekends, along with a little quiet evening activity like collecting old coins or playing bridge, but nothing major. The same is true with most professionals who spend long years in training and, once launched into careers, are compelled to keep up with the latest developments as well as a busy work schedule.

Every once in a while another thread runs through a lifetime which may not be as pervasive as a career, but nevertheless adds a richness and a sense of fulfillment of another kind. Thus it is with music in the life of Robert Fishbein, M.D., Yale School of Medicine, Class of 1957.

Music has always been important to Dr. Fishbein. He gave his first piano recital when he was six. He studied piano and violin at the Music School Settlement and the Manhattan School of Music as a young schoolboy and then continued his studies at the High School of Music and Art. During the summers he attended Rhode Island State College where he played tympani in the band and violin in the orchestra. Then, in 1949, he was accepted as a student at Yale's summer music school in Norfolk, Connecticut.

A song he wrote there was performed later that year in New York City at a concert for young talent. *The New York Times'* full column review of the concert reported that, although young Robert Fishbein was deeply involved in music, he did not intend to make it his career. "I'll probably be a doctor or a dentist," he told the *Times*.

During his undergraduate days he continued his musical involvement as the violinist of the Pierian String Quartet and a member of the string section of the Harvard–Radcliffe orchestra. One of the highlights of those days was a performance of the music of Aaron Copeland and Walter Piston, with the composers conducting.

Another memorable occasion was his television appearance on the famous Ted Mack Amateur Hour—not as a violinist or a composer, but as a musician playing two pipes and fifteen glasses of water. "I had come to realize that you could make music in many ways," he said.

He has composed a number of songs since his first success at Norfolk. In a somewhat lighter vein, he wrote music and lyrics for musicals at Harvard and the Yale School of Medicine, and more recently he has composed for violin, piano and voice. But by far his most ambitious musical venture was undertaken while Dr. Fishbein was an intern at Philadelphia General Hospital.

"I was *magnetized* to the opportunity to write music and lyrics for the hospital's tenth annual musical benefit, the Blockley Show," he recalled, leaving the impression that he is still somewhat awed by the magnitude of his undertaking. The assignment also entailed orchestration for two pianos and musical directing as well as a marathon 18-hour recording session. Appropriately titled "On Call", the musical comedy had eight performances and netted several thousand dollars for the hospital.

After this major opus, music took a back seat for a few years while Dr. Fishbein launched his career in internal medicine. Gradually though, the interest resurfaced as he joined the Westchester Philharmonic Orchestra, the Hudson Valley Symphony and the Orchestral Society of Westchester as a violinist. These orchestras feature well known soloists and Dr. Fishbein found it tremendously exciting to be on stage in concert with Mischa Elman, Yehudi Menuhin, José Iturbi and others.

Presently "submerged" in three string quartets, Dr. Fishbein sees music as one way to telescope history and geography. "Every country has produced its musical heros and their creations have infinite life," he said. "Perhaps one can harmonize with the laws and mores of nature through this medium.

"One is most relaxed after a three or four hour session of chamber music," he added. "There has been no stress—nothing to prove except that one can enjoy oneself. To be respected by musicians as a physician, and often vice versa, is to enjoy the best of both worlds, and to avoid the evils of either."

1926

Max Bogin, still practicing pediatrics, is president of the Children's Medical Group in Bridgeport, Connecticut.

Charles Mayo Goss is editor of the 29th edition of *Gray's Anatomy*, just published by Lea & Febiger (1973); it is his fifth successive edition. Dr. Goss was formerly professor of anatomy at Louisiana State University School of Medicine. He is a former president of the American Association of Anatomists, has been managing editor of the *Anatomical Record* and a member of the International Anatomical Nomenclature Committee. He is currently visiting professor of anatomy at George Washington School of Medicine.

1927

While in Tokyo early this fall to attend the Fifth International Congress on Neurological Surgery, **Harry Zimmerman**, professor and chairman of the Department of Pathology at the Albert Einstein College of Medicine and of the Montefiore Hospital in New York, was presented with the Second Class Order of the Sacred Treasure by Japan's Education Minister, Seisuke Okuno. Dr. Zimmerman received the top decoration for foreign scientists for his extraordinary contributions to the advance of neurological sciences in Japan and to scientific exchanges between the United States and Japan.

1928

Sheldon Jacobson wrote, in a letter to **Ed Howes** last spring: "I am reasonably well. Published *Comparative Pathology of the Tumors of the Bone* in 1971. I have a new profession—my first novel, *Fleet Surgeon to Pharaoh*, came out the same year. A second is ready for publication, and I have begun a third—all historical novels laid in the world of the galleys. It's fun, but requires much study. I retired last spring from the Veterans Administration, but still attend at the U. of Ore. Medical School in Portland, across the river, and expect to continue until I am unable to carry on. I am somewhat but decreasingly active in civic affairs—chiefly the Sea Scouts and the Zionist group."

1932

Myron Wegman, together with Tsung-yi Lin and Elizabeth F. Purcell, has edited "Public Health in the People's Republic of China", scheduled for publication this fall.

1935

Louis Silcox was elected president of The American Laryngological, Rhinological and Otological Society (The Triological Society) at the annual convention of the Society held in April.

1936

George Hahn has been elected vice president of the American Association of Obstetricians and Gynecologists.

1940

Lee Sannella is a practicing physician affiliated with the Kaiser Hospital in Oakland and is now researching biofeedback under a grant from the Kaiser Medical Foundation. He has been working with patients referred to him by several Kaiser departments, dealing with pain, skin disorders and chronic inflammatory conditions.

1942

Vincent Collins, professor of anesthesiology at Northwestern University Medical School and Director of the Division of Anesthesiology at Cook County Hospital since 1961, has been elected to serve again as president of the Medical Staff of Cook County Hospital, Chicago. Dr. Collins became president of the Medical Staff in 1971.

1944

Lawrence Crowley, associate dean and acting chairman of surgery at Stanford University School of Medicine, was appointed dean of the University of Wisconsin-Madison Medical School and professor of surgery on October 1. He had been in practice with the Southern California Permanente Group and has worked with the Veterans Administration system as well as having taught and done research at Yale, Southern California and Stanford.

1945 (June)

F. Carter Pannill, dean of the University of Texas Medical School at San Antonio from 1965 to 1972, has been named vice president for health sciences at the State University of New York at Buffalo.

1946 (March)

The following news release from the U.S. Army Medical Department appeared in the August issue of *Yale Alumni Magazine:* "Colonel **Frederick C. Biehusen**, M.C. has been assigned as deputy special assistant to the Surgeon General for Medical Corps Affairs, and deputy director of professional services at the Army General's Office. . . . He has served as consultant to the Surgeon General on pediatrics since 1966 in addition to his primary duty as chief of the Department of Pediatrics at Water Reed General Hospital. . . . "

1947

Sidney Cramer is serving as president of The Connecticut State Medical Society for the 1973–1974 year.

Franklin Epstein has been appointed the Herrman Ludwig Blumgart Professor of Medicine at Harvard. He will serve at the Beth Israel Hospital where earlier he had been named Head of the Department of Medicine and Physician-in-Chief. According to the account of Dr. Epstein's appointment which appeared in "Focus", the Harvard Medical area newsletter, "Though at the Boston City Hospital for but a year, Dr. Epstein was a major force in moving the Department of Medicine to a broader involvement with the population served by the hospital through outreach activities and through broadened inpatient and outpatient services."

1947 (June)

According to an early summer news release, **Sumner Ziegra** has been appointed professor of pediatrics at The Medical College of Pennsylvania where, in addition to teaching pediatric residents and undergraduate medical students, he will also present refresher courses for practicing physicians. Dr. Ziegra has spent many years as pediatrician-teacher and is an active member of the American Academy of Pediatrics and the Pennsylvania Thoracic Society. Prior to his new appointment, he has held teaching positions at State University of New York Downstate Medical Center, Yale, Hahnemann Medical College, and Jefferson Medical College.

1948

Lewis Rowland, professor and chairman of the Department of Neurology at the University of Pennsylvania School of Medicine, has been appointed professor and chairman of the Department of Neurology at Columbia University College of Physicians and Surgeons and director of the neurology service at the Presbyterian Hospital.

1951

John Berg is director of the newly established Iowa Cancer Epidemiology Center at the University of Iowa College of Medicine. Also recently appointed professor of preventive medicine and environmental health, Dr. Berg had been head of the Epidemiologic Pathology Unit of the National Cancer Institute from 1965 until July of this year, as well as director of a team project investigating colon cancer.

Walter Morgan has been promoted to associate clinical professor of medicine at Yale as of July 1, 1973.

Lawrence Freedman has been appointed head of the Department of Internal Medicine at the University of Lausanne, Switzerland. He was invited by the Vaudois State Council to develop new specialized approaches and methods in medical care, teaching and research. A member of the faculty at Yale since 1956, Dr. Freedman's major research interest is the study of the development, natural history and treatment of infectious diseases, especially those of the kidney and the heart. He has also published work in epidemiology and cancer immunology. Dr. Freedman has been deeply involved in studies of the medical school curriculum and during the past year served as chairman of the Yale Medical School Council. He will assume his new post this fall.

Robert Small, an ophthalmologist in private practice in Midwest City, Oklahoma, also serves on the medical faculty of the University of Oklahoma. Last September he was made a member of the American Society of Ophthalmic Plastic and Reconstructive Surgery.

1952

Robert G. Petersdorf, professor and chairman of the Department of Medicine at University of Washington in Seattle, is one of sixty new members recently elected to the Institute of Medicine of the National Academy of Sciences. Members of the Institute are elected for their significant contributions to health and medicine and to related fields.

1954

In a recent issue of *Yale Alumni Magazine*, it was noted that **Robert Hustead**, an associate professor of anesthesiology in Roeland Park, Kansas, has been living in the West for twelve years, enjoying the open spaces, hunting, and attitudes toward life. His oldest son, Russ, a Yale sophomore, was reported to be expecting to transfer to Kansas University this fall. At home along with his wife, Joy, are children, Dave 17, Joanne 16, Judy 14, Barbie 5, and stepchildren Ramona 18, Rene 15, Rhonda 13, and Becky 9.

1955

Robert Kramer, associate professor of pediatrics and associate dean at the University of Connecticut School of Medicine, has been promoted to professor of pediatrics.

"Abortion and the Supreme Court: What Now?", a special report on implications of the Supreme Court decision on abortion, written by **Dr. Alan Stone** appeared in the April 30 issue of *Modern Medicine*. Dr. Stone, a board-certified psychiatrist, is professor of law and psychiatry at Harvard.

As of July 31, **John Atwater** resigned as Director of Health of the City of New Haven to become health officer of Washtenaw County, Michigan. He had served New Haven for eleven years.

1956

Robert Hill has an appointment as adjunct professor of sociology at University of Pacific in Stockton, California. He writes that his teaching obligations currently include a seminar course on "POP PSYCHIATRY."

Robert Scheig has joined the faculty of the University of Connecticut School of Medicine as professor of medicine and chief of the Division of Gastroenterology; he is also chief of medicine at the Newington (Conn.) Veterans Administration Hospital.

1957

Joseph S. Pagano has been named to a National Cancer Institute committee to review research programs conducted under the National Cancer Program. Dr. Pagano is in the Department of Medicine at the University of North Carolina, Chapel Hill.

Howard Minners has been appointed to the newly established position of associate director for Collaborative Research in the National Institute of Allergy and Infectious Diseases, National Institutes of Health. Dr. Minners will be responsible for the Institute's collaborative research program administered by contract through four branches—Geographic Medicine, Infectious Disease, Research Resources, and Transplantation Immunology.

1960

March Enders writes: "I have an appointment as assistant professor of medicine, Division of Rehabilitation Medicine, George Washington University Medical School, and staff member, George Washington University Hospital, Washington, D.C. Although I am now married, (Mrs. W. R. Kornack), I am continuing to use my maiden name for professional purposes."

Harvard Medical School announced recently that **Ronald Yankee** is now an associate professor of medicine and is practicing at the Children's Cancer Research Foundation. Dr. Yankee served for a number of years on the Leukemia Service, Medicine Branch of the National Cancer Institute and is a member of the American Federation of Clinical Research, the Transplantation Society, the Experimental Hematology Society, American Association of Blood Banks, and American Society of Hematology.

1961

Kenneth Arndt, on the faculty of the Harvard Medical School, has been promoted to associate professor of dermatology at Beth Israel Hospital, Boston.

Shaun Ruddy, recently promoted to associate professor of medicine at Harvard Medical School, has received a Career Development Award from the National Institute of Arthritis and Metabolic Disease.

Herbert Rubinstein writes that he is now at Wayne State University as assistant planning officer where he will be involved in the planning and development of the new University Clinic's Building as part of the Detroit Medical Center complex. In addition, as an associate professor, he will be doing some teaching in the Department of Community Medicine.

John Fenn, on the clinical surgical faculty at Yale, has been appointed associate chief of surgery at Yale-New Haven Hospital. He will supervise the surgical service in the Memorial Unit and the educational programs for intern and resident physicians specializing in surgery.

According to a news release received last spring but too late for our spring issue, **Nicholas Alexiou**, M.P.H. (M.D. 1955, University of Vermont College of Medicine) has been named to head Employee Health Services for the New York State Department of Civil Service, in Albany. In his new position, Dr. Alexiou will be responsible for administering the health services program for all New York State employees. He is an instructor in pediatrics at Albany Medical College. Prior to his new appointment, Dr. Alexiou has held positions with the Division of Epidemiology and Preventive Health Services, New York State Health Department and with the Bureau of Heart Disease Control. Before entering New York State service in 1967, he was a member of the faculty of The Johns Hopkins University School of Hygiene and Public Health and a consultant to the U. S. Public Health Service National Center for Health Statistics.

1968

In a note in the June issue of the *Yale Alumni Magazine* **Rod Martinez** wrote: "This summer I will be finished with my training in internal medicine and cardiology at Yale-New Haven Hospital and will finally return to Honduras to start my practice. Look forward to seeing any classmates going through San Pedro Sula."

Joseph Renda has been appointed an instructor on the faculty of the Yale School of Medicine for 1973–1974. He will also be an associate in internal medicine at Yale-New Haven Hospital.

1969

Three members of the class, **William Frazier**, **Thomas Howard**, and **Thomas Minehan**, have been appointed chief residents in surgery at Yale-New Haven Hospital for 1973–1974 and also hold appointments as instructors in surgery on the faculty of the Yale School of Medicine. **Eric Otobo** is now chief resident in otolaryngology at Yale-New Haven Hospital and an instructor on the Yale faculty.

William Bynum is still in England. In a brief note, he says that he has moved from Cambridge to London where he has been appointed as lecturer and director of the Sub-Department of History of Medicine at the University College London.

David Upton noted that, "This is the year for our class reunion, so be sure to send the Alumni Association your current address so we can get in touch with you. Many of us have finished our residencies now and are plodding on—in my case in the Army. **Steve** and Leslie **Fishelman** are in Colorado Springs, also in the Army. **Dave Schulak** is somewhere in Texas doing orthopedics in the Air Force. **Gary Wright** finished his residency in pediatrics and moved with his wife Irma to Missouri. He will practice in a small town near Springfield. **Jerry Smallberg** is doing a neurology residency at Pennsylvania and **Steve Krant** will be moving from Chicago back to New Haven next year to complete his training. We were all upset to hear about the death of **John Meehan** in a boating accident near New Haven. Again, be sure to send your current addresses to the Alumni Association."

Robert Achtel is now director of cardiopulmonary laboratories at the University of Kentucky Medical Center where he is assistant professor in the Department of Pediatrics.

Constantine Anagnostopoulos, assistant professor of surgery at the University of Chicago, was married recently in Italy to Marilyn Hruby. Dr. Marilyn Anagnostopoulos is an assistant professor of pediatrics at the University of Illinois Medical Center in Chicago. Dr. Anagnostopoulos' best man was King Constantine of Greece, a long-time friend and classmate of his at the Anavryta National School of Athens.

1970

Paul Browne continues to live in the Bronx and has accepted a position with The Bronx-Lebanon Hospital Center as an administrative assistant in The Bronx-Morrisania Ambulatory Care Unit.

1971

Allan Graham is now practicing medicine in Louisa, Kentucky and the following account of his activities appeared in a recent issue of *Yale Alumni Magazine*: "My wife, Joan, and 2½-year-old daughter, Julie, and I have been living in rural Appalachia for the past nine months while I've been doing family medicine for the National Health Services Corps, a branch of the public health service. We've been delighted with the change of life-style from San Francisco's shifting sands to stable, rural, eastern Kentucky life. The need for physicians in rural America is a hackneyed story; what is new to us, however, is that rural medical practice can be as challenging, sophisticated and rewarding as a doctor or his group practice choose to make it. The National Health Service is a great opportunity for participating in that challenge without financial or military risk. . . ."

Joseph McManus, M.P.H., is now assistant executive director of the Robert B. Brigham Hospital in Boston. He has previously held positions as administrative resident at Beth Israel Hospital, staff consultant at Health Dynamics, Inc., Cambridge, and health care administrator of the Connecticut Model Cities Program in Bridgeport.

Elizabeth Morgan is the author of a question-and-answer column entitled "Your Body" which appears regularly in Cosmopolitan magazine.

1972

Frederick Hyde, now attending Yale Law School, has been selected by the Connecticut Chapter of the Cooley's Anemia Blood and Research Foundation to be its representative on the Foundation's national board in New York. The Connecticut Chapter, one of 13 state chapters devoted to fighting Cooley's anemia, includes among its activities public education about the disease. Fred now lives in Cheshire, Connecticut.

1973

Marilyn Snyder has been appointed health educator for the Alcohol Control Program of the New Jersey State Health Department, a pilot program in Verona, New Jersey.

House Staff

1946

John P. McGovern, professor and chairman of the Department of the History of Medicine at the University of Texas Graduate School of Biomedical Sciences in Houston, has been elected chairman of the Board of Regents of the National Library of Medicine. The Board, whose membership includes ten Presidentially-appointed leaders in health and communications, makes major policy decisions and sets guidelines for the programs of the National Library of Medicine.

Public Health

1947

Cecil G. Sheps, vice chancellor for health sciences at the University of North Carolina was chairman of the 35th annual meeting of the National Research Committee on Problems of Drug Dependence held at Chapel Hill last spring, attended by more than 500 scientists. Dr. Sheps was also honored recently by being elected to the Institute of Medicine of the National Academy of Sciences. The members are chosen for their significant contributions to health and medicine, and related fields.

1951

Joanne E. Finley, M.D., M.S., has been named director of health for the City of New Haven, Conn., the first woman to hold the post. She succeeds Dr. John Atwater (class of 1955) who had resigned as of July 31 to take a position in Michigan. New Haven's mayor, in commenting on Dr. Finley's appointment, said that in addition to her "extensive background and proven dedication in the field of public health,. her exceptional experience in the operation of a municipal health department adds to her other qualifications" for this position. She has held the position of acting health commissioner for the City of Cleveland, Ohio and while she was planning director of the Philadelphia Department of Health, Dr. Finley wrote its program to deal with lead paint poisoning. According to the mayor, "This program was reviewed by a team from Yale School of Epidemiology and Public Health and was considered to be a model for the nation." Dr. Finley, who received her M.S. from Yale in 1951, is the wife of Joseph E. Finley, an attorney and author, and the mother of four children.

1957

Edward DeLouise, director of environmental health in the New Haven Health Department, is currently president of the Connecticut Public Health Association. He has been president of the Connecticut Environmental Health Association and of the Yankee Conference Association. Mr. DeLouise also serves on the Board of Directors of the Connecticut Health League.

1969

Robert Young has been named executive director of the First Maryland Health Care Corporation.

1969

Susan Addis M.P.H. was elected recently to the position of chairman of the Full-time Directors of Health, State of Connecticut and also to the Section Council of the Public Health Administration Section of the American Public Health Association.

1970

Barbara Holland was recently appointed as health planner in the Office of International Health, Department of Health, Education and Welfare, Washington, D.C. Ms. Holland provides technical assistance to the health planning activities of the aging for international development.

MEDICAL ALUMNI DAY AND CLASS REUNIONS will be held
SATURDAY, JUNE 1, 1974 PLAN NOW TO ATTEND!

YALE MEDICINE

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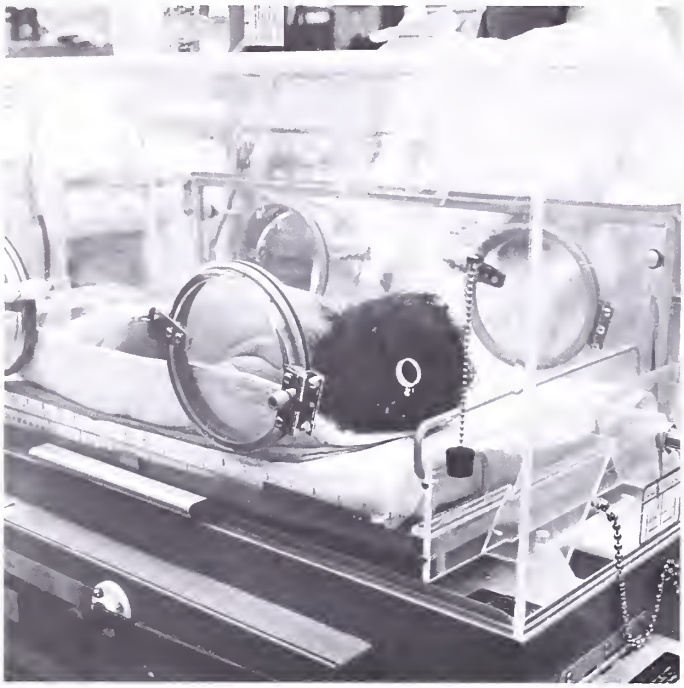
Cover: Seven-year old Robbie Pokora, with Dr. Leon E. Rosenberg, left and Dr. Y. Edward Hsia, right. Robbie is the little boy described in the article on the Department of Human Genetics beginning on page 2. Dr. Rosenberg is chairman of the department and professor of human genetics, medicine and pediatrics. Dr. Hsia directs the Yale Genetic Counseling Service and is associate professor of human genetics and pediatrics.

Photos: cover, pp. 2, 4, 6, Keri Keating; pp. 8, 9, 10, Ken Quick; p. 11, John Stitt; p. 17, Jean DeCoster.

The Department of Human Genetics

a new approach to human genetics studies



A young couple was waiting in the consulting room of the Yale Genetic Counseling Service. Their small son sat between them. He had recently recovered from a sudden, almost fatal illness which had been diagnosed as a genetic disorder. Although it was quite a long trip, they had come to New Haven for follow-up examinations for their son and for counseling about his condition, which they had been told could never be cured, but could be managed so that a recurrence of the frightening illness could be prevented.

Both parents were obviously worried and apprehensive. Neither of them knew much about genetics and heredity, beyond the fact that the boy's dark hair and large brown eyes must have "come from his father's side". They had never heard about genetic disorders and were bewildered that a condition unknown to either of their families could have been inherited by their child. Inherited from whom, they wondered, and why had it happened to them and not to other members of their families? Despite assurances from the doctors that with proper care, the illness that had almost killed their son would not appear again, they were worried about it. Could he really live a normal boy's life? Should they have the other children they had planned for? What about their future?

The quality of life in the United States is profoundly influenced by genetic disease. One in every 300 babies born in this country may have an obvious major congenital defect at birth.

Twenty percent of all spontaneous abortions are attributed to a major chromosomal defect, and more than 100,000 children are born with congenital or inherited diseases or abnormalities in the United States each year. Genetic disorders rank second only to cancer as a major cause of death for children under five years old, and as many as 25 percent of all children in hospitals in the United States are there because of some kind of genetic or congenital disorder.

Many of these children will have to be maintained on special medical programs for the rest of their lives. The financial burden to their families is often staggering—and for many families the emotional burden is crushing.

More than 1500 specific disorders are known to be inherited—some are fairly well known, such as Down's syndrome (mongolism), hemophilia, cystic fibrosis and sickle cell anemia. However, most, like the illness of the little boy in the introduction, are rarely heard about and their symptoms present great, often tragic mysteries.

It is becoming increasingly apparent that genetic factors also play an important role in some of our most serious adult diseases. For instance diabetes, coronary artery disease hypertension, some forms of cancer, arthritis and emphysema can be attributed to an inherited trait. There are also strong indications that genetic factors are important in some mental illnesses.

The field of genetics began over a century ago when Gregor Mendel studied his famous sweet peas. A new and tremendously exciting era began in the 1950's when the identification of the structure of the gene and the discovery that there are 46 chromosomes in the mammalian cell gave the first important clues to the solution of an endless number of medical mysteries. With these breakthroughs the field of human genetics has grown rapidly and there is every reason to believe that it will become one of the most important areas in medical science within the next decade.

Scientists are beginning to apply the information discovered in the 1950's to many of the major medical problems caused by genetic defects. At present there are only a limited number of conditions that are understood well enough to be treated, but an impressive amount of information has been accumulated for use both by geneticists in the laboratory concerned with the basic structure of genes and by clinical geneticists involved in treating patients and counseling their families.

With this pool of information people of very different disciplines can now work together to learn more about the fundamental aspects of man's genetic structure and apply this knowledge to the prevention and treatment of diseases and abnormalities. This should be ample justification for supporting a comprehensive study of medical genetics by scientists and clinicians who have access to the facilities and resources of a great university and medical center.

organization of the department

For many years Yale University has had a number of outstanding geneticists in various departments in the university, including

the Departments of Molecular Biophysics, Biology, Microbiology, Pediatrics, and Medicine. Some have been working with bacteria, fruit flies or rodents, while others have been concerned with inherited diseases in man.

The Department of Human Genetics was organized in 1972 to bring this distinguished faculty together in one department. The fundamental philosophy behind this departmental organization is that the application of basic genetic knowledge to the problems of human illness can best be accomplished in a climate which encourages close interaction between those with expertise in basic laboratory genetic science and those who are concerned with patients with genetic problems. This is a new concept in academic medicine.

Dr. Leon E. Rosenberg, chairman of the department, exemplifies this concept. He is recognized as an outstanding research geneticist and as an excellent clinician. He played an important role in establishing the philosophy of the program and in organizing the department.

In describing the advantages of close interaction between research scientists and clinicians, Dr. Rosenberg refers to patients treated in the department, such as the infant boy described in the introduction. He was admitted to the Yale-New Haven Hospital in a coma six years ago.

While doctors were giving him emergency treatment, research scientists were examining samples of his blood and urine in search for clues to his sudden and acute illness. The boy was excreting in his urine a very unusual acid called methylmalonic acid. They discovered that this acid was derived from protein in his diet and that enough of it had accumulated in his system to trigger the coma. By reducing protein in his diet, the Yale team of doctors were able to bring his condition toward normal and prevent another coma, while research continued in search of the cause of the disorder.

The acid accumulation was due to an abnormality in the boy's metabolism. Because of a genetic defect his cells were failing to activate the enzyme that produces vitamin B^{12}, which is necessary for breaking down the methylmalonic acid into simpler chemicals. Although there had never been any indication that he was deficient in vitamin B^{12}, his excretion of methylmalonic acid was dramatically reduced when doctors gave him a dose of the vitamin that was one thousand times the amount required by normal individuals. Any lesser dosage failed to produce a response.

The basic defect responsible for the condition can not be corrected, but continuous dosages of vitamin B^{12} and a special low protein diet will assure that the ill-effects of the deficiency will not reappear. The team of clinicians and social workers in the Department of Human Genetics have followed this young patient's development. He is now seven years old and an active second grade student.

By combining laboratory studies of his blood and urine with bedside application of their findings, members of the department not only saved this little boy's life, they discovered a new metabolic disease. They were then able to translate their laboratory understanding to medical treatment which has allowed him to develop normally

An exciting aspect of this case is that with it, the Department of Human Genetics produced the first documented example of a genetic disorder involving the conversion of a vitamin to its active coenzyme form in the cell. This has provided a prototype which has been used to define other metabolic diseases of a similar sort.

The broader significance of this case is that it is a specific example of a growing list of vitamin responsive metabolic diseases. Since this discovery some 25 similar illnesses have been found, many of which affect the central nervous system and produce a variety of disabling effects such as coma, mental retardation, seizures, gait abnormality and behavioral abnormalities resembling schizophrenia. In many cases, large doses of a single vitamin lead to a dramatic improvement in the patient.

Many think of the field of human genetics in terms of science fiction, rather than in terms of typical medical practices. Actually, the medical geneticist is concerned with the same utopian goals as other medical professionals—namely preventing and curing disease. They are involved with the same aspects of disease that any other practitioner is—prevention, diagnosis, treatment and prognosis of disease. Their tools are the same—they take a careful medical history, conduct a thorough physical examination, use appropriate laboratory studies and prescribe medication when required.

One aspect that is special to medical genetics is the extent to which families are involved in concerns about prevention and prognosis. It is this concern with the extended family that allows the geneticist to use the powerful tools of Mendelian genetics to prevent disease and, hopefully, prevent its consequences.

genetic counseling

The Yale-New Haven Genetic Counseling Service plays a vital role in helping families adjust to genetically-caused abnormalities and illnesses. Most families are referred to the service by their physicians or clergy, although some, like the family described earlier, come as a result of direct experience. Before a family sees the physicians who will describe their particular problem, a genetic "family tree" is made which includes the ethnic background of both parents, as well as significant illnesses in the extended family. Before the counseling session begins, a pediatric social worker, who is an experienced member of the counseling team, describes the procedure to them, and tries to perceive the parents' intellectual understanding as well as emotional feelings about the problem. This information is vital to the clinical geneticist who will be doing most of the counseling.

The counselors work closely with each other and with research scientists in setting up a counseling program for each individual case. They see their function as that of informing the family about every aspect of the genetic disorder affecting their child—or which may affect their future children. They guide them through emotional difficulties, help them find appropriate educational facilities for their child if necesssry, and try to help them understand the cause, as well as the meaning of the disease or abnormality, but they never try to influence a family's personal decisions.

An increasing number of couples come to the Yale Genetic Counseling Service for information about their genetic risks for specific inherited or congenital disorders. This includes young

Several members of the Department of Human Genetics, including Dr. Rosenberg and Dr. Hsia (cover) are active in both genetic research and the care of patients with genetic problems. Dr. Rosenberg is well known for his research on the biochemical mechanisms of inherited disorders and participates in genetic counseling and patient care as well. Dr. Hsia is investigating inborn errors of metabolism in addition to directing the counseling service. Dr. Maurice J. Mahoney, left, joins Dr. Rosenberg in the study of inborn errors of vitamin B_{12} metabolism, and conducts a program on prenatal diagnosis of inherited disease. Dr. Thomas Gelehrter, right, participates in both genetic counseling and patient care and is conducting research on hormonal regulation of gene expression in animal cells. In addition to his talents as a molecular virologist, Dr. Sherman Weissman, shown on the next page, cares for patients with inherited diseases of the blood.

couples planning marriage as well as parents with children who have a genetically inherited problem. Although the list is growing, the number of diseases which can be detected through various screening processes is still limited.

Black parents can be screened for sickle cell anemia; couples where both parents have a Mediterranean background can be screened for Thalassemia and families where both parents are of East European Jewish descent have the opportunity to be screened for Tay Sach's disease. If both parents are carriers of the traits for these diseases, all of which affect specific ethnic populations, there is a great risk that their children will be born with the disease.

Through the process of amniocentesis, in which a small sampling of cells from the amniotic fluid surrounding the fetus in the uterus is taken through a small, needle like tube inserted through the mother's abdomen early in pregnancy, certain metabolic disorders, as well as mongolism and Tay Sach's disease can be detected. This method gives parents the opportunity to elect therapeutic abortion rather than accept the previously inevitable fate of a child with a serious mental or physical handicap. Detection of other diseases through amniocentesis may soon be available.

The dreadful effects of some inherited diseases can be prevented if the disease is detected and remedial treatment started early in life. By screening the blood and urine samples of newborn infants, phenylketonuria and galactosemia can be detected and special diets can be prescribed early enough to prevent the serious mental retardation that results from these diseases. There is a similar blood test for detecting sickle cell anemia at birth, and by routine medical surveillance, preventing the often fatal side effects that accompany the disease in the first five years of life.

research activities

Although emphasis is currently placed on detecting genetic defects either early in fetal development or early in life, it is obvious that the means to prevent the defect itself is of far greater significance. Research is still the key to genetic medicine and it is here that the greatest and most exciting challenge lies.

Research activities in the Department of Human Genetics focus on the identification and explanation of the basic biochemical and genetic mechanisms responsible for specific diseases, as well as the study of new methods of disease detection and treatment of patients. These activities, which are extremely complex, are closely interrelated.

What is the mechanism by which a single fertilized ovum develops into a human creature with a head, body and limbs, with associated internal organs? Why is a liver cell so different from a lung cell? Why is a heart so different from a brain? Why is man so different from a mouse?

A number of approaches to these very basic questions are being investigated at Yale. In the biology laboratories, a team of research scientists is leading the way in the mapping of specific human genes on chromosomes. The most immediate application of this research is to trace the causes of certain genetic disorders to a specific gene location as well as to study the mechanisms involved in gene translocation, an inherited trait that sometimes results in mental retardation.

Another team of scientists, working in molecular genetics, is continuing important investigations into the enzymatic processes by which viruses become integrated into the genome of mammalian cells. They are also studying the mechanisms of recombination and repair of defective genetic material.

By analyzing human cells or organs propogated in tissue culture a team of microbiologists in the Department of Human Genetics have gained a glimpse into understanding the control systems which allow a gene to be "turned on" in one cell and "turned off" in another genetically identical, but structurally distinct cell. As this information accumulates we will not only begin to understand those basic questions of what makes a man different from a mouse, but also such developmental failures as cleft palate or anencephaly (absence of brain), as well as certain metabolic disorders caused by defective "on and off" switch mechanisms.

Five investigators in the department are involved in a study of the awesome area of gene transfer—the possibility of moving genetic material from one cell to another to actually replace defective genes in newborns with corrected copies of that same material. This is a large, unsolved problem with tremendous implications, but it may eventually lead to a breakthrough that would correct the basic genetic lesion within a particular human organism and permit a previously seriously ill or handicapped person to live a normal life.

In addition to these, and a number of other outstanding basic science and clinical investigations, the Department of Human Genetics is initiating new research programs in cytogenetics and population genetics. These are tremendously important areas which must be understood if significant advances are to be made in conquering genetic abnormalities.

Cytogenetics is a branch of genetics that studies the structure of the 23 pairs of chromosomes that make up each mammalian cell, and how they duplicate themselves during the division of the cell. One of our most common disorders, Down's syndrome, is the result of an error in this process, which produces a single extra chromosome in the cell. It is only one of many cytogenetic problems. Other chromosomal defects are responsible for a large number of spontaneous abortions, as well as a variety of serious, often lethal congenital abnormalities. A great deal of information is needed about the molecular organization of chromosomes, the events which trigger cell division, and the precise mapping of genes to chromosomes, before these problems can be solved.

Statistics and computers, rather than microscopes and test tubes, are the basic tools in the study of population genetics, which traces the effects of known inherited traits through extended families and whole societies. At Yale the present emphasis in population genetics is focused primarily on mental illnesses such as schizophrenia and depression, which are surely caused in part by inherited traits. Investigators are probing into the roles that environmental factors such as emotional stress, climate, and physical health play in triggering such inherited traits into action. Extended family histories, particularly those of families with identical twins, are important elements in these studies.

teaching activities

One of the most important facets in the program of the Department of Human Genetics is education. As few as ten years ago

There are a number of very distinguished scientists in the Department of Human Genetics at Yale. Dr. Sherman Weissman, above left, is a leading scientist in the field of molecular virology and his work in the structure-function relationships of genes is well known. Dr. Frank Ruddle, right, is known throughout the world for his research in the mapping of specific genes on chromosomes. Dr. Kenneth Kidd, below right, recently joined the faculty to lead research projects in human population and behavioral genetics. Others, not shown are equally eminent and their work is of vital importance to advances in genetic research: Dr. Edward Adelberg, a distinguished scientist working on the genetics of mammalian cells in culture; Dr. Paul Magee, who is involved in the genetics of sporulation in yeast; Dr. Jerome Eisenstadt, who does research on mitochondrial-biogenesis; and Dr. Lon Hodge, who is conducting research on the molecular biology of animal cells and viruses, are all also involved in an important study of gene transfer.

most medical students received a bare minimum of genetic training; twenty years ago medical students received no training in this field at all. This means that a large percent of the physicians in practice today have very little information about genetics to pass on to their patients.

The department offers programs for medical students as well as graduate and postdoctoral students. The postdoctoral training program in medical genetics is offered to M.D.s interested in pursuing an academic career in the field, and provides experience in diagnosis, management and counseling of patients with congenital and hereditary disorders, research with one or more of the departmental research groups and formal courses related to human or general genetics.

A Ph.D. program offers a solid background in general genetics and the opportunity to specialize in molecular, cellular, developmental or population aspects of the genetics of multi-cellular organisms.

financing the department

The Department of Human Genetics has demonstrated the soundness of its approach to genetic medicine, as well as the very considerable talent of its members. Support for their programs must be raised in order for them to continue to make important progress.

At the time of the department's organization Yale University made a commitment to maintain a position of leadership in human genetic research and education. This commitment has, and will continue to place a financial burden on the University, as new space is needed and support for research and clinical programs is required.

The solution to the space problem is more complicated than the simple building of new space. Because the department is organized to include basic scientists and clinicians, the space must relate to both clinical and basic research areas of the Yale-New Haven Medical Center. Historically these two areas have been separated and close collaboration has been hindered as much by physical isolation as by traditional philosophical barriers.

In line with the philosophy of the department, space has been planned in a new three story bridge to be constructed across Cedar Street between the Hunter Building and the Institute of Human Relations. This will unite scientific and clinical support areas within the Department of Human Genetics.

The new complex will also house the Cancer Center and a cell virology laboratory. Since the faculties of the Cancer Center and the Department of Human Genetics share several areas of mutual interest, the new complex will facilitate interdisciplinary interaction between them.

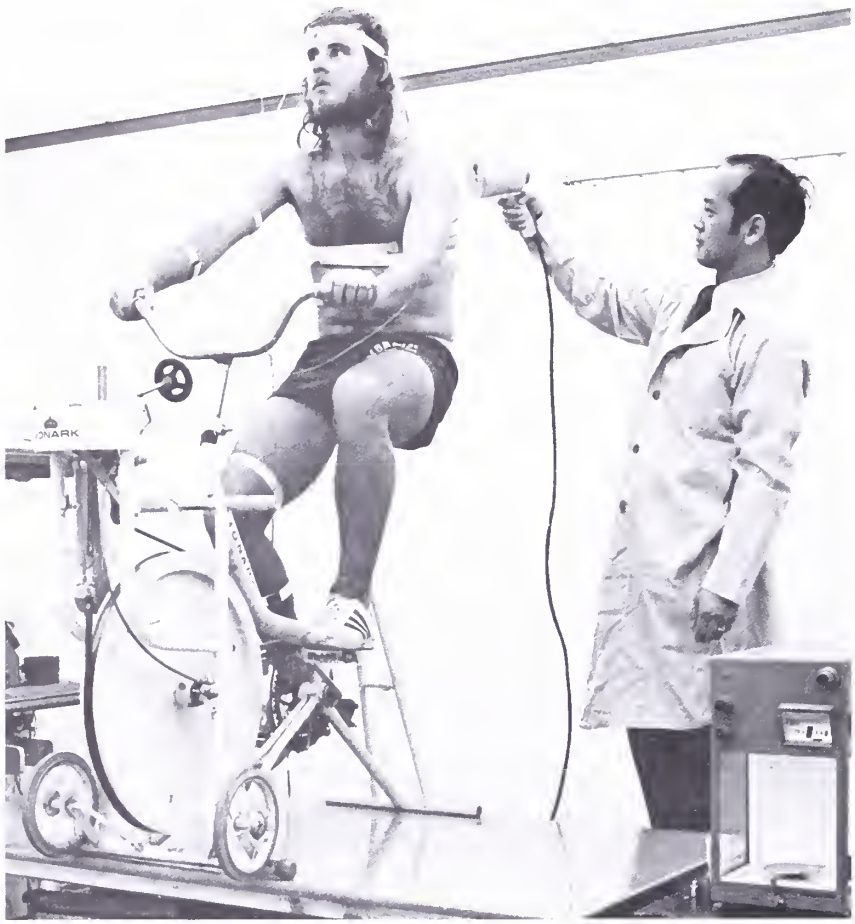
The total cost for this important construction is about $4.5 million. Federal support has been restricted and private funds must be obtained to complete the project.

Major new support will also be required to insure the success of the research, and ultimately, the clinical programs undertaken by this department. Although Federal grant applications have been developed, the department must have sufficient institutionally controlled funds to provide the flexibility needed to respond to new research opportunities.

Such funds from private sources are essential in order for the department to realize its potential to make a significant contribution to this new field of medical science which offers such hope for the future.

The Pierce Lab

what goes on there?



Heat exchange between man and his environment is studied in several specially designed rooms in which air temperature, water vapor pressure, air velocity and mean radiant temperature can be precisely controlled. Dr. Y. Nishi, right, is measuring a subject's skin temperature with an infared radiometer.

Although Yale and the John B. Pierce Foundation Laboratory have been affiliated in one way or another for 40 years, few people in the School of Medicine know very much about the research activities in the building across Congress Avenue.

The relationship between the medical school and the John B. Pierce Foundation Laboratory, known locally as the Pierce Lab, began in 1934 with the appointment of C.E.A. Winslow, who was then chairman of the Department of Public Health, as the laboratory's first director. Dr. Winslow retained the joint responsibility of director of the laboratory and chairman of the department until 1947.

The laboratory was founded by the John B. Pierce Foundation for research and teaching in the "general field of heating, ventilation and sanitation. . . ." Although the founding charter states the precepts of the laboratory's research, it doesn't tell the entire story.

The scientific staff is engaged in research on the psychology and psychophysics of the sensations of odor, taste and thermal comfort; on the physiology of regulation of body temperature over a wide range of conditions; on the mechanisms of fever; and on the physiological effects of air pollutants. The application of their research ranges from setting standards regulating conditions for occupational health, to programming physiological specifications for environmental control during space missions, to establishing objective psychophysical measurements of taste and odor.

One of the most newsworthy projects in recent years has been the laboratory's research for the nation's program in space. Early in the 1960's NASA asked the Pierce Lab to participate in their program to develop life support systems for astronauts in outer space and on the moon. Their specific task was to develop a comprehensive mathematical model which would describe the physiological systems of thermoregulation and thereby account for the effects of the various extreme temperature and atmospheric changes on the astronauts' well being. Dr. James D. Hardy, director of the laboratory, and Dr. Jan A.J. Stolwijk were responsible for this program. Their

findings were a vital factor in the final design of the space capsule as well as the astronauts' clothing.

Dr. Hardy and Dr. Stolwijk have continued to develop and refine their models of physiological systems of thermal regulation and are now in the process of developing models of circulatory and respiratory system regulation. These latter models are integrated with the former and serve to describe the interaction of the many complex systems and organs of the human body under a variety of environmental conditions.

When NASA was having difficulty regulating the temperature of Skylab II last fall, they consulted the Pierce Lab before returning the astronauts to their laboratory in outer space. There are, however, other practical and more down-to-earth applications of this research.

One of the current studies in the laboratory is the process of thermal acclimation. Evidently, extremely hot weather is much more of a health hazard than extremely cold weather. Statistics gathered in the Pierce Lab over a period of several years revealed that mortality rates in an urban population rise sharply with the first summer heat wave, and continue to be high for the duration of the very hot weather. Older people of seventy and babies under a year old are at the highest risk during heat waves, according to the study.

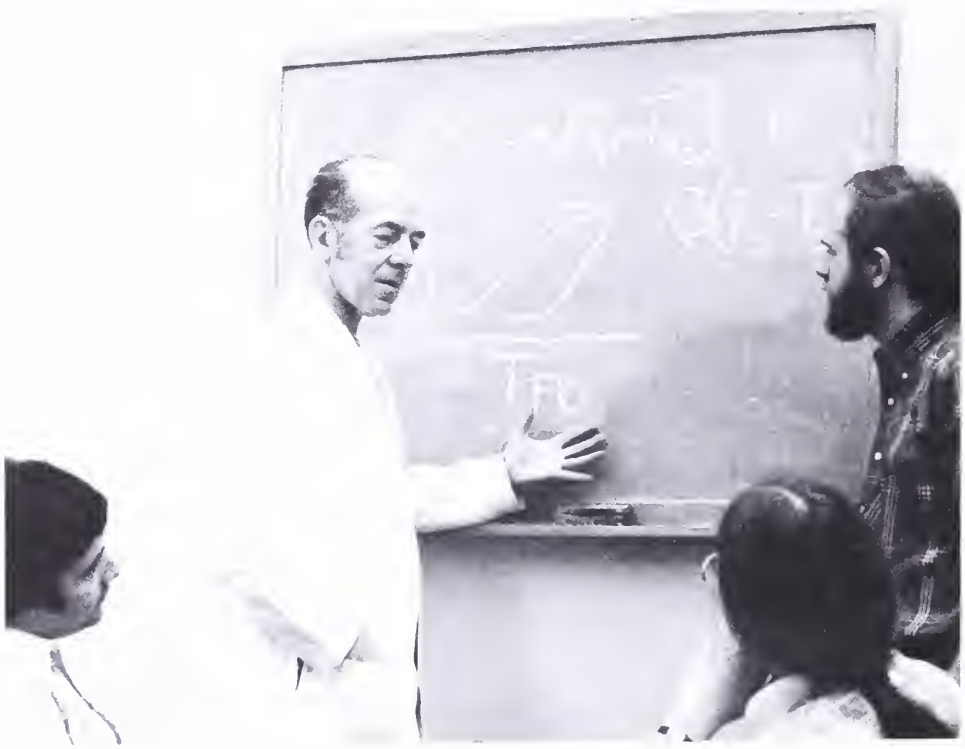
Much of the laboratory's research on the physiology of heat stress and temperature acclimation is concerned with discovering the mechanisms involved in heat wave mortality. Studies have shown that acclimation to extremely hot temperatures is due to increased effectiveness of sweat gland secretion, apparent changes in the threshold temperature of the thermoregulatory system and associated changes in skin blood flow.

Heat disorders—heat exhaustion, fainting, heat stroke and similar problems, are basically due to circulatory problems caused by blood pooling, especially in the body's extremities. The immediate effects are swollen feet or hands, and headaches; the extreme effects are heat exhaustion or heat stroke, and in

Changes in skin blood flow and peripheral pooling of blood are important consequences of exposure to heat and exercise. Dr. Ethan R. Nadel, left, is adjusting capacitance plethysmographs which make it possible to measure forearm skin blood flow in an exercising subject.

Suspended particulates in air are usually measured by weighing air filters. One project of the laboratory is to determine the feasibility of continuous measurement of the level of respirable particulates and particle air distribution, using laser beam attenuation over a path length of 0.5 to 3 miles.

Teaching is an important aspect of the Pierce Lab's program. Members of the scientific staff with appointments in the Department of Epidemiology and Public Health teach courses in the Masters program in environmental health.



some cases, death. Investigations are being conducted in the laboratory to quantify the relationships between body heating, skin blood flow and peripheral blood pooling in an effort to establish the mechanisms involved in acclimation. With these data there will be an improved understanding of the causes of mortality caused by early summer heat waves and, hopefully, an ability to identify the susceptible members of the population so that the mortality rate can be reduced.

Another aspect of the study of systems regulating body temperature is research on the mechanisms and management of fever. The hypothalamus has long been recognized as involved in the regulation of central body temperature, but important progress in this research was made when Dr. Hardy and Dr. Teruo Nakayama first discovered temperature sensitive neurons in this area of the brain. The laboratory has an on-going program for studying the role of the hypothalamus in thermoregulation and in the mechanisms involved in fever.

Recently they demonstrated that fever is caused by an increase in the set point of the thermoregulatory system. Working with experimental animals they have shown that immediate, short term fevers can be produced by local injection of prostaglandin E. This fever can be prevented by simultaneously raising the local brain temperature with implanted heat exchangers. The experimental evidence suggests that prostaglandin E may have a role in the process leading to fever, and this possibility is being actively studied in the laboratory.

Man's interaction with his thermal environment is very complex. A complete description of the interaction would have to include not only ambient temperatures, but also air velocity (drafts and breezes), water vapor pressure, the radiant environment (sun, shade, fireplaces, cold windows), the amount and type of clothing worn and the level of activity of the individual. A section of the laboratory's research staff has been developing simple measurements which can simultaneously take all of these factors into account to serve as a reference for the laboratory's other studies in thermal comfort. Under the direction of Dr. A. Pharo Gagge they have developed an Effective Temperature Scale, based on an analytic model of human physiological temperature regulation. Similar in concept to our weather reporter's familiar wind-chill factor and temperature-humidity index in summer, this is a much more scientific and accurate assessment of the effect of the environment on human comfort.

The air sanitation group in the Pierce Lab is directed by Dr. Arend Bouhuys, who is also the director of the Yale Lung Research Center. The two groups collaborate on a number of projects. With the Department of Chemistry they are investigating the nature of the substances in cotton bracts that cause byssinosis, a disabling respiratory disease affecting workers in cotton textile mills. In this project various sophisticated chemical analysis systems are being used to assess the biological activity of chemicals in bracts. The study was the subject of a television news special on the Walter Cronkite show last March.

Journalists for both the food pages and the scientific sections of the popular press, including the *New York Times*, have been interested in a research project on the tastebud approach to changing flavors of food. The food in question is the artichoke. Dr. Linda Bartoshuk, a psychologist working in the laboratory's psychophysics group which is directed by Dr. J. E. Stevens, has confirmed what many laymen have observed: some beverages taste sweet after one has eaten artichokes. Her studies show that exposing the tongue to chemical substances in artichoke hearts can make water taste sweet. This sweetening ability of an artichoke heart was found to be comparable, on the average, to adding two teaspoons of sugar to six ounces of water. The effect lasts about four or five minutes. Although this research may have far reaching affect on dinner party menus throughout the nation, as suggested by James Beard, its more serious application could be in the production of a commercial sugar substitute derived from natural, rather than artificial substances.

Various studies of the John B. Pierce Foundation Laboratory have proven useful in research projects conducted in the School of Medicine. Staff members of the laboratory worked with Dr. William Glenn, professor of surgery, in developing the heat exchanger for the heart-lung machine for open heart surgery. Recently Dr. Stolwijk collaborated with Dr. Lewis Levy, clinical professor of neurology, in developing a sophisticated patient monitoring system in the Acute Stroke Unit at the West Haven Veteran's Administration Hospital.

The staff of physiologists, psychologists, biologists and engineers has earned a world-wide reputation for its work in the understanding of man's physiological responses to the environment. The group includes postdoctoral and visiting fellows from leading universities and institutions throughout the world. The postdoctoral fellows undergo a one-or two-year period of training and research in the areas of special concern to the John B. Pierce Foundation Laboratory. Their training activities have been funded by the National Institute of Environmental Health Sciences for the past six years.

Many of the scientific staff hold appointments in the Department of Epidemiology and Public Health, and are responsible for teaching courses in the Masters program in environmental health. They also participate in several of the department's projects, such as their evaluation of the Clean Air Act, which they are conducting with Yale's Institution for Social and Policy Studies. Several members of the staff participate in activities in other departments in the School of Medicine as well as the School of Architecture and Yale College.

This is a brief description of a few of the activities at the John B. Pierce Foundation Laboratory. Although the staff is dedicated to the principles of basic science, it is clear that their research projects have application in a wide range of interests, especially in the areas of medicine and public health.

no, Yale is not grading its medical students

Richard M. Granger, M.D.

In the midst of a recent spate of articles describing changes and innovations in medical education around the country, a few distorted references to Yale have led its friends and alumni to believe that the medical school was jettisoning 50 years of experience and tradition and turning to compulsory examinations and grades. Nothing could be further from the truth. What has, in fact, been going on is a revitalization of Yale's efforts to evaluate students individually for their own benefit.

A brief bit of history is in order. When Yale first did away with examinations and other compulsory educational practices, the medical school was small. Both student and faculty were few enough in number so that a great deal of contact and interchange among them was not only possible but inevitable. At the same time, the gap between medical research and practice was not large, and the goals of students and faculty coincided closely.

A great deal of this has changed, particularly in the past 15 years. In this period, medical research has expanded enormously the body of knowledge basic to medicine. The frontiers of medical research have been established at the level of the study of molecular components of the individual cell, a level often far removed from clinical practice. As faculty size has increased, the increased specialization of that faculty, the increased student body size, and the spreading geography of the medical center have tended to decrease close contact between students and faculty.

The introduction of the new curriculum six years ago to some extent increased the polarization. The compression of the preclinical sciences into three semesters has necessitated larger lecture presentations with rotating lecturers, fewer small group exercises, and increased pressure on students to use assigned class time for reading time. All of this has seriously interfered with the long-standing, informally organized evaluation program. Fewer and fewer faculty have sufficient protracted contact with students to evaluate their progress. This, in turn, has made it more difficult for those responsible for counseling students to do their jobs effectively. Also, as students have chosen to make their own judgments about the value of various teaching exercises and have opted to substitute their own reading programs for class time, faculty members have found a decreasing reward from careful preparation for teaching. These problems have been most evident in the preclinical part of the program.

Two years ago the complaints from both students and faculty reached a volume which could no longer be ignored. A study group was appointed by the Medical School Council, resulting in a report which was adopted by the Council in the spring of 1973. It is this report which, imperfectly understood, has caused the current confusion. What does it recommend?

In essence, the most important recommendation is intended to build into the teaching program more formal attention to the need for, and the process of, faculty evaluation of student performance and growth. Each course is required to develop three evaluation options or alternatives which are to be offered, in writing, to the students at the beginning of each course. The precise nature and scope of the options offered must be submitted to the Curriculum Committee and approved by that group before implementation. Each student is then required to inform the course director under which option he or she will be evaluated formally in that course.

One of these options, and not more than one, may be an examination of some kind, written or oral. In some courses the examination is graded anonymously with only those students falling below a certain level asked to make themselves known to the course director for further help. In any case, NO GRADES as such are transmitted to the Dean's Office to be entered into the student's record. Examination results, whatever type, merely become another factor in the cursive evaluation which is written on each student at the end of the course. It is important to note that such exams have been offered as an option in a number of courses for some years, and have been found helpful by students wishing to assess their own knowledge and progress in an area. Further, if, as now seems likely, Part I of the National Boards is eliminated, Yale will then have to devise some formal examination to replace it.

Other evaluation options may include a report on the student's performance in small seminar groups or in laboratory exercises, the carrying out and presentation of in-depth projects or papers in certain areas, and direct individual conferences with students about their reading and other work. These are all phases of student activity which have been used in the past to assess the depth and breadth of student knowledge and study. The major difference has been to formalize them, write them down, and insist that the student commit him- or herself to some form of conjoint educational activity with the faculty. In addition, students are asked to submit evaluations of their own work and progress in each course and are asked to evaluate the course as a teaching-learning experience.

Because the best teaching and evaluation are made possible by having faculty work with students in small groups around common interests, we are continuing to work toward that goal. This year, under a joint mandate from the Medical School Council and Dean Robert Berliner, the Curriculum Committee has undertaken an intensive review of all aspects of the Yale medical curriculum and teaching program. Although a full report on this activity will not be available until later this year, it seems reasonable to say at this time that priorities for teaching, and medical student education in general, will be greatly enhanced. Years of change, like this one, are always difficult for both the participants and the onlookers. There were significant imperfections in the evaluation system this year and much confusion about it, but we are continuing to work on it and it will improve. Perhaps the most important thing to report at this time is that the Yale system is still alive and well, at Yale.

Dr. Granger, an associate professor of clinical pediatrics in the Child Study Center, is chairman of the school's Curriculum Committee and served as chairman of the Medical School Council during 1973-74.

in and about

Director appointed for Division of Oncology

Dr. Joseph R. Bertino, professor of medicine and pharmacology, has been appointed director of the Division of Oncology. He has been acting director of the division since it was established in July 1972.

The Division of Oncology was organized to integrate the many existing cancer studies at Yale by bringing together faculty in the medical school and other departments in the university who are involved in cancer research. Members of the cross-departmental structure have been involved in planning the proposed Comprehensive Cancer Center at Yale, which would serve as a major cancer research facility as well as patient care resource for the State of Connecticut.

Dr. Bertino has been on the medical school faculty since 1961, when he was appointed assistant professor of pharmacology. He became associate professor of medicine and pharmacology in 1964. He was named chief of the Section of Oncology and Chemotherapy in 1966, and in 1969 he was promoted to professor of medicine and pharmacology.

Dr. Bertino was born in Portchester, New York in 1930 and attended Cornell University. He received his M.D. degree from the State University of New York Downstate Medical Center in 1954 and was an intern in the Graduate Hospital of the University of Pennsylvania during the following year. From 1955 until 1956 he was a resident in medicine at the Veterans Administration Hospital in Philadelphia and for the following two years he served as a captain in the U.S. Army Clinical Research Division, Army Chemical Center, in Baltimore, Maryland. He was at the University of Washington School of Medicine in Seattle from 1958 to 1961 as a U.S.P.H.S. research fellow in hematology and biochemistry.

Dr. Bertino is chairman of the chemotherapy advisory committee of the National Cancer Institute, and a member of a number of medical societies including the American Association for Cancer Research, American Society of Hematology, and the American Society of Biological Chemists. He serves on the executive committee, Division of Clinical Pharmacology, of the American Society for Pharmacology and Experimental Therapeutics as well as the editorial boards of *Molecular Pharmacology* and *Cancer Research* and the editorial committee of the *Journal of Clinical Investigation*.

The Nicholas J. Giarman Memorial Lecture

Dr. Arnold D. Welch delivered the Nicholas J. Giarman Memorial Lecture on March 15. He spoke on "Considerations of Benefit Versus Risk in the Development of New Medicines". Dr. Welch, who is president of the Squibb Institute for Medical Research, was chairman of the Department of Pharmacology at Yale from 1953 to 1967 and was also Eugene Higgins Professor of Pharmacology.

The Nicholas J. Giarman Memorial Lecture is in memory of Dr. Giarman, a much beloved professor of pharmacology who died in October 1968.

