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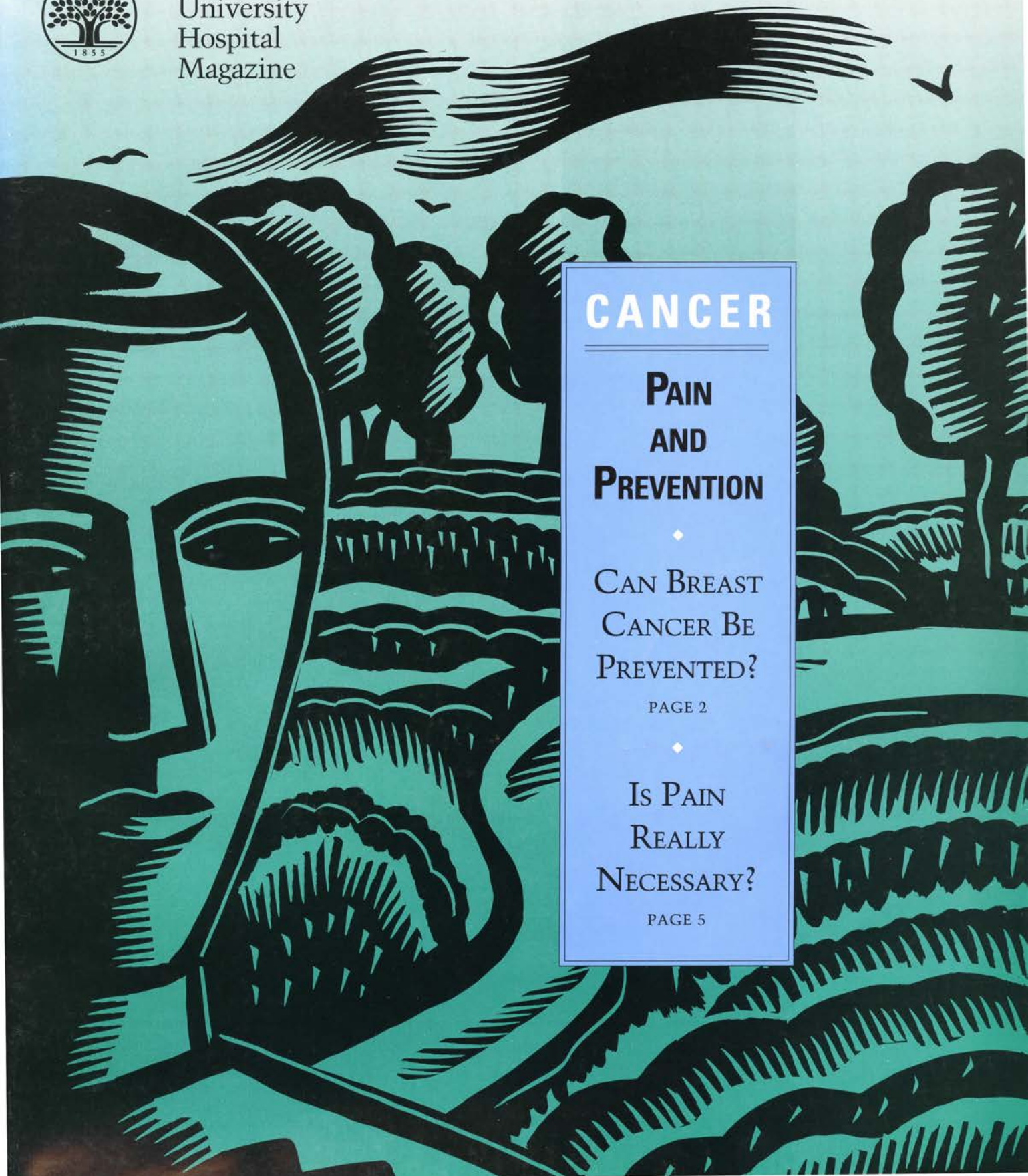
# Progress: May 1992

BOSTON UNIVERSITY MEDICAL CENTER

# PROGRESS

MAY 1992

The University Hospital Magazine



## CANCER

### PAIN AND PREVENTION

The University Hospital

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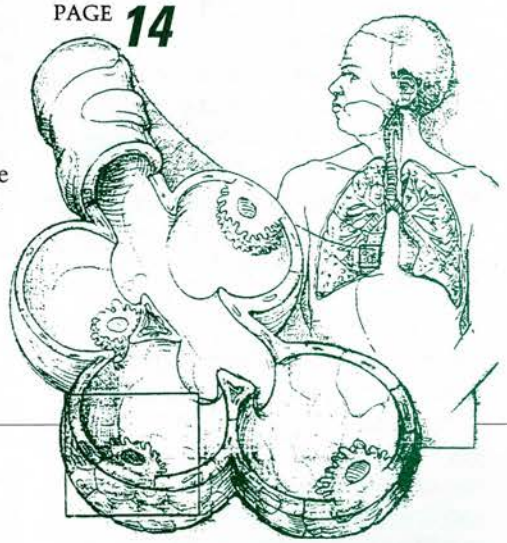






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BOSTON UNIVERSITY MEDICAL CENTER

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*One in nine American women will develop breast cancer in their lifetime, more than twice the number who were afflicted in 1940. In Japan, the incidence of breast cancer is very low. But among second-generation Japanese women who have relocated to the United States, the incidence approaches the one-in-nine figure. Thus, there appears to be something within our lifestyle, as yet unknown, that makes breast cancer a common American disease.*

*The outlook for women with breast cancer has markedly improved in recent years. In fact, 75 to 90 percent of breast cancers can be cured when found in their earliest stage of development, and 60 percent of all breast cancers are cured. But there still is a large number of women who will die from the disease.*

*Researchers are hard at work not only to further improve the survival rates and quality of life for breast cancer patients, but also to understand why American women seem to be predisposed to the disease and how it can be prevented.*

# Preventing Breast Cancer

## *UH chosen for landmark study of a prophylactic breast cancer drug*

BY MICHAEL R. PASKAVITZ

Breast cancer is an epidemic. In 1990, an estimated 150,000 American women were diagnosed with the disease. Of that number, about 45,000 women will die. In an effort to put a stop to the number-two cancer killer in the United States, the National Cancer Institute (NCI) recently announced the first-ever study of a drug to prevent breast cancer.

The NCI's National Surgical Adjuvant Bowel and Breast Cancer Project (NSABP) recently selected The University Hospital to be one of more than 100 sites in the U.S. and Canada to lead the study of a drug, Tamoxifen, as a potential preventive drug for breast cancer. The UH study will be directed by Maureen T. Kavanah, M.D., a UH surgical oncologist and a member of the NSABP committee that designed the study, and Marianne Prout, M.D., M.P.H., a medical oncologist working with the UH Section of Surgical Oncology and a nationally recognized epidemiologist.

"This breast cancer trial is clearly one of the most important cancer studies to be undertaken in the last 10 years," says Douglas V. Faller, Ph.D., M.D., director of the Cancer Center at Boston University Medical Center. "Unlike past cancer trials, which dealt with treating cancer once it was present, this study is designed to prevent cancer.

"Our excitement about participating is two-fold," adds Faller. "Scientifically, the result of the study will help us learn a great deal about breast cancer and its development. More importantly, though, it is likely to prevent a tremendous amount of suffering in women. And we are very pleased to be selected to participate in this important study."

### *Who is eligible for the study?*

A major concern is that every woman, regardless of her risk, will want to enter the trial. The study will enroll 16,000 American and Canadian women over two years. Participants will take Tamoxifen each day for five years and will be monitored for seven years. Researchers will look at the effects of Tamoxifen in women considered to be at high risk for developing breast cancer. High-risk is defined as being a woman who has the same risk for developing breast cancer within five years as a 60-year-old American woman (see specifics in chart on page 3).

"The study's goal is to obtain definitive results from this trial and make them clinically available as soon as possible," says Kavanah. "Dealing with high-risk women will help us to receive results more quickly."

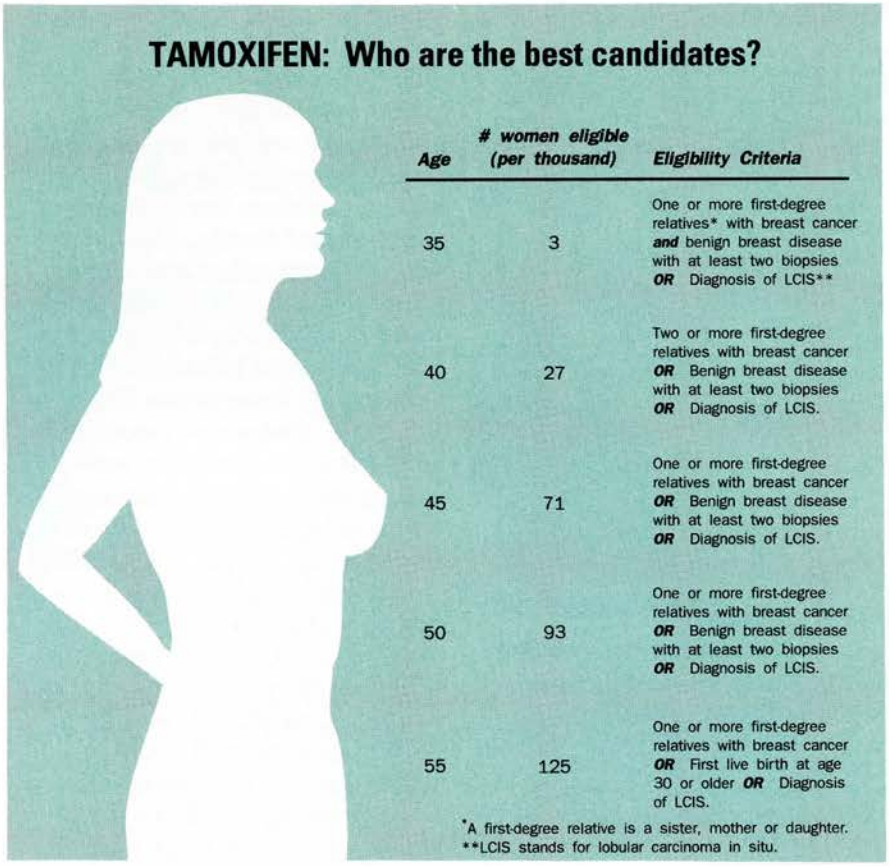
Of the primary sites, three are in Massachusetts: UH, New England Medical Center and the Dana-Farber Cancer Institute, in Boston. The Lahey Clinic in Burlington, University of Massachusetts Medical Center in Worcester, Jordan Hospital in Plymouth, Bay State Medical Center in Springfield, St. Anne's Hospital in Fall River and Brockton Hospital are the designated subcenters under The University Hospital.

