

HISTORY

COLLEGE OF MEDICINE

1959-1968

Chapter 2

College Administration

John A. Prior, M. D.
William G. Pace, M. D.
Neil C. Andrews, M. D.
Ralph W. Ingersoll, Ph. D.
John Bergman
Alden E. Stilson, D. V. M.
Donald F. Westra, L. L. B.
Jack M. George, M. D.
William Gibson, M. D.

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I. GENERAL HISTORY

John A. Prior, M. D.

On December 4, 1944, Charles A. Doan, M. D. , was appointed Dean of the College of Medicine. A member of the faculty since 1930, Dr. Doan had served as Professor and Chairman of the Department of Medicine from 1936 to 1944. His medical career was closely associated with his teaching and his research work in hematology. The ensuing years of Dean Doan's deanship were characterized by steady progress in the size and quality of the faculty with an increasing number of full-time faculty members; the planning and construction of the new University Hospital, Ohio Tuberculosis Hospital (now Means Hall), Columbus Psychiatric Hospital (now Upham Hall); Ohio Rehabilitation Facility (now Dodd Hall); two major additions to the University Hospital; a growing research program and the construction of a facility designed specifically for research, Wiseman Hall; development of postdoctoral medical education; and extensive curricular changes. The administration of educational and clinical affairs and direction of hospital program of growing complexity demanded increasing attention. In 1951 Richard L. Meiling, M. D. , who had joined the Department of Obstetrics and Gynecology and the Department of Pathology in 1947, was appointed Associate Dean of the College of Medicine and Associate Director of the University Hospital. In 1955 Chauncey D. Leake, Ph. D. , joined the College as Assistant Dean and Professor of Pharmacology. During his years in the Dean's office, Dr. Leake was honored by election to the presidency of the American Association for the Advancement of Science. In 1956 N. Paul Hudson,

M. D., Ph. D., formerly Dean of the Graduate School, became an Assistant Dean as well as Professor of Bacteriology. Among other responsibilities Dr. Hudson was assigned the direction of the College's program of postdoctoral medical education at the same time continuing his teaching and research activities in Bacteriology.

After 16 years of devoted service as Dean, on December 31, 1960, Charles A. Doan, having reached mandatory retirement age, was appointed Emeritus Dean of the College of Medicine. On June 30, 1961, Assistant Dean Chauncey D. Leake retired; on the same date Dr. Paul Hudson also retired as Assistant Dean of the College. Each was subsequently given emeritus status by the University.

Associate Dean Richard L. Meiling was appointed Dean of the College of Medicine and Director of the University Hospital effective January 1, 1961. He had served as Associate Dean and Associate Director of University Hospital from 1951 to 1960. Dr. Meiling had first joined the Ohio State University family in 1938 as a surgical intern in University Hospital. He rejoined the faculty in 1947 as Assistant Professor in the Department of Obstetrics and Gynecology. He was on leave of absence from 1949 to 1951 during which time he had extensive administrative experience as Assistant to the Secretary of Defense for Medical and Health Affairs. On his return to the College of Medicine, Dr. Meiling assumed administrative responsibilities in the

hospital, for the College's professional relationships, for governmental contacts and for teaching and clinical duties in the Department of Obstetrics and Gynecology.

On July 1, 1961, John A. Prior, M. D., Professor, Department of Medicine, was appointed as Associate Dean with major responsibilities for curriculum development and for continuing medical education. Dr. Prior's duties also included that of Secretary of the College. Dr. Prior first organized the continuing series of Seminars on Medical Education and then the Center for Continuing Medical Education; he served as chairman of: the Advisory Committee for the Clinical Research Center, Planning Committee for the Regional Medical Program, Planning Committee for the Health Sciences Library and for the Ambulatory Patient Teaching Facility.

Also on July 1, 1961, J. Hutchison Williams, M. D., Associate Professor of Obstetrics and Gynecology, was appointed Assistant Dean with the primary responsibility for student affairs. Since his appointment he has served as Chairman of the Admissions Committee. He also served as faculty representative to the Medical Student Council, Student American Medical Association, and the Caducean.

In 1958 Bernard J. Lachner, M. B. A., was appointed Associate Administrator of the University Hospital; in October, 1961, he was appointed as Assistant Dean for Fiscal and Budget Affairs; and in 1962 he succeeded Peter Volpe, M. A., who had served from 1955 to 1962

as Administrator of University Hospital. Mr. Lachner was responsible for the development of the graduate program in Hospital and Health Services Administration, now a growing discipline within the School of Allied Medical Professions.

Nicholas J. Teteris, M. D. , member of the Department of Obstetrics and Gynecology, was appointed Assistant to the Director of the University Hospitals in 1962 with the responsibility of coordinating intern, resident, and staff affairs. In 1966 he was made Assistant Director of the University Hospitals and in 1967 was made Assistant Dean with the primary responsibility for hospital staff affairs and the coordination of postdoctoral education in the College of Medicine and in the University Hospitals.

In 1962 William O. Robertson, M. D. , Assistant Professor of Pediatrics, was appointed as Assistant Dean for Curriculum. He resigned from the faculty after one year in this post.

In 1963 Lloyd R. Evans, M. D. , became Assistant Dean for Curriculum and Associate Professor in the Department of Medicine. His principal area of responsibility was that of curriculum development; ever since joining the faculty he has served as secretary of the Curriculum Committee during which period there have been extensive curricular changes. He was responsible for the organization of the Division of Research and Services in Medical Education. In 1966 he assumed the duties of Secretary of the College.

In April, 1963, William Pace, M. D. , Assistant Professor, Department of Surgery, was appointed Assistant Dean and Director of the Center for Continuing Medical Education.

Donald F. Westra, L. L. B. , joined the College of Medicine in September, 1964, as Assistant Dean for Planning and Government Relations. An attorney and retired military officer, Mr. Westra had served for 7 years as Executive Officer to the Air Force Surgeon General as a consequence of which he brought extensive experience in planning to the Dean's Office. He has supervised the planning and coordination of all of the building projects of the College of Medicine.

In 1966 Neil C. Andrews, M. D. , Associate Professor in the Department of Surgery, was appointed as Assistant Dean for Research and Training. In addition, Dr. Andrews served as chairman of the Planning Committee for the Ohio State Regional Medical Program and in 1967 was appointed Program Director.

Jack C. Carmichael, B. S. in Engineering, joined the faculty in 1967 as Assistant to the Dean for facilities planning and Assistant Professor of Preventive Medicine. A career Air Force officer, Mr. Carmichael has served mostly as Assistant for Medical Facilities Planning, Office of the Deputy Assistant Secretary for Defense.

Ralph W. Ingersoll, Ph. D. , was appointed in 1965 as Director of the Division of Research and Services in Medical Education. He had served for several years as Supervisor of Evaluation, University

Testing Center and was Assistant Professor of Education with special competence in appraisal.

In addition to his many accomplishments and responsibilities in the College of Medicine and in the University, Dean Meiling was very ably representing the University in community, civic, organizational and governmental activities. He served as trustee of: Children's Hospital, Children's Hospital Research Foundation, Wittenberg University, Columbus Hospital Federation, Bremer Foundation Board, and Columbus Town Meeting; for 17 years he was a member of the House of Delegates, American Medical Association; he was a member of the Council on Comprehensive Health Planning for Ohio and of the Health Advisory Committee to Appalachian Regional Commission. Also, he served as consultant to the U. S. Public Health Service and as advisor to the President of the National Red Cross on Blood Programs.

Dean Meiling first entered the armed forces of the United States as a Flying Cadet. He spent more than five years on active duty during World War II. Upon his retirement as a Major General of the U. S. Air Force Reserve in December, 1968, he was singularly honored by being awarded The Air Force Distinguished Service Medal, being the only reserve officer in twenty years to be so decorated.

As Assistant to the Secretary of Defense from 1949-51, Dr. Meiling was responsible for the administration of the Armed Forces Medical Services and the planning of the medical services for the

United Nations forces in Korea. As consultant to the Secretary of Defense he served on each of the NIH advisory councils and as a member of the United States delegation to the World Health Organization in 1950 and 1951.