Yale–Waterbury Hospital Affiliation

The School of Medicine and Waterbury Hospital signed a five-year affiliation this past January. The affiliation agreement builds upon and strengthens the preliminary affiliation in effect since 1970 and makes Waterbury Hospital a major teaching affiliate of the Yale School of Medicine. The affiliation will serve to strengthen existing programs and will facilitate the development of new activities. The common institutional objectives of the affiliation are: care of patients, effective medical education, productive clinical and health care research, outpatient care, education and research among hospitals and other health care institutions in the region.

The specific goals of the hospital in such an arrangement include the maintenance of high quality educational programs, participation in clinical research programs, utilization of certain specialties of patient care not available in the hospital and continued efforts toward the selection of full-time chiefs of departments. Benefits of affiliation to the Medical School include an increase in high quality clinical facilities for training and research, increase in the numbers of clinical faculty in certain specialties and the opportunity to render service to a larger number of patients through the advancement of a regional network of such cooperative arrangements.

The efforts directed at logical expansion of this network are being carried out by the School of Medicine's Office of Regional Activities in pursuit of the goals established by the joint efforts of the School and the Connecticut Regional Medical Program.

Hospital to establish primary care center

Construction has started on the Yale-New Haven Hospital's new primary care center, which will provide medical care for the more than 15,000 New Haven residents who use the hospital emergency room for their medical needs. Dr. Richard Lee, assistant professor of medicine, and Dr. Thomas Dolan, associate professor of clinical pediatrics, will be co-directors of the center. Mr. Herbert Paris, associate director of the hospital and director of ambulatory services, has been in charge of planning the $850,000 center which is expected to open in the spring of 1975.

Since World War II more and more people in the lower socio-economic groups throughout the country have tended to rely on the urban hospitals, rather than neighborhood clinics or private physicians, for their primary source of health care. This has been especially true in New Haven, where visits to the emergency room of the Yale-New Haven Hospital have more than tripled in the past two decades. The emergency room receives almost 90,000 visits annually and about 75 percent of these are of a non-emergency nature.

To meet the needs of the increasing number of walk-in, primary care patients, the hospital is reorganizing its outpatient health care delivery system to include these patients and to separate their care from emergency room services. The new primary health care center, which will be adjacent to the emergency room in a one-story building, with about 30 examination and treatment rooms, will house the general medicine and pediatric clinics.

The center will provide general health care services, including casefinding, evaluation, treatment and referral of patients who rely on the hospital for their on-going care. Doctors in the center will be able to refer their patients to specialty departments in the hospital. An important feature will be a 24-hour a day walk-in clinic located between the emergency room and the primary care center.

A new entrance to the emergency room will serve both the ambulance cases and the walk-in patients who will be screened by a specially trained nurse to separate the emergencies from the non-emergencies. The non-emergency patients will be directed into the primary care center. Those coming in without appointments will be seen in the walk-in clinic and if necessary, be given an appointment in the primary care center.

In addition to offering improved health care delivery to a large segment of the New Haven community, the new primary care center is expected to provide a model unit for teaching house staff and students a multi-specialty, inter-disciplinary team approach to on-going patient management.

The Louis H. Nahum Memorial Lecture

The second annual Louis H. Nahum Memorial Lecture was given on March 13 by Dr. Edmund H. Sonnenblick, who is an associate professor of medicine at Harvard Medical School and director of cardiovascular research at the Peter Bent Brigham Hospital. He spoke on "Inter-relations of Coronary Blood Flow and Myocardial Function."

The Nahum Memorial Lecture was established last year in the Department of Physiology at Yale through the gifts of friends and colleagues as a tribute to Dr. Nahum, a distinguished Yale alumnus who was lecturer emeritus of physiology at the time of his death in July 1972.

In addition to delivering the Nahum Memorial Lecture, Dr. Sonnenblick spent three days at Yale as the 1974 Medical Student Council Visiting Professor, and took part in various clinical teaching sessions including a discussion at Medical Grand Rounds. On March 15 he gave a third lecture, specifically planned for medical students on "Mechanisms of Myocardial Failure". Dr. Sonnenblick's talk was the first in a series being sponsored by the medical students this year. The series will endeavor to bring to Yale outstanding teachers from other medical centers.

grant to continue studies on student admissions

As a follow up to the article on student admissions in the Winter/1974 issue of *Yale Medicine*, it should be noted that the National Fund for Medical Education has awarded a $22,140 grant to the School of Medicine to continue studies on the admissions process. Dr. Gerald Burrow, associate professor of medicine and former chairman of the admissions committee is heading the study.

There are 20 applicants for every place in the entering medical school class. The difficulty in selecting the most qualified students is compounded by the lack of clear criteria for the selection of the entering class and by the lack of a clear understanding of what constitutes a "successful" medical student. According to Dr. Burrows, each member of the admission committee spends about six hours a week for 25 weeks in the process of selecting the medical school class. For the committee as a whole this represents a time commitment of approximately 2,000 hours. When these figures are applied on a national level, the investment in time and money becomes staggering.

The three-year study being conducted by Dr. Burrows is proposed to define objective criteria that would be helpful in the medical school admissions process. The study approaches the admission process as a three component process exemplified by the institution, the applicant pool and the selection committee. With this approach the assessment of the interrelationship between the goals of the institution, the expectations of the applicant and the ability of the Admissions Committee to interpret these aims becomes important in understanding the admissions process.

So far the study has established a data-base from which to study a selection process, and a data base from which to evaluate applicant expectations. The investigators are now in the process of studying institutional conceptions of goals and success.

Louis G. Welt, M.D.

Dr. Louis G. Welt, professor of medicine and chairman of the Department of Internal Medicine, died suddenly on January 13, 1974 while working at his desk in the Yale-New Haven Medical Center. He is survived by his wife, the former Mary Patton, and two sons, Robert and Fred. In addition Dr. Welt leaves two sisters, Mrs. Dorothy Shuff of San Diego, California and Mrs. Helen Reibel of Elizabeth, New Jersey and a brother, Frank A. Welt, also of Elizabeth.

He was born in Elizabeth, New Jersey in 1913, received his B.A. degree from New York University in 1934, and his M.D. degree from Yale in 1938. After internship and residency at New Haven Hospital, he served as an instructor at the School of Medicine until 1942 when he joined the 39th General Hospital unit—the "Yale unit"—which was sent to Auckland, New Zealand. He became involved in malaria control and was attached to the American Division as division malariologist on Bougainville. From there he went to Leyte and Cebu and finally Manila. He was discharged in 1946 after attaining the rank of major and receiving the Bronze Star for his contributions to military medicine.

In the two years between Dr. Welt's residency and his military service he had a taste of teaching and of both clinical and laboratory research but was not committed to that way of life. He had a strongly held sense of values, however, which placed scholarly achievements above material gains. On return from the Pacific he practiced medicine in Willimantic, Connecticut, for a year. Although he enjoyed practice, quickly became a valued member of the community and prospered, an irrepressible urge to become involved in the area of teaching and research directed his return to the academic life at Yale.

He left Yale in 1952 for the University of North Carolina as an associate professor, advancing to professorship in 1954 and chairman in 1965. Throughout his 20 years in North Carolina he maintained close ties with his former associates at Yale and especially with his old professor, Dr. John P. Peters, for whom he had an awesome respect. Dr. Welt accepted the call to return to Yale when he was 58 years of age and in uncertain health. This involved great personal sacrifice under the circumstances but it was more than balanced by his deep feeling for Yale and a sense of ultimate fulfillment which the chair at Yale must have given him.

Dr. Welt had a prime interest in patient care and expected of his staff commitment in this area. In his research, he contributed fundamental advances in physiology and pathology without ever losing sight of their ultimate goal, the improvement of man's well-being. He assumed a variety of consultative, editorial and committee appointments in which he served diligently. He earned a reputation for skill in eliciting and utilizing divergent opinion and reaching conscensus among men with strongly held personal views who responded to his sincerity and forbearance.

Dr. Welt was president of the Association of Professors of Medicine and served on the council of the Society for Experimental Biology and Medicine. He was a member of numerous scientific societies including Alpha Omega Alpha, the American Physiological Society, the American Society for Clinical Investigation, the Association of American Physicians, the Endocrine Society, and Sigma Xi, and was a fellow of the American College of Physicians.

In the short time that Dr. Welt was back at Yale, his warmth and sensitivity as well as his professional talents won him wide respect and affection. He had a sense of humor and joy of living and a capacity for friendship which carried him through many trials. He worked hard and played hard to the end as if oblivious of the possible consequences to his health. Yale may well be proud of its important role in the development of Louis Welt and grateful for all he gave in return. P. L.

The Samuel D. Kushlan Award

Two members of the Department of Internal Medicine have been selected to receive The Samuel D. Kushlan Award: Dr. Jonathan Alexander and Dr. Jimmy C. Costin. The award, which was inaugurated in 1969, is presented to the intern and assistant resident who have contributed the most to patient care during their rotation through the Memorial Unit Medical Service. The selection is made in consultation with the clinical faculty and the nursing service. The purpose of the award is to encourage improved patient care and communication and relations between the house staff, the clinical faculty and the nursing service.

Promotions to Professor

Three promotions to the rank of professor were recently announced; these include Francis L. Black, Ph.D., as professor of epidemiology and microbiology, Stanislav V. Kasl, Ph.D., as professor of epidemiology, and Luke M. Kitahata, M.D., Ph.D., as professor of anesthesiology.

New Books by Faculty

Amino-Acid Metabolism and Its Disorders: Major Problems in Clinical Pediatrics, 10, *by Charles R. Scriver, M.D. and Leon E. Rosenberg, M.D., professor of human genetics, medicine and pediatrics, and chairman of the Department of Human Genetics. 491 pp, illus. W.B. Saunders Co., Philadelphia.*

This book describes the role of amino-acids in health and disease, with particular emphasis on inborn errors of metabolism. It reviews current screening, diagnostic and investigative techniques and examines membrane transport. A discussion of metabolic disorders and their treatment includes a detailed report on vitamin responsive inborn errors.

Duncan's Diseases of Metabolism: New Seventh Edition, *by Philip K. Bondy, M.D., C.N.H. Long Professor of Medicine, and Leon E. Rosenberg, M.D. 1685 pp, illus. W.B. Saunders Co., Philadelphia.*

An explicit guide to the diagnosis and management of the full range of metabolic disorders, the seventh edition features new material on releasing hormones of the hypothalamus; an expanded section on inborn errors of amino-acid metabolism; an exposition of the metabolism of vitamin D and the role of calcitonin; and a new consideration of diseases of the thyroid gland.

Beyond the Best Interests of the Child, *by Joseph Goldstein, Anna Freud, and Albert J. Solnit, M.D., director of the Child Study Center and Sterling Professor of Pediatrics and Psychiatry. The Free Press, New York.*

This is a concise treatise on the legal, psychoanalytic, and psychiatric aspects of the suffering, danger and damage inflicted on children undergoing placement proceedings in law courts and placement agencies. It examines the existing laws on child placement and attempts to define the true locus of court decisions as well as formulate a new code for child custody.

Connections: Notes from the Heroin World, *by Leroy Gould, assistant professor of psychiatry, Andrew L. Walker, Charles W. Lidz and Lansing E. Crane, research associates in psychiatry. 308 pp. Yale University Press, New Haven.*

Using quotations from their field notes wherever possible, the authors, three sociologists and a lawyer, first describe how people get acquainted with heroin and street life. Moving to the perspective of law enforcement they follow the vice squad on a drug raid and present the problems confronting prosecutors, defense attorneys, and probation officers. Finally, three aspects of treatment are described: screening and evaluation, methadone maintenance, and a residential therapeutic community. The book is an attempt to describe rather than analyze the events that make up the world of heroin.

Faculty Notes

The Sedgwick Memorial Medal for distinguished service in public health was presented to **Dr. Isidore S. Falk**, professor emeritus of public health, at the 101st annual meeting of the American Public Health Association in San Francisco, on November 5. The medal was presented by APHA past-president Myron E. Wegman, M.D., class of '32, on behalf of Dr. Ira Hiscock, professor emeritus of public health, who was unable to attend the meeting. The citation, which was read by APHA president-elect Lorin E. Kerr, M.D., stated, "In his distinguished career as microbiologist, statistician, economist, public health consultant, Social Security Administrator, foreign government advisor, and teacher, Isidore Falk, PhD., born in 1899, linked with formidable effect the critical objectivity of the scientist, the intellectual brilliance of the philosopher and scholar, and the tempered dedication of the social innovator..."

Dr. Robert E. Shope, associate professor of epidemiology and director of the Yale Arbovirus Research Unit, has been appointed chairman of the Panel on Virus Diseases of the U.S.-Japan Cooperative Program in Medical Sciences. This panel surveys virus research potential in several virus areas of mutual interest, and advises on the pertinence and acceptability of research grant proposals from U.S. workers.

Arthur J. Viseltear, assistant professor of public health, has been selected to participate in a new program designed to provide outstanding mid-career health professionals, working in an academic setting, with a better understanding of the major issues in health policy and a knowledge of how Federal health policies and programs are established. As one of six Robert Wood Johnson Health Policy Fellows he will be posted with various House and Senate Committees working on health policy. The program was established by the Institute of Medicine, National Academy of Sciences, with a grant from the Robert Wood Johnson Foundation.

Professor Thompson standing in front of the "Yale Column" at the entrance of the main university library which was destroyed during World War I and rebuilt with the help of many U.S. universities, including Yale.

After four months in England observing various aspects of the reorganization of their National Health Service, **John D. Thompson**, professor of public health and nursing administration, is spending an equal period as a visiting professor in the Department of Hospital Administration and Medical Care Organization at the University of Leuven, Belgium. While at the university Prof. Thompson is leading a seminar on health services research and working in the Institute for European Health Services Research. The institute is making a complete inventory of hospital and other medical control legislation in all of the common market countries. According to Prof. Thompson the problems of health care in most of the E.E.C. countries are more comparable to those facing the U.S. than are those of the United Kingdom. The problem of cost control and monitoring the utilization of health services and their quality are quite pressing, though not as evident as they are in the U.S.

The Board of Directors of the Pharmaceutical Manufacturers Association Foundation has chosen **Dr. Robert Capizzi**, assistant professor of medicine and pharmacology, for an award under the 1974 "Faculty Development Awards in Clinical Pharmacology" program. The award is for two years, during which Dr. Capizzi will study two areas of cancer research. The first deals with interactions between antineoplastic drugs on normal and tumor cells; and the second major area of study is the development of a screening system which will identify mutagenic chemicals in our environment.

Dr. David F. Musto, associate professor of psychiatry and history, and author of *The American Disease: Origins of Narcotics Control*, was presented with the annual research award of AVANT—The Association of Voluntary Agencies on Narcotics Treatment, for his book. Published by the Yale University Press last May, the book is under consideration for both the Pulitzer, Bancroft and the American Book Awards in the history category.

The Benedict R. Harris Award

The Benedict R. Harris Award was presented to **Dr. David S. Fischer**, assistant clinical professor of medicine. The award was inaugurated in 1967 to honor the private physician who has contributed the most to the teaching of the first year residents. The residents make the selection.

Dr. D. Martin Carter, associate professor of dermatology, has been elected president of the Society for Dermatological Genetics.

Two orthopedic surgeons from the Yale School of Medicine have been awarded prizes for outstanding research. **Dr. John Ogden**, assistant professor of orthopedic surgery, received the John Charnley Award for the most valuable research on the hip, as well as the Berg Travel Fellowship, given to the most outstanding young orthopedist in the United States. **Dr. Alan Breed**, clinical instructor of orthopedic surgery, was given the Nicholas Andre Award for the most outstanding basic research on the skeletal system in 1973. The research projects of these two faculty members were supported by the Crippled Children's Aid Society. The awards were presented at the American Academy of Orthopedic Surgeons' meeting in Dallas, Texas in January.

Dr. George Rosen, professor of history of medicine, and epidemiology and public health, resigned as editor of the *American Journal of Public Health* at the end of December. He was appointed editor in July 1957 after having been a member of the editorial board for eleven years, and chairman of the board in 1957. Dr. Rosen will continue his association with the journal by contributing a section entitled "Public Health, Then and Now." He also continues to serve as regional editor of *Social Science and Medicine* and as a member of the editorial board of the *Journal of the History of Medicine*.

Building a Tall Ship in Onatonna, Wisconsin

For centuries the sea has beckoned men to leave the warmth and security of the hearth for the adventure and independence of a seafarer's life.
Hyerdahl men have gone down to the sea in search of the inner most mysteries of life or for fame and fortune. For most contemporary sailors going to sea is merely a matter of driving to the yacht club and setting sail, but it's not that simple for Dr. Daniel K. Halvorsen, class of '49. He lives in the landlocked community of Owatonna, Minnesota and he is building his ship, plank by plank.

Going to sea in a tall ship is a dream long held by Dr. Halvorsen, who is "100 percent Norwegian", and he seems not only undaunted, but absolutely inspired. "Sailing is really one of the last schools of self reliance left on earth," he said. "Otherwise, wherever you go and whatever you do, you're pretty much dependent on someone else. When you're at sea, you're on your own."

Dr. Halvorsen and his wife wanted a ship they could retire aboard. It had to be an ocean going boat and as far as Dr. Halvorsen is concerned, the only ocean going yachts that are worth their salt are sailing yachts, where the main source of power is the wind—the natural elements. "This is more challenging anyway. It's more fun to sail," he added.

The Halvorsens thought about the design for years before they decided to build. It took a year for a marine architect and naval engineer to work out their plans and requirements for the ship, which will have the lines of a viking ship below the water line—Dr. Halvorsen attributes this requirement to his Norse background—and the bow of a clipper ship which is not only seaworthy, but picturesque. The three-ton yacht will be 47 feet long and 14 feet from keel to bow, the highest point on the deck. The main mast will rise 62 feet above the deck.

The size was determined in part by what Dr. Halvorsen could sail alone, if necessary, and in part by its capacity. The Halvorsens have three children and they wanted a ship that the family could sail together in comfort on long voyages, without having to worry about supplies. The design provides for sleeping facilities for twelve adults, without crowding, and

it has an enormous deck area. Galley facilities, fresh water supply and storage room will be enough for 12 adults to survive at full rations for a minimum three-month voyage without touching land or getting supplies at sea. This is enough to sail anywhere in the world.

The Halvorsen family started building their ship twelve years ago, beginning quite logically with the keel. First a cradle was built, next a mold for the ballast was made. Dr. Halvorsen then cast the ballast from 12,000 pounds of concrete and steel. This is fastened to the ship proper through the oak "backbone", which is on top of the concrete and steel ballast.

The hull of the ship is made from oak. The family picked out most of the trees themselves long before the project was started. The trees were cut and the logs were laid out in the woods where they seasoned for three years before they were cut into planks and timbers. Some of the main timbers of the bow and stern are 16 feet long and 12 by 14 inches.

The ship is strip built, a process that cannot be done commercially because it is too costly. This means that comparatively narrow strips of wood are started at the keel and each is fastened to the next one. These strips then make a hull that is two inches thick. There is a spike every four inches that goes through two strips and into the third. Every one of the holes has to be hand drilled because it isn't possible to drive a nail into oak which is a very hard wood. This type of construction makes an extremely strong ship, which is literally one piece, but it is also terribly time consuming.

"I have never worked much with oak before," Dr. Halvorsen admitted, "so having to drill every nail and screw hole in the entire ship is a new experience in patience. This is off-set by the pleasure of working with something that is really durable, and I take my frustrations out on the oak rather than my family or patients."

Only solid wood will be used in the interior, which will have French polished black cherry panelling. The sails will be made of dacron to prevent mildew at sea. A small diesel engine will be installed as will a kerosene range. They will use kerosene as well as electric lamps.

The family has studied celestial navigation and seamanship—but so far no date has been set for finishing the project. "The project has been a source of joy and relaxation," Dr. Halvorsen explained. "Because we are doing it ourselves and are building it entirely of oak, which is an immensely strong and heavy wood, it tends to keep us in good physical condition. If we never finished the ship," he continued, "the project would be worthwhile, and this is difficult for a lot of people to understand."

When they do finish, the Halvorsens will face another challenge: How will they get their ship to sea? At the moment it is sitting on its cradle and could be skidded to the railroad and put on a flatcar bound for Duluth and Lake Superior, provided it clears a few bridges and buildings on the way to the station.

"Actually, I can honestly say that so far—other than in thinking and planning ahead for different things I want—the only way I've thought about the ship is working on it," Dr. Halvorsen said, "Very seldom do I anticipate the joy of actually sailing it."

Letter from the President of Yale Alumni in Medicine

The slow disappearance of a mournful, depressing winter and the rapid approach of spring should recall memories of the days spent at the Yale School of Medicine. Those of us who have been fortunate enough to complete a medical education at Yale will always retain some nostalgia for the school. A word of optimism at a time when the country is besought with pessimism is in order.

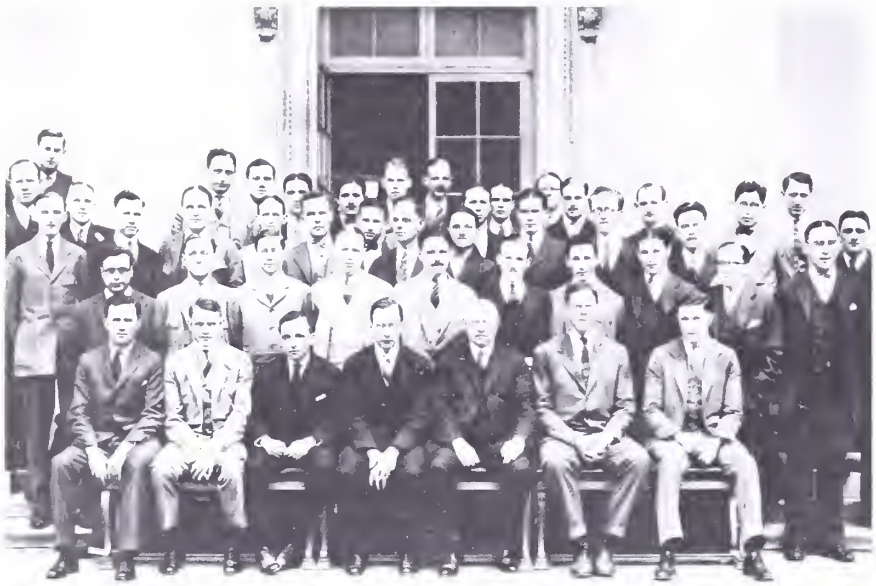
The School of Medicine is a viable, vibrant institution. We have a new, dynamic dean, Dr. Robert Berliner, who is handling a difficult task with imagination and vigor. We have a young, progressive faculty which is under constant stimulation to produce their best. The recent, sudden death of Dr. Louis Welt was, to say the least, a terrible disappointment. Great achievements had been expected of him.

The February 21st news release concerning the cooperation and financial assistance advocated by Governor Thomas Meskill for the development of a Comprehensive Cancer Center at Yale is a commitment which should benefit all of the citizens of Connecticut; it should be particularly satisfying to all those who worked so hard in the background and received little publicity.

The imminent dedication of the new Laboratory of Surgery and Obstetrics and Gynecology will terminate a prolonged struggle to provide proper facilities for these two departments.

In short, Yale School of Medicine is alive and thriving. It has earned and deserves our support. A visit on a spring day, June 1, for Alumni Day, for reunions with friends, for an educational program, and for the dedication of a new building, could very well be a joyous and pleasantly surprising occasion.

John B. Ogilvie, M.D., '34



1924

The Class of 1924 had its class picture taken with five members of the School of Medicine's faculty: in the front row, starting second from left Dr. A. B. Morse, Dr. M. C. Winternitz, dean, Dr. E. G. Blake, Dr. M. B. Ferris, and Dr. E. A. Park. The Class of 1924 will celebrate its fiftieth reunion on Alumni Day, June 1.

1933

Franklin Foote, Connecticut's Health Commissioner since 1959, retired in November 1973. Among the expressions of appreciation of Dr. Foote's services was the following resolution of the Public Health Council: "WHEREAS Franklin Foote, M.D., Dr. P.H. has rendered dedicated, unselfish, and skillful services for the benefit of people, in health care and public health, for many years, in the State of Connecticut, and WHEREAS Dr. Foote has decided to retire from the vitally important position of Commissioner of Health; be it RESOLVED That the members of the Connecticut Public Health Council express to Dr. Foote their appreciation and admiration of his distinguished services, and to Mrs. Foote their gratitude for her gracious hospitality and understanding support during the strenuous years of vigorous efforts to render the public health program in line with changing conditions and nationally tested experiences."

The Council of the Connecticut State Medical Society also expressed its appreciation to Dr. Foote with a resolution as follows: "WHEREAS Franklin M. Foote, M.D., Dr. P.H., has served with great dedication and distinction as Commissioner of Health of the State of Connecticut for the past fourteen years; and WHEREAS in the discharge of his responsibilities as Commissioner, Dr. Foote has sought at all times to work cooperatively with Connecticut physicians in matters of the public health for programs designed to maintain and improve the safety and well-being of the people of the state; and WHEREAS Dr. Foote will retire as Commissioner of Health, effective November 1, 1973; therefore be it RESOLVED, That the Council of the Connecticut State Medical Society note with regret the retirement of Franklin M. Foote, M.D., Dr. P.H., as Commissioner of Health of the State of Connecticut; commend Dr. Foote for the excellence of his administration of the office of Commissioner and of his professional services to the people of the state; express thanks to Dr. Foote for his efforts to coordinate public health measures with medical practice in order to assure the maximum effectiveness of such

measures; and wish Dr. Foote well in whatever undertakings he may pursue following his retirement; and be it further RESOLVED That the Council apprise Dr. Foote of this action and that copies thereof be sent to the Governor of the State and be released to the Connecticut communications media."

1937

The new president of the College of American Pathologists is **Robert Horn, Jr.** chairman of the Department of Pathology at Henry Ford Hospital in Detroit. Dr. Horn will serve as president for two years.

1940

Lee Sannella, in practice and affiliated with the Kaiser Hospital in Oakland, California, is researching biofeedback under a Kaiser Medical Foundation grant. He has been working with patients referred to him by several Kaiser departments dealing with pain, skin disorders, and chronic inflammatory conditions.

1945 (June)

In a letter recently received from **Isao Hirata**, he wrote of his activities at the University of South Carolina Student Health Service where he has been director since 1972: "We have established a going service in a brand-new 1.75 million dollar building, with five full-time generalists, a full-time gynecologist, a full-time psychiatrist, and part-time help from certified specialists in the area. As the first full-time doctor, I have seen the service balloon up to a total of 60 people with a budget close to one million dollars per year, offering intermediate bed care, (45 beds), but primarily outpatient care for 18,000 students with services including pharmacy (2 registered pharmacists), clinical laboratory, physical therapy, and radiology, (provided by one of the generalists who is, at the same time, a board-eligible radiologist, hence performs all diagnostic contrast studies as well). Our part-time help provides for three orthopedic clinics a week and weekly internal medicine and dermatology clinics. Under the circumstances, I no longer am doing surgery, which I do miss, but not that much. Instead I have become a planner and administrator, as well as teaching athletic medicine in the Physical Education Department. We are in the process of making arrangements with Medical School in Charleston to rotate senior medical students through the Center for athletic medicine and also separately, for general college health orientation, mainly to see how a primary and intermediate care clinic can be set up. I anticipate, in a few years, that we will begin to deliver care to faculty and staff and, eventually, their dependents, gradually becoming thereby a HMO but, at the same time, in deliberate and pre-planned steps that should make the end result more efficient in terms of health delivery as well as cost. In all, I still believe that this is where medicine has to come up with realistic solutions, not based on a cheap labor market provided by a large teaching medical center but based on competitive costs in an average community such as this. I may be wrong in assuming the significance of our efforts, but it certainly is a lot of fun! In fact, I find it much more rewarding than the one to one grind of surgical practice."

1946

An associate in psychiatry, specializing in child psychiatry, **Dr. Hugh R. Williams** has joined the permanent staff of the Geisinger Medical Center.

1947

Robert Chase, Emile Holman Professor and chairman of the Department of Surgery at Stanford University School of Medicine is the author of *Atlas of Hand Surgery* published in fall of 1973. Dr. Chase's book describes proven methods of treatment for a variety of defects, deformities and disabilities, with special emphasis on restorative reconstructive surgical techniques. It was published by W. B. Saunders Co., Philadelphia.

1948 (June)

The Department of Neurology at the College of Physicians and Surgeons is to have a new professor and chairman—**Lewis Rowland**. Dr. Rowland currently holds these positions at the University of Pennsylvania School of Medicine.

Paul Koehler is now medical director of The Purdue Frederick Company in Norwalk, Connecticut.

1951

An article in the February 23 *New York Times* reports that **Daniel X. Freedman** turned down an offer to head the new Federal Alcohol, Drug Abuse and Mental Health Administration. Dr. Freedman, who is chairman of the Department of Psychiatry at the University of Chicago, said he "could not take the job because cutbacks in health funds, made with no understanding of the long-range effects of such cuts, were producing 'chaos' in mental health research, training and services."

According to the *Times* article he said in an interview, "The systems managers in Washington have a new disease when it comes to health services. It's called delusions of competence."

1953

A short note together with an article which appeared in The Milford (Conn.) Citizen has been received from **Arthur Berman**. Dr. Berman asked that some of his thoughts expressed in the article, be passed on to his 1953 classmates. He has multiple sclerosis and has been quadriplegic for some time. According to the newspaper account, he wished to emphasize that "Instead of thinking how disabled you are, try to concentrate on what it is possible for you to do!"

From Philadelphia General Hospital where, at 29, he was chief resident in neurology and where he first noticed signs of multiple sclerosis, Dr. Berman returned to his home in New Haven. He soon became paralyzed from the neck down, then gradually began to regain the use of his arms. He was able to get around with the use of a cane and began attending lectures, consulted with residents, and did some research at the V.A. Hospital in West Haven. In addition, he held a neurology class for interns at Griffin Hospital in Derby. "I believed that I had multiple sclerosis at this time; however, many physicians did not agree with me because it is a terrible thing to diagnose. With considerable reluctance, another physician finally confirmed this diagnosis." At New Haven Hospital, during this period he conducted clinical research in multiple sclerosis, using forms for patients and doctors to indicate the patient's progress while taking a drug. Unfortunately, this did not result in helping to cure M. S.

It was while he was getting physical therapy treatments at Yale-New Haven Hospital Physiotherapy Clinic that he met and was treated by the physical therapist who was to become his wife—five years after his first multiple sclerosis attack.

The son of Harry Berman, well-known New Haven conductor, violinist and teacher, Dr. Berman had a deep interest in music before his interest in medicine. By the time he was 16, he was playing professionally for pre-Broadway openings of "Oklahoma", "Carousel", "Allegro", and "South Pacific" at the Shubert Theater in New Haven. He enjoyed composing and performing music in his earlier years, and even now, music continues to be important in his life. He has composed several musical works mentally—telling his wife what notes to write and where to write them, recalling what he has written, making revisions frequently. He has composed two violin and piano sonatas, one viola and piano sonata, theme and variations for piano, and music for flute, cello and piano.

Dr. Berman's advice to others who, like himself, have multiple sclerosis is "Do what you can with what you have—you may have more than you think."

1954

Dr. Harry C. Miller, a specialist in pediatric urology, has joined the faculty of The George Washington University Medical Center as professor and chairman of the Department of Urology.

James Nora, director of pediatric cardiology and director of the pediatric cardiopulmonary training center at University of Colorado School of Medicine will be assuming new duties at the State University of New York Downstate Medical Center where he has been appointed chairman of the Department of Pediatrics. Dr. Nora is the co-author of two textbooks dealing with heredity, *Medical Genetics: Principles and Practice* and *Genetics of Man.*

1957

Harold J. Fallon, currently cochairman of the University of North Carolina School of Medicine's Department of Medicine, will be assuming the new post of chairman of the Department of Medicine at the Medical College of Virginia.

1960

Among those responding to a request for information from their Yale undergraduate class secretary were **Thomas Kugelman**, **Festus Adebonojo** and **Frank Kleeman**. Dr. Kugelman, in private practice in dermatology in Hartford, Connecticut, is currently secretary-treasurer of the medical staff at Hartford Hospital. He is assistant clinical professor at Yale and also teaches at the University of Connecticut. Some of his spare-time interests are sailing, skating, music (he, his wife and three children all play an instrument and enjoy chamber music), and collecting American antique furniture.

Dr. Adebonojo is director of the Children's Hospital Children and Youth Program, a community ambulatory service for ghetto children in South Philadelphia, and assistant professor of pediatrics at the University of Pennsylvania. In addition to practice and teaching he has been doing research on metabolic aspects of obesity. This past summer he and his family vacationed in Nigeria and in Europe.

Dr. Kleeman, in private practice of urology at Newton-Wellesley Hospital in Massachusetts, is also doing some research and teaching. He lives in Brookline with his wife and two sons aged 3 years and 5 months, and is interested in Boy Scout activities, particularly introducing young people to future careers. He also enjoys Chatham and Cape Cod.

1961

Last year **John Pearce** completed two years as president of the Society for Family Therapy and Research, a very active job. He wrote that he had been teaching six seminars in family therapy, writing a newsletter, and traveling around being a visiting fireman, but this year is teaching only two seminars and focusing his energies on "getting home at reasonable hours; concentrating on my private practice; and doing research on diadic interaction with the Ravich interpersonal game/test." The Pearces and their daughter Sarah, age 4, are living in Cambridge, Massachusetts.

1969

Michael Liebowitz, in a recent class note in the *Yale Alumni Magazine* says that he's a "country squire and Doc, M.D.-ing in Vermont, also skiing o'er hill and dale. Wunnerful country."

House Staff

1971

David Shapiro wrote in January: "I finished my Chief Residency in General Surgery in 1971, am now in the private practice of General Vascular Surgery in New Port Richey, Florida and have been certified by the American Board of Surgery. In addition, I am active in the Department of Surgery of the University of South Florida in Tampa where I hold an appointment as Clinical Assistant Professor of Surgery." Dr. Shapiro, a member of the Florida Association of General Surgeons has also been elected a fellow in the southeastern Surgical Congress. Recently elected president of the Board of Directors of the Regional Health Planning Commission for his county, he is a member of a committee which governs regional health planning for the mid-western coast of Florida. "The first six months of private community practice have been hectic but extremely challenging", he says, "though I wish I could find time to take advantage of the Florida sun and fish for the big ones. . . . I would love to hear from anyone planning a trip to Florida."

Public Health

1965

Tufts-New England Medical Center announced in March that **Viola Spinelli** has been promoted to Associate Director of New England Medical Center Hospital for Community and Ambulatory Care in Boston. While continuing to serve as principal administrative officer to Dr. Miles F. Shore, newly appointed Director of Community and Ambulatory Care and Associate Dean for Community Affairs of Tufts University School of Medicine, Miss Spinelli's assignments will be expanded to include the Hospital's community-based programs.

1970

Paul Brown has been appointed Administrative Director of New York Fertility Research Foundation, Inc. in New York City. An error in the last issue of *Yale Medicine* placed him in the medicine section rather than in public health.

1973

Andrew E. Slaby is co-author with Dr. Richard Jed Wyatt of *Dementia in the Prosenium*, published recently by Charles C. Thomas, Springfield, Illinois. The book discusses the evaluation, differential diagnosis and treatment of dementia in the presenile age group, with special emphasis on problems of definition and classification.

Class of 1974

First Year Postgraduate Medical Education Appointments

Name of Student	Type of Internship	Hospital
Stephen Bradley Arnold	Medicine	University of California Hospitals, San Francisco
Irving Mark Asher	Medicine	University of California Affiliated Hospitals, Irvine
Leonard Banco	Pediatrics	Strong Memorial Hospital, Rochester
Douglas Allen Berv	Rotating	Philadelphia General
Bruce David Blumberg	Pediatrics	Stanford
Edward Neal Brin	Surgery	Yale-New Haven Medical Center
Ronald Chance Brown	Medicine	Roosevelt Hospital, New York City
Peter Jay Buchin	Medicine	Presbyterian Hospital, New York City
Robert Alan Caine	Rotating	Queens Hospital, Honolulu
Richard Alan Cazen	Medicine	Mt. Zion Hospital, San Francisco
Richard Francis Clarke	Medicine	Syracuse Medical Center
George Bernard Colson	Surgery	Georgetown University
Paul David	Rotating	Presbyterian-University of Pennsylvania Medical Center
Harold Matthew Davis	Medicine	Bellevue Hospital Center, New York City
Robert John DeLorenzo	Neurology	Yale-New Haven Medical Center
Vincent Anthony Di Maria	Pediatrics	University of Colorado Affiliated Hospitals, Denver
Cheryl Edmonds	Pediatrics	Yale-New Haven Medical Center
Roger Hill Emerson, Jr.	Surgery	Beth Israel, Boston
Michael Kaye Eshleman	Family Practice	University of Colorado Affiliated Hospitals, Denver
Irl Lawrence Extein	Medicine	Hospital of St. Raphael, New Haven
Gerald Oliver Franklin	Medicine	Barnes Hospital Group, St. Louis
Reginald Keith Franklin	Medicine	Harlem Hospital, New York City
Allan Burton Friedland	Ophthalmology	Montefiore Hospital, New York City
Eugene Francis Geppert	Medicine	University of Chicago Clinics
Michael Allen Gerber	Pediatrics	University Hospitals, Madison, Wisconsin
Harvey Gerhard	Medicine	Bellevue Hospital Center, New York City
Ary Louis Goldberger	Medicine	Yale-New Haven Medical Center
Danielle Goldwater	Medicine	Stanford
David Alan Granovetter	Medicine	North Carolina Memorial Hospital, Chapel Hill
David Grant	Medicine	University of San Antonio Teaching Hospitals
Alan Halpern	Surgery	Los Angeles County-University of Southern California
Robert Fairland Hempton	Surgery	Mary Hitchcock Memorial Hospital, Hanover, New Hampshire
Marvin Jay Hoffert	Rotating	Cleveland Metropolitan Hospital
Richard Harold Howe	Rotating	University of Oregon Medical Schools Hospitals, Portland
Edward Orestes Janosko, II	Surgery	University of Kentucky Medical Center
Robert Marc Jarrett	Medicine	Yale-New Haven Medical Center
Robert Charles Jimerson	Medicine	Roger Williams Hospital, Providence, Rhode Island
Ancil Arthur Jones	Medicine	Yale-New Haven Medical Center
Marie Theresa Kelly	Rotating	Parkland Memorial Hospital, Dallas
Dahlia Kirkpatrick	Pediatrics	Montefiore Hospital Center, New York City

Robert Mark Kolodner	Medicine	New England Deaconess Hospital, Boston
Leon Francis Kraft	Medicine	Washington Hospital Center, Washington, D. C.
Olusegun Lawoyin	Medicine	Yale-New Haven Medical Center
Alan Marc Levine	Surgery	University of Colorado Affiliated Hospitals, Denver
David Lewin	Medicine	University Hospital of Columbus, Ohio
James Regis McMonagle	Medicine	San Diego County University Hospitals
Harry Alan Magnes	Medicine	University of Iowa Affiliated Hospitals, Iowa City
Bruce Michael Markle	Medicine	Boston City Hospital
Edward Lawrence Marut	Obstetrics & Gynecology	University of California Hospitals, San Francisco
Andrew Richard Mayrer	Medicine	Presbyterian-University Hospital, Pittsburgh
Daniel Aaron Moros	Medicine	Hospital of St. Raphael, New Haven
Thomas Paul Munyer	Medicine	San Diego County University Hospitals
Ronald Daniel Neumann	Pathology	Yale-New Haven Medical Center
Marjorie Anne Sayoko Oda	Surgery	Stanford
Jerome Barry Orlin	Medicine	George Washington University-D. C. General Hospital
Richard Charles Pasternak	Medicine	Massachusetts General Hospital, Boston
Robert Gerard Peterson	Pediatrics	Yale-New Haven Medical Center
Albert Lewis Pottash	Rotating	Springfield Hospital, Massachusetts
Andrew Lee Ries	Medicine	Bellevue Hospital-New York University
David Zvi Ritvo	Rotating	Mt. Zion Hospital, San Francisco
Daniel Ira Rosenthal	Surgery	Beth Israel Hospital, Boston
William Murray Ryan	Medicine	University of Washington Affiliated Hospitals, Seattle
Amy Starr Sterngass Schechter	Pediatrics	Methodist Hospital, Indianapolis
Robert Jay Schechter	Rotating	Methodist Hospital, Indianapolis
John Donald Schrumpf	Medicine	Stanford
Harry Shamoon	Medicine	Bronx Municipal Hospital Center
Frederick Steven Shessel	Rotating	Grady Memorial Hospital, Atlanta
Alan Bruce Silken	Pediatrics	Yale-New Haven Medical Center
Barry Scott Solof	Family Practice	St. Paul-Ramsey Hospital, Minnesota
James Alan Strom	Medicine	University of Chicago Hospitals and Clinics
Maisie Tam	Rotating	Los Angeles County-Harbor General
Carol Claire Teitz	Orthopedics	University of Washington Affiliated Hospitals, Seattle
John Jones Thompson	Medicine	Yale-New Haven Medical Center
Ross Michael Tonkens	Surgery	Cedars-Sinai Medical Center, Los Angeles, California
James Austin Valone, Jr.	Medicine	University of Virginia Hospital
Edward Michael Wolin	Medicine	Stanford
Jason Sol Zielonka	Surgery	University of Minnesota Hospitals, Minneapolis

Other:

Frank Logan Brown, Jr.	Research	
William Lewis Krinsky		U. S. Public Health Service

don't forget ALUMNI DAY, Saturday, June 1!

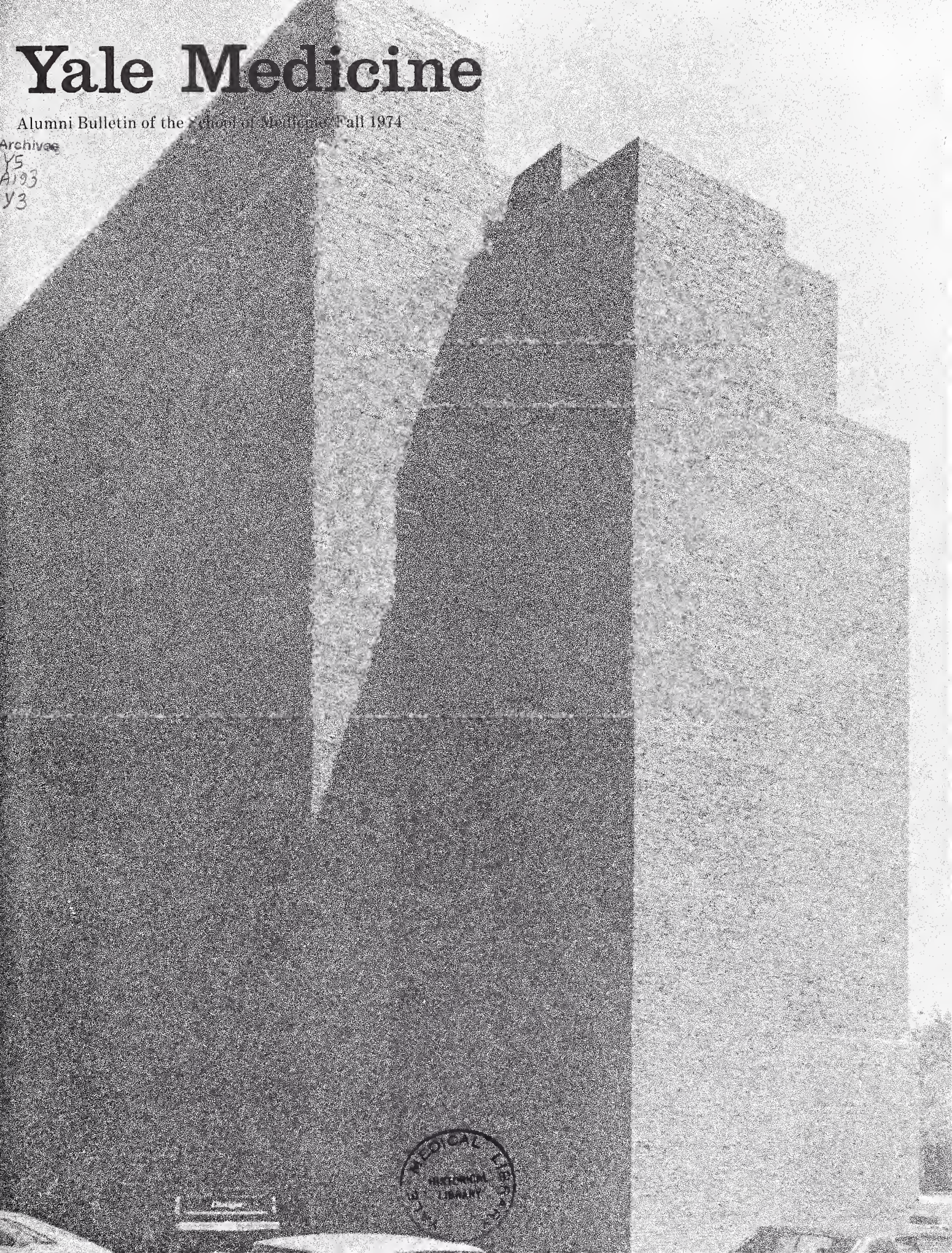
YALE MEDICINE

333 Cedar Street

New Haven, Connecticut 06510

Yale Medicine

Alumni Bulletin of the School of Medicine Fall 1974



Yale Medicine

Alumni Bulletin of the School of Medicine/Fall 1974 Vol. 9, no. 3

Yale Medicine is distributed to members of the Association of Yale Alumni in Medicine, students, and others interested in the School of Medicine. Communications may be addressed to the Editor, 333 Cedar Street, New Haven, Connecticut 06510.

Cover: *The new Laboratory of Surgery, Obstetrics and Gynecology Building on the corner of Congress and Howard Avenues was dedicated on June 1. (see story p. 11)*

Commencement Address

Dr. Robert W. Berliner, *dean of the School of Medicine*

The Dean's speech was delivered to the 1974 Yale medical and public health graduates at the School of Medicine's commencement ceremony in the Mary S. Harkness Auditorium in May.

I would like first to congratulate each of our new graduates, in public health and in medicine, on the completion of this, the formal stage of their education, and welcome them to the challenging and uncertain, but vastly rewarding domain of the so-called health care system.

This is a time of rapid change in the world of medicine and health care. Not only is the substance of medicine growing at an ever accelerating rate, but the forms in which medicine relates to society are also undergoing rapid metamorphosis. To the extent that your education here has been successful you will be able to adapt readily to these changes, perhaps to help shape and contribute to them, but, in any case, to sort out the new ideas and new methods, to discard what is false and useless, to doubt and question what is dubious, and to assimilate and apply what is true and useful.

It is difficult, indeed, to try to predict the form of the health care delivery system within which you will operate, but my cloudy crystal ball reveals something like this: with both the conservative administration and the more liberal elements of Congress pressing for some form of national health insurance, the adoption of some such measure seems only a matter of time, and not too long a time at that. The advent of universal coverage is certain to have far-reaching effects on the system within which health care is dispensed. Unless special provisions are made to subsidize those who participate in prepaid group systems, these are likely to disappear totally from the scene. The great attraction of such plans for their subscribers lies in their ability to spread the risk—essentially to provide insurance. The participant exchanges some of the freedom of his choice of medical care for the assurance that his costs for care will be limited to the enrollment fee. However, if he is relieved of the concern for his costs and can be assured that his costs are covered, he will remain uncommitted and choose his source of health care only when the occasion arises.

The disappearance of the prepaid group systems would be particularly unfortunate since it is reasonably predictable that within not too long a period it would be necessary to re-establish them as a method of controlling the costs of the insurance system. The health care bill already exceeds $90 billion and universal insurance applied to a fee for service system is, I believe, bound to increase the bill for services substantially and progressively. My guess, then, would be that most of you will, as physicians, operate within the groups providing health care under the contract to defined populations, or as administrators, helping to organize and administer such systems.

Organization along these lines will, I believe, tend to foster specialization, a direction that it is currently popular to deplore. I will admit to not sharing the view that specialization is deplorable. I do not believe that it reflects a flight from concern for patients as individuals, nor do I believe that it is particularly a response to the higher income of the specialist. I believe it is driven largely by the enormous growth of medical knowledge and capability that makes it nearly impossible for the physician to maintain a high level of competence in anything but a limited sphere. Many people retain the

nostalgic illusion that somehow things were better in the good old days when the general practitioner, preferably arriving by horse and buggy, seemed available to make a house call at any time of day or night. What is not generally remembered, however, is that admirable as he may have been, and whatever comfort and reassurance he may have offered, the chances that he might be able to alter significantly the course of his patient's illness, at least in a favorable direction, were minimal.

The great improvement in our ability to deal with the problems of our patients is a direct consequence of the progress in medical science and its application. And, as is the case with the development of new technologies in other spheres, the answer to the problem is not to discard the technology, but to devise new methods for dealing with the undesirable secondary effects. Perhaps the physician's associate has some role to play in the solution.

However, great as have been the advances in medicine, it is clear that we have no reason for self-congratulation and complacency. No one who is exposed to clinical medicine can fail to recognize that the unsolved and half-solved problems vastly exceed those with which we can deal effectively. Much of what we can do is in the area of what my perspicacious and articulate predecessor, Lewis Thomas, has given the name of "half-way technology." The prototype is the iron-lung for the management of the polio victim—the expensive and elaborate device to compensate, in part, for the damage already done; the simple, inexpensive solution is a polio vaccine. We have many current analogues—coronary by-pass surgery and the coronary intensive care unit rather than the prevention of coronary atherosclerosis; radical surgery, chemotherapy, and radiation for cancer, rather than an attack on the causes.

It is obvious to any one that preventive medicine is far more desirable than therapeutic medicine. Unfortunately, we know how to prevent precious few diseases. Preventive measures, however, do not come simply from good will and determination, but from better understanding of normal and abnormal biochemistry and physiology and of the pathogenesis of the disorders we would prevent. We know how to prevent a number of diseases, mostly infectious, because we have learned how they are caused, how they are spread in the population, and we have devised methods to interfere. With most diseases we do not have this knowledge and it can come only from the efforts of medical science—from intensive study of individual patients and from the laboratory.

Our ultimate goals are still far ahead of us and you need have little fear that medical research will put you out of business. In fact, the conquest of one problem only increases the importance of those that remain. And we can expect this to continue until we have achieved for man that happy end described by an earlier physician, Oliver Wendell Holmes, in his poem "The Wonderful One-Horse Shay", about a carriage that ran perfectly for 100 years and a day, and then collapsed in a pile of dust. Let our motto, then, be "every man a one-horse shay."

My guess, then, would be that most of you will, as physicians operate within groups providing health care under the contract to defined populations, or as administrators, helping to organize and administer such systems.

Acupuncture Anesthesia in the People's Republic of China

By Arthur Taub, M.D., Ph.D.

NOTE: Dr. Arthur Taub, associate professor of surgery (neurophysiology) and neurology, visited the People's Republic of China, in May 1974 as a Member of the Acupuncture anesthesia Study Group of the Committee on Scholarly Communication with the People's Republic of China. The opinions presented are his own and do not necessarily reflect those of the other members of the Study Group.

The author, center, with Drs. Chang (left) of the Physiological Institute, Shanghai, and Li, of the Peking Medical College, following a discussion of the physiological studies of Dr. Chang.

Acupuncture is a part of a system of Chinese medicine having its origins in antiquity. It is based upon the concept that the structure of the universe and all contained within it is determined by the interaction of two fundamental forces or entities; Yin, a relatively feminine force, and Yang, a relatively masculine force. The interaction of these forces results in the appearance of Ch'i, a life force. It is the disharmonious organization of Ch'i which results in illness. This disharmony, it is said, may be corrected by the stimulation of one or of a number of points, or loci, on the surface of the body, which represent the confluence of vertical and horizontal lines of influence ("meridians" and "tributaries"), each being related to a specific organ or organ system.

Prior to the military unification of Mainland China in 1948-9, the Chinese Communist Party did not place emphasis upon acupuncture as a medical technique. With the intensity of the effort made by the Chinese Communist Party to eliminate traditional modes of thought by reforming social structure, it is, therefore, somewhat surprising to see that acupuncture is today being maintained as an integral portion of a national medical system. This has resulted, in part, because of the recognition by the Party that the approximately 10,000 western-trained physicians in China at the time of the Chinese Communist Revolution would not have been adequate to carry out the gigantic public health tasks necessary for China, and that only through the recruitment of medical personnel from among the approximately 500,000 practitioners of traditional Chinese medicine could they be accomplished. This idea was coupled also with the plan that there would be a gradual transformation of the practitioners of traditional Chinese medicine into paramedical practitioners who would essentially be compelled to utilize modern medical techniques and to integrate them into their activities. This approach was, however, gradually diffused and somewhat enfeebled. The "Great Leap Forward" with its de-emphasis of expertise in favor of Party correctness and the "Great Proletarian Cultural Revolution" with its negation of "elitism" redefined traditional Chinese medicine as having originated not

from the "Confucian doctors" but rather from the effort of the "broad laboring masses of the people". This convenient fiction insured the perpetuation of "Chinese" medicine as part of Party doctrine and insulated it from the tests of experience.

The use of acupuncture to prevent pain during surgical procedures is said to have started in the People's Republic of China in about 1958, during the "Great Leap Forward". It is said to have been used initially in tonsillectomy, herniorrhaphy, and in changing of burn dressings. After a brief period of initial enthusiasm, the use of acupuncture for anesthesia decreased markedly during the early part of the decade of the '60s. This is now said to have been the result of pressure applied by "revisionist" elements. During the "Great Proletarian Cultural Revolution", however, the use of acupuncture during surgical operations was aggressively promoted and increased. By 1971, which was the beginning of the reopening of diplomatic contact between China and the United States, acupuncture anesthesia began to be widely heralded in the West. An impression was apparently gained that it was widely used, that because of its relative simplicity it could be applied by individuals with minimal formal training, that because of the lack of side effects of local or of general anesthetic agents it was useful in poor risk patients who would otherwise suffer from these side effects, and that, most importantly, patients could undergo massive surgical procedures, such as thoracotomy, with no pain and minimal risk, receiving no "anesthetic" other than acupuncture. It is now clear that every one of these ideas is incorrect.

Acupuncture is not at all widely used in surgical procedures in China. A reasonable estimate would be that it is used in about five percent of operative procedures. There is very little evidence that acupuncture anesthesia is used in the interior of China or in commune hospitals, where simpler surgical procedures are performed under local or regional anesthesia. "Barefoot doctors" do not function as anesthesiologists utilizing acupuncture, and in fact, acupuncture anesthesia is only used in elective surgery where trained anesthesiological backup is available. It is never used in emergency surgery. It is not used in old or poor risk patients. It is used in children only rarely and then with "basal" narcosis. It is not widely used in veterinary surgery. It is not used alone. In almost every case where acupuncture is used, patients are premedicated with perenteral barbiturates, intravenous narcotic analgesics, and anticholinergic agents. Local anesthesia is liberally used for incisions through and manipulations of fascia, pleura and peritoneum, viscera, and, on occasion, the skin. Such use of medication and local anesthesia is not considered to be a backup procedure for acupuncture failure but rather is an integral part of the process. In fact, the number of procedures in which local anesthesia is not used is quite small. This depends entirely upon the degree of surgical trauma produced, and is independent of the acupuncture method or technique. Surgical procedures done under acupuncture anesthesia can all, without exception, be performed under local anesthesia (but of course this is undesirable for craniotomy and thoracotomy). It is fair to say that a high proportion of them are being performed under local anesthesia, but are counted as having been performed under acupuncture anesthesia. The Chinese report that "acupuncture anesthesia" is 90 percent effective. What this means is that 10 percent of the time, general or regional anesthesia must be induced during surgery as a result of acupuncture failure.

Most important of all, patients undergoing operations under acupuncture anesthesia do suffer pain. During my stay in China I was told a number of times that three major problems of acupuncture anesthesia remain unsolved: incomplete pain relief, pain produced by traction upon the viscera, and lack of muscular relaxation during abdominal surgery. A recent report from Shanghai indicates that in 656 cases of pulmonary resection performed under acupuncture anesthesia, 83 percent experienced pain ranging from "light groans for pain" to pain of such severity that general anesthesia was required. Results for other procedures are similar. What these statistics describe is not "anesthesia" or "analgesia" or even "hypalgesia", in the accepted sense, but rather a procedure in which operations can be performed in a selected population in the face of, and despite pain of varying degree.

It has been claimed that acupuncture anesthesia provides minimal derangement of physiological function during surgery. This is certainly not true for thoracotomy. Facilities for blood gas analysis are available in China, but data on the effects of surgical pneumothorax upon blood gases have never been presented despite the thousands of procedures performed. Mortality statistics are not available either. Pulmonary and cardiac surgery performed under acupuncture anesthesia illustrates the relatively wide margin provided by physiological homeostatic mechanisms in the face of pain and primary physiologic disturbance.

It is of great interest to examine how the individual patient in China is motivated to undergo surgery with acupuncture anesthesia. There is hardly an individual in China today who has not heard of acupuncture, or has not had some form of treatment with acupuncture for one illness or another. Children throughout China are being taught to copy acupuncture charts and to insert needles into various acupuncture points. It is hardly necessary to point out to the individual patient that acupuncture anesthesia is a unique product of the "Great Proletarian Cultural Revolution". But over and

above this, the patient is encouraged to think of general anesthesia negatively in terms only of the production of unconsciousness (which the Chinese fear) and a number of undesirable side effects. The possible benefits of general anesthesia in insuring ventilation, muscular relaxation and vagal blockade are not explained. The alternatives to general anesthesia, other than acupuncture anesthesia, particularly the relative inoccuousness of complete regional or local anesthesia, are not presented. The patient is told that if pain reaches an unbearable level either general or local anesthesia is available to control it. Thus a form of compact is entered into where the patient, socially motivated to do so, and misled by partial information imparted to him by his fellows and by his physicians, undertakes to submit to acupuncture anesthesia with the understanding that he will benefit by reduced side effects and that an adequate anesthetic back-up is available.

