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A quick flip through a few of the many newscaps that have recently featured the words and works of Boston University Medical Center professionals:

Readers of the Houston (Texas) Chronicle, Saginaw (Mich.) News, Cedar Rapids (Iowa) Gazette, Palm Beach (Fla.) Times and major newspapers in dozens of other American cities read in September a United Press International feature on the efforts of the New England Regional Spinal Cord Injury Center of University Hospital “to get spinal-cord injured persons back to a useful life.” The UPI story, written by Boston bureau staffer Marcia Parker, and based on an interview with Center Director Murray M. Freed, M.D., made it clear that research advances emanating from the Center will ultimately benefit thousands of spinal-cord accident victims in all parts of the country. Local editors obviously saw the article as a powerful “people story.” . . .

Amniocentesis, an integral process in the growing scientific effort to detect genetic disorders early in pregnancy, was the topic of a feature story distributed by the New York Times News Service in late August and used in numerous American newspapers, most of them leading with a quote from BUSM sociologist James R. Sorenson, Ph.D.: “American opinion is rapidly moving toward the position where parents who have an abnormal child may be considered as irresponsible as those who have unusually large families.” On the opposite side of that prenatal diagnosis issue, the leading spokesperson is another Medical Center professional, Mildred Jefferson, M.D., assistant professor of surgery at the School of Medicine and president of the National Right to Life Committee. Jefferson was quoted in such far-flung newspapers as Newsday of Long Island, N.Y., and the Maui News in Hawaii as saying that diagnosis of “fitness” of a fetus, and the destruction of a fetus that is less than perfect “strikes at the foundations of 2,400 years of medical morals, standards and customs . . . .”

Boston’s Gay Community News in August featured a discussion of finding, establishing and sustaining a relationship with a lover, featuring the insights of BUSM associate professor of psychiatry Richard Pillard, M.D., who is medical director of Boston’s Homophile Community Health Service. Pillard sums up by saying that gay people “have to make their own opportunities, they have to experiment for themselves; and that is sometimes very difficult, because, in the course of things, most experiments are failures . . . . But the experiments which are successes are wonderful beyond belief . . . .”

Skiing magazine, a New York publication with 160,000 readers who are amateur, expert and in-between practitioners of skiing, featured in October a lengthy piece on ankle injuries by its regular columnist Robert E. Leach, M.D., chairman of University Hospital’s Department of Orthopedic Surgery. Leach, while offering a technical discussion of a topic essential to every skier, sets his article in a framework of basics, leading the skier into his subject in a manner as straightforward as sliding down a hill on two waxed boards . . . .

The family doctor of today is a more sophisticated physician than the traditional practitioner because of his training in obstetrics, pediatrics, geriatrics and psychology, all parts of an understanding that leads to compassion, according to Sumner H. Hoffman, M.D., the subject of a feature article in the Quincy (Mass.) Patriot-Ledger in late September. Hoffman, professor of community medicine and socio-medical sciences at the School of Medicine and director of University Hospital’s Home Medical Service, feels that compassion and a strong personal relationship that gives comfort and a sense of security to a family is of prime importance to family physicians; he has been working with medical students for more than six years to help them achieve it . . . .

Arthur J. Snider, science editor of the Chicago Daily News, warned his readers late last summer that reducing one’s chances of heart attack involves more than lowering blood pressure, cutting the cholesterol level, losing weight and stopping smoking. Snider, citing a report by the School of Medicine’s C. David Jenkins, Ph.D., said evidence emerging in the past five years points strongly to psychological and social factors as being more important heart attack risk factors than was previously believed. Jenkins, Snider said, found in a review of hundreds of scientific papers published all over the world since 1970, that anxiety, depression, nervousness and sleep disturbances are strikingly associated with chest pains angina, and a “type A” behavior pattern with heart attack . . . .

Science News, published in Washington, D.C., reported in late July on the research of Louis Yachon, M.D., of the School of Medicine: “Working with male volunteers . . . Vachon found that THC (one of marijuana’s active ingredients) opened the bronchial tubes and increased air flow by 44 percent, indicating that marijuana may be effective in the treatment of asthma and other respiratory ailments . . . .”

A joint project of the School of Medicine and the Medical College of Virginia was the subject of a report by Neil Solomon, M.D., medical columnist in the Rome (N.Y.) Sentinel, when he was asked by a reader whether diabetes is caused by a virus. Solomon explained that the BUMC-MCV study revealed that mice especially bred to carry the diabetes gene did not develop the disease under normal conditions, but after exposure to the B-4 Coxsackie virus, significant numbers did become diabetic. Solomon wrote that scientists have concluded from these and other studies that both heredity and environment play a role in the development of diabetes. “Work continues to determine whether other environmental factors, in addition to Coxsackie viruses, are involved. If not, it is possible that a vaccination against Coxsackie virus might offer protection to children whose parents have juvenile diabetes. However, such a vaccine has not yet been developed.”
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Specialization study provides interesting view of dental trends

by Henry M. Goldman, D.M.D.
Dean, SGD

Last May, the subject of specialization in the dental profession was the theme of a special report published by the Journal of the American Dental Association, based on statistics showing the number of persons entering the various dental specialties. Those statistics provide some interesting insights into dental trends.

In 1971, 3,775 students graduated from the dental schools of the United States, and of these, 1,203 entered specialty programs. In 1975, 4,969 students graduated from dental schools, and 1,232 enrolled in specialty programs. Although the number of students graduating from dental schools increased considerably, the number of persons entering specialty programs remained virtually the same.

What was their motive? Further examination of the statistics discloses that only 10 to 12 percent of the graduating classes entered those specialty programs immediately after graduation, and that these recent graduates composed only 39 percent of the student body of postdoctoral dental programs. The other 61 percent of the postdoctoral students had entered their specialty programs after having been in practice or general-practice residency programs. Why did the postdoctoral students seek specialization to begin with? What was their motivation?

Several factors can be cited for this trend. One of the most important motivating factors is the desire to become involved in a specialty with greater emphasis on definitive procedures. Another is that the scope of general dentistry is too vast for one to maintain proficiency in all areas.

These facts contrast with the perceptions of dentistry by the general public, which sees the dentist as an individual who can deliver a complete service. The family dentist is regarded as an individual who can take care of all the various needs of children and adults. The public views dentistry as a specialty within the health profession, and, as a rule, does not relate to the various so-called subspecialties, except for orthodontics and perhaps oral surgery, both longtime specialties. The dental profession wishes to keep this image, and there is great concern that there is insufficient concentration on the preparation of students for family practice.

SGD's special mission. The School of Graduate Dentistry was established to educate dental graduates in the various specialties. For more than half the School's existence, that was SGD's sole mission. In later years, a predoctoral program was established to augment the School's program. Recognizing the great trend toward general practice, the School decided to offer a broad background in general dentistry for those who intend to pursue such careers, but at the same time, has chosen not to de-emphasize its mission of postdoctoral education.

The need for specialists will never cease, for the profession needs individuals who can deliver a service with great expertise. The dental graduates who specialize do so primarily because of a desire to become involved in a practice with a greater emphasis on definitive procedures and a desire to be among the more educated members of their field. It can be expected that a good percentage will follow academic careers.

Both family practice and specialization should be encouraged, for there is a need for both. The emphasis in dentistry should not swing from one to the other in pendulum fashion; rather, it should be based on a rational assessment of needs, providing in the final analysis the best service for the general public.

Full participation is health-planning key

by John H. Betjemann
Administrator, University Hospital

Something important is happening in health care these days — something that is not reflected in the news stories about the rising costs of hospital care, the huge settlements being reached in malpractice cases, or the possibilities of the federal government getting deeper into the health-insurance business. The new trend shows up only in occasional articles that say this hospital has been denied the authorization it needs for a new building, or that health-care institution has been denied permission to install a CAT (computerized axial tomography) scanner.

HSA going to work. The "something" that is happening is Public Law 93-641, the National Health Planning and Resources Development Act of 1974. That law, which created entities called "Health Systems Agencies" all over the country, is in full effect today.

There are six health systems agencies operating in Massachusetts today, collecting health-care data and evaluating health services for this state.

HSAs are geographically oriented, federally mandated health-planning agencies that are accountable to quasi-independent boards of directors, to the state health-planning structure and to the federal health-planning apparatus. This rather complex arrangement of accountability is probably necessary due to the complex nature of the system HSAs are trying to realign.

The mission of the HSA is to mount and manage, on a local level, a consumer-provider planning effort that will improve our health-care systems. Did the congressmen and women who wrote and passed PL 93-641 have such a lofty purpose in mind? Maybe yes, maybe no. Cynics have said that the lawmakers only wanted...
to take the heat off themselves and put it on local government — the “heat” being public displeasure over the cost and delivery of health-care services. Other more charitable (and, in my opinion, more accurate) observers say that some farsighted legislators saw national health insurance waiting in the wings, and wanted to install a regulatory-control structure in time to prevent a repetition of the cost escalation that followed the initiation of the Medicaid and Medicare programs in 1965.

10 priorities addressed. Wherever you live — in Massachusetts or elsewhere — your health-care “system” is being evaluated and planned by an HSA. Each HSA has been asked by the federal government to address 10 national health priorities, eight of which have to do with delivering more health-care services to more persons.

HSAs are supposed to improve and increase the delivery of health-care services, and, at the same time, reduce their costs. A difficult task? That’s an understated way of putting it! Some persons feel that the HSAs face an impossible task. In my opinion, HSAs will achieve most of their goals, but may fall short of some. For instance, HSAs will not by themselves reduce the cost of medical care, for to do that, they would have to produce less care, when they were designed to produce more. Further, HSA decisions, in the final analysis, are paid for by others — by those who pay for health-care services, namely patients, insurance companies and taxpayers. And since the HSAs are not allocating the pot of limited health-care money, they have no inherent bottom-line ability to reduce costs.

What can the HSAs do — and what remains an open question? —HSAs will do health-care planning. They will set planning objectives and priorities, and will work toward their achievement.

—HSAs will influence the future through present decision-making. Although HSAs cannot easily mandate a yes, they can say no.

—HSAs will be part of our pluralistic way of approaching and solving problems, an important partner in the negotiating and bargaining process that brings about change in our society.

—HSAs will educate consumers and providers about issues, priorities and problems. To the chagrin of both groups, HSAs will challenge (and appropriately so) some “sacred cows.”

On the other hand, it will be more difficult for HSAs:

—to achieve a master health-care plan for this country, for the state, or for your community and mine;

—to quickly convince consumers that health does not equal medical care, or that our medical-care system is a long way from being a health-care system;

—to educate you and me to the fact that our personal lifestyle decisions have as much impact upon health as all of the doctors, nurses and medical technicians in the world.

I believe HSAs will succeed on these difficult fronts, but not without a lot of hard work and good-faith support from all of us. Someone once said, “Education replaces cooksure ignorance with thoughtful uncertainty.” If HSAs only convince some providers, consumers and health planners who think that they have all the answers that they may be wrong, PL 93-641 will have made a significant contribution. But clearly they will do that and more.

HSAs that set achievable, even if limited, objectives will move forward, however slowly, but progress will come about.

HSAs that immediately try to plan and implement the new health-care delivery system will not, in my opinion, realize their goal. A broad base of understanding and a spirit of compromise must obtain before significant and rapid progress can occur.

Initial objectives proposed. An achievable, and therefore reasonable, set of initial objectives for an HSA might be the following:

1. Making day-to-day decisions. Armed with the power to evaluate, then approve or reject the capital- and service-expansion plans of health-care institutions, HSAs are clearly in the business of making day-to-day decisions about the worthiness of specific provider programs. Exercising this responsibility is essential for the HSAs, but it is at best a holding action.

2. Sorting things out. The HSAs will identify the health-care needs, issues, problems and priorities of each geographic area and begin to make these part of HSA decision-making. But at the same time, it will be impor-
Kaleidoscope

Rosett tells senators of effects of drinking by pregnant women

Pregnant women who are heavy drinkers produce offspring who show significantly greater growth retardation and congenital abnormalities than those of mothers who drink rarely or moderately, a Boston University physician testified during an Oct. 1 U.S. Senate subcommittee hearing.

Henry L. Rosett, M.D., an associate professor of psychiatry at the School of Medicine, testified before the Senate subcommittee on alcoholism and narcotics that heavy-drinking women, also heard Rosett describe the study's pilot findings on the incidence of heavy drinking among women, also heard Rosett describe the study's pilot findings on the incidence of heavy drinking among pregnant women, who produced offspring who show more frequent among infants born to heavy-drinking women.

Study at BCH clinic. Rosett's testimony was based on findings developed in a study he conducted with Eileen M. Ouellette, M.D., a former assistant professor of pediatrics and neurology, at the Boston City Hospital prenatal clinic.

The Senate subcommittee, which was holding hearings on alcoholism in women, also heard Rosett describe the study's pilot findings on the incidence of heavy drinking among prenatal clinic patients; and the potential of integrated treatment of heavy drinking with prenatal care to reduce the health hazard to the mother and her unborn child.

Rosett explained that 9 percent of the 633 women who participated in the prenatal survey were classified as heavy drinkers, according to established criteria; 39 percent were moderate drinkers; and 52 percent drank rarely. (Heavy drinkers consumed an average of 5.8 ounces of pure alcohol per day.)

Detailed pediatric, neurologic and developmental examinations were administered to the 322 offspring of the women who participated in the study, Rosett said. On the basis of this examination, the significantly increased risks in growth and congenital abnormalities were noted for the 42 infants born to heavy-drinking women.

Counseling sessions offered. Finally, heavy-drinking women were urged to participate in counseling sessions conducted in the prenatal clinics, timed to coincide with their routine appointments. In these sessions, conducted by a male psychiatrist and a female counselor, the adverse effects of heavy drinking on the pregnancy were explained. Abstinence was praised, but direct criticism of drinking was avoided.

The study's findings suggested that abstinence or marked reduction of alcohol use during the third trimester of pregnancy lowers the risk to the offspring, Rosett told the subcommittee.

Rosett urged that physicians and other health professionals who work with pregnant women be educated about the importance of obtaining careful histories of alcohol use and trained in supportive counseling techniques. "Programs to treat heavy drinking during pregnancy will benefit both mothers and children," he testified.

The Senate subcommittee on alcoholism and narcotics, chaired by Sen. William D. Hathaway (D-Maine), is part of the Committee on Labor and Public Welfare.

Researcher finds malnutrition effect reversible by diet

Evidence that early malnutrition may only delay brain development, rather than do irreversible damage to the brain, has been reported by a BUSM researcher, who reversed the effects of a near-starvation diet on the brains of baby rats by giving them a normal diet.

The research provides additional evidence that malnutrition-induced retardation in children may also be reversible.

Smaller brain size. In the study, rats fed a low-protein diet from the middle of gestation until they were 20 days old had significantly smaller brains than rats fed a normal diet. When the malnourished animals were then placed on a normal diet, their brains were found to have grown to normal size by 70 days of age, becoming indistinguishable from those of rats that had never been malnourished.

The findings were reported in November by Ana G. Colmenares, a Venezuelan graduate student in anatomy at the School of Medicine, at the sixth annual meeting of the Society for Neurosciences in Toronto. Approximately 2,000 scientists attended the meeting.

The principal reason for the smaller brains in the malnourished rats, Colmenares reported in her paper, is that the growth of individual brain cells is stunted, causing them to resemble the cells of younger, normal rats.

In the study, pregnant rats were given a low-protein diet, containing 8 percent milk protein, beginning in the middle of gestation and continuing until the nursing pups were 20 days old. A control group of pregnant rats received a diet normal in its protein content (24 percent).

When the pups were 20 days old, a normal diet was fed to the mothers and made available to the pups. To make sure the pups got plenty of milk, the number of pups per mother was reduced from eight to four, and they were left with their mother until they were 40 days old, instead of being weaned at 21 days.

Observations were made on pups at 20, 40 and 70 days of age. At 20 days, the malnourished pups weighed only 38 percent as much as the animals reared on a normal diet. Their brains were also smaller, measuring approximately 80 percent of the normal animals' brains.

Thinner cerebral cortex. In addition, Colmenares measured the thickness of the cerebral cortex, which is considered the most important part of the brain for intellectual functioning, and
Several hundred persons attended the Oct. 5 dedication of the Solomon Carter Fuller Mental Health Center, at which Sen. Edward M. Kennedy (D-Mass) was principal speaker. At top left, audience seated outdoors on the Center's plaza hears Sen. Kennedy, top right, deliver the main address, in which he lambasted the Ford administration for its failure to support effective health-care programs. Above, Solomon Carter Fuller, Jr., son of the late BUSM graduate, faculty member and eminent neuropsychiatrist for whom the Center was named, completes the symbolic ribbon-snipping that officially opened the Center. Standing behind him are (l. to r.) Robert Okin, M.D., commissioner of Mental Health for the Commonwealth; Sen. Kennedy; Donald F. Taylor, acting superintendent of the Fuller Center; and Dolores Goode, associate area director for the Fuller Center. At left, sharing a laugh at the dedication are (l. to r.) Orlando Lightfoot, M.D., director of adult ambulatory services at the Fuller Center; Sanford I. Cohen, M.D., chairman of the BUSM Division of Psychiatry; and Taylor. Left center, shown chatting together are two former chairmen of the BUSM Division of Psychiatry, Bernard Bandler, M.D., chairman from 1958 to 1970; and William Malamud, M.D., who served as the Division's first chairman, from 1946 to 1958.
Ana G. Colmenares found it to be 10 percent thinner in the malnourished animals.

Using a light microscope, she then examined thin sections of the cerebral cortex, observing both nerve cells and the processes (dendrites and axons) that extend from these cells to form a network called the neuropil. The neuropil contains the bulk of the nerve connections, or synapses, thought to be vital for intellectual processes. Cell bodies in the experimental animals were packed closer together, and the volume of the neuropil was reduced.