A summary of some of the many developments that characterized the years from 1961 through 1968 are:

Education

Beginning in 1962, the faculty has conducted annual "off-campus" Seminars on Medical Education of from three to five days' duration. Discussions concentrated on medical curriculum, student evaluation, attributes and needs of the student, factors influencing the acquisition and retention of knowledge, and effective methods for the presentation of "learning experiences".

The educational mission of the College was restudied at the series of Faculty Seminars on Medical Education at which the faculty affirmed the concept that medical education is a continuum. The modern medical faculty today must assume responsibility for each of the following:

- I. Professional medical education leading to the degree, Doctor of Medicine;
- II. Postdoctoral medical education (intern, resident, fellow, trainee);

- III. Graduate education in the medical sciences (Masters and Doctorate programs);
- IV. Continuing medical education (designed to meet the requirements of the practicing physician).

The continuum must be a planned, progressive, integrated educational program that benefits from the contributions of many medical scientists and practitioners.

To maintain a progressive and articulated whole, the delicate structure of such a program requires almost continual adjustment to the constant changes of modern medicine and society. Stimulated by the explosion in scientific knowledge, the challenge of applying discoveries to patient care, and the interest of society and government in all phases of social and health programs, the College of Medicine elected to undertake a continuing analysis of the mission of medical education on our campus to determine better ways of reaching its goals.

In 1964 the faculty conducted a full year of intensive "self-study" of The Ohio State University College of Medicine. This involved students, alumni, and faculty. Financial support for this study came from The Ohio State University Development Fund, the Association of American Medical Colleges, and friends of the College of Medicine.

A number of interdisciplinary seminars for the faculty have been conducted which have focused on the teaching of a particular body system.

That students might concentrate on learning experiences in their professional educational development rather than competing for grades, the College abolished the customary grading procedures and now medical students receive either S (satisfactory), E (unsatisfactory), or H (honors). Greater emphasis has been placed upon the accurate appraisal of the student by the faculty in both department and interdepartmental groups.

The third and fourth years have become a 23-months' continuum during which students have seven months for elective study. With permission of a department chairman, two to three months of such electives may be pursued in the medical faculties and programs of this and other countries.

As a result of the "self-study" and the seminars, the faculty developed a course for first year medical students known as "The Behavioral Sciences" which allows the student during his first days in school to experience "patient contact". The student has an opportunity through visits in office, clinic, and home to observe the psycho-socio-economic impact on the patient as well as the dynamics of his home. Thus the student

learns the role of family, community, society and physician in relation to his patient.

A second course is the "Comprehensive Evaluation of the Patient". During previous years a number of one- and two-hour courses had gradually developed in the curriculum, principally in the first two years. It was felt that these could be all brought together into one large and much more meaningful course which would be "patient centered", i. e., developed around the patient's complaint, the techniques of obtaining the medical history and performing the physical examination, and the understanding of diagnostic procedures.

Under the Department of Preventive Medicine all students are introduced to programs involving community-oriented patient and health services. Students may elect to spend time in communities of Ohio, including Appalachian areas, studying all aspects of health care encompassing hospital inpatient and outpatient services, physicians' offices, clinics and the activities of county commissioners, boards of education, health officials and voluntary health agencies.

In collaboration with the Departments of Medicine, Pediatrics, and Psychiatry, educational programs are being presented in the recently formed Family Medicine Clinic.

To broaden the student's learning experiences, the faculty desired to extend the patient-care educational programs to the community hospitals. Memoranda of agreement between The Ohio State University and the Boards of the following Columbus hospitals have been accomplished: Children's, Mt. Carmel, Riverside, St. Ann's, St. Anthony, Grant, Harding, and Sun Ridge Convalescent Center. Undergraduate and postdoctoral medical students as well as students of the School of Nursing and of the School of Allied Medical Professions are assigned to the patient care services of the community hospital in small groups for a limited period of time under direct supervision of a member of the College of Medicine faculty (who is also a member of the hospital staff involved.)

Faculty

One of the serious problems of the College of Medicine has been the shortage of thoroughly competent faculty on Regular contract to fulfill the essential functions of inspirational teaching, superior research and exemplary patient care. The College worked diligently toward the strengthening of the faculty and great strides have been made in augmenting the teaching staff in Medicine, Nursing, and Allied Medical Professions.

From 1958 to 1968, the medical faculty has grown to 349 members on Regular contracts and the School of Nursing to 76. Established in 1966, the School of Allied Medical Professions now has

41 faculty members. In 1958 there was a total faculty (full and part-time) of 660 while in 1968 there was a total of 1043 but much more important than mere numbers was the significant increase in faculty who are serving on Regular contract devoting their major energies to the education, research and patient care programs of the College.

New departments of Pharmacology (1963), Physical Medicine and Rehabilitation (1963), Medical Microbiology (1966), and Anesthesiology (1967) were established to make a total of seventeen departments now in the College. The School of Allied Medical Professions was established in 1966.

Each department annually has been provided non-appropriated funds to enable them to invite outstanding scholars from other universities of our country and of foreign lands to be "Visiting Professors" on our medical campus. This has been a most rewarding and stimulating experience for students and faculty alike.

A Division of Research and Services in Medical Education was established in 1965 under the office of the Dean to assist the faculty in incorporating educational development with scientific and medical progress. This was the seventh such division in the country. It assists the faculty in curriculum development and in the evaluation of the effectiveness of the educational program. In keeping with the policy of encouraging self-education, the Division

of Research and Services in Medical Education has developed an Auto-Didactic (self-teaching) laboratory in which all of the usual audio-visual aids are available as well as video-tapes. Closed circuit educational television was established throughout the Medical Center. Several terminals for the growing program in computer-assisted instruction were installed.

A committee of senior faculty members was appointed in 1963 to advise the Dean on appointments, promotions, and tenure.

Alumni and Friends

One of the gratifying developments was the increasing number of gifts to the College of Medicine by its grateful alumni. The College of Medicine had the generous support of its alumni and friends who gave individually as well as many who have contributed to the College through the American Medical Association Education and Research Foundation. To express its appreciation for the education they have received at The Ohio State University College of Medicine, each of the past eight graduating classes has established "Class Funds" to which their members may contribute during the succeeding years. A number of "reunioning" classes have established their own class funds to be used for special projects.

As a result of its growing endowment, the College was able in 1964 to establish two endowed chairs, the first at The Ohio State University. Financed in accordance with University rules, by

gifts and bequests, the named chairs are: Charles A. Doan, Chair of Medicine (Charles E. Mengel, M. D. , occupied this chair from 1966to 1968); and Robert M. Zollinger, Chair of Surgery (Stuart S. Roberts, M. D. , currently occupies this chair). The College has been honored also by the establishment of an endowed professorship: The Frank E. and Mary Pomerene Professorship in the Prevention and Treatment of Infectious Diseases; and a named professorship: The Gustav Hirsch Professorship in Cardiovascular Diseases.

FACILITIES

A vital portion of the total College of Medicine program is the teaching, research, and patient care conducted in The Ohio State University Hospitals.

In 1961 the Health Center Research Laboratories building (Wiseman Hall, named in memory of Bruce K. Wiseman, former Chairman and Professor of Medicine) was completed. In the same year the Radiation Therapy addition to University Hospital was opened. Later in 1961 the Ohio Rehabilitation Center (Dodd Hall, in memory of Vernon Dodd, former Professor and Chairman of Surgery) and the Columbus Psychiatric Institute and Hospital (Upham Hall, in memory of John Upham, Dean of the College from 1934 to 1941) were transferred by legislative action to the University

and then assigned to the College of Medicine for administration.

In 1961 the Clinic Research Center was established in University Hospital under the sponsorship of the National Institutes of Health.

On September 13, 1963, the Board officially established "The Ohio State University Hospitals" which now include University Hospital, Starling Loving Hall (named in memory of Starling Loving, Professor and Dean of Starling Medical College), Dodd Hall, Upham Hall, Wiseman Hall, and Means Hall.