There are four stages of breast cancer. Stage I, or early-stage, breast cancer is when cancer cells are confined to local breast tissue. Treatment of stage I tumors is highly effective, with a cure rate between 70 and 90 percent. Stage II breast cancer is when the cancer has entered the lymphatic system and has spread to the lymph glands in the armpit. Although cure rates are not as high as with stage I cancer, new adjuvant therapies combining surgery, chemotherapy and hormone medication have vastly improved the outlook for stage II patients. Stage III breast cancer involves the breast extensively, and stage IV cancer is life-threatening because the cancer has spread into distant organ systems.

"Through this study," adds the Cancer Center's Faller, "we have the opportunity to identify women at high risk for developing breast cancer and to try to prevent that cancer from developing. Everything we know about cancer tells us that preventing breast cancer should be easier than treating it once a tumor has been detected."

The study eliminates all women younger than age 35 as candidates, despite their family history of breast cancer. "But even though a 28-year-old woman will not be eligible, even if she has a strong family history of the disease, by the time she reaches a high-risk age, the results of the trial will hopefully be known and she will then be advised on what to do," says Kavanah. "This is a very important point for women to realize."

While some participants will receive the placebo drug, Kavanah points out that simply being involved in the study is, by itself, beneficial. "All participants will be closely monitored and cared for during the study," she says. "So the breast care they will receive during the study will be very extensive and attentive."




Aside from age and risk, another factor that could make a woman ineligible for the study is pregnancy, or the desire for it, says Kavanah. Tamoxifen may be harmful to fetal development.

### *Tamoxifen: An established agent...*

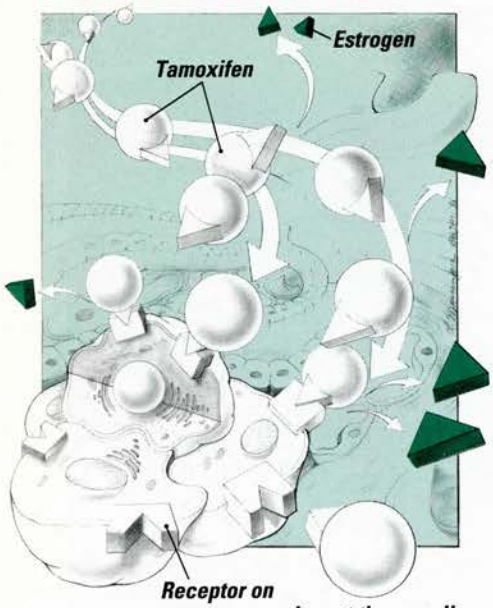
New research is showing that some cancer may be able to be prevented. For instance, several studies have hinted that taking aspirin may help prevent colon cancer, and other studies suggest that beta-carotene supplements have a protective benefit against many other forms of cancer. But no possible preventive remedy has ever been found for breast cancer—that is, until now.

Tamoxifen is not a startling new "magic bullet;" it has been around since 1966. "Tamoxifen was first tested as a potential birth-control method," according to Prout. "But researchers found that it actually had the opposite effect by increasing fertility. So in its next stage of evolution it was used to help sequence ovulation and achieve pregnancy."

It wasn't until the early 1980s, with the advent of adjuvant therapy, that Tamoxifen was found to have some significant additional uses. Adjuvant therapy for breast cancer can effectively kill undetectable traces of cancer to prevent recurrence. Tamoxifen, one of the drugs used in the adjuvant studies, produced some unexpected findings.

"For patients with stage I and stage II breast cancer, Tamoxifen was part of their adjuvant program to treat presumptive metastatic disease," says Kavanah. "In long-term follow up of these patients, the incidence of contralateral breast cancer was found to have been reduced from 10 percent to 1 to 2 percent. That was a very unexpected and extremely positive effect of Tamoxifen."

## HOW TAMOXIFEN ACTS




*Tamoxifen binds to receptors on the surface of cells in breast tissue. By doing this, Tamoxifen blocks estrogen from binding to these cells. Estrogen has been shown to contribute to the growth and spread of most breast cancer cells.*

In five separate studies involving a combined 10,000 women in the U.S. and Europe, Tamoxifen showed the same positive effect on contralateral (affecting the other side of the body) breast disease. These same studies reported that the adverse reactions to Tamoxifen were rare and only infrequently severe enough to discontinue treatment.

### ...with perhaps other benefits

The NCI also is hopeful that Tamoxifen, in addition to its benefit for breast cancer, may be helpful in preventing other diseases as well. Prout explains that Tamoxifen may have additional benefits for preventing bone loss and cardiovascular disease. "There are some peculiarities about Tamoxifen," says Prout. "One is that not only does Tamoxifen prevent estrogen from binding to breast tissue, but it also acts like estrogen. So we think that it may have a role in preventing bone loss and may positively affect blood lipids and, potentially, cardiovascular disease. This also will be a very important part of this study."

Estrogen-replacement therapy in postmenopausal women has shown to reduce the incidence of heart-related deaths. Like estrogen, Tamoxifen has been shown to affect blood lipid levels. To be specific, studies have documented that Tamoxifen reduced levels of low-density lipoproteins (LDLs)—the "bad" cholesterol associated with coronary artery disease—and, in some studies, increased levels of high-density lipoproteins (HDLs)—the "good" cholesterol.

Tamoxifen, like estrogen, also has been shown to have a positive effect on the bone loss associated with osteoporosis, a condition affecting an estimated 24 million American women. But this is where Tamoxifen is somewhat chameleon-like: it seems to decrease estrogen in an estrogen-rich environment and increase estrogen in a low-estrogen environment, such as in postmenopausal women. It is expected that this study will make more clear the drug's effect on bone loss.

### One debate: Diet vs. medication

"In forming this study, we realized that while one of nine women develops breast cancer, eight of nine do not," says Prout. "Therefore, in order to truly benefit women, a drug that may prevent breast cancer, certainly should not be harmful, but also should potentially have other benefits, which Tamoxifen does."

However, some people are asking why a drug with potential side effects is being tested when dietary adjustments may be as effective. Strong evidence has built up suggesting that there is a dietary link to breast cancer. In fact, some studies have shown that women who consume a diet high in animal fat have an increased incidence of breast cancer.

But Prout answers, "The dilemma with diet is that the same epidemiologic studies that have supported the role of diet in breast cancer also found that the diet that lowers the risk for breast cancer in an adult is that which is consumed during childhood—so the damage may already be done."

Adds Kavanah, "The NCI certainly is not frowning on dietary modification; in fact, there seem to be a lot of indirect benefits from fat reduction for many diseases, not only breast cancer, but also colon cancer and cardiovascular disease. So the NCI is encouraging anything along those lines," she says. "But they have chosen to fund the study of an agent that has an established and proven ability to impact the occurrence of breast cancer. And there currently is no proven specific dietary modification that could be broadly tested in a clinical trial."

### ■ FOR YOUR INFORMATION

**Dr. Kavanah** is a surgical oncologist at UH and is codirector of its Evans Breast Health Center. She also is an assistant professor of surgery at Boston University School of Medicine.

**Dr. Prout** is a medical oncologist at the Hospital and also is codirector of the Breast Health Center. She is an associate professor of public health and sociomedical sciences and community medicine at the School of Medicine.

If you would like more information on the Tamoxifen study, or on breast health or oncology services at UH, please call 1-800-842-3648 during business hours.

*In the past decade, basic cancer research has advanced at a tremendous rate, producing new treatments and even some cures for certain forms of cancer. But one area of cancer care that has been neglected is cancer pain, which traditionally has been viewed as an inevitable consequence of the disease.*

*At the 1991 meeting of the American Society of Clinical Oncologists, nearly 70 percent of cancer specialists believed that current cancer-pain management is inadequate. About 60 percent of all cancer patients develop significant pain associated with their illness, and some 80 to 90 percent of those patients describe their pain as "overwhelming."*

*There is mounting evidence suggesting that the relief of pain actually can speed the recovery process and affect a patient's prognosis. This belief is based on extensive studies showing that pain impairs the immune system by suppressing white blood-cell function, which, in turn, compromises a person's ability to fight off bacterial infections and toxins.*

# Is Pain Really Necessary?

## *UH pain experts treat cancer pain as an illness unto itself*

For many cancer patients in the past, the experience of cancer treatment has sometimes been more unbearable than the cancer itself. However, new knowledge about pain being applied in The University Hospital's Cancer Pain and Palliative Care Program (CPPCP) is proving that quality of life needn't be compromised by cancer or other afflictions causing chronic pain.