Preliminary results of studies on individual nerve cells show that the dendrites branch less and are much thinner in brains from animals suffering from malnutrition. All of these findings suggest, Colmenares says, that the normal growth of the brain was delayed in the animals born of malnourished mothers.

At 40 days of age, after 20 days on a normal diet, the experimental animals showed a marked improvement in body weight and brain size, although both indices were still below the levels of the control animals. By this time, there were no longer significant differences in the cerebral cortices of experimental and control animals.

When malnourished and control rats were studied at 70 days, they no longer exhibited significant differences in body weight, brain size or cerebral cortex structure.

Colmenares points out that further work is needed to explore such questions as how low the protein content of the diet can be, and how long the malnutrition can be imposed before delayed brain growth becomes irreversible. However, she says, her results appear to confirm, in an animal experiment where conditions can be rigorously controlled, the results of some recent studies on humans which suggest that normal intellectual function is possible if malnutrition early in life (that is, during the first two years) is subsequently reversed.

Korean children study. In one of these studies, a group of Korean children, brought to this country to be adopted, were examined on arrival and found to be severely malnourished. Several years later, when they had started school, they were found to be performing normally for their age.

When she began her research, Colmenares says, the general tone of the scientific literature was very pessimistic concerning the outlook for children with diet-related retardation. "The literature indicated that malnutrition would lead to a less developed brain, with no rehabilitation possible" she says.

Now, the young scientist believes, a new concept may be emerging which holds that, even though early malnutrition does lead to retarded brain development, this effect can be reversed if proper nutrition is started soon enough.

Colmenares first became interested in the problem of malnutrition in her native Venezuela. After earning her Ph.D. in anatomy, most likely next April, she plans to return to Venezuela to continue her work.

Health manpower act becomes law after 3-year wrangle

A new health manpower bill, sweeping in its implications for the future of medical practice and medical education, became law in October, after nearly three years of wrangling over what strings should be attached to federal support for medical education.

While the $2.3-billion Health Professions Educational Assistance Act of 1976 ties federal support for medical schools over the next three years to the redistribution of physicians by location and specialty choice, it keeps the amount of federal control to a minimum, calling for far less than had been proposed in earlier versions of the bill.

Aims at rural, inner-city needs. At the same time, it aims for increased access to health care for people in rural and inner-city areas by such measures as expanding funding for the National Health Service Corps and prescribing percentages for residencies in primary care to be met by medical schools as a condition of capitation.

Among major provisions of the legislation are the following:

**Primary-care residencies.** As one of two conditions of capitation included in the Act, medical schools as a group must have 35 percent of their filled first-year residency-training positions in primary-care specialties by 1978, 40 percent by 1979, and fully 50 percent by 1980. Primary care is defined in the legislation as family medicine, general internal medicine and general pediatrics. The percentage goals will first be applied to the nation as a whole, and will be applied to individual schools only if they are not met on the national level.

Medical schools were awaiting clarification of this provision by HEW, in the form of written regulations. Meanwhile, BUSM's Dean John I. Sandson pointed out that, with approximately 15,000 men and women graduating from medical schools each year, the program could raise the total number of doctors entering primary-care residencies to 5,000 next year, 6,000 in 1979, and 7,500 in 1980.

**National Health Service Corps.** Funding for NHSC scholarships, currently set at $22 million, will be increased to as much as $200 million by 1980, in an expansion of the program designed to attract thousands of additional doctors and health professionals to areas of need. In return for service plus a stipend during school years, students agree to at least two years' service in underserved areas. Several new features have been added to the program to make the NHSC scholarships more attractive to students, but the penalty for failure to do service is severe, requiring the student to pay back three times the amount of scholarship aid advanced, plus interest at the maximum allowable rate, all payable within one year.

**Insured loans.** While NHSC scholarships are intended to help primarily "high-need" students, the program of insured loans is aimed at the needs of the student from a more affluent family, but who still needs help meeting the high costs of medical education. Students will be able to borrow enough money to cover direct expenses, up to $10,000, with interest no higher than 10 percent. Loans are payable over 10 to 15 years. In addition, a new service payback provision permits loan forgiveness for the student who agrees to serve a minimum of two years in an underserved area.

**Americans studying abroad.** The second of the law's two capitation con-
Friends gather to bid farewell to Dr. Herrmann

Centerscope heard there was going to be a party for Robert L. Herrmann, Ph.D., who resigned as associate professor of biochemistry at BUSM to accept a departmental chairmanship at Oral Roberts University, so we went up to the J. Mark Hiebert Lounge on October 12 to meet Herrmann and ask some questions that had occurred to us.

We found him at the center of a circle of well-wishers, some of whom had apparently the same questions we had.

Four essential disciplines. "Oral Roberts believes that human activity revolves around four essential disciplines— theology, business, medicine and law," Herrmann was saying. "They already have schools of theology and business. The school of medicine will open in 1978, and the law school will open in 1980." Herrmann will be chairman of the biochemistry department of the new medical school in Tulsa, Okla., and he has also been given the responsibility of hiring the basic science faculty for the school. "It's a once-in-a-lifetime chance to, essentially, orchestrate your own school," he told us in a pause in the hand-shaking.

When he was first invited to Tulsa to talk to Roberts about the position at the new medical school, he was not at all interested. "I knew of Roberts only through his radio program, where he does faith healing and the like. I was pretty skeptical about his ministry. I thought there was more showmanship in it than religion."

He went to Tulsa anyway, and was deeply impressed by Roberts's sincerity and the depth of his commitment to excellence in his university. "That commitment clearly extends to the medical school. They're building a first-class school with first-class teachers," Herrmann said. "There's a lot more going on down there than basketball."

"There's a sense of excitement there, too, about what God is doing. You know, Roberts started as a faith healer. He was cured of tuberculosis by a faith healer himself when he was a young man. He has a very strong feeling about the relationship between physical health and spiritual health."

SPEECHES. The party was being cosponsored by the biochemistry department and the admissions committee, on which Herrmann had served for many of his 17 years at BUSM. Dean John I. Sandson spoke, describing Herrmann as "a man who cares deeply about healing." Jacob Swartz, M.D., associate dean for admissions, remembered Herrmann's dedicated work on the admissions committee, and Herbert H. Wotiz, Ph.D., professor of biochemistry, joked as he presented Herrmann with a limited-edition porcelain bicentennial bowl and a leather briefcase, gifts from Herrmann's many friends at the Medical Center.

Standing together in Hiebert Lounge was a group of students who told us they were part of a Bible-study group Herrmann had led, meeting weekly over lunch. They said they were sorry he was leaving BUSM. So were we. L.L.
of their countries, instead of continuing to enjoy a privileged immigration status.

**Ruderman named to head unit on diabetes, metabolism**

The Department of Medicine's section of endocrinology and metabolism recently opened a diabetes and metabolism unit under the direction of Neil B. Ruderman, M.D., D.Phil., a new member of the Department of Medicine.

The unit uses a number of sophisticated procedures in the diagnosis and treatment of diabetes and other metabolic disorders.

Working with Ruderman is Elliott Chideckel, M.D., and Michael Goodman, Ph.D., who is in charge of the Metabolic Research Laboratory. The unit provides consultative services for inpatients and outpatients.

**Preventive medicine major aim.** In great measure, the aim of this new unit is to practice preventive medicine. Ruderman points to studies in humans and in laboratory animals that strongly suggest that strict control of blood glucose may retard or even reverse microangiopathy, small blood-vessel deterioration associated with diabetes. These changes occur most frequently in the eye and kidney; indeed, retinopathy, small blood-vessel deterioration in the eye, is the most common cause of new cases of blindness today, and diabetics with renal failure represent one of the largest groups of patients requiring dialysis or kidney transplants.

Before 1920, when insulin was first extracted and produced commercially, 80 percent of juvenile diabetics died within two to three years of the onset of the disease, Ruderman said. Today, 1 to 2 percent of diabetics die of diabetic coma, but 70 to 80 percent die of cardiovascular disease. In addition, diabetics, who make up 5 percent of the population, frequently develop heart disease 10 to 20 years earlier than the general population.

**Future treatment ideas.** Ruderman sees a mechanical pancreas or an implanted cluster of insulin-producing cells as the best method to provide tight control of blood-sugar levels in the future. However, since these developments are years away, optimum control at present requires that the patient understand his disease and the means he is using to treat himself. Catherine Johnson, R.N., a diabetes teaching-nurse who works with Ruderman, will educate the patient about the treatment of his disease and teach the hospital's nursing staff and paramedical personnel about special treatments.

An associate professor of medicine at the School of Medicine, Ruderman is the author of more than 40 scientific papers and is on the editorial board of the American Journal of Physiology. He has received the Elliott P. Joslin Award of the American Diabetes Association and a Career Research and Development Award from the National Institute of Arthritis and Metabolic Disorders.

A graduate of Columbia College, Ruderman received his M.D. degree from the University of Pittsburgh and his doctorate in biochemistry from Oxford University, England.

Before coming to the Medical Center, Ruderman was an assistant professor of medicine at Harvard Medical School, senior investigator at the Joslin Research Laboratory, and an associate in medicine at Peter Bent Brigham Hospital.

**Air-sterilization unit to permit stepped-up cancer chemotherapy.**

A device that is expected to protect cancer patients from infection and allow more aggressive forms of chemotherapy began operation at University Hospital in October.

The apparatus, called a laminar air-flow unit, sterilizes the air a patient breathes by removing particles more than 0.3 microns in size, particles so small that it would take 60,000 to stretch over the diameter of a penny. The portable unit is designed to protect the patient from harmful germs that exist in hospitals and can be used in conjunction with other measures to minimize bacteria present in the patient's body.

By protecting the patient from infection, the laminar air-flow unit will allow physicians to administer more aggressive forms of chemotherapy without putting the patient at high risk of infection.

**Infection common death cause.** The most common cause of death in cancer patients treated with chemotherapy or radiotherapy is infection. "Almost all forms of chemotherapy and radiotherapy depress the body's natural defenses against infection," said Alexander Spiers, M.D., a member of the University Hospital oncology section, and an associate professor of medicine at BUSM.

"Normal chemotherapy regimens are designed to fight disease without putting the patient at high risk of infection, but there is evidence that more aggressive chemotherapy will result in more patients responding to treatment," Spiers said.

**Not for terminally ill.** According to Spiers, the approach is best suited for patients with a good prognosis and who are not infected already. It is not recommended for terminal cancer patients.

The laminar air-flow apparatus consists of two wheeled cabinets that stand at the head and foot of the patient's bed. Each contains an air pump and filters, and the units circulate sterile air around the bed. The sterile air-stream blows from the patient's head toward his feet, and the return stream flows under the bed. The noise level is considerably less than that produced by an air-conditioner.

Entire hospital rooms dedicated solely to the laminar air-flow approach have been in use for several years, but each room costs about $60,000 to install. The portable unit at University Hospital costs $5,000. It was developed in 1975 by a private company.

**Eat sterilized food.** Isolation procedures call for the patient to be protected from infection, but there is evidence that more aggressive chemotherapy will result in more patients responding to treatment. When a patient is first put in the unit, he is given antibiotics to kill germs in his body; he is then given chemotherapy. When the regimen is completed and the patient's own defense mechanisms return, he is sent home.

University Hospital has established a committee to evaluate cases when more than one patient is eligible for the one isolation unit. Although the unit has potential use for burn and transplant patients, the use of the first
unit at University Hospital is confined to patients with malignant tumors and reversible impairment of body defenses. The Hospital hopes to expand the isolation facilities in the future.

**Small’s gallstone research wins him Eppinger Prize**

Donald M. Small, M.D., whose work in the 1960s laid the foundations for the concept that gallstones could be dissolved as an alternative to gallbladder surgery, recently received the Eppinger Prize, an international award given every two years for outstanding contributions to the study of liver disease and liver physiology.

Small, who is a BUSM professor of medicine and biochemistry and chief of the University Hospital biophysics section, accepted the award in Basel, Switzerland, during the week-long Fourth International Liver Conference. He shared the prize with Jan Sjövall, M.D., of Stockholm University, who made important contributions to bile-acid chemistry, and Alan Hoffman, M.D., of the Mayo Clinic, who contributed to our understanding of bile-acid physiology.

**Excess of cholesterol.** Small’s research, which opened the way for possible development of drugs to dissolve gallstones and reduce the necessity for surgical removal of the gallbladder, is based on his finding that patients with gallstones have an excess of cholesterol in their bile. Small discovered that there is a limit to the amount of cholesterol that can remain dissolved in human bile. When the bile in the gallbladder has too much cholesterol, it crystallizes, forming cholesterol gallstones.

Bile with such an abnormally high cholesterol content is called lithogenic (stone-producing), and may be found in a purely liquid state supersaturated with cholesterol, or as a combination of liquid bile and crystallized cholesterol. The crystals may be very small or very large. The large ones are gallstones. “As with peptic ulcer,” Small says, “no acid, no peptic ulcer, so it is with gallstones—no supersaturation, no cholesterol gallstones.”

**Conducted studies of monkeys.** In an attempt to find a way to prevent that supersaturation, Small conducted extensive studies of monkeys to investigate the mechanisms of bile secretion and determine those agents that make bile more or less likely to produce stones. From this work, other investigators were able to develop ways of reducing, through diet and drug therapy, the stone-producing qualities of bile, and thus prevent the formation of gallstones.

Although the true prevalence of gallstone disease in the general population is unknown, statistics reported in the Framingham Heart Study of Boston University School of Medicine indicate that an estimated 12 million women and four million men in the United States have gallstones. In about half the approximately 800,000 new cases reported each year, surgery is ultimately found to be necessary. Gallstone procedures each year cost an estimated $250 million in surgical fees alone. Demonstrating a successful alternative to gallbladder surgery can potentially produce a major impact on health-care costs. Annually, 5,000 to 8,000 deaths are attributed to gallstone disease, and the disease is said to be the sixth most common reason for hospitalization.

**Drug therapy being tested.** Until recently, the only treatment for gallstones was surgery. Small, who feels that surgery is safe and effective for those who produce stones, says potential stone formers (those who produce abnormal bile but have not yet formed gallstones) might benefit from drug therapy that is presently being tested. In the tests, chenodeoxycholic acid (a bile acid derived from the bile of animals) is given to patients who are potential stone-formers in an attempt to change the patients’ supersaturated bile into bile of normal composition.

Small feels that within five to 10 years, a safe and effective method will be developed for preventing gallstone disease in high-risk groups and for dissolving “silent” gallstones.

**Div. of Psychiatry makes three major staff appointments**

Three major appointments in the Division of Psychiatry at BUSM have been announced recently. John A. Renner, M.D., has been named clinical director of the City of Boston Drug Program; Albert H. Feingold, M.D., has been appointed chief of psychiatric emergency services at Boston City Hospital and a senior clinician in the combined University Hospital-BCH ambulatory services; and Kenneth H. Kaplan, M.D., has been appointed to head the consultation and liaison services at BCH and to assist in consultation and liaison work at UH.

Renner comes to BUSM from the Massachusetts General Hospital, where he was director of the alcohol clinic and drug treatment program, and assistant director of adult outpatient psychiatry. In his new position, he has begun to take steps to increase the methods of treatment available to the addict, to take advantage of existing medical, psychiatric and social services in the community, and to develop close liaisons with the drug treatment program at the Solomon Carter Fuller Mental Health Center. Renner is a graduate of Yale University and Western Reserve University School of Medicine, Cleveland.

Feingold, formerly a senior psychiatrist at the Mystic Valley Comprehensive Community Health Center in Lexington, Mass., has a broad interest in community-based psychiatry and is committed to improving the health-care services of the poor and minority groups. He will divide his time equally between the two posts of his dual appointment. Feingold is a graduate of Harvard College, BUSM (Class of 1953), and the Boston Psychoanalytic Institute. He has been on the staff at Beth Israel and McLean Hospitals, and has held faculty appointments at Tufts University School of Medicine and at Harvard Medical School.

Kaplan was formerly a staff psychiatrist in the division of liaison, consultation and psychosomatic medicine at Metropolitan Hospital-New York Medical College in New York City. He is currently planning to extend consultation and liaison services at BCH to include not only inpatient services, but also a number of ambulatory clinics. He was graduated from the University of Vermont, received his medical training at the University of Zurich, Switzerland, and will soon complete five years of postgraduate psychoanalytic training at New York Medical College. He has a private practice in psychoanalysis and general psychiatry.
Legal Signs

Screening donors of tissue for transplantation

By George J. Annas, J.D.

While there is a large body of case law concerning the consent required of minor donors to tissue transplantation, little law has been developed on the medical standards that must be applied to the screening of donors. A recent decision by the Michigan Court of Appeals is, therefore, of special interest. The case involved corneal transplantation, but has application to all types of tissue transplantation using both live and dead donors.

Two recipients sue. The plaintiffs, Louella Bradford and Charles Ravenis, were each recipients of corneal transplants, the donor of both corneas being the same deceased patient. Both transplanted eyes became infected and became totally blind. The patients sued Detroit General Hospital and the first year resident in ophthalmology there who had removed the eyes from the donor. (Also sued were Harper Hospital, where the transplant was performed, and the ophthalmologist who performed the transplant.) The jury found in favor of the resident, but found that Detroit General Hospital was negligent in the method it utilized to select eye donors for corneal transplants. The hospital appealed.

The hospital's initial argument was that it could not be held responsible for negligence, since the jury found that the resident who actually selected the donor had not been negligent, and no liability can be imposed on the master if the servant is not negligent. The court concluded that while the hospital could not be found liable on the basis of respondeat superior, it could itself be sued for negligence independent of any specific action of any individual employee. This was sometimes labeled the doctrine of "corporate responsibility." The court's task was therefore to determine the standard of care to which a hospital should be held in selecting a tissue donor.