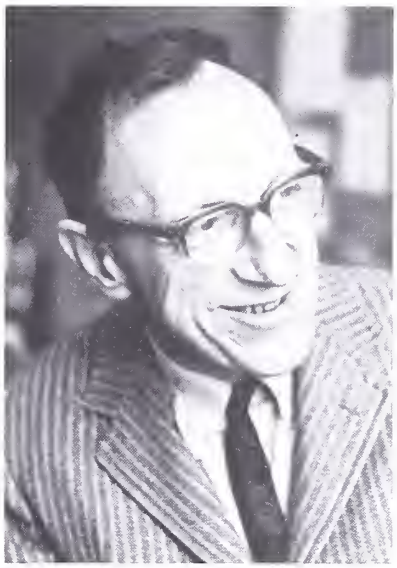
This overall indoctrination and selection process is similar to the procedure called "natural childbirth" in the West. In "natural childbirth", the patient, socially motivated to do so, is encouraged to think of the pain that she will experience during childbirth as being essentially trivial and nonthreatening and to believe (in this case correctly) that general anesthesia or narcotic analgesics, despite their analgesic effect, will have an overall deleterious result. In the procedure, a small amount of narcotic analgesic and a local anesthetic for episiotomy are permissible. If pain reaches intolerable levels, general anesthesia is available either intermittently or continuously. Generally speaking, with this preparation, patients may undergo even difficult labor and delivery with greater acceptance than they would otherwise. Acupuncture anesthesia, insofar as it, too, requires social motivation, a conviction that analgesic agents are deleterious, a determination to withstand pain and discomfort and not to request analgesia, has a limited applicability to a straightforward procedure, and permits the introduction of local anesthetic back-up, may usefully be termed "natural surgery". While recognizing that an operative procedure can be performed under acupuncture anesthesia, this comparison de-emphasizes the "analgesic" quality of the procedure and emphasizes the necessity for selection, psychological preparation, and minimal traumatic assault which must occur. Acupuncture anesthesia differs from "natural childbirth", however, in two significant respects; namely, that it is undertaken in China in situations where it clearly has no advantage over local anesthesia (as in tooth extraction) and where it has a distinct disadvantage as compared with general anesthesia (as in pulmonary surgery, cardiac surgery and intracranial surgery).

Careful observation of acupuncture anesthesia in the People's Republic of China suggests strongly that it holds no advantage whatever for the improvement of surgical anesthetic techniques. It is important that observations of this kind be repeated and confirmed, and that the information derived from them be disseminated throughout the medical community. Only in this way will it be possible to avoid the frustration and suffering of patients, the encouragement of quacks, and the dissipation of valuable time and money.

Acupuncture as placebo: a paraplegic patient is shown receiving electrical stimulation through two needles, each about one foot long, placed between the scapulae. A midline, "Indifferent" electrode is also in position. There was no neurologic evidence of improvement as a result of this treatment.

The Hospital Administration Program

an interview with **John D. Thompson**, *professor of public health and nursing administration*



The Yale program in hospital administration started in the Department of Public Health in 1946 with a seed grant from the Kelly Foundation. The first students were graduated in 1949.

A very important factor in the success of the program is its location within the School of Medicine and the Yale-New Haven Medical Center. This has enabled the students to capture the ambience of a medical setting, working with doctors and nurses, and in many cases, living in the dormitory with medical students. This interaction provides a cultural acclimitization and orientation necessary in any kind of medical endeavor.

The Yale-New Haven Hospital has offered a very valuable field training site for them through the years. More recently Yale's affiliation with the Yale Health Plan, the Connecticut Mental Health Center, the Hospital of St. Raphael, and other affiliated community hospitals has expanded our primary training facilities.

The program consists of two years of training—three semesters and a summer in academic work and one semester as an "administrative resident" in a hospital located somewhere between Boston and Baltimore. We have built relationships with many institutions, and within the Connecticut Hospital Association, through the years and have a group of very loyal preceptors who accept our students as residents.

Following the tradition of research in the School of Medicine and Yale University, our program has been in the forefront in hospital and health service research. We are primarily interested in the application of operations research techniques to the planning and design of hospitals and hospital systems. The research is carried out in cooperation with the School of Organization and Management.

The impending national health insurance has influenced our program

The future of the Hospital Administration Program promises to be even more interesting than the past because of the impending national health insurance. Some people doubt whether this country can afford compulsory health insurance because of the inefficiencies in our present medical care delivery systems. They are afraid that this will make many more services available to the general population without increasing the number of practitioners in the field, or without changing the primary care and institutional delivery systems. In their opinion national health insurance will drive the price of health care delivery up still further, and the high cost of medical care is already one of the critical public issues.

What can be done to prevent this cost escalation? It is obvious that since hospital care accounts for 38.5 percent of the total health expenditures, future plans will attempt to diminish this expense, which means that we must begin to place more developmental resources on ambulatory care, to keep the patient out of the hospital as long as possible. This will require hospital administrators to change the posture of their institutions from that of passive receiver of patients to an active consideration of ambulatory care alternatives and an active participation in a program designed to shift resources from hospitals to other kinds of care.

Because of its location within a major medical center, it is easier for our program to make this transition than it is for some of the other twenty-eight hospital administration programs in the United States. We are in a city with three prepaid group practice units—the Yale Health Plan, the New Haven Health Plan and the Hill Health Center—so our students have the opportunity to examine the patterns of ambulatory health care services. The new primary care program of the Yale-New Haven Hospital will enable us to examine that option in the provision of ambulatory service.

The next step in cost control is a utilization review—a much more careful auditing of hospital use. The purpose of such a review is to determine whether a patient is receiving the right treatment in the right bed for the right period of time. In our program we have been carrying on a sizeable amount of research in determining how long a patient should stay in a hospital. In this effort we are working with the Patient Care Study Committee in the Yale-New Haven Hospital.

The results of these approaches indicate that the hospital population of the future will be primarily limited to very ill patients and their hospital stay will be limited to that period of time when they are most acutely ill. As a consequence, much stronger ties must be fashioned between ambulatory services, the hospital, and long term care institutions such as nursing homes, hospices and home care programs. The whole concept will require major revisions in all of these systems.

Another area of interest is our research in emergency medical care. Again, this is possible because we are located in a medical center, providing a cooperative environment between various members of our faculty and members of the Department of Surgery, and especially the Section of Trauma. We carried out a series of studies over the years which has resulted in the legislation on emergency services passed in the State of Connecticut this year.

Our impact on Connecticut's legislation on emergency services was significant

This legislation will definitely have an impact on hospitals since emergency rooms are a major factor in their operation. The emergency room is a kind of catch-all. It serves private patients during odd hours and is a substitute physician for people who don't have their own doctors. It also serves as a very important input to inpatient beds.

Some of our studies have resulted in the design inputs for the new Primary Care Center in the Yale-New Haven Hospital. This facility, which is now under construction, will select from the group of patients who come to the emergency room those who are really emergency patients requiring life saving treatment and equipment, and those who require primary care of an ambulatory nature.

We have actively participated in health planning for communities throughout the state

Another research and service thrust of our program, along with the Connecticut Regional Medical Program, has been health planning for communities throughout the state. Our students have been invited by a number of cities and large towns to help citizen groups with health planning for their communities. Many of these efforts have resulted in Comprehensive Health Planning Agencies.

Usually the invitation comes from a body of concerned citizens who want to start a system of health planning in their own community. They are eligible for funding through the Comprehensive Health Planning legislation. We assign a team of students in their second semester who gather the basic demographic and medical institution data the community requires. They then meet with members of the community to explain their findings and the possibilities for a health planning system. The students then submit a formal report to the town. In at least three or four instances this report has served as a basis for the community's application for federal Regional Medical Planning funds. We have carried out studies for Danbury, Bridgeport, Waterbury, Middletown and New London.

In this period of transition from one system of medical care to another, the name of the game is to give students a good academic base and a varied field experience, with a great deal of faculty involvement. The faculty-student ratio in our department is very high. When they go for their residency in an outside institution, the students have had a mixture of academic and practical experience that they can apply wherever they go, be it a hospital, primary care center, or some other kind of health care institution.

When they graduate, our students have had academic and practical experience that they can effectively apply wherever they go

A great deal of the value of our program comes from the way our students interact with each other. They come from a variety of academic backgrounds: some have majored in business, while others have majored in the humanities or sciences. Most come directly from undergraduate work, although a few have had professional experience.

Hospital administration is becoming a very popular field with young people because they not only want to use their administrative and interpersonal skills, they also want to apply them in a socially valuable system. We have averaged about 300 applications for the thirteen places we fill each year.

There has been a sizeable increase in the number of women interested in the field of hospital administration. in the recent past it was a male-dominated field, and for a while it was very difficult for women to get jobs as hospital administrators. We feel that will be changing. This year about half of our class are women. We know our students are so good they won't have trouble getting good jobs, and advancing.

Until recently most of our students went to hospitals after leaving the program. This, too, has changed and students now graduate from the Hospital Administration Program to group practice clinics, health clinics, long-term care facilities, Blue Cross and other insurance agencies, and teaching.

We welcome this trend. If enough of our students find places in the various un-coordinated programs and institutions now delivering health care, perhaps some day they can all join hands and create a system from what can only be described as a non-system.

The Laboratory of Epidemiology and Public Health was dedicated in April 1965, the fiftieth anniversary of the Department of Public Health at Yale. In 1959 the present Department of Epidemiology and Public Health, which functions as an accredited school of public health, was established.

in and about

Above: Dr. Edmund D. Pellegrino, chairman of the Board of the Yale-New Haven Medical Center, Inc.; top right: Dr. Howard A. Pearson, chairman of the Department of Pediatrics; below right: Dr. Robert E. Handschumacher, chairman of the Department of Pharmacology

Chairman Appointed for Yale-New Haven Medical Center, Inc.

Dr. Edmund D. Pellegrino has been appointed to a newly created position of chairman of the board of the Yale-New Haven Medical Center, Inc. He will assume his post full time in January. The Yale Corporation and the Hospital Board of Trustees have given Yale-New Haven Medical Center, Inc., responsibility for overall program and facilities planning for the medical center and for the raising of funds.

Dr. Pellegrino is presently chancellor for the health sciences and vice president for health affairs of the University of Tennessee. He is also professor of medicine at the university.

Prior to going to Tennessee, Dr. Pellegrino was vice president for health sciences, director of the health sciences center, and professor of medicine at the State University of New York at Stony Brook. He has also served as professor and chairman of the Department of Medicine at the University of Kentucky.

Dr. Pellegrino was graduated from Saint John's University, Brooklyn, and received his degree in medicine from New York University. He was associated in various medical capacities at New York University and Bellevue Hospital. Dr. Pellegrino has been and continues to be a scientific investigator in calcium and bone metabolism. He is chairman of the board of the Institute for Humanities in Medicine, which is supported by the National Endowment for the Humanities.

During his career he has served on numerous committees of the American Hospital Association, the Association of American Medical Colleges, the American Medical Association, and health planning agencies in New York State and Washington, D.C.

New Chairman Appointed for the Department of Pediatrics

Dr. Howard A. Pearson has been appointed chairman of the Department of Pediatrics in the School of Medicine and chief of the Department of Pediatrics in the Yale-New Haven Hospital. Dr. Pearson, who is professor of pediatrics, is well known for his research in childhood diseases of the blood. He succeeds Dr. Charles D. Cook, who has been chairman and chief of pediatrics for the past ten years.

Dr. Pearson came to the Yale-New Haven Medical Center six years ago from the University of Florida College of Medicine, where he had been assistant professor of pediatrics from 1962 to 1964, and associate professor from 1964 to 1966. At that time he was promoted to full professor and named chief of Clinical Pediatric Services at the University of Florida's Shands Teaching Hospital. He also served as consultant to the Oak Ridge Institute of Nuclear Studies from 1963 to 1968.

Dr. Pearson was born in Ancon, Panama Canal Zone. He received his B.A. degree magna cum laude, from Dartmouth College in 1951 and a two year diploma from Dartmouth's medical school in 1952. He then entered Harvard Medical School and received his M.D. in 1954.

His postdoctoral training includes a rotating internship in the U.S. Naval Hospital, Bethesda, Maryland, and a residency in pediatrics there for the next two years. He returned to Harvard Medical School as a research fellow in hematology from 1957 to 1958.

Dr. Pearson spent the next four years in Washington, D.C. as clinical instructor of pediatrics at Georgetown University Medical School, and clinical assistant professor of pediatrics at Howard University School of Medicine. During this time he was assistant chief of the Pediatric Service and assistant head of Clinical Hematology at the U.S. Naval Hospital in Bethesda.

Dr. Pearson, who is a member of Phi Beta Kappa and Alpha Omega Alpha was honored by the Yale School of Medicine Class of 1972 with the Francis Gilmore Blake Award as the most outstanding teacher in the medical sciences, and that same year the Southern Christian Leadership Conference presented him with the Dr. Martin Luther King, Jr. Award for outstanding contributions to research in sickle cell anemia.

Dr. Pearson is a diplomate of the American Board of Pediatrics and a member of a number of professional societies including the American Academy of Pediatrics, the American Society for Hematology, the Society for Pediatric Research and the National Board of Medical Examiners.

Dr. Handschumacher Appointed Chairman of Pharmacology

Dr. Robert E. Handschumacher, an authority on the biochemistry of control mechanisms in nucleic acid and amino acid metabolism, has been appointed chairman of the Department of Pharmacology. He succeeds Dr. J. Murdoch Ritchie, Eugene Higgins Professor of Pharmacology, who will spend a sabbatical year in the Department of Physiology at Cambridge University before returning to Yale to continue his research and teaching activities.

Dr. Handschumacher was born in Abington, Pennsylvania. He received his B.S. degree from Drexel Institute in 1949, his M.S. degree from the University of Wisconsin in 1951, and a Ph.D degree from that university in 1953. He spent the following year as a National Foundation Fellow in Biochemistry at the Lister Institute of Preventive Medicine.

Dr. Handschumacher came to Yale in 1955 as a Squibb Fellow in the Department of Pharmacology, where he was promoted to assistant professor in 1956 and associate professor in 1960. He was appointed American Cancer Career Professor of Pharmacology in 1964. From 1957 to 1962 he was a Scholar in Cancer Research and in the year 1962-1963 he was an Eleanor Roosevelt Fellow.

In addition to serving as a consultant to the American Cancer Society, the Anna Fuller Fund, and the National Cancer Institute, Dr. Handschumacher has served on the Board of Directors of the American Association for Cancer Research. He is a member of the U.S.P.H.S. Cancer Center Review Committee, the Cancer Special Programs Advisory Committee and the National Board of Medical Examiners. Dr. Handschumacher is a member of the American Society of Pharmacology and Experimental Therapeutics, the American Society of Biological Chemists, the American Association for Cancer Research, the American Chemical Society, and the American Association for the Advancement of Science.

LSOG Building Dedicated on June 1

"In a society that has grown accustomed to planned obsolescence and a philosophy of 'no deposit, no return', it is indeed refreshing to dedicate a new building that, in my mind, symbolizes this great university's lasting commitment to research," Dr. Jack W. Cole told the audience of alumni, faculty and guests attending the dedication ceremony of the Laboratory of Surgery, Obstetrics and Gynecology. *(see cover)*

Dean Robert W. Berliner presided over the ceremony which opened with remarks by Dr. Cole, who is Ensign Professor of Surgery and retiring chairman of the Department of Surgery, Dr. Nathan Kase, chairman of the Department of Obstetrics and Gynecology, and Dr. Joseph R. Bertino, director of the Division of Oncology. President Kingman Brewster Jr. introduced the guest speaker, Dr. John H. Knowles, who is president of the Rockefeller Foundation.

The Laboratory of Surgery, Obstetrics and Gynecology is a four-story research building constructed over the Congress Animal Care Facility and connecting with the Farnam Memorial Building on the second and third floors. Planning for the LSOG was begun in 1966 by Dr. Vernon Lippard, who was then dean of the School of Medicine, Dr. Cole, and Dr. Edward Quilligan, who preceded Dr. Kase as chairman of the Department of Obstetrics and Gynecology. Construction of the $4.4 million building was funded by The Commonwealth Fund, the Kresge Foundation, the Ford Foundation, the Rockefeller Foundation and the National Cancer Institute.

In expressing the university's gratitude to these donors, President Brewster said, "As our government has retrenched and withdrawn from so many aspects of essential supply of the health sciences, the quality and direction of medical research, medical education and medical care will be increasingly dependent on the private foundations. Our gratitude is not just for this building, our gratitude is for their alertness to the needs of the private sector, and the special role of the private foundation sector, if quality is to be maintained in the face of national and official retrenchment."

Mr. Brewster then introduced Dr. Knowles who addressed the audience on the health policies of the United States, covering a broad spectrum of problems and prospects, including national health insurance.

Following the ceremony guests were invited to inspect the new building.

Dr. Glenn Appointed Charles W. Ohse Professor of Surgery

Dr. William W.L. Glenn has been named the first Charles W. Ohse Professor of Surgery at the Yale School of Medicine. The professorship was made possible by a bequest to the Yale-New Haven Hospital and the School of Medicine by the late Mr. Ohse for the support of research in the Department of Surgery. The hospital's Board of Directors and the Yale Corporation honor Mr. Ohse by utilizing a portion of the bequest to establish the professorship, the recipient of which must have demonstrated his capability of conducting high quality biomedical research in surgery and devote a significant amount of time to research.

Dr. Glenn is known to the medical profession throughout the world for his many contributions to cardiothoracic surgery. Among these was the development of the first implantable cardiac pacemaker in this country, and more recently, a pacemaker to assist breathing by stimulating the diaphragm.

Mr. Ohse, who had been owner and president of the New England Tool and Die Works, was a patient under Dr. Glenn's care at Yale-New Haven Hospital in 1962. He was among the first patients to have the radio frequency pacemaker installed. After the operation he worked with Dr. Glenn and his associates in their laboratory, and developed and manufactured elements of subsequent models of the pacemaker in his plant. He died in 1970.

Dr. Glenn came to Yale in 1948 from Jefferson Medical College in Philadelphia. Born in Asheville, N.C., he received his B.S. degree from the University of South Carolina in 1934 and his M.D. degree from Jefferson Medical College in 1938. He interned at Pennsylvania Hospital in Philadelphia, and then took his surgical training at Massachusetts General Hospital from 1940 to 1946, with a two year interruption to serve in the U.S. Army Medical Corps. He also did research in the Department of Physiology at Harvard from 1941-1942.

Active since 1957 in programs of the American Heart Association, Dr. Glenn served as its national president in 1973. He was the first surgeon to hold the post. Last year he received the Gold Heart, the AHA's highest honor for volunteer leadership.

Dr. Hoffman named Eugene Higgins Professor

Joseph F. Hoffman, chairman of the Department of Physiology, has been appointed Eugene Higgins Professor of Physiology. Dr. Hoffman, a noted authority on cellular physiology, has been a professor in the department since 1965 and chairman since last July.

Before coming to Yale he had been head of the Section of Membrane Physiology in the Laboratory of Kidney and Electrolyte Metabolism, National Heart Institute in Bethesda, Maryland from 1957 to 1965. He was also a lecturer in physiology at the George Washington University School of Medicine during that period and a member of the faculty at the National Institutes of Health Graduate Program from 1961 to 1965. Dr. Hoffman is best known for his investigations of the metabolic processes in red blood cells and of mechanisms by which substances are transported across cellular membranes.

A native of Oklahoma City, he received both his B.S. degree and his M.S. degree from the University of Oklahoma. He received an M.A. degree in 1951, and a Ph.D. degree in 1952 from Princeton University, where he held the John Dwight Sterry Fellowship in Biology and the William Greig Lapham Fellowship in Biology.

Dr. Hoffman remained at Princeton the following four years, as a research assistant from 1952 to 1953, and then as lecturer and research associate. In the year 1954-1955 he was also a visiting associate biologist at Brookhaven National Laboratory. From 1956 to 1957 he was a Special Fellow, U.S. Public Health Service, in the Department of Colloid Science at Cambridge University.

Dr. Hoffman is a member of Sigma Xi, Phi Sigma AAAS, the Biophysical Society, the American Physiological Society and the Society of General Physiologists.

New Associate Dean for VA Hospital

Dr. Edward H. Storer, professor of surgery, has been appointed associate dean for Veterans Administration Hospital affairs at the medical school. He was simultaneously named chief of staff at the West Haven Veterans Administration Hospital effective July 1, 1974.

As an associate dean Dr. Storer will be responsible for the VA Hospital's programs of medical education and research and will be the liaison between that hospital and the school. He succeeds Dr. Raymond Yesner, who served in the dual post as associate dean and chief of staff since it was created in 1969. Dr. Yesner has retired from the full-time staff of the West Haven VA Hospital but will continue to serve as a professor in Yale's Department of Pathology.

Dr. Storer, an authority in the field of gastrointestinal physiology, came to Yale in 1970 when he was appointed professor of surgery and chief of the Surgical Service at the West Haven VA Hospital. He is a graduate of the University of Chicago and received his M.D. degree there in 1945. Following internship at the University of Chicago Clinics, he was chief resident in surgery (1951-52) at the University of Washington and then served there as a clinical associate. In 1955 he joined the faculty of the University of Tennessee, where he held a joint appointment in the Departments of Surgery and Physiology until his move to New Haven.

New Administrative Staff

Four members of the School's administrative staff have been named assistant deans. In Epidemiology and Public Health which, although a department of the School of Medicine, is accredited as a School of Public Health with students registered for the M.P.H. and Dr. P.H. degrees, Kathleen H. Howe has been appointed assistant dean and Elizabeth C. Bellis, assistant dean for public health curriculum.

Louis Kaplan, formerly assistant to the dean for community and government relations, has been promoted to assistant dean; in addition to his other duties Mr. Kaplan will be responsible for alumni affairs. Samuel P. Korper has been appointed assistant dean for regional activities; he is associate director of the School's Office of Regional Activities and Continuing Medical Education.

Commencement 1974

Seventy-nine students received the Doctor of Medicine degree from Yale University at commencement exercises in May.

The M.D. degree *cum laude* was conferred on **Stephen Arnold, Michael Eshleman, Roger Emerson, Jr., Eugene Geppert, Thomas Munyer, Marjorie Sayoke Oda, Richard Pasternak, William Ryan** and **Maisie Tam.**

Richard Pasternak was honored with the Parker Prize which is awarded to the student who has shown the best qualifications for a successful practitioner, and **William Ryan** received the Campbell Prize for the highest rank in the examinations of the course. The Miriam Kathleen Dasey Award for the student who, by strength of character, personal integrity and academic achievements gives promise to fulfilling the ideal of the compassionate physician, was awarded to **Marjorie Oda.**

Other awards included the Keese Prize to **Stephen Arnold,** the Ferris Prize in Anatomy to **Marjorie Oda,** and the Lange Medical Publications Award to **Ancil Jones, John Schrumpf, D. Hester Leinsdorf** and **Paul Johnson.** Book awards were presented to **Peter Buchin, Ary Goldberger, Dahlia Kirkpatrick, James McMonagle** and **Bruce Blumberg** who received the Mosby Scholarship Book Awards, and to **Jason Zielonka** and **Harvey Berger,** who received the Yale Medical School Book Award.

Marjorie Oda and **Maisie Tam** were awarded the American Medical Women's Association Scholastic Achievement Citation. **Richard Pasternak** received the Louis H. Nahum Prize, **Kenneth Dobular** the M.C. Winternitz Prize in Pathology and **Mary Jane Minkin** and **David Taylor** the Perkins Scholarship Prize.

The Campaign for Yale

A fund drive to raise $370 million for Yale University during the next three and a half years was launched by President Kingman Brewster Jr. on April 8. If it succeeds, the "Campaign for Yale" will represent the largest fund raising effort by any university in the history of the United States.

Of the $370 million, $239 million is being requested for the university endowment fund, with $10 million earmarked for the School of Medicine. A $3 million endowment is needed to support existing medical faculty positions and another $5 million to create new endowed professorships. There is a particularly urgent need for support of faculty in human genetics, pediatrics, pathology, epidemiology and public health, physiology and the behavioral sciences. $2 million of the endowment funds are needed to increase financial aid to students, especially scholarships to assist outstanding students who otherwise would be unable to attend the School of Medicine.

In additon, $76 million is being sought by the University for physical improvements and another $55 million for current and projected educational programs. The funds identified for physical improvements include $13.5 million for the medical center. A portion of these funds will be used to renovate space in the Institute of Human Relations to be vacated by the Department of Psychology and the Yale Psychiatric Institute to create new laboratories for the Department of Human Genetics and the Cancer Center. Construction of a two story building bridging the north end of Cedar Street will connect these laboratories with clinical facilities in the Yale New-Haven Hospital and provide additional space for Human Genetics and the Cancer Center.

Other priority projects include an addition to the Hunter Radiation Therapy Center, relocation of the Yale Psychiatric Institute, renovations in the Brady Memorial Laboratory and the adjacent Lauder Building for new pathology laboratories, and renovations in the Institute of Human Relations and portions of Sterling Hall of Medicine to develop new educational and research facilities. The $13.5 million also includes $500,000 for expansion of the facilities of the Yale School of Nursing.

The efforts of the Alumni Fund are being carefully coordinated with the "Campaign for Yale" and contributions to the Fund from 1973 through 1977 will count toward the Campaign goal. Contributions to the Medical School Alumni Fund will be used for endowment for student aid.

Dr. Gardner is Honored

The trustees of The Anna Fuller Fund paid tribute to Dr. William U. Gardner, Ebenezer K. Hunt Professor of Anatomy, at a party in his honor. Dr. Gardner, who retired in June, has been scientific advisor of the Fund for many years.

In acknowledging his services to the Fund they stated: "It is not too much to say that the greater part of the usefulness of the Fuller Fund ever since Dr. Gardner has been connected with it has been due to him; to his interest in its possible place in cancer research, to his wide acquaintance and many contacts among the most able and most influential workers in the field, and to his wisdom and good judgement in the emphasis and actual selection from time to time, both of its major interests, and of the individuals and institutions assisted."

Medical School Council Honors Two Staff Members

This spring Betsy Winters, assistant dean of student affairs, and Lillian Dalton, registrar, were honored by the Medical Student Council and graduating class for their continued interest in student affairs. Both women have worked very closely with the medical students and are responsible for the efficient functioning of the Office of Student Affairs.

At the Happy Hour Awards Ceremony the prize traditionally given to the outstanding member of the house staff by the students was renamed the "Betsy Winters Housestaff Award for Excellence in Teaching." This was done to acknowledge Miss Winters' interest in medical education and teaching at Yale. In addition, both she and Mrs. Dalton were thanked by the Student Council for their efforts on behalf of students.

Furthermore, the graduating class honored Miss Winters at Commencement in May by making her an official member of the Class of 1974. After being called to the stage to receive a certificate of appreciation, she was given a standing ovation by members of the class in recognition of her invaluable assistance.

Fellowship Created in Honor of Distinguished Alumnus

The family of the late Richard H. Schlesinger has created a fellowship in his memory in the Department of Epidemiology and Public Health. The fellowship is to be awarded to a candidate for the Master of Public Health degree, who on the basis of both academic standing and financial need, deserves such assistance. The family expects to support two fellowships in the Department of Epidemiology and Public Health.

Bruce R. Grogan has been named the first Richard H. Schlesinger Fellow. He graduated in 1972 from Middlebury College where he majored in sociology. During his college years he worked in hospitals in summers and following graduation, he served as a Peace Corps volunteer in Honduras, working closely with the Public Health Department in rural areas of that country. From January to June this year he was a consultant for migrant health programs in Yuma, Arizona.

A second fellow will be named for the year 1975-1976. This will begin a fellowship program in which, at any one time, one Richard H. Schlesinger Fellow will be beginning, and one will be completing his graduate program.

Richard H. Schlesinger, MPH '60, was nationally recognized and respected for his leadership in community health planning. At the time of his death last year he was executive vice-president of Areawide and Local Planning for Health Inc. (ALPHA), in Syracuse, N.Y. He was a fellow of the American Public Health Association, and had been chairman of its Community Health Planning Section. He had also been associate director of the National Task Forces Project for the National Commission of Community Health Services.

State Medical Society Aids Student Loan Fund

At a recent meeting The Connecticut State Medical Society presented a check for $4,000 to the School of Medicine for student loans. The Yale School of Medicine and the University of Connecticut School of Medicine are each presently administering a loan fund totaling $10,000 which has been contributed by the Society since 1971. The financial aid program will allow for loans up to $500 per student.

Weinerman Fellow Named

Gerald E. Bisbee, Jr. has been named the 1974 Weinerman Fellow. This annual fellowship was established in honor of Dr. E. Richard Weinerman who, with his wife, Shirley Basch Weinerman, was killed in a plane crash in 1971.

The fellowship is granted to students who exemplify the Weinermans' professional interests and their high quality of performance. The cash award is provided to support research efforts in the area of social medicine and community health care developments.

Mr. Bisbee is a Ph.D. candidate in medical care organization and administration. He received his M.B.A. degree from the Wharton School at the University of Pennsylvania. Prior to coming to Yale he worked for Appalachian Regional Hospitals, Rush-Presbyterian-St. Luke's Medical Center, and the Northwestern University Medical Center.

Scholarship Established

A scholarship fund in honor of Dr. and Mrs. William Wiepert has recently been established by an anonymous donor. Income will be used for scholarship support to a worthy student in the School of Medicine. Dr. Wiepert, who received his M.D. from Yale in 1937, practices in Avon, Connecticut.

In view of the urgent need for additional funds for student financial aid, it is hoped that this generous gift honoring the Wieperts may serve as an example of how Yale doctors can stimulate significant support from friends and grateful patients for the School of Medicine.

International Group Visits Child Study Center

On July 25 the Child Study Center was host to a distinguished group of 23 child psychiatrists, child psychoanalists, child psychologists, pediatricians and social workers. The visitors, in the country as participants in the 8th International Congress of the International Association for Child Psychiatry and Allied Professions, came from ten foreign countries and the United States. They had requested the opportunity to visit the Child Study Center because of its reputation as one of the outstanding multidisciplinary centers dealing with all facets of the emotional and cognitive aspects of child life.

The People's Republic of China Has Visitors from the School of Medicine

The Yale School of Medicine was well represented in the People's Republic of China during the past several months. In May Dr. Dorothy Horstmann, John Rodman Paul Professor of Epidemiology and professor of pediatrics, and Dr. Robert F. Handshumacher, American Cancer Society Professor of Pharmacology, visited that country as members of a delegation from Yale University. Dr. Arthur Taub, associate professor of surgery and neurology, also visited the People's Republic of China in May and reports some of his observations on page four of this issue.

During the summer Harvey Berger, president of the Medical Student Council and a third year student, was the leader of a group of eleven students from major universities in the United States who traveled to Peking, Canton, Shanghai and several other areas, at the invitation of the Chinese Association for Friendship with Foreign Countries. Last summer another medical student, John Kao, visited The People's Republic of China and reported his observations in the Fall issue of *Yale Medicine*.

Department of Physiology Holds Special Course

The Fourth International Training Course on Membrane Biophysics was held in the Department of Physiology August 5-24, 1974. The course, organized by Professors Joseph F. Hoffman and Peter F. Curran, was conducted under the auspices of UNESCO, the International Cell Research Organization and the International Union of Pure and Applied Biophysics. Fifty eight students from 17 countries took part in the course which was designed to introduce them to the physical and chemical foundations and fundamental laboratory techniques of biophysical research on membranes. An international faculty of over 25 provided instruction in the form of lectures, seminars and informal discussion plus laboratory experiments and demonstrations of experimental techniques.

Dean Berliner Chairs Panel on Bioequivalence of Drugs

Dean Robert W. Berliner was chairman of a panel appointed by the Office of Technology Assessment to examine the relationships between the chemical and therapeutic equivalence of drug products and to make certain determinations as to whether drug products with the same physical and chemical composition produce comparable therapeutic effects. The conclusions and recommendations of the OTA, an advisory group created by Congress, are based on considerations of current technology and of the technology that the panel believes could be developed within the next few years. Included in the recommendations was the establishment of a single organization capable of setting standards adequate to insure the quality and uniform bioavailability of drug products, to replace the present USP and NF as the official standard-setting organization of the Federal Government. Also recommended was the rapid organization of a system to generate an official list of interchangeable drug products.

Eric E. Otobo, M.D.

Dr. Eric E. Otobo, instructor in surgery (otolaryngology), died April 22, 1974 in the Yale-New Haven Hospital following a brief illness. He was 31 years old.

Born in Nigeria, he received his secondary education in that country and then entered Yale where he received his B.A. in 1965 and his M.D. in 1969. After an internship at Los Angeles County Hospital, Dr. Otobo served one year as a surgical assistant resident at the Highland General Hospital in Oakland, California and then returned to New Haven in 1971 to begin his residency in otolaryngology. In July of 1973 he became chief resident in otolaryngology at Yale-New Haven Hospital and was appointed an instructor on the faculty of the School of Medicine.

In addition to his parents and one sister living in Nigeria, Dr. Otobo is survived by his fiancee, Miss Lessie R. McGirt of New Haven. Following funeral services in New Haven, burial was in Lagos, Nigeria.

Promotions to Professor

The following members of the medical faculty were promoted to the rank of professor effective July 1, 1974; George K. Aghajanian, M.D., professor of psychiatry; Sidney J. Blatt, Ph.D., professor of psychology in psychiatry; S. Evans Downing, M.D., professor of pathology; G. Edith Hsiung, Ph.D., professor of laboratory medicine; Michael Kashgarian, M.D., professor of pathology; Sidney N. Klaus, M.D., professor of dermatology; William B. McAllister, Jr., M.D., professor of clinical pathology; Jonathan H. Pincus, M.D., professor of neurology; Frank F. Richards, M.D., professor of medicine; Horace C. Stansel, Jr., M.D., professor of clinical surgery; and Rosemary A.W. Stevens, Ph.D., professor of public health.

Promotions of members of the part-time faculty to professorships effective July 1974 include Douglas A. Farmer, M.D., clinical professor of surgery; Joyce D. Gryboski, M.D., clinical professor of pediatrics; Paul S. Goldstein, M.D., clinical professor of pediatrics; William E. Lattanzi, M.D., clinical professor of pediatrics; Ernest Prelinger, Ph.D., clinical professor of psychology in psychiatry; Oscar Roth, M.D., clinical professor of medicine; and Albert Rothenberg, M.D., clinical professor of psychiatry.

Professors Emeritus

At the close of the 1973-74 academic year, seven members of the medical faculty were given emeritus titles. Those honored were Dr. George B. Darling, professor emeritus of human ecology; Dr. William U. Gardner, Ebenezer K. Hunt Professor Emeritus of Anatomy; Dr. Hans W. Loewald, clinical professor emeritus of psychiatry (Child Study Center); Dr. William B. Scoville, clinical professor emeritus of surgery (neurosurgery); Dr. Arthur J. Connolly, assistant clinical professor emeritus of obstetrics and gynecology; and Dr. Renzo G. Olivetti, assistant clinical professor emeritus of pathology.

Faculty News

The following Yale faculty members were among the sixty-three new members elected to the National Academy of Science's prestigious Institute of Medicine in 1974; **Dr. F.C. Redlich,** professor of psychiatry and former dean of the School of Medicine, **Dr. George E. Palade,** professor of cell biology; and **Dr. Clement L. Markert,** Henry Ford 2nd Professor of Biology.

Dr. Wilbur Downs, clinical professor of epidemiology, **Dr. Herbert Sacks,** associate clinical professor of pediatrics and psychiatry, and **Dr. George Silver,** professor of public health, visited four countries in the Sahel, that part of Africa bordering the southern border of the Sahara Desert, this past spring. They were appointed by the U.S. Agency for International Development, under a contract with the American Public Health Association, to assess and report on the medical needs of Senegal, Upper Volta, Mauretania, and Niger, some of the countries in that region which have been afflicted by a devastating drought causing widespread starvation, disease and death for millions.

David Duncombe, chaplain of the School of Medicine, is a recipient of the 1974-75 Underwood Fellowship presented by the Danforth Foundation. The fellowships are for research projects or study programs which further the foundation's aims for closer relationships and new understandings between the church and the university.

Dr. Albert Solnit, director of the Child Study Center and Sterling Professor of Pediatrics and Psychiatry, has been elected president of the International Association for Child Psychiatry and Allied Professions for a term of four years.

Dr. Edward M. Cohart, C.E.A. Winslow Professor of Public Health, was elected vice president for public health of the American College of Preventive Medicine last fall.

Dr. Dorothy M. Horstmann, John Rodman Paul Professor of Epidemiology and Public Health and professor of pediatrics, is president-elect of the Infectious Disease Society of America.

Dr. Gregory H. Tignor, assistant professor of epidemiology, and **Dr. Robert E. Shope,** associate professor of epidemiology, attended the Second International Colloquium on Rhabdoviruses held in Roscoff, France in June. Dr. Shope also served as an advisor to the Pan American Health Organization in Bogota, Colombia at the Meeting of the Third International Advisory Committee on Dengue in the Caribbean held from May 20 to 24.

Dr. A. Pharo Gagge, professor of epidemiology, visited Poland in May at the invitation of the Polish Academy of Sciences, Section of Medical Sciences. He gave seminars on environmental physiology, thermal comfort and heat tolerance at the University of Warsaw; Second Medical Clinic, Silesian School of Medicine, Katowice, and at the Institute of Occupational Health, Krakow.

Dr. Jan A.J. Stolwijk, associate professor of epidemiology, delivered an invited lecture before the First European Congress on Thermography which was held in Amsterdam,The Netherlands, from June 17 to 20. At this Congress, **Dr. James D. Hardy,** professor emeritus of epidemiology and physiology, was elected an honorary member of the European Thermographic Association.

Dr. Jules V. Coleman, clinical professor of public health and psychiatry, was awarded a scroll of appreciation by the members of the Connecticut State Board of Mental Health. Dr. Coleman was a member of the board for seven years and served as its chairman for four years.

Dr. Albert Rothenberg, clinical professor of psychiatry, has been awarded a John Simon Guggenheim Memorial Foundation fellowship for 1974. The fellowships, which support a year of continuous work, are awarded on the basis of "demonstrated accomplishment in the past and strong promise for the future."

Dr. Gerhard Giebisch, Sterling Professor of Physiology, and **Dr. Jonathan Pincus,** associate professor of neurology, have received awards from the Josiah Macy, Jr. Foundation under a new "faculty scholar program" for up to a year of research or study away from their home institutions. Dr. Giebisch plans to spend his time studying at the University of Lausanne, Switzerland, and Dr. Pincus will be at the Hebrew University in Jerusalem.

New Books by Faculty

The Depressed Woman: a Study of Social Relationships. *By Myrna M. Weissman, assistant professor of psychiatry, and Eugene S. Paykel. 389 pp. The University of Chicago Press, Chicago, 1974.*
This book is the result of a study by the authors on why most depressives are women, and the impact of depression on social relationships, particularly the family. In their investigation they studied the behavior of forty depressed women for twenty months, examining them during acute depression, recovery, and in some cases, relapse, and comparing them to a control group of forty normal women who were their neighbors. The book begins with an intensive analysis of the features of depression in the group, and follows with observations of the women during recovery. It concludes with a discussion of three methods of treatment: pharmacotherapy, psychological therapy and a combination of the two.

Breathing: Physiology, Environment and Lung Disease. *By Arend Bouhuys, M.D., professor of medicine and epidemiology, and director of the Yale Lung Research Center, 510 pp. illus. Grune and Stratton, New York, 1974.*
Breathing provides an in-depth account of the physiology of breathing, including its applications to the study, recognition and prevention of lung disease caused by inhaled gas, fumes and dusts.

The Synaptic Organization of the Brain. *By Gordon M. Shepherd, M.D., associate professor of physiology, 275 pp. illus. Oxford University Press, New York, 1974.*
By describing the principles by which nerve cells are organized in different parts of the brain, this book helps readers cope with the vast amount of information that has accumulated in neuroanatomy and neurophysiology. Modern studies of structure as revealed by whole neuron stains and electron microscopy, and of functional properties as revealed by microelectrode recordings are systematically reviewed. The organization of the following regions is examined: spinal cord, olfactory bulb, retina, cerebellum, thalamus, olfactory cortex, hippocampus and neocortex.

The Biochemical Basis of Neuropharmacology. *Second Edition. By Jack R. Cooper, professor of pharmacology, Floyd E. Bloom, and Robert H. Roth, associate professor of pharmacology and psychiatry. 288 pp. illus. Oxford University Press, New York, 1974.*
Focusing on neurotransmitters, this text examines neuropharmacology by way of the physiology and biochemistry of nervous tissue. For the second edition, the authors have updated each chapter, incorporated recent findings on dopamine, the prostaglandins, cyclic AMP, and the cholinergic receptor, and included more detail on individual drugs and diseases. This edition is being published in Japanese and Italian as well as English.

Rituals of Surgery. *By Richard A. Selzer, M.D., assistant clinical professor of surgery. Harper's Magazine Press, New York, 1974.*
This, the first collection of stories by Richard Selzer, is firmly set in the fabulist tradition. There is a strong sense of the macabre, often heightened by dark irony and wit.

Family Medical Care: a Design for Health Care Maintenance. *By George A. Silver, M.D., professor of public health. 256 pp. Ballinger Publishing Co., Cambridge, Mass., 1974.*
This revision and updating of Dr. Silver's 1963 study analyzes the origins and development of the present state of medical care and health services in the United States. It is written with those people in mind who, after being inundated by endless controversies surrounding health practices, remain puzzled and unhappy about the present situation. The book emphasizes the team approach to family care.

Clinical Gynecologic Endrocrinology and Infertility. *By Leon Speroff, M.D., assistant professor of obstetrics and gynecology, Robert H. Glass, M.D., associate professor of obstetrics and gynecology, and Nathan G. Kase, M.D. professor of obstetrics and gynecology and chairman of the department. 266 pp. illus. The Williams and Wilkins Co., Baltimore, 1974.*
The authors have prepared a sophisticated, up-to-date compendium of the newest developments in the field of reproductive endocrinology. It is not intended as a reference book, but rather a formulation of clinical diagnosis and management founded on physiologic principles.

alumni news

Alumni Day 1974

Although Alumni Day 1974 began under the cloud of a strike of University dining hall and maintenance personnel, as well as rainy skies, it turned out to be one of the most successful and well attended alumni gatherings in several years. Two hundred and fifty alumni and guests took makeshift arrangements due to the strike in their stride, and the skies cleared in time for the afternoon social hour and the reunion class festivities.

Two members of the Class of 1924, Dr. David M. Raskind, left, and Dr. Myron Sallick, reminiscing about medical school fifty years ago.

The morning round table discussions started the day off on an interesting and informative note. A large group was held spellbound for nearly an hour and a half while Dr. Leon Rosenberg, Dr. Edward Adelberg, and Dr. Maurice Mahoney of the Department of Human Genetics, discussed the basic science and clinical advances in detecting and treating inherited diseases and abnormalities.

In another discussion, the timely subject of medical school admissions was discussed by Dr. Thomas Lentz, chairman of the admissions committee, Dr. Lawrence Pickett, associate dean for clinical affairs, and Dr. Mary Swigar, assistant professor of psychiatry. The role of the Yale-New Haven Medical Center in providing primary care services was discussed by Donna Diers, dean of the School of Nursing, Dr. Richard Lee, director of medical clinics and Herbert Paris, director of ambulatory services at the hospital. Dr. William Kissick, professor of community medicine and of health care at the University of Pennsylvania School of Medicine, John Thompson, professor of public health and nursing administration and Samuel Webb, assistant professor of public health, led a discussion on resource allocation in the health field.

The annual meeting of the Association of Yale Alumni was called to order at 11:30 a.m. by Dr. John B. Ogilvie, '34, president of the Association. After welcoming the assembled alumni and their guests, he paid special tribute to the class of 1924 and presented them with a plaque commemorating their fiftieth reunion. Dr. Myron Sallick accepted the honor in behalf of the class. (see story in Alumni News section).

Following a brief talk by Dean Berliner, elections were held for the secretary and new members of the executive commitee of the Association of Yale Alumni in Medicine. Edith M. Jurka, M.D., '44 was elected secretary. New members of the executive committee are Clement F. Batelli, M.D., '28, '37 D.P.H., Carol Goldenthal, M.D., '44, Majic S. Potsaid, M.D., '51, and Muriel D. Wolf, M.D., '59. Malcolm M. Ellison, M.D., '47 h.s., was appointed to a second term.

The meeting was adjourned at 12:30, in time for sherry hour and pleasant reminiscing before a buffet luncheon, held this year in the cafeteria of the Memorial Unit of the hospital. Many alumni attended the dedication ceremonies of the Laboratory of Surgery, Obstetrics and Gynecology, as well as the social hour in the afternoon, before joining their classmates for reunion dinners.

Special Tribute to the Class of 1924

At the business meeting of the Association of Yale Alumni in Medicine on Alumni Day, June 1, Dr. John B. Ogilvie, president of the Association, presented a plaque to the Class of 1924, commemorating their 50th reunion. The plaque, which was signed by Kingman Brewster, Jr., president, and Henry Chauncey, Jr., secretary of Yale University, reads:

"The President, Fellows and Faculty of Yale University send their cordial greetings to the members of THE CLASS OF 1924 YALE SCHOOL OF MEDICINE, on the occasion of the 50th anniversary of their graduation.

"One hundred and seven years elapsed between the formal opening of the Medical School and your matriculation as students in 1920. A full half-century has now passed since your graduation. So different have these two eras been, in terms of the advancement of medicine, that it is difficult to realize that they were nurtured by the same institution.

"You were pioneers, moving the School from York Street to Cedar and experiencing the refreshing inspiration of what came to be known as the Winternitz era, with its evolutionary changes and vigorous leadership.

"You witnessed the transition from part-time to full-time faculty, the development of new departments, and a closer affiliation with what would eventually become one of the nation's great teaching hospitals.

"You were privileged to work and study with some of the most respected men in the history of medicine in a time when the triadic concept of research, clinical service, and education emerged. You were the first witnesses to the renaissance of the Medical School.

"Your contribution as clinicians, academicians, and scientists has been a notable feature of the Era of Scientific Medicine. Although your ranks have dwindled from forty-two to seventeen, your stature in the annals of this grateful University remains undiminished. We salute you upon this significant anniversary."

In acknowledging the tribute on behalf of his class, Dr. Myron A. Sallick said: *"Dr. Ogilvie, Dean Berliner, Fellow Alumni and Guests:*

On behalf of my classmates and myself let me express our gratitude for these warm special greetings extended to 1924 Medicine, and our thanks for the commendation so kindly expressed.

"First, let me say, most definitely, we are very happy to be here, for as it has been so aptly expressed, 'While it's tough to get old, even old age is so much preferable to the only other possible alternative.'

"But, seriously, there are, of course, many other reasons for our pleasure, far transcending mere survival. We have partaken of a half century of furious activity, at times overwhelming, certainly never dull, during which time Medicine has, as always, played a full role in whatever progress the world has made.

"We have seen our school rise up from the two humble buildings we found on York Street in 1920, awaken and develop in our professional lifetimes to the magnitude and quality of its present vigor and prestige.

"We are grateful for the opportunity we have had, through the school, to find the satisfaction of having lived to a useful and rewarding purpose.

"We are hopeful of being able to participate further in the continued success of the School. We wish for you all the similar pleasure, in due time, of attending your own 50th class reunions."

Class Years 1924

Myron Sallick reports on the 50th reunion of his class: "On Medical Alumni Day, held this year on June first, special greetings were extended to the Class of 1924 at its Golden Anniversary reunion. A feature of the occasion was the presentation of a commemoratory plaque from President Kingman Brewster to the class.

"Corrected statistics indicate that there were 40 graduates in 1924 of whom 17 survive, thirteen reside in the eastern seacoast area with 5 others scattered widely throughout the States. The survivors are:
Edward Allen, John Batchelor, Donato D'Esopo, Stuart Foster, David Freeman, Edward Goodwin, Edward Gould, Joseph Groark, Arthur Jackson, John Preston, David Raskind, Myron Sallick, Morris Slater, Jacques Soifer, Harold Vogel, Jesse White and **Francis Woodford.**

"The dinner, held at Mory's, was attended by 6 class members and their ladies. Those present were **D'Esopo, Gould, Raskind, Sallick, Soifer,** and **Vogel.**

"It turned out to be a most enjoyable and memorable evening. Comments on the surprising physical preservation of their colleagues were many (possibly to some extent attributable to a touch of presbyopia?).

"Under the influence of congenial atmosphere, good food and wine, sincere delight in seeing each other again, recalling fond experiences, anecdotes and personalities, the evening passed all too rapidly. Much of the early talk concerned memories of the departed, followed by briefings on those extant who were not present.

"But conversation was not by any means limited to events of the past. Especially gratifying was the keen and animated interest in the present and in the future. A dominant spirit of optimism prevailed.

"On departing there was general accord that in life 'the sunset can be just as beautiful as the sunrise' ".

1929

A note from **Paul McAlenney** describes his 45th class reunion dinner held on Medical Alumni Day at the Graduate Club in New Haven. Attending were **Charles Epstein, George Goldman, Vernon Lippard, Paul McAlenney, Russell Scobie, Robert Tennant, Fred Tracy** and **Herman Yannet** "accompanied by their charming wives who contributed heavily to a most happy, successful occasion.

Of the 39 graduates of the class, there remain 29 "scattered from California to Florida to New Hampshire. Approximately 50%of the class reside more than one thousand miles from their former seat of learning. It would be inappropriate to review the achievements of the distinguished graduates comprising the dinner group. Interestingly, all present class members are still engaged in active medical endeavor.

"Class secretary Russell Scobie, in his after-dinner remarks, referred to those class members who were absent and each was sorely missed. Vernon Lippard directed his most interesting remarks to some of the changes and problems associated with medical education today and tomorrow. The festivities terminated on a cheerful note with a unanimous expression for a successful 50th reunion in June 1979."

1932

On his being named Professor Emeritus of Medicine of the George Washington University School of Medicine and Health Sciences in May, **Louis Alpert** was cited by that University's Provost as having taught on its faculty for 28 years and one who "has been locally and nationally recognized for his achievements in research in cancer chemotherapy and his contributions to medical education."

1939

Stuart Stevenson, class secretary, writes: "We thirty-niners held our 35th reunion in June. Present were: **Coppersmith, Ferguson, Forman, Greenfield, Huston, Kenigsberg, Laidlaw, Murphy, Sarason, Stevenson, Walker** and **White.** All but **Huston** and **Stevenson** were accompanied by their lovely wives who added so much to the occasion—especially at the elegant dinner which **Josh Forman** arranged so beautifully at the Woodbridge Country Club.

"We now have 34 members of our class accounted for. The 22 who didn't make our five-year date in New Haven missed a heart-warming family gathering. It has been suggested that we might hold a reunion every 2½ years at a more central spot—perhaps at the Yale Club in New York City. If you are interested, write your secretary at Two 5th Avenue, New York, N.Y. 10011. It would be easy and fun to arrange."

1943 (Dec.)

Donald Seldin has been elected to fellowship in the American Academy of Arts and Sciences. Dr. Seldin is professor and chairman of the Department of Internal Medicine at The University of Texas Southwestern Medical School.

1944

A note from **Edith Jurka:** "Our class reunion was a lovely weekend that started in New Haven Saturday morning, June 1st, and ended Sunday afternoon in Croton. On Saturday morning there were discussion groups, and in the afternoon there was a talk by Dr. John Knowles, a tour of the new Surgery, Obstetrics and Gynecology Building, and a cocktail party at 4:30. Due to a strike, the luncheon was served in the Hospital cafeteria by the supervisory staff, and suffered not at all in the excellence of the food. Our class ate at tables pushed together and it was a happy and lively greeting of old friends at a long, long table. After Dr. Knowles' talk most of those present traveled to my home at Croton-On-The-Hudson. Those who were in New Haven were the **Coolidges, Corcorans, Countrymans, Dohertys, Frelicks, Goldenthals, James', Eli Marsh,** the **Massaros, Picketts, Tafts,** and **Woodruffs.** The Tafts and Eli Marsh did not come to Croton, but we were joined there by **Larry** and Catherine **Roth,** who came directly to Croton. The class dinner was buffet, with people having plenty of chance to mingle, and we didn't break up until after midnight. That night or early the next morning we lost the Coolidges, Dohertys and James', but the rest of us got together for breakfast starting at 9 A.M. with new arrivals from the motel down the road appearing at intervals. Some stayed until late afternoon, enjoying the environs, others had to leave for home. It was most enjoyable—all look forward to a repeat in five years."

Another note from Edith Jurka gave news about **Nick Spinelli.** In May of 1974 he underwent coronary by-pass surgery very successfully at the Cleveland Clinic. Nick had had incapacitating angina which is now relieved. He was most impressed with the efficiency of the Cleveland Clinic and is delighted to be back at work in a comfortable state.

1947

Word has been received from **Jean Dougherty** of Salt Lake City, that her husband, Dr. Thomas Dougherty, died in February of this year. He was an International Cancer Research Foundation Fellow and a former member of the Yale faculty. At the time of his death, he was the chairman and a professor in the Department of Anatomy at the University of Utah. He was a leading expert on the causes and cure of inflammation and the effects of radiation on living material; he received worldwide fame for his pioneering work in the study of the use of cortisone in fighting certain diseases, was the first to use nitrogen mustard as a chemotherapeutic agent against Hodgkins Disease. His work has become the principal source of information on the effect of ingested radiation on human tissue and his discovery of the role of the adrenal cortex in the production of antibodies and the regulation of lymphocytes led to his participation in the first treatment of lymphatic leukemia.

1950

Since 1972, **Malcolm Bagshaw** has served as professor and chairman of the Department of Radiology at Stanford and has been director of radiation therapy since 1960. For the past twelve years he has been assistant director of Stanford's Clinical Radiation Therapy Cancer Research Center, supported by the National Cancer Institute.

1951

Daniel X. Freedman, professor and chairman of the Department of Psychiatry at the University of Chicago, was one of sixty-three new members recently elected to the National Academy of Sciences' Institute of Medicine.

1952

Robert Petersdorf, professor and chairman of the Department of Medicine at the University of Washington, Seattle, has been chosen President-Elect of the American College of Physicians.

Maurice Bogdonoff has been elected vice president of the 800-member medical staff of Rush-Presbyterian-St. Luke's Medical Center in Chicago where he is professor of diagnostic radiology, professor of internal medicine, senior attending radiologist, and Director of Thoracic Radiology. Dr. Bogdonoff and his wife, Diana live with their three children in Wheaton.

1954

Frank Gruskay sent in the following account of his class reunion: "The Class of 1954 held its 20th reunion on June 1. The day started with talks and discussions about the problems and progress of the medical school and touring the soon-to-be opened brand new GYN and Surgical building overlooking the corner of Congress and Howard Avenues. A cocktail party honoring the returning alumni held in the "new" medical dormitory allowed us to meet and greet many old friends. The highlight of the day, however, was the Class of '54 dinner held in the Tivoli Restaurant, one of New Haven's oldest and best.

"It was great fun listening to the same old stale jokes of **Don Davis,** the quick wit of raconteur **Herb Hurwitz,** the quiet smile of **Alan Covey,** the western drawl of Wild **Bill Elliott,** the muscular smile of **Walker Heap,** the professional demeanor of **Harry Miller,** the erudite jargon of **Tony Piccirillo,** the great stories about Ma Levin and the old dorm from **Arthur Crovatto,** the beer belly laugh of **Jack Gariepy,** the shiny surface of **Dick Pullen** and the allergic sniffles of **Frank Gruskay** (I passed the Allergy Boards).

"An extra special treat was the presence of our guests, Dr. and Mrs. Tom Forbes, who have always been especially close to our class. Mrs. Forbes brought along the newspaper clippings of our first year show and of our Aesculapian Dance. Dr. Forbes brought along his appointment book for 1949-50 with the entries of our medical school application interviews. Isn't it great to be a saver!

"The party was enriched with the presence of Jean Davis and three sons, Elaine Gariepy, Sylvia Heap, Jean Piccirillo with their twin 8th grade daughters, Bobbie Pullen, Bette Gruskay, Erica Hurwitz, Scott Elliott, Sylvia Covey, Jan Crovatto, and Keri Miller. We welcomed Barbara **Olson** during dessert although **Olie** was delivering a baby and couldn't make the dinner.

1955

John Bailar has been appointed editor-in-chief of the Journal of the National Cancer Institute.

Grant LaFarge is now the Director of Patient and Professional Services at The Children's Hospital Medical Center, Boston. In an article in *Children's World* Dr. LaFarge said, "Over the last two or three years I've become increasingly involved in concepts of delivery of care to patients both in the hospital and outside and in the mechanisms of control which determine the effectiveness of that delivery. In that sphere one can influence and direct the quality of care on a far more effective and broader level. Although I enjoy taking care of patients, I feel that in an administrative role I can do more toward delivering that care."

1959

Class reunion activities and news about members of his class were reported by **Asa Barnes:** "The Class of 1959 celebrated 15 years of coping with increasing weight, decreasing or fading hair and sundry other physiologic changes with characteristic enthusiasm. A fine celebration it was, too, hosted by **Nick** and Mary Lou **Passarelli** at the New Haven Lawn Club, where a large and volatile group shared old times, current events, superb victuals and well chosen vino.

"The celebrators were: **Bob** and Iffy **Waugh** from Farmington, Connecticut, where Bob practices anesthesiology at the hospital and cultivates exotic flora at home; **Dave Skinner** and Ellie from Chicago. Dave is now the chairman of Surgery at the University of Chicago. Ellie and their four daughters housekeep in an apartment overlooking the Loop. In spite of all the chores connected with being Mrs. Chairman, Ellie found time last year to win a concert piano competition.

"The first waltz of the evening at the Lawn Club was led by Ann and **Marc Schwartz,** New Haven's humanist psychiatrist.

"**Marv Schulman,** looking very svelte, and Nancy are obviously enjoying life, and the practice of urology, in Valhalla; **Joe Saccio,** sporting a beard, looked appropriately like S. Freud but his lovely wife didn't look a bit like Mdm. Freud.

"**Dave Reed** and spouse praise the suburban attractions of Waterbury where Dave is involved in establishing a P.S.R.O. for Connecticut. Lou and **Jack Poglinco** like their comfortable stucco home with big shade trees in Pelham, yet find it near enough to Lincoln Center to frequently enjoy the best in concerts and ballet. Pogo has a large group of patients all named 'Mrs. Fa Mal' who suffer from obscure, but profitable, female complaints.