The CPPCP, which is part of the Department of Neurology, is directed by James A.D. Otis, M.D., a neuro-oncologist who trained at Sloan-Kettering Memorial Cancer Center in New York. While most major teaching hospitals have some sort of pain service, no other hospital in Boston has a full-service program capable of and dedicated to relieving all types of pain, in addition to cancer pain.

"Any person diagnosed with a malignancy fears the prospect of great pain," says Douglas V. Faller, Ph.D., M.D., director of The Cancer Center at Boston University Medical Center. "But most people don't realize that complete control of cancer pain usually is possible. With the advent of the cancer-pain program, we can offer a multidisciplinary approach to pain control for each individual patient. And this service is a vital complement to the new and innovative treatments for cancer that currently are under way at UH."

### *One patient's story*

Paul Menice, 29, a computer analyst for the Boston office of the United States Department of Health and Human Services, certainly is glad for the CPPCP. In 1983, while serving with special intelligence in the U.S. Navy, Menice began experiencing burning abdominal pain that first was thought to be a duodenal ulcer. After medical treatment proved unsuccessful, and with Menice still in agonizing pain, doctors then felt that his gallbladder needed to be removed. Following surgery, Menice says the pain got much worse, almost unbearable.

Then, on his way home from a family reunion in New Jersey, Menice became delirious from internal bleeding and was taken to a nearby hospital, where experts diagnosed gastrinoma, a rare and terminal cancer of the gastrointestinal system. Although gastrinoma is slow-developing, with a survival period of 10 to 15 years, Menice was told that his cancer was not treatable. Despite his discouraging prognosis, the worst manifestation of the cancer was the pain that it caused. He was referred to UH medical oncologist Sualp Tansan, M.D., for his pain care.

"The pain was so agonizing that I thought it would be better

*'Most people don't realize that complete control of cancer pain usually is possible'*

***BUMC Cancer Center Director Douglas V. Faller, Ph.D., M.D.***

to be dead," says Menice, who lives in Kingston with his wife and two sons. "And Dr. Tansan was really concerned because I couldn't eat or do anything—I was becoming a vegetable. I was very weary of leaving my house because when the pain comes, it overpowers me completely—I can't do anything." After his patient's weight dropped from 145 pounds to just 115 punds, Tansan referred him to Otis.

"After listening to a description of my pain and my medical history, Dr. Otis prescribed Naprosyn (a common anti-inflammatory medication)," recalls Menice. "And that did the trick. Since then, I've been relatively pain-free and it has allowed me to live a pretty normal lifestyle. I almost couldn't do anything before because the pain was so bad."

Now Paul Menice is back to working 40 to 50 hours each week, and he can comfortably eat just about anything he wants. "I think Dr. Otis and Dr. Tansan have done a tremendous job. I feel very comfortable with them," concludes Menice.

Otis explains that not all the patients are as easily treated as Paul Menice. "I typically use a multitiered approach; that is, depending on the basis of the pain and the disease, I try the least intensive approach first, and then proceed through the various options accordingly. It happens that in Paul's case, the first approach worked; this is fairly unusual."

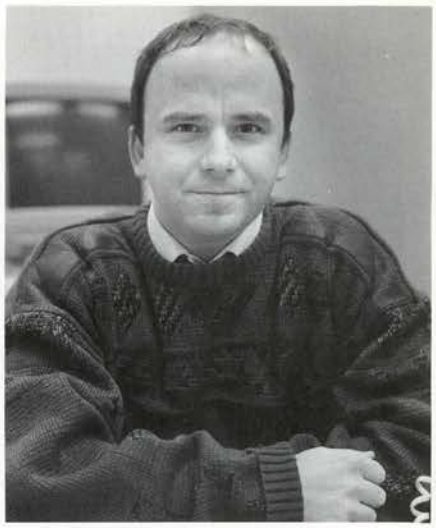
### *Types of pain—and their treatment*

When talking about pain, Otis says it is important to differentiate between malignant pain and nonmalignant pain. "Malignant pain means that it's cancer-related, a secondary physiological illness," he says. "And because of the nature of cancer, patients tend to need increasing doses of narcotics, especially as the cancer progresses. Narcotics also are needed when treatments have complications that produce pain, such as 'phantom limb' pain associated with amputation, or back pain from a tumor. So what must be done is to maximize the patient's quality of life by giving the appropriate dosages—and that sometimes is a very fine line."

Otis explains that nonmalignant pain is totally different. "Many patients with noncancerous pain have genuine diseases, but patients should not be debilitated," he says. "With these patients, you have to think about physical therapy and perhaps nonnarcotic drugs. But frequently these patients are treated with narcotics when the patient doesn't respond to nonnarcotic drugs. When this happens, the patient often takes more and more medication to where he or she may be becoming addicted, which obviously will concern the physician. In many cases, this can be avoided if patient education and therapy are started early."

Treatment for cancer pain typically is of a broad nature, with each patient's care being relative to his or her needs. Pharmacologic therapy using opiates is used with a high degree of success for some cancer pain, and new opiates have been designed that act faster, provide extended relief and are better tolerated by patients. For instance, a long-acting morphine, which is taken only twice a day as opposed to every three or four hours, now is available to cancer patients. Yet another pain weapon, hydromorphone, is prescribed for cancer patients who are unable to tolerate morphine. In addition, a series of new drugs that appear to be less sedating currently are under investigation, including medications that can be delivered through a patch worn on the skin.

The word 'addiction' often is mentioned in discussions of narcotic therapy, but Otis cautions about the way people use the word addiction. "When you're dealing with people with cancer-related pain, you rarely see addic-



*'I thought it would be better to be dead....but now I can live a pretty normal life'*

***UH cancer patient Paul Menice***

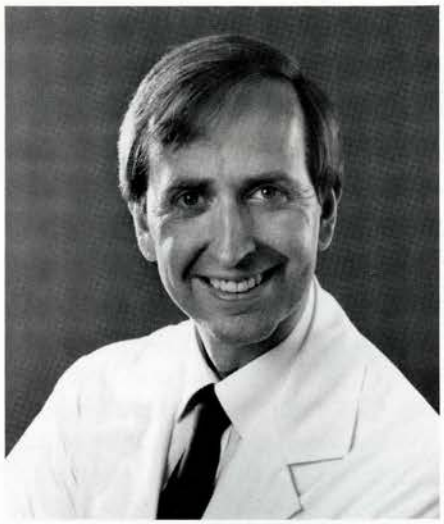
tion as a problem," he says. "And there is a difference between addiction and tolerance. Tolerance affects everybody; the more you take a drug, the more your body gets used to it, and the more of the drug you need. Addiction is when you take a medication for reasons other than those for which it was prescribed, and you develop a psychological need for that drug."

Otis cites studies done in the 1970s that looked at more than 10,000 cancer patients and found an incidence of addiction of less than 1 percent, which is very small. "In nonmalignant chronic pain patients, addiction is a much larger problem because patients frequently have psychological problems or stress for which they need to take other medications," Otis explains. "That's why a multidisciplinary pain program is helpful: It has psychological, nursing and physical-therapy aspects, which basically teach you a new lifestyle. Without that, you may take more medicine, and if you take more medicine, sooner or later you begin a vicious cycle leading to addiction."

Nerve-blocking drugs and short-acting nerve blocks, administered under local anesthesia, also are used for certain forms of cancer pain, as are various surgical and anesthetic techniques. Rehabilitation and counseling, rather than pharmacologic treatment or medical/surgical procedures, are recommended for nonmalignant cancer pain.

### How the program works

"The program is a consulting service available to all physicians," says Otis. "The sole aim is to improve the quality of life for patients who often are suffering needlessly. I follow them through the course of their disease and beyond their discharge. Home visits and daily calls keep us in touch with their needs."



*'Cancer physicians usually can treat pain...but [the CPPCP] offers a special expertise'*

***Clinical Director of UH Medical Oncology Paul Hesketh, M.D.***

Every patient who is referred to the pain program will undergo a battery of tests before a diagnosis is made and treatment is begun. "We put patients through psychological evaluation, we look at their test results or we give new tests if indicated," says Otis. "Frequently we come up with a diagnosis that was missed, such as rheumatological disorders, neurological disorders, old fractures, or sometimes nothing."

Once a cancer patient's pain is diagnosed properly, Otis participates in weekly cancer patient rounds with UH oncologists to provide input about the pain care being administered. One physician whose patients have benefitted from the program is Paul Hesketh, M.D., clinical director of the UH Section of Medical Oncology. "Most cancer physicians can treat pain, but [Dr. Otis] takes the capabilities one step further," he says. "The cancer-pain program certainly has expanded our existing expertise and allows us to provide individualized, patient-focused cancer care. The program is an invaluable addition to the Hospital's cancer programs."

The program soon will be enhanced by the hiring of a clinical nurse specialist trained in pain management, who will coordinate the vital palliative-care element of the program. "This is a very important function, because a nurse can provide much of the support, monitoring and post- hospital care that I am unable to give to all of my patients right now," says Otis. "Personal psychological support is fundamental for our patients."

In addition, the Department of Anesthesiology, under Marcelle M. Willock, M.D., will work with Otis on cases of cancer pain and other forms of chronic pain. Anesthesiologists administer nerve blocks and other types of anesthetic relief of pain.

"Clearly, for many cancer patients, regardless of their stage of development, cancer pain can be a very important aspect of their care," concludes Hesketh. "It also is clear that patient satisfaction is not what it could be in terms of pain management. So we have found the program to be an excellent resource because [Dr. Otis] has a special expertise."

