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BOSTON UNIVERSITY SCHOOL OF MEDICINE

SPRING 1998

BOSTON

UNIVERSITY

MEDICINE

DEAN'S REPORT



A NEW ERA:

**Building on a
Distinguished
Legacy**

MESSAGE FROM THE DEAN

This *Dean's Report* marks the halfway point in our Sesquicentennial celebration. When we embarked on the Sesquicentennial, we looked back at 150 years of medical history — we marveled at the school's origins and our 25 years as the New England Female Medical College, debated the decision to abandon homeopathy after World War I, cheered as Deans Faulkner and Keefer assembled what was to become a great engine of biomedical research in the 1950s, and gloried in the emergence of the medical campus as a modern academic medical center.



This issue of the *Dean's Report* describes some of the current contributions and accomplishments of our faculty, alumni and students. In addition, to ensure that those who look back to the 1990s from some date in the future will have a sense of student life in the 1990s, we asked Katherine Leaning '99 and Almer Ray Love '99 to share "a day in the life" of a medical student.

The Sesquicentennial celebration will continue throughout the remainder of the year with numerous activities, including Commencement and Reunion Weekend, several scientific symposia, a special university convocation on September 18 and the Gala Ball on October 10. I hope you will participate in and enjoy these various events in this historic year.

Aram V. Chobanian

ARAM V. CHOBANIAN, MD

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BOSTON UNIVERSITY MEDICINE

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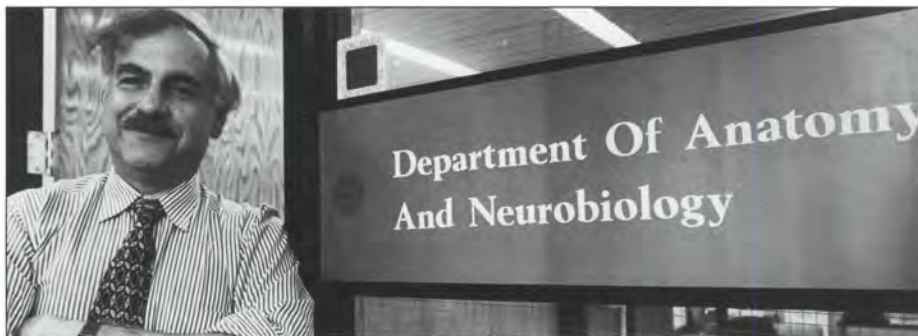
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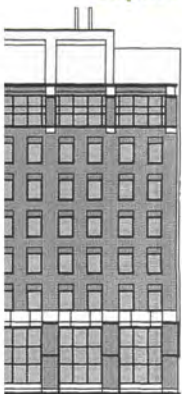
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Cover: As it has for the past 150 years, BUSM is dedicated to teaching and training the next generation of physicians and scientists — the generation that will lead medicine into the new era of the 21st century. Today's BUSM students, wearing identical white laboratory coats, are following in the footsteps of their illustrious predecessors, learning basic science and how to care compassionately and competently for patients. Third-year student Victoria Rossi checks newborn Nina Ciotola in the Newborn Nursery (left), while a floor above in the Infant/Toddlers Ward, third-year student Daniel Riskin (right) reads *Miracle Jones* a story. The 19th-century students in the background would approve.

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ROGER WILLIAMS MEDICAL CENTER becomes affiliate of BUSM

In July 1997, the renowned Roger Williams Medical Center in Rhode Island became a fully operational major clinical affiliate of BUSM. Since the affiliation, more than 40 Roger Williams physicians have been granted faculty positions at BUSM through the school's credentialing process. Under the partnership, BUSM students rotate through clinical clerkships at Roger Williams, receiving instruction from the hospital faculty.

"Joining with BU gives the faculty, affiliated physicians and, most importantly, the patients and families of our area a direct link

to one of the leading institutions in the world-renowned medical establishment of Boston," says Roger Williams President and CEO Robert A. Urciuoli.

Dean Aram V. Chobanian, MD, who was recently named to the board of trustees of the medical center, believes the relationship will be productive for both institutions. "We are proud to welcome Roger Williams as a major clinical affiliate," he says. "Roger Williams has a strong faculty and a strong academic tradition which we believe will provide our students with a varied clinical experience." Currently, third-year

students are serving clerkships at Roger Williams through the Department of Medicine.

A vital part of the Rhode Island community for more than 100 years, Roger Williams Medical Center is recognized throughout the nation for innovative programs in cancer research and treatment, health care, education and medical research. The 220-bed acute care hospital — including a 14-bed Intensive Care Unit and the only Bone Marrow Transplant Unit in the state — employs a staff of more than 1,500 and offers one of the largest free health education pro-

grams in the state, as well as the only hospital-based home care program in Providence. The quality of its specialized care earned it recognition in the 1996 *U.S. News and World Report* annual "Best of the Best" survey, which placed the medical center's orthopedic and cancer programs among the top 42 such programs in the nation.