In reviewing the facts of the case, the court noted that the resident had been summoned to the morgue on March 13, 1970, and that it was standard practice at the hospital for first year ophthalmology residents to remove all the donor eyes from cadavers. Before going to the morgue, the resident had stopped at the medical records office to pick up the deceased's chart, which had been maintained during his last admission to the hospital, and had secured permission from the wife of the deceased for the removal of his eyes. The resident testified that he then reviewed the chart line by line and found nothing to contraindicate a corneal donation. The results of the blood cultures and sputum cultures which had been done shortly before the donor's death were inexplicably missing, as were records of the donor's previous admissions going back over the past five years.

No checklist for guideline. The hospital had no printed or published checklist to serve as a guideline for determining the suitability of a prospective donor; the resident based his decision on what he had learned orally from senior residents. However, the resident testified that "nobody at Detroit General Hospital, including myself, had any responsibility whatsoever for determining whether the eyes would be suitable for transplantation." The resident of the eye men at Detroit General Hospital to screen prospective donors. . . . I would expect the surgeon to do this."

The surgeon testified that as soon as the infection was reported he ordered a complete investigation. He determined that the operations were performed under aseptic conditions, that neither patient had any condition that might give rise to the infection, and that the source of the infection was, therefore, the donor. He further testified that as of March, 1970, there were published criteria for the acceptability of cadavers as eye donors. These standards, which were fairly uniform within the community and throughout the country, contraindicated the use of a cadaver that had a history of the following conditions: long-term debilitating disease; systemic disease; acute infection; or sepsis.

The Detroit General Hospital records of the donor, records that had not been made available to the resident, described the donor as a "sixty-year-old white male, heavy alcoholic with cirrhosis of the liver proven by autopsy." The autopsy revealed advanced portal cirrhosis as the immediate cause of death. The history showed several diseases and conditions, including ephemeral varices, splenomegaly, ascites, gastric ulcer, acute tracheal bronchitis, and a localized hemorrhage in the bladder.

Responsibility for review. The court concluded on this basis that there was sufficient evidence for the jury to find that cadavers with a history of certain diseases are "not generally wise choices for corneal donation," and "whomever may have had the responsibility of determining the suitability of the cornea for transplant would have been required, in exercise of due care, to review carefully and exhaustively the medical history of the proposed donor" (emphasis supplied). The court further concluded that in this case the full medical record of the donor would have revealed that he was unsuitable for a variety of reasons.

The court then decided that it was not necessary to determine whether the resident or the surgeon should be the one responsible for proper screening of donors to find the hospital itself liable. No matter which physician was responsible, the court concluded, the jury could have found that Detroit General "was negligent in failing to set up a procedure which would assure that the party responsible for determining the suitability of the cornea for transplant would have access to all of the relevant medical records of the proposed donor."

Two features of this case deserve to be underlined. First, the court applied the doctrine of "corporate responsibility" to a hospital to find it liable for its own negligence independent of the negligence of any of its employees. While the modern trend is in this direction, few courts have actually found hospitals liable for its negligence under any theory other than respondeat superior. Second, the court applied a "national" standard concerning the screening of eye donors to the defendant hospital even though the hospital itself had no written policy or standard on donor screening. This was by the hospital staff than to rely on informal oral standards, which would mean that the hospital could be held to a different standard in court.

Principle applies to many types. The lesson from this case is that recipients of tissue transplants have a right to rely upon those who select the donor to properly screen the donor for certain conditions that would contraindicate use. This principle is applicable to many types of donations, from hearts and kidneys to sperm and blood, and physicians and hospitals engaged in transplantation would be well advised to develop and follow strict standards of donor screening.

REFERENCES

George J. Annas is director of the Center for Law and Health Sciences, Boston University, and an assistant professor of socio-medical sciences and community medicine at BUMS.
Career changers: Three physicians are 'born again'

BUSM graduates Howard, Porcelli and Jamison find rigor and rewards in new life

The editors of *Centerscope* have learned in recent months of several School of Medicine alumni who have radically changed the direction of their medical careers in mid-life or later, and found themselves happier and more fulfilled than ever. The following articles focus on three such intrepid career-changers, and how they view the difficulties and satisfactions associated with their second-thought careers.
Ernest B. Howard, M.D.

'Seeing patients and doing something for them... It's what I have missed in my career'

by Arthur J. Snider

After you've been the powerful top administrative officer in the largest organization in national and international medicine, what worlds are there left for a physician to conquer?

Just one: the mini-domain of the patient.

"I felt unfulfilled. I had always wanted to treat patients," says Ernest B. Howard, M.D., BUSM '36, in explaining why he has chosen to become a practicing physician after retiring from a $125,000-a-year post as executive vice-president of the American Medical Association.

Howard, 66, is completing a residency in dermatology at the Michael Reese Hospital and Medical Center in Chicago, working alongside residents half his age. In January, 1978, he will be ready to open an office and practice his specialty in a northwest suburb of Chicago.

'A very satisfying specialty.' "Dermatology is a very satisfying specialty because there is so much to do for most skin diseases today," Howard said in an interview. "That is the thrill I get — seeing patients and doing something for them. It's what I have missed in my career."

Howard had very little clinical experience before being thrust into administration. After graduating from Harvard with a bachelor's degree in 1931, and receiving his M.D. degree from the School of Medicine in 1936, he served an internship at Boston City Hospital. While winning his master's degree at the Harvard School of Public Health, he served as director of the Division of Venereal Disease Control at the Massachusetts Department of Public Health.

During World War II he was a medical officer in the U. S. Army and, from 1946 to 1948, was chief of a field party to Peru under the Institute of Inter-American Affairs. In 1948, he joined the American Medical Association as assistant general manager. He became assistant executive vice-president and in March, 1969, was appointed vice-president with a large office suite and a battery of secretaries.

Instead of easing into cozy retirement and enjoying the hefty pension that goes with a six-figure salary, Howard immediately began pursuing his long dream of a new career as a clinician.

He put himself to the test. Would he be able, at age 65, to absorb scientific information with the same ease that he had as a medical student at Boston University? He put himself to the test by enrolling in an intensive, 600-hour medical refresher course at St. Barnabas Hospital, Livingstone, N.J., the same crash course given to graduates of foreign medical schools who wish to take the licensing exam in the United States.

"It proved to me that I was able physically and mentally to cope with day and night study," said Howard.

After completing the refresher course, Howard won a residency appointment at the University of Chicago's Billings Hospital.

"We were told that a big shot from the AMA was coming on the staff and we were a little uneasy," said Vladimir Tkaleevic, M.D., a third-year resident. "We didn't know what to expect. We didn't know whether he would throw his weight around or whether he might feel he did not have to perform all the unpleasant tasks that residents must perform.

"But Bert turned out to be a wonderful colleague, eager to learn, full of questions. I was happy that we had him here."

He adds a dimension. Allan L. Lorincz, M.D., professor and head of the department of dermatology, said Howard's presence gave the department an added dimension. "He contributes to the learning and maturing process of our residents by example, out of his broad background," said Lorincz.

Since residencies at the University of Chicago are especially desirable, Howard made certain he would not deprive a young physician of an opportunity. He became a nonpaid special addition to the residency staff.

"What impresses me most about residents is their eagerness to have the best possible learning experience, and I try to watch myself to be sure I do not preempt them or get in their way," he said.

At Michael Reese Hospital, a teaching affiliate of the University of Chicago, Howard treats patients and instructs medical students as part of his third-year residency devoted entirely to dermatology.

Why dermatology? "When I was running the Army venereal-disease program, most of my colleagues around the..."
country serving with me on various technical committees were dermatologists. I became interested in that specialty. Now, at my stage in life, it seemed like a good specialty for me.”

Adapts with admirable ease. David Fretzin, M.D., 42, chief of dermatology at Michael Reese, is astonished over the ease with which Howard has adapted to his new life. “He comes in at 7:30 in the morning, looks at slides with me, makes rounds and sees patients in the clinic and takes biopsies. He seeks no special privileges. He never leaves without asking if there is anything more that has to be done.”

Howard drives 80 miles daily between the hospital and his suburban home. In the evening he turns to textbooks. “I’m still studying like hell. No television, no recreation reading,” he explains.

The exception is Wednesday evening and Sunday morning when he plays tennis, a lifelong habit beginning with his days on the Harvard freshmen tennis squad. Tall, slender and agile, he maintains an excellent physical condition.

“I also am a tennis buff and I’d like to be in his condition,” comments Fretzin.

“I also admire his philosophy. He exemplifies what medicine is all about, doing things for people. Like Bert, I could never retire.”

Anthony V. Porcelli, M.D.

After taking long, hard look, he made his move from a position of strength

By Marian Bellamy

On New Year’s Eve, 1977, Anthony V. Porcelli, M.D., will complete a residency in rehabilitation medicine. So will some other residents at New York’s Columbia-Presbyterian Medical Center. But there will be a difference. Porcelli, a 1955 graduate of the School of Medicine, will be 48 years old, and will have spent 17 years in family medicine. He took a long, hard look at where he was and where he wanted to be for the rest of his professional life—and decided to make a change.

Porcelli made the move from a position of strength. He had an excellent income, a happy marriage and family, and a well-established, if slightly large, practice, one in which 95 percent of the patients paid their bills on time. That’s hardly a climate for change. What is it that makes such a man want to begin again—to risk everything for a new career at 45? Porcelli himself will tell you right away that he felt he had nothing to lose, and he considers that it was an easy decision. But to really understand all his reasons, you need to understand the man.

Feels ‘20 years younger.’ When you meet Anthony Porcelli you are immediately aware of his air of quiet strength. He is soft-spoken, unassuming and completely at ease. Nothing prepares you for the excitement in his eyes—an electricity that is reflected in his voice as he talks. “I feel 20 years younger,” he says. “I enjoy getting up in the morning to go to work. It’s a fantastic experience, really a whole new career. It’s recharged my batteries.”

Quite apart from the excitement, which never really leaves his voice, Porcelli sees many advantages in a career in rehabilitation medicine. It offers a choice between working in the field in a general way and choosing one special area of concentration. And there’s the intellectual challenge. He’s studying hard—harder, he admits, than he did in medical school—gaining a new appreciation for such basics as anatomy and physiology. It’s even a little more than he bargained for. But, perhaps characteristically, he thrives on it. Half of his time is spent in class and in study, the rest with patients. And the patients have difficult, challenging problems. He’s on call one night in five and every fifth weekend. He loves it.

An early interest in medicine. Porcelli had enjoyed his 17 years in the practice of family medicine. He did it well. And he made contributions to his field. His interest in medicine had

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Porcelli at work at Columbia-Presbyterian's Neurological Institute.

begun early, sparked by the respect for physicians and their profession engendered by his father, an Italian immigrant who came to America nearly 70 years ago, and who taught him that it is important to make a contribution to other people's lives. But, he recollects, medicine almost lost him to music. An accomplished violinist, he passed up a full scholarship to Juilliard to enter pre-med at Columbia. He still plays the violin. But he wanted to make his contribution in medicine. Like many another young physician, Porcelli never even considered specializing when he graduated from BUSM 21 years ago. By 1970, he was sharing a two-man practice and 12,000 patients, and working between 70 and 80 hours a week. He did find time to serve on every committee in his hospital, to act as a consultant and to become a charter diplomate of the American Board of Family Practice. But at about the same time, Porcelli began to feel restless. He had gone as far as he could in family medicine and he began to wonder about the possibility of doing something else. His practice was huge and had no room for new patients. The hours were long, and time for himself and his family was short. It was getting hard to get up in the morning. His work had become routine—not trivial, because people's problems are "always important," but stereotyped and unchallenging. Most of all, he didn't have enough time to spend with either his patients or his family.

Never enough time. The word 'time' comes into the conversation often. He remembers that he spent most of it running, and looking at his watch, and wishing for more of it. At Columbia's Neurological Institute, he works with only 16 patients, and he can spend a whole hour with any one of them if he wants to. And that means he can be a lot more effective. But he also had many doubts. For a long time, Porcelli thought he was too old to make a change, and he worried about the welfare of his patients and how his family might feel. Above all, he wondered if he had the right kind of background. He wanted to be sure he could make a contribution.

In all, Porcelli spent about five years considering the pros and cons. He thinks his final decision was probably triggered by a series of conversations he had with a colleague who is now one of his professors. And he discovered that, in spite of his doubts, he had exactly the right kind of background for rehabilitation medicine. People forget, he says now, that disabled patients are as subject to problems as anybody else. They have social and psychiatric problems and are subject to the whole gamut of diseases—the same spectrum of illnesses he had worked with for 17 years.

Porcelli's family gave him total support. "I couldn't have done it without my wife. Mary Lou deserves a lot of the credit."

Planning, experience helped. There were other positive influences. He was financially able to make the change (though he thinks he would have tried anyway—and you have to agree). Despite having two of his three children in college, he found that, with careful planning, he could do it. His long experience in family medicine enabled him to take the residency in two years instead of the usual three. And a government fellowship helped.
A major concern—that for the welfare of his patients—was resolved through consultations with a psychiatrist friend and by getting the patients situated with another committed physician, in a matter of months. The last doubt removed, Porcelli was on his way. "It feels good. I'm happy and my family is happy." None of the Porcellis feel they've made any real sacrifices. "The most we've really given up," he says, "are luxury vacations and expensive nights out." And he has no regrets—not for his former practice, not for the changes. He had estimated, he says, that he had about 15 or 20 years left to practice medicine. And he wanted some time to enjoy life before retiring. More important, he wanted to live to enjoy it. He had seen other physicians work too hard and die too young. He doesn't emphasize it, but the feeling is there—he doesn't want that to happen to him or his family.

'There's got to be more.' "There's got to be more in life than to practice medicine. And he wanted some time to enjoy life before retiring. More important, he wanted to live to enjoy it. He had seen other physicians work too hard and die too young. He doesn't emphasize it, but the feeling is there—he doesn't want that to happen to him or his family.

'There's got to be more.' "There's got to be more in life than just trying to decide how many dollars you're putting into your retirement fund. And," he adds wryly, "you may never live to retire."

Another important plus for Porcelli will be the more orderly existence, with a chance to go home at night and have weekends free. He may even go back to walking. He used to walk five miles a day before his practice made that impossible. One thing is sure: he'll never go back into private practice, and he's already planning to take a hospital staff position. He still runs into some of his former patients. They're still friends, and he still cares. That's a quality you can't help noticing. And his dedication is an obvious source of great personal satisfaction. What he is really doing, he sums up, is moving from a field where he didn't have time to spend with patients into one where he can become more involved. And Anthony Porcelli likes to be involved.

Paul W. Jamison, M. D.

Decision evolved so slowly, it created a reservoir of certainty to sustain him

by Barbara Mackey

For Paul W. Jamison, M.D., the decision to enter a new specialty at mid career evolved so slowly over seven or eight years that it created a reservoir of certainty from which he drew encouragement during the difficult days of his first year of residency. That long preparation, Jamison says—"and my Scotch-Irish determination"—got him through the three years of training in psychiatry that coincided with what may have been one of the most painful periods. Jamison has had to live through: his readjustment to the country he calls home, but in which he had lived for only about 14 of his 51 years.

Jamison's roots are in Egypt: he was born there, the son of missionaries; he grew up there, came to the United States for college, medical school and internship, then returned to Egypt to practice medicine for 24 years.

The years in Egypt. Jamison, a 1946 graduate of BUSM, was the medical director of a 200-bed Presbyterian mission hospital built in 1904 at Tanta, a city of half a million people located some 60 miles from Cairo. He practiced general surgery, obstetrics and general internal medicine. In the early years, he worked alongside Harry Hutchison, M.D., F.A.C.S., who groomed him to take over the running of the hospital when Hutchison retired in 1954. During two home furloughs he took residencies, first in general surgery for a year in 1951 at Augusta Hospital in Chicago and then in internal medicine at Allegheny General Hospital in Pittsburgh in 1957.

His journey into psychiatry, he says, began with "a number of puzzling cases" among Americans he occasionally treated from the embassy and several oil companies in Cairo. There were "depressions and anxieties that I had no idea what to do with," he said. Intrigued by these problems, he became attuned to the psychiatric aspects of illness and sought answers through reading and lectures, which, in turn, influenced his decision to enter psychiatry. Thus, when it came time to leave Egypt, Jamison had already been set on his course. He says, "We allowed ourselves a year to turn over the work, and we came home — to stay."

Jamison calls it "reverse culture shock," this homecoming that so wrenches one who has been part of another culture when he returns to his own people. His own countrymen have become the strangers, with strange manners and strange values that no longer slide past him unnoticed.

"I had many bouts of acute homesickness. For a period during the first year, I was very depressed. This change — the geographical change, the job change, the professional change into a new field — was all very upsetting to me," he says.

'Had to go back.' In fact, after he had been home for two years, Jamison says, "I felt I had to go back to Egypt — to get my bearings a bit on what life was like." He did go for a visit, and he hopes to go back again next year.

Jamison cites two decisive influences in his gradual turning toward psychiatry, both arising from annual medical conferences he attended in Beirut. One was a lecture by Massachusetts General Hospital surgeon Oliver Cope, M.D., on the psychosomatic aspects of thyroid disease. "My eyes were opened," Jamison says. "Like most doctors, I hadn't thought about the psychiatric aspect of thyrotoxicosis and how an emotional disorder can cause a physical problem."

The second was meeting Paul Tournier, M.D., a Swiss psychiatrist who has written many books in the field. "He gave a series of lectures in Beirut, and I got to know him personally. I was fascinated by his approach to physical medicine, using his psychiatric knowhow. Then, I started reading everything in psychiatry I could get my hands on."

When he returned to the United States, Jamison formally began psychiatry training at the University of Vermont School of Medicine in Burlington. A National Institute of Mental Health grant for practicing physicians entering psychiatric...
residency helped him financially through three years.

“My first year was a shaking experience,” he says. Despite his greater age, he was well accepted by the other residents, although, “sometimes I felt like grandpa,” he admits. The larger difficulty was the worry about “starting over again at the bottom of the pile. Coming from a job directing a hospital, being a big frog in a little pond, and then becoming a little frog in a specialty that doesn’t enjoy all the — shall we say — prestige that surgery and other fields do,” was not easy, he recalls.