*Michael R. Paskavitz*

■ ***FOR YOUR INFORMATION***

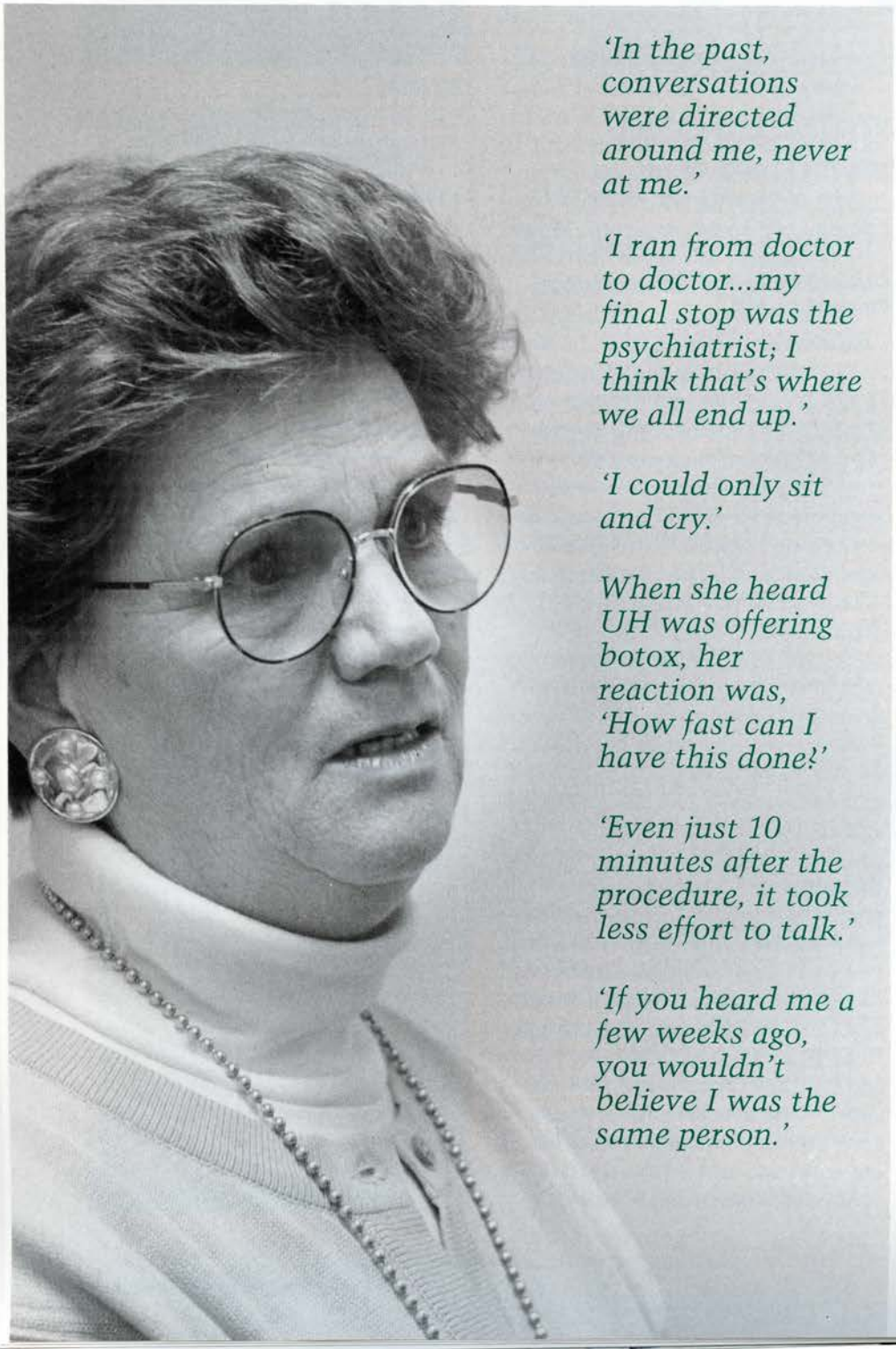
**Dr. Otis** is director of the Department of Neurology's Cancer Pain and Palliative Care Program at UH, and is an assistant professor of neurology at Boston University School of Medicine.

For more information about the CPPCP at UH, please call 1-800-842-3648 during business hours.

# *A Voice That Made Her Weep — Her Own*

*New therapy has dramatic effects against spasmodic dysphonia, a condition that impairs speech*

BY WENDY LAVALLEE



*'In the past, conversations were directed around me, never at me.'*

*'I ran from doctor to doctor...my final stop was the psychiatrist; I think that's where we all end up.'*

*'I could only sit and cry.'*

*When she heard UH was offering botox, her reaction was, 'How fast can I have this done?'*

*'Even just 10 minutes after the procedure, it took less effort to talk.'*

*'If you heard me a few weeks ago, you wouldn't believe I was the same person.'*

Marlene Marconi, 55, of Merrimack, N.H., suffers from spasmodic dysphonia (SD), a chronic condition in which the vocal cords suffer from uncontrollable spasms, vastly impairing the quality of a person's voice. For almost 20 years, this condition has made Marlene Marconi's life almost unbearable, as it does for many under its control.

While spasmodic dysphonia affects only about 30,000 people nationwide, its perplexing symptoms cause it to be misdiagnosed in about 90 percent of cases. Today, however, injections of botulinum toxin, known as botox, are giving back to Marconi and other SD sufferers their voices, livelihoods and hope for the future.

"Compared to all the other treatments that have been tried, botox is by far the most dramatically effective," says Greg Grillone, M.D., director of The University Hospital Voice Center, one of only 15 centers in the U.S., and the only center in New England, that offer botox injections. "It's not a permanent treatment, but it's about as inconvenient as coming in for a vitamin B12 shot every six months, and it restores a patient's voice to being just about normal. I have never had patients call and tell me how much their lives have changed as much as I have with these patients. It really is incredible."

### *Underlying cause a mystery*

People with SD speak with a strained and strangled voice with an obvious break-up in the cadence of speech. Unfortunately, the condition usually gets worse over time, and sometimes, individuals with SD lose their jobs and even have friends and relatives shy away because of their difficulty speaking.

Symptoms of spasmodic dysphonia typically begin around age 35 and affect men and women alike. SD's onset frequently is prompted by, but not related to, an underlying illness, such as a severe cold or upper respiratory infection, or an emotional event like a death in the family, or perhaps the effects of major surgery. The exact cause of SD isn't known with any certainty, and, until now, there was no effective treatment.

In the past, many experts thought spasmodic dysphonia was psychosomatic or psychogenic, and sent patients to psychiatrists for help, almost always without success. Other therapies attempted include medication, biofeedback and acupuncture.

Many people with SD have tried breathing therapy or speech therapy, says Glenn Bunting, M.S., C.C.C., speech pathologist at the Voice Center. However, Bunting says, "People who have tried to treat the disorder will tell you there is no known successful speech-language therapy for SD. There are some strategies and techniques that may help reduce some symptoms, but they usually have very limited success."

Botox treatments for SD began in the mid-1980s, after some physicians and researchers found that the condition originates not in the larynx itself, but in the central nervous system, thus affecting the way the nerve stimulates the muscle.

To treat SD, however, botox is injected through the neck directly into the vocal cord muscles. It paralyzes specific muscles by blocking the release of acetylcholine at the neuromuscular junction, thereby alleviating muscle spasm.

This simple and painless procedure takes about five minutes. And when its effects begin to wear off, usually after about four or five months, patients can return for an injection. The doses of botox used in SD patients are extremely small and are injected into specific muscles instead of into the circulatory system.

### *The effects were immediate*

Marlene Marconi is fairly typical of an SD patient, in the age and severity at which her condition developed. After 20 years or veritable voicelessness, she received her first botox injection at UH, and says the results have been extraordinary. "If you heard me a few weeks ago, you wouldn't believe I was the same person," she says. "In the past, conversations were always directed around me, but never at me. I would go home feeling sad because it was almost as if I wasn't there at all. Since I had the injection, though, I can't believe how people have called me and asked me out."

Marconi's experience with SD began in the early 1970s after she had major surgery. "I had problems with forming certain words and thought something had happened to me during surgery," she says. "It slowly progressed, and with each traumatic event that happened in my life, it got increasingly worse."

She went went from doctor to doctor, but each was confounded by her symptoms. In fact, it took 10 years before her condition was properly diagnosed.

"Everyone told me it was stress related," she recalls. "I was very depressed because I thought I was bringing this on myself. No one ever gave me any hope. My final stop was the psychiatrist's office; I think that's where most of us end up. He gave me all kinds of medications for anxiety to see if it would help me. But it didn't."

Marconi practiced her breathing exercises, but they didn't improve her speech. About a year ago, she learned of the UH Voice Center and its SD support group, formed by Bunting. Marconi says, "It was the first time in my life I had heard anyone else with the same problem. I could only sit and cry."

The support group meets every other month, giving members a chance to share experiences and to listen to guest lectures.

The Voice Center team that works with SD patients consists of Grillone, Bunting, Robert C. Peppard, Ph.D., C.C.C.-S.P., the staff voice scientist, and Jaime Rich, M.D., a neurologist involved in the diagnostic process.

When Marconi learned that the Voice Center was planning to begin botox injections, her first reaction was, "How fast can I have this done?"

She felt the effects of the injections almost immediately, "Even 10 minutes after the procedure, it took less effort to talk."

Alone that evening, Marconi read aloud and thought how wonderful it sounded to her. She then called a local convenience store to ask about the lottery number. "I didn't even have a ticket, but I thought it was a good excuse to talk," she says, now chatting after 20 years of near muteness.