On January 1, 1967, the College of Medicine was assigned the responsibility for operation of the Ohio Tuberculosis Hospital and on January 1, 1968, title to the facility was transferred to the University. The building was named Means Hall in honor of the first dean of the College and chairman of the Department of Surgery, William J. Means, M. D.

The new building for the School of Nursing was completed in September, 1968, and the dedication was conducted on February 14, 1969.

Construction of the Basic Science building with its administrative wing was started in January 1968 after prolonged delays. Occupancy is scheduled for early 1970.

A major addition to Wiseman Hall that included a wing for the Department of Preventive Medicine was completed in September, 1968.

A Laboratory Animal Facility, which will serve as an animal breeding and holding center for the University but under the administration of the College of Medicine, was funded by the Federal government in August 1967 with construction to begin in early 1969.

A major addition to Dodd Hall was started in September 1968 with completion scheduled for early 1970.

In 1968 federal matching funds were approved to make possible a building for the School of Allied Medical Professions, construction of which will begin in the Summer of 1969.

A five-story University-Affiliated Mental Retardation Center was approved for Federal matching monies in 1969.

Another major building project is the Health Sciences Library. It was approved for \$1,850,000 by the National Library of Medicine although funds were not immediately available. Working drawings and specifications are being completed on this high-priority project so that construction can commence as soon as the necessary additional funds are available, hopefully in the fall of 1969.

Research and Training Grants

As the strength of the faculty has grown there has been increasing participation in research. In 1957-58 there were 21 projects with expenditures of \$218,000; in 1960-61 there were

117 projects and expenditures of \$950,972.69; and in 1967-68 the faculty were engaged in 466 research projects with expenditures of \$7,220,284.05.

In 1957-58 there were 30 to 35 students pursuing research supported by approximately \$18,000; in 1960-61 there were 39 students who received assistance in the amount of \$23,119; and in 1967-68 137 received research support in the amount of \$77,315.

The Clinical Research Center which is designed to encourage and support the research of the clinical scientists was supported by the National Institutes of Health in the amount of \$412,151.22 during 1957-58. Each year, beginning in 1962, the National Institutes of Health has provided an institutional grant -- the General Research Support grant -- to the College primarily as seed money to encourage young scientists. The first grant was for \$173,125 which increased annually to \$468,187 in 1968.

In 1957-58 there were no training grants; in 1960-61 there were 12 training grants for \$226,057; and in 1967-68 there were 41 training grants in the amount of \$1,501,726.

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COAT OF ARMS of the COLLEGE OF MEDICINE

(Approved by the Board of Trustees--November 11, 1965)

TO BLAZON:

The Coat of Arms of the College of Medicine of The Ohio State University.

ACHIEVEMENT:

The shield is squarish in design on a gray background. Partition lines divide it into a Sinister Chief, Dexter Chief, and a single base. The "Dexter Chief" contains the golden book of knowledge, encircled by a gray "O" and represents the crest of The Ohio State University with the buckeye leaf superimposed at the base of the "O" and extending into the scarlet background. The "Sinister Chief" is a tincture of black with a charge of six golden stars rising on a diagonal to the center chief. The center base is a tincture of forest green with an insigne, the diagonal staff and single serpent of Æsculapius superimposed on the base.

The scroll is gold with black lettering containing the words of the motto, *



encircling the achievement and the words, "College of Medicine, The Ohio State University".

Impaled in this "Coat of Arms" is the heritage of The Ohio State University signifying the maternal relationship between the University and the College, exemplified by the University "Coat of Arms".

The College of Medicine stands upon a foundation of six medical schools with a continuity of medical education in Ohio covering the period 1834-1914. The six golden stars rising on a diagonal to the emblem of the University represent each of these medical schools.

The deep forest green is recognized worldwide as the color of Medicine, and the staff of Æsculapius with the single entwined serpent is, likewise, recognized worldwide as the insigne of Medicine, taking its origin in Greek mythology.

*The motto speaks for itself--EXCELLENCE IN MEDICINE.



II. SPECIALIZED ACTIVITIES OF THE ADMINISTRATION

(a.) The Center for Continuing Medical Education

William G. Pace, M. D.

The efforts of the College of Medicine in Continuing Medical Education were guided by Dr. N. Paul Hudson in 1958 and 1959. Although a number of postgraduate courses were implemented at the departmental level, there was no mechanism for centralized organization of scheduling and arrangement of the details required for a comprehensive program. A major effort was directed to the community hospital. Dr. Hudson arranged for individual speakers and programs in community hospitals throughout Ohio and the effort was well received by the participating physicians.

Under Dr. Hudson's able guidance, the residents of the University Hospitals could enroll in the Graduate School for the degree Master of Medical Science. Dr. Hudson served as the adviser for these men, and was instrumental not only in encouragement of many advanced degrees, but also in the enlargement of the honorary society of the Sigma Xi from the ranks of the postgraduate area of the School of Medicine.

In 1960, Dr. Richard L. Meiling was appointed Dean of the College of Medicine. With a great deal of foresight, Dr. Meiling anticipated the enormous emphasis which was to be directed on a national scale to the area of continuing education. Dr. Meiling established the Center for Continuing Medical Education of The Ohio State University College of Medicine, and at the same time appointed Dr. John A. Prior Assistant Dean and Director of this Center which was then called The Center for Postgraduate Medical Education.

Despite severe space limitations and the lack of adequate operating funds, Dr. Prior put together a staff and began the first centralization of effort in continuing education. All of the continuing education courses,

sponsored or supported by any department of the College of Medicine, were arranged and conducted through this Center. Dr. Prior compiled a comprehensive catalogue of available courses, and established the first comprehensive mailing program which included all of the graduates of The Ohio State University College of Medicine, and members of The Ohio State Medical Association.

In the second year of his direction, and in consultation with Dr. Meiling, Dr. Prior began to organize The Ohio Medical Education Network, along lines similar to the two-way educational radio program sponsored by The Albany Medical College. The purpose of this network was two-fold: 1) to bring current educational material into the home environment of the busy practicing physician, thereby saving him unnecessary travel and loss of time from his practice, and 2) to conserve faculty time in limiting extensive travel throughout the state of Ohio.

Here then was a network of FM radio stations and hospitals linked to broadcast "live" two-way discussions on subjects vital to continuing medical education. The first program was broadcast on October 17, 1962 from 12 to 1 P.M. and the first year's thirteen bi-weekly programs involved medical staffs at twelve central Ohio hospitals in the "live" two-way discussions broadcast on two FM radio stations. The topic was "Problems in Management of Coronary Artery Disease" with Dr. James V. Warren and Dr. James J. Leonard with Dr. John Prior as moderator.

Near the completion of that first year of The Ohio Medical Education Network, Dr. William G. Pace accepted the appointment as Assistant Dean and the Director of The Center for Continuing Medical Education, and Dr. Prior was appointed Associate Dean for The College of Medicine.

During the ensuing years many changes have occurred in The Center for Continuing Medical Education. The formal course material has continued to increase. The initial offering of approximately 20 courses has now increased to some 50 programs presented by nearly every department in the College of Medicine. These courses continue to be extremely popular and representatives from nearly every community in Ohio attend one or more of the conferences. A number of courses of international interest have attracted well over 700 physicians.

The Ohio Medical Education Network has expanded in scope from 12 hospitals and 13 broadcast weeks to 65 hospitals in a four-state area covered by 14 FM stations and 22 broadcast weeks. In the past broadcast year, more than 15,000 physician hours of attendance were registered at 110 hour-long broadcasts.