"**Bob** and Freda **Ostberg** are involved in setting up radioisotope scanning procedures. Perhaps he's a bit more involved than she. **Pete** and Joy **Molloy** enjoy the rustic joys of rural radiology in northeast Connecticut. Carol and **John Marsh** were bubbling with plans for their upcoming sabbatical year in England. **Brian McGrath** continues in practice of dermatology in Guilford and now that all seven children are in school Judy has taken up the piano. **Kris** and Julie **Keggi** have moved to Middlebury, Connecticut, where Kris divides his time between private practice of orthopedics and teaching Yale residents. Julie finds less time for winning golf trophies because of daughters starring in baseball and swimming.

"The couple voted least changed at the 15th reunion were Nancy and **Herb Kaufmann,** who have discovered the fountain of youth in bucolic northern Westchester County.

"**Bill** and Ann **Jablonski** are happy about having added a girl to their bunch of boys and **Ron DeConti** and Louise have a 2½-year old daughter. Ron has a new job as chief of Oncology in Springfield, Massachusetts.

"To grace the occasion with a little Savannah charm, **Rod** and Nancy **Hartmann** detoured from Washington, D.C., where Rod was picking up some new neuroradiology techniques. Louise and **Marty Colodzin** live in Bethesda and Marty has settled into the practice of psychiatry in Rockville, the home of the Dept. of Health, Education and Welfare and psychiatrically fertile ground.

"**Ed Clayton** practices pathology at L & M Hospitals in New London while Franny has reentered nurses training. She finds her role as the 'old lady' of her nursing class challenging. **Bill Butterfield** and Ellie live in Farmington where

Bill is the distinguished, white-haired chief of Surgery at the University of Connecticut Health Center.

"Jean and **Ace Barnes** are the dotering (sic) but doting parents of a 3-year old girl and a 1-year old boy in Columbia, Missouri. Ace is an associate professor at the University of Missouri School of Medicine and chief of clinical pathology at Ellis Fischel State Cancer Hospital. **Carol Jockers Amick** practices pathology and **Bob** practices patience and politics as chief of staff at the Boston Veterans Administration Hospital.

"Altogether the beautiful people made 15 a beautiful bash!"

Jack Bowers is the newly elected president of the Hale Hospital medical staff in Haverhill, where he has practiced for nine years, is a member of the staffs at the Massachusetts Eye and Ear Infirmary and the Amesbury Hospital. Dr. Bowers has been a medical consultant to the glaucoma clinics in Haverhill and is a member of the Essex Health Care Foundation which is striving to build a new hospital in Haverhill. He lives in North Andover with his wife and their two children.

1962

Oliver (Tom) Dann was recently graduated as a psychoanalyst from the Western New England Institute for Psychoanalysis. Dr. Dann, an assistant clinical professor of psychiatry at Yale also engages in private practice of psychiatry and psychoanalysis in New Haven.

1963

Lee Goldberg, in addition to conducting his private practice in endocrinology in Miami Beach, is a clinical assistant professor of Medicine at the University of Miami School of Medicine. He has been asked to establish an endocrinology elective for the residents of Mt. Sinai Hospital in Miami Beach where he has been appointed co-chief of endocrinology. There will be eight attendings on the teaching staff in this subspecialty.

1964

Joe Curi reported: "The class of 1964 10th reunion was a rousing success despite the mismanagement of Joe Curi, class secretary, and the suspicious absence of two dinner chairmen who absconded with the class dowry.

"**John Haney, Bill Houghton, Diane Shrier, Mary DiGangi,** and **Barry Gault** led an entourage of spooks that gave a more spiritual mood to the gala affair. Mssrs. **Skip Stilp** and **Don O'Kieffe,** and the surprise appearance of **Leon Speroff,** were far from sobering influences on the assembled group of 17 alumni.

"Academically, **Lew Landsberg** represented the Harvard view, while **Dick Lee, Tom Lentz,** and **Dave Johnson** upheld the Yale dogma. **Gene Higashi,** nostalgically, recalled the war movies in the Harkness snack bar, that were an intimate part of our medical training.

"**Tom McCann,** refusing to sing 'Motherhood Becomes You', and **Tony Bravo,** with intimate X-rays of retired faculty members, provided the evening's entertainment. Finally, **Robby Parkman,** in his 1958 DKE House tweed blazer, was inimicable as the dinner host at the Park Plaza. And to think, the next show is but 5 years away."

1965

David Molloy writes: "I have some news to report . . . I became certified by the American Board of Obstetrics and Gynecology in November, 1973, and am presently chief of the Department of Obstetrics and Gynecology at Knud Hansen Memorial Hospital, St. Thomas, Virgin Islands. It is very interesting and challenging to practice a specialty in a small hospital in the West Indies."

1967

A letter received in May from **John Northup** told of their latest plans: "We are moving to Savannah, Georgia, where I shall begin private practice in gastro-enterology. Millie and I are looking forward to summer weather, and to living on the Atlantic again. John III was born January 29th."

1968

An interesting letter was received from **David Millett.** "In July 1970, I left Yale-New Haven after completing my surgical internship and one year as an assistant resident. I immediately entered the U.S. Air Force and was assigned to Chanute Air Force Base, Illinois. After a year there I went to Flight Surgeon's School, Russian Language School, and Attache School. In May 1973, I was sent to the American Embassy, Moscow, where I am now serving as the Post Medical Officer and Assistant Air Attache. I provide medical care for the large American community here and for many diplomats from other nations. In the last year I've been to Germany five times, Finland twice, and on six trips within the Soviet Union. This next year will see even more travel before I return to the U.S. in May 1975. My family lives with me in an embassy apartment. My dispensary, a self-contained unit with laboratory, dental chair, and X-ray, is located at the embassy. Besides myself, a nurse and secretary work in the Dispensary. There is a doctor's "surgery" at the British Embassy and when I'm out of town the British physician covers.

"Of course, being a member of the diplomatic circuit in a large capital city is fascinating. I enjoy the cultural events and sporting events here, too. Any visitors from the Yale School of Medicine community would be most welcome."

1969

"Our first five year reunion climaxed with a dinner at Mory's graciously arranged and organized by **Elliot** and Carol **Livstone.**

"In attendance were **Lee Jampol** who has served so well as alumni fund chairman these past years that he has been unanimously elected to fill that post for the unforeseeable future. He is finishing his training in ophthalmology at Yale and will be leaving New Haven after a record 14-year stay. Also attending were **Paul Markey,** newly married and a resident in orthopedics at the Mass. General; **Sandy Genser** who has completed his training in psychiatry and is now fulfilling his service obligation; **Arnie Mazur** who is Commissioner of Public Health for one of the New York counties and who receives the award for traveling for the longest period of time to get to the reunion; **Lionel Nelson,** about to open his ENT practice in Santa Clara, California (he deserves the award for traveling the longest distance to get to the reunion); **Steve Kalavsky,** about to depart for Kansas City and an academic position in neurology; **Bob Marier,** now a fellow in inflammatory disease at Yale; **Joel Kaufman,** a fellow in urology at Yale (the only one of us to become a plumber—he claims exclusive rights to prostatectomies immediately following the 40th-year reunion); **Ralph Falkenstein,** practicing ophthalmology in Connecticut; **Tom Howard,** finishing his surgery residency at Yale and about to enter the big green machine (i.e., the Army); **Elliot Livstone,** on the GI faculty at Yale; **Dave Barry,** now a branch director at the NIH. Yeats was there—**Larry Yeatman,** that is, a fellow in cardiology at the Peter (Bent Brigham), as was **Lutz Schlicke,** a resident in orthopedics at Yale.

Also attending were **Rich Pollis,** who is finishing his orthopedic residency at Penn. and was leaving the day after the reunion for a vacation in—where else—Greece; and myself, currently serving as a psychiatrist in the U.S. Army and about to enter wedlock. Yours truly was elected to serve another term as class secretary.

"News of other members: **Chuck Angell** will be chief resident in medicine at Johns Hopkins 1975-76; **Mike Toren** is a cardiology fellow in Portland spending equal amounts of time auscultating and cooking french foods; **Dave Schulak** is in the Air Force, **Steve** and **Lesley Fishelman** are shrinking in the Army; **Charles Dinarello,** about to be chief resident at the Children's Hospital in Boston; **Jody Robinson,** about to embark on an around-the-world tour after which he will practice medicine in Washington, D.C. **Gary Farnham** has now taken up radiology (Moffitt Hospital) and the piano; **Dave Geer** is a cardiac surgeon at Stanford; **Jerry Smallberg** is doing knee jerks as a neurology resident at Penn.; **Steve Krant** starts a residency in plastic surgery at Yale this July; **Joe Rochford** is director of an emergency psychiatry clinic at Rutgers. **Carolyn Wells** is working in New Haven. **Larry Horowitz** who has been working for Senator Ted Kennedy in Washington is returning to Stanford to a residency in psychiatry. **Lynn Lagerquist** is an endocrinologist in Utah; **Gary Wright** is in private practice (pediatrics) in Missouri, and **Tom Singer** is studying at the Jungian Psychoanalytic Institute in San Francisco.

"It is with regret and sorrow that I must also report the recent (April 1974) death of **Eric Otobo.** Also we are reminded at this time of the tragic death in January 1973 of **John Meehan.** We as a class offer our deepest sympathies to their families.

"Note: Please address all correspondence to me at this address:
Box 16
U.S. DeWitt Army Hospital
Fort Belvoir, Virginia 22060

A letter received from **Michael Liebowitz** in May noted that the information concerning his current activities which first appeared in the Yale Alumni Magazine and reprinted in the Spring issue of *Yale Medicine* was a "fabrication by someone" and "so people who know me won't think I've sold out just yet" requested that we print the following: "I do live in Vermont, on approximately a half acre in a little town. I'm finishing two years as a conscientious objector, dividing time between an urban free clinic and a rural emergency room. Vermont is wonderful, in both physical and human terms. I'm starting a residency in psychiatry here in July 1974. Each season I tried to ski, I got hurt the first time out."

1971

James Southwick completed a 26-week course in aerospace medicine at the Naval Aerospace Medical Institute at Pensacola and is now at Helicopter Support Squadron One, Imperial Beach, California.

1972

Ward McFarland, Jr. has opened his office in New Haven in collaboration with Remo Fabbri, Jr. ('64 Med.) and is specializing in psychosomatic engineering. Dr. McFarland recently returned to Connecticut from Birmingham, Alabama where he was director of general medicine at the Sumiton Clinic. He has designed and built conditioning equipment including a key communications and operational console and also biofeedback devices.

After completing a 26-month course in aerospace medicine at the Naval Aerospace Medical Institute, Pensacola, **David Moyer, Jr.,** has been assigned to Patrol Squadron Four, Barbers Point, Hawaii.

House Staff

1964

The Burroughs Wellcome Clinical Pharmacology Award for 1974 has been awarded to **William Pettinger,** professor of pharmacology and internal medicine at The University of Texas Southwestern Medical School. The 1974 award of $150,000 is intended to support his work for a period of five years, and as the 23rd Burroughs Wellcome Scholar, Dr. Pettinger will expand his activities to form a Division of Clinical Pharmacology at the School.

Public Health

1918

Morris Dworski, the first graduate of the Department of Public Health, Yale School of Medicine, was recently honored by the Will Rogers Hospital, Saranac Lake, New York, when the hospital's 1973 annual report was dedicated to him. Mr. Dworski has been in charge of the Clinical Laboratories since 1952 and had served for 30 years prior to that as a bacteriologist at the Trudeau-Saranac Institute.

1947

Marjorie Young received one of two awards for outstanding public health services from the Massachusetts Public Health Association at its annual meeting in May. In recognition of her major contributions to the broad field of public health and academic achievements, Dr. Young was presented the Lemuel Shattuck Award and was cited for her "remarkably broad range of community action and consulting responsibilities" which have included work with the World Health Organization, the International Dental Federation, the National Institutes of Public Health and the American Public Health Association. She is a past president of the Massachusetts Public Health Association and is a former chairman of the Sudbury Board of Health.

1951

Joanne Finley, has resigned her position as director of public health for the City of New Haven, a post which she assumed last December, to become New Jersey state health commissioner. Dr. Finley received her M.S. degree in public health in 1951.

1956

Kathleen Howe has been named assistant dean for public health in the Yale School of Medicine. In May she was elected vice president of the American Lung Association, in which capacity she will serve on the executive committee.

1959

In July **John O'Connor** assumed his new duties as Director of The Faulkner Hospital in Boston. In announcing Mr. O'Connor's appointment last April, the president of The Faulkner Hospital Board of Trustees, John Blanchard, noted: "We are most happy to have found an individual so capable and so widely experienced to lead The Faulkner Hospital into a new era of community health care in our new facilities now under construction."

Mr. O'Connor has been Associate Dean for Planning and Associate Dean for Administration at Yale; Administrator of the Connecticut Mental Health Center in New Haven; Assistant Director at Genessee Hospital in Rochester, New York; and the Executive Director of the Naugatuck Valley Rehabilitation Center in Waterbury, Connecticut.

1961

William Kissick, on sabbatical leave from the University of Pennsylvania School of Medicine, will serve as visiting professor at Guy's Hospital in London for the academic year 1974-75.

1963

Rosemary Stevens, professor of public health at Yale, has been appointed Master of Jonathan Edwards College, one of Yale's 12 residential colleges for undergraduates. Professor Stevens, the second woman named Master of a Yale college since the residential college systems was established in the early 1930's, will serve in this capacity for a three-year term which began on July 1. Retiring Master Beekman Cannon commented that "because of the diversity of her talents and interests, Mrs. Stevens is an admirable appointment. She has long been imaginatively involved in the residential college system."

1964

Elizabeth Bellis has been named assistant dean for public health curriculum in Yale School of Medicine.

1965

Peter Levin has resigned as the executive director of New Haven Health Care, Inc. to become deputy commissioner of health in New York City.

1966

Jennifer Kelsey, assistant professor of epidemiology at Yale, will be on sabbatical for the academic year 1974-75. She will spend the first six months at the London School of Hygiene and Tropical Medicine and the second half of the year in Cambridge at the Harvard School of Public Health.

Richard Prescott writes that since last October he has been serving as Health Consultant with the Washington State Legislature. While his research in the fields of catastrophic insurance, HMO's, rural health care delivery and primarily in mental health delivery is for a specific committee, it is shared with both houses, particularly members of the committees on Social and Health Services.

1967

Steve Jonas has been promoted to associate professor with tenure in the Department of Community Medicine of the School of Medicine, Health Sciences Center, State University of New York at Stony Brook where he is teaching in health services delivery, ambulatory care and international comparisons of health care systems. In addition to continuing his theoretical research in health services organization and delivery, he is planning ambulatory services for the University Hospital at Stony Brook, and assisting several of the Health Science Center's clinical campuses in developing their own ambulatory services. He also works with United University Professions, Inc., the union which represents professional staff in SUNY.

Charles Sisk is now Director of Medical and Scientific Affairs for the Arthritis Foundation in New York City.

1969

Dory Storms Brenner is assistant dean and director of the Office of Health Manpower School of Health Services, Johns Hopkins University and a specialist in evaluation of allied health programs.

Samuel Korper has been appointed assistant dean for regional activities at Yale School of Medicine and his work includes liaison between the School and community hospitals in Connecticut.

1970

As part of a broad administrative reorganization, the University of Connecticut has named **Dr. Frederick Adams** as the new vice president for student affairs and services. Dr. Adams was, for the past two years, the dean of the School of Allied Health Professions and over his five-year association with the University, has held appointments as ombudsman and special consultant on allied health research to former President Homer Babbidge, Jr.

Research specialist **Katherine Benesch** has compiled a directory of agencies providing a wide range of health services in New Haven and six contiguous towns. Katherine is associated with the New Haven Health Care, Inc.

1971

David Osgood is coordinator for field supervision and training for a program much like VISTA, the University of Vermont's Action Program which is federally funded to channel University resources and personnel directly into low income areas. He is the liaison between student participants and agency personnel and also develops in-service evaluation procedures, training program and support strategies.

Elaine Whitmire, director of the lead paint poisoning program for the New Haven Health Department directs the on-going program for control and prevention of lead poisoning. A grant of $182,525.00 was received recently to expand and broaden the program in the local area.

1973

Karen Lundberg is director of health of the City of Middletown, Connecticut, (population: 35,000).

Pamela Paulson, as director of the health education program for the City of Hartford Health Department, identifies health needs, assists the health officer in collection and evaluation of data.

1974

Susan Kintner is the chief of the Special Services Division of the Wheeler Affiliates, of Plainville, Connecticut, a comprehensive community mental health center which serves Central Connecticut. Her job is to direct programs which relate to special problems and special population groups such as alcohol programs, drug programs, crisis intervention services, consultation and education, in-service training, a nutrition program for the elderly and possibly research and evaluation. The affiliation, formed out of two hospitals and a child guidance clinic, has a new child development center.

Richard Matheny has been appointed chief sanitarian of the newly formed East Shore Health District, comprised of East Haven, Branford, and North Branford, Connecticut.

Also appointed to the same agency as a staff sanitarian, was **Shirley Pripstein.**

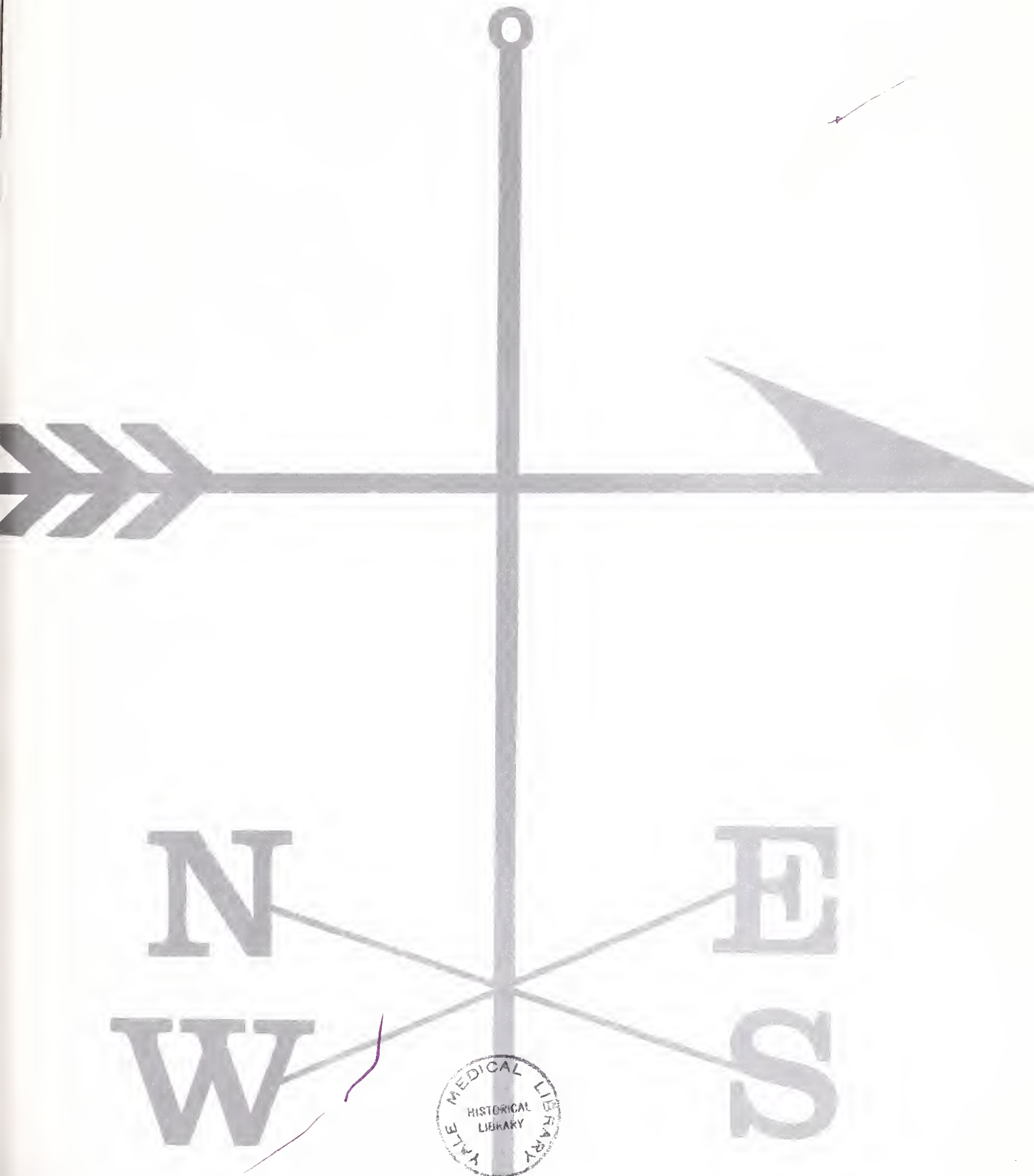
YALE MEDICINE

333 Cedar Street

New Haven, Connecticut 06510

Yale Medicine

Alumni Bulletin of the School of Medicine / Winter 1975



Yale Medicine

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Photos: *pp 5-7, 17, Bill Carter; pp 8, 11, Hupco photograph; pp 9, 10, Allan Graham*

Cover: *The weathervane on our cover represents "the winds of change that have been sweeping across the nation's health care system", described in Senator Kennedy's speech on pages 4-7, as well as medical school programs reaching out to the north, south, east and west of New Haven, pages 14 and 15, and the variety of careers practiced by alumni and house staff, sometimes in unexpected places, pages 8-11, 12 and 13.*

Message from the Dean

Robert W. Berliner, M.D.

Medical schools have watched with considerable concern and apprehension as Congress has attempted to arrive at new Health Manpower legislation to replace the authority that expired in June, 1974. Since House and Senate were unable to reach an agreement before Congress adjourned in December, a new attempt will have to be made in the 1975 session to work out a bill that is acceptable to both houses and to the Administration. It is to be hoped that it will, at the same time avoid presenting medical schools with a choice between, on one hand, the major financial difficulties that would attend loss of so-called "capitation" support, and, on the other hand, the acceptance of conditions that would violate their individual interpretations of their missions in medical education.

When new health manpower legislation is adopted it will be the third enactment involving direct federal support of the educational purposes of medical schools. The first such legislation was prompted by the dire financial straits of a number of schools and was intended to help meet their deficits. Since, to qualify for support, they were required to show that they were in danger of financial disaster, the situation, which became known as "the Bankruptcy Derby," did not encourage schools to take tough actions to rationalize their own finances. In recognition of this weakness, the recently expired legislation abandoned this "last dollar support" and switched to so-called "first dollar support." The latter was intended to provide to each some modest fraction of its educational costs, making it the responsibility of the school to bring its total income and expenditures into balance. In practice, the support has been provided largely in the form of capitation at roughly $1700 per year per student in a four year medical school. This amounts to something of the order of 15 percent of the average annual educational cost per medical student as estimated from the study conducted, under the mandate of the Health Manpower Act of 1971, by the Institute of Medicine, National Academy of Sciences.

The only important condition attached to capitation support under the recently expired legislation was a requirement for a single step increase in enrollment by the larger, either 5 percent or 10 students. The intent of this provision was, of course, to increase the output of physicians to meet a perceived shortage. Although this was a requirement that schools were generally able to meet without great dislocation of their programs, it has established a precedent for attaching conditions to the receipt of capitation funds. Disagreement among various elements in Congress over the establishment of possible new and expanded requirements, upon which capitation would be conditional, has been the basis for failure to produce a generally acceptable bill in the recently adjourned session of Congress. At the same time, some of these proposals have been viewed by medical schools as varying from being simply ill-advised to constituting unacceptable infringement of their freedom to determine their own internal policies and structure.

The various provisions of the proposed legislation have been aimed at solving four matters seen by the responsible individuals in Congress as defects in the capacity of American medicine to deliver care: 1. An inadequate aggregate supply of physicians; 2. Uneven geographic distribution of physicians with inadequate numbers available particularly in rural and central city areas; 3. Overconcentration of physicians in specialty practice and inadequate numbers to deliver "primary care;" 4. Excessive dependence on foreign medical graduates.

To provide for an increase in the supply of physicians

the legislative proposals would have required a further increase in class size by the larger of 5 percent or 10 students. (One bill would have allowed for establishment of a physician associate program with 25 students in place of an expanded number of medical students.) The national requirement for such an increase in the projected number of physicians is not well established and needs careful analysis. It should be noted that the substantial increase in the number of students in American medical schools that has occurred in recent years has not yet begun to produce its effect on the physician population. The front of the most recent wave is still in medical school. In particular, Yale would experience difficulty in expanding its class size. Our physical facilities, built when our classes were very much smaller, are already taxed to their limit and our clinical resources are already, at least locally, very heavily committed.

To supply physicians for geographic areas that are considered underserved, a variety of provisions were contained in the legislative proposals. These included: modest to strong financial incentives to the individual electing to serve in such a geographic area; a required period of service in such areas for all physicians; and proposals that would have required the establishment of an off-site training program based on the hope that students receiving some of their education in areas away from major medical facilities would elect subsequently to practice in such regions. There are objections to each of these alternatives. Acquiring physicians for underserved regions by financial inducements offered during their education would tend to place the load of such service on economically disadvantaged students. There is widespread opposition to required service, essentially a peace time draft of physicians. Finally, it has yet to be shown that the model of off-site training does produce the desired effect. In any case, it is clear that, although underserved areas may be better off with very junior physicians changing every two years than with no service at all, this is not a very satisfactory arrangement for the long range and it would be highly desirable to make plans that would provide the professional and material resources for a stable system.

There seems to be a growing recognition that the training of specialists has borne very little relationship to the needs for their services and it is widely held that there are insufficient numbers of physicians to provide primary care. It seems fairly certain that, whether or not through the health manpower legislation, steps will be taken to limit the availability of residency training in specialties other than those interpreted as representing primary care, i.e. general internal medicine, general pediatrics, and family medicine.

In the consideration of the manpower legislation there were several measures offered that were aimed at increasing the number of primary physicians. One would have required that a specified and increasing percentage of residency training places in hospitals affiliated with a school be devoted to primary care specialties. This sort of trend seems inevitable but might be very difficult for some schools to bring about on any prescribed schedule since their ability to determine the actions of some of their affiliated hospitals varies widely. Perhaps the most distasteful proposal of all was one that would have required the establishment of a department of family practice of prescribed and increasing size in each medical school. This is objectionable not only because there is reason to question whether there is any unique intellectual discipline represented by family medicine, but especially because it would represent an unacceptable interference with the internal governance of the institutions.

In order to reduce the number of foreign medical graduates entering American medicine, a restriction of the number of residency places in medical school affiliated hospitals to some small percentage above the number of graduates of American medical schools has been proposed. Such a measure would surely have an effect in the desired direction but would have a number of weaknesses. It would not influence those hospitals without medical school affiliations, and the ability of medical schools to reduce the utilization of foreign medical graduates in some of their more loosely affiliated hospitals may well be limited. To reduce the entry of foreign medical graduates effectively would require, as a minimum, uniform national licensing standards and a tougher licensing examination. Most important would be a change in immigration policy that would eliminate the preference for physicians who are now given preferred status as long as there are geographic or even specialty areas in which openings exist—even though the immigrant is not required to fill one of those openings!

With the above background, it is clear why medical schools anxiously await the actions of the new congressional session. Most can ill afford to lose the support that capitation provides. Most will likely encounter difficulty meeting one or more of the conditions likely to be attached. Some may find it necessary to refuse to do so on principle.

Partners or Protagonists:

Congress and the Academic Medical Centers

Senator Edward M. Kennedy

—excerpts from a speech delivered by Senator Kennedy on December 2 in Harkness Auditorium. Harvey Berger, president of the Medical Student Council, introduced the Senator to an audience of over 400 members of the Medical Center community.

The speech is one of a series of lectures by distinguished persons involved in medical teaching or legislation. It will be printed in its entirety in the March 1975 issue of the Yale Journal of Biology and Medicine.

"The winds of change that have been sweeping across the nation's health care system have had, and will continue to have, a profound impact on academic medical centers. The most direct impact has come from the active intervention of the Federal Government in the effort to solve health care problems. That intervention will continue as the Federal Government underwrites more and more of the costs of running the nation's medical centers. The enactment of comprehensive national health insurance will make the Federal Government the prime purchaser of your health care services. Your research and training activities are already almost totally dependent on the Federal Dollar. Last year almost 2 billion dollars was appropriated for the NIH. In the last decade 3.4 billion dollars were obligated for the training of health professionals. Federal funds from all sources now account for at least 50 percent of the revenue of the nation's medical schools. In short the Federal Government has an enormous investment made on behalf of the American people—an investment in you. As the major investor, the American people have more than a passive interest in what you do and how you do it. They have the right to expect that their dollars will be wisely spent and used in the effort to address the major elements of the health care crisis. This includes problems centering on the organization, delivery and financing of medical care, as well as on the search for new knowledge.

"Because the health care crisis has been intensifying in the past decade, the Federal Government has begun to use its ever increasing investments in you to exert some leverage for reform and innovation. As you are all acutely aware, the Federal lever on the academic medical center is substantial and its size is increasing.

"But the use of any Federal lever carries with it the potential for doing harm, as well as good. If used properly it can help create a constructive coalition of government and academic medicine, working together to tackle major national health problems. Used improperly it can tyrannize the academic community, diffuse its focus and weaken its structure, drive the best people out of it and discourage young people from entering it. I know that many of you have this concern. Please know that I share it, and that I will do all I can to work with you to prevent doing such harm. But you must understand that the option of not using the lever at all is just as dangerous. It would be a violation of the public trust. It would allow you to set your own course exclusively on your own terms. It would allow you to turn inward, to perfect what you already do well and to neglect the problems that now seem peripheral to your mission and a threat to your competence. In short it could eliminate one of this nation's most powerful resources from the effort to solve the health care delivery crisis. The hard truth is—there is simply no one around to take your place.

"I believe we can develop reasonable consistence between the goals you set for yourselves and those that are being selected for you by the society that pays your bills. I believe we can join together in an effort to properly define the relationship between academic medicine and the Federal Government—a relationship that respects both the needs and goals of society and the independence and integrity of the universities. I do not believe that an effort to challenge you to assume more responsibility for health delivery problems should be viewed as a challenge to your independence and freedom. Is not the persistence of the health care crisis ultimately the greatest threat to academic freedom of all?

• • • •

"Let me focus on two specific areas of concern—biomedical research policy and health manpower legislation—and tell you where I stand. Let this be the beginning of what should be a continuing dialogue between us.

"I have consistently opposed the Administration's effort to emphasize targeted and applied research at the expense of undifferentiated basic research. There is no question that applied research is important, for it is there that the fruits of basic research are harvested. But the Administration seems to feel that basic and applied research represent two entirely different worlds. They feel that basic research has become a luxury to be curtailed in the name of economy. However, two things need to be kept in mind here. First, neither Congress nor the Executive Branch can legislate breakthroughs in research. They can and should reflect the public's desire for breakthroughs in certain areas. But they should not restrict research to those areas or pay for them at the expense of essential, but less publicized research. Congress passed landmark legislation in 1971 to expand research in the cancer area; but it would be counterproductive and a travesty of that law, to let it be used as a club to restrict the scope of basic research in this country. Congressional intent is very clear on this point; the increased emphasis on cancer research is to be in addition to, not at the expense of, NIH's other research activities.

"Second, the shape and content of the scientific component of the biomedical research program should come from the research community itself. Neither the public nor the Congress has the expertise to develop a meaningful and effective program.

"That is why I have opposed, and pledge to you that I will always oppose, uninformed legislative attempts to prohibit specific research activities.

• • • •

"Let me finally address myself to the controversial health manpower legislation. If biomedical research policy represents the best example of cooperation between government and academic medicine, health manpower policy represents a major problem for us. I simply do not believe that you have accepted enough responsibility for the problems in this area.

"In 1973 Assistant Secretary for Health Charles Edwards told the Association of American Medical Colleges:

> 'Much of the Federal health manpower legislation of the last few years has embodied an intent to get at specialty and geographic distribution problems through the manner in which tax dollars were made available to students and institutions.'

Dr. Edwards went on to say:

> 'Plainly we did not get the desired result.'

"In 1971 we in the Congress asked you to expand enrollment in return for increased funding. You accepted the challenge, you have expanded, and we are on our way to solving the physician shortage. But we were in error in our belief that increased numbers would address the problems of geographic and specialty maldistribution or stem the proliferation of inadequately trained foreign medical graduates.

"These problems, and those produced by the non-uniform state licensure laws, are growing worse.

"Let's look at the geographic distribution of physicians. In South Dakota each physician serves 1400 people; in Mississippi he serves 1,339 people. But here in Connecticut he serves 602. In the last ten years the doctor-rich states have grown richer—the doctor-poor states have grown comparatively poorer. Most of our physicians are disproportionately located in the Northeast and Western parts of the country. But even within these regions there are serious shortage areas, and they generally occur in the inner cities and in rural counties.

"I'm sure that most people in this room would agree that in the United States, in 1974, health care is a right. If that is so don't all of our people have the same right and must we not, as a nation, assure them of it? Can you have a right to health care if there are no doctors to deliver it?

"Specialty maldistribution has compounded the problems of geographic maldistribution. Specialists are more poorly distributed than primary care physicians. There are more neurosurgeons in Massachusetts for a population of 5 million people than there are in England and Wales for a population of 50 million. There are twice as many surgeons in proportion to population in the U.S. as in England and Wales—and they perform twice as many operations!

"Here at Yale you specialize in specialists. Can you honestly say you give much thought to whether they are needed? Would it make any difference in what you do or how you do it if they were not needed in the numbers that you and your colleagues across the nation turn them out?

"Perhaps the nature of medicine has changed so dramatically, and the knowledge explosion has been so staggering, that primary care is simply not a viable alternative to specialization by our young physicians. But the function of the primary physician is as important to our people today as it ever was. Perhaps we need to develop new kinds of institutions, training different kinds of professionals to fulfill that function.

"But is it not equally possible that the current structure of our medical center pre-determines the specialization of its students? Is it not possible that a modification of that structure or a change in orientation could alter the values and goals of medical graduates?

• • • •

"Here is where I stand!

"I believe the Federal Government has an obligation to free academic centers from their concern about short-term fiscal crises. This requires the assurance of a continuing, stable level of core support. We have not done this in the past.

"We have done just the reverse. We have withdrawn funding from programs after you've committed yourselves to them. We have asked you to respond to certain challenges, offered you money for it, and failed to deliver. We have left you holding the bag too many times. We have made you wary of us, of our promises, of our ability to carry through on commitments. I understand your skepticism. I understand that it would be unfair to ask you to assume the responsibilities I've been talking about today without assuring you of stable financing for the future. I believe capitation support to be the best available mechanism, but I welcome your suggestions. In any event it is our responsibility in the Federal Government to assure you of adequate funds—and I will do all I can to see that we meet that responsibility.

"But just as the Federal Government has real responsibilities to the academic health centers, so the centers have their own responsibilities—to the American people. It is they who are the victims of the health care crisis. It is they who are footing the bill for your activities. They have every right to require your active participation in the development of solutions to these problems. They have depended on you in the past for breakthroughs in biomedical research. They have all been touched by, and have all benefited from the fruits of your activities. Now they are turning to you once again, in this new but equally important area. If they can't count on you—if you don't take the lead—if we don't work together—how can the job get done?

Almost Heaven, . . . West Virginia

Allan Graham, M.D.

Dr. Graham, who was born and raised in suburban Chicago, received his B.A. degree in 1967 and his M.D. degree in 1971 from Yale. He served his medical internship at Stanford University.

The Crum-Kermit Clinic referred to in his article is located on the Tug River, between Crum, (pop. 300), and Kermit, (pop. 700), West Virginia. According to Dr. Graham, "the local employment is coal mining—both shaft and strip techniques, railroading, and school related jobs—teaching, bus driving, etc. The unemployment rate is generally 20 to 30 percent. "The Crum-Kermit clinic is a modular pre-constructed building with 3,000 square feet of floor space, staffed by a dentist, pharmacist, doctor, nurse, three technicians (laboratory, pharmacy, dental) and two secretaries. It is owned by the Ephraim McDowell Foundation, a non-profit health corporation which also operates a 20 doctor, multi-specialty group practice 40 minutes further up the Tug River, in Williamson, West Virginia."

Congress is debating legislation that would require doctors to spend two years in government service in exchange for financial aid toward their medical education. If such a bill were to become law, the National Health Service Corps (NHSC) would represent one choice of compulsory service which a young physician might encounter. My family and I have been serving in the Corps for two years in rural West Virginia. The following account captures some of our reactions.

Imagine yourself as an interviewer sent to Crum, West Virginia, to gather local reactions to the National Health Service Corps clinic. The interview might well take place in a two room home, fashioned of rough-hewn rafters, plywood walls dressed functionally in tar paper and crowned with a roof of tin. The gas heater in the corner makes the room an unbearable 80 degrees and its flickering light accents the bony features of the man being interviewed. He is lean and appears older than his years. In the role of an attentive interviewer, you now broach a series of questions and reassuringly nod as he responds.

"Sure, we use the clinic; most folks up the hollar do. It's easy gettin' there and the people's nice—most of 'em homegrown—Dunlow, Beauty, forks of Marrowbone. It's done a lot for us and saved a heap of travellin'. Time was it'd take all day gettin' to Williamson or Louisi and then you'd have three or four hours waitin' ahead of you. Sure you gotta wait at the clinic; but bein' so handy-like, makes waitin' easier. 'Sides, when you try to get a neighbor to take you to Williamson, it'll cost 15 or 20 bucks; but this clinic is close enough that most folks will take you for 5 or 10. And you know, they say you can call the doctor in advance and get a reservation, but heck, most fellars don't, 'cause ya never know when you'll be able to get a ride."

"Yea, I like the treatment all right. They want you to know why you're ailin'. Do a lot of talkin' with you, and you understand their English, not like some of them ferners 'round these parts."

"Well, we go pretty often 'cause I got my ailments and the welfare card pays for my bills. Doc says my blood's high and I got sugar. But heck, I can't feel it much. Most days I get around better than that Spaulding boy down the road a piece. He's got a bad back from working' low coal, and all I got is peain' all thru the night. I get to the clinic once a month to pick up my medicine. Most of the time the pharmy-cist checks my blood and asks me a plug of questions—darn near as many as the doc."

"I'm sure there are things down there worth changin', Honey, but most of all I'd like to change that 10 bucks I pay a gettin' there. And ya know, there's another thing I'd change—them comodes. Half the time there ain't no water to flush 'em and that's a darn mess. We told 'em they'd hit salt water with their wells but they didn't listen. Now, if they'd listen and get themselves a privy, they wouldn't need no water; and the smell would be a whole lot better, too. If ya want more suggestions, you oughta talk to my old lady, Maude; she's always got a right smart of 'em. Why just the other day she was sayin't Doc ought a use more penicillum; after all, for years she's been gettin' cold shots from Doc Ferguson every time she'd start smotherin'. And there's nothin' like a shot to knock the cold plumb outa ya."

"How's it changed our lives? Well, I still got rheumatism when it rains, and Maude still has bad nerves. Clyde's asthmie's not much better, but his toe nail's not runnin' since they cut it off. And ya know, he ain't had a fit the last six months. And, cousin Florie, she's gettin' round real spry-like and lookin' pink as a cock's comb since she's been gettin' them IBM shots."

"If you're askin' me what the biggest health problem 'round here is, I'd say rock dust. All us miners are eat up with it; but them social security people won't pay ya for what ya deserves unless you get a lawyer and sue 'em. Why, I ain't been breathin' good for ten years, and it still ain't got me my pension. But ya know, brother, worst sickness 'round here is sin sickness; and the devil's got a lotta folks down with that. Alkehol and loose women are the death of a lot of 'em. Why just last month my cousin Amos was shot in the head down at the Hideway—and he warn't even arguin'."

"Another problem we got's fire. Whole mess a houses burn 'round here, 'specially in winter. Bad wirin' and leaky stoves mostly starts 'em. I guess that's a health problem, ain't it? Not much a doc can do about that 'cept fix up the people's got burns."

"Well . . . thanks, I've liked talkin' ta you. If you ain't got nothin' to do tonight, you might come to the church meeting' up Jenny's Creek—that rattlesnake that killed the preacher on Billy's Branch'll be there."

The interview, apocryphal as it is, carries the flavor of the problems people live with in southern West Virginia. For two years, now, our family has been fortunate to have experienced Appalachian culture on the West Virginia-Kentucky border. These experiences have been invaluable personally and have had a profound effect on our lives and our future.

In May, 1972, the NHSC sent us orders to report to active duty in Crum and to begin two years of primary care medicine. The news of our assignment shocked us, in that we had requested an urban location either in Chicago or on the west coast. But, alas, even the dedicated secretarial staff of the United States Public Health Service has its shortcomings; and Crum, West Virginia was to be our assignment.

Two years later, we found ourselves indelibly altered by our tenure in the country. My academic, research-oriented career goals had given way to an interest in practicing medicine and applying newer concepts in primary care delivery. During the period of service in the Corps, my wife and I grew out of the adolescence of studenthood into the maturity of adult participation in community responsibilities. No longer were we merely students without roots, without community obligations; for the first time in our lives, we were in a position to participate actively and influentially in matters affecting our town and the lives of our neighbors.

Professionally, the NHSC experience in Crum has given me an invaluable perspective on the practice of medicine and on the care of people. I feel there is no comparable way that such experience can be gained within the context of academic medicine and the University teaching center. Compulsory national service for doctors, in such programs as the NHSC, may represent one of the more rewarding burdens that this nation's doctors have been asked to bear.

Dr. Allan Graham, left

Career Choices of Yale-New Haven Hospital Pediatric House Officers — 1965-74

Charles D. Cook, M.D.
with the assistance of Rita A. Severino

Dr. Cook, professor of pediatrics, served as chairman of the Department of Pediatrics from 1964 to 1974.

One of the standard and valid questions which applicants to a clinical training program ask is "What are the eventual careers of your trainees?" Undoubtedly they are trying to find out if the department involved is primarily oriented toward attracting and training practitioners or academicians. Over a 10 year period in interviewing hundreds of senior medical students who came to look at the Pediatric Service at the Yale-New Haven Hospital, I could only answer that I did not know but that I considered it our responsibility to contribute to the training of both types of physicians and that I hoped we attracted about equal numbers of each.

In an effort to get at least a simple description of the product of the house officer training program in pediatrics at Yale, information concerning the house officers who had completed at least one year of training between 1965 and 1974 was sought, primarily via a mailed questionnaire. During the last five years of the program, two mixed (six months pediatrics—six months medicine) first year positions had been offered each year and these 10 trainees are included in the tabulations.

Of the 134 house officers enrolled in the program one committed suicide during his first post-graduate year, so that 133 were available for follow-up. 129 or 97% either responded or their professional activities were known. 93 of the 129 had completed their training; the remainder were still in residencies, fellowships or in the service. However, the trainees had decided their fields of specialization or nonspecialization in 124 instances. The data which follow indicate the relative popularity of the various areas of medicine as well as the proportion committed to full-time academic work on the one hand or private practice on the other.

Some aspect of pediatrics was chosen by 98 or 79% of the 124 whose medical fields were known; their various choices within pediatrics are shown in Table I. It is apparent that, even in this age of specialization, about one third of the pediatricians chose "general" pediatrics; furthermore, many of those listing a specialty were also doing some general pediatrics. It is also gratifying that the most unique aspect of pediatrics, neonatology, attracted a relatively large number of the trainees. Such seriously undermanned areas as medicine for adolescents and pediatric neurology, however, attracted few.

An avowed purpose of pediatric training at the Yale-New Haven Hospital has been to contribute pediatric background for some of those going into specialties which are primarily non-pediatric. The 26 such house officers (or 21% of the 124 with known choices) went into the various fields listed in Table II. Many of these are contributing or will contribute directly to child care by, for example, becoming pediatric surgeons, child psychiatrists or pediatric radiologists or, in one instance, indirectly by going into obstetrics. If the 10 mixed (pediatric-medical) trainees are considered separately, although the number is small, as might be expected, a higher per cent (50%) did choose non-pediatric areas.

Since almost all of the first year house officers are matched via the National Intern Matching Plan, it is impossible to control the per cent of those choosing non-pediatric specialties. If there are too many, it is difficult to fill the ranks of second and third year residencies; if there are too few, then the Pediatric Service may not be making an adequate contribution to the background training of physicians who, in many cases, will be in positions which are crucial for child care. The experience of the past 10 years

Table 1

Areas within Pediatrics chosen by 98 Yale-New Haven Hospital Pediatric House Officers

	No.	*Per Cent*
General Pediatrics	36*	37
Neonatology	12	12
Infectious Disease	9	9
Hematology	6	6
Developmental Pediatrics	5	5
Immunology	5	5
Allergy	4	4
Genetics	4	4
Cardiology	4**	4
Medicine for Adolescents	2	2
Neurology	2	2
Intensive Care	2	2
Nutrition	2	2
Dermatology	2	2
Endocrinology Medical Education, Nephrology	1 each	

* Nine of these were in Ambulatory or Community Pediatrics
** One of these was devoting her time to child-rearing prior to resuming work in pediatric cardiology.

Table II

Specialties Chosen by 26 Non-Pediatricians Trained on the Yale-New Haven Hospital Pediatric Service

	No.	*Per Cent*
Psychiatry	11	42
Surgery	4	15
Radiology	4	15
Industry (Pharmaceutical)	2	8
Pharmacology, Obstetrics, Pathology, Internal Medicine, General Practice	1 each	

In addition to this simple description of the career choices of house officers who have been on the Pediatric Service of the Yale-New Haven Hospital, one would like some estimate of their quality. In the area of cognition those seeking certification by the American Board of Pediatrics have scored well as they have kept the program's ranking consistently among the top ten out of 220 programs in the country. Still needed, however, is some way of assessing their performance as physicians; until the methodology for such an assessment is available, it is only possible to say that the trainees' cognitive ability coupled with their almost uniformly dedicated concern for the welfare of their patients during their period of training suggests that almost all will contribute significantly in their various fields of medical care.

suggests that the actual figure of 21% is manageable for the Pediatric Service at the Yale-New Haven Hospital and probably a reasonable contribution to the training of non-pediatric specialists.

The training of 93 of the house officers has been completed and their choice of practice versus academic roles is shown in Table III. It can be seen that about an equal number did choose practice and full-time academic careers. Seven have become members of the full-time pediatric faculty at Yale and thus make up about one-quarter of the total staff. An additional seven are on the part-time faculty at Yale. It is to be hoped that this represents satisfaction on both sides of the educational equation and does not indicate too much "in-breeding".

An additional point which might be interesting as evidence of the Yale-New Haven Medical Center's contributions to the State is that 20% of those who have completed training live and work in Connecticut. Others still in training almost certainly will stay in this area so that the Yale trainees' long term contributions to the care of children in Connecticut are certainly significant.

With the current concern for providing training for women and members of minority groups, it is worth noting that 19% of the total number of trainees were women and that all but two, one of whom expected to resume her professional work after a period devoted to child rearing, were working in medicine at least part time. Thus, Pediatrics at Yale, as elsewhere, is training a disproportionately large number of women in relation to the number graduating from medical schools. On the other hand, only one Black chose Yale for training in the 10 year period so that the Department made a disproportionately small contribution to the training of that minority group.

A word should be said about the suicide; for a number of years the Department has used a semi-formal system of evaluating the progress and adjustment of its house officers and only weeks before his death this bright, personable individual had been complimented on his work and asked to stay on for a second year. This tragic episode taught us that, in spite of attempts to understand and help our trainees, we know all too little about them and our threshold for concern about serious emotional health problems is too high, particularly if the individual's work performance is satisfactory.

Table III

Academic Vs. Non-Academic Careers of 93 Yale-New Haven Hospital Pediatric Officers With Completed Training

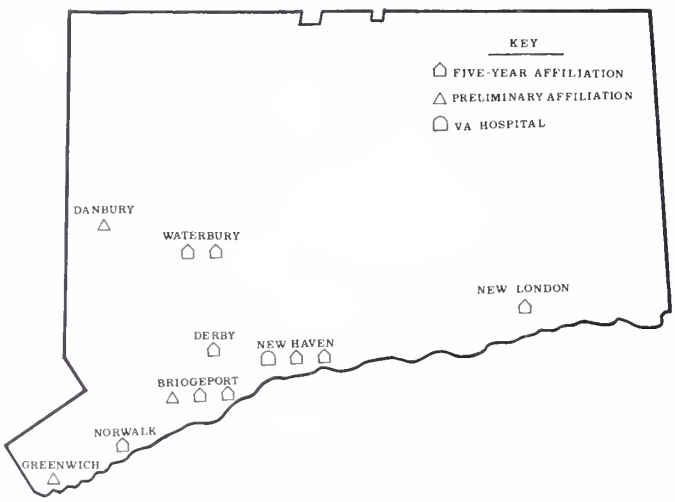
Type of Career	*No.*	*Per Cent*
Full-time Faculty	43	46
Practice with Teaching Appointment	23	25
Practice without Teaching Appointment	22	24
Others (2 industry, 2 motherhood, 1 USPH)	5	5

the Medical Center and community health institutions:

effecting the partnership

Samuel P. Korper

Mr. Korper is assistant dean for regional activities, associate director, Office of Regional Activities and Continuing Education, and a lecturer in psychiatry at the Yale School of Medicine.



Yale School of Medicine—Community Hospital Affiliations, February 1975

A number of recent developments, at both local and national levels, are creating new incentives for cooperative programs between the medical center and community health institutions. Passed and pending federal health manpower legislation and the increase in medical school class size to 104 students, combined with new programs for nurse practitioners and physicians associates, are putting pressure on the medical center to find quality training opportunities for its students in new settings.

Hospitals, too, have felt increasing pressure to work closely with academic medical centers. The movement towards some form of relicensure or recertification makes the medical center a logical place to turn for aid in the development of continuing education programs and for the actual teaching resources for such activities. The abolishment of free standing internships and revised requirements for residency training create new concerns for all community hospitals concerned with the development or maintenance of house-staff programs.

A meaningful relationship with a university medical center, with opportunities for house-staff rotation both to and from community hospitals, provides an effective means of dealing with the increasing service and training demands on the community hospital. This approach aids in the recruitment of top flight house-staff for positions in community hospitals, brings the strong educational resources of the medical center to the community hospital, provides high quality clinical training in a variety of settings to the house officer, and aids in the development of rational and effective referral patterns for the region—all resulting in better patient care over both the long and short run.

The affiliation being developed by Yale with community hospitals in southern Connecticut are designed to meet these challenges. Agreements are flexible. Each agreement, by focusing on programs at the specialty level, is tailored to specific needs as perceived by the community hospital, where these needs are compatible with the resources of the relevant departments at the School.

For many years there have been working relationships between a number of Connecticut community hospitals and the Yale School of Medicine. Until recently, however, these relationships were of a relatively informal nature. Individual faculty members would journey to community hospitals to conduct rounds, to lead seminars, to deliver lectures, and to consult on matters of house-staff training or hospital services. These working relationships were often based on previously established personal contacts with former students or house officers from the medical center. Faculty members who participated did so with little or no formal support from their parent institution.

With the establishment of the "Regional Medical Programs Legislation" (PL 89-239) in 1966, the Federal government expressed a direct concern with the translation of medical research to the improvement of patient care in the community and provided financial support to accomplish this goal. In Connecticut, the Connecticut Regional Medical Program (CRMP) established a plan for a system of affiliations of community hospitals with one of Connecticut's two medical schools, and encouraged the appointment of full-time chiefs of service at the community hospitals. During this period, the Office of Regional Activities was created at the School of Medicine to facilitate and coordinate the various CRMP-supported and other regional activities. The development of affiliations and the encouragement of Yale faculty involvement in teaching and service programs at community hospitals have been

major activities of the Office of Regional Activities since its inception.

During the past five or six years, preliminary affiliations have been established with several community hospitals; these established the general guidelines for joint programs of service, education, and clinical research. Such preliminary affiliations were viewed as the first step in creating formal institutional ties between the School and the community hospitals and laid much of the groundwork for the development of specific programs which followed. Yale faculty have been active on search committees for the recruitment of full-time chiefs of service for the community hospitals, as well as in the establishment of a variety of post-graduate and continuing medical education programs.

A number of these preliminary relationships have now matured to the point where full five-year teaching affiliations with eight community hospitals are in effect. Such agreements currently exist with the Hospital of St. Raphael in New Haven, Waterbury and St. Mary's Hospitals in Waterbury, Norwalk Hospital, Bridgeport and St. Vincent's Hospitals in Bridgeport, Lawrence and Memorial Hospitals in New London and Griffin Hospital in Derby.

The five-year affiliation agreements are in two parts. Part One establishes the basic nature of the affiliation including the general objectives of " . . . care of patients, effective medical education, (and) productive clinical and health care research." Part Two of each agreement delineates the specific programs that comprise the actual working activities of the affiliation. Once the affiliation is effected, the hospital and the school each appoint members to a Joint Affiliation Committee which will meet periodically to review the status of the affiliation, individual program components, and to chart new areas for joint activity.

Programs sponsored under joint aegis benefit both the school and the community hospital. Dr. N.P.R. Spinelli, director of medical education at Bridgeport Hospital, feels that "through the affiliation new information of medical discoveries and techniques developed in pure academic and research environments is circulated among graduate medical students and practicing physicians. . .By integrating Yale faculty with our continuing education, we can make our house officers into better equipped and more broadly trained physicians while keeping our practitioners in touch with current research trends." According to Dr. Ward J. McFarland, chief of staff, Lawrence and Memorial Hospitals in New London, "The chief advantage will be to increase the quality of patient care in this community."

Yale faculty involvement and the recruitment and retention of full-time chiefs of service in the community hospitals has had profound impact on care and training available in these hospitals. In the past year, 112 Yale medical students spent a portion of their time training in affiliated community hospitals, with training experiences offered in medicine, surgery, pediatrics, obstetrics, gynecology, radiology and pathology. During this same period, 29 Yale-New Haven Medical Center house officers and an additional 3 Yale fellows rotated through affiliated community hospitals for a portion of their training. Quality training experiences are available at the Yale affiliated hospitals due to the existence of 62 full-time chiefs of service, a total of 159 full-time physicians on staff, and some 245 physicians at these hospitals holding clinical faculty appointments at Yale School of Medicine.

The Dean and Norman A. Brady, president and chief executive officer of Norwalk Hospital, signing the affiliation agreement

in and about

The Campaign for Yale

Curtis R. Simic

The School of Medicine's drive to raise $23 million is being led by **Curtis R. Simic.** *As director of development of the school and associate director of the Campaign for Yale, Mr. Simic is organizing a systematic solicitation of foundations, corporations and individuals in coordination with the central staff of the Campaign for Yale.*

Prior to coming to Yale this fall, he had been Director of Development for the University of Tennessee Medical Center for the Health Sciences for the past three years. He has also worked for the Indiana University Foundation from 1964 directing foundation and corporation relations and alumni fund raising.

Mr. Simic received his B.S. degree in 1963 from Indiana University, where he was named one of the ten outstanding senior men by the Sigma Delta Chi Journalism Fraternity. He is a member of the American Alumni Council.

"The question is not whether Yale will survive. Of course it will. The question is whether Yale will be able to continue to do as well for our successors as it did for us; not just for each of us personally, but for the quality of our country and the conversation and advancement of learning for the benefit of all the world."

President Kingman Brewster might well have been referring to the School of Medicine exclusively when he made this statement in announcing the largest capital funds effort ever attempted by an educational institution. No mission is more specifically directed toward the "advancement of learning for the benefit of all mankind" than the education of physicians and research to promote more effective treatment, and eradication of disease.

Our role in the Development Office at the School of Medicine is to secure the support that will allow this mission to move forward without interruption. We must find individuals, foundations and corporations who are concerned with providing a most talented faculty and student body with the wherewithall to work for the benefit of generations to come.

Our objectives within the university-wide Campaign For Yale are twofold; new endowment and physical improvements. New endowment is needed for faculty support and student financial aid programs. This type of support will decrease the School's dependence on the unpredictable federal programs which have been "drying up" in recent years. Ten million dollars is our goal in endowment which will help insure consistent quality and opportunity in the Yale medical education. Specifically, $5 million is needed for new professorships, $3 million is needed to support existing faculty positions, and $2 million is a minimum toward the stablizing of aid available to students who might not otherwise be able to come to this School of Medicine.

Part of the remaining thirteen million dollars is needed to renovate Sterling Hall of Medicine which has served 49 graduated classes and will bid farewell to its 50th this spring. Sterling Hall of Medicine and the adjoining Institute of Human Relations building must be readied to accept the new Comprehensive Cancer Center and the Department of Human Genetics. A physical link will be erected across the north end of Cedar Street manifesting what all have known—The School of Medicine and the Yale New Haven Hospital complex are inseparable when it comes to teaching and research. The Hunter Radiation Therapy Center needs expansion to accommodate the growing Department of Therapeutic Radiology and the Brady Memorial Laboratory and the Lauder Building must be renovated for Pathology.

What about federal support? It is here that being designated a Comprehensive Cancer Center by the National Cancer Institute carries with it major grants for construction and research, however, Yale must provide $1.7 million in order to receive support amounting to more than nine million dollars. Private philanthropy is the only resource from which it can come.

Where will we find $23 million? We must go to a variety of sources. The history of philanthropy which has made Yale's a great school of medicine is long and significant. One needs only to walk through the buildings observing the "rooms", the "floors", the "collections" and read the list of "professorships," "fellowships" and "scholarships" to feel the enormous impact of generous people. Some were associated with foundations, some were involved with corporations, and many were alumni and other friends acting as individuals.

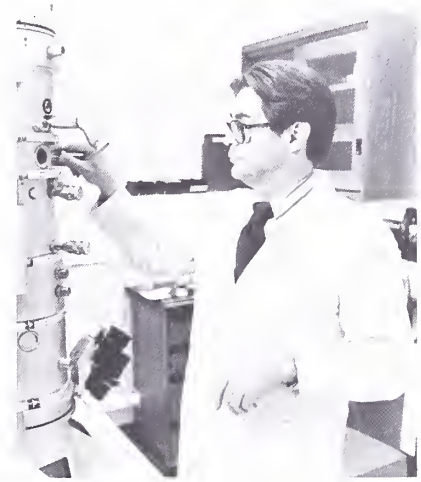
Alumni have played a major role in directing philanthropy to Yale. Even though the Alumni In Medicine Campaign has only recently been concluded, alumni will be asked again to exert their influence in Yale's behalf and examine their resources to see how much they can pledge toward "advancing learning for the benefit of all the world." Some made real sacrifices during the AIM Campaign. To them we give our sincere thanks, and we will look to them for guidance in seeking support from other sources including acquaintances who have an interest in medicine and might be influenced to express it at Yale. To others who were not able to participate in the AIM Campaign, we will look to you for a commitment while bearing in mind that your influence among your friends is great. Our most recently established professorship came as a result of a quiet suggestion from one of our alumni to a friend and patient.