A fabric artist, Marlene Marconi now is venturing out into a world that once ignored her, as she teaches a fabric-painting class at the University of New Hampshire.

### ■ *FOR YOUR INFORMATION*

**Dr. Grillone** is director of the Department of Otolaryngology's Voice Center, and is an assistant professor of otolaryngology at Boston University School of Medicine.

If you would like more information on the botox injections or on Voice Center services at UH, please call 1-800-842-3648 during business hours.

# When The Diet Ends...

## *Enhanced program offers dieters an opportunity for long-term success*

BY CYNTHIA L. LEPORE

Question: Name a four-letter word that can lower a person's high blood pressure and risk for heart disease, help cure sleep apnea and take a diabetic off insulin? Answer: D-I-E-T.

Patients at the newly enhanced weight management program at The University Hospital's Evans Nutrition Group are finding that losing weight and keeping it off can solve a host of complex medical problems often associated with obesity. With components in nutrition education, behavior modification and exercise complmenting the diet options, UH's physician-supervised program offers a realistic and long-term approach to weight management. One former patient, a diabetic, was given a seven-year reprieve from insulin after shedding 40 pounds on a very low calorie diet. Yet another patient (Richard Prata, pictured at right), who at age 33 suffered a heart attack and at age 41 developed sleep apnea, lost 100 pounds and now enjoys optimal health.

Research and experience have shown that long-term weight loss is a challenge that requires not only an effective weight-management program, but also dedication and motivation by the dieters themselves. Because a significant number of dieters fall prey to "recidivism"—the tendency to relapse into old habits and regain weight—effective weight-loss programs are those which arm dieters with the right tools for lifestyle change.

### 'Not just a diet plan'

The Evans Nutrition Group, located in newly renovated quarters in the Hospital's Doctors Office Building, offers its patients three types of diets, tailored to fit their individual needs. Special emphasis is placed on one approach in particular, the Health Management Resources (HMR) low and very-low calorie diets, because of its high degree of success with patients, according to Robert H. Lerman, M.D., Ph.D., the program's medical director. "Contrary to the media hype of many well-advertised diet programs, people generally lose less than 15 pounds with commercial programs," he notes. "With the HMR approach, which is a comprehensive weight management program and not just a diet plan, the average weight loss is more than 50 pounds, and nearly 56 percent of the weight is kept off for two years."

Two other diet options offered to UH patients are the balanced calorie-deficient diet (BCDD) and the protein-sparing modified fast (PSMF). The BCDD is a reduced-calorie diet that enables patients a wide range of food choices that are high in dietary fiber and low in fat. The PSMF, which virtually eliminates carbohydrates and decreases dietary fat, is based on fish, fowl and lean meat supplemented with vegetables, vitamins, calcium and potassium. Diets are prescribed based on a patient's needs and lifestyle, and then an individual weight-management plan is devised.

As part of the UH weight-management program, patients are monitored with routine weight and blood-pressure checks, weekly physician visits and health-education classes, where nutrition educators Jean Carr, M.S., R.D., Ronni Pianin, M.S., R.D., and Peggy Phillips, R.N., M.S.N., CNSN, teach them the skills they need in order to lose the weight and, most importantly, to keep it off. During the classes, patients learn a system of calorie counting, which, in essence, enables them to determine the calorie content of foods under a variety of situations, such as restaurant or party eating. They also learn a system of balancing food calories with physical activity.

***BEFORE—In 1980, at age 33, Weymouth resident Richard Prata suffered a heart attack. At age 41, he was diagnosed with sleep apnea. He enrolled in the UH weight-management program in March of 1990 with 298 pounds on his 5-foot 6-inch frame. "I attribute my health problems directly to my being overweight," he says. "Back then, I really couldn't do anything; my quality of life was the pits."***

For example, a person who indulges in a blueberry muffin would have to walk six miles to burn off the 600 calories. "We don't forbid our patients from eating certain kinds of food; rather, we try to teach them about the available choices," says Lerman.

### *Diet + exercise = weight control*

While dieting will take weight off, it is known that dieting alone will not keep the unwanted pounds from coming back. "A weight-loss diet, unless accompanied by regular physical activity, is likely to be an exercise in futility," notes Lerman, who recommends that patients in the UH program expend a minimum of 2,100 exercise calories per week.

A UH-based study on the effects of diet and exercise on weight loss and weight maintenance published in 1989 offered some interesting and timeless information. The study, involving 160 members of the Boston Police Department and the Metropolitan District Commission police, found that exercise—while having no substantial effect on the actual amount of weight lost by those who exercised and those who didn't—played a major role in the loss of fat and in the maintenance of lean body mass. Moreover, follow-up conducted 18 months after the study indicated that weight loss was maintained in the officers who exercised, but that about 92 percent of the weight lost by officers who did not exercise was regained.

The study's message is reflected in the UH approach. "Several studies have shown that while diet by itself can successfully take weight off, exercise without a prudent diet isn't an effective weight-loss method," says Kyle McInnis, Sc.D., director of UH's Clinical Exercise Program. Under this program, patients enrolled in the weight-management program are afforded an opportunity to exercise at the Hospital in a state-of- the-art cardiovascular exercise center.

"The number-one benefit of our program is that we're structured. We motivate our patients toward complying with an appropriate routine. Most of our patients don't feel comfortable in a health club, but they do feel comfortable here," says McInnis. Patients who choose this exercise option undergo cardiovascular stress tests and fitness evaluations at the start of the program, which are then repeated after three months. Patients are closely monitored and set their own pace. "This is not like an aerobics class, where you have to keep up with the instructor. Our patients work at their own prescribed intensity," notes McInnis.

***AFTER—By using the HMR 800 diet and its maintenance plan, Richard Prata dropped more than 100 pounds—and he's kept it off. "Life has really turned around from this diet," he says. "I'm really grateful to Dr. Lerman and Ronni Pianin for their dedication." Today, Richard Prata enjoys good general health and the freedom to exercise and eat comfortably, even occasional Chinese food—his favorite.***

### *Other beneficial services—drug study, lipid clinic*

The University Hospital, in its attempt to arm dieters with a variety of weapons in the battle against recidivism, has been selected as the only site in New England to participate in a multicenter, year-long study of a fat absorption blocking drug. The study will test whether a drug, known as orlistat, is an effective supplement to dieting. According to Lerman, the drug acts by blocking the digestion of fat, so that more fat is passed in the stools and not absorbed into the bloodstream. To date, early studies have found that the drug is well-tolerated and causes few significant side effects.

Although the majority of patients are enrolled in its weight-management program, the clinic also provides consultative services for a wide range of nutrition-related disorders. One such service, a new cholesterol and lipid management clinic due to open in late spring, will target individuals at risk for cardiovascular disease and provide intensive dietary counselling and drug management to those with lipid disorders. The clinic is being planned in collaboration with R. Curtis Ellison, M.D., chief of the Evans Section of Preventive Medicine and Epidemiology, and Matthew Gillman, M.D.

■ ***FOR YOUR INFORMATION***

**Dr. Lerman** is medical director of the Evans Nutrition Group's weight-management program, and is an assistant professor of medicine at Boston University School of Medicine.

For more information on the weight-management program, please call 1-800-842-3648 during business hours.

# THE FRENCH PARADOX

## New studies challenge old beliefs about heart-healthy habits


BY PAULA A. GILLIGAN

It just doesn't seem fair. Americans struggle daily with the pressure, temptation and guilt to eat right and exercise, with the assurance that dogged determination and jaw-clenching willpower will result in better health. And yet, the French, who do everything "wrong"—they eat a high-fat diet, smoke a lot and don't exercise —have less than half the incidence of heart disease as Americans.

This finding, based on numerous epidemiologic studies, fittingly has been dubbed "The French Paradox," because it defies traditional theories about heart-healthy habits. One of the researchers, R. Curtis Ellison, M.D., head of the Evans Section of Preventive Medicine and Epidemiology at UH, believes that the findings present interesting questions about cultural lifestyles. "Not all of the answers are clear," he says, "but there appear to be fascinating differences in French and American lifestyles that may explain the lower heart-disease rates found in France."

If nothing else, "The French Paradox" may show another point of view in the fight against heart disease. According to 1988 statistics from the World Health Organization, 274 of every 100,000 American men die of cardiac disease, and 146 of every 100,000 American women die—some of the highest rates in the world. But in France only 115 of every 100,000 men and just 49 out of 100,000 women die of coronary artery disease. And in Gascony, a province in Southwest France whose citizens consume diets very high in fat, rates of cardiac mortality are about 80 of 100,000 men, and 11 of 100,000 women—among the lowest in the world.

### It's not how much, but how often

The study found that although the French consume lots of fat, less of it comes from red meat, compared to an American diet. "Beef found in France generally contains a much smaller percentage of fat than American beef (3 to 4 percent versus 10 to 15 percent). The French tend to eat smaller portions of meat, as well," says Ellison. Much of their dietary fat comes from cheese—the average French person eats about 40 pounds of cheese each year, almost twice the intake of Americans. But the French do consume less whole milk and cream products than Americans.

The French also eat more fresh fruits and vegetables than Americans do. French cooking methods usually allow for a minimum cooking time, a process that preserves within these foods important vitamins and nutrients believed to play a role in lowering the risk of heart attack. The French also tend not to snack, a favorite American pastime, and they also dine more slowly than Americans do, allowing the food to digest slowly.