Through it all he had the support of his wife, Martha, who “had done as much reading in psychiatry as I had,” he says. Today, while she maintains her longstanding interest in music, her involvement in his field continues, as she works part-time in his office.

‘To know patients as people.’ Without question, without regret, Jamison sees his place now to be in psychiatry. “There is a tremendous need to know patients as people before trying to work with their bodies. This is terribly important to me right now. The years I spent in medicine and surgery and obstetrics were a preparation for going in depth into what makes people sick, what makes people really hurt.”

Although he is enthusiastic about his work today, he has some regrets for the daily routine that, as a surgeon, a family practitioner, an obstetrician, meant being more physically active, being a physician whose hands offered comfort, solace and confidence. Now, as a psychiatrist, his voice, facial expression and gestures have become his tools of comfort and healing. His hands no longer serve. “I miss very much the physical contact with patients — examining patients, treating heart failure, the real fun of delivering a baby. It’s a real, tangible thing — you put your hands on it. I miss that. I guess anybody who changes like this feels certain pangs that he’s lost the skills he spent so long learning in order to learn a new skill. So, I suppose one would have a little bit of nostalgia for what he used to do. But it’s made up for by the feeling that you’re meeting people where they hurt the most.”

It is becoming less of an effort for the active Jamison to sit and listen hour after hour. He had to train himself in that task, he admits.

Life in a rich society. The other major adjustment Jamison and his wife had to make was to life in a rich society. “Anyone who’s worked in a country where he sees extreme poverty, where he sees extreme illness, where he sees people getting along on almost nothing, and then comes back to an affluent society, feels his hackles rise. The tremendous emphasis on the material side of life absolutely overwhelms you when you come back. Small things, like walking through a supermarket after seeing people get along on bread and salt and a few dates — it’s absolutely bewildering.”

How an “overseas American” keeps his values intact when he comes home is apparently a subject of concern to Jamison. “I can see myself here — the longer one stays in this country, with the competitive financial type of rat race which we get into . . .” he said, leaving his thought unspoken. “Well,” he continued, “I can certainly see why people act the way they do.”

Today, Jamison and his wife have settled in Burlington, Vt., where he is kept busy with a practice in suburban Williston, teaching first-year medical students in Burlington and working one day a week in a community mental health center in Montpelier.

Enjoys teaching role. He finds the tutelage of students and young doctors to be especially satisfying; it is an interest he developed in Egypt when he supervised residents from the University of Cairo and the University of Alexandria.

His commitment to medicine has had a telling influence on his children, for all four of them have chosen medical or nursing careers: Glenn, 31, is chief resident in psychiatry at the Boston VA Hospital, in the Harvard-Tufts Psychiatry Program; Sandra, 29, teaches nursing at Marion College, Marion, Ind.; Stephen, 26, works as a technician in cardiology in Burlington, while he seeks admission to medical school (which his father hopes will be BUSM); and Deborah, 22, works as a nurse at Memorial Hospital (Sloan-Kettering) in New York City.

The Jamisons are putting down new roots in Burlington, in a small state whose rural character and pace of living are much to their liking. Vermont isn’t overwhelming. “After being overseas so many years and having no real roots here, once you get a house and get settled, you want to stay there,” Paul Jamison says.
Two key appointments

Frankl named dean-designate of dental school

In pursuit of the same spirit of excellence and leadership sought for the School of Graduate Dentistry when it was formed more than a decade ago, Spencer N. Frankl, D.D.S., nationally known as a dental educator and pediatric dentist, was recently chosen to follow Henry M. Goldman, D.M.D., as the School’s dean.

Frankl will serve as dean-designate until Goldman’s retirement on July 1, 1977, and will continue his responsibilities as associate dean until that time. Goldman has been dean since 1963, when the School was founded and established as a member of Boston University Medical Center.

Wanted a 'combined career.' It does not take an observer long to recognize the extent of Frankl’s talents and energy. From the beginning of his dental career, Frankl knew he wanted to have what he called a “combined career” that would involve not only a practice in pedodontics but that would also emphasize teaching and research. He earned his D.D.S. at Temple University in Philadelphia, where he had also studied as an undergraduate. After earning his degree, he did a one-year pediatric-dentistry rotation at Children’s Hospital of the District of Columbia, changing locations, he said, to gain a different perspective on his profession. During the rotation, he decided he needed further education in pediatric dentistry.

Seeking yet another perspective on the field, Frankl continued his studies at Tufts University, known for its strong Department of Psychology, and there conducted pioneering research in the behavioral aspects of pediatrics. (It was at this time that he developed the Frankl Behavioral Rating Scale, now widely used in dental research. The study from which the scale evolved explored the notion that keeping preschoolers together with their parents in the dental office would have a positive effect on the children’s behavior while in that setting.)

He earned an M.Sc. D. from Tufts School of Dental Medicine, where he was an Abbe Francis Lawton Fellow in Pediatric Dentistry, and later took a full-time teaching position there, while continuing a limited practice.

When he came to the newly founded Boston University School of Graduate Dentistry in 1964 as chairman of the Department of Pedodontics, Frankl was only 30 years old. 'An exciting and unique place.' “The School was and is an exciting and unique place” because it started as a postdoctoral school, and its affiliation with Boston University School of Medicine was established at SGD’s inception—it was not added on, Frankl said.

“One of the main reasons I chose to come to Boston University at that time,” Frankl continued, “was Henry Goldman. He is an outstanding educator, a true genius in oral pathology and periodontology.

“The contributions that Dr. Goldman had made to oral pathology and periodontology were the type that I wanted to emulate in my own field,” Frankl said. “Henry is an exciting person to be with. He allows a responsible person to take the ball and run with it, and is supportive at the same time.”
worked with Dean Goldman to shape the Department of Pedodontics according to his own philosophies. Under Franki’s direction, the pedodontics program has become nationally recognized for excellence in education, research and patient care.

Four graduates of the School in pedodontics have themselves become department chairmen in schools across the nation. The graduates include Jon T. Kapala, D.M.D., who has recently been named to succeed Franki in the pedodontic chairmanship at SGD.

In the course of his work, Franki has followed through with his early idea of having a combined career. Not only has he been an effective teacher and administrator, but he has also maintained an active private pedodontics practice.

“Pediatric dentistry is a clinical science,” Franki commented, “and the practitioner must maintain his skills. The students respect an educator who is in touch with his field and is able to demonstrate his skills.” Franki teaches both predoctoral and postdoctoral students at SGD.

The School’s relationship with the School of Medicine, University Hospital, and their affiliated health-care institutions, together as one medical center, helps to promote this multidisciplinary attitude among faculty members and students, Franki observed. “The dental institution that stands apart fails educationally,” he said. “At the School, we are not training, but rather educating men and women as oral physicians. The interdisciplinary approach provided by the School as a member of a medical center helps the dental students understand that they are learning to treat people, not mouths,” Franki continued.

Students for life. However, Dr. Franki said he realized that to achieve excellence as a teacher, researcher or practitioner, a dentist must also be a student for the rest of his life. “From 1960 to the current time,” Franki said, “about 75 percent of what I learned as a student has changed as new information became available through research.” It is the School’s role, as a member of the Medical Center, Franki believes, to instill this sense of responsibility for continuing self-education in its students.

“I view the School of Graduate Dentistry as very much a component of Boston University Medical Center. The School’s vitality, visibility and future growth are closely tied to the growth of the entire Medical Center,” he said.

Active in student affairs since he joined the School’s staff, Franki recently served as chairman of the curriculum committee for the predoctoral program and on the executive committee at the School. As curriculum-committee chairman, Franki has worked to develop a comprehensive core curriculum for the D.M.D. program. He was appointed assistant dean of the School in 1970, and was named associate dean in 1973.

Not only has Franki displayed his talents within the setting of the School and in his private practice, but he has also been repeatedly recognized by his peers for excellence as an educator and practitioner. He is a member of Omicron Kappa Upsilon, the dental honor society, and of the Sigma Xi Honorary Research Society. He was recently elected chairman of the American Board of Pedodontics, and also serves as a consultant to the Council on Dental Education of the American Dental Association.

Franki became a diplomate on the American Board of Pedodontics in 1965, and is a fellow of both the American Academy of Pedodontics and the American College of Dentistry.

Heads Kennedy dental service. He is also currently the chief of the dental service at Joseph P. Kennedy, Jr., Memorial Hospital for Infants and Children in the Brighton section of Boston.

“The School of Graduate Dentistry has many exciting programs in every phase of dentistry,” the dean-designate said, “involving the entire spectrum of students, from D.M.D. and postdoctoral students to dental-assisting students.” It is this broad base of excellence, Franki said, that “helps provide the strength the School is known for.”

Benfield, expert in lung transplant, takes surgery post

A California surgeon who is among the nation’s leaders in the new field of lung transplantation has been named chairman of the Division of Surgery at BUSM and surgeon-in-chief of University Hospital. John Richard Benfield, M.D., a professor of surgery at the University of California at Los Angeles (UCLA) School of Medicine, assumed the two posts Jan. 1, 1977.

Benfield’s appointment was announced by Richard H. Egahl, M.D., Ph.D., director of the Medical Center. Egahl, himself a former surgical chief at the two institutions, said that Benfield was chosen after a nationwide search for an academic surgeon “with the experience to lead and the potential for greatness as a teacher, clinician, researcher and administrator.”

Was chief at Harbor General. Benfield, who served as chief of thoracic (chest) surgery at Harbor General Hospital, one of UCLA medical school’s two principal teaching hospitals, recently published a major review of the progress to date in the field of lung transplantation. His paper, published in 1976, indicated that the stage may be set for the use of lung transplants as a serious clinical tool in appropriate circumstances. Benfield, whose own work has stressed improvement in the immunologic mechanism involved in transplantation, foresees the development of a strong lung-transplantation program at University Hospital as a definite possibility.

“While some organizational work needs to be done,” Benfield commented, “the number of professionals in various disciplines at Boston University Medical Center presents a
John R. Benfield, M.D.

The School of Medicine’s Division of Surgery also provides professional staff for the surgical services at Boston City Hospital (400 beds) and participates actively in the surgery program at the Boston Veterans Administration Hospital (900 beds). In addition, the division coordinates an affiliated surgical training program at Brockton, Cape Cod, Carney, Framingham Union and Malden hospitals.

Holds strong views. Benfield holds strong views on the controversial issue of restricting the number of surgical training positions as a national health-manpower priority. “The direction the surgical profession and health institutions ought to be taking is to make sure that available training experiences meet minimum standards of excellence. I see no mandate to constrict excellent training programs like that at Boston University,” Benfield said.

“If any training slots are to be eliminated, they should be those that are marginal in their educational effectiveness,” he continued. “Those training positions that exist primarily to provide service, and lack adequate professional supervision, really do not fulfill the goal of professional training. Society should face up to the fact that residency posts are there for the purpose of training—not as a device to obtain surgical services at lower costs.”

A remarkable period of growth. In discussing his reasons for accepting the Boston appointment, Benfield said, “The Division of Surgery at Boston University Medical School and University Hospital has a fine tradition of excellence in the care of patients. In recent years, a remarkable period of growth in basic laboratory research has occurred. I see an excellent opportunity to help continue this growth and clinical excellence.”

The surgeon continued, “I am highly impressed with the competence, vigor and enthusiasm of the entire Boston University medical faculty, and with the School’s virtual leap in the past five years to the top rank of American medical schools. Finally, the role of University Hospital as a highly respected referral center working cooperatively with its affiliated hospitals provides the core of a superb clinical and training program in surgery.”

The surgery chairmanship at the School of Medicine and University Hospital is considered an especially prestigious post in academic surgery. Benfield’s predecessor, John A. Mannick, M.D., was recently named Mosley Professor of Surgery at Harvard Medical School and chief of surgery at Peter Bent Brigham Hospital. Mannick was preceded by Egdaahl, now the director of BUMC and the academic vice president for health affairs of Boston University. Egdaahl is a former president of the Society of University Surgeons.

Earned M.D. at Chicago. The appointee, a graduate of Columbia College of Columbia University, received his M.D. from the University of Chicago. He took his internship at Columbia-Presbyterian Hospital, New York City, and completed his postgraduate training at the University of Chicago Hospitals and Clinics. He served on the faculties of the University of Chicago and University of Wisconsin before his initial appointment to the UCLA faculty in 1967. He was named a professor of surgery there in 1973.

Benfield is a member of numerous professional societies, including the American Surgical Association, American College of Surgeons, International Society of Surgery, Society of University Surgeons, American Association for Thoracic Surgery, Society of Thoracic Surgeons, and the American Association for the Surgery of Trauma. He now serves as secretary of the Committee on Pulmonary Surgery of the American College of Chest Physicians. He is a former member and task force chairman of the Pulmonary Diseases Advisory Committee of the National Institutes of Health.

Benfield will reside in the Boston area with his wife, Joyce, and their three children.
A conversation with Franz J. Ingelfinger, M.D.

FRANZ J. Ingelfinger, M.D., respected editor of the New England Journal of Medicine and recent recipient of both the Association of American Medical Colleges' Abraham Flexner Award for distinguished service to medical education and the American Medical Association's Distinguished Service Award, has ties to Boston University School of Medicine and University Hospital that go back more than 35 years. In 1940, when he was only four years out of medical school and was serving as a resident at the Thorndike Memorial Laboratory of Boston City Hospital, Ingelfinger was chosen to head the gastroenterology section of the Evans Memorial Department of Clinical Research at Massachusetts Memorial Hospitals (now University Hospital) by Evans Director Chester S. Keefer, M.D.

Wins wide recognition. Ingelfinger, as much as any other single individual, is recognized as having been instrumental in the development of gastroenterology as a scientific discipline. During his 27 years as chief of gastroenterology at the Evans, his laboratory became famous for the caliber of its trainees—the so-called Fingerlings—as well as for its clinical advances in the area of the function of the esophagus and the small intestine. He was the first Conrad Wesselhoeft Professor of Medicine at BUSM, and was director of the School's medical services at BCH from 1961 to 1967, revitalizing them and transforming them into a leading Boston teaching unit.

In 1967, after 27 years of service, Ingelfinger left BUSM and BCH—although he continues to hold a BUSM clinical professorship of medicine—to become editor of the New England Journal of Medicine. During his tenure the NEJM has become the preeminent medical journal in this country, carrying bold commentaries on controversial issues as well as solid, current scientific papers. Recently, Ingelfinger announced he will retire as editor next July because of ill health.

Ingelfinger was the subject last fall of a film and discussion program, the first in the 1976-77 film series "Leaders in American Medicine," sponsored partly by BUSM and conducted under the chairmanship of George E. Gifford, M.D., associate professor of socio-medical sciences at BUSM. The format of the film programs calls for the showing of a one-hour film, in which the subject is interviewed, followed by a live discussion involving the subject and two or three other persons who know him or his work.

Centway Library session. Participating in the Ingelfinger program at the Countway Library on Oct. 13 were Thomas C. Chalmers, M.D., president and dean of Mt. Sinai School of Medicine, who interviewed Ingelfinger in the film; Lester S. King, M.D., contributing editor of the Journal of the American Medical Association; Dean John I. Sandson of BUSM; and Ingelfinger himself.

Centerscope here presents an edited transcript of the filmed conversation between Chalmers and Ingelfinger—an exchange marked by warmth and flashes of humor. In its course, Franz Ingelfinger emerges as a man of intelligence, humility, wit and great personal charm. It is to be hoped that some of the unique flavor of the man comes through on the printed page.

‘Try not to do what everyone else is doing’

Chalmers: [Franz Ingelfinger is] . . . the founder of modern academic gastroenterology and one of the great medical editors of all time. Finger, we discussed last night how you happened to have such success in two different careers. Is there any sort of guideline . . . which has led you to accomplish this?

Ingelfinger: I suppose if you consider my selection of gastroenterology as a subspecialty and then my going to the Evans [the Evans Memorial Department of Clinical Research and Preventive Medicine] the nature of my academic work there, and then my efforts at the Journal, the theme that runs through this as a guideline is, "Try not to do what everybody else is doing."

Chalmers: How does this apply to running a medical journal?

Ingelfinger: Obviously, in certain categories of medical journalism one has to stay in a very stereotyped, rigid format.
After all, the scientifically validated peer-reviewed contributions, if somebody reads them he has a reasonable belief that they will be right. One can't fiddle too much with this format.

Chalmers: No matter how many people you make mad that send you papers that get rejected?

Ingelfinger: That's right, but on the other hand, in special articles that deal with the interface of medicine with society, or editorials, or letters to the editor. I like to emphasize the unusual or the new idea, even if it may be a little bit radical or ultra-conservative. You may remember we published an article saying that patients do not have a right to health care, which caused a terrible furor, because everybody else was saying that they do have a right to health care. Then, there was the Tuskegee experiment—remember, we didn't. Now, why not? Were we against this thing? Yes, in retrospect, although I don't know what I would have done if I had been around in 1935 or '40. But, when everybody else was kicking this dying, dirty beast, I saw no reason to do it also. You take up slightly different subjects in editorials, special articles, and the like. And it also applies to some of the departments that have been started in the Journal, apart from the straight scientific material.

Chalmers: You mean, like the “Sounding Board”?

Ingelfinger: Yes, like the “Sounding Board,” which is a sort of quasi-editorial. It is an editorial which is well-put, but for which I don't want to take responsibility. Whenever an editorial appears in the Journal, even if it's signed, people always think, “Well, the Journal is a little bit responsible.” But in the “Sounding Board,” anything goes that is well-put, and I don't take responsibility. Another department that started is Lew Thomas's “Notes of a Biology Watcher.” We've had John Lister's “By the London Post” for some time. Every so often Howard Spiro publishes something called “Visceral Viewpoints,” since he's a gastroenterologist. These are semi-philosophical comments. And this is to make the whole thing more readable.