By 1965 it was apparent that the radio conferences with the 35 mm. transparencies which were projected in each of the hospitals during the program were inadequate for some of the subject areas, namely those requiring motion to communicate meaning. In 1966, the first pilot program in the United States was initiated using one-way television with two-way audio communication between the participating hospitals. The program dealt with "The Neurological Examination" and was conducted by Dr. William E. Hunt and Dr. Wigbert C. Wiederholt with Dr. William G. Pace as moderator. Specific segments of the broadcast program were supplemented with 35 mm. slides. This initial program was well received by the medical staffs of participating hospitals, and The Center for Continuing Medical Education is now in the fourth consecutive year of production of this type of program in specific areas in which motion and patient demonstration are essential

for maximum educational benefit. Video tapes of the television programs permit continued use here and distribution to some 450 hospitals and medical centers throughout the United States by the Network for Continuing Medical Education.

In 1967 The American Medical Association initiated a program of inspection of continuing medical education facilities. The program at The Ohio State University College of Medicine was one of the first programs inspected and was approved without qualification by The American Medical Association.

In the spring of 1968, both the Director and the Associate Director of The Center for Continuing Medical Education were appointed by The American Medical Association as inspectors for other programs of Continuing Education throughout the country. To date some thirty institutions have been so accredited.

In the fall of 1968, the annual seminar of the faculty of the College of Medicine, considered the problems of continuing medical education. This was the first such conference in this country, and has since been recognized in the publications of The American Medical Association. Under the able guidance of Assistant Dean, Lloyd Evans, the Conference involved leaders in the field of general practice, as well as faculty members from the College of Medicine and resource personnel from The American Medical Association and other selected medical schools. Among the speakers were Dr. William D. Mayer, Dean of the University of Missouri School of Medicine, Dr. R. Drew Miller of the Mayo Foundation, Dr. C. H. William Ruhe of the American Medical Association, Dr. Alexander Schmidt, Chief of Continuing Education for Regional Medical Programs of the National Institutes of Health, and

Dr. Robert S. Young of the Medical School of Family Practice Committee of the Ohio Academy of General Practice.

As a direct result of the faculty fall seminar, The Center for Continuing Medical Education instituted new programs involving the family physician in the medical center. Within six months, two practicing physicians from small communities in Ohio returned to the Medical Center for in-depth instruction in their areas of interest. Dr. Lewis E. Smith, Jr. from Coshocton participated in an extensive and intensive review course in Internal Medicine under the guidance of Dr. James V. Warren, Professor and Chairman of the Department of Medicine. Dr. Smith worked as a house officer with the Department of Medicine for six weeks participating in conferences, rounds, and teaching experiences.

Dr. Tennyson Williams of Delaware participated in a program of infectious diseases arranged by Dr. Samuel Saslaw. Both of these physicians found the experience extremely worthwhile, and on the basis of this preliminary program, The Center for Continuing Medical Education is expanding its efforts in this area.

A new type of program was designed in cooperation with Dr. Fred Light of Cleveland, Director of Professional Education for The Ohio Academy of General Practice involving discussion in depth by assigned College of Medicine faculty of a specific problem with a geographically oriented group of physicians in their own environment. These conferences involve travel and extensive face-to-face dialogue.

Concurrent with the enormous expansion of the activities and the services of The Center for Continuing Medical Education, there was an

equivalent expansion in its organizational structure. Dr. Prior organized the Center with two secretaries, one working full-time and the other part-time. Mrs. Ruth Covell, Dr. Prior's personal secretary for many years, remained with The Center when Dr. Pace assumed the Directorship in the spring of 1962. Her invaluable service and knowledge contributed immensely to the growth and the expansion of The Center.

Dr. Robert B. Schweikart, Program Director for WOSU in 1959-60 worked closely with Dr. Prior in establishing The Ohio Medical Education Network in 1961. He became extremely enthusiastic about this form of medical education, and without his untiring efforts The Ohio Medical Education Network would not have achieved the success which it demonstrated. Dr. Schweikart undertook an extensive study of radio-education methods as they applied to medicine, and completed his 200 page thesis for his doctoral degree in communication in 1964. Dr. Schweikart's thesis remains the most comprehensive study of the use of radio in medical education in the world today.

In 1964, Dr. Schweikart joined The Center for Continuing Medical Education as Director of The Ohio Medical Education Network. At the same time, Mrs. Covell was appointed Assistant Director of The Center. With a staff of two other secretaries, the limited space in Hamilton Hall was no longer adequate, and The Center for Continuing Medical Education was moved. The new quarters occupied the north section of the 3rd floor, A wing of Starling-Loving Hall. Space was shared with the Health Center Journal, allowing fullest utilization of the printing, addressing, and mailing equipment which is so necessary for each of these areas.

Following the broadcast year of 1964 it became obvious that the continued growth of The Ohio Medical Education Network no longer permitted efficient utilization of the campus studio facilities. The physical problems of crossing a campus saturated with 35,000 pedestrians at the noon hour created an enormous mechanical handicap. In addition, the utilization of radio engineers to switch in the comments of physicians at network hospitals proved less than satisfactory since the engineers were not completely familiar with the terminology and fluidity necessary for a smooth medical conference. To overcome these problems, a broadcast studio was constructed in one of the offices of the new suite, and was initiated in 1965 with complete switching arrangements and management of the program in the hands of the program moderator in the medical studios. This move has not only conserved faculty time, but has vastly improved the quality and performance of the staff presentations.

In 1965 The Ohio Medical Education Network negotiated with The Case-Western Reserve University and the University of Cincinnati for utilization of their faculties to supplement the program material of The Ohio Medical Education Network. Switching arrangements were completed so that the faculty of these remote schools originated the broadcast and two-way discussion segment of the programs from their own universities. Programs from Cincinnati have included Dr. Albert B. Sabin on the Viral Etiology of Malignancy, Dr. Lester W. Martin on Pediatric Surgical Problems, and Doctors Hugo D. Smith and Charles H. Wharton on Diabetes in Children. From the Case-Western Reserve University have come such topics as Intestinal Absorptive Disorders with Drs. Harvey C. Dworken and Donald Ostrow; Gastric Ulcer and Carcinoma with Dr. Harold Roth and Dr. William Drucker, and

Chronic Obstructive Lung Disease with Drs. Scott R. Inkley and Jerry Baum. This addition has given greater depth to the programming of The Ohio Medical Education Network and has been well received by the participating physicians. Construction was completed in 1968 on additional portable electronic equipment to make these remote broadcasts even more efficient and versatile.

In 1968, after eight years of devoted service to the Center for Continuing Medical Education, Mrs. Ruth Covell retired. Dr. Schweikart was appointed Associate Director of the Center, and assumed responsibility for supervision of the formal course material and the other educational aspects for The Center for Continuing Medical Education, as well as the overall policy direction of The Ohio Medical Education Network. In his first year as Associate Director, Dr. Schweikart has contributed enormously to The Center for Continuing Medical Education.

(b.) Research Support in Medical Education

Neil C. Andrews, M. D.

The full potential of a College of Medicine can only be achieved by an integrated program of education, patient care and research, each of which is dependent upon the other. Research provides the new knowledge that will be applied for the benefit of mankind.

Since World War II large sums of money from government, voluntary health agencies, foundations and interested persons have been made available to the health professions to support basic and applied research. The growth of research in the College of Medicine has been very rapid as the College has grown in faculty and resources. In the period from 1957 to 1967, the number of supported research projects in the College of Medicine rose from twenty-one to four hundred sixty-six and the expenditures for research rose from \$218,000 to \$7,220,284. Likewise, grants for training in special fields of study in the College of Medicine have grown rapidly. In 1960-61 there were twelve training grants in the College of Medicine while in 1967-68 these had increased to forty-one; expenditures rose from \$226,057 to \$1,501,726.

The medical student exposed to research techniques is not only better oriented to current medical knowledge, but has a greater awareness of the need for continuing education as a health professional.

In 1956 three students formally participated in research projects supported by the College of Medicine while in 1967 one hundred thirty-seven students spent periods of from one to twelve months in part-time or full-time research activities. Student research has earned prizes and resulted in a number of publications in leading scientific journals.