### The foie gras and wine phenomena

In Gascony, the area of France where the cardiac mortality rates are so low, goose fat is frequently used for cooking, and foie gras, the rich and fatty livers of goose and duck considered by many to be a luxury food, is consumed more than in any other area of the world. In fatty acid composition, it's been discovered that the fat from duck and goose resembles more closely


olive oil than butter or cream, and is rich in monounsaturated oils, rather than saturated fat. Saturated fat, found abundantly in butter and cream and other animal products, is a known risk for heart attacks because it promotes increased levels of cholesterol. Olive oil, on the other hand, is a heart-healthy food because it is high in monounsaturated fat, which does not increase cholesterol levels.

One of the most interesting, and certainly most publicized, aspects of this study is the role red wine plays. "There is considerable evidence from not one, but from dozens of studies, that show the positive effect of moderate alcohol consumption," says Ellison. Moderate drinking may protect against heart disease by raising HDL ("good" cholesterol) levels and somewhat lowering the level of LDL ("bad" cholesterol). It also is believed that moderate drinking prevents blood platelets from binding and decreases the formation of clots that contribute to heart attacks.

Ellison estimates that the French drink 133 bottles of wine per person, per year, versus the American figure of 12 bottles per person, per year. An important lifestyle finding was the way the French drink. They drink small to moderate amounts daily, usually with meals, rather than excessive amounts on weekends, more commonly done in the United States.

A debated question is whether red wine possesses additional protective qualities not found in other alcoholic beverages. Some researchers believe a chemical called resveratrol may be responsible for red wine's special qualities. Resveratrol is a natural chemical that has been discovered to affect cholesterol and platelet function. When grapes are threatened by a fungus (also known as being "stressed"), they produce resveratrol in their skin. When red wine is made, the skins, which contain resveratrol, usually are left on. White wine generally does not include the skin, which is why resveratrol is found far more often in red wines. Studies on resveratrol and red wine's beneficial effect are very limited, and no conclusions should be drawn at this point.

Overall, the French drink much more alcohol than Americans, and although their heart disease rates are lower, it should be pointed out that their incidence of cirrhosis of the liver is about twice the rates found in the U.S. However, cirrhosis is a disease most often caused by years of excessive drinking.

### *When in France,...*

Although the French don't seem to have embraced exercising as much as Americans have, there are far fewer obese people in France than in the U.S. Ellison believes this is another lifestyle difference found in the two countries. "Americans may join more health clubs, but the French walk and bicycle a lot, probably more than Americans. They rarely have the levels of obesity we see far too often in Americans," he says. Walking may be part of their lifestyle, whereas in the U.S. people drive more often than they walk.

To the average American, what exactly does this all mean? "Although the findings of this study are both fascinating and significant, traditional advice from doctors remains the best advice to date," Ellison concludes. "But if you want to be as healthy as the French are, move to southern France."

#### ■ *FOR YOUR INFORMATION*

**Dr. Ellison** is chief of the Evans Section of Epidemiology and Preventive Medicine at UH, and is a professor of medicine and public health at Boston University School of Medicine.

If you would like more information on the "French Paradox" study, please call 1-800-842-3648 during business hours.

# A Breath of FreshAir

*New research into how lung cells work may provide insights into various lung diseases*

BY RICHARD P. ANTHONY

The lung's main role is to transfer life-giving oxygen from the air we breathe into the bloodstream, and to remove the potentially toxic carbon dioxide produced by the body.

The surface across which this exchange takes place, says Jerome Brody, M.D., director of the Boston University Medical Center Pulmonary Center and a member of the UH Section of Pulmonary Medicine, "has a very efficient design. It's one of the wonders of the human body." But if the cells lining the lung are injured so they can't fulfill their gas-exchange role well, it can result in damage to other organs, including the brain. In the most serious cases, the problem is fatal.

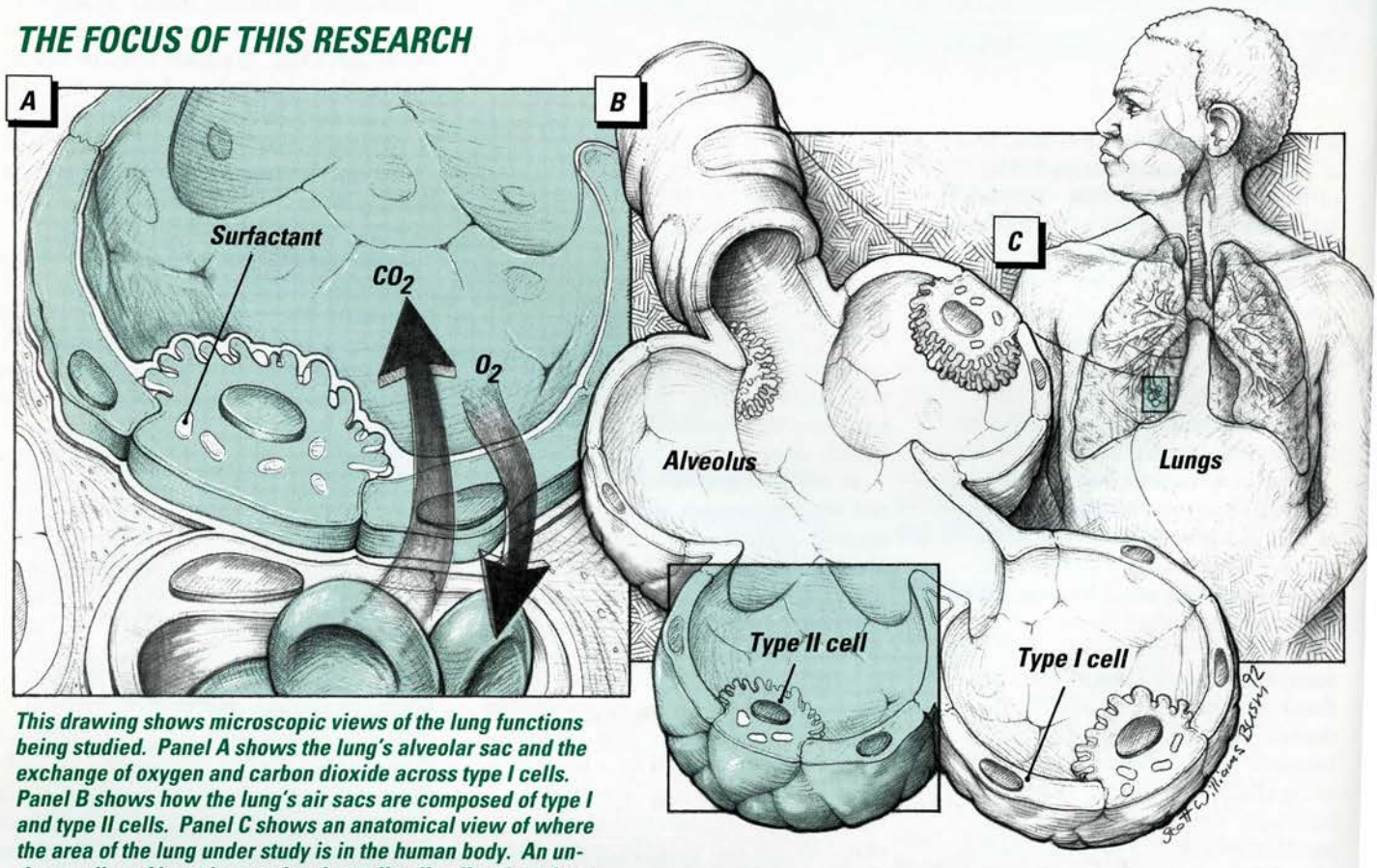
### *Homing in on cell function*

A BUMC team led by Brody and Mary C. Williams, M.D., is probing how lung development occurs, focusing particularly on how the cells that line the organ's gas-exchanging surface mature and multiply.

"It might seem that our work relates only to diseases of newborns," says Brody. "Questions like how lung cells differentiate, or mature, however, are also relevant to several diseases of adults."

In the case of newborns, the BUMC group's work is especially applicable to babies born prematurely. In these babies, the underdeveloped lungs cannot perform their gas-exchange function effectively. "New treatments have improved the outlook for these infants," says Brody, "but many still die, and others develop seri-

## THE FOCUS OF THIS RESEARCH




*This drawing shows microscopic views of the lung functions being studied. Panel A shows the lung's alveolar sac and the exchange of oxygen and carbon dioxide across type I cells. Panel B shows how the lung's air sacs are composed of type I and type II cells. Panel C shows an anatomical view of where the area of the lung under study is in the human body. An understanding of how the type I and type II cells affect lung function could have long-term implications for various types of lung disease.*

ous chronic lung disease later in life."

As for those in older age groups, Brody says his group's work is important for various reasons. The way lung cells mature is closely tied to the issue of whether the lung will develop normally in childhood. It also relates to such diseases as pneumonia and adult respiratory distress syndrome: The lung's repair capabilities often are the key to recovery in such ailments.

The group's studies relate to cancer as well. In cancer, Brody notes, "the normal processes controlling the way cells proliferate and differentiate are altered."

### *Understanding lung cell types*

The researchers believe that major new inroads against such diseases are unlikely until scientists answer some basic questions: How does the lung develop its remarkable gas-exchanging capabilities? And what regulates the repair of lung tissues?

"Right now, our research is at that basic science level," notes Brody, "but our ultimate goal is to apply our findings to devise new types of therapies."

The group's main focus is the two types of cells that line the alveoli—the tiny sacs in the lung where gas exchange occurs. Though derived from the same group of parent cells, the two types are very different.