Chalmers: And you've continued the CPC's [clinicopathological conferences]; you think they still have a place in medical journalism?

Ingelfinger: We have so many specialized articles, understood by only a limited number of readers, that I like to maintain a clinical exposure as well. And if there is one consistent clinical exposure we have, it's the CPC. Medical students and practitioners particularly like it.

Chalmers: How newsworthy should a journal like the New England Journal of Medicine be?

Ingelfinger: That's been a constant battle, as you probably know. I'm sort of a competitive fellow. And I feel it should be newsworthy. But you'll say to me, “How can it be newsworthy, if you publish stuff five months after you receive it?” And it is true that, as far as original articles are con-
cemed, from the time the article arrives, until it has been reviewed, revised, put through editorial processing, and then gone through production, the median time is five months. On the other hand, there was Dan Greenberg's column on government action in medical affairs. We published that within two weeks. So that's fairly up to date. Nevertheless, when we publish an article on a new therapy, we like to be the first ones to publish it.

Chalmers: How do you feel about being scooped by the newspapers, or throw-away journals?

Ingelfinger: We don't like it. If a presentation is given at a medical meeting . . . there's nothing we can do about it. Newspaper writers have a right to be there and a duty to report, so I have no objections. But if, in addition to the ten-minute presentation, the author has an interview and gives a lot of extra tables, so that by the time it appears in the newspaper or more particularly in news journals aimed at doctors—Medical World News, Medical Tribune, "Medical News" in the front of JAMA, for example—then we don't like it, of course. Soon after I became editor, I found that a number of articles that were in press at the New England Journal of Medicine would appear practically in toto in one of these medical news journals. So I said, this has already been published, we're not going to publish it. This caused a great furor among science writers, but the academic community has supported me . . . because it has discouraged, not news reports of meetings, where it's perfectly proper that they do this, but the calling of press conferences—where without peer review, or even selection of a program, a scientist says, "Look, I've got a new virus that causes cancer," or something like that. If this is extensively reported in some medical newspaper, we say it's prepublished, just as if it had appeared in Lancet or JAMA.

Chalmers: That's the . . .

"We've sort of reached detente' on the Ingelfinger Rule"

Ingelfinger: . . . so-called "Ingelfinger Rule." Which people usually say with a great big sneer. But time heals many wounds. The Ingelfinger Rule was promulgated about eight years ago—I've been editor nine years. Now I have many good friends among the science writers, and we've sort of reached a detente.

Chalmers: I think one of the notable parts of the New England Journal of Medicine actually started when you were the editor of the gastroenterology section of the Yearbook of Medicine. I think everybody appreciated the fact that there were nice summaries there, but what they really appreciated were the humorous little notes and perceptive comments clothed in humor, which you were so remarkable for, and I note that same skill going on with editorials. I gather you probably spend a lot of time working on that aspect of your editing.

Ingelfinger: We have an editorial policy of trying to have at least one, and possibly two, editorials related to an article appearing in the same issue. This is part of the teaching function of the Journal. And my concept of the New England Journal of Medicine, or most general medical journals . . . is that these teach. They aren't spreading research news. Research news is spread by the invisible college, by meetings, by rapid transfer of ideas. We're transmitting relatively new ideas from the inner sanctum of the research fraternity to the broader public. But since, as I mentioned, this necessarily involves new techniques and, therefore, appears esoteric . . . we invite editorialists to comment on these articles and put them into context. And that, by and large, has been reasonably successful, particularly if the editorialist does a good job. But in addition, the third editorial, the "Sounding Board," is often an opinion piece. And this where I might, for example, get considerably upset at what I think now is an excessive public fear of cancer, so that you can't listen to a radio broadcast at night or see a newspaper without somebody saying, "This item causes cancer." This enhances public apprehension, and yet enhances public interest; so the news broadcasters will emphasize any cancer news, but a great advance in arthritis may be totally ignored. I deplored this emphasis on cancer. And that's a little bit different, and goes along with the principle, Don't do what everybody else is doing. We like—may I give one more example? . . .

Chalmers: Yes.

Ingelfinger: . . . the business of the reviewing system. Remember, when we get an article on hepatitis, you may be one of the reviewers. And you are asked to send comments not only to me, the editor, saying accept or don't accept, but also comments to the author, criticizing the paper.

Chalmers: Which I insist on signing.

Ingelfinger: Which you insist on signing, and which I . . . am utterly convinced is a good idea. Gradually the number of signed reviews has gone from about 5 percent to nearly 20 percent. The signed review almost invariably is better, more responsible, is never abrasive. The unsigned review will say, "This article is naive and could come only out of an infantile mind," and things like that. Well, that means I can't send the whole comment. The unsigned review tends to be irresponsible, insulting, abrasive. The signed review is thoughtful. Do people pull their punches because their review is signed? Certainly not senior people like yourself. Conceivably a young person might be fearful of criticizing a professor . . . but I think, particularly in the last 10 years, with the uprising of the young against the Establishment, this sort of fear is dissipating.

Chalmers: Speaking of the last 10 years, what's going to happen to journals in the next 10 years?

"TV is king. . . . Nobody ever discusses Dickens any more"

Ingelfinger: Well, I don't know about the next 10 years, but if you'd asked me about the next 20 or 30 years, I think the journals are in for some trouble. When I took over the New England Journal of Medicine nearly 10 years ago, John Talbot, editor of JAMA at that time, predicted that medical journals would disappear in about 10 years. Well, obviously they haven't disappeared. The circulation of the New England Journal of Medicine, Lancet, and so forth, is bigger than they ever were. . . . Reading is still one of the easiest things to do. . . . You can pick up and read a little bit, put it aside and then read again. On the other hand, I think reading ability—and I'm talking about reading ability in general, that is, reading classics, serious literature, as well as professional literature—is disappearing from our world. Because at home, TV is king. Nobody ever discusses Dickens any more. Therefore, there will be less and less skill in reading, and doctors are going to find it harder and harder to read medical journals, as well as serious literature. So, we'll gradually lose a
Ingelfinger: Don’t you know Horace Fletcher? My God, maybe you grew up too late, too. Horace Fletcher was a fellow who insisted—he was not an M.D., he said—he was a physiologist—you had to chew and chewing until you had an automatic reflex, and the food would go down. This got turned into saying every bite had to be chewed 30 times before you swallowed, and this leads to the word “fletcherism.” If you look this up in your dictionary... you will find “fletcherize: to masticate thoroughly.” Well, Horace Fletcher visited this exposition, and in the picture, there he is in a white suit... He was sort of a quack, and he always wore a white suit to show the purity. And in the back row, the fellow with the bowler hat, that’s my father. But the thing that gave me trauma, I’m told that Horace Fletcher visited my folks at home, got on his hands and knees on the floor with his beautiful white suit, and insisted on giving me a ride on his back, as a baby. And everybody said, “Oh, Dr. Fletcher, Dr. Fletcher, please don’t do that with that baby. Heavens, you’re just ruining your suit...” The trouble is, ever since that time I’ve bolted my food faster than anybody else that I’ve ever known.

An English major at Yale, a ‘lowly sub’ in football

Chalmers: There are two things about your Yale career that I remember hearing about. One is that you majored in English, and not in pre-medical sciences, and the other is about a close relationship you had to [another] person in this Leader in American Medicine series.

Ingelfinger: Yes. You remember that I told you that my mother was a teacher. She had so many pupils to tutor that she would give the overflow to me when I was at Andover, and I tried to teach English. So when I went to Yale, I was interested in English literature. It wasn’t until the senior year that I decided to go into medicine. At that time, maybe subconsciously because of this background I talked about before, and my father being a doctor, but maybe because I didn’t know what else to do, I thought I might as well stay in graduate school for a while. So, I can’t say I was an inspired doctor. I can’t get enthusiastic about something until I get to work in it. But you mentioned the other leader that was shown here in the film [series], and you’re referring to Barry Wood. I was a member of the Yale team that defeated Barry Wood’s up-to-that-time undefeated Harvard team, 3-0. But there was one big difference between Barry and me. Barry was the star of the Harvard team, I was just a lowly sub on the Yale team.

Chalmers: Then you went to Harvard, and on to Boston City Hospital, which I think is a notable episode in anybody’s career.

Ingelfinger: The Thorndike Memorial Laboratory at that time was really a fantastic place. I’m not sure I can even remember all the people who were there, but it was headed by George Mhot, and there was Bill Castle, Chester Keefer, Soma Weiss, Hale Hamm, Max Finland, Maurie Strauss. Did I leave out anyone? But, anyhow, even that is a stellar enough configuration to indicate to you...

Chalmers: Henry Jackson...

Ingelfinger: Henry Jackson, a somewhat eccentric man, without doubt, but a brilliant teacher. An outstanding group of people. It was a highly desirable internship position... And, in spite of what you hear about coldness, non-teaching, these people, I felt, were really interested in me, anyhow, as a house officer.
Chalmers: Even if they didn't pay you very well.

Ingelfinger: They didn't pay me a damn cent. We did get our food and lodging. And laundry, for the white coats. Their interest in patients varied. . . . George Minot was probably the one who most sat down with patients and tried to find out about their family life. Whereas Keefer, well, he was more interested in a splendid review of the literature.

Chalmers: Now, it was a "Don't do what everybody else is doing" philosophy that led you into gastroenterology, because there weren't many in it?

Ingelfinger: Right. At the Thorndike. Well, there was, of course, Franklin White, but he was an exponent of descriptive—what I call old-fashioned—clinical gastroenterology.

Chalmers: There had been not much work into the actual mechanisms. . . . So I thought, well, look, here's my opportunity. Everybody here knows about hematology; Soma Weiss, cardiovascular disease; Keefer, infectious disease; somebody else knew quite a lot about renal troubles. But gastroenterology was sort of wide open.

Chalmers: You mean, no competition?

Ingelfinger: No competition, you're right. In the whole of Boston, there was Chester Jones. The man who advised me where to go was, again, Minot. He said, "Look, if you want to train in gastroenterology, you ought to work under my friend T. G. Miller." And he lived down in Philadelphia.

Chalmers: So you went for a year?

Ingelfinger: I went for a year. They even gave me a fellowship of a thousand dollars. . . .

Chalmers: And accomplished more in that year than most of us accomplish in two or three years. . . .

Ingelfinger: Well, no. I had the great chance there of working with the great combination [they had] there. Miller, the consummate clinician, wise, experienced. And Pete Abbott, an unconventional, brilliant investigator. I had the chance of working with these two people, and, as you say, in a year—even though they didn't seem to work as hard as they did at the Thorndike—accomplished a tremendous amount. Of course, they had invented the Miller-Abbott small intestinal tube and had done a lot of recording with the balloons of intestinal motility and had sucked out intestinal juices to study absorption. This is where I was introduced to motility and absorption study through tubes. . . .

Chalmers: And then you became chief of gastroenterology at the Evans, only four years after graduation from medical school.

Only an assistant at $2,300, but head of GI nevertheless

Ingelfinger: My internship started half a year after graduation. During that graduation and my start of internship, I worked with Chester Keefer. Keefer got to know me and knew I'd worked with Miller and Abbott. At that point, Keefer just moved over to B.U. School of Medicine, set up a new department of medicine and, fortunately, asked me to join him. And, yes, right away he said, "You're head of GI." I was only an assistant, and my salary was $2,300 a year top, but I was head of GI, nevertheless.

Chalmers: Maybe we ought to digress for a moment and point out that it was the year after that that you got married, at the age of 31. . . . Was that [because of] hard work, or was it the fact that Sara Shurcliff didn't come along until you were 31, or both?

Ingelfinger: Both. So many of us were not married, both in medical school and in house officership, it didn't enter the minds of most people, seriously, to get married. In fact, [at] Thorndike . . . it was really considered a little bit unfair to be married. We used to be angry at the two house officers that were on our group who were married and said they had to go home around 5 or 6 o'clock. . . . So, it was not the thing to do, and I suppose I didn't seriously think about [getting] married, until after I started earning money. And as you say, maybe just about that time, the right woman came along. . . .

Chalmers: [Can you be] as good a doctor as was turned out in your day, if you only work half as many hours in your training period?

Ingelfinger: I think so. Because I think so much depends on the individual. And the individual who gets training these days who's a good person—and by good person I mean everything from [having a] personality suitable for the physician, which includes sympathy, warmth, concern with the patient, to [having] intelligence, which includes the knowledge of the science of medicine—I think that can be developed these days just as well as in the old days when we worked harder. Furthermore, a lot of things are not done by house officers that we used to do. We used to boil up all our intravenous sets. We prepared intravenous sets, put in the saline, sterilized everything, did all the white counts in ordinary hematology, urine analysis. . . .

Chalmers: Went down to the pharmacy to collect the drugs for the patient. . . .

Ingelfinger: Right. And all that sort of scut work, I presume, is now done often by technicians. But, I'm glad I did it. Because I can still look at a Wright's stain and tell a leukocyte from a monocyte and different kinds of red cells, because I had such tremendous experience. I suspect that the average graduate today, 30 or 40 years hence, may not remember much about how blood smears look, unless he's worked in hematology. But it doesn't matter, because he has expert technicians, or even automatic counters and analyzers telling him. So, it's different, but I don't think it's worse.

Chalmers: Before we get into talking about the large number of gastroenterologists that you've trained, I think it might be better to review a little bit of your research accomplishments: your primary contribution of introducing quantitative physiology into clinical gastroenterology.

Ingelfinger: . . . I just want to emphasize that I believe I was part of a movement that was naturally developing at that time, with the increased interest in science and the great amount of money available to science following World War II. . . . So I think I did contribute, but I was part of a movement which would have taken place, anyhow. I continued what I'd learned with Abbott, that is, to record intestinal motility—both with intraluminal manometry, measuring pressures, and balloon recording. And with Phil Kramer . . . we analyzed the motor function of the esophagus, in particular, and scleroderma, diffuse spasm of the esophagus, a variety of disorders which radiologists had already appreciated, but I think we just gave them more precise definitions. And with manometry this became even more precise. We devised the so-called mecholyl test. In the patient who has what at that time was called cardiospasm, but now [is] called chiefly achalasia, it makes the whole esophagus, particularly the lower half, contract in a violent contraction. Well, that's a minor contribution, but it was something to round out the picture. Another thing is, I
had the good fortune of having a colleague, Stan Bradley. Since he had worked on measuring kidney blood flow, he came to me and said, Why don't we use the Fick principle in measuring hepatic blood flow, which meant catheterizing the hepatic vein and seeing how much a certain dye was extracted by the liver, comparing arterial blood with hepatic venous blood, and then seeing what the overall removal rate was by keeping a constant fusion going. He could devise the amount to move per minute by the liver into the overall load, and so you could figure out the blood flow, how much blood had to flow through the liver.

Chalmers: Total blood flow.

Ingelfinger: Total blood flow. Now this has been extensively used. It also gave me the distinction of being listed in Papworth’s book about human guinea pigs, because we catheterized these patients without explaining their purpose adequately. Well, this was early in the '50s. We would not do this today, and I think, therefore, there has been an improvement in the ethics of the research community. Then later . . . we worked on intestinal absorption, the so-called perfusion technique. You infuse a segment of the intestine here, collect a sample here, have a non-absorbable marker—in a way it’s almost, again, an application of the Fick principle—and see how much of the test substance, glucose, was removed compared to the non-absorbable marker, which was constant, and then divided that into the rate at which the glucose was infused. And then you could figure that per 30 centimeters of intestine, X grams of glucose was absorbed from a certain solution. And this could be applied under various conditions and drugs and diseases, sprue for example, and the like.

Chalmers: What is a Fingerling?

Ingelfinger: You called me “Finger” at the beginning, here, and that’s a nickname I like. The various fellows that have worked with me—I’ve mentioned Fordtran and Kramer, there were many others—they are very loyal, and many of them have done very well in medicine. We have meetings every so often, and that’s a meeting of the Fingerling group.

From 40 trainees, hundreds of ‘great-grandchildren’

Chalmers: So that if one said that you had about 40 trainees, your great-grandchildren would now be in the hundreds?

Ingelfinger: I guess so. Of those 40, some 15 are really outstanding people of full professorial rank. I must point out that I was lucky. I was one of the first persons to have a GI training grant. In other words, I had money to pay these people as trainees. We were the only academic program at that time, and that’s why we got people like John Fordtran and Tom Hendrix and Jim Clifton.

Chalmers: There’s another contribution which you made in those days that has proliferated the same way the trainees have, and that’s the Journal Club. I just wanted to point out that that’s how I got to know you, that I heard of the Journal Club from a colleague and . . .

Ingelfinger: I think the outstanding feature of the Journal Club, that kept it going—and I understand it’s still going—was the alarm clock. You were told to review five journals for any GI substance. You were given 20 minutes, and during that [time], if somebody asked a question, you had to both answer and keep going because you were the chairman of the Journal Club and the only one in the meeting who could read the clock. And at 20 minutes, bang, the alarm went off, and then we went on to the next person. This meant everybody knew that after three presentations, or maybe four, they could go home. Most journal clubs deteriorate because people get arguing about a certain thing, and then Dr. X comes in, having read a bunch of journals, and he never gets around to presenting them and [he] gets fed up. But, because of the alarm clock we always got through in time. Everybody always had his chance, just like a medical meeting in Atlantic City, and this I think was a fundamental reason for its success.

Ingelfinger: . . . I’d like to quote from your presidential address [to the American Gastroenterological Association] in which you [asked] “Is it possible, under today’s vast firmament of knowledge, to be at the same time a sophisticated scientist and a consummate physician?” Is it?