The national posture of the faculty of the College of Medicine has increased notably as a result of the research activities performed during the past twenty years. The College of Medicine is known throughout the world for the research done in heart disease, hematology, computer-assisted instruction, deafness research, aerospace research and the description of the Zollinger-Ellison syndrome. This recognition has been personalized by the granting of research career development awards to distinguished members of the faculty of the College of Medicine such as Arnold M. Weissler, M. D.; Charles F. Wooley, M. D.; Bernard U. Bowman, Ph.D.; Philip B. Hollander, Ph.D.; Dante G. Scarpelli, M.D.; Marie H. Greider, Ph. D.; and Paige K. Besch, Ph.D. Recipients of established Investigator awards by the American Heart Association are Gerald P. Brierley, Ph. D.; and Heintz Pieper, M. D. Other honors extended to the faculty of the College of Medicine were the creation of the Charles A. Doan Chair of Medicine, first occupied

by Charles Mengel, M.D.; the Robert M. Zollinger Chair of Surgery, first occupied by Stuart S. Roberts, M.D.; and the naming of Robert M. Zollinger, M.D., as Ohio Regents' Professor (of Surgery). Each of these men was selected in part because of his outstanding endeavors in research activities.

(c.) Research and Services in Medical Education

Ralph W. Ingersoll, Ph. D.

In 1962 The Ohio State University College of Medicine held its first faculty conference on medical education. Since then such conferences have been held annually. The area of Research and Services in Medical Education is an out-growth of recommendations made by faculty members at these sessions. Three sections of the Division of Research and Services in Medical Education have been identified. The following discussion outlines the steps of development of each section and briefly describes the current activities in which they are involved.

A. Evaluation Services

Evaluation services are provided for the faculty in terms of student performance, student evaluation, evaluation of new media, and the new approaches to education. Specific projects in which this area has been involved include:

1. The evaluation of student skills and physical diagnosis.
2. An analysis of third year medical oral examinations in medicine, obstetrics and gynecology, and surgery.
3. The use of video tape to study medical dietetics and nursing oral examinations.
4. The psychodynamics of the oral examination.
5. Statistical analysis of teacher-made tests involving the use of the computer.
6. The development of a comprehensive examination at the end of the first and second years in the College of Medicine.

7. Student appraisal studies.
8. Evaluation of student characteristics.

B. Research Studies

Studies in this section include basic research on curriculum and student characteristics. Projects which have been completed or underway include:

1. A comparison of learning attitudes, analysis of two courses of study in Anatomy.
2. The predictability of success in the first year of medical school.
3. An analysis of ethical risk-taking in first year medical students.
4. An experiment in dietetic education in a college of medicine.
5. The development of evaluative techniques.
6. Interactive analysis of small group conferences.
7. The creative medical student.
8. Research in basic intelligence.
9. Longitudinal manpower study in the health areas.
10. Computer-assisted instruction.
11. Analysis of the oral examination.

C. Graduate Education

The area of graduate education is divided into three sections. One, in which staff members are working with graduate students in the College of Education, and another in which medical faculty participate is the annual seminar on medical education. During the time period 1965-1969 twenty-two Ph. D. candidates of the College of Education have been working with the staff in the area of research in medical education. A number of these students are doing their dissertation in the area of medical education. Graduates are joining staffs of other colleges of medicine as staff members

in Research in Medical Education. The third area of work involves seminars for residents and graduate students in medical education. Topics include: learning theory, communications, evaluation, and higher education administration.

D. Faculty Conferences

The following outline is a brief summary of five conferences (seminars) held for faculty of the College of Medicine:

1. 1962 -- First Green Meadows Conference. Visiting participants were:
 - a. George E. Miller, M. D., Director of Research in Medical Education, Professor of Medicine, University of Illinois.
 - b. Stephen Abrahamson, Ph. D., Director of Research in Medical Education, University of Southern California.
 - c. Nicholas Cotsonas, M. D., Professor of Medicine, University of Illinois.
 - d. Lawrence A. Fisher, Ph. D., Associate Director of Research in Medical Education, University of Illinois.
 - e. Miss Christine H. McGuire, M. A., Assistant Director of Research in Medical Education, University of Illinois.

These discussion participants presented ideas centering around individual behavior in the education process. A major outcome of the elimination of the percentage grading system. A new method of evaluation was initiated--the Pass-Fail System.

2. 1963 -- The Second Green Meadows Seminar on Learning in Medical Education. Discussion participants were the same

as the 1962 Seminar. As a result of the 1963 conference the basic curriculum was altered to allow students to take up to a half year of electives. A new dual track program was initiated for learning in Anatomy. One path was the conventional structured program while the parallel approach was a nonstructured one in which the student assumed the major responsibility for his learning.

3. 1964 -- The Sidney Seminar. Seminar on Self Study.

Discussion participants were:

- a. Stephen Abrahamson, Ph. D. , Director, Division of Research in Medical Education, University of Southern California.
- b. Lawrence A. Fisher, Ph. D. , Associate Director of Research in Medical Education, University of Illinois.
- c. Edwin B. Hutchins, Ph. D. , Assistant Director, Division of Education, Association of American Medical Colleges.
- d. Hilliard Jason, M. D. , Ed. D. , Associate in Education, Assistant Professor of Psychiatry, University of Rochester.
- e. Miss Christine H. McGuire, M. A. , Assistant Director of Research in Medical Education, University of Illinois.
- f. George E. Miller, M. D. , Director of Research in Medical Education, Professor of Medicine, University of Illinois.
- g. Paul J. Sanazaro, M. D. , Director, Division of Education, Association of American Medical Colleges.

This conference provided faculty members with the opportunity to evaluate the student profiles and admission testing. Members of the A.A.M.C. reported a comparative study done at Ohio State and other medical colleges.

4. 1965 -- The Athens Conference. Seminar on Student Evaluation. Discussion participants were:
 - a. William R. Crawford, E.D.D., Assistant Professor in Evaluation Services, Michigan State University.
 - b. John R. Ginther, Ph. D., Director, Center for the Cooperative Study of Instruction, The University of Chicago.
 - c. Ralph W. Ingersoll, Ph. D., Director, Division of Research and Services in Medical Education, The Ohio State University.
 - d. Miss Christine H. McGuire, M. A., Assistant Director of Research in Medical Education, University of Illinois.

This conference provided an index study of prediction, frequency, the purposes of examinations, written evaluation, non-written tests, and oral examinations. Outcomes of this conference included high-lighting to develop a certifying examination. Another outcome of the 1965 conference was the establishment of a periodical for our faculty entitled, "ACME" (Approaches to Creative Medical Education). This reports the findings of research studies and includes suggestions about evaluation and educational research.

5. 1966 -- The Second Athens Conference. Teaching and Learning in Medical School. Discussion participants were:
 - a. Stephen Abrahamson, Ph. D., Director, Division of Research in Medical Education, University of Southern California.
 - b. Thomas C. King, M. D., Associate Dean, University of Utah College of Medicine.

- c. George E. Miller, M. D., Director, Research in Medical Education, University of Illinois.
- d. Mr. Mitchell Schorow, Research in Medical Education, University of Illinois.

The objective of this conference was to introduce new faculty to the concepts presented to their senior colleagues at the two Green Meadows Conferences.

6. 1967 -- The Third Athens Conference. Seminar on Post M. D. Education. Discussion participants were:

- a. Dr. Robert H. Bruce, Dean, Graduate School, University of Wyoming.
- b. Paul Nemir, Jr., M. D., Professor of Surgery, University of Pennsylvania.
- c. John C. Nunemaker, M. D., Associate Secretary, Council on Medical Education, American Medical Association.
- d. Eugene A. Stead, Jr., M. D., Professor and Chairman, Department of Medicine, Duke University Medical Center.

The purposes of the conference were to discuss the status of the residency programs, attitudes of former residents as well as current residents, and national attitudes toward resident programs.

7. 1968 -- Heuston Woods Seminar. Continuing Medical Education. Discussion participants were:

- a. William D. Mayer, M. D., Dean, School of Medicine, The University of Missouri.
- b. R. Drew Miller, M. D., Associate Director, Mayo Foundation Graduate School of Medicine, Rochester, Minnesota.
- c. C. H. William Ruhe, M. D., Secretary to the Council, American Medical Association.