The type 1 cell is long and flat, and covers most of the lung's gas-exchanging surface. At this point, its function is unknown. The type 2 cell is cube-shaped. One of its roles is to produce the viscous substance that lines the lung's gas-exchanging surfaces and prevents the organ's collapse, but many new functions are being discovered as well.

The researchers have identified several "markers"—distinctive molecular traits that provide important clues to what a cell does—for the mature type 2 cell. "These discoveries have given us insights into the cell's role," says Brody. "They also have allowed us to understand how it differentiates."

In addition, Williams recently found the first reported marker—in this case, a protein located on the cell's surface—for the type 1 cell. She has since isolated the gene that triggers the protein's production. "This discovery," says Brody, "offers the first biological tool for studying what this important cell does, and how it differentiates."

> 'Right now our research is at the basic level, but the goal is to apply the findings to new therapies'

The BUMC group's work has already reshaped views of how the lung develops. One of the group's surprising discoveries was that certain genes thought to be turned on only in mature cells are activated in very immature cells.

The finding has forced the scrapping of old theories about how undifferentiated lung cells mature into either type 1 or type 2. "It must involve selectively turning off genes that block differentiation in some cells," says Brody, "and turning on differentiation-linked genes in others."

In any case, it is clear that the way cells mature is much more complicated than had been thought. To make sense of it, says Brody, scientists are going have to have to probe not only how certain differentiation-linked genes are switched on, but also how others are turned off.

### *Other interesting findings*

In another unexpected finding, a researcher in the group discovered that the way type 2 cells multiply differs from that of almost any other cell type. During her experiments, visiting French pediatrician Annick Clement, M.D., made another fascinating discovery: Exposing type 2 cells to oxygen, she found, keeps them from multiplying.

"This means," says Brody, "that when we give oxygen to patients with lung disease, we may actually be damaging the lung's ability to repair itself."

Brody says this is not to say physicians shouldn't give oxygen to patients who need it. But further studies of why oxygen keeps cells from multiplying could yield ways to prevent the effect.

That, moreover, is not the only reason why studies of how lung cells proliferate matter. "If we can understand what controls the way cells in the alveoli multiply," concludes Brody, "it could help us block the uncontrolled proliferation we see in cancers involving those cells."

■ ***FOR YOUR INFORMATION***

**Dr. Brody** is director of the Pulmonary Center at Boston University Medical Center, and is a professor of medicine at Boston University School of Medicine.

If you would like more information on this lung research, please call 1-800-842-3648 during business hours.

# Frequent Flyers

## *MedFlight helicopter expands services to meet needs, save lives*

- *A 36-year-old woman vacationing on Martha's Vineyard suffers a severe head injury and internal bleeding in a bicycle accident. She is stabilized at the local hospital but desperately needs to be transported to a Level I trauma center in Boston. The best mode of transport would be the Boston MedFlight emergency helicopter, but dense fog and heavy winds make it impossible for the MedFlight pilot to navigate safely.*

- *A 48-year-old man from Little Compton, Rhode Island, experiences blinding headaches that cause him to pass out. At the local hospital, an emergency physician diagnoses his problem as a brain aneurysm preparing to rupture, an almost certain death sentence. Time is of the essence. To avoid rupture, the patient needs urgent neurosurgery at a Level I trauma center in Boston. The doctor calls MedFlight for an air transport request, but the helicopter has just left for another call north of Boston.*

What happens to these patients? These real-life stories turned out fine; in fact, both patients were safely airlifted to the University Hospital/Boston City Hospital trauma center, where they were successfully treated. But according to MedFlight's medical director Suzanne K. Wedel, M.D., the possibility of such scenarios—inclement weather or the helicopter already being in use—is very real. Last year, those two factors accounted for most of the cases where Boston MedFlight could not respond to a flight request.

"We have shown our ability to get to and transport patients from the scenes of accidents with effective results," says Wedel. "But when EMTs or paramedics are on the scene of an accident and they call for a helicopter, and we're on another flight, they just can't wait."

To better meet the increasing demand, Boston MedFlight, which answers calls from greater Boston and well beyond, has embarked on a six-month trial of a second helicopter and has upgraded its existing helicopter to be able to fly using Instrument Flight Rules (IFR) to navigate in weather that formerly may have grounded MedFlight.

"We simply have reached our capacity with the one helicopter, but the need continues to increase," says Erwin F. Hirsch, M.D., director of the UH/BCH trauma center, who recently was named to the American College of Surgeons' Committee on Trauma. "But the good news is that [the Boston MedFlight board] voted to add a second helicopter to the system, which will be capable of meeting existing demands once it is functioning within the system. Combined with the flights already made by the current helicopter, we expect to be able to respond to at least 1,100 flight requests each year."

This is significant because, after heart disease and cancer, trauma is the leading killer in the United States, and is the number-one cause of death among people under 44. Each year, about 140,000 Americans die from trauma-related incidents, and more than 300,000 others are permanently disabled as the result of traumatic injury. In many cases, death and disability can be avoided by prompt and skilled trauma care.

### *A proven asset*

When MedFlight was established behind the leadership of The University Hospital in 1985, there was some reluctance by hospitals, emergency medical technicians (EMTs) and paramedics to use the service because of its newness to the region and the general concern for patients' safety. But if numbers are at all telling, then MedFlight has established itself as an indispensable asset to the regional trauma system. In 1986, less than 600 flights requests were made. In just seven years, the number of requests more than doubled.

During the same period, other regions throughout the nation have recognized the value of a trauma helicopter service, as both the number of such services and the amount of patients served have doubled since 1986.

It is difficult to quantify the clinical effectiveness of MedFlight—that is, whether outcomes are better if patients are transported by air rather than by

ground ambulance. Finding a single indicator of effectiveness, says Wedel, is very difficult. "There was a study done at Duke University that looked at hospital-to-hospital transport, air versus ground, which showed, for a select patient population, improvements in patients transported by air versus by ground."

According to Wedel, the Duke study found two interesting things: First, it discovered that the time of transport, whether by air or ground, from one hospital to the other was not significantly different, so time was not the crucial factor that many believed it would be. The major difference, according to the study, was that the helicopter crew had an expanded scope of practice, they could do more procedures pre-transport and in-transport. "However, studies of patient outcomes for accident site-to-hospital flights show more conclusively that air transport does impact clinical outcomes," says Wedel. She says that a California study found that, based on the 'probability of survival,' there was an increased survival rate if patients were transferred by air. Once again, she adds, the crews on the helicopters studied had an expanded scope of practice.

There is a lot of literature to support the importance of the "Golden Hour," the hour after a trauma injury where, depending on the quickness and level of care, the patient's outcome is determined. "From this perspective, there is no doubt that speed is important," says Wedel. "In summary, speed is critical from scenes of accidents—it's the most important factor. But when you are talking about going 55 miles-an-hour by ground or 150 m.p.h. by air, then I think the crew's capabilities are the deciding factor in a patient's outcome."

Clinical outcomes aside, MedFlight still is a service much in demand, as evidenced by its completion ratio—the number of flights completed compared to the number of requests—which was about 60 percent last year. The completion ratio was about 70 percent in 1986 and has ranged between 60 and 70 percent in years since.

"We want to find out whether the second helicopter, plus the safety enhancement with the addition of IFR to the first aircraft, will impact that completion ratio," says Wedel. "Because although we're responding to nearly 800 calls, there still are those 500 that go unanswered."

In just seven years, the number of flight requests has more than doubled

### How the trauma system works

Together, The University Hospital and Boston City Hospital form one of three designated level I trauma centers in Boston. Each year, more than 1,200 trauma patients are treated at the trauma center, where the initial trauma care is delivered at the Boston City Hospital emergency room, one of the busiest emergency rooms in the nation, and where specialized follow-up care is provided through The University Hospital's surgical intensive care unit, one of the most advanced units in Boston. This expertise, combined with the skilled trauma care delivered by Boston MedFlight, a virtual airborne ambulance, has saved thousands of lives over the years.

Trauma patients typically are triaged to one of the three trauma centers by one of two methods. If a hospital-to-hospital patient has a preferred destination, the patient is brought to a designated hospital. If the patient is undesignated, patients are transported by a rotation system. In the last few years, the UH/BCH trauma center has seen its proportion of both designated and undesignated patients (not necessarily its overall number) increase more than the other two centers.

To strengthen itself as a trauma center and as a hub for emergency medicine services, UH and BCH this year consolidated their emergency departments into one interdependent service. It is the strength of such collaborations that has made Boston trauma centers and emergency rooms among the best in the nation.

*Michael R. Paskavitz*

### FOR YOUR INFORMATION

**Dr. Wedel** is medical director of Boston MedFlight, and is an assistant professor of critical care surgery and medicine at Boston University School of Medicine.

**Dr. Hirsch** is director of the UH/BCH trauma center, is chief of the UH Trauma Section, and is professor of surgery at the School of Medicine.

If you would like more information on Boston MedFlight, please call 1-800-842-3648 during business hours.

# News & Names

## NAMES


*Levinsky*

■ As a tribute to his accomplishments in medical education, **Norman G. Levinsky, M.D.**, Physician-in-Chief for UH and director of the Department of Medicine, was presented with the American College of Physicians' coveted Distinguished Teachers Award. The award is conferred each year by the ACP on a physician who "demonstrates the qualities of a great teacher as judged by the acclaim and accomplishments of former students...and who has demonstrated the ennobling qualities of a great teacher and has achieved leadership in medical education."


*Bernard*

■ The Hospital recently appointed **David B. Bernard, M.B.B.Ch.**., as vice president for regional clinical affairs. Dr. Bernard, a long-time member of the Evans Section of Renal Medicine at UH, received his medical degree from the University of Witwaterswand in South Africa. In his new position, Dr. Bernard will serve as the clinical coordinator with affiliated hospitals and associated referring physicians in an attempt to expand UH's clinical outreach to communities within its region.