Foundations will be asked again to provide the resources which will enable new discoveries in inherited disease and cancer to be pursued. Several interests are being cultivated now. Others will be explored through the coming months. The corporate community dealing with the delivery of health care has provided programmatic funds in the past and now we shall ask them for capital investment in the Yale School of Medicine. Your good work as alumni has assured them it is a good investment.

These are exciting times at Yale. The Development Office will seek to translate this excitement to friends throughout America so that they may share in the satisfaction inherent only in worthy pursuit. Details about the various projects mentioned will be published in coming issues of *Yale Medicine*. We invite your inquiry about any in which you have a particular interest.

Dr. Palade awarded the Nobel Prize

Dr. George Palade, chairman of the Section of Cell Biology, was awarded the 1974 Nobel Prize for Physiology or Medicine, for his discoveries concerning the structural and functional organizations of the cell. He shares the honor with Dr. Albert Claude, his former professor and colleague at Rockefeller University, and Dr. Christian de Duve.



Born in Jassy, Rumania, in 1912, Dr. Palade was trained and later taught in the Faculty of Medicine of the University of Bucharest. He came to this country in 1946 and spent the next 27 years at the Rockefeller Institute. Dr. Palade joined the Yale faculty in 1973.

Dr. Keith R. Porter, who collaborated with Dr. Palade and Dr. Claude from 1939 to 1961, wrote the following in the November 8, 1974 issue of *Science:*

"To recount all of George Palade's observations on cells and their functions would require a great deal of space. His skill and his enthusiasm for unravelling the intricacies of the fine structure of cells attracted many students and research associates to his laboratory. The research reports of these associations appeared parallel to those from the mainstream of protein synthesis and covered a wide range of important topics.

"There is seemingly no letup in the pace at which new and important observations emerge from the Palade Laboratory (now at Yale University), and it is unlikely that this recognition of his achievements will affect this productivity. Obviously, original discovery is the native bent of some people, and the compulsion to go on and on seems not to diminish with age."

Chairman appointed for Department of Internal Medicine

Dr. Samuel O. Thier has been appointed professor and chairman of the Department of Internal Medicine. He has also been named chief of medicine at the Yale-New Haven Hospital. His primary field of research is renal disease, with particular interest in renal transport of amino acids.

Prior to his appointments at Yale this Fall, Dr. Thier had been on the faculty of the University of Pennsylvania School of Medicine since 1969, first as associate professor of medicine, then professor and vice-chairman of the Department of Medicine. He was also associate director of medical services at the Hospital of the University of Pennsylvania.

After graduating from Cornell University in 1956, he attended the State University in New York College of Medicine at Syracuse, and received his M.D. degree in 1960.

He spent the years 1960 to 1962 and 1964 to 1969 in Cambridge, starting as an intern, then advancing to assistant resident, resident, chief resident, assistant in medicine, and chief of the renal unit of Massachusetts General Hospital. He became a teaching fellow in medicine at the Harvard Medical School in 1966, an associate in medicine in 1967 and assistant professor of medicine in January 1969.

In the two years away from Cambridge during this period Dr. Thier served as S.A. Surgeon (Lt.) with the USPHS, National Institutes of Health in 1962, and was promoted to Surgeon (Lt. Commander) in 1963. He was also a clinical instructor in medicine at Georgetown University School of Medicine.

He left Massachusetts General Hospital and Harvard in June 1969 to become associate professor of medicine at the University of Pennsylvania School of Medicine and associate director of medical services of the Hospital of the University of Pennsylvania. He became professor of medicine in 1972.

A diplomate of the American Board of Internal Medicine, Dr. Thier is a member of a number of professional and scientific societies including the American Federation for Clinical Research, American Society of Nephrology, and the International Society of Nephrology. In his appointments at Yale he succeeds Dr. Louis G. Welt, who died suddenly a year ago.

Director of Y-NHH appointed chairman-elect of COTH Administrative Board

Charles B. Womer, director of the Yale-New Haven Hospital and lecturer in the Department of Epidemiology and Public Health, was chosen chairman-elect of the Council of Teaching Hospitals, Association of American Medical Colleges, Administrative Board. Mr. Womer has been at Yale-New Haven Hospital since 1965 and its director since 1968. Prior to that he was associate director of the University Hospitals of Cleveland. He is a Fellow in the American College of Hospital Administrators and a member of the Board of Trustees of the Connecticut Hospital Association.

New director appointed for Pierce Laboratory

Dr. Arthur B. DuBois has been appointed director and Fellow of the John B. Pierce Foundation Laboratory, and professor of epidemiology and physiology at the School of Medicine. Formerly professor of physiology and medicine at the University of Pennsylvania, Dr. DuBois has conducted research on the physiology of breathing and gas exchanges in the body.

In both of his new appointments he succeeds Dr. James D. Hardy, professor emeritus of epidemiology and physiology, who has been named Consultant to the Pierce Foundation.

Dr. DuBois attended Harvard College and received his M.D. degree from Cornell University Medical College in 1946. After completing his internship at New York Hospital in 1947, he served at Lt. (jg) in the U.S. Navy Medical Corps.

He received postdoctoral training in physiology at the University of Rochester Medical School and was senior assistant resident in medicine at Peter Bent Brigham Hospital, Cambridge, until he joined the University of Pennsylvania faculty in 1952. Dr. DuBois was Established Investigator of the American Heart Association in 1955, and received a Research Career Award from the National Institutes of Health in 1963.

He is a member of a number of professional and scientific societies including the Association of American Physicians, the American Society of Clinical Investigation, the American Physiological Society and the Underseas Medical Society.

A new series of conferences on human values

An important new series of conferences on problems in human values as they relate to clinical practice, teaching, research and to health delivery is being held each month throughout the academic year in Brady Auditorium. The program for the conferences was developed by a committee appointed by Dean Berliner, which includes faculty from medicine, public health, law, divinity, political and social science, sociology and philosophy. Dr. F.C. Redlich, professor of psychiatry and director of the Behavioral Sciences Study Center, is chairman of the committee.

At each session a clinical problem is presented and different options of action are discussed by a panel of experts. In the first conference, held in October, the problem of consent to a vital blood transfusion in a child belonging to the Church of Jehova's Witnesses was presented by Dr. Howard Pearson, chairman of the Department of Pediatrics. Other sessions cover decisions prior to treatment of cancer of the breast, amniocentisis and the problems of genetic counseling and research on fetal tissues, problems of dying parents, transexualism and ethical decisions, experimentation with human beings and informed consent, conflicting roles in psychiatric practice, and treatment of premature and severely defective infants.

New section created in Department of Ophthalmology

The Department of Ophthalmology and Visual Science has established a Section of Tumor Research and Pathology to be headed by Dr. Daniel M. Albert, professor of ophthalmology. In announcing the formation of the section, Dr. Marvin L. Sears, chairman of the Department of Ophthalmology and Visual Science, cited the many contributions of this group to the knowledge of ocular tumors and experimental and diagnostic ophthalmic pathology. The creation of the section will help to further their activities and facilitate the training of fellows in this field.

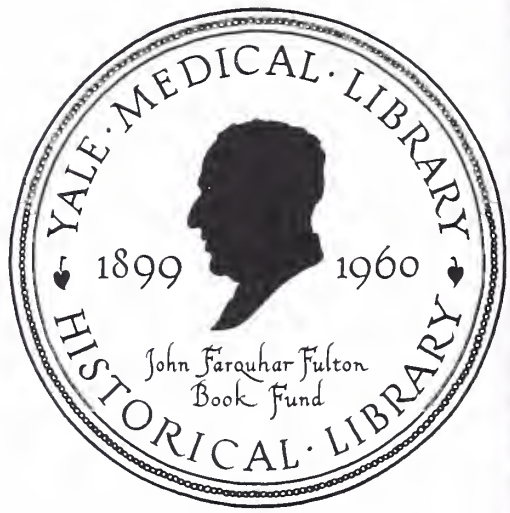
Gifts for books In The Yale Medical Library are useful remembrances

Gifts both large and small are welcomed for the purchase of books for the Yale Medical Library. They are appropriate as memorials or to remember a special occasion (for example, the library recently received a gift in honor of a couple's fiftieth wedding anniversary). Some people have formed a habit of sending the library a check for a book whenever a remembrance is wanted.

The honored person or the family of the person remembered receives a letter from the Librarian acknowledging the donor and also a sample of the bookplate to be put in the book acquired. At the same time, the users of the Library, both in and out of Yale, benefit from the addition of needed books to the collections.

As a larger memorial an endowed fund can be set up to purchase books year after year by persons who give $5,000 or more. A special bookplate can be designed for such a fund, according to the donor's wishes.

For a useful and lasting form of remembrance, please consider giving book funds to the Library.



New books by faculty

Day Care: Serving Preschool Children. *By Donald J. Cohen, associate professor of pediatrics and psychiatry, in collaboration with Ada S. Brandagee. Dept. Of H.E.W. (Washington, D.C.) 1974. (Publication no. (OHD) 74-1057).*
This book is one in a series of publications of the OCD, DHEW, about day care.

The Healing Alliance. *By Margaret E. Raymond, Julian Lieb, M.D., assistant professor of psychiatry, and Andrew Slaby, M.D., assistant professor of psychiatry. W.W. Thornton & Co. (New York) 1974.*
This new view of the family's role in the treatment of emotional problems has been written in non-technical language for the concerned layman. It outlines an approach to the treatment of psychiatric patients that involves active collaboration between professional, patient and family.

The Endocrine Glands. *By Michael Kashgarian, M.D., professor of pathology, and Gerard Burrow, associate professor of medicine. Williams and Wilkins Co., 1974.*
This small handbook of endocrinology summarizes the relationship between the anatomical and functional disturbances for each organ. It thoroughly outlines the important defects in end organ function, emphasizing the dynamic pathologic changes caused by enhanced or inadequate hormone secretion.

From Medical Police to Social Medicine. *Essays on the History of Health Care by George Rosen, professor of history of medicine, and epidemiology and public health. Science History Publications (New York) 1974.*
By presenting major trends in the development of social medicine from the 17th century to the present, this collection of essays proposes to give its readers an insight into the health care problems of the present.

Peter F. Curran, Ph.D.

Dr. Peter F. Curran, the distinguished physiologist, died on October 16, 1974 at the age of 42. At the time of his death he was professor of physiology and director of the Division of Biological Sciences at Yale. He was born on November 5, 1931 in Waukesha, Wisconsin. He received his M.A. from Harvard College in 1953 and his Ph.D. from Harvard University in 1958, where he worked until he was called to Yale in 1967. His productive but all too brief professional career was rich with achievement and recognition. He was a brilliant and original scientist who effectively combined experiment with theory and made milestone advances in our understanding of solute and water transport across epithelial tissues.

The high esteem with which Dr. Curran was held by his colleagues is reflected in the host of activities he was engaged in. He was chairman of the Publications Committee of the American Physiological Society (1971-74), section Editor for Gastrointestinal Physiology of the *American Journal of Physiology* (1968-71), and served conscientiously on the editorial boards of the *Journal of General Physiology, Biophysical Journal* and the *Biochimica et Biophysica Acta.* He was president of the Society of General Physiologists (1972-73) and a council member of the American Physiological Society and the Biophysical Society. He was a member of the Molecular Biology Panel of the National Science Foundation, the Biological Sciences Training Committee of the National Institutes of Health and was chairman (1974) of the Physiology Study Section of the National Institutes of Health. In all of these capacities he worked with distinction and devotion. Peter Curran's untimely death prevents us from ever knowing the full potential of his gifts or the heights to which he may have risen. His many friends, students and colleagues cherish their association with him. His talent, insight and selfless energies will be sorely missed. J. F. H.

The Peter F. Curran Memorial Fund *has been established at the School of Medicine. Contributions may be sent to Yale University School of Medicine, Department of Physiology, 333 Cedar Street, New Haven, Connecticut 06510.*

Lottie G. Bishop

Lottie G. Bishop, who served as a Yale staff officer for more than 42 years until her retirement in 1953, died November 2, 1974. She was 89.

Miss Bishop had joined the Yale staff in 1911 as secretary of the Alumni Class Secretaries Bureau. She became acting alumni registrar in 1917, and registrar in 1920.

She was the first woman to achieve staff officer's rank in the Yale administration. Her role as executive secretary in the Yale School of Medicine from 1928 to 1953—during which time she was called upon to handle major administrative duties in the years before the medical deanship became a full-time position—became legendary.

Miss Bishop was born in New Haven and attended local schools. She was a graduate of Mt. Holyoke College in the class of 1906 and served as a trustee of the college for many years.

faculty notes

Dr. Arthur Ebbert, Jr., has been appointed to the new position of Deputy Dean of the School of Medicine, effective July 1974. Dr. Ebbert, who is also professor of clinical medicine, has been a member of the Yale faculty since 1953 and has served as Associate Dean of the School of Medicine since 1960.

The 1974 Bailey K. Ashford Award was presented to **Dr. Robert E. Shope,** associate professor of epidemiology and director of the Yale Arbovirus Research Unit. The award, "for distinguished achievements in tropical medicine by an individual not more than 45 years of age", was presented to Dr. Shope at the 23rd annual meeting of the American Society of Tropical Medicine and Hygiene held in Honolulu in November.

The Department of Epidemiology and Public Health has received a total of $11,000 in unsolicited gifts from two anonymous donors, in recognition of **Professor John Thompson's** leadership in the Hospital Administration program. Mr. Thompson is professor of public health and nursing administration.

Dr. Jack W. Cole, Ensign Professor of Surgery, was appointed chairman of the Council of Academic Societies of the Association of American Medical Colleges, at the association's 85th annual meeting, held in Chicago in November.

In recognition of his innovative work in community mental health, the American Public Health Association's Mental Health Section presented its annual award to **Dr. Jules V. Coleman,** clinical professor of public health and psychiatry, during the association's 102nd annual meeting in New Orleans in October. Dr. Coleman was cited as "an architect of mental health as a discipline vital to public health, gifted educator and supervisor, and insightful analyst and theoretician."

Eleven members of the John B. Pierce Foundation Laboratory's staff members attended the XXVI International Congress of Physiological Sciences held in Jerusalem and New Delhi in October. During the trip, **Dr. James D. Hardy,** professor emeritus of epidemiology and physiology, was honored by the Israeli Physiological and Pharmacological Society for his outstanding contributions to the science of physiological temperature regulation.

Dr. Wilbur G. Downs, clinical professor of epidemiology, visited St. Lucia as chairman of a committee to review the program on schistosomiasis control and research operated by the Research and Control Department, Ministry of Education and Health, St. Lucia, in collaboration with the Rockefeller Foundation.

Dr. Robert W. McCollum, Susan Dwight Bliss Professor of Public Health, and chairman of the Department of Epidemiology and Public Health, attended a meeting of the World Health Organization in Geneva in October as a member of a scientific assembly on viral hepatitis.

Dr. Theodore Lidz, professor of psychiatry, presented the George Kirby Collier Memorial Lecture to the Department of Psychiatry, University of Rochester School of Medicine, in October.

Dr. F.C. Redlich, professor of psychiatry, has been appointed Roy R. Grinker Visiting Professor at Michael Reese Hospital and the University of Chicago for 1974. Dr. Redlich presented the Annual Roy R. Grinker Lecture in October.

Dr. Vincent A.-T. Andriole was promoted to the rank of professor of medicine effective January 1, 1975.

Dr. Tsuneo Tomita has been appointed professor of ophthalmology and visual science. Having served as professor of physiology at Keio University in Japan since 1957, Dr. Tomita came to Yale in 1971 as a visiting professor. He is internationally recognized as a leader in the area of retinal physiology.

The Kremers Award of the American Institute of the History of Pharmacy was presented to **Dr. David Musto,** associate professor of history and psychiatry, for his several contributions on narcotic control. The award noted Dr. Musto's recent book *The American Disease, Origins of Narcotic Control,* which is recognized as a definitive history of narcotic control.

A color film on the toxoplasm gondii has won the CINE Golden Eagle Award for **Dr. Martin E. Gordon,** clinical professor of medicine. The film, "The Insinuators—Toxoplasm Gondii", is the third in a continuing series "Clinical Aspects of Parasitology," produced by Dr. Gordon. It has been chosen to represent the United States in foreign scientific film events and has also received the Bronze Medal of the International Film and T.V. Festival held in New York City in November. Dr. Gordon's film series has received eleven national and international film awards and is presently being distributed by the USPHS National Medical Audiovisual Center.

Dr. George Rosen, professor of the history of medicine, and epidemiology and public health, has been appointed advisory editor of *Eighteenth Century Studies* for the history of medicine and science. Last March, a Japanese translation of his *History of Public Health* was issued in Tokyo, and in August, a selection of his papers on the history of health policy and health care were published in New York under the title, *From Medical Police to Social Medicine.*

Dr. Roy Schafer, clinical professor of psychiatry, has been appointed the first holder of the Sigmund Freud Memorial Professorship at University College, London for the academic year 1975-76.

alumni news

1929

Russell Scobie wrote about his trip to the 14th International Congress of Pediatrics which was held in Buenos Aires in October. After a visit with their daughter in Bogota, Colombia, the Scobies stopped in Rio de Janeiro, Brazil and then went on to Buenos Aires. The Congress attracted over 7000 pediatricians from all over the world. At one of the luncheons, among thousands of guests, the Scobies found themselves sitting next to **Carl Gagliardi** (class of '50) and his wife Mary from Dearborn, Michigan. Dr. Scobie notes that "Dr. Grover Powers covered a lot of our conversation—loved and worshipped by all.

Following the Congress the Scobies flew to Lima, Peru, via Santiago, Chile and then made another visit to Bogota before returning to New York. Dr. Scobie has been invited to visit New Zealand in June to discuss water fluoridation and also plans to visit Tasmania then on behalf of Rotary International. He says he is "still semi-retired but my office days have been very limited."

1930

A portrait of **Courtney Bishop** was presented to the Board of Directors of Yale-New Haven Hospital on October 30. Participants in the presentation ceremony were Charles Costello, president of the Board 1965-1971, G. Harold Welch, Jr., current president of the Hospital Board and President Kingman Brewster, Jr. Dr. Bishop, who served as chairman of the Medical Board and chief of staff of Yale-New Haven Hospital from 1960-1973, has lived in Wolfeboro, Vermont since his retirement. The portrait was painted by his friend of over forty years, Deane Keller.

1931

The following notes were excerpted from the September 1974 issue of the *Massachusetts General Hospital News:*

"In 1930 a young Yale Medical School student made a minor decision that determined his entire career.

"Wanting to spend the summer between his third and fourth years at home in Dorchester, **Benjamin Castleman** worked as a clinical clerk in the laboratories of the MGH Department of Pathology.

"Dr. Tracy B. Mallory, then chief of the department, was eager to recruit top-flight students to his specialty. He devoted much time and attention to the young Harvard College graduate, encouraging his growing attraction to the field of pathology.

"That summer marked the beginning of a long and fruitful association between Dr. Castleman and the MGH. After graduating from Yale in 1931, he returned to this hospital to continue his training. He later joined the MGH staff, on which he has served for 40 years.

"On June 30, 1974, Dr. Benjamin Castleman, the hospital's senior statesman, respected medical educator, and former Acting General Director, retired from his post as Chief of the Department of Pathology where he had worked as a student. He occupied this position for 24 years. During his tenure he worked with tireless efficiency to add to the number and quality of the services the department offers the hospital.

"As a pathologist, Dr. Castleman achieved international recognition. He served as visiting professor of pathology at universities in Sweden, India, Brazil and New Zealand. Lecture tours have taken him to Australia, Colombia, Cuba, Guatemala, Israel, Japan, Mexico and Thailand.

"Throughout the medical world he is well known as the editor of 'The Case Records of the Massachusetts General Hospital', a weekly feature in the prestigious *New England Journal of Medicine.* The Case Records are the edited proceedings of special weekly discussions of cases culled from difficult diagnostic problems—problems that are resolved in the Department of Pathology. These sessions, known as Clinicopathological Conferences, or CPC's, are an MGH tradition of half a century.

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"While acting Chief of Pathology for two-and-a-half years during World War II, Dr. Castleman instituted a special CPC program for medical units of the armed forces. Lantern slides of material such as X-ray films, ECG's and specimens presented at the conferences were mailed to the units, which could then hold their own CPC discussions. This project later evolved into a subscription service for over 200 hospitals, medical schools and other institutions all over the world, thus allowing medical groups to conduct their own teaching exercises.

"In the early 1960's Dr. Castleman began editing volumes containing selected CPC cases; there are now five such volumes comprising medical, surgical, bone and joint, neurological, and cardiac cases.

"Throughout his career Dr. Castleman has emphasized the care of the patient over all other considerations. With characteristic doggedness, he has sought ways of improving that care.

• • • •

"Dr. Castleman tackled the job of Acting General Director with enthusiasm—an enthusiasm that survived even the tremendous pressure of simultaneously directing his department and the hospital as a whole.

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"Medical education, perhaps because of his own first brush with pathology as a student, has a prominent place in Dr. Castleman's view. He has expanded and constantly refined the pathology training program that is both for residents and interns.

"As a result, the Department of Pathology has a record of which its retiring leader is justifiably proud. Roughly two-thirds of the 125 residents and interns who had their training there during his tenure hold posts in academic institutions. Fifteen have been or are chairmen of departments of pathology at universities. Others are chief pathologists at community hospitals.

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"Dr. Castleman's post-retirement plans are many and varied. He will remain in Boston and at the outset will have an office in the hospital's quarters in Charles River Plaza. He will carry out projects for the administration and will consult on some of his special interests in pathology. . . ."

1932

In a recent issue of JAMA, it was noted that **Arthur Present,** professor of radiology at the University of Arizona College of Medicine and project director for a national breast cancer screening program at the Arizona Medical Center in Tucson, has been named a recipient of the Gold Medal of the American College of Radiology. Dr. Present also served as president of the American College of Radiology and chairman of its board of directors.

On October 21 **Myron Wegman** received the William Thompson Sedgwick Award for Distinguished Service in Public Health, the highest award of the American Public Health Association at its 102nd Annual Meeting in New Orleans. Dr. Wegmen retired at the end of June 1974 as dean of the School of Public Health at the University of Michigan, a post he held for fifteen years.

A pediatrician, educator and promoter of community action for effective health planning, Dr. Wegman has served as chairman of the Michigan Council of Health, and of the Michigan Governor's Action Committee on Health Care and Human Resources Council. He was a member of the Michigan State Public Health Advisory Council and since 1971 has been president of the Comprehensive Health Planning Council for Southeastern Michigan.

He has served as president and executive board chairman of the American Public Health Association, chairman of the Council of the Federation of the Association of Schools of the Health Professions, and as a member of President Johnson's Health Task Force to Vietnam and of the National Environmental Health Committee.

Internationally, his activities include the chairmanship of the Kellogg Foundation Advisory Committee on Health in Latin America and positions he has held with the Pan American Health Organization. Formerly chief of education and training with the latter organization, he stimulated effective preventive medicine programs in Latin American schools, later became Secretary General and then consultant to the PAHO, a position which he will continue to hold.

As pediatrician, Dr. Wegman has been professor of pediatrics and communicable disease at the University of Michigan Medical School. He has served as official examiner of the American Board of Pediatrics and as editorial board chairman of the journal, *Pediatrics.*

Among the honors bestowed upon Dr. Wegman in recent months, in addition to the Sedgwick Award, are the Walter P. Reuther Distinguished Service Award in recognition of his service to the community and to the causes for which the UAW stands. In the presentation to Dr. Wegman as the first recipient of this award, it was noted that "Dr. Wegman's career shows great concern for the welfare of all people and for health care as a right." Special mention was also made of his efforts in setting up the Southeastern Michigan Health Planning Council and his service on the Committee of 100 for National Health Security which drafted the so-called "Kennedy/Griffiths national health insurance bill." At a testimonial dinner in June co-sponsored by the SMHPC and the Michigan Department of Health, Dr. Wegman was honored by a Joint Resolution of the Michigan House and Senate, a special proclamation issued by the Governor and a declaration by the Mayor of Ann Arbor that June 22 was to be "Myron E. Wegman Day."

An additional honor is the Dr. Myron Wegman Lectureship which has been established by the United States-Mexico Public Health Association. This organization has afforded public health workers on both sides of the border an opportunity at their annual meetings to exchange ideas for mutual benefits and the lectureship has been established in honor of an American who has made an outstanding contribution in the field of public health. Dr. Wegman has been invited to present the first lecture in his name at the annual meeting in Hermosillo, Sonora, Mexico in April 1976.

Although retiring as dean of the University of Michigan School of Public Health, Dr. Wegman will continue as professor of public health and as professor of pediatrics in the medical school.

According to an account which appeared in *The Ann Arbor News* on his retirement, Dr. Wegman "is a man of great human understanding and compassion who has served the world, the nation, the University, the public and the cause of science well."

1941

Announcement has been received that **Gioacchino Parrella** and Sherwin Nuland ('55) are now associated in the practice of general, thoracic, and peripheral vascular surgery in Milford, Connecticut.

1942

Arthur Ward, professor and chairman of the Department of Neurological Surgery at the University of Washington School of Medicine, Seattle, has been elected president of the Society of Neurological Surgeons.

1947

Robert Chase, formerly Emile Holman Professor of Surgery and chairman, and acting chairman of the Department of Anatomy at Stanford University, has been named president and director of the National Board of Medical Examiners. He will also serve as a consultant in surgery to the University of Pennsylvania hospitals.

1952

In the November 11 issue of JAMA, it was noted that **Robert Winters,** professor of pediatrics at Columbia University College of Physicians and Surgeons, had been selected by the American Academy of Pediatrics to receive the 1974 Borden Award gold medal and $1000.

1955

Roger Lester is professor of medicine and head of the Division of Gastroenterology in the Department of Medicine at the University of Pittsburgh School of Medicine (University Health Center of Pittsburgh). Formerly associate editor of *Gastroenterology,* and currently serving on its editorial board, he is also associate editor of *Metabolism.*

According to a recent announcement, **Sherwin Nuland** is now associated with Gioacchino Parrella ('41) in the practice of general, thoracic, and peripheral vascular surgery in Milford, Connecticut.

1956

Rosalie Burns, acting chairman of the Department of Neurology at the Medical College of Pennsylvania, has been appointed professor of neurology.

1958

A note from **Lawrence Dubin** states that he has been promoted to clinical professor at New York University School of Medicine. His main field of interest and research is in therapy of male infertility problems; he is a consultant to the National Institutes of Health for research in the area of human male reproduction.

1959

In the fall issue, it was noted erroneously that **Bill Butterfield** is the chief of Surgery at the University of Connecticut Health Center. He is chief of Surgery at St. Mary's Hospital in Waterbury.

1960

Several months ago word was received that **Bruce Barron** has announced the opening of his office for the practice of obstetrics and gynecology. Dr. Barron's address is Atchley Pavilion, Columbia-Presbyterian Medical Center, New York City.

1962

Thomas Chase, formerly chief of the National Institute of Mental Health's Section on Experimental Therapeutics, has been appointed director of Intramural Research and scientific director of the National Institute of Neurological Diseases and Stroke (NINDS). He will also head a new laboratory of Neuropharmacology which has been created at NINDS to continue the basic and clinical studies begun in the Section. In his new position, he will direct a broad clinical and basic research program in the Institute's 16 branches and laboratories located in Bethesda.

Dr. Chase has served on the NIMH and N.I.H. clinical research committees, the NIMH Research Task Force on reorganization, the Food and Drug Administration's Neurology Advisory Committee and has been a member of the Scientific Council of the Committee to Combat Huntington's Disease and of the Foundation for Hereditary Diseases. He recently received the Diploma for Humanitarian Services from the Bolivian government and since 1971 has been a clinical associate professor in the Department of Neurology at Georgetown University School of Medicine.

1964

An excerpt from a recent letter from **Remo Fabbri:** "Saturday, November 23rd, developed into a most auspicious day: at 3:34 A.M. Nancy (Nancy B. N. Rash, Radcliffe '62 Bryn Mawr, M. A., '65, and Ph. D., '71) brought forth for us a 7 lb. 15 oz. baby boy, Gian-Dillman Rash Fabbri, whom we have named after a series of great-grandfathers, his maternal grandfather, and a great-uncle. All of this, of course, gave me just enough time to recheck mother and child at 8:00 A. M., and then travel to Cambridge with a fellow Harvard man, ecstatically observe the glorious Game, and then return home to recount the details to Gian-Dillman and Nancy! (N. B.: Gian is pronounced John as in John Harvard!)"

1966

Marian Melish, an assistant professor of pediatrics at the University of Hawaii School of Medicine, noted in a report to the American Pediatric Society and the Society for Pediatric Research last spring that she and her colleagues have diagnosed in ten patients in Hawaii a disorder well known in Japan but never before reported in the United States—mucocutaneous lymph node syndrome (MCLS). According to Dr. Melish, many other cases throughout the United States have probably gone undetected. She explained that some of the symptoms are also seen in the Stevens-Johnson syndrome, scarlet fever, and in infantile perarteritis nodosa, where almost all children die before the disease is diagnosed. In MCLS, only 2% of the cases are fatal, but the clinical course of these is undistinguishable from that of children who survive—until sudden death during the convalescent period. A more detailed description of MCLS as reported by Dr. Melish appeared in the Medical News section of the August 19, 1974 issue of *JAMA*.

1972

After two years at Yale-New Haven Hospital, **M. Felix Freshwater** is now at The Johns Hopkins Hospital as a fellow in plastic surgery.

Paul Lucky wrote last fall sending greetings from Washington and the N. I. H.: "We are finally getting settled and beginning to enjoy our new location. Despite all the recent publicity, the N. I. H. is still an exciting place to be and **Anne** and I are both enjoying the patients and the research. Still, we miss Yale."

Public Health

1951

Hector Acuna served as an official representative of the government of Mexico at the June 1974 meeting of the executive committee of the Pan American Health Organization held in Washington, D.C. At that meeting, the Committee supported the projected installation in Mexico of a Pan American ecology center which would have the support and collaboration of the Mexican government. The purpose of the Center would be to identify, evaluate and seek remedies for environmental-related health problems in the Hemisphere of the Americas. A subsequent note from Dr. Acuna informs us of a change of address—he is director of the PAHO in Washington, D.C.

Walter Wenkert and the Genessee Region Health Planning Council of Rochester (N.Y.) which he directed until July 1, 1974 have been presented the First Annual Richard H. Schlesinger Achievement Award in Community Health Planning. When the award was made at the annual meeting of the American Association of Comprehensive Health Planning, Mr. Wenkert "was cited for his 'significant contributions to the art and science of health planning'." From April 1955 until July 1, 1974 he was involved in the health planning and development systems of Rochester, Monroe County and the ten county CHP area served by the GRHPC. Along with these responsibilities, he taught courses in community health services, medical care administration and health planning at Rochester, Michigan and Columbia Universities and also served on a number of public health planning committees.

1957

Gaston Deslouches, as an official representative of the Government of Haiti, attended the June 1974 meeting of the Executive Committee of the Pan American Health Organization held in Washington, D.C.

1967

Charles Petrillo has been appointed Assistant Director of Health for Windsor, Connecticut.

Yale Alumni Fund

Medical School

Fund Officers for the 1973-1974 Annual Giving Campaign

Medical School Alumni Fund

Richard W. Breck, '45, Chairman
John B. Ogilvie, '34, Special Gifts Chairman
Abraham J. and Mrs. Schechter, '31, Parents Chairmen
J. Roswell Gallagher, '30, Bequest Chairman
Nicholas P. R. Spinelli, '44, Vice-Chairman
James M. Dowaliby, II, '67, Vice-Chairman

Public Health Alumni Fund

Kathleen Howe, '56, Co-chairman
Joseph Axelrod, '51, Co-Chairman

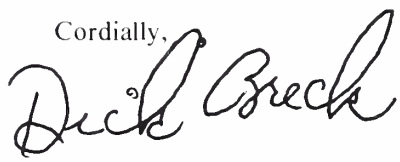
Dear Fellow Medical School Alumni:

I am pleased to report a very successful Medical School Alumni Fund campaign for 1973-74. The Medical School Alumni Fund received $105,261 during the 1973-1974 Campaign, compared with $98,116 last year. Even more notable, perhaps, is the fact that alumni participation increased from 43% in 1972-73 to 52% in 1973-74. Our percentage of participation was the highest of any of the graduate and professional schools, a fact of which we can be proud.

Solicitation for the 1974-75 Campaign is already under way. Jack Ogilvie '34 is retiring as Special Gifts Chairman, having given the Fund strong leadership and tremendous effort in that important area. I am pleased to announce that he will be succeeded by J. Edward Flynn '30 of Boston, Massachusetts. We are also now in the process of forming a Special Gifts Committee, giving emphasis to the geographic distribution of that committee.

I would like to express my strong personal thanks to Yale Medical School Alumni Fund donors who contributed so generously; the Medical School both needs and deserves the unrestricted support which is supplied through the Fund. I also want to thank the individuals who worked on special committees and as Class Agents, for they are the ones who made last year's Campaign a success and made it an exciting and enjoyable experience for me.

Cordially,



Richard W. Breck, '45
Chairman

Year(s)	Agent	No. of Donors	Total
1900-1906	Charles C. Murphy	2	453.00
1909-1910	F. Elmer Johnson	1	105.00
1911-1914	Maxwell Lear	6	110.00
1921	Barnett Greenhouse	5	200.00
1922	Edward T. Wakeman	8	335.00
1923	H. W. Weinstein	6	460.00
1924	Edward P. Allen	11	1,575.00
1925	Alice A. S. Whittier	17	643.00
1926	Maxwell Bogin	13	470.00
1927	Henry I. Fineberg	14	1,052.00
1928	Clement F. Batelli	15	2,283.00
1929	Paul F. McAlenney	27	1,697.00
1930	J. Edward Flynn	18	802.00
1931	Michael D'Amico	17	910.00
1932	Storer P. Humphreys	18	866.00
1933	Lee E. Farr	14	1,661.00
1934	Frederick Beck	13	6,025.44
1935	James Q. Haralambie	17	2,135.00
1936	Hannibal Hamlin	18	1,573.00
1937	Lorande M. Woodruff	18	768.00
1938	Nelson K. Ordway	14	1,952.00
1939	Robert G. Ernst	20	1,836.00
1940	Jack S. Blaisdell	21	1,645.00

Year(s)	Agent	No. of Donors	Total
1941	Charles B. Cheney	25	1,427.00
1942	Walter J. Burdette	24	1,355.00
1943 Med			
1943 Med March Group	Gerard Fountain	20	970.00
1943 Med (Dec.)	S. Brownlee Brinkley	31	1,670.00
1944	Nicholas P. R. Spinelli	31	5,006.00
1945	Richard W. Breck	38	2,160.00
1946	Julian A. Sachs	25	4,180.00
1947	Ellis J. Van Slyck	34	1,570.00
1948	Boy Frame	27	1,330.00
1949	Paul Goldstein	25	1,510.00
1950	Archie J. Golden	25	2,180.00
1951	Goffredo S. Accetta	28	1,720.00
1952	Harvey L. Young	33	2,490.00
1953	Vincent L. Gott	37	3,088.39
1954	John K. Rose	35	2,675.00
1955	Robert A. Kramer	49	1,760.00
1956	John H. Gardner	42	4,185.00
1957	Howard A. Minners	49	3,806.00
1958	Charles A. Hall, Jr.	47	2,895.00
1959	Lincoln T. Potter	50	3,198.00
1960	Thomas P. Kugelman	44	2,737.50
1961	Jon D. Dorman	39	2,151.00
1962	A. Richard Pschirrer	41	1,927.00
1963	Craig H. Llewellyn	40	2,135.00
1964	David P. Johnson	46	1,575.00
1965	David G. Campbell	44	1,360.00
1966	Richard J. Howard	43	1,016.68
1967	James M. Dowaliby, II	48	1,280.00
1968	Frank E. Lucente	37	799.00
1969	Lee Merrill Jampol	37	843.00
1970	James R. Missett	36	772.00
1971	John L. Cieply	40	1,723.50
1972	Paul A. Lucky	24	325.00
1973	David Bailey	23	270.00
Parents	Dr. & Mrs. Abraham J. Schechter (co-chairmen)	29	2,915.00
House Staff		94	2,695.13
Others (Friends & In Memoriam Gifts)			1,542.60
Medical School Alumni Fund	TOTAL	1,659	105,261.24
Public Health Alumni Fund	TOTAL		5,223.00

YALE MEDICINE

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Yale Medicine

Alumni Bulletin of the School of Medicine/Spring 1975

Yale Medicine

Alumni Bulletin of the School of Medicine/Spring 1975 Vol. 10, no. 2

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Photos: All photos except those on pp. 15, 17 and 20 by Bill Carter; photo top, p. 20 by Edwyn

This issue of Yale Medicine is rather like Janus. In looking to the future of medicine we learn of the progress and promise of fetal research through a recount of a conference on medical ethics; and with our article on commencement go our well wishes to the 185 medical and public health graduates of the Class of 1975.

In looking back we note the dedication of the Sterling Hall of Medicine fifty years ago; tell about Dr. John Fulton's contribution to the production of penicillin; and reminisce about the days when a distinguished colleague, Dr. Paul Beeson, was on the Yale faculty.

President Kingman Brewster Jr. brings us back to the present in a discussion of federal funding of education and research—a problem confronting private medical schools across the nation.

The Constitution is dead— Long Live the Constitution

Excerpts from an address by KINGMAN BREWSTER, JR. President of Yale University, at the Annual Dinner of the Fellows of the American Bar Foundation, Saturday evening, February 22, 1975, at the Palmer House, Chicago, Illinois

No one is more aware than I that the so-called private research universities are very dependent upon public largesse. I would estimate that the liberal arts and sciences institutions like Stanford, Harvard, Chicago, and Yale are at least one third financed by the national government. This is of course heavily concentrated in medicine and the physical sciences. In the case of places like M.I.T. and Cal. Tech. the degree of government dependence is much higher.

By and large, federal research grants and contracts, and federal fellowship and loan funds, have not been abusively administered. We have been insulated from the corruption which so often infests municipal and state and even federal service and construction contracts. This is largely because the decision about who gets what in the academic world is determined not by bureaucrats or politicians, but by panels of scientists drawn from outside of government.

For the most part, conditions and requirements have not been attached which would strike directly at constitutionally protected interests, such as freedom of expression, of association, or of inquiry. The non-communist disclaimer required of federal fellowship and loan recipients was repealed before it was authoritatively tested. Maybe it would have been stricken down as an "unconstitutional condition". It would not have been easy, however, for a student to gain standing to sue, simply because he was denied a loan on account of his refusal to sign the disclaimer.

Such dramatic invasion of clearly protected constitutional rights is not what bothers me today, as it might have been ten years ago. It might have been on the top of my mind even five years ago, during the late sixties, when "student unrest" tempted many politicians to seek to extend a federal police power onto the campuses in violation of personal as well as academic freedom. Now my concern is less dramatic, more persistent, perhaps more fundamental than such passing lurid crises.

My fear is that there is a growing tendency for the central government to use the spending power to prescribe educational policies. These are matters which they could not regulate were it not for our dependence on their largesse. I am worried that maybe we do not have any obvious constitutional basis on which to resist this encroachment. It will always be asserted that the government as grantor, lender, or contractor, has a legitimate interest in all aspects of our behavior, once they have financed any part of our activity.

When I say "the Constitution is dead; long live the Constitution", I mean merely to assert that even if there may be no legal basis to resist the conditions which the government imposes, there is still force to the values which the Constitution embodies: recourse to objective review of alleged abuse and limits on centralized regulation of local matters by Washington. I would assert that these values are no less valid and

deserving of vigilance when regulation takes the form of conditions attached to a federal grant than they are when regulation is direct, under color of regulating interstate commerce, or promoting the general welfare.

Certainly the sanction of withdrawal of federal support is at least as great as any conceivable financial penalty which might be imposed for violation of criminal or administrative law prohibitions or requirements.

Abuse for raw political or vindictive motives is no less conceivable in the administration of the spending power than in regulatory administration. An "enemies list" policy can be as effectively carried out by one route as by another. Indeed the difficulty of obtaining review of a denial of a grant or a contract makes the allocation or withholding of funds easier to manipulate for political purposes. This was precisely what was proposed, apparently in response to Presidential request, in order to get back at Jerome Wiesner for his opposition to the anti-ballistic missile program. Memoranda, said to have been approved by John Erlichman, urged that M.I.T. be deprived of Department of Defense grants and contracts as a technique of "disciplining" its President, later revealed to have been on John Dean's "enemies list". Leakage of the vindictive plan did threaten a backlash and the matter was dropped. One wonders, however, whether legal recourse ever could have protected M.I.T.'s interest if the policy had gone forward.

But even if such raw, "smoking gun" abuses might find their constitutional come-uppance, there have been other less flagrant, but equally pernicious, efforts to use the leverage of the spending power to "discipline" educational institutions. The most notorious was Congressman Hebert's persistent effort to deny all Department of Defense grants, for students as well as for research, to any institution which discontinued its Reserve Officers Training program. When this failed as a legislated condition, the Armed Services were so terrified of antagonizing the powerful Armed Services Committee, they withheld contracts and diverted officer graduate students from colleges and universities which had terminated their ROTC programs. The spirit of the Constitution was twice flouted, first by imposing the penalty of withholding support from activities which bore no relationship whatsoever to the "offense" of discontinuing ROTC, second, by using the pressure of a legislative committee to compel a policy which that committee could not prevail upon the Congress to enact.

Use of the leverage of the government dollar to accomplish objectives which have nothing to do with the purposes for which the dollar is given has become dangerously fashionable.

Take for instance the health manpower legislation which passed the last Congress but was not resolved in committee before adjournment. Comparable bills

have been reintroduced in the House just recently. With laudable motive and seeming plausibility, the proposed legislation seeks to remedy the shortage of primary care physicians and the obvious uneven availability of medical care throughout the country. It does not use the device of special assistance for the training of primary physicians, or special bounties for graduands who commit themselves to practice where they are most needed. It proceeds, rather, by telling the medical schools that all general support for medical education, the so-called capitation grants, will be withdrawn unless a school increases its general practice training and requires some proportion of their graduates to enter practice where there is a shortage of doctors.

Were it not for the federal financial support it would be hard to find warrant in the Constitution for federal regulation of medical school curricula. Even more dubious is the Constitutionality of requiring a school to draft some of its graduates, by lottery or otherwise, to serve involuntarily, in places not of their choice.

It is not sufficient to say that since the government is paying the bills, therefore it has a right to specify the product. This would be understandable if all that is being offered were special support for the program of special federal interest. To say, however, that support for all general educational activities of national importance will be withheld unless a school enlarges the program the government is particularly interested in, is to use the threat of cutting off aid for one purpose in order to accomplish another. What it does of course is to threaten the non-complying school with a hopeless competitive disadvantage generally if it will not go along with the favored program.

It smacks of the same coercion which makes the tying clause, or the requirements contract, vulnerable under the anti-trust laws. Such coercive use of the spending power is not a proper way for government to deal with its citizens.

I'm not sure what Constitutional grounds could be asserted to resist this leverage. But it does outrage Constitutional values to say that the curricular self-determination of medical schools must be forfeited in order to receive any general institutional support.

This same leverage is carried to far greater extremes in other federal legislation already on the books. It might be called the "now that I have bought the button, I have a right to design the coat" approach.

Thus if we are to receive support for physics, let's say, we must conform to federal policies in the admission of women to the Art School, in women's athletic facilities, and in the recruitment of women and minorities, not just in the federally supported field, but throughout the University.

As one who presided over the admission of women to a college which had been "for men only" for two hundred and sixty-seven years, and as one who also presided over a strenuous effort to recruit qualified minority students, I think I can be assumed not to be opposed to women's rights and equal educational and academic career opportunity for minorities and women. However, I do object to the notion that the receipt of a federal dollar for some purposes subjects a private institution to federal regulation and surveillance in all its activities. This is constitutionally objectionable, even in the name of a good cause such as "affirmative action".

The essence of Constitutional restraint, I was taught, is that the worthiness of the end should not justify objectionable means.

The farthest outreach of federal regulation under the banner of the spending power is the Family Educational Rights and Privacy Act, the so-called Buckley Amendment to the Education Act. Again, the purpose is laudable. Schools and colleges and universities should not be able to build up prejudicial files on students against which the student has no redress if he has no way of knowing what is in them. But it does not follow that the end justifies the means in this case either.

To use the vernacular of judicial dissent, I would have thought that the one member of the United States Senate wearing the Conservative Party label would have been especially alert to the evil of expanding federal regulatory power beyond its constitutional bounds simply because the spending power opens the gate. I doubt if anyone would assert that the student records of local schools and colleges are within the reach of direct federal criminal law. Under the Buckley Amendment, however, we forfeit our federal support for research as well as students from the Office of Edu-

cation if we do not comply with the regulatory requirements of access to student files imposed by legislation introduced by the Senator from New York.

I know there have been some inroads on the doctrine that conditions attached to a government grant cannot be attacked because the grant is a "privilege" not a "right". Since it is not a right, so the argument goes, the recipient has no standing to complain of any conditions imposed on him. Professor VanAlstyne has traced the erosion of this position at the hands of advocates and judges alert to the economic realities, which so often make government largesse a necessity for competitive survival. Still, in the legislative and in the popular mind, when the spending power is involved, there is a relaxed, "anything goes" attitude toward the spread of federal regulations.

Also apart from the traditional barriers to legal attack, there are practical inhibitions on redress. Financially weak institutions, like financially weak individuals, will think twice before bringing their indispensable banker or grantor into court.

Yet we all know that many activities once thought to be wholly private, whether for profit or for *pro bono* purposes, are increasingly dependent upon government funds. Government may be banker, it may be guarantor, it may be grantor, it may be contractor or purchaser. As such it has every right, indeed obligation, to be sure that every dollar is accounted for, to be sure that it is spent efficiently, to be sure that its uses comport with Constitutional requirements of equal opportunity and non-discrimination.

We have been insistent that criminal and administrative regulations should not go beyond what is rationally required by their stated purpose. We must be no less vigilant about the use of spending power as a lever to extend regulation beyond the accountability reasonably related to the purposes for which the support is given. This is crucial if we seek to remain a society which respects localism, which respects voluntarism, which respects the diversity of private initiative.

If I may be pardoned a bit of special pleading in the literal sense, I think that the independent sector of higher education is a specially sensitive case in point. Institutional diversity, autonomous trusteeship and faculty self-determination are the essence of the envied vitality of American higher education and its responsiveness to new fields of knowledge. The strengths would be lost if, as a condition of receiving a federal dollar for some purposes, were we to be subject to federal regulations for all purposes.

I take some encouragement and guidance from a little remembered warning in the leave-taking words of a great President of the United States, Dwight David Eisenhower. We all remember his warning against the mutual corruption of the military-industrial complex, and the dangers it held for our freedom. Hardly anyone remembers that he went on to say: "The prospect of domination of the nation's scholars by federal government, project allocation, and the power of money, is ever present, and is gravely to be regarded."

* * *

But if pleading as a college president is special, my plea as a neophyte Fellow of the American Bar Foundation is more general.

When to national security and minimal care for federal lands, and assurance of the free flow of commerce was added the awesome responsibility for the general welfare, lawyers took upon themselves the task of inventing doctrines, procedures, and practices which tried to keep administrative regulatory power accountable to the rule of law. When to welfare and economic responsibility was added the task of mobilization for total global war, even then the rule of law was not forgotten, in the court of price appeals and later in the judicial veto of executive seizure of the steel industry.

Now the pervasive impact of government upon the citizen, upon private institutions, upon the economy, is not primarily by direct regulation but by exercise of the spending and lending power, whether by grant or loan or guaranty, or contract or purchase.

High on the agenda of the profession, especially its scholarly branch, should be to see to it that in terms of both limits on authority and redress against its abuse, the coercive power of the federal purse is made subject to a rule of law.

It is high time that we learn once again to ask not only "Is your objective worthy?", but also, "Are the means you would use consistent with the values of the Constitution?"

"The Constitution is dead: long live the Constitution."

The Ethical and Legal Problems of Fetal Research

Editor's note: *The following text was excerpted from the Conference for Medical and Human Values, held on December 5, 1974. The conference was one of a series on problems in human values as they relate to clinical practice, teaching, research and health delivery, which have been held each month throughout the academic year at the School of Medicine.*
The introduction was written by Dr. Maurice J. Mahoney, associate professor of human genetics and pediatrics, who was a participant in the conference, and who works for the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research.

Introduction:

Several significant advances have been made in fetal medicine in the past few years. The fetus in distress can be identified prior to and during labor so that corrective procedures can be initiated; erythroblastosis fetolis can be prevented in most instances and, if not prevented, can be diagnosed and treated in utero; fetal lung maturity and hence, readiness for extrauterine life, can be predicted by studies of amniotic fluid; and amniocentesis can lead to diagnosis of many inherited diseases during early fetal life. These successes have spurred increased interest in fetal research.

At the same time controversy has arisen over the conduct of fetal research in light of the extreme vulnerability of the fetus and the ethics of abortion. Especially problematic has been the participation of fetuses in research prior to, during, or after induced abortion. The United States Congress, in part responding to this controversy, established a National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research a year ago and placed a temporary moratorium on research involving live fetuses before or after abortion. The Commission was charged with developing recommendations for future fetal research and has just recently completed that task. These recommendations provide for continued fetal research under careful, stringent guidelines and require review by a national ethics review body of proposed research that entails risk to the fetus or may raise significant controversy.

The case discussed in this conference was the first diagnostic application of a technique to draw fetal blood from a placental vessel under direct vision, a technique which had been developed at Yale prior to the moratorium on fetal research. The diagnostic information, obtained in collaboration with hematologists in Boston, predicted that the fetus did not have beta thalassemia major. Since the conference, the pregnancy has been completed without problem and a full term, healthy baby was born.

The conference:

participants:

Dr. F.C. Redlich, *professor of psychiatry, moderator*
Sr. Margaret Farley, *associate professor of Christian ethics, Yale Divinity School*
Dr. John C. Hobbins, *assistant professor of obstetrics and gynecology and diagnostic radiology*
Dr. Maurice J. Mahoney, *associate professor of human genetics and pediatrics*
Prof. Burke Marshall, *professor of law and deputy dean of the Yale Law School*
Dr. Leon E. Rosenberg, *professor of human genetics, pediatrics and medicine, and chairman of the Department of Human Genetics*

Dr. Redlich: Dr. Mahoney, will you please present the patient history of the case we will discuss today?

Dr. Mahoney: This case, in which Dr. Hobbins and I have recently participated, is the first case of its type at the Yale-New Haven Medical Center. It follows the line of research which Dr. Hobbins and I have pursued during the past two years to develop a capability of sampling blood from a human fetus relatively early in pregnancy.

Our patient is from the Boston area. She is thirty years old and has two children with beta thalassemia. She also has a normal child.

Beta thalassemia is a blood disease inherited as a recessive trait from both parents. Therefore, this couple has a one-in-four risk of having each pregnancy result in a child with disease. Affected persons usually are of Mediterranean origin; in this country they are mostly of Italian or Greek origin. Other names for the disease are Cooley's or Mediterranean anemia. It is characterized by very severe anemia from early infancy. From that time, the patient requires repeated blood transfusions in order to remain in reasonably good health.

Even so, there is chronic fatigue and limits to a normal life. With time, and largely as a consequence of continuous transfusion therapy, iron deposits build up in crucial organs, including the heart, causing most of these patients to die of heart failure in late adolescence or early adulthood.

The disease is not one of intense pain, and retardation is not associated with it. The main limitation is fatigue and inability to fully participate in childhood activities, until damage of the liver and other organs occurs in the several years before death.

When our patient became pregnant she did not know there was an ability to diagnose an affected fetus. She learned about it through the hematologist treating her children, Dr. David Nathan, at Harvard Medical School, who described the kind of experimental approaches for diagnosing thalassemia in the fetus that we had been developing at Yale for the last two years.

We have used an endoscope or fetoscope, which enters the uterus through the mother's abdomen, and allows us to see inside. This is a small instrument, about two and a half millimeters in diameter. If the placenta is favorably located within the uterus, we can see its surface, including blood vessels carrying fetal blood. Along with the fetoscope we introduce a very thin, 27-gauge needle with which we draw blood from one of these placental vessels. We usually collect the blood as it flows into and mixes with the amniotic fluid.

We have developed this work with women having abortions for social reasons, who have cooperated with us in this research at the time of abortion. In the two years, we have withdrawn fetal blood in this manner twenty times and have attempted to visualize the fetus, without drawing blood, another forty times. We have developed considerable expertise in our ability to see inside the uterus and to draw fetal blood.

Hematologists in the United States and in countries abroad have demonstrated that if you could draw blood from the fetus you would have the potential for diagnosing a disease such as beta thalassemia. While we have been working with a fetoscope, trying to place our needle under direct vision into a placental vessel, others have been trying to draw blood from the placenta without direct vision, but with ultrasound information.

This latter approach was attempted twice with our patient by physicians in Boston, when her pregnancy was 16 weeks gestation. When the attempts failed, she was informed of the techniques available here. She came to us when her pregnancy was about 20 weeks gestation. Our initial attempt to introduce the fetoscope was unsuccessful, probably due to conditions caused by the two previous procedures, which introduced blood into the amniotic fluid.

We discussed with our patient the options of not trying again, or of trying again in two weeks. She opted for trying again, if there were some assurance that the conditions would be more favorable. We were successful in obtaining fetal blood from the placenta on this second try, and the diagnostic studies of the blood suggest that the fetus does not have beta thalassemia. We cannot say for certain that the data are incompatible with a diseased fetus, since this kind of prospective diagnosis has never been verified before. We believe, though, that the diagnostic information we have argues against a diseased fetus, and that is what we told the parents.

The parents made no verbal commitments about their course of action. They approached their discussions with us, as well as their physicians in Boston, as a desire to gain information. They were asked to think through the question of aborting a diseased fetus. I'm sure they did give it considerable thought, although they did not make a commitment to us—nor, we suspect, to themselves, as to what course they would take if they had been told they had a diseased fetus, or if we had not been able to offer any diagnostic help.

The woman was 22 weeks pregnant when we made the second test, and the diagnostic studies were completed within three days. This would have allowed her to elect abortion within the Supreme Court guidelines, which make abortion elective at the discretion of the mother and physician up to 24 weeks.

At present, one month after the procedure, the pregnancy is proceeding without any difficulty.

Dr. Redlich: This case raises a number of very important ethical and legal questions. Dr. Rosenberg, will you please continue our discussion?

Dr. Rosenberg: The procedure which Dr. Hobbins and Dr. Mahoney offered to this patient is a logical extension of diagnosis for this disease. In medicine, we are always faced with the question of what alternatives are open to us in understanding and treating the patient—to limit disability, to relieve suffering or to prevent death?

We know that the ability to diagnose beta thalassemia in a young infant or child is not difficult. We also know that our ability to treat this disease effectively is nil. We know that children with this condition have a history of repeated hospitalizations, with innumerable transfusions which usually result in death from iron-overload and progressive failure of the pancreas, the heart or the kidneys. This disease has been known for a long time to have a dismal prognosis.

Hence, when one asks if there is a way to provide definitive information to a family like the one described, already bearing the burden of two afflicted children, it seems to me that the idea of proceeding to diagnosis by fetal blood sampling, changes the issue for this family from whether or not they have a one-in-four risk to an absolute statement of "yes, the fetus is affected", or "no, the fetus is not affected".

Clearly, the alternative is based on the belief that the test one is doing, can, in fact, provide that reassurance. If one believes, as I do, that the test does carry that assurance, then I would say that it fulfills my criteria for it being an eminently justifiable procedure.

I would like to quote from an article that Dr. Arno Motulsky, from the University of Washington, Seattle, wrote recently in *Science:*

"An ethical system that bases its premises on absolute pronouncements will not mutually be acceptable to those who view human nature by evolutionary criteria. New knowledge and new ways of coping with nature offer new and different challenges which the past cannot necessarily help us with. Many persons feel that the consequences, immediate and remote, of a given act, should be the sole criteria of judging whether the act is good or bad. Such an ethical system knows no absolutes, no black and white, no arbitrary do's or don'ts—but must laboriously draw up a balance sheet about the consequences of man's acts. Most of us are philosophic utilitarians. That is, we want to do the most good for the largest number. We want this goal achieved by consequence rather than by edict, and we value creative action."

Dr. Redlich: This raises immediately one of the most important questions of ethics in general. Is the utilitarian point of view, applied to this particular case, justified, or can one take another point of view, which is to go by absolute rules, as some philosophers do?

Professor Farley: Obviously, in the case we are studying, there are many agents involved in decision making. The parents, particularly the mother, and the physicians are all viewing the procedure on different levels. There are many ethical considerations which one could apply to this case; the question of possible abortion, the cost-benefit question, in light of the seriousness or non-seriousness of the illness, or the ethics of genetic counseling in general.

I would like to focus on one particular group of questions. I think you would have to say that this procedure, a diagnostic test with the use of fetoscopy, and the particular instruments that were used, is still at the level of experimentation. It therefore offers us a very clear case, where we can begin to ask how traditionally accepted principles regarding human experimentation can be applied on what are now wholly new situations.

Dr. Mahoney mentioned that in considering informed consent in this case, it was impossible to have informed consent from the fetus itself. That is certainly a superfluous question for some. For others, it is a very important question. They would translate it into the possibility of a representative agent for the fetus. Even if one looks at it in this way, one of the questioned principles for human experimentation is that the patient, especially if the patient is unable to give consent, must be receiving some benefit from the procedure.

Who is benefiting from the procedure? If the mother or the family as a whole is considered the patient, there are benefits envisioned. If the family can know with relative certainty whether or not the fetus is affected, they may decide to abort. That is very important to their understanding of their life as a family, and their capabilities as a family to care for this child. But, what about the fetus? In this case, I suggest we must consider the fetus because it is being allowed to come to term, and be born. Everyone is looking forward to a reality—the child—which will have undergone an experimental procedure. Supposing that this fetus is damaged, not by the disease, but by the procedure that was performed on it? Then we have to take into account the risks and benefits for that reality, as well as for the parents.