- d. Alexander M Schmidt, M. D. , Chief, Continuing Education and Training Program, Division of Regional Medical Programs, National Institutes of Health.
- e. Robert S. Young, M. D. , Vice President and Co-Chairman, Medical School Family Practice Committee, Ohio Academy of General Practice.

The purposes of the conference were to discuss:

- (a) How may teaching media be improved in continuing education?
- (b) How may information transfer be extended?
- (c) How can computers contribute?
- (d) How can inactive health professionals be brought back to active service?
- (e) How can we meet the problems of education for recertification?

E. Research and Development Funding

1. Interdisciplinary Planning of a Mental Retardation Program and Facility. Lloyd R. Evans, M. D. , project director; Ralph W. Ingersoll, associate director. Planning money \$26,000 first year, grant extended two years 1965-66. Facility funding July 1, 1967, 3.7 million dollars.
2. The Training of Department of Labor Counselors (CAUSE) for summer (8 weeks), U. S. Department of Labor Grant, \$75,000. Herman J. Peters, director; Ralph W. Ingersoll, associate director, 1965. There have been other short-term workshops with the U. S. Employment Service.
3. Development of Teaching by Television. Lloyd R. Evans, M. D. , project director; Ralph W. Ingersoll, associate director. Funded by the National Fund for Medical Education, 1966, \$56,000.
4. Exploratory Study: Factors Affecting Health Manpower. This is

a two-year planning study, in preparation for a national project. Ralph W. Ingersoll, project director. Division of Community Health Services, National Institutes of Health. From June 1, 1967, through May 31, 1969, for \$59,800.

5. The Education of Medical Education Researchers. A joint program between the College of Medicine and the College of Education to prepare individuals at the Ph. D. level for education research positions in the health fields. This is a yearly contract for five years. Ralph W. Ingersoll, project director; Frederick R. Cyphert, associate director, Dean, College of Education. First year from July 1, 1967, through August 31, 1968, at \$76,580. Second and third years, July 1, 1968, through June 30, 1970, at \$156,300.
6. Proposed Planning Study for the Use of Computer-Assisted Instruction in Meeting Information Needs of Local Community Health Practitioners. Lloyd R. Evans, project director; Ralph W. Ingersoll, co-director; and James V. Griesen, computer supervisor. Dr. Gerald W. Gaston was appointed the planning project director. One-year planning study funded for \$256,800 from July 1968 through June 1969.
7. Pilot Medical School. The basic objectives of this study are to identify means for both improving and accelerating the training of physicians through the development and testing of Computer-Assisted Independent Study in a Pilot Medical School Program.

Lloyd R. Evans, project director; Ralph W. Ingersoll, associate director. Three-year funding, Bureau of Health Manpower, at \$1,088,943. July 1969 through June 1972.

(d.) Ohio State Regional Medical Program

Neil C. Andrews, M. D.

Shortly after Congress passed Public Law 89-239 creating the Regional Medical Programs, Dean Richard L. Meiling appointed a committee to study the potential of the College of Medicine and the community at large with regard to this national Heart Disease, Cancer and Stroke legislation.

The committee studied the legislation, assessed the potential involvement of the College of Medicine and other health professionals, and defined the strength of the College of Medicine as it might relate to this program. The committee also defined certain counties within the State of Ohio to which Regional Medical Program might be offered and assessed some of the interesting resources and needs of the Central region of the State. In its final report to the Dean, the committee recommended that an Ohio State Regional Medical Program be formed and that a Program Director and Regional Advisory Committee be appointed as prescribed by law.

President Novice G. Fawcett directed that an Ohio State Regional Medical Program be established and he appointed physicians, nurses, voluntary health agency personnel and representatives of the consumer public to serve as a Regional Advisory Committee.

The Ohio State Regional Medical Program was initially funded by the National Institutes of Health, Division of Regional Medical Programs on April 1, 1967. Dr. Neil C. Andrews was appointed

Coordinator of the Ohio State Program. Local Planning Committee chairmen were asked to develop committees in fourteen communities through the sixty-one counties of the Region. Conferences and informal meetings have been held with representatives of the other three Regional Medical Programs in Ohio and with other health professionals to determine the best methods for promoting and implementing Regional Medical Programs within the State. Disease Task Forces were organized under the guidance of recognized authorities from the medical community.

On July 1, 1968, a second planning grant was awarded to the Ohio State Regional Medical Program in the amount of \$1,031,477. This money was granted to continue planning activities of the Program and to support feasibility studies: (1) computer-assisted instruction program to study its usefulness in the continuing education of physicians, nurses and other health professionals; (2) to evaluate the effectiveness of five different modalities of educational presentation; (3) the development of a critical data base so that information can be made available to the staff and other interested people concerning specific populations, health manpower, disease incidence and morbidity in the sixty-one counties of the Ohio State Region; and (4) construction and evaluation of a mobile coronary care unit to be operated in Columbus and Franklin County. Operational grants to be funded: (1) expanded coronary care training program sponsored by the Central Ohio Heart Association; (2) rehabilitation training project for health professionals sponsored by Licking

County Memorial Hospital; (3) rehabilitation training video-tapes for stroke patients and their families; (4) program for orienting the high school student to the possibility of a career in the health sciences; and (5) multivariate study of the career development of medical students sponsored in cooperation with the American Medical Association.

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(e.) Library Facilities and Information Services

John A. Prior, M. D.

A vital part of the Health Sciences Library has been the development of new forms of computer-based information services. It is increasingly difficult for the faculty and students to deal with the explosion of scientific information. As a consequence the College of Medicine dedicated certain undesignated funds over a period of several years toward the development of new information services. Using its own funds the College obtained the computer tapes of MEDLARS (Medical Literature Analysis and Retrieval Service) through the cooperation of the National Library of Medicine. MEDLARS is a computer-based bibliographic service with most of the world's medical literature on tape beginning in 1964. MEDLARS became operational in the College of Medicine in 1966 and soon thereafter was designated as a regional MEDLARS center for the states of Ohio and Kentucky by the National Library of Medicine. The MEDLARS Center is supported by contract with the National Library of Medicine with Dr. John A. Prior as supervisor. Demand search bibliographies and, more recently, recurring search bibliographies are available to all health scientists in Ohio and Kentucky through our Center.

An additional information service is C-BAC, a computerized current awareness service on the world's literature pertaining to the Biotic Action of Organic Chemicals. C-BAC is a function of the Chemical Abstracts Service. After the faculty member or student has established his profile of interests with the search librarians, he

receives a computer print-out every two weeks including all pertinent citations, a digest of each article, and the registry number of the principal chemicals cited with their molecular formula. The capability of retrospective searches of the C-BAC file was subsequently developed, using certain funds available to the College of Medicine.

To respond promptly to the growing literature needs that are generated by the expanding information services, the new Health Sciences Library will incorporate two unique features:

- (1) Automatic bookstack system--all volumes will be stored in containers which are placed in stacks that are two stories high. Using the latest electro-mechanical equipment, the containers will be delivered in a matter of a few to a maximum of 30 seconds to a circulation control station where the volume is delivered and charged to the patron.
- (2) Computerized circulation control--the entire collection will be under the control of the computer. Using a cathode ray tube display, the computer will indicate whether a volume is in or out of the collection. If the desired volume is in, the automatic bookstack system will, in microseconds, be activated and

promptly deliver the volume to the patron.

If the volume is out, this will be so indicated on the video tube, showing the due date and any prior "holds". The computer will also print all "over-due" and "available" notices as well as perform vital statistical studies of the operation of the automatic bookstack system.