Chalmers: . . . Yes, I believe that if you . . . don’t become too involved with what the computer or the laboratory or the endoscope or the tap machine tells you, but also talk to the patient, then you can be both. . . . Doctors can get lots of money from third-party payers for passing an endoscope, a procedure that might last half an hour. But if they would take an hour getting to know the patient by history and physical, they might get paid a third of the money. It’s not venal of doctors to take that into account. The third-party payments, or national health insurance, if it ever comes around, have got to pay the doctor adequately for being . . . the consummate physician. And not have this imbalance, where a lot is paid for some sort of fancy gadgetry, and nothing for what really counts in getting to know the patient.

Chalmers: All your friends have been very distressed in the last few months to hear that you’ve been sick. This might be an opportunity to ask you what it feels like to be a patient and what you've learned, what you can teach doctors . . . having been a patient.

Ingelfinger: It’s sort of unconventional for an interviewee to talk about his illness. . . . [but] it has answered a question for me that’s very current these days, among those who question the role of the doctor in society. The sort of thing we cover in our special articles in the Journal, the sort of thing I’ve taken over rather than gastroenterology. You know I’ve given up gastroenterology completely, have done none since I’ve become editor of the Journal. But last fall, it turned out, ironically enough, that I had a lesion—an adenocarcinoma—in the one area that I’d been so interested in, namely, at the junction of the esophagus and stomach. . . . I had a resection, the operation went well. . . . The surgeon said there was no gross disease he could see that was left behind. Everybody now is interested in prophylaxis. And here I was about as well-informed about this area as anybody could be. You talk about the informed consent. I can’t imagine anybody more informed about this particular area than myself. . . . Some said, “Look, you’ve had expert surgery, a lot of your stomach and esophagus was removed, and you don’t need anything else.” Others said, “Uh, uh, you need chemotherapy. Now we don’t know much about chemotherapy in this, but we have a lot of chemotherapy studies on cancer of the breast, and that may be somewhat analogous. You need chemotherapy.” What kind? Well, this kind? Or no, this kind. Adriamycin, yes? Adriamycin, no. And then, on top of this, the radiologist was insisting I should have radiotherapy. I got advice from all over the country, from my friends, who were kind enough and concerned. . . . My son,
who is a doctor, by the way, and my daughter-in-law, and my wife—we were facing an emotional family crisis in trying to make a decision. Then I called you, Tom, and this is one of the greatest things you ever did for me. . . . You said, “You need a doctor!” And that solved the problem! I needed someone to whom I could transfer responsibility. . . . I keep getting papers in the journal, attacking the doctor’s authoritarian stance vis-a-vis what’s called the dependent patient. . . . His paternalism, his attitude, “Oh, I’ll tell you what’s right for you. You just accept my advice.” From the experience I’ve just told you, I overwhelmingly realize that that’s a part of being a doctor. I need somebody who can take responsibility, who will be an authoritarian figure and tell me, “Ingelfinger, now you have radiotherapy, and now we’ll start chemotherapy with such and such an agent,” and I and my family relax. We have a young doctor, but he consults with others, and I feel perfectly relaxed about this.

Chalmers: How can we be sure that we continue to turn out the consummate physician?

‘I think medical schools will have to make a hard decision’

Ingelfinger: That’s tough, because technology is not going to be stopped, I think. We’re not going to stop the more ordinary equipment: The computer. The use of paramedical personnel, with automated questions, and with algorithms to follow. The use of endoscopes . . . fancy X-ray equipment . . . fancy laboratory tests. That type of more ordinary . . . technology, nobody’s going to eliminate, I wouldn’t want it eliminated. . . . This is going to be constantly pressing itself on the doctor, and how is he going to make use of all this and still get to know the patient? Because, if he doesn’t know the patient, if he doesn’t take his history and talk to him, then the patient isn’t going to have that personal relation, the confidence and the trust. It’ll be like going to the store and buying a bed in the furniture [department] with a caveat emptor sort of attitude.

Chalmers: That may be happening now.

Ingelfinger: I think medical schools will have to make a hard decision. Even though they cannot eliminate the technology of the kind I said was developing, they must decide. We’re not going to teach our students about all of that technology. . . . Endoscopy [for example] doesn’t have to be taught to medical students. So I think more and more purposeful emphasis . . . will have to be [placed] on . . . making the medical student a broader person, to [having him] read other literature: Lew Thomas’s column in the Journal, or “By the London Post” — a political column about what’s going on in English medical, national health service—not just some of the latest things about the adrenal pituitary axis or aldosterone and angiotensin.

Chalmers: A bit of Shakespeare?

Ingelfinger: Yes, but I find Shakespeare a bit tough, myself. That’s my problem. My mother probably could read him with greater pleasure than I could.

Chalmers: This has been the most wonderful hour I ever spent. Thank you.

Ingelfinger and senior assistant editor Robert O’Leary go over copy problems. O’Leary, NEJM’s stylist, joined the Journal in 1940.

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A drug-therapy regimen developed by a cancer specialist at University Hospital has resulted in a 93 percent remission rate in patients with advanced cases of small-cell lung cancer, one of the worst known malignancies.

This finding, the result of a five-year clinical investigation on combination chemotherapy, or drug treatment, is reported in the December issue of the medical journal Cancer, by Marc J. Straus, M.D., chief of the University Hospital Section of Medical Oncology. Untreated, small-cell cancer is a particularly fast-growing malignancy with a survival expectancy of less than three months from diagnosis.

70 patients treated. To date, 70 patients with lung cancer have received this treatment. Two-thirds of the 20 patients with small-cell cancer treated with this regimen experienced what is called "complete remission," a term meaning that no evidence of the disease can be found upon examination. Patients who go into complete remission gain an additional one to three years of life, Straus reports. Other patients may achieve a partial remission, indicating that the tumor has been substantially reduced.

A complete remission is not the same as a cure, since a few tumor cells may remain in the body, although they cannot be detected by methods known today.

Lung cancer is the most frequently occurring malignancy in humans, with 100,000 new cases reported annually. Of this number, 92,000 will die, most within one year. Small-cell cancer, also called oat-cell, accounts for 20 percent of lung cancer patients. Small-cell carcinoma is the most lethal kind of lung cancer, because it rarely responds to surgery, Straus said.

Straus, a Newton, Mass., resident, designed the drug protocol based on concepts of the interaction of two powerful anti-cancer drugs, cytoxan and methotrexate, and the growth behavior of cancer cells. Although these drugs are now commonly used in the treatment of cancer, Straus attributes the success of the regimen to the doses and timing of the injections. "Doses were timed to achieve maximum tumor-cell kill without increased toxicity," Straus said.

Marc J. Straus, M.D.

Can be used with other tumors. Once the first drug is given, the second drug is held in reserve until a time when the tumor cells' susceptibility to chemotherapy is increased. This approach is applicable to the treatment of other tumors, Straus said.

Before coming to University Hospital nearly three years ago, Straus was director of the cell kinetics, or cell growth, laboratory at the National Cancer Institute in Washington, D.C.
The lung cancer regimen, which Straus says is easier for patients to follow than usual chemotherapy, calls for one intravenous injection every three weeks. Often the patient does not have to come to the clinic more often than that, Straus said.

One aspect of chemotherapy is that while an anti-cancer drug kills tumor cells, it also depresses the body's natural defense mechanisms, thus making the patient more susceptible to infection. The art of chemotherapy lies in the physician's ability to administer as much of the drug as possible without putting the patient in unnecessary jeopardy. To achieve this, Straus closely monitors the patient's bone-marrow production to ensure that sufficient white blood cells are being made to ward off infection.

There has not been an incidence of bleeding or serious infection as a result of bone-marrow depression in lung cancer patients treated at University Hospital, although these risks exist, Straus said.

Patients understand and participate. "Our patients understand a lot about their disease and treatment," Straus said. "They become very sophisticated about the drugs and can signal problems to us very early. When patients participate in their management, then problems associated with chemotherapy, such as hair loss or nausea, become lesser issues."

The three other types of lung cancer — large cell, adenocarcinoma and epidermoid — are less responsive to therapy; however, 60 percent of patients treated at University Hospital for large-cell and adenocarcinoma responded to treatment, which is better than has been noted in previous reports.

Overall, an 85 percent remission rate was achieved in patients with lung cancer who were fully ambulatory when treatment began. As with other diseases, the "healthier" the patient is when treatment begins, the higher is the likelihood of remission.

Quality of life a key point. "Cancer, and especially the use of chemotherapy, has a stigma," Straus said. "However, most patients who go into a good remission can maintain normal lives. And, whatever the increase in survival, whether it is three months or three years, if there is an increase in the quality of the patient's life, then I think we have achieved something worthwhile."

Until recently, most forms of lung cancer were considered untreatable, Straus said. However, major advances are taking place today in the understanding of the biology and treatment of the disease that Straus thinks will someday lead to a cure.

Straus, an associate professor of medicine at the School of Medicine, describes these developments in his textbook, Lung Cancer: Clinical Diagnosis and Treatment, to be published in March by Grune and Stratton, New York.

Medical oncologists at UH are exploring three procedures to strengthen the method of treating lung cancer. Using the present regimen as a base, the different procedures try to lengthen the survival period with the addition of immunotherapy or radio-therapy, or by using a bacteria-free environment to protect the patient while he is given considerably larger doses of anti-cancer drugs.

The Section of Medical Oncology has received more than $1 million in grants from the National Cancer Institute and the American Cancer Society to study the growth rates of human solid tumors, particularly lung cancer and breast cancer, to determine the effects of selected anticancer drugs on modifying tumor growth. These studies are expected to yield data that will allow cancer specialists to design more effective treatment methods.

Straus believes that the success of this treatment program signals that a cure for small-cell cancer may not be far away. He compares the success of this regimen with the early advances in treating acute lymphocytic leukemia in children.

Leukemia steps cited. When a single drug was used in the treatment of acute lymphocytic leukemia 20 years ago, it increased the survival rate by three months, Straus said. When a combination of drugs was used a few years later, children suffering from the disease lived one and one-half years longer.

"From that point, the next steps resulted in a cure. For a rapidly proliferating tumor to maintain a complete remission for a year and one-half, it implies that there could not have been many remaining tumor cells after treatment," Straus said.

Although the public has some control over the incidence of lung cancer, the incidence of the disease has increased, especially among women, Straus said. He explains, "Lung cancer is almost always caused by smoking, so there is an epidemiological factor that the public can modify. All the things that we may do for lung cancer could be better done by not smoking."

University Hospital is a major referral center in the diagnosis and treatment of cancer. In addition, the Cancer Research Center of Boston University and University Hospital, a federally designated multidisciplinary center, is active in basic and applied cancer research and clinical training.
The impact of the Framingham Study on medical practice

Thomas R. Dawber, M.D., M.P.H., professor of medicine at BUSM, was one of six scientists honored recently in Toronto for outstanding contributions to medical science. Dawber, whose retirement was announced in the Summer, 1976, issue of Centerscope, shared the Gairdner Foundation Award with William B. Kannel, M.D., of the U.S. Public Health Service. The award honored Dawber's and Kannel's work in the Boston University Framingham Heart Study, the longest running epidemiological study in the world. Dawber, who spent 27 years with the Framingham Study, 18 of those years as the program's chief administrator, delivered the following address on the effects of the Framingham Study on medical practice at the Gairdner Foundation Awards Dinner in Toronto:

by Thomas R. Dawber, M.D.

Concern has been expressed about what appears to be a long delay between the development of new medical knowledge and its application in medical practice. This concern has been voiced particularly by those responsible for making decisions regarding public appropriations for medical research. Whether the alleged delay is real—and, if so, harmful—is not always easy to determine, since time has frequently brought about a somewhat different assessment of the value of many medical therapies and surgical procedures. Reasonable delay may be definitely beneficial to the public health—e.g., the thalidomide problem.

What is perhaps most difficult to change is attitude; yet attitudinal change on the part of the physician may be that which is most important. Medical education and training are basically responsible for the attitudes of physicians towards their role in the health industry. This role has been largely that of care of those who have already developed disease. In spite of many claims by our medical leaders, those of us who are based in medical teaching institutions observe that the present generation of young physicians and medical trainees still sees its primary role as involving the care of those who have already developed disease. Some still see this as the only role, but an increasing number also recognize that prevention of disease is not merely a function of a public health department but requires action by the physician with the individual patient.

Although my observations are not based on a scientifically conducted survey, but on discussions with practicing physicians, medical residents, students and patients, I believe that we can conclude that the findings from epidemiologic studies, particularly those in cardiovascular diseases, have had a considerable impact on medical practice. The present discussion will consider some aspects of this impact, largely pertaining to the concept of "diseased" as opposed to "normal" persons.

Pinning down the disease. In the past (and, to a great extent, even now) the efforts of medical education and training were directed toward enabling the physician to determine which of the patients coming to see him had a definable "disease" for which the physician hopefully had some form of treatment. Physicians went to great lengths, for example, to determine whether a myocardial infarction, no matter how small the lesion, had actually occurred. (Even today, elaborate techniques are being devised to determine with more exactitude the size of the infarct.)

If a patient presents with symptoms consistent with coronary insufficiency, does the care of the patient depend to a significant degree on whether some cells have or have not been destroyed? The underlying problem is the same, i.e., advanced coronary-artery disease. The physician feels more sure of his ground if he can mentally picture organic pathology, a "disease," as opposed to a functional disorder that he can not visualize.

Great interest and concern was shown in "patients" with "disease." However, if the subject turned out to be "normal," i.e., not having a diagnosable disease, he was promptly dismissed, to return only if and when he became ill. "Normal," in medical language, has been used to designate those who do not have a demonstrable "disease." A wide range of physiologic and biochemical variables in the absence of such disease was considered "normal." Thus the "normal" range of blood pressure or blood uric-acid level, for example, has been determined by measuring these characteristics on apparently healthy people, i.e., people without overt "disease." This has given rise to the concept that there is "benign" hypertension, benign hyperuricemia, lipidemia, etc., since a certain percentage of the "normal" population has high values but no overt evidence of disease (e.g., stroke, clinical gout or xanthomatosis).

Better knowledge of the natural history of the atherosclerotic process has led to a different concept of "normality"—that the "normal" person is not only one who does
not already have a disease but is also very unlikely to develop it. At the extreme of normality is the “ideal” individual who not only does not have the disease but will never develop it.

The importance of changes in the concepts of normality can be illustrated in certain important aspects of medical diagnosis and treatment.

**Hypertension**

The association of elevated blood pressure with certain cardiovascular diseases has been recognized for many years. Congestive heart failure, aneurysms, cerebral hemorrhage and renal failure were long noted to be more frequent in people with markedly high blood pressure. In his monograph on coronary heart disease, as long ago as 1928, the late Dr. Samuel Levine noted an association between hypertension and coronary heart disease.

The concept of hypertension which he had and which most physicians have had, however, was that of a “disease” associated with very high blood pressure. The most serious manifestation was that of “malignant” hypertension in which the blood pressure rapidly increased to extreme heights associated with severe end-organ damage, often multiple.

Hypertension associated with severe renal disease, endocrine abnormalities and congenital defects was carefully investigated in the belief that such study would be most rewarding in providing clues regarding blood-pressure control.

**Watching 'benign' hypertension.** To be distinguished was a more “benign” hypertension that was considered to be relatively harmless unless it began to rise rapidly. Thus, watchful waiting was considered appropriate. The level of blood pressure at which the physician should become concerned was not well defined. Diastolic pressure was considered the more important measurement, if not the only important level to cause concern.

If we look at the distribution of blood-pressure levels of persons developing myocardial infarction and stroke over a period of 22 years in the Framingham Study, we can see that there is a wide range in both those subjects developing disease and those not developing disease. Presumably some of those without disease will develop it, but we can predict that very little of this disease will come from those subjects considered “normotensive.” In fact, if we were to select subjects with blood-pressure levels consistently below, say, 100/60, we might anticipate no disease development. Thus, the blood-pressure level we should be striving to maintain in our populations is obviously much lower than has been customarily accepted as “normal.” The concept of the “normal” range of blood pressure held in the past is clearly not the ideal.

**Measurement of Blood Pressure**

One of the concepts of hypertension physicians have long held is that the blood pressure that best characterizes an individual is the lowest that can be obtained even under unusual and seldom-attainable circumstances, e.g., heavy sedation. This “basal blood pressure” has been touted by many students of hypertension. To be sure, this measurement has had some value. For example, in the early surgical attempts to lower blood pressure, Dr. Reginald Smithwick, Boston University School of Medicine and University Hospital, felt reasonably certain that sympathectomy would be effective if low values could be obtained under sedation. Certainly it was a measure of lability in the right direction.

Along with the expressed importance of basal-pressure determination was a belief in the inaccuracy and therefore unimportance of casual blood-pressure determinations as carried out in the usual examinations in the physician’s office.

One of the important observations in Framingham is that, in fact, the casual blood-pressure measurement is an important predictor of future disease development and that the similarity of this measurement on repeated examinations of the same subject is quite remarkable. Our conclusion was that a single blood-pressure determination taken by a physician very accurately classified the individual compared to others of the same age and sex.

**Importance of casual pressure.** What is apparently the important blood-pressure measurement is that which best represents what is happening most of the time. The casual pressure may well represent that pressure.

Physicians therefore no longer dismiss an elevated blood-pressure finding as merely due to emotional upset or other psychic factors. At the very least, such observations call for repeated measurement, which in most instances, will confirm similar elevation of pressure or at least a high degree of lability with lengthy periods of time during which the subject is exposed to an elevated pressure.

**Evidence of end-organ damage**

In the past it was frequently found that the first diagnosis of hypertension was made when the patient presented with congestive heart failure. The recognition that change in the size and shape of the heart on chest X-ray and certain telltale ECG evidence of left-ventricular hypertrophy always preceded heart failure has prompted M.D.s to make these studies in all hypertensive patients. Blood-pressure lowering may reverse some of the changes. In any case, the physician is alerted to the early possibility of heart failure and can institute corrective measures prior to any clinical manifestations, i.e., blood-pressure lowering, weight loss, decrease in sodium intake.