In discussions about the principle that the patient has to derive some benefit, a procedure often is regarded not as merely pure experimentation, but also as an instance of therapeutic treatment. From Dr. Mahoney's description this is a case where therapy is not possible during fetal life. In these kinds of cases, after all the principles are delineated, what kinds of benefits would count? We hope that it would be life saving, or rehabilitative, or that it will be life prolonging. Do any

of these apply to this case? In a sense they don't.

You see the difficulty in trying to apply these very important principles in a case like this. What about the risks? The fetus is being brought to term. Some months ago Dr. Mahoney reported the risks in such a procedure could be fairly serious. Sometimes the fetus moves when the procedure is being performed. It is unknown what the use of the ultrasound equipment to that extent, that many times, is going to do to the fetus. This is the first time the procedure has been used on a fetus that will be brought to term, if all continues to go well.

In an article published in the *New England Journal of Medicine* last May (1974), Dr. Hobbins and Dr. Mahoney stated that until that time only women who had already decided to abort were being used as subjects for this experimentation. The next step would continue to use such subjects for experimentation, but the time of abortion would be delayed so there would be further information after the test was made. If this step hasn't been taken I think we might raise serious questions about offering this procedure as a diagnostic procedure at this time.

Dr. Hobbins: First I'd like to respond to the question raised by the article in the *New England Journal of Medicine.* We were going to postpone abortion in a few cases to see what the immediate effects of our procedure would have on a pregnancy. We have done this in twelve cases and have postponed the abortion from between six and 24 hours. During this time we have monitored the fetus and we have been able to demonstrate that continued fetal blood loss does not occur. So far, no patient has gone into labor, or had any unusual contractions or even a uterus that has become irritable. One patient had rather intense discomfort which abated after 15 or 20 minutes.

We have been able to calculate blood loss from the fetus at different stages of gestation and learned that it is very important to postpone the procedure until the fetus is at least 18 or 19 weeks, because blood loss prior to that time might jeopardize the fetus.

I also have data on continuing pregnancies in a Canadian experience. They have postponed abortion for two weeks in seven cases without any difficulties.

As to more subtle problems that we might find, we are concerned about light; we do have some evidence that the eyes of the fetus are closed, however. As to questions about fetal movement, with the help of ultrasound we can pretty much pinpoint exactly where the placenta and vessels lie. I worry less about fetal movement when we are drawing blood than I do if we are going to visualize a specific area of the fetus.

The risk factor is obviously something to think about, but as we gain more sophistication and expertise, the risks will be minimized.

Dr. Redlich: Now we have some idea of the ethical and clinical problems involved in the case. However, at this time there are some very serious legal problems before the courts. Professor Marshall, would you address yourself to these problems?

Professor Marshall: I have spent considerable time with Dr. Mahoney and Dr. Rosenberg in discussions on this general area. They accuse me of always asking questions and never giving answers! The fact is that there aren't any complete answers. The best a lawyer can do is identify areas where problems or legal questions may be raised in the future.

This fall the Senate passed a federal law aimed at the protection of human subjects. In the course of deliberations on the bill, Senator James Buckley of New York introduced an amendment which would have prohibited any federal funding for experimentation on living fetuses.

In a meeting that proposed the amendment, which by the way, got a good deal of support, a compromise was worked out by the author of the bill, Senator Edward Kennedy, which left the matter in abeyance. Presently there is a ban of federal funding by the Department of Health, Education, and Welfare, of experimentation on living fetuses, which will be or have been aborted, pending study by a commission which was established by the Act.

Traditional legal problems which rise from this kind of experimentation are the matter of consent, and the matter of benefit-risk. Professor Farley has referred to these matters and, as is often the case, ethical and legal questions coalesce. The analogy here is the consent of a parent for a child.

There are lots of children who could no more give informed consent about something being done to them than a fetus could. Thus, you could say that parents can consent to something done to a fetus.

Under the law in some states, a parent's consent to medical treatment is legally ineffective unless it results in some benefit to the child. If that is to be the test then you would have to, for legal reasons, make the determination whether or not there is some benefit to the child, and if the fetus stands in place of the child.

This results in the following peculiar situation. The benefit to the fetus in this situation, could be imagined only if there had been a decision to abort the fetus in the absence of knowledge, one way or the other, whether or not the fetus was affected with a disease. As Professor Farley pointed out, the facts in this case were otherwise.

The risk question is a conditional one, it seems to me. In any new medical procedure there are some risks, simply because it is new. The medical personnel who have worked on this problem have given it as much care as can be given, and in fact, it seems this is

not a case where problems are not fully exposed to the only patient who is fully capable of receiving them—the mother.

There is, in the Protection of Human Subjects Act, and traditionally in a legal and ethical consideration of human experimentation, another problem of benefit-risk analysis to be considered—the benefit to society versus the risk to the subjects of experiments. If you take that kind of approach then you take into consideration not only the fetus, but the rest of the family, the mother, father and other children, as well.

Those kinds of benefits are impossible for society to judge. The family will have to judge for themselves. That is the present situation. However, for many years the legal situation in this country was that society did make that kind of judgment by prohibiting abortion in most instances. The Supreme Court now says that it is constitutional to abort a fetus if it is less than six months gestation.

There is one final point I would like to make about the legal situation in this case. This is a typical example of *scarce resource.* Dr. Hobbins and Dr. Mahoney have a fetoscope with a visual capability, which as I understand it, few other people have. If this diagnosis is successful and there are other diseases which could be successfully diagnosed this way, but could not be diagnosed by amniocentesis, the number of patients is probably larger than they could handle. So you have a typical example of scarce resource where doctors have the job of selecting which patients to treat.

In conclusion, I would like to mention a case in Massachusetts, where the consent of parents for medical treatment of a child is legal acceptance of benefit to the child. The case involved a kidney transplant from one identical twin to another. The twins were 14 years old.

The problem of the parents' consent was that it was not clear what the benefit was to the child from whom the healthy kidney was taken in order to be transplanted into his twin. The doctors in the case were nervous about conducting the operation and they went to court.

There was testimony as to the psychological harm to the healthy twin if his twin had died as a result of not being able to have the benefit of his transplanted kidney. On that basis, the court ruled that there was benefit of operation to the healthy twin as well as the ill twin.

Dr. Rosenberg: You wouldn't like to extend that argument to the issue in question, would you? The issue of whether the anxiety in the mother related to having another child with beta thalassemia might have been a very real issue in the benefit side of the question. Do we not have to think beyond the issue of whether the benefit is not to save the life of that fetus, but the *quality* of life of that child, based on maternal-child bonds?

Prof. Marshall: There are really two patients involved here, the mother and the fetus. Some people would argue that the fetus isn't a patient at all. If the analogy of parent-child consent is taken, and that was my point, then the benefit to the mother doesn't count in terms of the consent in behalf of the fetus, but there is a clear benefit to the fetus if it was going to be otherwise aborted.

Dr. Rosenthal: No. I think there is a clear benefit to the fetus if there is a question of what prolonged maternal anxiety does to her ability to relate to either the unborn or the new born child.

Prof. Marshall: That is a benefit-risk that I would not care to judge. We are judging the benefit of no life as against the benefit of a life that has problems. That's the kind of judgment that I find difficult to make.

Prof. Farley: If the infant, who has some prenatal procedure performed on it, is born with some kind of defev it is not inconceivable that that infant could some day in his or her life take somebody to court for having been damaged. In other cases people with genetic defects have argued that they have a right to die and that the wrong decision was made to let them live. That could have been the case in this example. It could work both ways.

Prof. Marshall: To answer the first question, that is what I call a traditional problem with any new treatment. In a new treatment that hasn't been used much before, you just can't ever know for sure that there isn't going to be some damage from it, but that is a problem that is a matter of care and disclosure. In this case both care and disclosure were used.

Dr. Redlich: To some extent this discussion has been based on the premise that the fetus is a person and that harm to a fetus is harm to a person. I think we ought to have more discussion of this and I would especially like to hear from Dr. Mahoney, who is now involved in hearings on this subject in Washington, D.C.

Dr. Mahoney: In my work in fetal research I pay attention to several factors. One is the concept that the fetus is part of the human life continuum. I don't try to answer the question of what stage it has the human attributes of a child, with a nervous system that functions in a way that a child's does. It certainly is a part of the human continuum from the time of fertilization. In developing experimental techniques that try to gain knowledge about the fetus, we have done so with that view.

We are willing to examine fetal stages of life because we feel a demand to diagnose and treat fetal disease. If we do otherwise, we say that the fetus has

no rights to benefit from medical advances.

We also view the fetus as I, trained as a pediatrician, view a new born infant. I would not do things to it in the process of gaining information that seem to inflict pain, to cause disfigurement, or to do violence to a general societal view of human experimentation. I think that most people working in fetal research have carried that kind of idea with them in accepting the fetus as a patient with which experimentation could proceed. This is not universal. Unfortunately, there have been other kinds of fetal research done in which there have been destructive manuevers with the fetus which would not be carried out in living or dead human beings born after full gestation. Some of that research was the impetus to the law that Professor Marshall mentioned.

The commission that was established by that law had its first meetings in early December. I am working for the commission to document fetal research that has been done to generate ideas about the future direction of fetal research.

I believe the commissioners come to the problem with very open minds, recognizing that there are parts of our society that do not believe that any fetal research should be done, and there are other parts of the society which believe that fetal research is not different than any other kind of medical research, and that we should dispose of the metaphysical problems and allow the medical teams to progress.

Both the commission and the staff with which I am working hope that the commission's recommendations will gain national and international credence. The discussions that take place are multi-disciplinary, involving community members, ethicists, lawyers, and people from medicine and other kinds of bio-experimental backgrounds.

Finally, one view that I carry to fetal research, is that I am forced to accept some kind of utilitarian analysis of what I am doing because I recognize that once one finishes working with fetuses which are being aborted, and is willing to take the next step, we do it partially in the dark. We have done our background work as well as can be done. There has been a lot of experimental work on large animals, both primates and other large animals, that indicate that this kind of manipulation does not carry high risks, but in actuality, we don't know whether it does for the human fetus.

For me to take the position that I am unwilling to take the next step and apply the technology in a real-life situation, also says that I am unwilling ever to bring medical advances to the fetus. I can't take that position. I recognize that I do risk these first fetuses in an unknown way, more than I will in a year or two years from now. Hopefully, these first attempts will go smoothly.

When we talk to these patients, we help them understand that they are accepting larger risks than future patients will have to accept. I think the human community has to have people who are willing to do this, or we won't progress.

The consent form the patient signed at Yale states:

"In response to your request to diagnose the presence or absence of beta thalassemia in your fetus, we shall use a new technique of fetoscopy and fetal blood sampling from the placenta, or after birth. There are low risks to amniocentesis, with or without fetoscopy. The most significant risk is causing miscarriage. The experience in this hospital and elsewhere does not suggest that fetoscopy or sampling human blood increases these low risks in the first several hours following the procedure.

"However, very few pregnancies have been allowed to continue after fetoscopy and there is almost no information as to the risk of delayed miscarriage, prematurity or other unforeseen problems of the pregnancy. From animal work and other kinds of procedures in pregnant women, we do not consider these risks to be high, but we recognize that at present they are unknown in human pregnancies.

"If successful obtaining of fetal blood can be accomplished, we believe that the test to be employed can accurately diagnose the disease in question, but cannot give information about many other diseases.

"You may withdraw from this investigational project at any time, and continue with appropriate obstetrical management of your pregnancy. We will share all fetal diagnostic information with you, and you are encouraged to ask any questions as we proceed."

Dr. John Fulton and Penicillin

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Dr. John Farquhar Fulton, the late Sterling Professor of Physiology at Yale, is most often associated with neurophysiology. Little is known about the supportive role he played in bringing penicillin to the world.

The development of penicillin may be divided into three phases:[2,8] First, Dr. Alexander Fleming's observations in 1928 that staphylococcal colonies on a culture dish would undergo lysis in the neighborhood of a contaminating mold, *Penicillium notatum*. He named the filtrate of the mold broth "penicillin," but did not isolate the active substance or demonstrate its therapeutic usefulness. Second, the work of Drs. Howard Florey and Ernst Chain begun in 1939, leading to the successful extraction and purification of penicillin and the demonstration of its therapeutic properties. Third, commercial production by pharmaceutical companies in the United States under the direction of Dr. A. Newton Richards of the Committee on Medical Research.

John Fulton aided in the latter two phases in the advent of penicillin.

It all began when John Fulton of the United States and Howard Florey of Australia, both Rhodes Scholars, met at Magdalen College, Oxford.[4] The friendship begun at this time was to last for the remainder of their lives (Fig. 1).

In 1940 as England was enduring the onslaught of German bombers, Florey sent his two children, Paquita, aged ten, and Charles, aged five, to live with John Fulton and his wife in New Haven. The children remained in the United States with the childless Fultons for the ensuing war years.[4,5]

After laboriously perfecting the penicillin extraction technique with the aid of a dedicated research team, Florey and his wife, Dr. Ethel Florey, and Dr. C. M. Fletcher, in the winter of 1940-1941, successfully treated four of six patients with infections resistant to sulfa drugs. The clinical promise of penicillin revealed in these few initial trials strongly indicated the desirability of large-scale production which was impossible to accomplish in war-torn England.[1]

In July, 1941, Florey and his associate, Dr. Norman Heatley, with backing by the London office of the Rockefeller Foundation, flew to the United States. Their intention was to explore the possibility of mass production of penicillin in the United States, a country not yet involved in the war raging in Europe.

After arriving in New York City, Florey and Heatley went to stay with John Fulton in New Haven. Fulton, eager about the potential of penicillin and pleased to help his good friend, began telephoning around the United States in an effort to assist Florey in getting the aid necessary. Fulton began by introducing Florey to Dr. Ross G. Harrison, Professor Emeritus of Zoology at Yale and Chairman of the National Research Council (N.R.C.). On 6 July, 1941, in his diary, Fulton transcribed his letter of the same date to Sir Edward

"They [Florey and Heatley] came up Thursday evening, July 3rd, and Stanhope Bayne-Jones, our bacteriologist, and former Dean of the Medical School, who is much interested in *Penicillium*, spent the evening with them. He was much impressed by Florey and Heatley's report of their laboratory findings as well as with their early clinical results. On the fourth we had a large gathering of medical and scientific people at lunch time to meet Florey and he had opportunity to discuss his work with Francis Blake who is Chairman of our N.R.C. Committee on Infectious Disease, Drs. John Paul and James Trask who are also much interested in problems of chemotherapy. Ross Harrison was in New Haven, on Saturday, the fifth, and Florey and Heatley spent part of the morning with him. Harrison, as you probably know, is Chairman of the Executive Committee of our National Research Council. He is putting Florey into touch early this week with Dr. Burroughs, permanent secretary of the Council, who will enable Florey to avoid any legal or patent entanglement as far as penicillin is concerned, and with Dr. Thom of the Department of Agriculture, our foremost mycologist and authority on *Penicillim*. Thom will be able to give him the best possible advice about the feasibility of large scale production of penicillin and [Lewis] Weed and the Medical Division of the Research Council will be able to give assistance in any therapeutic testing that may be required.

"He will of course keep you posted on further developments as far as large scale production of the mold is concerned and we shall on our part do everything possible to bring his mission to a successful outcome. As you perhaps know, Florey is an old friend of mine."

Florey was then referred to the Department of Agriculture. The Northern Regional Research Laboratory of the Department of Agriculture in Peoria, Illinois, were suggested to Florey as the best place to go since there were many researchers there with wide experience in fermentation processes. The major problem that Florey faced with the low yield of penicillin from the mold broth with his methodology, limited equipment and meager funding. Through association with these laboratories and their superior resources, the production methods were modified and the yield of penicillin increased tenfold.

By September, 1941, Florey turned over the clinical testing of penicillin to Dr. Lewis Weed of the N.R.C. and returned to Oxford. The penicillin production program was a combined effort of Dr. A. N. Richards, Chairman of the Committee on Medical Research of the Office of Scientific Research and Development (O.S.R.D.), and the pharmaceutical companies.

In addition to drawing on his wide contacts and friendship with the scientists in this country who could help Florey most, John Fulton also played a role in the initial clinical testing of penicillin. The first patient to be treated in the O.S.R.D. program was Mrs. Ogden Miller, the 33-year-old wife of Yale's athletic director. Having developed a streptococcal septicemia after a miscarriage, she was a patient in the Yale Medical Center where John Fulton was also a patient, having contracted coccidioidomycosis while visiting military installations in the San Joaquin Valley as a member of the N.R.C. Committee on Aviation Medicine. Her physician, Dr. John Bumstead, was also Fulton's physician. He prevailed upon Fulton to obtain some of the new drug for Mrs. Miller. On Saturday, 14 March 1942, after four weeks of 103° to 106° temperatures, she received her first dose of penicillin. The following is from Fulton's diary entry that day:[10]

One of the few existing photographs of John Fulton (left) and Howard Florey together. It was taken at Mill Rock, the Fulton home, in 1958.

"My physician, John Bumstead, has been looking after her, and knowing that I knew Florey and that we had his children, Bumstead asked on Thursday whether it might be possible to get some penicillin and try it as a last resort. I wired Dr. Heatley (Dr. Florey's assistant who is still in this country helping to get the production of penicillin organized; it is extracted from a special strain of a slow-growing mold *Penicillium*). The Medical Director of Merck's replied that it had not yet been given clinical trial, and implied that their limited supply was in the hands of Prof. A. N. Richards, Chairman of the Committee on Medical Research. I ran Richards to earth on the telephone Thursday evening in Washington; he said that he had turned penicillin over to Perrin Long, Chairman of the N.R.C. Committee on Chemotherapy. Long got in touch with Bumstead with the fortunate result that he released 5.5 gms., the first, I believe, to be made available for clinical trial."

Dr. Fulton noted the change in the patient's course after administration of the penicillin:[10]

"It arrived air-mail Saturday morning and a small trial dose was given at 3:30 Saturday afternoon. This was tolerated well so they then gave larger doses every four hours. By 9 A.M. Sunday her temperature was normal for the first time in four weeks and has stayed normal until this writing (noon Monday). She has eaten several enormous meals—also for the first time in 4 weeks. It really looks as though Florey had made a ten-strike of the first water, and I am glad that we have had opportunity to make the first clinical trial of the American extract here."

One week later Fulton recorded further details:[11]

"This week the hospital has been every excited because of the extraordinary results which have followed the first clinical trial of Howard Florey's penicillin. I mentioned last week the case of Mrs. Ogden Miller, who for four weeks had been going downhill with what appeared, on the basis of all previous experience, to be a fatal hemolytic streptococcus septicemia. She had had a temperature ranging from 103° to 106.5° steadily for four weeks despite liberal administration of the sulfa drugs and had 50-100 or more bacteria per cc of blood. On Saturday the 14th, when the first dose of penicillin was given, her bacterial count was still well over 50 and temperature 105°. Her temperature had returned to normal by 4 A.M. Sunday, she had 1 bacteria per cc that day and Monday, and thereafter three completely sterile blood cultures on successive days. Dr. Bumstead was fooled by the fact that her temperature rose a degree or two during Tuesday, Wednesday, and Thursday, but since the blood culture remained sterile he decided that it might be due to some impurity in the penicillin and withdrew the penicillin early Friday, whereupon her temperature dropped and has remained so until today, Monday, March 23rd, with blood culture still sterile. It is still too soon to say that she is cured, but the response has been most dramatic. The 5 gm of penicillin which were used cost many thousands of dollars to produce since they are still in their experimental stages and on Sunday Dr. Heatley, Florey's assistant, who came over with him from England, came up to New Haven to carry back the week's urine to Merck as nearly 70% of penicillin is completely unchanged in the urine and can be recovered. He expects to get 3 gm or more, which will be an enormous saving. In other cases which respond in this way, millions of dollars will be invested in the production of the new drug.

It seems to be a peculiarly difficult problem to grow the mold in sufficient quantities and to extract the agent from the mold. The active principals have a low molecular weight and they are of course hoping to discover a formula and synthesize it, but all this is in the future."

Fulton continued to record Mrs. Miller's response to the penicillin and notified Florey:[12]

"Mrs Miller remained fever-free for a full week, but on Friday she had a slight elevation, so a few more doses of penicillin were given which caused her temperature to drop promptly. Although not yet entirely cured, her fever can be almost instantly controlled by giving the substance and it looks as though she were clearly out of the woods. Jack Bumstead is very cheered about the whole thing. I wrote a long letter to Florey telling him of the good news. We had a letter from Ethel Florey saying that she had given up work in the Oxford Blood Transfusion Service and was devoting her full energies to penicillin. Apparently it has remarkable effects when applied locally to eye infections."

Another of Fulton's diary entries was made three weeks after beginning the penicillin therapy:[13]

"Mrs Miller continues to thrive and it now seems probable that she is cured. During the week we had rumors of the Winthrop Chemical Company's having also produced penicillin and the grapevine has it that they have learned how to synthesize the product which will give an enormous advantage, since it can now be produced only by the laborious process of growing the mold and extracting it. But this is still unconfirmed. I reported it to Heatley and had a rather excited letter from him, since he is with Merck and apparently had not yet had the information."

Mrs. Ogden Miller in 1974, holding a photograph taken after her illness, showing Dr. Francis Blake, then dean of the Yale School of Medicine, Mrs. Miller and Sir Alexander Fleming.

Fulton later recorded Florey's reply to his letter:[14]

"A letter came this week from Howard Florey dated March 29th in which he remarks:

'I am having to do a good deal of the penicillin extracting myself as I found that the girls and the technician who had done a lot of work with amyl acetate were somewhat anaemic and had indications of a leucopoenia so I have had to switch people about, and now have to rot my own bone marrow. However the process has been a good deal improved and we don't get much in the way of fumes.

'Supplies are very limited here but my wife is busy at the hospital exploring the possibility of using it locally for sterilizing infected wounds. She is doing mastoids at the moment with not altogether discouraging results and also treating chronic sinuses which can be sterilized alright, but are usually damnable things to heal anyway.'

"The substance is evidently proving enormously useful in some of the more prominent sections such as mastoid, sinuses, etc. Mrs. Miller has been for 12 days fever free and is evidently cured, 12 days that is without penicillin. A new case came along five days ago of staphylococcus septicemia, a man of 60 who had been moribund for more than a week with 150 bacteria per cc in his blood and a skyrocketing temperature. He was given penicillin at 4 P.M. on Tuesday, April 14th, and by midnight that night his temperature returned to normal, he recovered consciousness and the next morning there was only 1 bacteria per cc in his blood. Thereafter it has become sterile and temperature has continued normal. It is really a most startling business."

Mrs. Miller recovered completely. Three years later Alexander Fleming, on a tour of the U.S., met her and proclaimed her his "most important patient."[3]

I visited Mrs. Miller at her home recently where she posed for a photograph (Fig. 2). She said that she recalled little of the treatment as she was so ill at the time; however, she did remember the messenger arriving with the life-saving penicillin in a plain brown bag. She recalled as well that, shortly after intravenous injection of the brownish solution, she noted a sensation which she likened to the "odor of mustard."[6]

The production of penicillin was so successful in the United States that, by D-Day in Normandy, 1944, there was sufficient penicillin to treat all severe casualties, both British and American.[7]

In 1945 the Florey children left the Fulton home and returned to England.[5] The same year the Nobel Prize for Medicine and Physiology was given to Florey, Fleming and Chain for the penicillin work. No one was more pleased than Florey's old friend, John Fulton. Florey, who later was elevated to the peerage as Baron Florey of Adelaide and Marston, and Fulton remained in contact over the ensuing years by visits or via letters until Fulton's death in 1960.

Amongst the many contributions of John Fulton to science and to mankind, one of the important but least known is his behind-the-scenes support of Howard Florey and the penicillin research and production.

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DEDICATE STERLING HALL OF MEDICINE

PRES. ANGELL ACCEPTS FOR UNIVERSITY

300 Alumni Attend Exercises—Prominent Physicians Give Talks.

So read the headlines in the February 24, 1925 issue of the *New Haven Journal Courier.*

The article reported that three hundred Yale alumni, members of the medical profession and prominent citizens of New Haven attended the dedication, which took place at 4 p.m. in the auditorium of the new building, with Dr. Milton Winternitz, dean of the School of Medicine, presiding. The building, a gift of the estate of the late John W. Sterling, was turned over to the university by George Harvey Church, senior trustee of the Sterling Fund. President James Rowland Angell accepted it on behalf of Yale University.

The ceremony was followed by addresses by Dr. Harvey Cushing, professor of surgery at Harvard University, and Dr. William Henry Welch, director of the School of Hygiene and Public Health at Johns Hopkins University. Both men were alumni of Yale.

Dr. Cushing noted that, "while astronomers are charting the movements of the planets and predicting and observing eclipses, the Seventh Day Adventists are looking for the end of the world. In this age of jazz it would seem that the only ground upon which we all meet is the cross-word puzzle." He then sounded a note of warning against educational fads and enquired "whether we were not overdoing preclinical work in the medical students' curriculum." He went on to remind his listeners that many of the great discoveries in medicine had been made, not by laboratory men, but by busy practitioners, men such as Harvey, Hunter, Jenner, Koch and Lister.

Dr. Welch was introduced as a prophet, because at a session of the medical school thirty years before, he had appealed for more support for the school and looked forward to the time when Yale would be a leader in medicine. According to a report of the event in *Harvey Cushing: a biography* by Dr. John F. Fulton, when Dr. Welch was called upon "he pulled, as usual, a few blank pages of a would-be manuscript from his pocket," and proceeded to offer a devastating extemporaneous rebuttal of virtually everything that Dr. Cushing had said. Recalling the incident Dr. Cushing later wrote:

"Twelve years ago (23 February 1925) when the new Sterling Hall of Medicine at Yale was dedicated, both Dr. Welch and I, as graduates of the College, were asked to make addresses. I being the younger spoke first and offered the suggestion that if they planned to turn out good practitioners in the rejuvenated School, medicine should be taught in terms of the patient from the outset instead of only in the last two years.

"Dr. Welch then arose and tore my proposal to bits, stating in effect that the kind of doctor I had in mind was going out—that henceforth, with a public health officer in every community, people would be *prevented* from getting ill, leaving the old-time practitioner twiddling his thumbs. We then went to a reception where over a cup of tea I mildly protested, reminding him of his own forebears who were that happy conjunction of country doctor and self-appointed health officer. With that well-known twinkle in his eye he replied: 'I know as well as you do that with our present educational system doctors comparable to Osler and Janeway are not likely to be seen again.' And to my query, 'Why didn't you say so?' he rejoined, 'Because I'm now a Professor of Public Health'."

In accepting the new hall of medicine, President Angell remarked "... It combines in remarkable degree convenience and effectiveness for laboratory training and scientific research, with dignity and fitness of architectural form. In it there is nothing wasteful, but there is also nothing unworthy, nothing cheap. It will stand for years to come a striking memorial to Mr. Sterling."

And so it does. Fifty years later, with additions and alterations, Sterling Hall of Medicine remains a building "with dignity and fitness of form" and the subtle tug-of-war between a basic-science-versus clinically-oriented-curriculum continues, not only at the Yale School of Medicine but in medical schools across the nation.

Commencement, May 19, 1975

Although commencement exercises were early this year, the weather was as balmy and sunny as a day in June. Most of the 185 members of the School of Medicine's graduating class marched in the traditional academic procession to the Old Campus, where about 7,000 spectators were gathered to witness Yale's 274th commencement.

Degrees were conferred on 2,859 men and women, more than at any commencement in the university's history. Dr. Paul B. Beeson, professor of medicine at the University of Washington and a former faculty member at Yale, was among tht twelve distinguished men and women who received honorary degrees.

After the ceremony, 101 candidates for the M.D. degree returned to the Sterling Hall of Medicine to receive their diplomas, and to hear a commencement address by Dr. Lawrence K. Pickett, associate dean for clinical affairs.

Honors and awards announced at the commencement ceremony were as follows:

The degree of Doctor of Medicine *cum laude* was conferred on Henry Cabin, Burton Caldwell, Carl Chi, Haig Donabedian, Stanley Dziuban, Robert Malacoff, Mary Jane Minkin, James Rosenbaum, Kathleen Shepard, Sydney Spiesel, Frank Stark, Barbara Stoll, David Taylor, Henry Willner, and Douglas Zusman.

The **Campbell Prize,** awarded to the graduating student who secures the highest rank in the examinations of the course was presented to *David Taylor.*

The **Miriam Kathleen Dasey Award,** presented to the student who by strength of character, personal integrity, and academic achievement gives promise of fulfilling the idea of the compassionate physician, was awarded to *Sidney Spiesel.*

The **Ferris Prize in Anatomy** was awarded to *David Wiltse* for his research contribution in the area of morphology.

The **Keese Prize,** awarded to the student who presents the best thesis, was presented to *Andrew Pachner.*

The **Dr. Louis H. Nahum Prize,** presented annually to a member of the Senior Class who merits such award by virtue of the excellence of the thesis he has written for the medical degree, was awarded to *David Taylor.*

The **Parker Prize,** awarded to the student who has shown the best qualifications for a successful practitioner, was presented to *Stanley Dziuban.*

Henry Willner was awarded the **Berniker Prize;** the **Sandoz Pharmaceutical Award in Biological Psychiatry** was awarded to *Stanley Gale;* **Mosby Book Awards** were presented to *Paul Johnson, Deborah Leinsdorf, Leonard Meggs, James Robertson* and *Steven Schwartz;* and the **Lange Book Awards** were presented to *James Tonsgard* and *Alan Gaynor.* **Yale Medical School Book Prizes** for leadership and repeated service to the School of Medicine were awarded to *Alvin Strelnick* and *Jonathan Lederer.*

In a separate ceremony held on the lawn of the Laboratory for Epidemiology and Public Health, Dr. Robert W. McCollum, chairman of the Department of Epidemiology and Public Health, and Kathleen Howe, assistant dean for public health, presented diplomas to 84 candidates for the Master of Public Health degree and one candidate for the Doctor of Public Health degree. John D. Thompson, professor of public health and nursing administration, delivered the commencement address.

PAUL BRUCE BEESON,

Distinguished Physician, U.S. Veterans Administration, and Professor of Medicine, University of Washington

You have found the balance between science and humanity in the pursuit of academic medicine. At Yale and later at Oxford you brought new depths of scientific sophistication to clinical investigation and clinical practice. Rigor and compassion have marked your teaching, your research, your practice and your academic leadership. Yale takes pride in honoring a former leader of its medical faculty as it confers upon you the degree of Doctor of Science.

Paul Bruce Beeson—Recollections of His Stay at Yale

By Elisha Atkins, M. D.

PPBS is a shy and in many respects a private man. His conversation with his colleagues at Yale was seldom laced with anecdotes and his busy life was not built around occasions for small talk. He had a shrewd ability to judge both problems and people, and like other leaders who inspire those around them, he took a genuine interest in the lives and careers of his associates; he would listen with complete attention to their concerns or plans for the future and his advice was carefully given and individually considered. He always had time, unlike many less busy people, for his housestaff as well as for his junior colleagues and especially for students whom he individually counseled for their internships in medicine. All of us valued his advice, coming as it did from years of work and reflection starting as a general practitioner with his father and brother in Ohio. As he once said to me, "The real satisfactions of academic medicine do not lie in the hours and certainly not in the pay but in the opportunities to work with young people."

He could be direct in his criticism of a careless or a thoughtless act but his comments were given in private and were never meant to humiliate or embarrass. At the daily housestaff report, held promptly at nine-thirty in the morning, the drop of his poised pencil tip on the table was occasionally used to terminate an unproductive or sophistical argument. Similarly, his praise was spare and earnestly sought and when given was always deserved. During the Eisenhower years, he was a beleaguered Republican in a noisy sea of academic Democrats, and his famous Mona Lisa smile often indicated his wry amusement or simply friendly tolerance of contrary opinions about politics and other nonmedical matters.

Even with the increasingly heavy responsibilities of the chairmanship, his door remained open and his quiet sense of humor never deserted him as he made his decisions without flurry or strain. PPB enjoyed challenges of all sorts and characteristically he found time in his crowded life to act as a medical consultant to the Space program, which in its early days fired his imagination as a frontier in Man's continuing exploration of his world.

At a period when medical science was in danger of withdrawing further into the laboratory, he brought it back to the patient by encouraging doctors to start their studies of disease at the bedside—a point of view that was developed in an important Presidential address to the American Association of Physicians in 1967. His imaginative and pioneering studies clarified the causes of fever and of kidney infection, as well as the role of that mysterious cell, the eosinophil.

As a physician, he listened attentively to everything a patient had to say, skillfully asking the important questions at the right moment, whether of the patient or the house officer to clarify a point in making the diagnosis. But his concern for all the aspects of illness never led him to be satisfied with diagnoses merely, as he taught by his example the old dictum that there are no diseases in medicine but only ill patients. As a teacher PBB exemplified beautifully the comments Bertrand Russell made of Alfred North Whitehead: "Whitehead was extraordinarily perfect as a teacher. He would elicit the best of which a pupil was capable. He was never repressive or sarcastic or any of the things that inferior teachers like to be. I think that in all the abler young men with whom he came in contact, he inspired as he did in me, a very real and lasting affection." We all envied his formal presentations of subjects at Grands Rounds or in lectures which were remarkably lucid, concise and free of jargon.

Under his gifted and energetic guidance, the Department of Medicine at Yale grew from about ten members in 1952 to nearly 100 at the time of his resignation in 1965 to become the Nuffield Professor of Medicine at Oxford.

Despite his many honors and achievements, PBB has remained a modest and friendly man whose scientific curiousity, pursuit of excellence, concern for others, and gift for friendship have been his guiding qualities.

Dr. Atkins is professor of medicine, and a former colleague of Dr. Beeson

in and about

Dr. Arthur E. Baue

Dr. Jack W. Cole

Dr. Baue named chairman of the Department of Surgery

The Yale Corporation has appointed Dr. Arthur E. Baue professor and chairman of the Department of Surgery, effective July 1. He is a well known cardiovascular surgeon.

As chairman of the Department of Surgery, Dr. Baue succeeds Dr. Jack W. Cole, Ensign Professor of Surgery, who had been chairman from 1966 until 1974. On completion of a sabbatical leave in London, England, Dr. Cole will return to the School of Medicine as director of the Division of Oncology and the Yale Comprehensive Cancer Center.

At the time of his appointment, Dr. Baue was Edison Professor of Surgery at Washington University School of Medicine, and surgeon-in-chief and director of the Department of Surgery, The Jewish Hospital of St. Louis, Missouri. A native of St. Louis, he received his B.A. degree, summa cum laude, in 1950 from Westminster College, and his M.D. degree, cum laude, in 1954 from Harvard.

He was on the staff of Massachusetts General Hospital from 1954 until 1961, as an intern in surgery (1954-1955); assistant resident in surgery (1955-1957, 1959-1961); and chief resident in surgery. He served as a captain in the United States Air Force from 1957 to 1959, as assistant chief of surgery in the U.S.A.F. Hospital, Clark Air Force Base, Luzon, Phillipine Islands.

Dr. Baue was appointed research fellow in surgery at Harvard Medical School in 1962 and spent from January to July of that year as senior registrar in thoracic surgery at Frenchay Hospital, Bristol, England. On his return from England he was named assistant professor of surgery at the University of Missouri School of Medicine. In 1964 he was appointed to the staff of the University of Pennsylvania School of Medicine as assistant professor of surgery and was promoted in 1967 to associate professor. He left the University of Pennsylvania that same year to assume his post at the Washington University School of Medicine.

He is a member of numerous medical organizations including the American Association for the Advancement of Science, American Association for the Surgery of Trauma, the American College of Cardiology, the American Surgical Association, the Boylston Medical Society of Harvard.

New director appointed for Comprehensive Cancer Center.

Dr. Jack W. Cole, Ensign Professor of Surgery, has been appointed director of the Division of Oncology and the Comprehensive Cancer Center. His appointment will become effective July 1, 1975.

As Director, Dr. Cole will succeed Dr. Joseph R. Bertino, professor of medicine and pharmacology, who will continue his work in cancer research and patient care.

Dr. Cole joined the Yale faculty in 1966 as professor and chairman of the Department of Surgery, a position he held until July 1974. During that time he was also chief of the Department of Surgery at Yale-New Haven Hospital. Since relinquishing the chairmanship, he has been on sabbatical leave in London, England, where he is investigating the effects of the National Health Service on colon cancer control.

Born in Portland, Oregon, he received his B.A. degree from the University of Oregon in 1941, and his M.D. degree from the Washington University School of Medicine in St. Louis, in 1944. Cleveland then became his home town for the next 19 years.

From 1944 to 1952 Dr. Cole held his internship and residency appointments at the University Hospitals in Cleveland. In 1952 he was a postgraduate fellow at St. Marks Hospital, London, and the next year he returned to Cleveland to become instructor in the Department of Surgery at Western Reserve University School of Medicine, and assistant surgeon at the University Hospitals.

He was appointed assistant professor there in 1954, and associate professor from 1956 to 1963, when he was named professor. At this time he was also associate director of the Department of Surgery at the University Hospitals. In 1962 he was awarded an Eleanor Roosevelt International Cancer Research Fellowship. He left Cleveland in 1963 to become professor and chairman of the Department of Surgery at Hahnemann Medical College, Philadelphia, and chief of Hahnemann Surgical Service, Philadelphia General Hospital.

Dr. Cole is a diplomate of the American Board of Surgery, a fellow of the American College of Surgeons, and a founding member of the American Trauma Society.

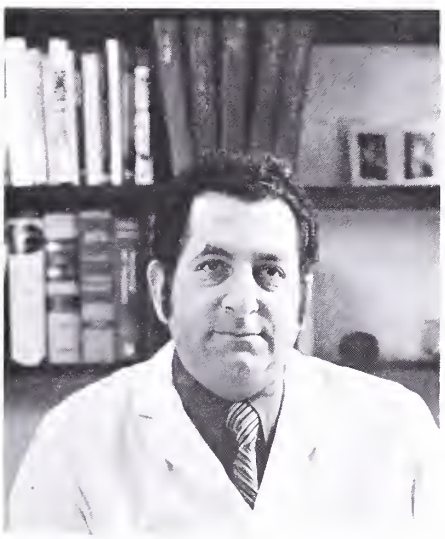
Dr. Bertino appointed American Cancer Society Professor

Dr. Joseph R. Bertino has been named American Cancer Society Professor of Medicine and Pharmacology at the Yale School of Medicine. Announcement of his appointment, which becomes effective on July 1, 1975, was made by Dr. Robert Zanes, president of the American Cancer Society, Connecticut Division, Inc., and Kingman Brewster, Jr., president of Yale University.

Dr. Bertino has been director of the Division of Oncology since January 1974, and the Yale Comprehensive Cancer Center since last July. He will be succeeded in these appointments by Dr. Jack W. Cole, Ensign Professor of Surgery.

A member of the Yale School of Medicine faculty since 1961, Dr. Bertino has made a significant contribution to advances in cancer chemotherapy, particularly in the treatment of cancer of the head and neck, leukemia and lymphomas. Through his research important progress is being made in treating cancer of the bone.

In announcing his appointment the American Cancer Society stated that, "Dr. Bertino is unique in that he combines recognized expertise in medical oncology with an extraordinarily productive program in fundamental approaches to the biochemistry of folic acid and its derivatives. His work is very important in the field of cancer therapy. There are perhaps few clinical pharmacologists who are as well known in the area of chemotherapeutics as Dr. Bertino."



The American Cancer Society Research Professorship grant was awarded to Dr. Bertino for an indeterminate period from July 1, 1975 until he retires from Yale University.

Born in Portchester, New York in 1930, Dr. Bertino attended Cornell University and received his M.D. degree from State University of New York Downstate Medical Center in 1954, and was an intern in the Graduate Hospital of the University of Pennsylvania during the following year. From 1955 until 1956 he was a resident in medicine at the Veterans Administration Hospital in Philadelphia and for the following two years he served as a captain in the U.S. Army Clinical Research Division, Army Chemical Center in Baltimore, Maryland. He was at the University of Washington School of Medicine in Seattle from 1958 to 1961 as a United States Public Health Service research fellow in hematology and biochemistry.

He came to Yale as assistant professor of pharmacology and in 1964 was promoted to associate professor of medicine and pharmacology. He was named chief of the Section of Oncology and Chemotherapy in 1966, and in 1969 he was appointed professor of medicine and pharmacology.

Dr. Bertino is chairman of the chemotherapy advisory committee of the National Cancer Institute and vice-president of the American Society for Clinical Oncology. He is a member of a number of medical societies including The American Association for Cancer Research, American Society of Hematology and the American Society of Biological Chemists. He serves on the executive committee, Division of Clinical Pharmacology, of the American Society for Pharmacology and Experimental Therapeutics, as well as the editorial boards of *Molecular Pharmacology*, and *Cancer Research*, and the editorial committee of the *Journal of Clinical Investigation*.

The Benedict R. Harris Award

Dr. Ronald T. Rozett, assistant clinical professor of medicine, was selected by the first year residents of the Yale-New Haven Hospital to receive the Benedict R. Harris Award for 1975. The award is presented annually to the private physician who has contributed the most to the teaching of first year residents. It was established in 1967 to improve communications and relations between the house staff and the clinical faculty.

Senior Class designates two for awards

The Class of 1975 selected Dr. Morris Dillard to receive the Francis Gilman Blake Award as the "most outstanding teacher in the Medical Sciences". Dr. Dillard is associate professor of clinical medicine.

Dr. John Popp was selected to receive the Betsy Winters Award as "that member of the house staff designated by the senior class the most outstanding teacher of Clinical Medicine". Miss Winters is assistant dean for student affairs. The prize was established last year in recognition of her interest in medical education and teaching.

Awards presented to two members of the YNHH house staff

The Samuel D. Kushlan Award for 1975 has been presented to Dr. John Kirkwood and Dr. John Thompson. Both are on the house staff of the Department of Medicine, Yale-New Haven Hospital; Dr. Kirkwood, a member of the class of 1973, is a first year assistant resident, and Dr. Thompson, a member of the class of 1974, is an intern.

The award, which was inaugurated in 1969, is presented to the intern and assistant resident who have contributed most to patient care during their rotation through the Memorial Unit Medical Service. Selection is made in consultation with the clinical faculty and the nursing service. The purpose of the award is to encourage improved patient care, and communications and relations between the house staff, the clinical faculty and the nursing service.

Dr. Horstmann elected to National Academy of Sciences

In recognition of her distinguished and continuous achievements in original research, Dr. Dorothy M. Horstmann has been elected to the National Academy of Sciences. Election to the Academy is considered one of the highest honors that can be accorded to an American scientist or engineer.

Dr. Horstmann is John Rodman Paul Professor of Epidemiology and professor of pediatrics. Well known for her research on the prevention of poliomyelitis, she currently is conducting an evaluation of the available rubella vaccines to determine their long term effectiveness.

She came to Yale as a Commonwealth Fellow in the Section of Preventive Medicine in 1942, and with the exception of a year as instructor in the Department of Medicine at the University of California in 1944-45, and a year as National Institutes of Health Fellow in London in 1947-48, she has been a vital force on the Yale medical scene ever since. Dr. Horstmann joined the School of Medicine faculty as instructor in the Section of Preventive Medicine in 1943 and became assistant professor in the section in 1948. In 1952 she was promoted to associate professor of preventive medicine, and associate professor of preventive medicine and pediatrics in 1956. She was appointed professor of epidemiology and pediatrics in 1961, and named John Rodman Paul Professor of Epidemiology and professor of medicine in 1969.

Dr. Horstmann was born in Spokane, Washington and received her B.A. degree in 1936 and her M.D. in 1940, both from the University of California, Berkeley. She was an intern and assistant resident in medicine at the San Francisco Hospital, and an assistant resident in medicine at Vanderbilt Hospital, Nashville, Tennessee before coming to New Haven.

Dr. Horstmann is an Honorary Associate Fellow of the American Academy of Pediatrics, and an Honorary Member, Section of Epidemiology and Preventive Medicine, of the Royal Society of Medicine. She has received a number of other honors and awards including the Albert College Award (1953), the Modern Medicine Award for Distinguished Achievement (1974), and the James D. Bruce Memorial Lecture and Award, 56th Annual Session of the American College of Physicians (1975). She has served as consultant to the World Health Organization, the Pan American Health Organization and, in addition, she has been a member of several committees of the National Institutes of Health to study the control of infectious diseases, and was president of the Infectious Diseases Society of America in 1974-75.

Dr. Horstmann is one of 84 scientists and engineers, including Melvin J. Cohen, professor of biology at Yale, to be elected to the National Academy of Sciences at their annual meeting on April 22.

Two faculty members appointed residential college masters

Two members of the School of Medicine faculty have been appointed to participate in the residential master's program for Yale's twelve undergraduate residential colleges. They are Dr. Richard Granger, who was appointed master of Morse College and Dr. Elisha Atkins who will be master of Saybrook College. Both appointments are effective July 1.

The School of Medicine has had only token representation in the college master's system since it was established in the early 1930's for the purpose of creating small educational and social communities within the university. The most recent medical school faculty to be appointed was Dr. Rosemary Stevens, professor of public health, who will resign on her doctor's recommendation after a year as master of Jonathan Edwards College.

Dr. Granger, who is associate professor of clinical pediatrics, succeeds Vincent J. Scully, Col. John Trumbull Professor of History of Art, as master of Morse College. He has been on the School of Medicine faculty since 1951, with the exception of two years when he was on active duty with the U.S. Air Force.

He was appointed clinical instructor of pediatrics in 1954 and assistant clinical professor in 1961. In 1969 he was promoted to associate professor of clinical pediatrics, and at the same time, joined the faculty of the Child Study Center, while maintaining his affiliation with the Department of Pediatrics.

Dr. Granger has worked closely with government and private agencies on problems of health service. In 1969 he was a delegate and chairman of the Task Force Steering Committee at the White House Conference on Food, Nutrition and Health, and since 1970, he has been a delegate to the White House Conference on Children.

This spring, in a special salute to Dr. Granger, the *New Haven Register* noted that, "Dr. Granger, a clinical pediatrician at the Yale School of Medicine, is widely known in this community—for his work and the causes he has championed, not for any attention that he has drawn to himself. His decade of service as president of

the Dixwell Community House was one of many of his extraordinary efforts, as a medical expert and as a human being, to improve the lives of others."

As master of Saybrook College, Dr. Atkins will succeed Basil D. Henning, Colgate Professor of History, who has served since 1946, the longest tenure of any master since the residential college system was started.

Dr. Atkins received his B.A. degree from Harvard College, where he was a member of the varsity football squad, and his M.D. degree from the University of Rochester. He was a research fellow and instructor in medicine at Washington University, a fellow in medicine at Barnes Hospital, and a visiting physician in St. Louis Hospital, before joining the Yale faculty as assistant professor of medicine. He was promoted to associate professor in 1961 and to professor in 1967. While on leave in 1962-1963, he was a Commonwealth Fellow in the laboratory of Sir George Pickering at Radcliffe Infirmary, Oxford, England

An avid bird watcher and a scholar of literature, Dr. Atkins has long been involved in student activities as well. He has served as a member of the medical school's admission committee for many years and last year was acting associate dean for student affairs.

A trail is dedicated to Dr. John Paul

"Dr. Paul cared more about nature than anything else," his widow, Mrs. Leita Paul, noted at the dedication of the Dr. John Rodman Paul Memorial Trail in Guilford, Connecticut. The ceremony was held at a meeting of the Guilford Land Trust on May 17. Dr. Dorothy Horstmann and Dr. Robert McCollum, colleagues of Dr. Paul, spoke briefly. As part of the dedication ceremony, those present walked the trail which wanders through woodland along the coast. Dr. and Mrs. Paul lived on the Guilford shore for a number of years.

New student journal published

Arrhythmia, a student journal expressing views and concerns about issues and people in the School of Medicine, began publishing last fall. By necessity it is published at intervals. A comment on the editorial page of Vol. 11, no. 2, published in March, expresses very well the situation facing its editors—as well as those of *Yale Medicine.* "Contrary to popular belief, *Arrhythmia* has not suffered a terminal case of anything. This issue has endured what was perhaps an overly long stay in the CCU, but it has been defibrillated by pangs of conscience and fully revived by the heroic efforts of several authors."

The new journal represents a commendable effort in spite of its schedule. The March issue included an interview with Dr. George Palade shortly after he received the Nobel Prize for 1974. One of the first questions asked Dr. Palade concerned the Yale medical curriculum, which was also the subject of the lead article and the editorial, reflecting the very great interest and concern of students for the pending curriculum revisions.

Thoughtful appraisal is evident throughout the issue, which was read with interest by faculty and staff, as well as students.

Medical history award

Julia Frank, a second year medical student, was awarded the John F. Fulton Memorial Award in the History of Medicine. The award was established in 1966 by a group of Dr. Fulton's former students and alumni of the Nathan Smith Club, an organization of students interested in medical history. The award, which perpetuates Dr. Fulton's work of fostering student interest and enjoyment in research in medical history, is given to the student who submits the best manuscript of a talk presented before the Nathan Smith Club. The title of Ms. Frank's manuscript is "Body-snatching: a grave medical problem".

The Nahum Memorial Lecture

The third annual Louis H. Nahum Memorial Lecture was delivered by Dr. Paul F. Cranefield, who is an associate professor at The Rockefeller University. He spoke on "Recent Insights into the Cause of Cardiac Arrythmia".

The Nahum Memorial Lecture series was established in 1973 in the Department of Physiology through the gifts of friends and colleagues as a tribute to Dr. Nahum, a distinguished Yale alumnus, who was lecturer emeritus of physiology at the time of his death in July 1972.

E. Richard Weinerman Fellowship

Richard L. Muglia has been named E. Richard Weinerman Fellow for 1975-76. He will be a second year student in the Hospital Services Administration Program in the Department of Epidemiology and Public Health.

Mr. Muglia received his B.A. degree cum laude from Williams College in 1973. Following graduation he participated in an Intern in Health Care Administration Program in Newark, New Jersey, and became coordinator of all interns in the program. He also was involved in research for a group of physicians interested in developing a prepaid practice in metropolitan Newark.

The Weinerman Fellowship supports research in social medicine and community health care. It is awarded to students in the Department of Epidemiology and Public Health who exemplify the professional interests and high quality of performance of the late Dr. E. Richard Weinerman who had been a member of the department from 1962 until his death in January 1970.

J.G. Barry Mason, M.D.

Dr. J.G. Barry Mason, assistant clinical professor of anesthesiology, died in Yale-New Haven Hospital on March 11, of a brain tumor. He was 42 years old.

Born in Philadelphia, Dr. Mason attended Temple University as an undergraduate and as a medical student. After receiving his M.D. degree in 1958, Dr. Mason interned for two years at St. Mark's Hospital in Salt Lake City prior to serving for two years in the U.S. Air Force. In 1962 Dr. Mason entered general practice in La Plata, Maryland, where he remained until 1970. At the time he left to come to New Haven he was chief of staff at the physicians Memorial Hospital in La Plata.

Dr. Mason came to New Haven to enter the residency training program in anesthesiology at Yale-New Haven Hospital. During the year 1971-72 he was awarded an appointment as an N.I.H. postdoctoral fellow. In 1972 he joined the anesthesiology staff at Yale-New Haven as a clinical instructor and in 1973 was promoted to assistant clinical professor.

While serving as a member of the clinical faculty in the Memorial Unit of the Medical Center, Dr. Mason was particularly active in teaching medical students and residents. He was also deeply involved in community affairs in the town of North Haven, where he resided.

Dr. Mason is survived by his parents, his wife Joan, and four children. N.M.G.

New books by faculty

Coping with Prolonged Health Impairment in Your Child. By Audrey T. McCollum, M.S., research associate in pediatrics. Little, Brown and Company.
Even when children with prolonged serious diseases or physical disorders receive the finest medical care, it is likely to be aimed at survival—containing and controlling the illness—without sufficient regard for the quality of the young life that is being prolonged, and for the tremendous stresses affecting the entire family. Mrs. McCollum's book emphasizes that the child still continues to change and grow emotionally and socially throughout the illness, and his needs also change. She defines the nature and scope of coping with the complex, subtle and constantly varying challenges of caring for the ill child, in a book written for families as well as professional health care workers.

Black Child Care. By James D. Comer, M.D., associate professor of psychiatry, and Dr. Alvin F. Poussaint. Simon and Schuster.
Black Child Care is directed primarily to black parents and others who care for black children. It points up some of the differences in raising black children in our society and advises on how to help them adjust to their social environment which is often hostile, indifferent or sympathetic in ways that are not helpful to the child. The book also deals with more traditional issues of child development.

Welfare Medicine in America: A Case Study of Medicaid. By Robert Stevens and Rosemary Stevens, Ph.D., professor of public health, The Free Press.
Harry Schwartz's review in the *New York Times* states that to understand the current scandals in nursing homes and care for the indigent sick, "the concerned citizen needs to read this book, a landmark contribution to the literature, helping us understand how Lyndon B. Johnson's dream of ending poverty has contributed so much to today's nightmares."

A Half Century of American Medical Education: 1920-1970. By Vernon W. Lippard, M.D., dean emeritus, and professor emeritus of pediatrics. Josiah Macy, Jr. Foundation.
"This is not a historian's book, replete with charts, graphs, tables and a complete bibliography, but hopefully it is one that people such as those who inspired me to write it, may be interested in reading," Dean Lippard explained in the preface. It is a personal observation of the changing scene in medical education during the half-century from 1920 to 1970.

Integrated Psychiatric Treatment. By Julian Lieb, M.B., B.Ch., and Andrew E. Slaby, M.D., M.P.H., both assistant professors of psychiatry. Harper and Row.
This book presents an approach to the treatment of psychiatric patients that combines psychotherapy, psychopharmacotherapy and sociotherapy.

Faculty Notes

The University of Michigan conferred honorary degrees on two distinguished men from Yale University at its commencement this spring—Kingman Brewster Jr., and **Dr. George B. Darling Jr.** The citation to Dr. Darling was, "Few of us are given the opportunity to make a lasting contribution to the good of humanity, and fewer still accomplish the task with distinction. We are grateful to you, Dr. Darling for you have not only accepted the challenge to give rare service, but you have done so with remarkable success. Throughout a distinguished career, your predominant concern has been the health and welfare of your fellow men, inspiring you to devote years to the study of radiation's effects on suffering men, women and children. From the cruelty and degradation of war, you have salvaged and preserved an important measure of human dignity and compassion. In contrast to the wasting effects of bombing and destruction, you have helped to build a foundation for the continuing contributions of scientific knowledge. Your dedication and scholarship have fostered international cooperation in the study and practice of public health." Dr. Darling, who is professor emeritus of human ecology, received the Doctor of Laws degree.

Dr. Wayne O. Southwick, professor of orthopedic surgery, was presented with the honorary degree of Doctor of Science at the University of Nebraska commencement, May 23, for his work in the art of teaching, for "ingenious development of the biplane osteotomy for reconstruction of adolescent hips," and for his development of surgery of the cervical spine. Dr. Southwick, a native of Friend, Nebraska, is a member of the class of 1947, University of Nebraska College of Medicine.

At the meeting of the United States-Japan Cooperative Science Program held in Tokyo last December, **Dr. Sonja M. Buckley** participated in the program "Invertebrate Tissue Culture: Applications in Fundamental Research". Dr. Buckley, a senior research associate in epidemiology, is a member of the Yale Arbovirus Research Unit.

Dr. George Rosen has been elected to the Swedish Society of Medical Sciences, Section for Medical History. Dr. Rosen, professor of history of medicine and epidemiology and public health, has been responsible for a number of interesting exhibitions mounted in the rotunda of the medical school library. The most recent show was a photographic essay about Dr. Albert Schweitzer.

Dr. Wilbur G. Downs, clinical professor of epidemiology, presented the fifth Thomas Francis Jr. Memorial Lecture at the School of Public Health, University of Michigan. The title of the lecture was "Lassa Fever: Fact and Fantasy".

Dr. Masafumi Susuki, research associate in laryngology, has been selected for the 1974 Gould Award for outstanding research in basic laryngology. The award was established in 1957 by the William and Harriet Gould Foundation and is awarded annually by an international committee of fifteen of the world's leading laryngologists. Dr. Susuki's current studies concern the possible relation of laryngeal spasm with "crib death's" in infants.

"By What Disease or Casualty: the Changing Face of Death in London", was the title of a lecture **Dr. Thomas Forbes** delivered to the Worshipful Society of Apothecaries of London on April 23. Dr. Forbes, professor of anatomy, was also visiting professor at the School of Medicine, University of Missouri-Kansas City, May 22-24. He showed the Yale Media Group's film on Versalius and Ambrose Pare and gave a lecture of "Life and Death in Shakespeare's London."

Dr. Augustus A. White has been named a North American Exchange Fellow to Great Britain for 1975, by the American Orthopaedic Association. Dr. White is associate professor and director of the Biomechanics Research Laboratory, Section of Orthopedic Surgery. The fellowship honors outstanding orthopedic surgeons under 40 years old, who have made outstanding contributions to the field.

Two faculty members are on the staff of *Gastroenterology*. **Dr. Robert Donaldson,** professor of medicine, and chief of the medical service at West Haven V.A. Hospital, has been reappointed editor, and **Dr. Harold Conn,** professor of medicine, and head of the Liver Study Unit at the V.A. hospital, has been appointed associate editor of the journal. Dr. Donaldson was recently named a member of the executive committee for a national study of digestive disease as a national problem, sponsored by the N.I.H. During the past year he served on the Advisory Board for the N.I.H. Center for Ulcer Research and Education, as well as special N.I.H. study sections concerned with inflammatory bowel disease and the advancement of gastrointestinal endoscopy. Dr. Conn recently completed his term of office as president of the American Association for the Study of Liver Disease, and now serves as a member of the Council of American Gastroenterological Association.

Another faculty member who is also on the West Haven V.A. Hospital staff, **Dr. Rose Papac,** was recently appointed as a member of the study section of the National Advisory Cancer Treatment Committee and a member of the sub-committee for Drug Development at the National Cancer Institute. Dr. Papac is associate professor of medicine and head of the Hematology-Oncology Section at the V.A. hospital.

Dr. David F. Musto, associate professor of psychiatry (Child Study Center) and history, has been named associate director of the National Humanities Institute established at Yale with a $2.7 million grant from the National Endowment for the Humanities. Dr. Musto's chief concern will be clarifying relationships between the humanities and public policy.

alumni news

1926

Charles Mayo Goss received the degree of Doctor of Science, honoris causa, from the College of Medicine and Dentistry of New Jersey on June 2.