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(f.) Data Processing and Systems Research

John Bergman

The need of expanding the processing of data steadily increased and in 1961 the first computer programmer, Mr. Robert Koch, was hired and Data Processing became a department of Administrative Services. By 1962, a small IBM computer (1401) was installed with remote 357 card processing terminals in service areas such as Pharmacy and Radiology. The first computer application of processing patient charge cards for services, developing standardized fee schedules and generating billing by computers resulted in a 5.6% increase in revenue to the hospital. The savings generated from this project not only paid for the people and equipment involved, but also demonstrated that greater savings might be realized if an overall systems approach to hospital information processing were taken.

Interest grew among the medical researchers in the use of computers which led to requests for analysts and programming assistance. Interest was also shown among the College of Medicine faculty in using the computer as an aid in teaching medicine and allied subjects. In addition, automated hospital information systems were receiving increased attention in hospitals throughout the country. Mr. Charles Little replaced Mr. Koch as Director of Data Processing. Growing interest resulted in the establishment of a Department of Systems Research. An IBM 360 Model 40 computer became available to the

College of Medicine in July of 1967; such a computer could provide the necessary computing capability for a Hospital Information System, plus research and teaching applications. Areas adjacent to the Business Office were remodeled to accommodate the new facilities.

The new department of Systems Research was responsible to John H. Bergman, Associate Administrator, who had also guided the growth of the Data Processing Department. Mr. Robert Bowman was appointed Director and was responsible for recruiting an able and enthusiastic staff of three full-time and one half-time employees, plus a secretary.

The Systems Research Department developed (1) a detailed systems analysis of information and materials flow within the hospital, (2) providing analysis and programming support to the medical researcher and hospital staff, and (3) providing analysis and programming series in utilizing the computer as an aid to instruction.

The department was already involved in several projects relating to medical research and education: (1) Heart Study, (2) Electroencephalogram, Electrocardiogram and Cardiovascular Research, (3) Nurse-Monitor study, (4) Cancer Registry, (5) Medical Records, (6) Dietary Teaching Model, (7) Computer-Assisted Instruction in Dietetics, and (8) Computer-Assisted Instruction within the College of Medicine.

During the year 1967, a new director, Mr. John Howell was appointed as Director of the Systems Research Department. Three 1050

terminals were installed and made operational, one being utilized in the computer room for testing IBM Medicine Information System Programs. A second was installed in the Autodidactic Laboratory in Upham Hall for use in computer-assisted instruction. The third was placed in the Systems Research Department on Perry Street for Instructional purposes, testing, demonstrations and data input for the Cancer Registry.

By 1968 the staff of the Systems Research Department totaled 13. A full-time nurse was assigned to the department to coordinate nursing's role as it related to computerization. Equipment acquired during this year included the LINC-8 computer in the Chemistry Laboratory, two cathode ray tube terminals to be used in Medical Records and Admitting as part of the development of the Hospital Information System.

The Heart Study Project was completed, further attention was given the Nurse-Monitor Study; plans were made for further future computerization in the Physiological Chemistry Laboratory; and plans were also made to use the computer for EKG analysis.

Computer-Assisted Instruction extended to include programs in Gross Anatomy, and Histology, and a planning grant was awarded which made possible the offering of four courses in four Ohio cities via remote terminals. Work was completed in the area of information storage and retrieval making possible access to articles and printed abstracts from Chemical Abstracts utilizing the hospital computer.

(g.) History and Development of Wiseman Hall Research Laboratory

Alden V. Stilson, D. V. M.

Wiseman Hall Research Laboratory, its conception, design and operation, represents a unique chapter in the history of The Ohio State University College of Medicine and University Hospitals.

The ideas that formed the basis for the building were crystalized in the period 1955 to 1958. Many people contributed to the planning but Dean Emeritus Charles A. Doan, Dean Richard L. Meiling, and Professor Robert N. Watman, M. D. (now deceased) were the inspirational driving force that brought these ideas and plans to fruition on November 1, 1960, when the original building was turned over to us for operation.

The building was originally officially called the Health Center Research Laboratories. This name was changed in 1964 to honor Dr. Bruce Wiseman, a former chairman of the Department of Medicine.

This structure was unique in that for the first time on this campus, a building had been built solely for the purpose of housing and supporting biomedical research programs which involved laboratory animals. The building consisted of about 36,000 gross square feet. It housed a modern vivarium of nearly 11,000 square feet (gross), an outstanding experimental surgical suite, an aviation medicine laboratory and thirteen general purpose laboratories for the use of visiting investigators from the several departments of the College of Medicine, who required laboratories in close proximity to their experimental animal colonies.

This building was organized for utilization on a project basis rather than a departmental basis. This was a radical departure from the traditional approach that had been used here and at other institutions and was designed with two ideas in mind. First it would encourage an interdisciplinary team type attack on research problems and, secondly, would ensure maximum productive use of the high quality but limited amounts of equipment and facilities available. Further it addressed itself directly to the principle that the most valuable commodity we have is the time of our professional research staff. By centralizing facilities and maintaining well-trained research support personnel, both professional and technical, the investigators could be provided with the best possible research environment and means, while at the same time being relieved of as much economic and routine administration load as possible.

From the beginning it was recognized by all that the initial structure was only the first step in the right direction. Accordingly, planning for an expansion of the research laboratory was begun in 1964. This expansion program was essentially completed in the fall of 1968. It amounts to a gross increase of 37,000 square feet. It includes a doubling of the vivarium floor space, plus a barrier system which affords specific pathogen free animal maintenance capability. In addition, the surgical suite was increased by 50% and the investigational laboratories were increased by about 200%. Concurrent with the expansion of the main building, a two story east wing was added for environmental health

research. In keeping with the principle of project orientation of the work in this building, this wing houses three important laboratories which are: the deep sea environmental research chamber and laboratory, the vibration laboratory, and the toxicology laboratory. All of these laboratories utilize laboratory animals, as well as human subjects in their work.

As of today, Wiseman Hall Research Laboratory represents one of the most modern and comprehensive biomedical research facilities in the world. In spite of this, early planning is underway for the further expansion and improvement of this remarkable facet of the Ohio State University College of Medicine and University Hospitals.

(h.) Building Program

Donald F. Westra, L. L. B.

In 1949 the University Board of Trustees first recommended that the entering class be increased to 200 when and if funds were available. In 1951 the entering class was raised from 100 to 150. It stayed at this number until 1968.

The Ohio Commission on Education Beyond the High School, in 1958, recommended:

1. That The Ohio State University be given appropriations to make possible expansion of its medical center facilities and faculty so that it could admit and instruct larger medical classes.
2. That specific recommendations should be forthcoming to increase as rapidly as possible the supply of nurses; medical technicians, and other allied medical personnel; and dental hygienists.

In 1960 the Interim Commission on Education Beyond the High School requested the President of The Ohio State University to prepare plans for the expansion of the medical center to accomplish the above. The President appointed a committee, composed of the vice presidents of the University and Dr. Richard L. Meiling, Associate Dean, as chairman, to develop plans for the proposed expansion. The plans as developed were contingent upon construction of new and enlarged

facilities and an appropriate increase in the number of the faculty in each discipline. These plans were accepted in principle by the Board of Trustees.

In 1962, the Interim Commission on Education Beyond the High School in the State of Ohio submitted a report entitled "A Study on Medical Education Facility Needs for the State of Ohio". This report indicated that the State of Ohio needed to increase its facilities by 1970 to accommodate a total enrollment of between 580 and 600 first-year medical students. This would represent an increase of approximately 80% from the enrollment of 330 first-year students in 1962 for the then existing three medical colleges of Ohio. Population studies indicated that such an increase in number of medical students could be accomplished with Ohio's student resources.

In December, 1963, upon the recommendations of Governor James A. Rhodes, the Legislature appropriated \$3,000,000 for land acquisition and for development of plans for the College of Medicine expansion. Again in 1965, the Legislature appropriated \$17,273,624 designated specifically to continue the expansion program of the College of Medicine. Thus, in 1963, the College of Medicine embarked on a major expansion program designed to increase Ohio's capacity for education, research and patient care under the auspices of the College of Medicine.