*Wolf*

■ **Philip A. Wolf, M.D.**, a member of the Department of Neurology and Section of Epidemiology, and principal investigator of the Boston University/Framingham Study, was awarded the American Heart Association's first annual Humana Award for Excellence, in recognition of his outstanding clinical research on stroke.


*Hirsch*

■ As testimony to his stature in the field of trauma care, **Erwin F. Hirsch, M.D.**, director of the University Hospital/Boston City Hospital trauma center and chief of the UH Section of Trauma, was named to the American College of Surgeons' Committee on Trauma. This group consists of 20 trauma surgeons and is responsible for the maintenance of quality standards for trauma care and trauma education.

■ Ten University Hospital physicians were listed as the tops in their respective fields in the first edition of *The Best Doctors in America*, to be published this spring. The book lists 3,840 physicians in every medical specialty, who were selected through a 1991 nationwide poll of leading physicians from across the United States. The following UH physicians were listed: **Richard K. Babayan, M.D.**, urology, **Irwin Goldstein, M.D.**, urology, **Robert J. Krane, M.D.**, urology, **Thomas R. Browne, M.D.**, neurology, **Carlos S. Kase, M.D.**, neurology, **David P. Faxon, M.D.**, cardiology, **Donald Weiner, M.D.**, cardiology, **Jay D. Coffman, M.D.**, peripheral vascular medicine, **David J. Salant, M.D.**, nephrology, and **Barbara A. Gilchrest, M.D.**, dermatology.


*Babayan*


*Goldstein*


*Krane*


*Browne*


*Case*


*Faxon*


*Weiner*


*Coffman*


*Salant*


*Gilchrest*

■ On March 29, 1992, The University Hospital lost a great friend and generous supporter with the passing of **Ellen Grossman Wald** at age 83. A philanthropist from Brookline,


*Wald*

Mrs. Wald suffered from Parkinson's disease for more than 30 years, and was a close collaborator with her physician, **Robert G. Feldman, M.D.**, chief of the Department of Neurology. At a memorial service for Mrs. Wald, Dr. Feldman remembered his former patient and friend: "Ellen Wald was a person who found it necessary to fit Parkinson's disease into her busy, productive and enormously generous life." "This intelligent and unselfish woman always considered herself more fortunate than others with a problem and reached out in many ways." "Ellen Wald was a pioneer and a benefactor in research and education concerning Parkinson's disease...her desire to find a cure for Parkinson's disease and to contribute to our knowledge about her own condition was strong." "Ellen became so much more than a patient to me and my family....she will be missed terribly, but her spirit, energy and generosity will not be forgotten."

*Douglas*

*Scheerer*

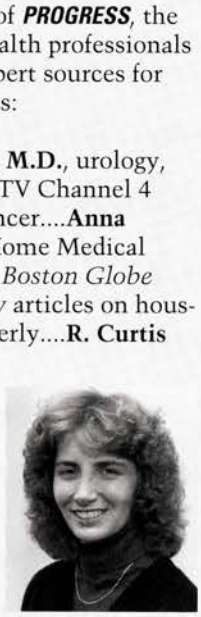
*Requena*

■ Three new trustees were voted onto the University Hospital Board of Trustees at the 137th Annual Meeting of The University Hospital Corporation: **John B. Douglas III**, **R. Penelope Scheerer** and **Fernando Requena**. Douglas is vice president and general counsel for Reebok International Ltd., a $2.8 billion sporting products company. He received his undergraduate degree from Colgate University and his law degree from Harvard Law School, and he currently serves as president of the New England Corporate Counsel Association. Scheerer, who has served as a corporator of UH for two years, most recently served as the vice president and assistant general counsel for General Cinema Corporation. She received her undergraduate degree from the University of New Hampshire, her master's degree in education from Harvard Graduate School of Education, and her law degree from Boston University Law School. Requena, a government-appointed trustee, has been a UH corporator for many years. He is principal engineer for the environmental engineering firm of Camp, Dresser & McKee, and received his undergraduate degree from the University of Oruro National School of Engineering in Bolivia, and his master's degree from the University of Cincinnati.

## IN THE NEWS

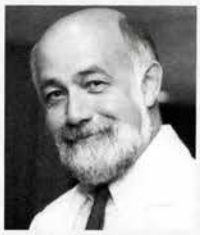
Since the last issue of ***PROGRESS***, the following BUMC health professionals have appeared as expert sources for various media stories:

**Richard K. Babayan, M.D.**, urology, appeared on a WBZ-TV Channel 4 story on prostate cancer....**Anna Bissonnette, R.N.**, Home Medical Service, appeared in *Boston Globe* and *Boston Seniority* articles on housing for homeless elderly....**R. Curtis Ellison, M.D.**, chief, preventive medicine and epidemiology, was a source for "60 Minutes," *Boston Globe*, *Buffalo News*, Beverage Media, WPRI-TV and *Middlesex News* stories about his "French Paradox" study....**Karen Freund, M.D.**, director, Women's Health Unit, was interviewed by WLVI-TV Channel 56 about women in medicine....**Murray M. Freed, M.D.**, chief, rehabilitation medicine, was interviewed by WHDH-TV Channel 7 and WLVI-TV Channel 56 about one of his spinal-cord injured patients....**Barbara Gilchrest, M.D.**, chief, dermatology, was interviewed by the *Boston Herald*, *Hospital News* and *BU Today* about the research efforts at the new dermatology research building....**Irwin Goldstein, M.D.**, urology, was interviewed by *Mademoiselle* and *Longevity* magazines about his research on smoking and impotence....**Michael Holick, M.D., Ph.D.**, director, Vitamin D, Skin and Bone Clinic, was interviewed by the *Boston Globe*, WBZ- TV Channel 4, WCVB-TV Channel 5, WLVI-TV Channel 56 and WHDH-TV Channel 7 about a new treatment for osteoporosis, and he also was interviewed by WBZ-TV Channel 4 about osteoporosis in the elderly and the effects of sunlight in the elderly....**Leon Josephs, M.D.**, director, Center for Minimal Access Surgery, was interviewed by the *Boston Herald* and WBZ- TV Channel 4 about a minimal-access procedure for hernia repair....**Robert Leach, M.D.**, chief, orthopedic surgery, was interviewed by the *Boston Herald* about surgery performed on Boston Celtics' player Dee Brown....**Robert H. Lerman, M.D., Ph.D.**, chief, clinical nutrition, was featured in a *Boston Globe* story on exercise and weight loss....**Ronald McCaffrey, M.D.**, chief, medical oncology, appeared in a WBZ-TV Channel 4 segment on a new treatment for sickle cell anemia....**Joe Ordia, M.D.**, neurosurgery, appeared in a *Boston Herald* story about surviving adversity....**Richard Pillard, M.D.**, psychiatry, was featured in *Newsweek*, *The Wall Street Journal*, *The New York Times*, *Boston Globe*, The Associated Press and *Science News* stories on his study of whether sexual orientation is genetic....**Louis Vachon, M.D.**, chief, psychiatry, was interviewed by the *Boston Herald* on the "empty-nest" syndrome....**Karla Werninghaus, M.D.**, dermatology, was interviewed by WBZ-TV Channel 4 about remedies for baldness.



*Freund*

*Josephs*



*McCaffrey*

# *Every Gift Is A Special Gift*

We wish to acknowledge the many friends listed on the following pages who made donations to The University Hospital in 1991. Contributors include former patients, members of their families, and friends; people who work at the Hospital; many trustees, corporators and members of the Auxiliary and the Nursing Alumnae Association, and corporations, foundations and smaller organizations. We value the contributions of each and every donor listed, from the smallest to the largest. These donors truly make a tremendous difference in The Hospital's ability to provide high-quality, patient-focused care to all who enter its doors.

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The Donor Recognition Program acknowledges those who contribute generously on an annual basis. We are proud to recognize members of The Partners ($5,000 or more), The President's Council ($1,000-$4,999), The Founders ($500-$999) and The Associates ($100-$499) for their generous support this past year. Due to space limitations, we were unable to list those who donated at the Friend level ($1-$99), but their generosity is very much appreciated.

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# The Dawn of a New Era

In the year 2001, Boston University Medical Center will be vastly different in both form and function. Last fall, the Boston Redevelopment Authority gave approval to the University Associates project, a joint venture between The University Hospital and Boston University to develop a new "gateway" to the city of Boston. The dynamic medical complex will be a hub for Boston's world-class health-care community and for the Commonwealth's emerging biotechnology industry.

This architectect's model shows the entire scope of the project, which will include the 180,000-square foot Boston University Center for Advanced Biomedical Research, The University Hospital's 470,000-square feet of medical-office, ambulatory-care and other research/office space, a 1,000-space parking garage with a child-care center, a 240-bed hotel and conference center, and retail space. The University Associates project, currently the second largest construction project in Boston, will bring new economic vitality to the South End area and will supply hundreds of jobs for local residents.

***The inset photograph was taken at the November 2, 1991 groundbreaking ceremonies for the Center for Advanced Biomedical Research, the first phase of the project. Pictured from left to right are: UH President J. Scott Abercrombie Jr; Boston Commisioner of Health and Hospitals Judith Kurland; BU Executive Vice President and Provost Jon Westling; School of Medicine Dean Aram V. Chobanian; Boston Redevelopment Authority Director Stephen Coyle; Goldman School of Dentistry Dean Spencer Frankl and Boston City Councilor Jim Kelly.***