1929

In a recent letter, **Russell Scobie** wrote enthusiastically about his visit to New Zealand and Australia in February and March. He served as an "International Pediatric Consultant on Water Fluoridation" and spoke extensively on the subject of water fluoridation. On the return trip he and Mrs. Scobie stopped in Fiji, Hawaii, Los Angeles, and visited **James Arneill** in Denver.

1932

Dr. Myron E. Wegman, dean emeritus and John G. Searle Professor at the School of Public Health, University of Michigan, has been named to the Society of Scholars of The Johns Hopkins University in Baltimore. The Society honors former postdoctoral fellows at Johns Hopkins who have gained marked distinction in their fields of academic or professional interest.

1933

Dr. John Wolfe's wood sculpture was exhibited in the Jeffersontown, Kentucky museum last fall. Dr. Wolfe, a retired plastic surgeon, spent five years after graduation from the School of Medicine at the Peking Medical College, and the next several years after that in India, before settling into practice and teaching at the University of Louisville. He began sculpturing about five years ago. According to an article in the *Jefferson Reporter* his wood sculptures "are of a serious nature and show individuals either in deep thought or in agony."

1935

At the annual convention and scientific meetings of the Pennsylvania Academy of Ophthalmology and Otolaryngology held in May, **Louis Silcox** was installed as president of the state-wide association of eye, ear, nose and throat physicians.

1941

A special recognition award from the American Society of Internal Medicine was presented to **Dr. Robert L. Gilbert** for his contributions to the organization. Dr. Gilbert is one of the charter members of the organization, which is devoted to the social, economic and legislative aspects of high-quality medical care in the United States.

1942

Dr. Eugenio Maria de Hostos was elected a vice president of the Southeastern Surgical Congress. The SESC, founded in 1930, is the largest regional surgical society in the United States. Dr. deHostos' election marks the first time a Puerto Rican has held high office in the group.

Vincent Collins, chairman of the Department of Anesthesiology at Cook County Hospital and professor of Anesthesiology at Northwestern University School of Medicine was recently re-elected as President and Chief-of-Staff of Cook County Hospital. He will be serving his third term in this position.

1943

John Brobeck, Herbert C. Rorer Professor of Medical Sciences at University of Pennsylvania School of Medicine has been elected to the National Academy of Sciences.

1947

Igor Tamm, professor and senior physician, Rockefeller University, has been elected to the National Academy of Sciences.

The new chairman of the Department of Pediatrics at Medical College of Pennsylvania is **Sumner Ziegra.**

1948

Dr. C. Arden Miller was installed as president of the American Public Health Association (APHA) at the group's 102nd annual meeting last October. Dr. Miller, an outspoken critic of the present health care system, is a pediatrician and professor of maternal and child health at the School of Public Health, University of North Carolina.

1956

Rosalie Burns has been appointed chairman of the Department of Neurology at the Medical College of Pennsylvania. An authority on Neurology at the Medical College of Pennsylvania. An authority on neurological disorders and noted for her diagnostic ability and medical treatment of children with minimal cerebral dysfunction, Dr. Burns has also done research on stroke. In addition to the chairmanship, she holds the position of chief of the Neurology Service at the Veterans Administration Hospital in Philadelphia.

Before joining Medical College of Pennsylvania, Dr. Burns served on the faculty of Cornell University School of Medicine and on the staffs of New York Hospital and Institute of Pennsylvania Hospital. She is a consultant at the Eastern Pennsylvania Psychiatric Institute and since 1968 has served as consultant to the Pathway School for Children with Learning Disorders in Jeffersonville.

1957

Stanley Kilty who received his M.P.H. from Yale in 1974 and who has been a physician with the Community Health Care Center Plan in New Haven during the past year has been appointed a Lecturer in Epidemiology and Public Health effective July 1, 1975. He will organize the EPH course "Human Biology and Disease Processes" and also participate in the epidemiology course.

Thomas O'Brien, Jr., has been promoted to professor of medicine at Bowman Gray School of Medicine.

1958

New York University School of Medicine has announced that **Dr. Lawrence Dubin** has been promoted to clinical professor of urology. Dr. Dubin is director of urology at Goldwater Memorial Hospital.

1959

On January 31 the White House announced the names of the seven members of the President's Biomedical Research Panel. Among the members is **David B. Skinner,** who is now chairman of the Department of Surgery at the University of Chicago. The panel is to assess the biomedical and behavioral research supported by the National Institutes of Health and the National Institute of Mental Health, and in April 1976 they will tell the President what Government policy for research ought to be.

1961

The Lawrence V. Perlman Memorial Fund has been established at the Yale School of Medicine in memory of **Dr. Perlman,** who died on May 17. Gifts from his family and friends will be used for support of projects in primary care. Contributions may be sent to the Office of the Dean.

Shaun Ruddy has been named chairman of the Division of Immunology and Connective Tissue Diseases at the Medical College of Virginia School of Medicine of Virginia Commonwealth University.

Philip Felig has been promoted to professor of medicine at Yale and has also been appointed vice-chairman of the Department of Internal Medicine.

1963

David Holden, assistant dean at the University of North Dakota School of Medicine, has been named to the newly created position of assistant dean of the College of Human Medicine for the Miciigan State University at Lansing.

A letter from **Dr. Richard Almond** brings news of his activities as well as those of his wife **Barbara** '63.

"We have been living in California for six years now. Barbara completed her training in psychiatry at Stanford, where I was on the full-time faculty for four years. In 1972, with Barbara's training completed, and my leaving full-time academic work, we joined with several other mental health professionals in founding a small, private community-oriented clinic, the Collective Psychotherapy Center of Palo Alto. We offer psychotherapy of various sorts, and other psychiatric care at fees determined on ability to pay. . . . With both of us working we are able to still have time to spend with our three growing children, now 10, 8, and 8.

"My book, *The Healing Community, Dynamics of the Therapeutic Milieu,* was published last fall by Jason Aronson, Inc., of New York. It represents the culmination of research begun at Yale during my medical student and residency years, on therapeutic community. I've extended my initial ideas on the social healing process based on observations of non-western healing groups and communities stimulated by the "encounter movement" such as Synanon.

"We both have fond memories of our New Haven years and our time at Yale."

1968

Dr. James Lloyd Weiss, currently a fellow in cardiovascular medicine at The Johns Hopkins University School of Medicine, has been named recipient of the first Frank T. McClure Post-Doctoral Fellowship at the Johns Hopkins University. The fellowship emphasizes development and perfection of new methods for early detection of potential heart attack victims through innovative application of physical and biochemical methods. Dr. Weiss has also been appointed assistant professor of medicine in the Division of Cardiology, Department of Medicine at Johns Hopkins, effective July 1.

1959

Stevenson Flanigan wrote recently in regard to his activities as chief of neurosurgery at the University of Arkansas Medical Center. He reported that the American Board of Neurosurgery approved their training program in 1970, and this year they will turn out their second product. He also noted that the Joint Budget Commission of the Arkansas State Legislature has just approved a bill establishing a Spinal Cord Injury Commission with a proposed budget in the amount of $500,000 for patient care and administration.

1956

Anne Anzola is now Director of the Albany Regional Medical Program. She joined the ARMP in 1971 as coordinator for community health education, and has held several other administrative positions within the program before being named Deputy Director last November. The program's policies and activities are determined by a Regional Advisory Group composed of 40 community leaders representing the health care interests of the 24 counties in the region.

Classmates of **Kay Howe** will be saddened to know that her husband Sam died peacefully in his sleep in Nassau in September, following a massive coronary in July.

Public Health

1966

Allen Cohen, administrator of the Elmcrest Psychiatric Institute in Portland, Conn., recently attended the 1975 Group Relation Conference of the Tavistock Institute of Human Relations in Leicester, England.

1970

Frederick Adams, vice president of University of Connecticut School of Medicine, was chosen earlier this year by Gov. Ella Grasso to put into effect in Connecticut a new federal health law which may be the framework for a combined federal-state reorganization of all health and mental health services. To serve in this temporary position, Dr. Adams took a leave of absence from his duties at UConn.

Under the National Health Planning and Development Act (PL 93-641) signed by President Ford in January, regional groups designated by Gov. Grasso based on Dr. Adams' recommendations as to numbers of regions and boundaries required, will draft and implement comprehensive health and mental health plans, channel federal grants to institutions in their regions, and resolve conflicts and duplication of efforts.

1975

Audrey Weiner has been appointed program director of The Heart Association of Greater New Haven. Mrs. Weiner will work with volunteers on planning, implementing and evaluating programs, specifically the high blood pressure screening program, speaker's bureau, patient education, physician and nurse education, diet and nutrition education and cardiopulmonary resuscitation training. In addition, she will assist school health educators in the planning of curricula dealing with the heart and heart disease.

1958

A letter received from **Joseph Scorpion** this spring contained the tragic news that his oldest son, Stephen, age 21 and a student at Austin Peay State University in Clarksville, Tennessee, was killed in an automobile accident in suburban Pittsburgh on June 12, 1974. Stephen was a youngster when Mr. Scorpion was in graduate school, and since his son knew many of his classmates from the class of 1958, he was certain that they would want to know of this tragedy.

Since October 1974, Mr. Scorpion has been the Executive Administrator, Division of Medical Services, Allegheny County Health Department in Pittsburgh.

1960

Elsa Niebuhr Schulze is serving as assistant director of the Connecticut Alcoholism and Drug Training Center in the Department of Psychiatry at the University of Connecticut. She is in charge of the drug unit.

Bruce Barron, who received his M.D. degree from New York University in 1971 is now an associate professor of obstetrics and gynecology at Columbia University College of Physicians and Surgeons. His address is Atchley Pavilion, Columbia-Presbyterian Medical Center, New York City.

Members of the Class of 1975 (and others) assemble for the annual meeting of Yale Alumni in Medicine, Alumni Day, June 7. (more about Alumni Day in the Fall issue)

Class of 1975

First Year Postgraduate Medical Education Appointments

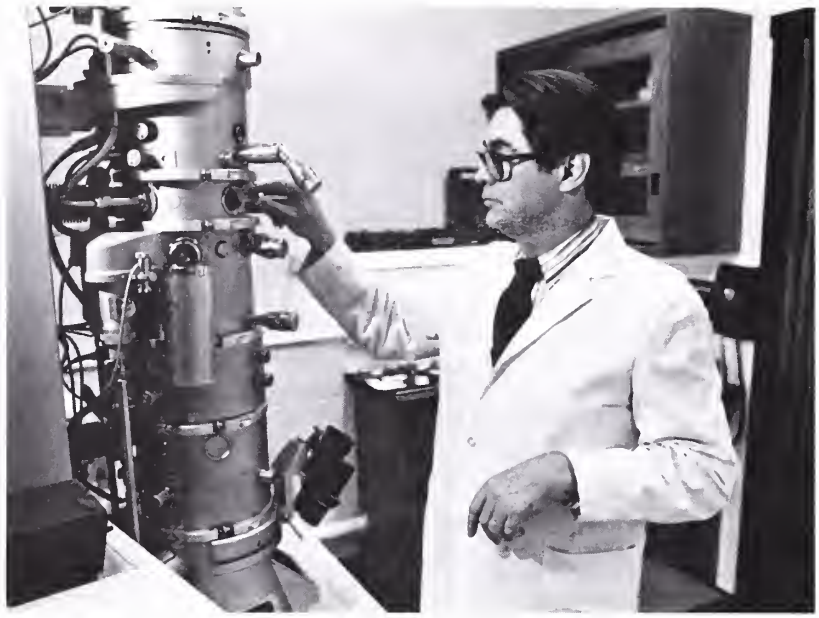
Name of Student	Type of Internship	Hospital
Thomas Leif Anderson	Medicine	William Shands Hospital, Gainesville, Florida
John Edwin Atwood	Medicine	University of Utah Affiliated Hospitals, Salt Lake City, Utah
Donald Steven Baim	Medicine	Stanford University Hospital, Stanford, California
Bruce Walter Beck	Medicine	Los Angeles County-Harbor General Hospital, Torrance, California
Robert Michael Bell	Ophthalmology	The Waterbury Hospital, Waterbury, Connecticut
Ralph Edward Binder	Medicine	Bronx Municipal Hospital Center, Bronx, New York
Neil Blumberg	Laboratory Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Frank Brown (Class of 1974)	Medicine	George Washington University Hospital, Washington, D. C.
William Stephen Joseph Bush	Pathology	Yale-New Haven Hospital, New Haven, Connecticut
Rodney James Butch	Medicine	Boston City Hospital, Boston, Massachusetts
Henry Scott Cabin	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Burton Vaughan Caldwell	Obstetrics & Gynecology	Yale-New Haven Hospital, New Haven, Connecticut
Dang Van Chau	Surgery	Yale-New Haven Hospital, New Haven, Connecticut
Carl Chungming Chi	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Brendan Clifford	Orthopedic Surgery	Northwestern University Medical Center, Evanston, Illinois
Bert David Collier, Jr. (Class of 1974)	Diagnostic Radiology	Peter Bent Brigham Hospital, Boston, Massachusetts
Jeffrey Jay Davis	Flexible	Bridgeport Hospital, Bridgeport, Connecticut
Haig Donabedian	Medicine	Hospital of the University of Pennsylvania, Philadelphia, Pennsylvani
Robert Grant Drake, Jr.	Pathology	Yale-New Haven Hospital, New Haven, Connecticut
Robert Bradford Duckrow	Medicine	Rhode Island Hospital, Providence, Rhode Island
Stanley Walter Dziuban, Jr.	Surgery	Yale-New Haven Hospital, New Haven, Connecticut
Melvin Firestone	Medicine	Cincinnati General Hospital, Cincinnati, Ohio
Hanlon Joe Fong	Medicine	Los Angeles County-Harbor General Hospital, Torrance, California
Herbert Fried	Surgery	San Diego County University Hospital, San Diego,California
Stanley William Gale	Psychiatry	The New York Hospital, New York, New York
Elizabeth Rose Gawron	Pediatrics	Yale-New Haven Hospital, New Haven, Connecticut
Alfred Charles Gaymon	Medicine	Harlem Hospital, New York, New York
Alan Lawrence Gaynor	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Michael Haim Goldman	Medicine	Georgetown University, Washington, D. C.
Bruce Richard Gordon	Medicine	The New York Hospital, New York, New York
Andrew Tuck Gouse	Psychiatry	Brown University Affiliated Hospitals, Providence, Rhode Island
James Peter Grabman	Medicine	University of Michigan Affiliated Hospitals, Ann Arbor, Michigan
Stuart Alan Groskin	Medicine	University of Rochester Associated Hospitals Program, Rochester, N
Dawn Diane Hassinger	Medicine	Grady Memorial Hospital, Atlanta, Georgia
Sandra Gail Hershberg	Pediatrics	Case Western Reserve Affiliated Hospitals, Cleveland, Ohio
Isaac Hoch	Family Practice	Medical College of South Carolina, Charleston, South Carolina
Lana Lee Holstein	Family Practice	University of Arizona, Tucson, Arizona
Holly Christine Holter	Obstetrics & Gynecology	H. C. Moffitt Hospital, San Francisco, California
Paul Andrew Johnson	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Carol Loeb Kandall	Obstetrics & Gynecology	Yale-New Haven Hospital, New Haven, Connecticut
Kevin Kane	Medicine	Presbyterian-University Hospital, Pittsburgh, Pennsylvania
George David Knowles	Medicine	Strong Memorial Hospital, Rochester, New York
Martin Hans Krag	Orthopedic Surgery	University of Washington Affiliated Hospitals, Seattle, Wasnington
Deborah Hester Leinsdorf	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Martin Bert Leon	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Bernhard Harris Lisker	Medicine	NYU Program, Manhattan Veterans Admin. Hospital, Manhattan, N.
Richard Joseph Loewenstein	Psychiatry	Yale-New Haven Hospital, New Haven, Connecticut
Yvonne Elizabeth Lomax	Pediatrics	Michael Reese Hospital, Chicago, Illinois
David Andrew London	Medicine	University Hospitals, Boston, Massachusetts

Bruce Beezler McLucas	Obstetrics & Gynecology	Los Angeles County-USC Medical Center, Los Angeles
Robert Frederick Malacoff	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Arnold Gary Markman	Family Practice	San Diego County-University Hospital, San Diego, California
Leonard Gerald Meggs	Medicine	Presbyterian Hospital, New York, New York
Elizabeth Harriet Michel	Family Practice	San Diego County-University Hospital, San Diego, California
Hyman Joseph Milstein	Medicine	Grady Memorial Hospital, Atlanta, Georgia
Mary Jane Minkin	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Robert Gordon Nankin	Medicine	Grady Memorial Hospital, Atlanta, Georgia
Andrew B Newman	Medicine	Stanford University Hospital, Stanford, California
Richard David Newman	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Henry George Stebbins Noble	Surgery	University of Chicago Clinics, Chicago, Illinois
Kwaku Ohene-Frempong	Pediatrics	The New York Hospital, New York, New York
Edwin George Olson	Medicine	Dartmouth Affiliated Hospitals, Hanover, New Hampshire
Howard Ozer	Medicine	Massachusetts General Hospital, Boston, Massachusetts
Andrew Rudolf Pachner	Medicine	Johns Hopkins Hospital, Baltimore, Maryland
George Jack Pardos	Medicine	The Waterbury Hospital, Waterbury, Connecticut
Daniel Joseph Passeri	Surgery	Yale-New Haven Hospital, New Haven, Connecticut
Mary Lake Polan	Obstetrics & Gynecology	Yale-New Haven Hospital, New Haven, Connecticut
Stirling Mary Puck	Pediatrics	Yale-New Haven Hospital, New Haven, Connecticut
Vivian Mary Reznik	Pediatrics	New York University Medical Center, New York, New York
Philip Jon Rich	Medicine	Mount Zion Hospital, San Francisco, California
James Francis Robertson III	Medicine	Yale-New Haven Hospital, New Haven, Connecticut
Salvatore Vincent Romano	Medicine	The Waterbury Hospital, Waterbury, Connecticut
James Todd Rosenbaum	Medicine	Stanford University Hospital, Stanford, California
Frederick Paul Rosenfelt	Medicine	Stanford University Hospital, Stanford, California
Richard Lawrence Roth	Medicine	Boston City Hospital, Boston, Massachusetts
Robert Samuel Sandler	Medicine	George Washington University, Washington, D. C.
Steven Arthur Schwartz	Medicine	Mount Zion Hospital, San Francisco, California
Rose Marie Sessoms	Pediatrics	Walter Reed Hospital, Washington, D. C.
Kathleen Ann Shepard	Pediatrics	Presbyterian-University Hospital, Pittsburgh, Pennsylvania
Saundra Dianne Shepherd	Pediatrics	New York University Medical Center, New York, New York
Frederick Scott Sherman	Pediatrics	University of Virginia Hospital, Charlottesville, Virginia
Theodore Ronald Simon	Surgery	University of Rochester Associated Hospitals Program, Rochester, N. Y.
Thomas Walter Smith	Ophthalmology	University of Iowa Hospitals, Iowa City, Iowa
Jane Snyder	Family Practice	Medical College of South Carolina, Charleston, South Carolina
Sydney Zane Spiesel	Pediatrics	Yale-New Haven Hospital, New Haven, Connecticut
Frank Leigh Stark	Orthopedic Surgery	Stanford University Hospital, Stanford, California
Barbara Joan Stoll	Pediatrics	Presbyterian Hospital, New York, New York
Alvin Harry Strelnick	Family Practice	Montefiore Hospital Center, New York, New York
George Harrison Talbot	Medicine	Philadelphia General Hospital, Philadelphia, Pennsylvania
David John Taylor	Family Practice	University of Arizona, Tucson, Arizona
James Howard Tonsgard	Pediatrics	Yale-New Haven Hospital, New Haven, Connecticut
Michael Veeder	Medicine	George Washington University, Washington, D. C.
Stephen Charles Vlay	Medicine	New York University-Bellevue Hospital, New York, New York
Richard Laverne Wagner	Psychiatry	University Hospitals, Madison, Wisconsin
Robert Chapman Wesley, Jr.	Medicine	Philadelphia General Hospital, Philadelphia, Pennsylvania
Morris Jack Westfried	Medicine	Maimonides Medical Center, New York, New York
Mark Frederick Wheeler	Pediatrics	H. C. Moffitt Hospital, San Francisco, California
Henry Steven Willner	Family Practice	University of Virginia Hospital, Charlottesville, Virginia
David William Wiltse	Medicine	Cincinnati General Hospital, Cincinnati, Ohio
Scott Allen Young		Health Resources Administration (HEW)Washington, D. C.
Theodore Francis Zipf	Pediatrics	Stanford University Hospital, Stanford, California
Douglas Richard Zusman	Medicine	Massachusetts General Hospital, Boston, Massachusetts
David Mark Zwerdling	Psychiatry	George Washington University, Washington, D. C.

Dr. George E. Palade, Yale's recent Nobel Prize winner, has been Professor and Chairman of the new Cell Biology Section of the Yale Medical School since 1973. The numerous discoveries in cellular structure with which he is associated have profound implications for the treatment of genetic disorders, cancer and viral diseases.

Born in Jassy, Rumania, in 1912, Dr. Palade was trained and later taught in the Faculty of Medicine of the University of Bucharest. He came to the United States in 1946 and spent the next 27 years at the Rockefeller Institute. A frequent visitor to and admirer of Yale before joining the faculty, he now lives in Woodbridge with his wife, also a professor of Cell Biology at Yale, and four children.

Dr. Palade is the second member of the Yale faculty to have won the Nobel Prize while at Yale, the first being Lars Onsager in 1967. Nine other Yale alumni and/or faculty have been Nobel laureates over the years.



Thoughts on $370 Million

As a medical student I had the good fortune to study under two teachers who opened my eyes to the inadequacy of that period's medical knowledge and the need and challenge of conquering disease through laboratory research—the discovery of new facts. "You have a mind, use it!" was the ageless message from the lecturn.

As a Yale scientist I, too, am trying to pass on the excitement of learning to the new generations. It is perhaps regretable that so satisfying a calling requires such vast amounts of money. There seems to be no other way. But the University I know from my lab in the Medical School to Branford College (where I am a Fellow) is indeed worthy of the trust and support of its many friends. It is a very special place to teach, learn and work.

Lest this sound too parochial, let me make a larger point. A preeminent private American university like Yale serves a demanding nation and an expecting world. (The number of languages spoken in my presence each day is a small reminder of this fact.) I say that in order to emphasize how high the stakes are in Yale's Campaign. At a time when many worthwhile institutions must plead for funds I do hope that Yale's supporters recognize the special importance of their world university as a primary source of leadership and knowledge in many fields.

One major reason why Yale is entitled to make a special claim on her friends' generosity is the institution's tradition of autonomy, a priceless legacy of independence shared by all too few institutions of higher learning. This autonomy is the key to Yale's excellence, past and present. It is to be all the more prized in a world in which conditions are changing rapidly and the general trend is towards leveling at a direction below excellence. Threaten this legacy and you threaten one of the most creative staging grounds I know of for attracting outstanding students, maintaining high standards and producing able individuals to do the world's work. This must not happen.

George E. Palade

The Campaign for Yale

The Campaign for Yale, the largest private fund-raising effort ever attempted, seeks $370,000,000 from alumni and friends, corporations and foundations to assure the continued strength, integrity and freedom of Yale University.

YALE MEDICINE

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Yale Medicine

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Photos: cover, pp. 14, 18-20, William B. Carter; pp. 2-4 Laura Frances Maver; p. 5, William H. Wittstein; pp. 8, 12 courtesy of Mrs. C. N. H. Long.

Not only was the spring issue late in going to press due to a series of unforeseen events, it was further beset with problems at the printer's, where typesetting machines broke down and corrected galleys were lost. Our sincere apologies are offered to Dr. Elisha Atkins and Dr. Paul Bruce Beeson, whose initials are really P. B. B. (see page 19); to the medical class of 1925 (not 1975); and to the public health class of 1956, which was erroneously included in the M.D. alumni notes. *The editors.*

The symptoms are clear: the treatment is in doubt

Excerpts from an address by **Dean Robert W. Berliner, M.D.** to alumni at the annual meeting of the Association of Yale Alumni in Medicine, June 7, 1975

The medical care system is suffering from a lot of symptoms. There is no need to tell you about many of the symptoms that concern those of you who are involved in medical practice: malpractice, P.S.R.O.'s, prospective national health insurance, and so on. Some of the symptoms, possibly as a sort of referred pain, have been allocated to medical education and therefore are necessarily of concern to schools of medicine. These are also familiar to you: unavailability of "primary care" physicians, specialty distribution, and geographic maldistribution.

The symptoms of the disease are clear. The pathogenesis, etiology, and particularly the treatment are subject to dispute.

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We recognize the serious problems that medicine faces, and we are concerned about doing our share to solve them. We do, however, have major questions about whether the difficulties derive from defects in medical education, and whether our medical schools are in a position to do nearly as much to solve them as many in Washington seem to think.

For instance, in my opinion, the disappearance of the general practitioner is not due to the physician's venality and love of the easy life. It is due to the enormous growth of knowledge that has made specialization necessary for the maintenance of a high level of competence.

I believe the solution lies not in a return to the medicine of 30 to 50 years ago, but in improved organization of our better resources. This might well include delegation of much of the primary contact, under the supervision and responsibility of physicians, to individuals with lesser levels of training, such as physician associates or nurse practitioners. They are able to handle most of the problems, and, in some well-documented instances have been found to do some tasks better than physicians.

It is clear that the recruitment of physicians into specialties and subspecialties has followed no plan whatever. Further, given the long feedback loop between entry into training and an effect on the health care system, it would be amazing if the distribution of physician specialty ever matched the pattern of need. Clearly some kind of planning is necessary. This *is* one activity in which the schools have an important role, and it is one that we will take part in. Our hope is that the necessary planning will be carried out by those who really know and understand the problem, and that it will not be a rigid, inflexible system.

Finally, with regard to geographic distribution, it is my feeling that drafting physicians for service, by whatever name it is called, may be better for the underserved areas than nothing, but it is not a satisfactory long-range solution. Some way must be found to provide care for those areas by making the provision of such care more attractive than it is now. Otherwise, these areas face the prospect of depending indefinitely on a series of reluctant and disgruntled short-termers. I believe that some constructive thought to the long-range problems would be more useful than rhetorical attacks on medical education for failing to produce physicians who want to go where nobody else will, if he can help it.

In any case, as the deadline for new manpower legislation approaches, we hope that what is produced is something with which we can comply wholeheartedly and constructively.

Yale's Physician's Associate Program

In January 1973 the P.A. Program graduated its first class of five students. As of September 1975, 44 additional students have graduated. All have secured excellent health care positions. Several are providing family care in health maintenance organizations; roughly half are working in hospital emergency rooms or for family practice physicians in rural and semi-rural areas including New Mexico, Arkansas, and Michigan; the others are employed in a wide variety of settings ranging from a rural satellite clinic to a chemotheraphy-oncology ward in a major city hospital.

Physician's assistants have been classified by the National Academy of Sciences into three categories, based on the types of training they receive and the professional roles they may be expected to fill. In brief, these categories may be distinguished as follows: Type A has extensive training in general medical theory and clinical practice; Type B has extensive training in the theory and practice of one medical specialty; and Type C has a narrowly circumscribed background in general medical practice.

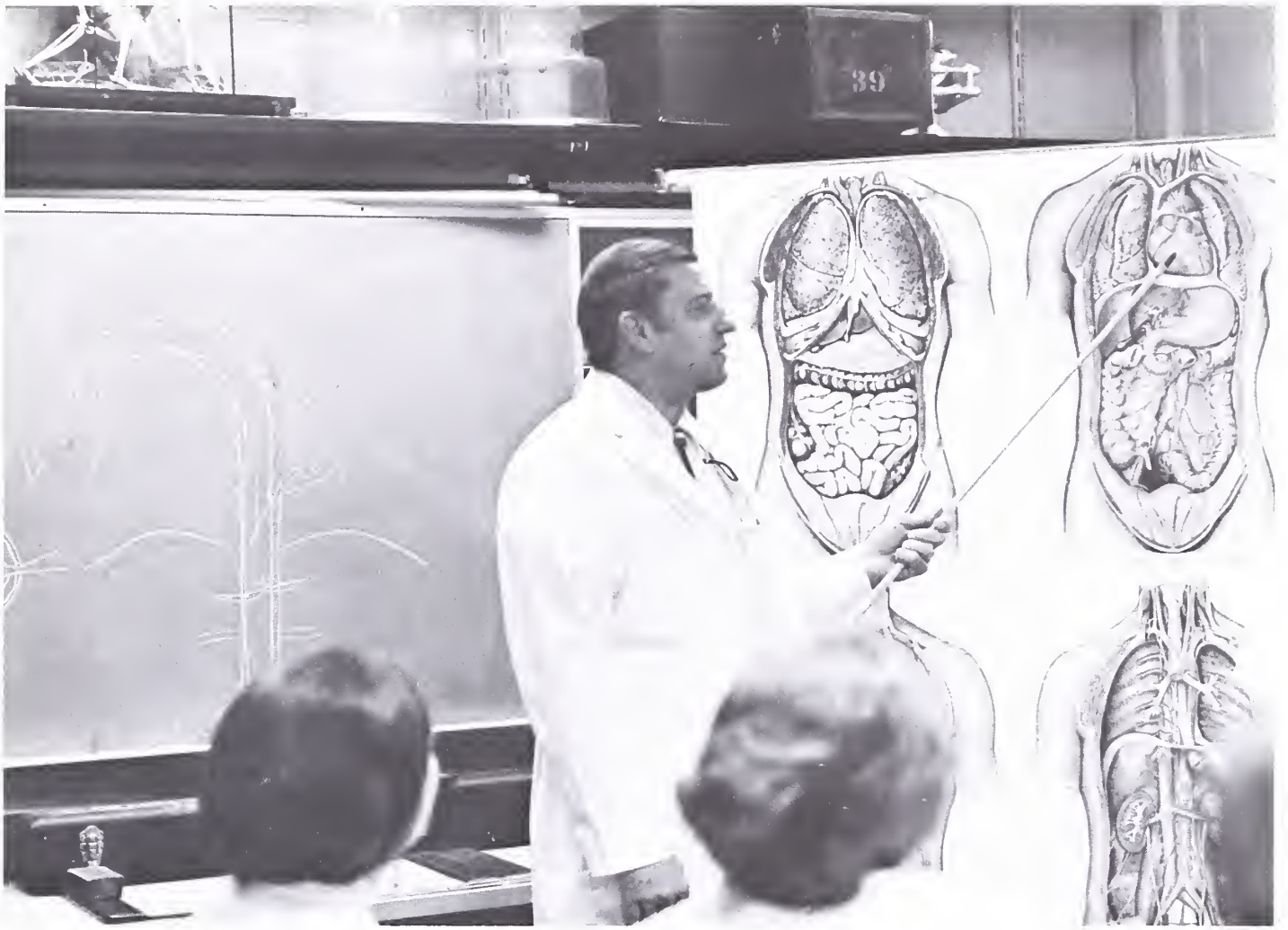
Yale's program is designed to educate Type A physician's assistants and its graduates are designated as *physician's associates*. They are, according to the National Academy of Sciences' description, capable of approaching the patient, collecting historical and physical data, organizing these data and presenting them in such a way that the physician can visualize a medical problem and determine appropriate diagnostic or therapeutic steps. They are also capable of assisting the physician by performing diagnostic and therapeutic procedures and coordinating the activities of other more technical assistants. While they function under the general supervision and responsibility of the physician, they may under special circumstances and under defined rules, perform without the immediate surveillance of the physician. They are thus distinguished by their ability to integrate and interpret findings on the basis of general medical knowledge and to exercise a degree of independent judgement.

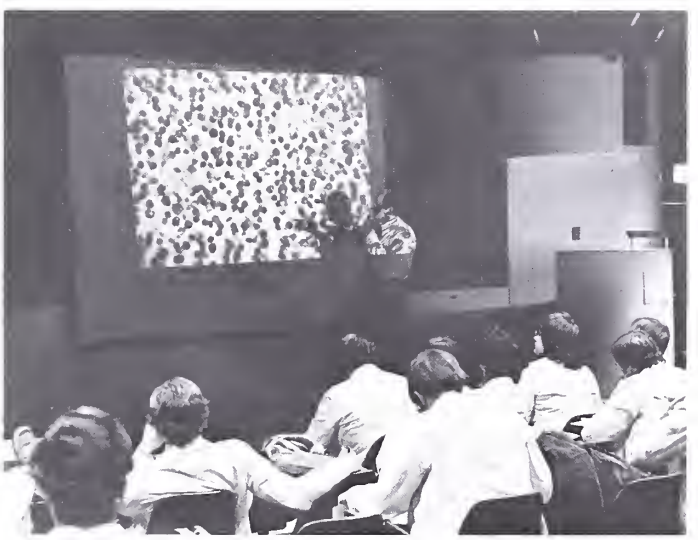
Much of the pioneering work in the physician's assistant field began at Duke University which established its program in 1965. About the same time nurse practitioner programs and other similar concepts were being developed at several institutions.

All are attempts to train advanced health care practitioners who can work in a team under the supervision and direction of the physician. They are distinguished from other health professionals by the extent to which they are given decision making authority regarding patient care, diagnosis and treatment, and by the depth of their clinical experience. In this respect the education of new health practitioners more closely approximates that of medical education than the education of other existing health personnel.

Major federal support for this concept became available in 1972. At present approximately 40 programs are funded by the National Institutes of Health. The majority are located in major medical centers throughout the nation. Clearly the concept of physician's assistants has caught on, and is recognized as a widely accepted health profession.

The Yale Physician's Associate Program was initially developed under the auspices of the Trauma Program of the Department of Surgery. Soon after it was established in 1970, the program was broadened to include primary care. At that time it received funding from the Office of Special Programs, Bureau of Health Manpower Education of the N.I.H. With this support the program has continued to expand, and in 1975 the Yale Corporation accepted the Physician's Associate Program as a program of the University. Its graduates now receive a certificate declaring that they have met Yale's minimum requirements for performing as a Type A physician's assistant.

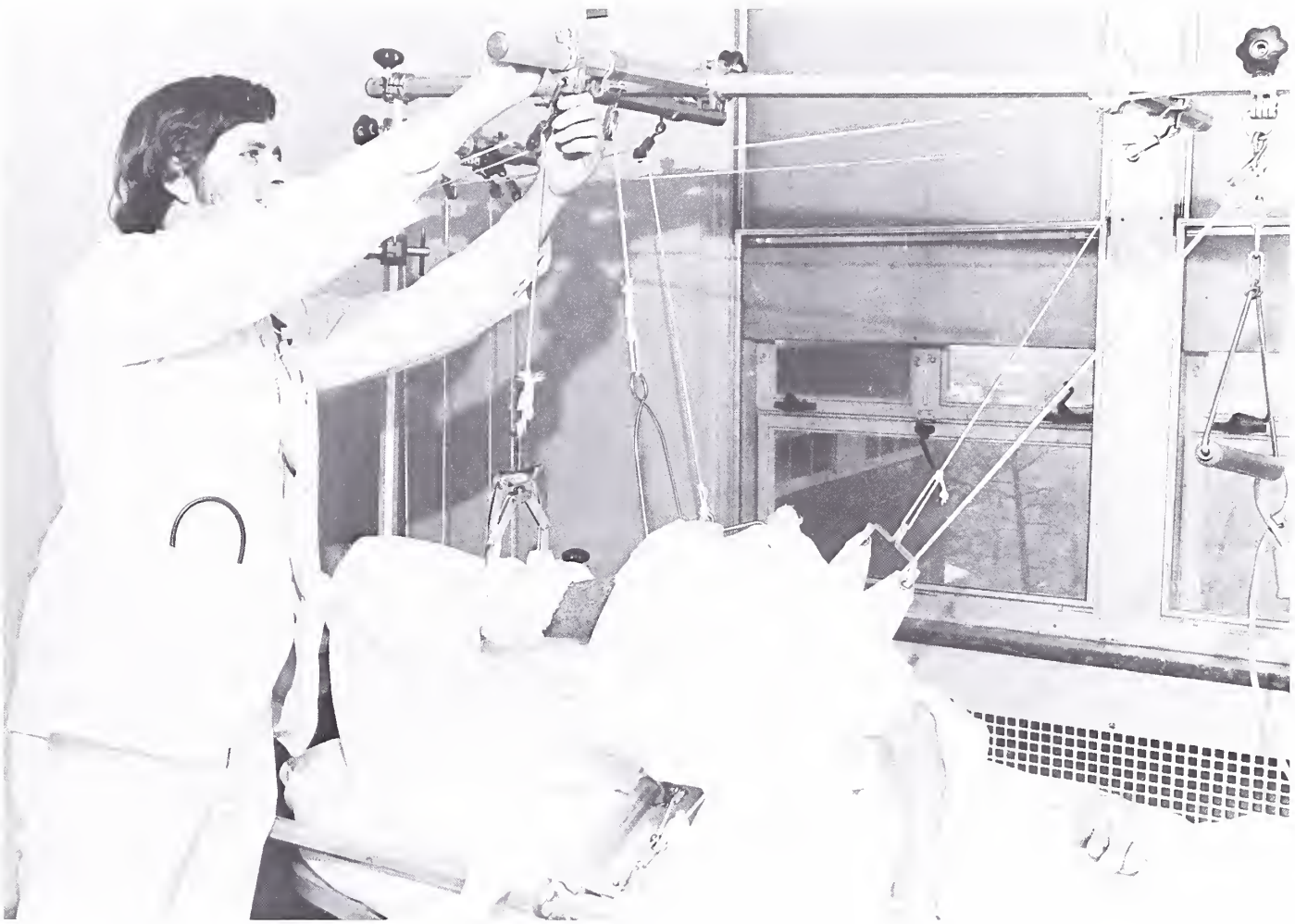




A new class of approximately 21 students is admitted each September. They have been chosen from over 400 applications from all across the nation. Students enter the program with a common dedication to excellence in health care and a wide variety of backgrounds. Most have college degrees. Some have been military corpsmen or nurses. Only a very few have been admitted without any previous experience or with little college background.

The Yale Physician's Associate Program is divided into a didactic phase of nine months and a clinical phase of fifteen months. The didactic phase is devoted to course work in basic and clinical sciences. Some courses are taken with Yale medical students and graduate nursing students.

During the clinical phase, each student takes twelve five-week clerkships in different medical services in order to acquire broad exposure to primary and emergency care. Eight clerkships are mandatory: ambulatory medicine, internal medicine, general surgery, family practice, psychiatry, pediatrics, obstetrics and gynecology, and emergency care. While most of the clerkships take place in the New Haven area, the experience of the student is broadened by clerkships in other areas such as Vermont, Pennsylvania or New York.



In 1971 the Council on Medical Education of the American Medical Association established the "Essentials of an Approved Educational Program for the Primary Care Physician's Assistant." Since 1974 these have been used as guidelines for programs to be accredited. The Yale Program is accredited.

Both the nature of the P.A.'s responsibilities and the legal implications to the hiring physician continue to be matters for discussion. As of May 1975, 37 states have amended their laws to permit physician's assistants to work with licensed physicians and assist in providing health care. Many other states are considering similar laws.

The case of the C.I.A and butter clam toxin

While much of America is viewing the Senate hearings on the activities of the Central Intelligence Agency with some dismay, Dr. J. Murdoch Ritchie, Eugene Higgins Professor of Pharmacology, is watching them with considerable concern.

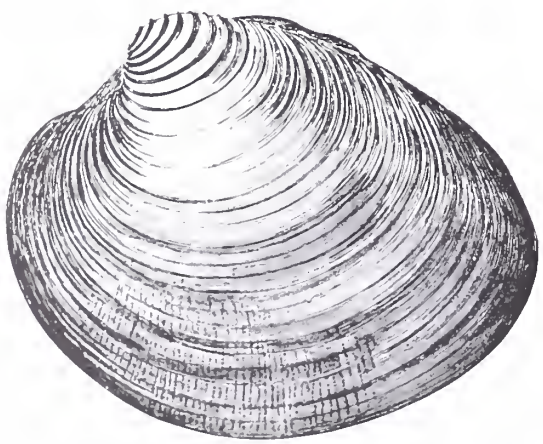
The object of Dr. Ritchie's concern is a supply of the poison, saxitoxin, which the agency kept in violation of a Presidential order in 1969 to halt the development of biological and chemical weapons, and to destroy existing stockpiles. The Senate Select Committee on Intelligence, chaired by Senator Frank Church, learned this summer that a middle-level official of the C.I.A. had failed to destroy supplies of saxitoxin and cobra venom.

Saxitoxin, which is derived from tissues of butter clams and other shellfish, was developed by the C.I.A. for various possible covert activities. In testimony that seems more likely from a James Bond novel than a Senate hearing, one source claimed that the agency considered using the poison in suicide pills so that U.S. agents could kill themselves if they were caught by enemy agents. The poison, which kills by respiratory paralysis, acts so swiftly that the captors would have no time to administer an antidote. Other intelligence sources said that memoranda existed which suggested aggressive actions in which the shellfish poison could be used, but they did not elaborate. According to Dr. Ritchie, the amount of saxitoxin retained by the C.I.A., if properly administered, could kill up to 5,000 persons.

The former chairman of the Department of Pharmacology's interest in the poison, however, is not to support or condemn the C.I.A.'s actions, but to make a plea for the preservation of the agency's supply of the poison. In addition to its cloak and dagger aspects, Dr. Ritchie emphasizes that saxitoxin is extremely valuable for research on such nervous system diseases as multiple sclerosis.

In an article about the Senate hearing, the *New York Times* reported that "a prominent pharmacologist, Dr. Murdoch Ritchie of Yale University, has asked the agency and the Senate Committee to prevent the destruction of the shellfish toxin on the ground that it could be extremely valuable for medical research. He said the poison was similar to one once mentioned in James Bond books by Ian Fleming."

Dr. Ritchie is one of the few research scientists who have done research with shellfish toxin. In letters to President Ford, Senator Church and Dr. Philip Handler, president of the National Academy of Sciences, he elaborated his concerns for the preservation of the agency's supply.



Dear Senator Church:

I am writing to confirm a concern that I have already expressed to Mr. Johnston of your staff about the ultimate fate of the toxin, saxitoxin, that the C.I.A. now holds, not having destroyed it in 1969 in violation of a Presidential order. This letter represents a plea that the toxin be preserved and not destroyed at the end of your hearings.

Saxitoxin (and another toxin, tetrodotoxin) is extremely valuable for medical research on diseases of the nervous system and for our understanding of how the nervous system normally works. The toxin reacts in extremely small concentrations with a critical component of the nerve membrane, to block conduction in nerve. It can, therefore, be used to study the functional integrity of the nervous system. Indeed, the National Institutes of Health, together with The National Multiple Sclerosis Society, have just awarded us grants to study the *Biophysical Basis of Nervous Dysfunction in Demyelinating Disease* of which Multiple Sclerosis is the most common example. The major thrust in these experiments is the use of saxitoxin to detect the functional difference between normal and demyelinated nerve. The batch of saxitoxin now in the hands of the C.I.A. is by far the largest amount of toxin in existence. Originally, small amounts of saxitoxin were made available for biomedical research by the Food and Drug Administration, by Fort Dietrich, and by Dr. Edward J. Schantz who originally prepared the toxin. These supplies are now virtually exhausted. And the vast expense of producing the toxin makes the future production of saxitoxin unlikely. It is for this reason that I urge your Committee to recommend that the toxin be preserved for biomedical research at the end of the hearings.

There is another toxin, tetrodotoxin, . . . that is just as potent as saxitoxin and has an identical mechanism of action. It is ironic that this latter toxin, tetrodotoxin, is commercially available, with appropriate controls for safety, from various sources . . . at $40/mg! The two toxins are identical from the point of view of killing individuals (neither would be very effective as a "mass killer" since each needs to be eaten). But for biomedical research saxitoxin is far superior to tetrodotoxin. For it is chemically more stable and better survives the slight molecular rearrangement involved when, as in many of the medical research experiments, the toxin is tagged with a radioactive label. Radioactive labelling is necessary to allow one to follow the distribution of the toxin in nervous tissue and hence to determine the extent of normal and abnormal nervous function. Such knowledge would be vital to our ultimate undertstanding and treatment of the diseased condition.

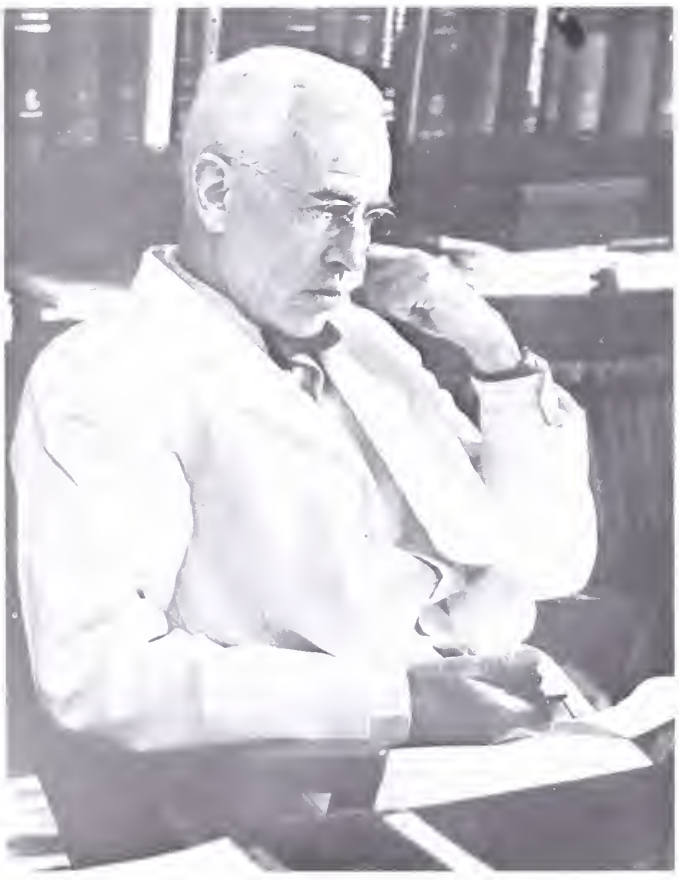
In addition to this known *current* use in biomedical research to study the molecular basis of nervous disorders, saxitoxin has two potential *future* uses. First, future research by Public Health officials into *paralytic shellfish poisoning* (which is ultimately caused by saxitoxin) will require that future workers will have access to saxitoxin in developing methods for counteracting the effects of the poison. Secondly, . . . the two toxins, but particularly saxitoxin because of its greater chemical stability, could well serve as prototypes for future new kinds of local anesthetics. Both lines of research would be severely jeopardized if at some future date medical research workers were to find that saxitoxin was not available, the last of the supplies being destroyed in 1975 by government order.

I appreciate that a poison of this nature must be carefully controlled; but I think this can easily be done. I would suggest that at the end of the hearings the batch of saxitoxin be turned over to some appropriate Government agency, for example, the Food and Drug Administration, who with appropriate controls, would make it available for biomedical research purposes only. Alternatively, the distribution could be supervised by the National Academy of Sciences to whom I have already written, or by some University. In this latter connection, either Dr. Edward J. Schantz, of the University of Wisconsin, who originally produced the toxin, or myself at Yale would be delighted to act as custodian, either separately or together. Which ever of these alternatives seems most appropriate to you, you will have done biomedical research in the area of nervous diseases a great service if you manage to preserve the integrity of this batch of toxin for present and future medical research.

Sincerely yours,
J. Murdoch Ritchie, Ph. D., D.Sc.
Eugene Higgins Professor of Pharmacology
and Director, Division of
Biological Sciences

Cyril Norman Hugh Long, 1901-1970

Selections from a *Biographical Memoir* by O. L. K. Smith and J. D. Hardy. Reprinted from *Biographical Memoirs*, Volume XLVI, published in 1975 by the National Academy of Sciences of the United States.



Cyril Norman Hugh Long, the elder son of John Edward and Rose Fanny (Langdill) Long, was born on June 19, 1901, in a village in Wiltshire, England. Most of his youth, however, was spent near Manchester, where his family had settled in the industrial town of Wigan. He spoke of his childhood often, as if it were of some special importance to the rest of his life.

Mr. John Long was the son of an impressive Color Sergeant in the Scots' Guards. He had shown great academic promise as a boy, but for some reason failed to pursue the life of a scholar or scientist, to which he might have been well suited, and instead entered government service, becoming a Tax Surveyor. As such he was known for his rigid honesty and retiring disposition. On the other hand, he pursued at home a lively interest in history and literature, and his creative energies poured forth in a number of hobbies. Wearing a white coat he experimented in the making of perfumes and jams or inlaid delicate woodwork. He collected rare books and knew some authors personally, notably Joseph Conrad. It may be imagined that his son inherited unusual intellectual ability, versatility, curiosity, and manual dexterity from his father, who encouraged him to be a serious student and to become a scientist. It also seems likely that the Long family set high standards for both moral character and achievement.

Mrs. Long was more of a companion to her two boys than their father. Cyril, as he was then known, often mentions in his diaries (1914-1917) "going out with mother," perhaps to the library, sometimes to tea or even the theater. He was said to resemble her physically, and it may have been the gentle good nature and flexibility inherited from her that were to distinguish him later in life in the role of teacher and administrator. The Longs were conservative people, and one can only speculate as to how much they might have felt the effects of changing time in England at the turn of the century, but it is worthy of note that they were living near the city of Dickens' *Hard Times*, the cradle of a great liberal tradition, during a period of social reform and of expanding interest in education. Intellectual life in Edwardian England as a whole, moreover, as has been pointed out recently by J. B. Priestly, had some unique qualities that influenced its youth—first, a distinct optimism that Priestly has termed "an atmosphere of hopeful debate" and, second, a peculiar climate "in which English genius, talent and generosity of mind could flourish."

As to his own education, Dr. Long was fond of describing to his American grandsons the Wigan Grammar School, where he and his brother Reggie began their studies, as a strict old-fashioned British boys' school. It was then directed by a Reverend Chambres, a scholar himself, who had the gift of interesting others in learning. Classes were small, especially in the upper grades, and the group became quite competitive, doing well in their outside examinations. Cyril was developing a keen interest in history, and soon became known for his exceptional memory and ability to write good essays.

Ora K. Smith, M.D., is a research associate in epidemiology in the School of Medicine, and an associate fellow of the John B. Pierce Foundation Laboratory.

James D. Hardy, M.D., is professor emeritus of epidemiology and physiology, and a fellow emeritus of the Pierce Laboratory.

Cyril continued to do well in school, in such subjects as English, mathematics, French, and Latin, geography, Bible, and history. He placed fourth in his class in 1917. In that year, however, he also discovered chemistry, in which he rose immediately to the top of the class. Perhaps it was only natural talent and previous experience in the darkroom that accounted for this new interest, but many years later, when considering the selection and training of young scientists, he wrote of the primary importance of contact with inspiring teachers, "I was attracted at an early age to chemistry, largely by my own fortunate contact in an English school with a science master, who . . . was not a distinguished investigator, but had an enthusiasm for his subject, and a way of teaching it that was so effective that a large number of his students have become scientists." Thus it was that Long embarked upon what he later called the "exciting life adventure" of science. On completion of grammar school he enrolled immediately in the Honours School of Chemistry at nearby Manchester University.

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Long might have become a different sort of young man if he had gone to Cambridge, which was at first considered, but he seems to have been satisfied to commute to Manchester and to live at home with father and mother. At any rate he obtained a thorough training in both inorganic and organic chemistry, prepared his first two publications on the subject of the Friedel-Crafts reaction, and received his Bachelor of Science degree with first class honors in chemistry in 1921. Now twenty years of age, he was apparently well on the way to a career as an organic chemist when something unexpectedly set him off in quite a different direction. His own version of what happened is as follows:

"During my years in the School of Chemistry I had become interested in organic chemistry, particularly in that of carbohydrates, and had thought that I might devote myself to this subject after graduation. However, one day in 1921, I was asked to see A.V. Hill, the newly appointed Professor of Physiology at the University. He told me that he was working on the physical and chemical changes underlying muscular contraction, and that the latter was associated with the breakdown of glycogen to lactic acid. He needed the assistance of a chemist to follow these changes both in animals and in the blood of humans who were exercising. I must say that my first reaction was not too enthusiastic, I had had but little experience in biology, and in those days the efforts of the so-called biochemists were not held in too high regard by many of their colleagues in pure chemistry. I was used to dealing with substances that could be crystallized, whose physical constants and chemical properties were predictable. The heterogeneous, messy and unknown properties of extracts of cells or of blood which this investigation required me to analyse seemed to offer nothing but a struggle against large odds. Nevertheless, as Professor Hill talked about the enormous possibilities for the understanding of living processes that the methods of chemistry and physics were able to offer, I began to be caught up in his enthusiasm and vision. I accepted the great opportunity he offered me and in due course wondered why I had not had the sense to see for myself the challenge and excitement that these 'messes' offered to young students of chemistry and physics; that they were indeed the only keys that would unlock the mysteries of living cells and organisms . . . .

"When I began my work with Hill and his colleague Lupton, I soon began to suspect that their interest in me had not been entirely due to my extensive training in chemistry. I was at that time an enthusiastic player of football, field hockey, and cricket, and this interest was soon put to practical uses by my superiors for I found myself running up and down stairs, or round the professor's garden while at intervals healthy samples of blood were withdrawn from my arms. When I had recovered from my exertions I was asked to sit down and analyse these for lactic acid."

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. . . . Long's next course of study took him to the medical school at Manchester where, having received a scholarship, he began his work in October of 1921. We now know that although he was studying for his M.Sc., Hill encouraged him to qualify also for the medical examinations because he could see his young associate's "mind was already bending towards medicine."

In the meanwhile the conversion of Long the chemist to Long the physiologist took place rapidly and, after receiving his master's degree from Manchester in 1923, he continued on with Hill to join [Ernest] Starling's department at University College, London, for the next two years.

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The years with Hill were important, too, not only for acquiring technical training, but also for leading to the development of a philosophy. The growth of biological science in England at the turn of the century owed much to the Cambridge school of physiologists, under Michael Foster and later [Professor J.N.] Langley, where Hill had received his own training. Under [Walter] Fletcher's supervision Hill had worked in an odoriferous, unglamorous cellar side by side with Lucas and others, for the physiology laboratory at Cambridge in those days was crowded with many "giants per square foot." Thus it is not surprising to find Long assimilating some progressive ideas about science and education. Always a staunch adversary of Victorian utilitarianism, he quoted Sir Edward Appleton in 1955—"Knowledge and insight are sufficient reward in themselves"—to express a view that has not enjoyed universal popularity as the century progressed. Also, Long began to believe, as Hill and Hopkins did, that the greatest discoveries are made from astute observation as a matter of chance—"things just happen" rather than being planned. Further, he believed that the function of the scientific mind is simply as it says in the dictionary, to revise "accepted conclusions in the light of newly discovered facts." All of this means that the most important piece of equipment in the laboratory is the scientist himself, and it demands that the scientist be given, as Long would say, the minimum of requirements and the maximum opportunity. This was the state that suited his own temperament so well. It might also be observed that such individual endeavors thrive best in a climate of friendship and the strong personal

bonds that were to provide an important ingredient in the course of Long's own career.

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It was not long before his interests widened, and his responsibilities were increased when it became evident that their colleague Harvey Lupton was dying of cancer. Interestingly enough, a letter from Lupton from the nursing home suggests that some of their techniques for studying exercise in man be applied to diabetic patients.

It is not unlikely that Long was himself already thinking about the subject that was ever after on his mind: the syndrome of diabetes and how the various endocrine glands play upon metabolism during its development. . . . Having appreciated the advantages of applying chemistry to physiology, Long again began to apply what he knew of one discipline to another, clinical medicine. The result was "The Metabolism of the Diabetic Individual During and After Muscular Exercise," written with K. S. Hetzel from the Department of Medicine. About this time he discovered Graham Lusk's *The Science of Nutrition,* which was to influence his work for many years to come. . . .

Accordingly, A.V. Hill arranged an opportunity for Long to return to his medical studies: "In 1925 Jonathan Meakins, Professor of Experimental Medicine at McGill University, Montreal asked me if I could recommend somebody to join his team there. This led to Long going to McGill where he continued experimental studies during his study of clinical medicine."

During the next two years Long held the post of lecturer in medical research in the Department of Biochemistry at McGill. Upon receiving his M.D.C.M. degree, in 1928, he took charge of the medical laboratory at the Royal Victoria Hospital for the Department of Medicine, becoming assistant professor of medical research at McGill in 1929. . . .

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. . . While the publications of the next seven years covered a variety of topics as Long gained knowledge of medicine and collaborated with others on the staff, it is interesting to note that throughout he was still preoccupied with the fate of lactic acid in health and disease and the neuroendocrine control of carbohydrate metabolism. "These were fruitful and exciting days," he wrote, "as we pursued our particular interests and at the same time exchanged ideas and talked shop among ourselves and clinicians and medical students who gradually began to drop in." Typically, he became treasurer of the Fund for Afternoon Tea, a daily social function that attracted a variety of stimulating associates and was to become a ritual in all his future laboratories.

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The easy informality on the new continent apparently agreed well with Long. Perhaps that is why he became "Hugh" instead of "Cyril" to his new friends. . . . . He was changing, too, becoming more teacher than student, more leader than follower, and guiding his first graduate students.

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It may be pointed out here that Long's first ties in the United States were with the clinical societies (he was president of the American Society of Clinical Investigation in 1944) and that he soon became known for his ability to restate the problems of disease more clearly to physicians in biochemical or physiological terms. Driven by the curiosity that earlier had sent him to Hill, the young medical student, unabashed, had struck up a correspondence with some famous figures—Carl Cori, W. B. Cannon, and Graham Lusk himself. It was with some annoyance that he received a typical reply from Lusk in which this hero casually discounted Long's meticulous results as due to a leaky apparatus! Nevertheless he had gained enough confidence in his own accomplishments to present a paper to Manchester University for a D.Sc., which was bestowed on him in 1932, shortly before he left for McGill.

Dr. Meakins was to make one further contribution to Long's happiness, that of introducing him to Hilda Jarman, who was to become his wife. Having encountered a group of attractive young women from Calgary starting out on a holiday abroad, and knowing Long was on his way home to England for a visit by the same ship, Meakins couldn't resist arranging what developed into a shipboard romance. The wedding was at the bride's summer home in Vancouver in 1928. Hilda Long, an attractive, intelligent, and practical person, was to have an unusual appreciation of her husband's important contributions to science and human welfare. In addition, she shared his enjoyment of the social side of life, and she was to bestow gentle concern and friendship in the future of hundreds of his students and associates.