The findings of a relationship of elevated blood pressure to

The effect of lowering blood pressure from 200/120 to 180/105 may be beneficial, but will still leave the subject in a very high risk category for cardiovascular disease and stroke.
both stroke and coronary heart disease prompted certain clinical trials of the efficacy of blood-pressure-lowering drugs. In general, it is fair to state that such trials have established the benefit of antihypertensive medication. The benefit has been particularly observed in stroke.

What has not been stressed is that the benefits of lowering blood pressure relatively late in life and to the limited degrees achievable by currently available medication are modest and should prompt efforts to treat even moderate increases of blood pressure as early in life as feasible.

All the epidemiologic studies of hypertension suggest a need for better and more effective methods of blood-pressure control that can be applied early in life with the objective of preventing any rise in blood pressure.

Certainly the medical profession is now well aware that there is no such thing as benign hypertension, and that the lower the blood pressure without actual symptoms of hypotension the better off the individual will be.

### Blood Lipids

During the first half of this century interest in blood lipids was largely confined to the investigation of persons with some obvious defect, e.g., xanthomatosis or with a known familial "disease," e.g., familial hypercholesterolemia. It was recognized that these people who had very high levels of blood cholesterol were highly subject to atherosclerosis and to the complications of atherosclerotic disease. The distribution of blood-cholesterol levels of such diseased persons were markedly to the right of the normal distribution. Persons not known to have a lipid disease but whose cholesterol levels were high were considered "within normal limits."

Data from Framingham and similar epidemiologic studies have demonstrated clearly that such elevated levels of blood cholesterol are not "normal" in that they do lead to a much higher rate of coronary heart disease.

International studies have well demonstrated that in countries in which the range of cholesterol level is considerably lower than that observed in the western countries there is a much lower incidence of coronary heart disease. The Framingham Study and similar epidemiologic studies have shown that within the population, the risk of CHD is also related to the individual's cholesterol level compared to that of other persons in the same population.

What has not been clearly established are the reasons for differences in cholesterol levels within a given population. However, since these levels can be lowered by dietary means, the importance of knowing the value of blood cholesterol is now recognized. Only a few years ago measurement of serum cholesterol level was relatively rare, but it has now become a standard blood determination in a routine physical examination.

Although the teaching of nutrition in medical schools and in internships and residency programs is woefully inadequate, most M.D.s are reasonably well aware of dietary changes that must be made to lower blood cholesterol.

Although many attempts have been made to indicate the importance of other blood-lipid measurements there is little evidence to suggest that elaborate lipid studies are of much help to the practicing M.D.; the simple blood-cholesterol determination is sufficient to indicate the high-risk individual who would most profit from dietary change.

Too often it has been the onset of clinical CHD that has brought the patient to his doctor and instituted the change in nutritional intake. Hopefully, the next move will be to bring the patient under medical control long before any overt disease has appeared, and at a time when the benefit of lipid-lowering nutrition would be most beneficial.

One development that should have taken place—but, I fear, has not—is the inclusion of dieticians in the medical care of almost all patients. Their activity in treating obesity and diabetes needs to be expanded to include a host of persons at high risk of CHD.

Physicians, more than any other group, are aware of the difficulties of bringing about behavioral change. Some are understandably pessimistic about efforts to do so. The most desirable diet from an antiatherogenic point could be provided to the public without the need for elaborate food selection. If present studies of the efficacy of cholesterol-lowering diets prove effective, changes in food preparation on a national scale would be the only practicable means of accomplishing the desired nutritional changes.

This day may still be a long way off. Meanwhile, the current practice of large segments of the medical profession in seeking out high-risk persons and attempting through dietary means to lower serum-cholesterol levels is a noteworthy advance in preventive medicine.

### Cigarette Smoking

Prior to the Surgeon General's report, knowledge of the relationship of cigarette smoking to lung cancer was already beginning to cause many male cigarette smokers to question the wisdom of continuing this habit. When the additional knowledge of the harmful effects of cigarette smoking on CHD was announced, the effect on cigarette-smoking habits of some of our population was quite dramatic. A drop of about one-third of the smokers has been observed in the middle-aged male population. Physicians, of course, have almost entirely given up cigarette smoking and they strongly advocate that anyone with other evidence of increased risk factors also do so. The behavioral change in the cigarette-smoking habit of physicians is a truly remarkable accomplishment. We wish that their example had had a greater impact on the general population.

Data from various studies suggest that the harmful ingredients in cigarette smoke are carbon monoxide and nicotine. Although both of these are present in both cigar and pipe smoke, the fact that these forms of tobacco are not inhaled has rendered their use essentially innocuous.

We can wish that methods to completely discourage cigarette smoking were more effective. The example set by the medical profession is in itself one of the most potent tools. Methodology to bring about behavior modification has still to
be developed (in spite of the claims of our behavioral scientist friends). In spite of their lack of special "training" in this field, physicians, we suspect, are the individuals most effective in obtaining changes in smoking habits in their patients.

The modern physician no longer holds the laissez-faire attitude of his predecessors toward cigarette smoking. The physician, confronted with a relatively young male patient with other characteristics suggesting increased risks of coronary heart disease, is shirking his duty if he does not do his utmost to discourage the man's smoking habit.

**Physical Activity**

The late Dr. Samuel Levine was of the opinion that, because of the blood-pressure-raising effect of vigorous exercise and hard physical work, such activities might lead to an increase in cardiovascular disease. Evidence from epidemiologic studies have not supported Dr. Levine's views but, on the contrary, have provided evidence of benefit of increased energy output from physical activity. This benefit may partly be related to assisting in weight loss but is more likely due to improvement in myocardial efficiency resulting in lowered pulse rate and less increase in blood pressure when demands on the heart are made. Survival from myocardial infarction is therefore much improved.

The reaction of physicians to these findings have been similar to the findings on cigarette smoking. Many doctors participate in regular exercise and try to make such activities a part of the daily routine of their patients. A specific change in attitude toward the recovered victim of myocardial infarction has been the early ambulation of such patients and specific encouragement for them to undertake controlled physical activity as early as possible.

**Obesity**

A century ago the risk of death from infectious disease and other severely debilitating disorders was sufficiently high that a moderate degree of excess weight was considered medically desirable. Nutritionists advocated high intakes of high-calorie food in the young. The effect of this apparently "good" nutrition was to create a population in the western countries which was overnourished and better able to resist the ravages of tuberculosis, emphysema, osteomyelitis, etc.—the killers of that time.

The fact that overnutrition was a good thing at that time has not been easy to overcome, even though by far the major risks of death are now those of atherosclerosis and cancer, not infections. Certainly the development and progression of atherosclerotic disease is aided and abetted by the same diet that was so helpful in combating the disease hazards of 100 years ago.

Life-insurance data had suggested that excess weight was a hazard to life expectancy. Epidemiologic studies have shown that overnutrition (especially those at 30 percent or more overweight) is a definite risk factor for certain manifestations of CHD.

Today's physician constantly cautions against weight gain and endeavors to keep his patient's weight well below the supposedly "ideal" weight of a generation or more ago.

**Diabetes mellitus**

In spite of the claims of some diabetologists that the careful control of carbohydrate metabolism in diabetes will prevent the atherosclerotic complications of this disease, epidemiologic studies have shown a continued high rate of atherosclerotic complications.

The use of insulin and oral agents to lower blood sugar and decrease glycosuria do not appear in themselves to be the answer.

Today it appears more likely that dietary control is highly desirable not only for the carbohydrate factor but also to control the quantity and quality of the fat intake. Paying attention to this constituent of the diet may make it possible to lessen the major complication of diabetes. Since the diabetic subject is a high-risk candidate for CHD, special attention to high blood pressure, weight, physical activity, and smoking habits is essential.

In summary, we can be quite certain that, largely as a result of epidemiologic studies in cardiovascular disease, the attitudes of the medical profession have changed. The pessimistic view that atherosclerotic disease is an inevitable result of the aging process has been replaced by a far more optimistic concept that atherosclerosis can be prevented or its onset significantly delayed.

This improved outcome can be achieved only by attention to a number of attributes, both inherent and environmentally related, of apparently well people long before any overt disease becomes apparent.

Thomas R. Dawber, M.D.
Matters of Record

School of Graduate Dentistry Appointments
(Effective Sept. 1, 1976, unless otherwise noted)
Kenneth J. Backman: Clinical Instructor in Periodontology.
John R. Bednar: Instructor in Orthodontics.
Michael A. Blau: Instructor in Orthodontics.
Kenneth City: Clinical Instructor in Prosthetic Dentistry.
Roy A. Colella: Assistant Clinical Professor of Operative Dentistry, effective August 1, 1976.
Donald Feldman: Special Clinical Instructor of Orthodontics in Periodontology.
Robert C. Javer: Clinical Instructor in Periodontology.
David M. Keller: Clinical Instructor in Periodontology.
Robert V. Marklin: Clinical Instructor in Pedodontics.
Steven P. Perelman: Clinical Instructor in Pedodontics.
Arthur I. Schwartz: Clinical Instructor in Periodontology.
Paul F. Sicola: Clinical Instructor in Pedodontics.
Ralph Struzziero: Clinical Professor of Operative Dentistry, effective August 1, 1976.
Oreste Zanni: Clinical Instructor in Periodontology.

School of Medicine Appointments
(Effective on dated noted, 1976)
Judith M. Abplanalp: Assistant Professor of Psychiatry; June 1.
Bruce M. Abramowitz: Research Associate in Medicine; July 1.
Richard J. Agrin: Research Associate in Medicine; July 1.
L. Patricia Barrett: Instructor in Radiology; July 1.
Rogello D. Bayog: Clinical Instructor in Psychiatry; June 1.

John P. Barkoben: Research Associate in Medicine; July 1.
Robert L. Biblo: Adjunct Associate Professor of Socio-Medical Sciences and Community Medicine (Health Services Administration); July 1.
Jerry R. Biddle: Clinical Instructor in Psychiatry (Psychology); June 1.
William E. Boden: Research Associate in Medicine; July 1.
Arthur E. Brawer: Research Associate in Medicine; June 1.
William G. Chapman: Research Associate in Medicine; June 1.
Hee Man Chie: Assistant Professor of Obstetrics and Gynecology; June 1.
Saul Cohen: Research Associate in Medicine; July 1.
Robert L. Collins: Clinical Associate in Medicine; July 1.
Catherine E. Conley: Research Associate in Medicine; July 1.
Melvin C. Cornwall: Assistant Professor of Physiology; June 1.
Frank Corona: Research Associate in Medicine, June 1.
Douglas K. Decker: Assistant Professor of Socio-Medical Sciences and Community Medicine (Public Health); June 1.
Irl J. Don: Clinical Associate in Medicine; July 1.
Gerald Dorros: Research Associate in Medicine; June 1.
Francis X. Drew: Research Associate in Medicine; July 1.
Joseph E. Egharevba: Assistant Professor of Obstetrics and Gynecology; June 1.
Gary R. Epler: Research Associate in Medicine; July 1.
Steven Fass: Research Associate in Medicine; June 1.
Anthony J. Fedullo: Clinical Associate in Medicine; July 1.
Basil C. Fine: Clinical Associate in Medicine; July 1.
David L. Freeman: Instructor in Medicine, June 1.
Joseph P. Gentile: Research Associate in Microbiology; July 1.
Robert A. Gleser: Research Associate in Medicine; July 1.
Ronald W. Golden, Jr.: Clinical Instructor in Psychiatry (Social Work); June 1.
Jonathan E. Goldstein: Research Associate in Medicine; July 1.
David S. Green: Clinical Associate in Medicine; July 1.
Gerald M. Green: Clinical Associate in Medicine; July 1.
Steven A. Gross: Research Associate in Medicine; July 1.
John D. Hamilton: Clinical Associate in Psychiatry; July 1.
Christian C. Haudenschild: Assistant Professor of Pathology; July 1.
Lenworth M. Jacobs: Assistant Professor of Surgery; July 1.

Mark G. Janis: Clinical Associate in Medicine; July 1.
Jerry Lyons: Research Associate in Medicine; June 1.
Laurel D. Lyons: Research Associate in Medicine; June 1.
Barry Make: Research Associate in Medicine; June 1.
Bernard J. Mansheim: Research Associate in Medicine, June 1.
Daryl B. Matthews: Assistant Professor of Socio-Medical Sciences and Community Medicine, and Psychiatry; June 1.
Anthony L. McCauley: Clinical Associate in Medicine; July 1.
Michael Meguid: Assistant Professor of Surgery; July 1.
James O. Menzian: Assistant Professor of Surgery; July 1.
Grier H. Merwin: Clinical Instructor in Pediatrics; July 1.
J. James O'Brien: Clinical Associate in Surgery (Plastic); July 1.
James Oliver: Research Associate in Medicine; June 1.
Aubrey Palesnent: Instructor in Radiology; July 1.
R. Lalanea Perker: Research Associate in Medicine; June 1.
Robert S. Pasten: Clinical Associate in Medicine; July 1.
L. Scott Permesly: Clinical Instructor in Psychiatry; July 1.
Robert J. Polackwich: Clinical Associate in Medicine; July 1.
Paul W. Power: Assistant Research Professor of Neurology; July 1.
Gabor I. Puszfaszeri: Research Associate in Medicine; June 1.
Matathi Rao: Assistant Clinical Professor of Obstetrics and Gynecology; July 1.
Peter A. Rice: Research Associate in Medicine; June 1.
Robin A. Rittgers: Research Associate in Medicine; June 1.
Jonathan H. Robbins: Research Associate in Medicine; July 1.
Norman R. Romancoff: Research Associate in Medicine; June 1.
Robert A. Rufo: Clinical Associate in Medicine; July 1.
Robert D. Sall: Clinical Instructor in Psychiatry; June 1.
Steve Salomon: Research Associate in Medicine; June 1.
Peter R. Scheckman: Clinical Associate in Medicine; July 1.
Edward C. Schick, Jr.: Research Associate in Medicine; July 1.
Marc J. Schweiger: Research Associate in Medicine; July 1.
Gary S. Sethnik: Clinical Associate in Medicine; July 1.
David B. Shumway: Clinical Instructor in Psychiatry; June 1.
Lewis J. Smith: Clinical Associate in Medicine; July 1.
University Hospital

Antilipemic regimes in peripheral arteriosclerosis. J. Coffman. NIH. $31,251. 9/1/76-8/31/77.

Biology and Immunology of gram-negative bacilli. W. McCabe. NIH. $67,590. 9/1/76-8/31/77.

School of Medicine

Maintenance and service for naval blood research laboratory. R. Jordan. Department of the Navy. $42,063. 2/12/76-9/30/76.

Intravenous cholangiography in bile duct obstruction. S. Teplick. NIH. $22,100. 6/15/76-6/30/77.


Biological and physical properties of friend virus. R. Eckner. NIH. $42,755. 6/30/76-6/29/77.

Aging in connective tissue, brain and auditory system. M. Sinex. NIH. $150,173. 6/1/76-5/31/77.


Developmental deficits in information processing. L. Cermak. NIH. $24,420. 6/15/76-5/31/77.

Chemical detection of neisseria gonorrhoeae. D. Felginoth. NIH. $33,030. 6/30/76-6/29/77.

Biochemical factors involved in tumor cell metastasis. R. Niles. NIH. $33,524. 6/30/76-6/29/77.


Patterns of alcohol use during pregnancy. H. Rosett. U. S. Brewers Association. $15,000. 7/1/76-6/30/77.


Psychoendocrinology of the menstrual cycle. R. Rose. NIH. $301,300. 6/30/76-6/29/77.

Effects of intergenerational malnutrition on behavior. J. Galier. NSF. $63,300. 6/1/76-5/31/77.

Medical discipline and procedural due attention. C. Kornetsky. NIMH. $31,660. 7/1/76-6/30/77.

Ruthenium ammine compounds as anticancer drugs. A. Kelman. American Cancer Society. $44,013. 7/1/76-6/30/77.


Angiotensin action on target tissues. P. Brecher. NIH. $25,000. 7/1/76-6/30/77.

Lipid biophysics of normal and pathological membranes. D. Small. NIH. $33,588. 7/1/76-6/30/77.

Effects of morphine on cyclic AMP on the brain. L. Vollner. NIH. $46,139. 6/1/76-5/31/77.

Medical discipline and procedural due attention. J. Blum. DHEW. $13,033. 6/30/76-6/29/77.

Institutional research grant/cancer research center. S. Cooperband. American Cancer Society. $20,000. 7/1/76-6/30/77.

Psychiatry—special areas. S. Fisher. NIH. $171,150. 7/1/76-6/30/77.

Basic science cardiovascular training program. W. Hood. NIH. $117,732. 7/1/76-6/30/77.

G. P. special—consultation liaison and primary care. P. Knapp. NIH. $82,080. 7/1/76-6/30/77.

Clinical cancer education program. P. Mozdzen. NIH. $165,670. 7/1/76-6/30/77.

Health professions capitation grant. J. Sandson. HEW/HRA. $603,247. 7/1/76-6/30/77.

A multiple case control study of the long-term effects of drugs used in chronic disease (C). D. Sline. FDA. $349,790. 6/30/76-6/29/77.

Study of myocardial infarction and the role of oral contraceptives. D. Sline. NIH. $301,300. 6/30/76-6/29/77.


The role of cyclic nucleotides in cancer. A. Rutenburg. American Cancer Society. $37,500. 7/1/76-6/30/77.

An analysis of animal and human solid tumor cell cycle parameters. M. Strauss. American Cancer Society. $95,806. 7/1/76-6/30/77.

Indirect cost award. NIH. $223,426. Grant for preceptorship training. S. Hoffman. PHS. $84,764. 7/1/76-6/30/77.

Alcoholism training for paraprofessionals. C. Rosenbarg. NIH. $51,218. 7/1/76-6/30/77.

Adaptive process in infant environment interaction. L. Sander. NIH. $31,860. 7/1/76-6/30/77.

Training for minority group psychology students. G. Seymour. NIH. $95,950. 7/1/76-6/30/77.