In the planning and implementation of the expansion program, a thorough investigation has been made of all possible sources of federal and private funds for construction, equipment and operational support. Appropriated, non-appropriated and private funds are being planned for use to their maximum potential, as are matching federal funds to support the medical center expansion programs.

State appropriated funds of \$20,273,624 and non-appropriated funds of \$1,122,000, augmented by federal construction grants have been used for or have been allocated for Phase I and Phase II projects of the Medical Complex Expansion Program as indicated on the two sheets which follow. Federal matching funds have been obtained in the amount of \$14,347,799 and an additional \$1,850,000 funding has been approved and is pending.

The Governor's message and the proposed capital improvements legislation of 1969 provide a sum of \$28,000,000 to bring the College of Medicine development program to fruition. These State-appropriated funds with Federal funds and non-governmental support will provide a medical complex of equal quality to the best in our nation.

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Phase I

<u>Project</u>	<u>Total</u>	<u>Appropriated State Funds</u>	<u>Federal Funds</u>
Site Acquisition (Essentially completed in 1964 and 1965)	\$2,370,750	\$2,370,750	
Heating Plant Expansion (Completed in 1965)	379,670	379,670	
School of Nursing (Federal funding under PL 88-581, The Nurse Training Act of 1964) (Construction began 9/21/66 Completed September 1968)	2,400,000	1,234,426	\$1,165,574
Wiseman Hall Addition-Health Related Research (Federal funding under Title VII (A) of Public Health Service Act) (Construction began 9/21/66 Completed September 1968)	2,004,360	1,102,835	901,525
Basic Science Building (Federal funding under PL 88-129, Health Professions Educational Assistance Act of 1963) (Construction began Jan. 1968 Completion 1970)	12,000,000	6,581,988	5,418,012
Medical Utilities (Completed 1968)	1,040,000	1,040,000	
Master Plan and New Hospital Planning	<u>188,125</u>	<u>188,125</u>	<u> </u>
TOTAL Phase I	\$20,382,905	\$12,897,794	\$7,485,111

Phase II

<u>Project</u>	<u>Total</u>	<u>Appropriated State Funds</u>	<u>Non- Appro'd Funds</u>	<u>Federal Funds</u>
Dodd Hall Addition (Physical Medicine and Rehabilitation)(Federal funding under Title VI of the Public Health Service Act)(Construction began August 1968. Completion February 1970)	\$2,039,840	\$1,601,707		\$ 438,133
School of Allied Medical Professions *(Federal funding under Allied Health Professions Personnel Training Act of 1966) **Title I Higher Education Facilities Act grant applied for June 1968)*(Grant awarded) **(Construction start Summer 1969)	4,000,000	1,898,445		*1,791,920 ** 309,635
University Affiliated Mental Retardation Facility (This is a joint project of the Colleges of Education, Commerce, and Medicine)(Federal funding under PL88-164, Mental Retardation Facilities and Community Mental Health Centers Construction Act of 1963)(Federal application sub- mitted May 28, 1966. Federal Council Project approval 11/3/66. Federal grant award 1/19/69. Stage II-preliminary drawings com- pleted. Construction start Oct. 1969)	4,950,000	1,350,000		3,600,000
University Laboratory Animal Facility (Federal funding under Title VII (A) of PHS Act) (Construction start April 1969)	1,845,000		\$1,122,000	723,000

Phase II (continued)

<u>Project</u>	<u>Total</u>	<u>Appro- priated State Funds</u>	<u>Non- Appro'd Funds</u>	<u>Federal Funds</u>
Health Sciences Library (Federal construction assistance applied for under PL 89-291, Medical Library Assistant Act of 1965)(Federal funding pending)	\$4,186,000	\$2,336,000		\$1,850,000 (Award pending)
Contingency	<u>189,678</u>	<u>189,678</u>		
TOTAL Phase II	\$17,210,518	\$7,375,830	\$1,122,000	\$8,712,688
TOTAL Phase I (forward)	<u>20,382,905</u>	<u>12,897,794</u>		<u>7,485,111</u>
GRAND TOTAL Phase I and II	<u>\$37,593,423</u>	<u>\$20,273,624</u>	<u>\$1,122,000</u>	<u>\$16,197,799</u>

(i.) History of Clinical Research Center

Jack M. George, M. D.

The Clinical Research Center is a 12-hospital bed unit located in University Hospital that is supported by the National Institutes of Health for the clinical investigation of the causes and treatment of disease. In the late 1950's the U. S. Public Health Service determined that medical research would be aided by the establishment of units in medical centers throughout the country; each would be dedicated to the clinical investigation of disease in patients. Dr. George Hamwi, Professor of Medicine, developed an application for a Clinical Research Center which was approved and funded in 1960.

In 1961 the first patient was admitted to the Clinical Research Center. The Center and its services are available to any investigator of the College of Medicine. During the first year of operation 15 different projects relating to human disease were pursued in patients admitted to the unit. By 1968, 166 studies had been conducted in this Clinical Research Center. The Center provides skilled nursing care and detailed monitoring of patients. In addition, the Center has its own dietary kitchen with a dietitian who plans the many special diets necessary for metabolic studies. In association with the Center, there is a laboratory to develop the new procedures needed in clinical investigation, and a Physiologic Procedure Room in which cardiac catheterization and other physiologic procedures are conducted.

In addition to providing facilities for increasing our knowledge of disease, the Clinical Research Center has increased the depth of understanding of the scientific basis for patient care for the many residents and fellows who have participated in the activities of the Center.

(j.) Mental Retardation Program

William Gibson, M. D.

The College of Medicine at The Ohio State University can be justifiably proud of being one of the twenty sites selected for the development of a mental retardation training program and the approval of the plans for a university-affiliated facility to be located in the College of Medicine complex. The spark of interest for such program was first generated by Dr. Benjamin Pasamanick and a group concerned faculty from different disciplines. This committee met for a period of time following the report by the President's Panel on Mental Retardation in 1962. In their concern they were initially unaware that Federal legislation supporting the construction of such facilities was passed in 1963.

When the full scope of this legislation became known Dean Lloyd Evans was assigned the responsibility of developing a program for a facility of suitable size and scope for this University. In this task he was most successful. Over a two-year period there were frequent meetings of representatives of the disciplines concerned with mental retardation. The University departments and colleges, anxious to develop this program, created a sense of mutual concern and trust that led to a novel plan. The committee took advantage of the talents of Dr. Ralph Ingersoll as coordinator for a proposal and Dr. Thomas Shaeffer who acted as chairman of the interprofessional meetings.

The planning within the University, given impetus by the College of Medicine, was supported in a Citizen's Report to the Governor of Ohio. They recognized the need for the development of training opportunities in academic institutions to increase the availability of adequately trained professional personnel. In May, 1966, the O. S. U. proposal was submitted and following the site visit in November approval was given to the program and tentative approval for the construction of the facility. The faculty of the College had another significant contributor, Dean Donald Westra, who painstakingly directed the development of building design, the successful staging of the site visit, as well as the endless maneuvering in the corridors of Washington.

The Department of Pediatrics under the chairmanship of Dr. Bruce Graham had been involved intimately in the planning and developing of the program and went as far as offering one of their faculty, Dr. William Gibson, to become the Director.

The Dean and the College have every reason to be proud of the insight they demonstrated in supporting a program of this dimension at this particular time in history. The Mental Retardation Training Program represents the largest major breakthrough in intercollege and interfaculty cooperation to achieve common goals through the utilization of interdisciplinary teaching methods. This program continues to reflect the cooperation between University and State and is conspicuously mentioned in the implementation report on mental retardation submitted by the citizens to Governor Rhodes in 1968. In this report Dean Lloyd Evans again played

a key role as chairman of the professional committee of this report.

The university of today is asked to look beyond its hospital corridors and classrooms and develop closer contact with the people most in need of the broad spectrum of health care. Through this program the College of Medicine in cooperation with the other colleges has established clinical and management training models outside its hallowed halls where the impact of a concert of professionals working with the mentally retarded and handicapped becomes part of the preparation of the physician of tomorrow.