Although those who knew Long were convinced of his future success, the newly formed George S. Cox Research Institute at the University of Pennsylvania would have perhaps seemed an unlikely spot from which to make an important scientific discovery when he left McGill to become its director in 1932. The new arrivals were greeted by a modest suite of rooms, walls bare except for a plaque advising the occupants that the purpose of the institute was to "find a cure for diabetes." "A rather overwhelming assignment for a young man," Long recalled later. . . . His responsibilities in the laboratory, moreover, were to be shared with a skillful clinician from the department of medicine, Francis Lukens.

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In spite of evidence to the contrary it was generally agreed in those days that all the symptoms of diabetes mellitus were simply due to the underutilization of sugar because of an insufficient supply of insulin. Although Long came from a school that upheld the pancreatic origin of diabetes, he immediately appreciated the importance of the discovery a few years before by Bernardo Houssay that the removal of the pituitary gland pro-

duced a remarkable amelioration of experimental diabetes, clearly demonstrating the participation of at least one extrapancreatic factor in the diabetic syndrome. Thinking of the task ahead, Long and Lukens remembered the clinical observation that diminished function of the cortical portion of the adrenal gland lowers the blood sugar. Knowing also that removal of the pituitary is followed by adrenal atrophy, they set about investigating the possible role of the adrenal cortex in the Houssay preparation.

By early 1934 Dr. Lukens was able to prepare cats not only pancreatectomized but having both adrenals removed as well. To the two scientists' delight, the first such cat lived eleven days, or about twice as long as the usual diabetic cat; its blood sugar values were actually lower than normal in spite of its receiving no insulin whatsoever. They knew immediately that they were on the right track.

Long said afterwards, "Our feelings of achievement and excitement in those spring days now nearly 30 years ago, when we saw those cats alive and well long after their controls had died, are still very vivid in my mind. It is one of the great though far too infrequent rewards of research to realize that you have made a lasting, albeit small contribution to knowledge. To be privileged to do so is an experience that remains with you long after your work has been expanded and incorporated in the greater achievements of your successors."

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Long's most important contribution, then, was not that he and Lukens had "cured diabetes" by adrenalectomy—for such a naive idea was never entertained—but rather that the syndrome of diabetes itself was reconsidered in the light of newer knowledge of the parts played by the pituitary and other ductless glands in the events that follow pancreatectomy in animals. Long gave substance to the concept that the "balance of the endocrine glands" was related to the "diseases of metabolism." In 1936 he proposed to the American College of Physicians that "the clinical condition that follows hypo-or hyperfunction of an endocrine organ is not merely due to the loss or plethora of that particular internal secretion but is a result of the disturbance of the normal hormonal equilibrium of the body"—still, almost forty years later, perhaps the most important single idea in endocrine research.

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It was inevitable that Long would attract the attention of those seeking a candidate for the chair at Yale University vacated recently by the death of the celebrated biochemist Lafayette Mendel. As a result of the efforts of [J.P.] Peters, who was specializing in diabetes in the Department of Medicine, and of the distinguished neurophysiologist John Fulton, Long moved to New Haven in the fall of 1936 as professor of physiological chemistry. Although Fulton's report for the committee praised his teaching and administrative ability, which had already become evident at the Cox Institute, it is most interesting for its evaluation of his scientific work. It states that Long has "perhaps more than any other contributed to the disentanglement of the confusion that reigned between the functions of the various endocrine glands and . . . metabolism and had put this on a sound scientific basis."

For his part, Long wrote this rather interesting acceptance to Dean Stanhope Bayne-Jones: "Not only my own future but also that of the subjects in which I am interested are to be best served by accepting your invitation." Privately he felt some trepidation. He was only thirty-five years old, and his accomplishments were unknown to many outside his field. Nevertheless, as A. V. Hill correctly predicted in a congratulatory letter, he need not have feared to follow the famous Professor Mendel, for his own interdisciplinary training uniquely fitted him for the needs of the future.

Long remained at Yale until his retirement thirty-five years later, first as professor and chairman of the Department of Physiological Chemistry, receiving the appointment as Sterling Professor in 1938. (His department, renamed the Department of Biochemistry in 1952, was the first department of biochemistry in the United States.) Later, Long became chairman of the Department of Physiology, having twice assumed responsibility also for the Department of Pharmacology as interim chairman, as well as serving as chairman of the university's Division of Biological Sciences. From 1947 to 1952 he served as dean of the School of Medicine, having already been acting dean briefly in 1943. From the first he took an active part in the affairs of the School of Medicine and joined in the life of the Yale community, being immediately well liked and respected. His department published fifty-seven papers in 1937-1938 and entered into many new outside activities under his leadership.

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Maintaining high standards in education and research had not been easy during World War II, and the pressures of the postwar period on medical schools were combined with mounting economic problems. Thus when Long was asked to become dean in 1947, the School of Medicine was facing a grave crisis. In fact, there were rumors that it might close entirely—hardly happy circumstances under which the new dean was to take office! Needless to say, the school did not close, largely because of extraordinary efforts to reach a compromise on the question of how to relieve the university of the responsibility for the entire deficit of the New Haven Hospital, which was becoming an alarming drain on Yale's educational funds. Dean Long was one of the architects of that agreement and was responsible as well for numerous other improvements in service and economy, notably the centralization of clinical laboratories.

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No description of those days of stringent economy would be complete without reference to the semblance of gracious social life that the Longs and their friends somehow continued to bring to Cedar Street. Thus the traditional afternoon teas popular since the Winternitz days at the medical school were enthusiastically continued. Faculty wives presided, and the refreshments were provided by funds raised annually at a gala ball arranged by the students. It all required some effort, but succeeded in bringing the medical community together in ways that were not entirely academic.

The Yale years: *above, Dr. Long and his staff in 1937-1938. In the front row are, left to right, A. White, G. Cowgill, Dr. Long and G. T. Evans. Right, four prominent medical scientists, Dr. Harvey Cushing, Dr. John Fulton, Dr. Herbert Evans and Dr. Long, talking things over at a Fourth of July picnic in 1937.*

When Long's term elapsed, in 1952, he left with relief, for he believed the deanship should be a full-time job. At this time he moved from biochemistry to the physiology department where he served as chairman until 1964, remaining as Sterling professor until he became emeritus in 1969. . . .

The central theme of Long's research remained the endocrine control of metabolism . . . He was able to describe quantitatively for the first time the biological properties of the adrenal cortical hormones . . . The hypophyseal factors participating in the diabetic syndrome . . . adrenal cortex in hemorrhagic shock . . . diabetes and . . . obesity.

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With students in all parts of the globe, with activities in remarkably varied professional societies, and with the wide recognition he received for his achievements in basic science, Hugh Long was destined to have more than a local influence on the course of medical science in his time. Some measure of this was a consequence of the service he gave to the government of his adopted country, which urgently needed him as a consultant during World War II. His desire for citizenship in the United States was granted in 1942. The story is told that, according to his usual custom, he came to the examination for naturalization very well prepared. When asked some minor questions about American history, he astounded his audience with a twenty-minute scholarly talk on the subject.

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. . . Following one trip to Washington in October of 1960, after a strenuous summer of meetings abroad, Long entered the hospital with a severe myocardial infarction. He recovered in time, however, to receive in person an honorary degree from McGill University in June of the next year. He lived almost ten years longer, a life sometimes dissatisfying professionally as the elements of his philosophy were inevitably challenged, but full of honor and never dull. Upon reaching the age of retirement, in 1969, he was appointed a fellow of the John B. Pierce Foundation's Yale affiliated laboratory, where he continued his research in the endocrine control of metabolism as related to environmental physiology. Although suffering increasing physical limitations he took pleasure as usual from work, friendship, and family life, for he was always happiest at home or traveling abroad with his two daughters. His close relationship with them is more evidence of his extraordinary strength and discipline when one considers the heavy demands of his work during the years of their childhood. One of his proudest moments was when his younger daughter, Diana, received her Ph.D. in the History of Science and Medicine from Yale. After his daughters married and he became the delighted grandfather of six grandchildren, summers in Maine continued to unite him with his children. There, while fishing with a young grandson on a beautiful summer day, his heart finally stopped, ending a remarkable career.

In accounting for a life so full of meaning and accomplishment one is struck in the first place not only with the optimism but also the goodwill, tolerance, and mutual enjoyment with which this older generation, particularly in Britain, endowed its scientific work. It was before, as Priestly observes, "we had to move into a world largely alien to the English temperament." Second, while the old world was small enough for individuals to have importance, it was large enough to accommodate the freedom that Long so valued and used to such advantage in his own career. At every crossroad he consistently chose freedom over security and material gain. Third, much of Long's success, both in the laboratory and as an administrator, stemmed from his breadth of knowledge, his appropriate choice and effective promotion of the original, neglected ideas of others. He was a nonspecialist with the broader understanding possible before the current necessity of specialization. While today, because of overwhelming advances in the body of scientific knowledge itself, there is "more emphasis on the accumulation of facts than on the ability to comprehend them (D. W. Bronk)," it seems highly unlikely that Long and Lukens would ever have fully appreciated the relationship of the endocrine glands to the biochemical changes of diabetes mellitus if they had not had wide experience in clinical medicine. Fourth, in Hugh Long's day there was more leisure for maturing, more time for contemplation and, finally, no one was ashamed, in the words of A. N. Whitehead, to take "an active interest in the simple occurrences of life for their own sake."

in and about

Dr. Palade named Sterling Professor

Dr. George Palade has been named Sterling Professor of Cell Biology. Dr. Palade has been on the faculty at the School of Medicine since 1973, when he was appointed chairman of the Section of Cell Biology. The Sterling professorships are among the most distinguished at Yale and the incumbents include the top scholars and scientists in the University.

Dr. Palade, a co-winner of the Nobel Prize in 1974 for his discoveries concerning the structural and functional organizations of cells, was born in Jassy, Rumania. He was trained and later taught in the Faculty of Medicine of the University of Bucharest. He came to this country in 1946 as a visiting investigator at Rockefeller University. He was associated with the university for 27 years before coming to Yale.

Associate dean for graduate and continuing medical education appointed

Dr. Thomas J. Krizek has been appointed associate dean for graduate and continuing medical education. He is professor of surgery (plastic) and director of the Yale Trauma Program.

As associate dean Dr. Krizek will be responsible for directing and coordinating programs of continuing medical education within the Yale-New Haven Medical Center and at affiliated community hospitals, as well as coordinating graduate training programs including internships, residencies and fellowships.

Dr. Krizek joined the Yale School of Medicine faculty as associate professor of surgery (plastic) in 1968. He was appointed professor in 1973. Born in Milwaukee, Wisconsin, he attended Marquette University there, earning his B.S. degree in 1954 and his M.D. degree in 1957. He served his internship and surgical residencies at the University Hospitals of Cleveland. From 1966 until 1968 Dr. Krizek was assistant professor of surgery at Johns-Hopkins University School of Medicine, as well as at the University of Maryland School of Medicine. He was also chief of the Division of Plastic Surgery at the Baltimore City Hospital at that time.

Dr. Krizek is a fellow of the American College of Surgeons and is a member of the Connecticut Governor's Advisory Committee on Emergency Medical Services, the American Association of Plastic Surgery, The American Society of Plastic and Reconstructive Surgeons, and the Educational Foundation of the American Society of Plastic and Reconstructive Surgeons.

New Faculty Appointments

Two new professors have been appointed to the medical faculty effective July 1. Dr. Richard K. Root, professor of medicine, who received his M.D. from Johns Hopkins University in 1963, has been on the faculty of the University of Pennsylvania School of Medicine and chief of the Infectious Disease Section since 1971. He is widely known for his studies on the biochemistry of phagocytosis.

Dr. Charles F. Stevens, professor of physiology, received his M.D. from Yale in 1960 and his Ph.D. from the Rockefeller University in 1964. Since that time he has served on the faculty of the University of Washington School of Medicine in the Department of Physiology and Biophysics. Dr. Stevens has been concerned with several aspects of membrane physiology and has made significant contributions in the field of neurophysiology, most recently doing theoretical and experimental analysis of transmitter release at the neuromuscular synapse.

Other newly appointed members of the full-time faculty include: Alexander S. Geha, M.D., associate professor of surgery; Pacifico V. De Jesus, Jr., M.D., associate professor of neurology; Michael T. Shaw, M.D. associate professor of clinical medicine; and Kenneth J. W. Taylor, M.D., associate professor of diagnostic radiology.

1975 Ira V. Hiscock Lecture

Sir George Godber, chief medical officer of the Department of Health and Social Security in the United Kingdom from 1960 to 1973, delivered the 1975 Ira V. Hiscock Lecture on September 25.

Dr. Godber, who is in the United States as a Fogarty Scholar at the Fogarty Center, National Institutes of Health, discussed "The Greater Medical Profession." His talk reflected his experiences and the philosophy of medicine he developed in his years with the National Health program in Great Britain.

The Ira V. Hiscock Lectures are based on a fund donated by Mitchell D. Stock in honor of his former teacher, Dr. Hiscock, Anna M. R. Lauder Professor Emeritus of Public Health, "because of his many years of splendid contributions not only to the teaching of public health at Yale University through hundreds of medical students and public health workers, but also to improving and strengthening the organization of public health work in many parts of the United States and indeed throughout the world."

Promotions to Professor

The following members of the medical faculty were promoted to the rank of professor effective July 1975: Daniel M. Albert, M.D., professor of ophthalmology; Gerard N. Burrow, M.D., professor of clinical medicine; Joseph E. Coleman, M.D., Ph.D., professor of molecular biophysics and biochemistry; James P. Comer, M.D., professor of psychiatry (Child Study Center); Thomas F. Dolan, Jr., M.D., professor of clinical pediatrics; Philip Felig, M.D., professor of medicine; Stanley W. Jackson, M.D., professor of clinical psychiatry; James D. Jamieson, M.D., Ph.D., professor of cell biology; Leonard S. Kaplow, M.D., professor of pathology and laboratory medicine; Ethelyn H. Klatskin, Ph.D., professor of clinical psychology in pediatrics (Child Study Center); Herbert D. Kleber, M.D., professor of clinical psychiatry; Ernest I. Kohorn, M.B., B.Chir., professor of clinical obstetrics & gynecology; Stephen E. Malawista, M.D., professor of medicine; J. Wister Meigs, M.D., clinical professor of epidemiology; Yale Nemerson, M.D.; professor of medicine: John E. Schowalter, M.D., professor of clinical pediatrics & psychiatry (Child Study Center); Robert I. Schrier, M.D., clinical professor of anesthesiology; Robert E. Shope, M.D., professor of epidemiology; Sofia Simmonds, Ph.D., professor of molecular biophysics and biochemistry; Jan A. J. Stolwijk, Ph.D., professor of epidemiology (environmental physiology); Arthur Taub, M.D., professor of clinical anesthesiology; and Gary L. Tischler, M.D., professor of clinical psychiatry.

Bioengineering conference to be held

Next spring the School of Medicine, in conjunction with the Department of Engineering and Applied Science, will sponsor the 4th Annual New England Bioengineering Conference to be held at the university on May 7th and 8th, 1976. The two day conference is co-sponsored by the Pierce Foundation, the University of Connecticut, Haskins Laboratories and several professional societies.

Papers will be presented on many topics including: artificial organs and prosthetic devices; biochemical engineering; bioinstrumentation; biosignal processing; computers in medicine; hemodynamics; ultrasonics and thermal regulation in biological systems.

Those interested in the submission of papers or further information concerning the Bioengineering Confernce Program should contact the School's Office of Regional Activities and Continuing Medical Education, at (203) 432-4582.

Schlesinger Fellowship awarded

Maria A. Buatti has been named a Richard H. Schlesinger Fellow in the Department of Epidemiology and Public Health.

The family of the late Dr. Schlesinger created the two-year fellowship in his memory to be awarded to a candidate for the Master of Public Health degree, on the basis of academic standing and financial need. Bruce R. Grogan received the first Richard H. Schlesinger Fellowship a year ago.

Ms. Buatti received her B.A. degree in psychology and sociology from Wesleyan University this June. She also attended the University of Connecticut School of Nursing in 1961-62, and Middlesex Community College from 1970 to 1972. Although her career over the past fifteen years has been varied, it has always focused on health care. In her application to the Master of Public Health program she stated, "I strongly believe that the response to the medical needs of a community should derive its direction from more human considerations. It is the social and emotional needs of a population which should be primarily reflected in the organization of medical services. Whenever possible, the often dehumanizing emphasis on economic considerations should become secondary. I also believe that community health education which addresses itself to preventive management of disease, which dispels myths, and encourages active participation by community members themselves, is vital to the realization of this direction."

Richard H. Schlesinger, M.P.H. '60, was nationally recognized and respected for his leadership in community health planning. At the time of his death in 1973 he was executive vice-president of Areawide and Local Planning for Health Inc. (ALPHA) in Syracuse, New York. He had also been associate director for the National Commission of Community Health Services.

The first year class

One hundred and two students are enrolled in the first year medical class. Of the 2,137 men who applied for admission to the class of 1979, 119 were accepted and 74 matriculated; 806 women applied, 47 were accepted and 28 are enrolled. The class includes 19 minority students.

Of the 369 students who applied for the Masters in Public Health program, 63 women and 29 men were accepted. There are seven new candidates for the degree of Doctor of Public Health and eleven new students enrolled in the M.D., M.P.H. program.

New books by faculty

Life on the Planet Earth. By Harold J. Morowitz, professor of molecular biophysics and biochemistry, and Lucille S. Morowitz. W. W. Norton & Co., 1974.

Biochemistry. By Lubert Stryer, professor of molecular biophysics and biochemistry. W. H. Freeman & Co., 1975.

Childhood in China. Edited by William Kessen, professor of psychology. Yale University Press, 1975.

Hamlet's Enemy: Myth and Madness in Hamlet. By Theodore Lidz, professor of psychiatry. Basic Books, 1975.

Legal Issues in Psychiatric Care. By L. R. Tancredi, Julian Lieb, assistant professor of psychiatry, and Andrew Slaby, assistant professor of psychiatry Harper and Row, 1975.

The Healing Alliance. By Margaret Raymond, Andrew Slaby and Julian Lieb. W. W. Norton, 1975.

Becoming a Psychotherapist—a Clinical Primer. By Rosemary Balsam, assistant clinical professor of psychiatry, and Alan Balsam. Little Brown, 1975.

Emergency Psychiatric Care: The Management of Mental Health Crises. Edited by H. L. Resnik and Harvey Ruben, assistant professor of psychiatry. Popular Library, 1975.

Patient Care Evaluation in Mental Health Programs. By Donald Riedel, professor of public health, Jerome K. Myers, and Gary Tischler, professor of clinical psychiatry. Lippincott, 1975.

The Hospital: A Social and Architectural History. By John D. Thompson, professor of public health (hospital administration) and nursing administration, and Grace Goldin. Yale University Press, 1975.

The Psychoanalytic Study of the Child, Volume 30. Edited by Ruth S. Eissler, Anna Freud, Marianne Kris, and Albert J. Solnit, Sterling Professor of Pediatrics and Psychiatry, director of Child Study Center. Yale University Press, 1975.

Language and Interpretation in Psychoanalysis. By Marshall Edelson, M.D. Ph.D., associate professor of psychiatry. Yale University Press, 1975.

Norman A. Cameron, M.D., Ph.D.

Norman A. Cameron, professor emeritus of psychiatry, died on August 4 at the age of 79. Predeceased by his wife, Eugenia Kass Cameron, who had been an associate clinical professor of psychiatry in the Child Study Center, childless and without known relatives, he is survived by his distinctive contributions to the understanding of schizophrenic thinking and of paranoid states; and he is mourned by numerous students to whom he had been a cherished father figure and by a dwindling number of colleagues.

When Dr. Cameron came to Yale in 1954 he was already one of the most distinguished psychologists and psychiatrists of the century. Still, to the few friends who knew something of his early years, his life as well as his works was a source of inspiration. Born in Quebec province, his impoverished family migrated to England and then to New York. He was unable to complete high school because of the need to help support his family. Married at an early age, his first wife's death from tuberculosis left him determined to study medicine. Undeterred when rejected by a leading medical school and informed that at least several years of college education were required, he managed to matriculate at the University of Michigan where he received his A.B. at the age of 27. Admitted to medical school, he contracted tuberculosis and when he recovered he was refused admission because of the risk to his health. Still, after he obtained his Ph.D. in psychology at Michigan and was appointed assistant professor, both he and his wife, Eugenia, were admitted to the Johns Hopkins School of Medicine. After graduation they became psychiatric residents at the Phipps Clinic under Adolf Meyer. After serving as chief resident, Dr. Cameron was appointed associate professor of psychiatry at Cornell in 1938. His monograph, "Reasoning, Regression and Communication in Schizophrenia," published in the same year, based on investigations carried out during his residency, forms a landmark in the study of schizophrenic thought disorders. In the following year he was appointed professor and chairman of the Department of Psychology at the University of Wisconsin, where in 1947 he also became professor of psychiatry. His textbook *The Psychology of Behavior Disorders* was highly influential, conveying both his original contributions and his own approach to psychopathology. A later text, *Behavior Pathology*, was co-authored by Ann Magaret.

Shortly after the age of 50, Dr. Cameron became dissatisfied with his orientation to psychiatry, and undertook psychoanalytic training at the Chicago Institute. At Yale his dynamic lectures in psychopathology incorporated psychoanalytic theory. His enthusiasm as a lecturer kindled his students' interest, and his warmth and wit endeared him to his colleagues and friends. Unfortunately, a series of illnesses that started a few years after he came to Yale limited his activities, but could not stop his creativity, as shown by his book *Personality Development and Psychopathology–A Dynamic Approach* published in 1963, which continues to be read widely.

Dr. Cameron received many honors, the last shortly following his retirement when he was presented with the 1964 Award for Distinguished Contributions to Clinical Psychology of the American Psychological Association.

On retirement the Camerons moved to Tucson, Arizona where he taught part-time in the medical school, but following Eugenia Cameron's sudden death in 1972, Dr. Cameron returned to live among his friends in New Haven. T. L.

faculty notes

Dr. Joan A. Steitz, associate professor of molecular biophysics and biochemistry, has been chosen as the recipient of the Passano Foundation's first Young Scientist Award for her research on the control of protein biosynthesis. The citation refers to her discovery of a key step in the translation process: the initial attachment of ribosome to specific sites on the RNA messenger, as well as her studies on the chemical structure of these sites and their critical role in regulating the rate of translation of individual genes.

The Alvarenga Prize of the Swedish Medical Society has been awarded to **Dr. Philip Felig,** professor and vice chairman of the Department of Internal Medicine, and Dr. John Wahren of the Karolinska Institute, Stockholm, Sweden. The award, which is given annually for scientific contributions of outstanding merit, recognizes the collaborative studies of Drs. Felig and Wahren on amnio acid and protein metabolism. Dr. Felig's research efforts were also given special recognition by the British Medical Research Society which invited him to be the guest lecturer at their annual meeting held in Oxford, England this summer.

Dr. Robert E. Shope, professor of epidemiology and director of the Yale Arbovirus Research Unit, will serve on the Pan American Health Organization's advisory committee on dengue, yellow fever, and *aedes aegypti* eradication. Dr. Shope and **Dr. Jordi Casals,** professor of epidemiology, have been invited by the Russian government and the director of the Institute of Poliomyelitis to attend a conference in Moscow in October.

Dr. Joseph Bove, professor of laboratory medicine and director of the Yale-New Haven Hospital's blood bank, has been appointed to the panel on review of blood and blood derivatives of the Food and Drug Administration. Dr. Bove, along with six other experts in the field of blood transfusion, will serve for three years in an advisory capacity to the Bureau of Biologics reviewing the safety, effectiveness, and labeling of all blood and blood products. In addition, the panel will act as an ad hoc advisory group to the Bureau of Biologics and to the commissioner of the Food and Drug Administration.

The Medical Alumni Association of the University of Chicago presented a Distinguished Service Award to **Dr. Alvan R. Feinstein,** professor of medicine and epidemiology, in recognition of his contributions of distinction to the advancement of the medical sciences.

Dr. James D. Hardy, professor emeritus of epidemiology and physiology, gave the keynote speech for the first plenary session of the Seventh International Biometeorological Congress at College Park, Maryland in August. The title of his speech was "Biometeorology: Physiological and Behavioral Perspectives." At this same meeting **Dr. Jan A. J. Stolwijk,** professor of epidemiology, was chairman of a study group on "Effects of Heat and Cold on Animals and Man." He was also reelected to the Executive Board of the International Society of Biometeorology.

Dr. Dorothy M. Horstmann, John Rodman Paul Professor of Epidemiology and professor of pediatrics, gave the presidential address at the annual meeting of the Infectious Diseases Society of America, held in Washington in September.

The American Epidemiological Society elected **Dr. Robert W. McCollum,** Susan Dwight Bliss Professor of Epidemiology and Public Health and chairman of the department, president of the society at its annual meeting in June.

The Laboratory of Sensory Investigation, School of Medicine, University of Buenos Aires, Argentina invited **Dr. William S. Cain** to present a series of lectures on odor and taste in September. Dr. Cain is assistant professor of epidemiology and an associate fellow of the John B. Pierce Foundation Laboratory.

Dr. Arend Bouhuys, professor of medicine and epidemiology and director of the Yale Lung Research Center, presented an invited lecture on byssinosis to the International Congress of the European Society for Respiratory Physiopathy which convened in Budapest, Hungary from June 16 to 19. In September he chaired a scientific session on the same topic, organized by the subcommittee on Byssinosis of the Permanent Committee and International Association on Occupational Health of which he is chairman. This session was held during the 18th International Conference on Occupational Health in Brighton, England.

Dr. Alexander Gottschalk, professor of diagnostic radiology and director of nuclear medicine, presided at the 22nd annual meeting of the Society of Nuclear Medicine held in Philadelphia in June. Dr. Gottschalk is president of the Society.

Dr. Lawrence E. Marks, assistant professor of epidemiology, has been named editor of a new interdisciplinary journal, *Sensory Processes,* published by Academic Press, New York.

Drs. A. Pharo Gagge, professor of epidemiology, **Ethan R. Nadel,** assistant professor of epidemiology, **Richard R. Gonzalez,** assistant professor of epidemiology, **Yasunobu Nishi,** research associate in epidemiology and Jan A. J. Stolwijk attended a session on Microclimatology of the Living Environment at the invitation of the Czechoslovak Society of Occupational Medicine and the Czechoslovak Medical Society J. E. Purkyne. The meeting which was held in September in Prague was attended primarily by members from Russia, East Germany, Hungary, Romania and Poland.

The Antioch Association has elected **Dr. Donald Granger** to a three-year term on the Antioch Board of Trustees. Dr. Granger, who is an associate clinical professor of neurology, is a 1950 graduate of Antioch College.

Drs. Luke M. Kitahata, professor and chairman of the Department of Anesthesiology, **Arthur Taub,** professior of clinical anesthesiology, **Mamoru Yamashita,** research associate in anesthesiology, and **Dennis D. Spencer,** postdoctoral fellow in neurosurgery, presented papers at the First World Congress of the International Association for the Study of Pain, held in Florence, Italy in September. Dr. Taub chaired the section on "Psychological Factors in Pain."

In August **Drs. Ruth and Theodore Lidz** attended the World Conference on the Psychotherapy of Schizophrenia in Oslo, Norway, where they presented a paper, "Some Comments on the Supervision of the Psychotherapy of Schizophrenic Patients." They also held a two-day teaching session at the Sanderub Hospital in Hamar, Norway, and Dr. Theodore Lidz spoke to the Norwegian Psychoanalytic Society on "Family Studies of Schizophrenia and the Essential Changes in Psychoanalytic Theory." Dr. Ruth Lidz is clinical professor of psychiatry, and Dr. Theodore Lidz is professor of psychiatry.

Dr. Roy Schafer, clinical professor of psychiatry, will be at University College in London until March 1976, as the first Freud Memorial Professor. He returned briefly to the U.S. in October to be the featured speaker at the 50th anniversary program of the Menninger Foundation.

Dr. Craig Van Dyke, assistant professor of psychiatry, presented a paper at the University of California at Davis on the first reports of cocaine plasma levels in man following a therapeutic dose.

Dr. Levin L. Waters became professor emeritus of pathology upon his retirement in June; however, he continues to serve as director of the Jane Coffin Childs Memorial Fund for Medical Research, which has its offices at the Yale School of Medicine. Dr. Waters, who has been at Yale almost continuously since he received his M. D. degree in 1937, was promoted to professor in 1957 and served as acting chairman of the Department of Pathology in 1968-69.

Alumni Day 1975—
a festive and informative occasion

The annual Alumni Day convocation was made all the more festive this year by a large striped tent in front of Harkness Dorm. Under its protection alumni and their friends greeted old friends, sipped sherry and ate lunch, after a busy morning of attending round table discussions and the annual meeting of the Association of Yale Alumni in Medicine.

In the afternoon Dr. Dorothy M. Horstmann, John Rodman Paul Professor of Epidemiology and professor of pediatrics; Dr. Robert E. Handschumacher, professor and chairman of the Department of Pharmacology; Dr. Arthur Taub, associate professor of neurophysiology and neurology; and Harvey J. Berger, '76, president of the Medical Student Council presented a panel on "The People's Republic of China—Their Health Science and Health Care in Perspective." All of the participants are recent visitors to the People's Republic of China.

The morning round table discussions covered the topics of medical school admissions; prospects for the treatment and prevention of genetic disease; the role of the Yale Comprehensive Cancer Center in the national attack on cancer; and PSRO (Professional Standards Review Organization) today. They were well attended, and, judging from comments heard later under the tent, interesting and informative.

Dr. John B. Ogilvie, '34, president of the Association of Yale Alumni in Medicine, presided at the association's annual meeting, during which Dean Robert W. Berliner delivered the talk reprinted on page 1 of this issue. Four new members were elected to the executive committee: John W. Blanton, M.D., '70; James C. Collias, M.D., '56; Ann McB. Curtis, M.D., '70; and Joel Kavet, M.P.H., '67. Dr. Ogilvie expressed the committee's appreciation to Kathleen H. Howe, M.P.H., '56; Carter L. Marshall, M.D., '62, M.P.H., '64; John L. Sullivan, M.D., '51; and Andrew S. Wong, M. D., '51, M.P.H., '38, whose terms on the committee have expired.

Richard W. Breck, M.D., '45; Dorothy W. Brockway, M.D., M.P.H. '63; Robert W. Frelick, M.D., '44; Peter J. Levin, M.P.H., '65; William G. Meffert, M.D., '62; and N. William Wawro, M.D., '38, will represent the School of Medicine alumni on the Association of Yale Alumni (AYA).

alumni news

An alumni note for the not too distant future

from Nicholas P. R. Spinelli, M.D., '44

As may be noted elsewhere in this issue, the classes of 1950 and 1945, which held reunions last year, structured special programs which involved peer participation, and which preceded the planned program for Alumni Day on Saturday, June 7. Reports which followed them were most enthusiastic.

Perhaps guided by this example, several of the reunion classes in 1976 are already beginning plans for similar, self-generated programs. There is a possibility that several classes may cooperate in structuring joint efforts. A glance at the names of the alumni in these reunion classes reveals the enormous amount of talent, both clinical and academic, which could indeed participate in, and contribute to most entertaining and educational programs.

The possibility of the content of these exercises being approved for credit as continuing medical education is also being explored. The concept of the Yale Medical School as both our primary educational source as well as locus for alumni education continuum is a nostalgically pleasing one.

Further reports on the progress of reunion plans will be forthcoming in the next issue of **Yale Medicine.**

1925

Ten members of the class of '25 returned to Yale on June 7th and most attended the Medical Alumni Day program during the day. **Alice Whittier** reports: "In the evening, we gathered at the Quinnipiack Club for our 50th reunion banquet. We were pleased to have the following present: **Spafford Ackerly, Waldo Desmond, Joseph Petrelli, Samuel Reback** and **Theodore Robie** with their wives, **Henry Ferris, Mathew Griswold, William Logan** and **Alice Whittier,** and **Edward Cramton** with his sister. We were sorry that Mrs. Cramton was unable to attend because of illness and that **Howard Wood** was unable to be with us because of a relative's illness.

"We had hoped Dr. and Mrs. Ira Hiscock could join us at our banquet, but since they were unable to do so, we appreciated a letter from Dr. Hiscock. Many of us have retired but **Chris Wood** is active in ophthalmology in Myrtle Beach, South Carolina; **Joe Petrelli** continues active practice in New Haven, but found time to make excellent arrangements for our reunion, including giving those in attendance a silver plate inscribed

25 Y m
1925-1975

"We enjoyed reminiscing and letters were read from **Welles Standish** and from **Gonsalvo Williams.** Our attention was called to a May issue of American Medical News in which there was a picture of our classmate, **Morton Tendler** together with a description of his fine work as county jail physician. We are saddened to hear of Morton's death on July 2nd."

1930

Paul Lavietes described his class reunion activities: "Six members of our class attended the 45th reunion, 5 with their spouses. They were **Sam Alpert, Vincent Doroszka, Ed Flynn, Jim Hart, Moe Lischner** and myself. Ed has been active in alumni affairs; Vin hadn't been here since our 25th and was impressed by the many changes. The others have been back regularly, but we all enjoyed the opportunity to get together, to indulge our nostalgia and to hear from Association President Jack Ogilvie and Dean Robert Berliner at the annual meeting. We had the opportunity to talk with friends on the faculty and in other classes at the buffet lunch and afternoon social hour and ended a very pleasant and rewarding day at our home with an informal dinner at which we were joined by Dr. Max Taffel of the class of '31 with his wife Helen. I hope that all who came and others who didn't will be here for the 50th."

1935

James Haralambie, class secretary, writes: "The class of '35 held its 40th reunion on Medical Alumni Day, June 7th. To celebrate the occasion, seven members of the class and their wives met for dinner at the Royal Footman Restaurant in Hamden, Connecticut. Judging from the attractive and youthful appearances of the better half, it was difficult to believe that four decades had gone by since graduation.

"**Walt Barney** in Milford, Connecticut is doing anesthesiology and general medicine; **Bernie Dignam** practices in Thompsonville, Connecticut and spends his free time enjoying the Cape; **Jim Haralambie** continues to teach part-time at Cornell Medical School and practices pediatrics in Larchmont, New York.

"**Sam Kushlan** is chief of the Memorial Unit Medical Service at Yale-New Haven Hospital and is responsible for its teaching program there. He has made this one of the most coveted services at Yale. **Norm Rindge** in Clinton, Connecticut is doing general practice when he is not out sailing on Long Island Sound.

"**Walt Thompson** is director of orthopedic surgery both at Bellevue and University Hospitals. The Thompsons have recently sold their home in Tenafly, New Jersey and plan to build in Connecticut.

"**Lou Silcox,** the inimitable 'ball of fire' from Gladwyne, Penn., is professor of otolaryngology, University of Pennsylvania Graduate School of Medicine. Scheduled in between his practice and his teaching, he has managed to tour the country on a lecture circuit as president of one of the elite otolaryngological research societies.

"Lou was our Master of Ceremonies and entertainer par excellent."

1940

Patricia Wanning sent a brief account of the reunion activities of the class of 1940: "I think we all had a good time—we who attended. We dined at Mory's. **Jack Haley** and **Gene Fitzpatrick** acted as dinner co-chairmen. (Gene is thus reinstated as a member of our class. He had deserted to take his degree at McGill.) After dinner some of us proceeded to Jack Haley's residence for more talk and Sunday morning the Fergusons entertained a handful of us with **more talk** and Bloody Marys. Among those who showed, at one occasion or another were the **Fergusons,** the **Wellses,** the **Haleys,** the **Fitzpatricks,** the **Sannellas,** the **Sokals,** the **Smiths**—four of them, and **Ed Smith** received a round of applause for being tangled in the baby-sitter business with a brand new daughter!— but to go back to the list of those present, **Helen (Haury) Woods** and her husband, the **MacAllisters** and Yours Truly, **Pat W.**"

1945

In a letter received from **Fred Blodgett** he notes that "the class of 1945 June had a terrific reunion, thanks to the careful planning of **Al Atwood** and the Alumni Office.

"A scientific session was held with several members presenting their own studies. The group enjoyed the programs at the School and meeting all the old friends. The highlights, however, came in the opportunity for all to stay together at Southbury, with ample time to visit and talk."

Dick Breck also wrote and the following are excerpts from a letter he had written to all those who were unable to attend the reunion: "Harrison Inn seemed to be the gracious relaxing environment that we had hoped to find in our search two years ago. The golf course was well equipped with water hazards, the tennis courts saw beautiful girls in their shorts (!), the pool was very attractive, but I'm not certain if any of us took the cold pressor test. One could not ask for nicer meeting rooms (and drinking Atwoods' and Steeles' potables in Room 333 was worlds better than the cash bar).

"It was enjoyable to relax over **several** days, **several** meals and **several** libations instead of trying to squeeze the renewal of old friendships all into one day. Some I had not seen for 20 years, one for 25 or 30 (and one I didn't see at all this time—he scooted in and out Thursday night) and I didn't see **Knapp** until three days later in New Haven—he couldn't be in two places at once on the weekend. There were 19 classmates with 12 lovely girls (mostly wives, I think) at Southbury. They were: **Lindsey, Pannill** and Mildred, **Gardam, Holloway** and Kay, **Hollan** and Edie, **Huessy, Atwood** and Harriet, **Dyer** and Nat, **Steele** and Nicky, **Jenney** and Marge, **Harned** and Jean, **Lau, Breck, Mason, Flynn** and Helen, **Cockerell** and Claudine, **Good** and Marilyn, **May** and Thelma and Buck **Blodgett** with dapper Ronald Coleman moustache."

1946 (March)

Donald Shedd wrote in a recent letter: "I am continuing in my position as chief of the Department of Head and Neck Surgery at Roswell Park Memorial Institute, which is proving to be a fascinating job; Charlotte is in charge of a small group which is planning a terminal care unit for cancer patients similar to HOSPICE in New Haven and I am president-elect of the Society of Head and Neck Surgeons."

1948 (June)

Jack Strominger, of the Biological Laboratories and Sidney Farber Cancer Center at Harvard, has been elected to the Institute of Medicine—National Academy of Sciences.

1950

As secretary of his class, **Kent Ellis** reports: "Twenty-five of forty-three surviving members of the Class of 1950 joined to celebrate their 25th reunion in June. Things really started on Friday evening, June 6, when a group of about twenty got together at the Top of the Park, Sheraton-Park Plaza Hotel, overlooking the New Haven Green and Yale Campus, for an evening of good fellowship.

"On Saturday morning some played tennis and a few jogged, but more attended round table discussions at the Medical School. At the meeting of the Association of Yale Alumni in Medicine we were encouraged to find a large contingent from the 50th Reunion Class also present. A social hour held outdoors under bright canopies preceded a superb luncheon for all in the Edward S. Harkness Dining Room. Direct personal observations on Health Sciences and Health Care in the People's Republic of China highlighted the afternoon's Medical School program.

"By 7:30 p.m. our group—45 people—was in fine spirits for a convivial evening at Mory's. Following dinner **Sylvia Levine Axelrod** reviewed her compilation of the data from the questionnaires. Opinion seemed to be virtually unanimous that our Yale Medical School education had been first rate. Another striking finding was the large number of large families nurtured by our class.

"**Archie Golden** reported on the funds donated by our class (the final figure as of June 30, 1975, was $12,280.00 contributed by thirty members of our class). These funds will be designated as a gift in memoriam to our four deceased members, **Robert Quinn, Frederick Vultee, Roy Dowling** and **Marina Prajmovsky Meyers.** In this effort Archie was most ably assisted by **Sidney Lee** and **Harry McClelland.** Sidney Lee made a special personal presentation to Archie in token appreciation of his work as Class Agent for 25 years.

"Harry McClelland provided an unusual treat—fresh picked cherries brought direct from his San Joaquin Valley, California home and **Lyal Asay** capped off the presentations by reciting his original, most entertaining class poem. Altogether it was a delightful evening that did not last nearly long enough." Those classmates who attended the reunion dinner at Mory's were: **Anderson, Asay, Silvia Levine Axelrod, Bucher, Ellis, Felmly, Ferraro, Fine, Yvette Francis McBarnette, Frucht, Golden, Kemp, Lee, LeRoy, Lindner, March, McClelland, McSherry, Miller, Jane Baldwin Shumway, Smith, Sturman,** and **Truscott.** We were pleased to have many husbands and wives with us and also to have Ruth Quinn Stewart, widow of classmate Robert Quinn, and her husband join us as well."

1953

In early summer, but too late for the last issue of *Yale Medicine,* word was received about **Melvin DeGooyer** and **Donnell Etzwiler.**

A physician and surgeon in the San Diego area, Dr. DeGooyer was to be awarded a Juris Doctor degree from Western State University College of Law of San Diego in ceremonies on June 28 and he was to take the California State Bar examination in July.

Donnell Etzwiler of Minneapolis was selected as president-elect of the American Diabetes Association at its annual meeting in June.

1955

Their twentieth reunion was celebrated by the class of 1955 and class secretary, **William Lattanzi** writes: "I was very pleased to have such an excellent turnout and to see everyone looking so fit with very little change from our days at the medical school. The following members of our class and their respective spouses attended: Drs. **Bobruff, Boylan, Braverman, Brennan, Burns, Camilleri, Coassin, Corn, Costa, Fernand, Freeman, Gonick, Kramer, Landau, Lattanzi, G. & D. Leib, McGuire, Nelligan, Scott, Smith** and **Zupa.**

"One of the highlights of the evening was the showing of slides from our 1955 Class Picnic by Bob Kramer. The class was also grateful to Dr. Nick Coassin and Dr. Jack Landau for their generosity in funding part of the bar bill.

"I hope to set up a 3-day affair for our 25th reunion so most of you from distant points will feel it worthwhile to make an effort to come.

"I hope to see you in 1980."

1960

The following was received from **Victor Altshul:** "A party of twenty-four classmates and spouses assembled for our fifteenth reunion dinner at Mory's, which, by seating many of us at the Whiffenpoof table, evoked great nostalgia in us all. Your dinner chairman, **Vic Altshul,** who had hurriedly become a member in order to host the event, was initiated into the mysterious rites when he learned that those decorative bottles of burgundy that adorned each table were not complimentary after all, much to the merriment of the various assembled; to wit, **Jon** and Carol **Courtney, Gerry** and Dona **Cimmino, Roland** and Marguerite **Ingram, Tom** and Alice **Kugelman, John** and Ann **Schrogie,** George and **May Woo Wang, Warren** and Dorcas **Fisher, Mike** and Pat **Moynihan,** and **Stan** and Priscilla **Chung. Al Ross,** truly a man of the 1970's, brought a charming guest, while four other classmates arrived without their spouses: **Festus Adebonojo,** virtually unrecognizable behind a magnificent moustache, **Dan Jones, Jack Barchas** (secretly, we all suspected, enroute to Stockholm to pick up his Prize), and your chairman (who, having found that elusive X-chromosome on his final attempt, had heartlessly left Susan back in Guilford to tend to the chore of mothering a neonate).

"After some initial uncertainty about each other's identity, we were able to conclude with relief that we all look pretty much the same as in 1960—with the exception of May, who looks considerably younger. And after the wine it began to seem that, thank goodness, we act pretty much the same too; our astonishing collective success did not prevent us from having a rollicking (sic) (apologies to the **Powells,** who did not show) good time, both at Mory's and later over coffee at the Cimminos' estate in Woodbridge."

1961

Robert L. Levy has been appointed director of the National Heart and Lung Institute. In his new post he will provide overall leadership for the many Institute activities involved in carrying out the national heart, blood vessel, lung and blood program. Dr. Levy has been with NHLI since 1963, when he joined the scientific staff as a clinical associate in the Molecular Diseases Branch.

1965

Philip Askenase reports that "our 10th reunion was a great success. Thirty-eight classmates and their spouses participated in a full day of activities, cocktails, dinner, and evening entertainment. All agreed that the chance to get together and see the various directions we had all gone over these ten years was most rewarding. However, many were disappointed that our president, Dr. **Philip Manfredi,** could not come and personally show us his Texas string-tie boots with spurs, and that **John Barchilon** could only be present for what seemed to be a tantalizingly few too many minutes. Drs. **Reid Heffner, Larry Ossias,** and **Robert Gryboski** were immediately and continually into the three-part harmony that had marked our years at Yale. **Alan Stone** told of his parachuting exploits as an airborne doctor at Fort Bragg, **Phyllis Hurwitz** recounted her experience as a veteran of the New York ghetto drug culture, etc. Certainly the highlight of the day came after a delightful meal at the "Top of the Park" overlooking the Yale undergraduate campus, and consisted of entertainment provided by simultaneous running of the tapes and slides of our class show which were provided by Dr. **John Austin** who recently arrived in New York after leaving the San Francisco New Macedonian Street Band. It is certainly hoped that we'll all be able to get together sooner than ten years hence."

1970

According to the report sent in by **Robert Rosa,** his class had a most successful reunion: "After a day of lectures, discussions, and a late afternoon cocktail party, the members attended a dinner arranged by **Henry Chessin** which lasted into the late evening as the experiences of the last five years were recounted. Among those present were: **Bob Stern,** currently a resident in dermatology at MGH; **Tom Gouge,** on the surgical faculty at Bellevue; **Joellen Werne** on the psychiatry faculty at Stanford; **Rick Solomon,** head of the Section of Nephrology of the Roger Williams Hospital at Brown University Medical School; **Don Smith,** a psychiatric resident at the Institute for Living; **Frank Socha,** practicing ophthalmology in N.Y.C.; **Elissa B. Arons,** a psychiatric resident and **Joel Rubinstein,** a psychiatrist, both at Harvard; **Paul Hessler,** a radiology resident in Connecticut; **Bob Humphreys;** and at Yale: **John Blanton,** a pediatrician; **Romney Burke,** chief resident in urology; **Henry Chessin,** radiation therapy resident; **Tom Ciesielski,** neuropathology resident; **Ann Curtis,** assistant professor of radiology; **Jonathan Katz,** on the anesthesiology faculty; **Gerry Kennealey,** an oncology fellow; and **Bob Rosa,** your class secretary, chief resident in medicine.

"News of other classmates who could not be present at reunion: **Norm Coleman** has just completed a one-year trip around the world and is about to begin a residency in radiation therapy at Stanford (having recently completed his training in internal medicine); **Bill Mueller** has just completed a radiation therapy residency at Stanford and **Ron Davis** is in the practice of radiation therapy in southern California. **Jim O'Brasky** is a resident in medicine at University of Illinois; **Len Milstone** is a dermatology resident at Yale; **Ann W. Lucky** completed her pediatric residency at Boston Children's and is presently at the N.I.H.; **Jay Hoofnagle,** having completed his service at the N.I.H. is about to embark on a G.I. fellowship in Washington, D.C.; **Joe Chusid** is leaving the N.I.H. to begin an infectious disease fellowship at Harvard; and **Pedro Rossello** is currently chief resident in pediatric surgery at the Boston Children's Hospital.

Public Health

1949

John P. Lamb Jr., dean of the College of Health at East Tennessee State University, was presented the Special Meritorious Award of the American Public Health Association, Southern Branch. The honor is given for outstanding service to the APHA Southern Branch and public health.

1955

Nyguyen Van Tho, who was formerly chairman of public health in the School of Medicine and Dentistry, National University of South Vietnam, and Secretary of Education, left his native country "on the last plane out." He now resides at 727 Pine Street, Monterey, California.

1967

Elizabeth Whelan, who received her Doctor of Science degree in popular sciences from the Harvard School of Public Health in 1971, has published four books during the past year. Two of them were written for teenagers: *Sex and Sensibility: a new look at being a woman,* and *Making Sense Out of Sex: a new look at being a man,* which she co-authored with her father-in-law, Dr. Stephen T. Whelan.

The Dr. A. T. Shousha Foundation Medal and Prize for 1975 was awarded to **Dr. Rauf Roashan,** chief, Department of Foreign Relations, Ministry of Public Health, Afghanistan, for his significant contribution to health in the geographical region in which Dr. Shousha served the World Health Organization. The award was presented at the plenary session of the Twenty-eighth World Health Assembly by Professor S. Halter, president of the Assembly, who said, "[Dr. Roashan] has played a key role in giving a new orientation to public health services in Afghanistan, with increasing emphasis on health planning and the judicious use of local resources. He has at the same time taken an active part in negotiating arrangements for international and bilateral aid for his country."

James Malloy, has joined Jersey City Medical Center as executive director according to a news release received earlier this summer. Mr. Malloy, since 1969, had been associate administrator of the 500-bed Waterbury (Conn.) Hospital.

1970

Milber Jean Pope has been appointed director of the Resource Center on Aging of the Sage Advocate Programs in New Haven. She has served as a pharmacist and pharmacy consultant for several hospitals and health agencies.

1974 - 1975 Medical School Alumni Fund Campaign

Dear Fellow Alumni:

It has been a privilege to be Chairman of the Fund and most encouraging to help raise $113,488 in the 1974-75 campaign. This is $8,000 more than the previous year and is a classic example of how our Alumni meet the challenge of inflation, recession, malpractice, P.S.R.O.'s and U.R.C.'s.

My thanks and sincerest appreciation for their hard work go to all the Class Agents, especially to the Class of 1950 and Archie Golden; also to Special Gifts Chairman Ed Flynn and to Dr. Arthur Ebbert and Lou Kaplan.

Again the trend of more dollars, but from fewer participating alumni, was noted. This is a most striking observation of both my Chairmanship and that of Dr. Wegman who preceded me.

Let us all pledge to help our new Chairman, Nick Spinelli, reach more alumni this coming year.

Sincerely,

Dick Breck

R. W. Breck, M.D. '45
Chairman, 1972-1975

Dear Fellow Alumni:

I am honored and awed in assuming the Chairmanship of the Yale Medical School Alumni Fund, particularly following the dedicated and effective leadership of Dick Breck. Having shared with Dick for many years the role of a Class Agent, I am aware of the strong and sincere motivation of our alumni donors which has made Yale a national leader among Medical Alumni Organizations. The present challenge of achieving fiscal stability and organizational autonomy in American medical schools has never been more awesome. Our mission has never been more clear.

It is gratifying to have been aware of the spontaneous activity which has been generating this year among our alumni for greater participation in the structure of Alumni Day activities. An early preview of these activities appears elsewhere in this issue. Most significant and touching, however, is the performance of the Class of 1950 in launching a special reunion year effort which was consumated by a Class donation of $12,280. This was a record achieved by the very special efforts of Dr. Archie Golden and his group. Their accomplishment is a challenge which we shall seek to have the other reunion classes emulate next year with your help.

The names of Class Agents and alumni donors have become familiar to me through the years in the reports of past giving. If there is any message I should wish to convey, it is that this superficial familiarity become translated into more direct and effective communication during the coming year. Be it personal, postal, or telephonic your response to the Fund will spell the success or failure of the Alumni Association's efforts. Be it positive or negative, your input is vital to the direction of some of our projects and ideas. An Alumni organization is as alive as its members' concern. Fund raising becomes a mere byproduct of that concern and identification.

May reunion 1976 be the most exciting and provocative ever. With everyone's help, may our Fund's success reflect this energy.

Sincerely yours,

Nick Spinelli

N. P. R. Spinelli, M.D. '44
Chairman

fund officers

Medical School Alumni Fund
Richard W. Breck, '45, Chairman
J. Edward Flynn, '30, Special Gifts Chairman
Nicholas P. R. Spinelli, '44, Vice-Chairman
James M. Dowaliby, II, '67, Vice-Chairman
J. Roswell Gallagher, '30, Bequest Chairman

Public Health Alumni Fund
Kathleen Howe, '56, Co-Chairman
Eric W. Mood, '43

MAJOR GIFTS DONORS

CHAIRMAN'S GIFT ASSOCIATION
Donors of $500 to $1000

Tony Liebman Rakieten '29
Harry Sherman '34
Margaret C. L. Gildea '36
Theodore E. Allen '40
Nicholas P. R. Spinelli '44
Thomas J. Coleman '46
Carl A. Gagliardi '50
Martin E. Smith '50
B. Lionel Truscott '50
Mary Wheatland Schley '52
Harvey L. Young '52
John Downing Rice, Jr. '53
James Frederic Young '53
Arthur C. Crovatto '54
Robert J. Donohue '58
Robert M. Livingston '61

ELIHU YALE ASSOCIATION AND CHAIRMAN'S GIFT ASSOCIATION
Donors of $1000 and over

Myron A. Sallick '24
Lewis A. Scheuer '28
Daniel F. Harvey '33
John B. Ogilvie '34
Anonymous
Lyal D. Asay '50
Kent Ellis '50
Daniel Fine '50
Wallace M. Kemp, Jr. '50
Sidney S. Lee '50
Janus C. Lindner '50
Harold March '50
Harry L. McClelland '50
George E. Green '56 Med
Leo H. Von Euler '59
Andrew D. Cook '71
Mr. and Mrs. Louis A. Bartha
Medical School Parents

This year, members of the Class of 1950 established an all-time record by contributing $12,280 to the Yale Medical School Alumni Fund on the occasion of their 25th Reunion. Thirty classmates (71%) participated in the Reunion Class Gift, and their names are listed below. 1950 has decided to make its gift in memory of the deceased members of the Class, Roy A. Dowling, Marina P. Meyers, Robert E. Quinn, and Frederick Edward Vultee. Their extraordinary generosity to the School of Medicine provides for the continuing excellence of the School, and acts as a living, ongoing memorial to Drs. Dowling, Meyers, Quinn, and Vultee. Those who participated in the Class Gift are:

Russell N. Anderson
Lyal D. Asay
Sylvia L. Axelrod
John E. Borowy
William H. Bucher
Alvin Davis
Kent Ellis
Thomas J. Ferraro, Jr.
Daniel Fine
Yvette F. Francis
Carl A. Gagliardi
Archie J. Golden
Chesterfield G. Gunn, Jr.
Wallace M. Kemp, Jr.
Lucian S. Lapinski
Sidney S. Lee
Milton E. Lesser
Janus C. Lindner
Harold March
Margaret S. Lyman
Harry L. McClelland
Robert T. McSherry
John H. Meyers
Orlando J. Miller
Robert T. Sceery
Cynia B. Shimm
Jane B. Shumway
Martin E. Smith
John S. Strauss
B. Lionel Truscott

Year(s)	Agent	No. of Donors	Per. Partic.	Total
1900-1906	Charles C. Murphy	2	67%	$684.00
1907-1910	F. Elmer Johnson (Deceased)	3	33%	554.00
1911-1914		4	40%	75.00
1915-1920		3	13%	208.00
1921	Barnett Greenhouse	4	40%	170.00
1922	Edward T. Wakeman	9	50%	465.00
1923	Samuel Karelitz	8	47%	650.00
1924	Myron A. Sallick	10	56%	1,605.00
1925	Alice A. S. Whittier	21	68%	848.00
1926	Maxwell Bogin	11	38%	445.50
1927	Henry Irwin Fineberg	13	45%	1,076.00
1928	Clement F. Batelli	14	50%	1,756.00
1929	Paul F. McAlenney	24	67%	1,684.00
1930	J. Edward Flynn	15	48%	1,061.00
1931	Michael D'Amico	14	37%	1,090.00
1932	Storer P. Humphreys	18	58%	817.00
1933	Lee E. Farr	14	44%	2,126.00
1934	Frederick Beck	14	47%	5,202.00
1935	James Q. Haralambie	16	44%	2,066.00
1936	Hannibal Hamlin	20	42%	2,136.00
1937	Lorande M. Woodruff	20	44%	1,731.00
1938	Nelson K. Ordway	14	50%	1,787.00
1939	Robert G. Ernst	21	52%	1,772.00
1940	Jack S. Blaisdell	21	50%	1,125.00
1941	Charles B. Cheney	21	46%	1,340.00
1942	Walter J. Burdette	22	54%	1,206.00
1943 March Group	Gerard Fountain	20	51%	1,260.00
1943 December Group	S. Brownlee Brinkley	27	55%	1,230.00
1944	Nicholas P. R. Spinelli	29	60%	3,040.00
1945	Richard W. Breck	33	60%	2,120.00
1946	Julian A. Sachs	29	54%	2,310.00
1947	Ellis J. Van Slyck	33	56%	1,790.00
1948	Boy Frame	25	47%	1,175.00
1949	Paul Goldstein	23	43%	1,400.00
1950	Archie Golden	30	71%	12,280.00
1951	Goffredo S. Accetta	25	43%	1,450.00
1952	Harvey L. Young	30	53%	2,925.00
1953	Vincent Lynn Gott	31	53%	2,850.00
1954	John K. Rose	32	54%	1,785.00
1955	Robert A. Kramer	43	57%	2,300.00
1956	John H. Gardner	46	64%	5,230.00
1957	Howard Alyn Minners	40	50%	2,308.00
1958	Charles A. Hall, Jr.	45	64%	3,033.25
1959	Lincoln T. Potter	42	55%	3,255.00
1960	Thomas P. Kugelman	44	60%	3,240.00
1961	Jon D. Dorman	40	56%	2,841.00
1962	A. Richard Pschirrer	41	53%	1,730.00
1963	Craig H. Llewellyn	41	53%	2,725.00
1964	David P. Johnson	40	57%	1,700.00
1965	David G. Campbell	40	50%	1,590.00
1966	Richard J. Howard	40	54%	1,265.00
1967	James M. Dowaliby	43	61%	1,610.00
1968	Frank E. Lucente	38	48%	1,085.00
1969	Lee Merrill Jampol	28	36%	765.00
1970	James R. Missett	25	30%	531.00
1971	John L. Cieply	40	44%	2,244.21
1972	Paul A. Lucky	25	28%	345.00
1973	David Bailey	23	25%	345.00
1974	Peter J. Buchin	13	16%	163.94
Medical School Alumni		1,460	49%	107,601.40
Medical School Parents				2,295.00
House Staff				3,082.00
Others (Friends & In Memoriam Gifts)				509.89
Medical School Alumni Fund			**Total**	**113,488.29**
Public Health Alumni Fund			**Total**	**6,522.00**

YALE MEDICINE

333 Cedar Street

New Haven, Connecticut 06510