Effects of aldosterone on active sodium transport. A. Essig. American Heart Association. $15,000. 7/1/76-6/30/77.

Arterial metabolism, diabetes and atherosclerosis. A. Chobanian. NIH. $11,537. 10/1/75-11/30/76.

An evaluation of the safety and efficacy of psychosurgery (C). A. Mirsky. NIH. $29,765. 6/30/76-7/17/76.

The role of cyclic nucleotides in cancer. R. Niles. National Cancer Society. $37,500. 7/1/76-6/30/77.

Molloty proteins in non-muscle cells and...
vertebrate smooth muscle. B. Kaminer, National Science Foundation. $50,000. 6/1/76-5/31/78.

Optical study of membrane permeability and energetics. A. Essig. NIH. $23,880. 9/1/76-8/31/77.

Program in rheumatology. A. Cohen. NIH. $19,529. 7/1/76-12/31/76.

Aphasia Research Center. H. Goodglass. NIH. $23,160. 9/1/76-11/30/76.

Communication in aphasia: mechanisms and rehabilitation. E. Zurif. NIH. $54,881.9/1/76-8/31/77.

Financial awards to BUSM, BUSGD rise over '75 figures

Financial awards to the School of Medicine and the School of Graduate Dentistry increased by more than $1.6 million during fiscal 1976, totaling $18,780,778, according to Joan G. Kirkendall, director of the University Office of Grant and Contract Administration.

Awards for fiscal 1975 totaled $17,177,141. The number of awards to the School of Medicine and the School of Graduate Dentistry increased by six. Applications for awards from the two schools rose by 22, but the amount of funds requested dropped by nearly $1.7 million.

Boston University awards rose by more than $3.5 million over fiscal 1975, numbering 467, and amounting to more than $53,120,000.


"Because of that change," Kirkendall explained, "several awards that we normally receive in June will not be received until late summer or early fall." The director added that Charles River Campus award applications decreased by 96 and by $4.3 million in requested funds.

Kirkendall wrote to the University's deans and vice presidents in September, urging them to begin immediately working on applications for the 1977-78 fiscal year. "The effort we expend now will determine our grant and contract activity for 1977-78," the letter said.

George E. Gifford, Jr., M.D., associate professor of socio-medical sciences and head of the section on the history of medicine, editor, Physician Signers of the Declaration of Independence. Science History Publications, 1976. 163 pp. $10. One chapter each is devoted to the lives and careers of the five signers of the Declaration of Independence who were physicians. The chapter on Matthew Thornton of New Hampshire is written by J. Worth Estes, M.D., BUSM '60, an associate professor of pharmacology and an associate professor of socio-medical sciences (medical history). Illustrated with portrait reproductions, old drawings and maps, and photographs of medical artifacts of the period.

Conan Kornetsky, Ph.D., a professor of psychiatry (psychology) and pharmacology, Pharmacology: Drugs Affecting Behavior. John Wiley & Sons, 1976. 275 pp. $18.95. A text for the clinical psychologist and other mental-health professionals on the physiological and psychological effects of drugs used in the treatment of the mentally ill, the epileptic, the hyper-kinetic child, and the illicit drug user.


Three papers in a planned series of four on BU's Six-Year Program have been published in the past year. They are:

Ernest H. Blaustein, Ph. D., associate dean and coordinator, Six-Year Medical Education Program, BU College of Liberal Arts, and Herbert L. Kayne, Ph.D., an associate professor of physiology and biometrics (BUSM), "The Accelerated Medical Program and the Liberal Arts at Boston University," JAMA, June 14, 1976. A summary of descriptive and academic data on the 15 entering classes since 1961, emphasizing the liberal arts component of the curriculum.


The fourth report, still in the process of preparation by the Department of Socio-Medical Sciences and Community Medicine, will deal with attitudinal and behavioral characteristics of BU's six-year students as assessed by questionnaire and interview.

David Vissott, M.D., instructor in psychiatry, The Language of Feelings. Arbor House, 1976. 151 pp. $6.95. "Practical advice on how to understand and manage such potentially damaging emotions as hurt, anxiety, anger, guilt and depression." By the author of How to Live with Another Person and The Making of a Psychiatrist.


Centerscope would like to know about all recently published or soon-to-be-published books and monographs (and articles of unusual interest) by Medical Center staff, faculty or alumni. Please call Lorraine Loviglio at the Office of Informational Services, (617) 247-5606.
Alumni News

'49 BUSM graduate June Christmas has key transition role

WASHINGTON, D. C. — Big government doesn't frighten June Jackson Christmas, M.D., BUSM '49.

True, big government, Department of Health, Education, and Welfare-style, may not be quite the same as big government, New York City-style, in which she ran what her resume refers to as "the largest locally administered municipal mental-hygiene service system in the world."

After all, what is a $200 million-a-year budget to the behemoth $140 billion annual budget for DHEW, a budget not only the largest in this federal government but one that "dwarfs the treasuries of most of the nations of the world," in the words of DHEW Secretary David Mathews? DHEW is so big that nobody can say exactly how many programs it runs, although the best guess is around 350. However many programs DHEW has, there are 145,000 bureaucrats around the country in charge of them, including 35,000 in the capital.

On leave as 'cluster leader' That's the bureaucracy June Christmas inherited as DHEW "cluster leader" of President-elect Jimmy Carter's transition. On leave for two months from her job as Commissioner of Mental Health and Mental Retardation Services for New York City, Christmas took a tea break recently during one of her 12 hour-plus days at DHEW headquarters to explain just what her part of the transition is about.

An unpaid office secretary assigned to Christmas said the bubbling chaos of transition has people regularly coming into the office bright and early, and leaving the next morning at 1 or 2 a.m. for their downtown hotels or the homes of friends where they are staying.

To an interviewer who boldly asked, "What's a woman like you doing in a place like this?" Christmas promptly replied, "Well, I'm not exactly a stranger to big government." Indeed, this Boston native who was credited with founding the Harlem Rehabilitation

June Jackson Christmas, M.D.

...tion Center in New York's Harlem Hospital and climbing quickly up the mental-health-care ladder in that city, this winner of an outstanding graduate award from BUSM for her community service and significant contributions to medicine and research, is no stranger to DHEW. She has served on DHEW advisory panels, has completed studies for the department and has testified at congressional hearings on mental-health care of minorities, national health insurance and other social issues.

Transfer of power her job. Christmas, an energetic black psychiatrist, is in charge of transferring control of the sprawling DHEW from Republicans to Democrats. She described her role in transition as one primarily of providing advice on policy, rather than personnel selection. "We are attempting to get the information base that will allow us to spell out options on the issues like national health insurance and welfare reform," she said. "There are other issues less visible to the average person, and we are going to be examining those, too, to help the [DHEW] secretary-designate to be well informed." Or, as another transition official put it, the team is about the business of preparing "black books" of choices on policy for each executive department and agency. Christmas declined to be specific about any of the issues or options — even the less visible ones — that have been identified by the dozen or so transition staffers under her direction on grounds that public mention of any issues would unfairly imply a preoccupation by the transition office.

Charges in the public press that the Carter transition is little more than "needless busy work" and paper shuffling don't seem to bother Christmas, though she doesn't agree with them. A more serious difficulty for the transition staff was the rift between two of Carter's lieutenants, which left the mechanics of transition, i.e., the preparation of briefing books, to the 250-member staff, but gave them little influence in determining who would get the big jobs and ultimately wield power in the Carter administration. Christmas ranked the critiquing of job resumes as one of her lesser transition tasks, behind policy briefing and making recommendations for possible legislative action.

The transition staff would be remiss, she said, if it didn't present the new managers of the $140-billion DHEW budget with some idea of the issues confronting them. "We might rank options (on various issues), but (the job is) more the spelling out of options available, with background on the issues, themes that run throughout the department, the questions of how you organize a bureaucratic structure." That, of course, includes policy questions like the creation of separate departments of health or education, she agreed. But it also covers statutes that expire, deadlines for regulations, and routine business that must be completed by Jan. 20, inauguration day.

New York Carter worker. Christmas worked in the Carter campaign as a health advisor and was chairman of a health committee of black citizens for Carter in New York. When she came to Washington on her temporary assignment, moving in with a friend in the city's fashionable Georgetown section, she left behind in New York her husband, Walter, a publicist, and a son.

Will the transition papers prepared under her direction echo President-elect Carter's campaign views? "I think we would be better advised to accept his views (in preparing the reports). We should certainly be attuned to what he..."
Keeping a low profile. It couldn't necessarily be described as an exciting transition, nor was it intended to be. Transition staffers were directed to keep a low profile. When enthusiastic volunteers and would-be advisers threatened to overwhelm the transition office with their services, director of transition operations Barbara Blum announced a freeze on paid and volunteer workers. "It became apparent to us that we could have an instant bureaucracy," said Blum, who befriended Carter when he was governor of Georgia. "That's everything Carter campaigned against."

June Christmas was keeping a low profile herself, coolly directing the change of power while keeping an eye peeled to her own future — a future that has to be even brighter now with the new public identification she has gained in government quarters. Craig Palmer

Faculty answers Alumni challenge: $60,000 to date

The BUSM Alumni Association challenged the School's faculty to raise $100,000 for the Student Revolving Loan Fund by Dec. 31, 1976, and pledged to match faculty contributions "dollar-for-dollar" up to that amount.

As Centerscope went to press in mid-December, more than $60,000 in faculty pledges had already been raised to meet the challenge, with the bulk of the mail responses still to come in.

The challenge was thrown out to the faculty and staff of the School in a letter from Alumni Association President Murray M. Freed, M. D., BUSM '52, to Dean John J. Sandson, M. D., in which Freed reported the Association had voted to match all contributions up to $100,000 made by the faculty, as of Dec. 31.

50 volunteers go to work. During the December campaign period, some 50 faculty and staff volunteers personally solicited the approximately 250 faculty members based physically at BUSM. At the same time, letters explaining the campaign's aims and including pledge cards were sent out to the approximately 650 faculty members based off campus.

A champagne reception was held Dec. 15 in the School of Medicine's Hebert Lounge for members of the BUSM Alumni Association Century Club, giving members of the Club an opportunity to meet with classmates of old, and discuss the School's present status and future plans. In upper photo, Mrs. Ossen and her husband, Paul I. Ossen, M.D., '43-B, residents of Quincy, Mass., chat with Bernard Tolnick, M.D., '43-A, chairman of the Annual Fund, and Nathan L. Fineberg, M.D., '30, a resident of Newton, Mass. (back to camera). In photo at right, Ralph O. Brown, M.D., of South Yarmouth, Mass., and Wesley G. Woll, M.D., of Hingham, Mass., both of the Class of '50, trade recollections and news of classmates. Tolnick and Dean John J. Sandson gave short talks midway through the reception.

Class Notes

Arthur E. Sullivan of Milton, Mass., has been elected president of the medical staff of Carney Hospital in Dorchester, Mass. A member of the Milton School Committee and the Milton Town Club, Sullivan is involved both in his town and the neighboring Dorchester community. His wife, Rosemary, is president of the Dorchester-Milton Physicians' Wives Association.

Sullivan has served on the hospital's credentials committee as chairperson. He chaired the library committee and the patient care committee; was chairperson of the program committee; and for five years chaired the pharmacy committee and served on the medical executive committee. He has also served as chairperson for the health-care needs subcommittee of the long-range planning committee since its inception, meeting monthly with community health-care people. He is a member of the American Society of Medical Internists, and has an office in East Milton.

Leonard J. Cibley provided one of six exhibits displayed last January at the Newton Free Library in Newton, Mass. He loaned his collection of minerals and gems, many of which he cut and polished himself and then combined with gold and silver.

Cibley, chief of obstetrics and gynecology at Waltham Hospital, Waltham, Mass., is on the faculty of BUSM, as well as Harvard Medical School. He is a member of the New England Sculptors' Association and the Massachusetts Physicians Art Society.

Armando Barreto of Santurce, Puerto Rico, visited Boston in early October. His stay included a tour of the School of
George D. Melskasian, consultant in obstetrics and medical gynecology at the Mayo Clinic in Rochester, Minn., has been promoted to professor of obstetrics and gynecology, Mayo Medical School.

Warren D. Smith is currently president of the medical staff at the Genesee Hospital in Rochester, N.Y. He also serves as clinical assistant professor of surgery at the University of Rochester School of Medicine and Dentistry.

Paul J. M. Healey has been appointed chief of surgery at Notre Dame Hospital in Central Falls, R.I. He has been a general and vascular surgeon since 1963 and a senior surgeon at Notre Dame since 1967. He is a director of peripheral vascular surgery at Pawtucket Memorial Hospital, Pawtucket, R.I. He is a clinical instructor in surgery at BUSM and a past president and secretary of the Pawtucket Medical Association. A member of the Rhode Island Medical Association of Delegates, he is a diplomate of the American Board of Surgery and a member of the National Board of Medical Examiners and the American College of Surgeons.

Richard Quintilla gave a presentation, "China Today," for the Hartford, Conn., Region YWCA Luncheon/Lecture Series last winter. He was in China in the spring of 1975 and visited Peking, Shanghai, Canton and many rural areas of the eastern coast of China. He illustrated his talk with slides taken on his trip. He is assistant professor of medicine at the University of Connecticut School of Medicine; chairman, infectious disease department, and chief, epidemiology section, Hartford Hospital; clinical associate professor of pharmacology, University of Connecticut; and assistant clinical professor of medicine, Yale School of Medicine.

David M. Van Nostrand writes from St. Cloud, Minn., that he has recently been appointed to the National YMCA Board of Directors.

E. Michael Van Buskirk, assistant professor of surgery in the division of ophthalmology at Pennsylvania State University College of Medicine at Milton S. Hershey Medical Center, Hershey, Pa., has been granted a career development award from the National Institutes of Health. The five-year award for basic research in glaucoma was presented by the National Eye Institute. Research career development awards are presented "to foster the development of scientists with outstanding research potential who require additional training and experience in productive scientific environments in preparation for careers of independent research in the sciences related to health."

Joyce R. Adamson was elected to the Stoneham, Mass., Board of Health in March, 1975, for a three-year term. She is working at four other part-time medical positions, including one in an urban neighborhood clinic and another at Tufts University Student Health Service, while raising twins, John and Peter, who were born on August 10, 1972. Geraldine G. Feldman has been certified by the American Board of Allergy and Immunology. Feldman, who also is certified by the American Board of Pediatrics, is on the staff of the Leominster Hospital, Leominster, Mass.

She served a pediatric internship and pediatric residency at Boston City Hospital, and pediatric fellowships in allergy and immunology at the University of Arkansas Medical Center in Little Rock and at Massachusetts General Hospital in Boston. She was an instructor in pediatrics at Harvard Medical School in 1973 and 1974 and is a clinical associate in pediatrics at Massachusetts General Hospital.

She is a member of the American Academy of Pediatrics, the Massachusetts Medical Society and the Worcester North Medical Society. She is married to Martin T. Feldman, M.D., BUSM '68, a pediatrician and the president of the Leominster Hospital Medical-Dental Staff.

William H. Lundy, of Cumberland, R.I., has been promoted to professor of medicine at the University of Connecticut School of Medicine. He is a director of peripheral vascular surgery at BUSM and a past president and secretary of the Pawtucket Medical Association. A member of the Rhode Island Medical Association of Delegates, he is a diplomate of the American Board of Surgery and a member of the National Board of Medical Examiners and the American College of Surgeons.

Joseph L. Lorizzo was married to Susan G. MacCloud on August 23, 1975, in Vermont and has completed his medical internship at North Carolina Memorial Hospital in Chapel Hill, N.C. He writes, "We will continue to live in Chapel Hill as my wife finishes schooling and I finish training."

Leonard J. Tyminski is beginning private practice in a United States Public Health Service rural health site in McCormick, S.C.

Kenneth Wulf has completed R-6 internship at Herrick Memorial Hospital in Berkeley, Calif. He is beginning a residency in psychiatry at Langley Porter Neuropsychiatric Institute, University of California at San Francisco Medical School.

NERIOLOGY
School of Medicine
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Bernard Diamant '82
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Department of Continuing Medical Education

Course Announcements for 1977

1 Review Course in Internal Medicine / Jan. 11-June 21, 1977 (Tuesdays, 7-9 p.m.) / Boston University School of Medicine / 46 hrs.


4 Sexually Acquired Diseases and Dysfunction: Diagnosis and Management / April 13, 1977 / Copley Plaza Hotel, Boston / 7 hrs.

5 Current Concepts and Management of Diseases of the Kidney / April 20, 1977 / Copley Plaza Hotel, Boston / 7 hrs.

6 Epilepsy Symposium / May 12-14, 1977 / Boston University Medical Center / 13 hrs.

7 Medicine for Dentists Series III / June 8, 1977 / Boston University Medical Center / .6 C.E.U. *


Other Programs Scheduled for Spring 1977

A Review course in Clinical Electroencephalography / 13 hrs.
B Advances in Clinical Neurology / 7 hrs.
C Clinical Ultrasound / 18 hrs.
D Basic Course in Colposcopy / 18 hrs.
E Advanced Course in Colposcopy, Cervical Neoplasia and Laser Beam Therapy / 18 hrs.

All courses are fully accredited by the American Medical Association for Category I credits toward the Physician's Recognition Award (hour-for-hour). AAFP accreditation granted where applicable.

* Academy of General Dentistry

For further information please contact: Donna Marcy, Department of Continuing Medical Education, Boston University School of Medicine, 80 E. Concord Street, Boston, MA 02118. Phone: (617) 247-1973 or 247-5602.

I am interested in Boston University School of Medicine Department of Continuing Medical Education programs (circle number or letter below):

1 2 3 4 5 6 7 8 9
A B C D E

Detach and mail to: Ms. Donna Marcy
Boston University School of Medicine
Department of Continuing Medical Education
80 E. Concord Street
Boston, MA 02118