In addition to Roger Williams, BUSM is affiliated with Boston Medical Center, its principal affiliate; Boston Veterans Affairs Medical Center; the Bedford Veterans Administration Hospital; and the Brockton Hospital. The school also has limited affiliations with 20 regional hospitals, as well as several international medical schools and hospitals, including ones in Israel and Armenia. ■

SECOND PHASE of BioSquare construction begins

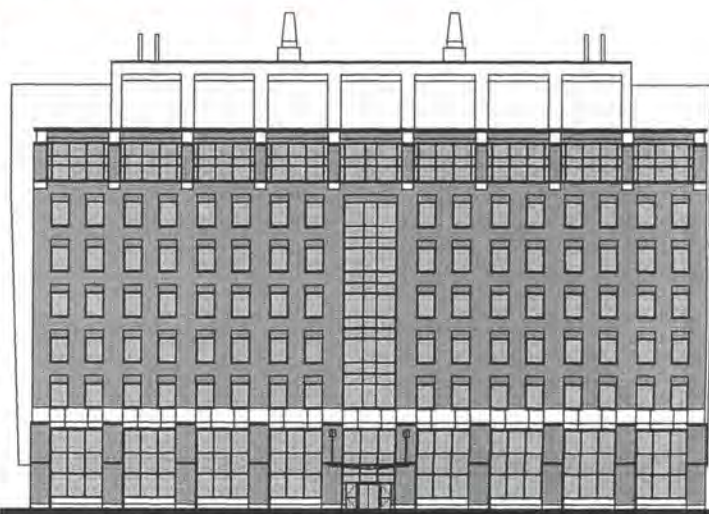
Construction began in April on the second structure of BioSquare, the 16-acre research and business park in Boston's South End, across from Boston University Medical Center.

Expected to be completed in October 1999, the building will include a 160,000-square-foot state-of-the-art biomedical research facility and will house the Evans Medical Foundation Inc., a nonprofit corporation created to advance medical knowledge through support of research and education. Founded in 1912 by Robert Dawson Evans, a prominent philanthropist and physician, the Evans foundation is a major research arm of the Department of Medicine at Boston Medical Center (BMC). Funding studies

of mechanisms of human disease in areas ranging from molecular genetics to translation medicine, the foundation plays an important role in cutting-edge molecular medicine. Most of the remainder of the building already has been leased to biotechnology companies.

"The Evans foundation is key to our continuing success as a renowned research facility," says Joseph Loscalzo, MD, PhD, chairman of the BUSM Division of Medicine and of the Board of the Evans Medical Foundation. "This new structure will take us into the 21st century, giving us the opportunity to pave the way to a healthier future."

Owned by a partnership of BMC and Boston University, BioSquare is designed to support innovation in science and



commerce. Once completed, the multiphase project will include 2.5 million square feet of research and office space, a hotel/conference center and a parking facility. Tenants can avail themselves of a wide array of

biomedical research equipment and services. The first phase of BioSquare was completed in 1993, with the opening of the 200,000-square-foot Center For Advanced Biomedical Research. ■

DEBORAH COTTON '76

to lead clinical research effort

As Boston University Medical Center (BUMC) enters the 21st century, it is poised to set the pace for clinical research throughout the country. With an eye to maintaining a competitive edge in the rapidly changing health care environment, BUMC—which includes BUSM, the School of Public Health (SPH), the Goldman School of Dental Medicine (GSDM) and Boston Medical Center—has established the Office of Clinical Research. The new office—directed by Deborah Cotton, MD, MPH—will lead BUMC's effort to enhance and expand its clinical research activities. Cotton, who assumes her position in July, also will serve as assistant provost of the medical campus.

"With Deborah Cotton as our new director of the Office of Clinical Research, we are in a good position to take advantage of the opportunities presented by the growth in clinical research, particularly in the translation of basic science discoveries made at the bench into effective therapies," says Aram V. Chobanian, MD, dean of BUSM and provost of the medical campus. "We are fortunate to have recruited such an effective and capable clinician, researcher and educator."

A distinguished clinical scientist, Cotton comes to BUSM from Massachusetts General Hospital, where she served as director of Clinical Epidemiology at the Partners AIDS Research Center, and from Harvard Medical School, where she had risen to associate professor of medicine. She also served as an as-

sociate professor of public health at Harvard School of Public Health.

Cotton received her bachelor's degree from Brandeis University and her medical degree (magna cum laude) from BUSM. In addition, she obtained her master's of public health degree from Johns Hopkins School of Public Health. Following residency and fellowship training at Beth Israel Hospital and Harvard Medical School, she worked at the National Institutes

of Health (NIH), where she became a senior staff fellow specializing in the infectious disease and clinical oncology programs of the National Cancer Institute.

Her credentials testify to her expertise in clinical research. She has served as a member of numerous influential boards and committees in this arena, including the Institute of Medicine AIDS Oversight Com-

mittee, the National Academy of Sciences Committee on AIDS Research, the Institute of Medicine Board on Health Sciences Policy Steering Committee and the NIH Advisory Council for the Office of AIDS Research. She also was chairman of the Food and Drug Administration Antiviral Drug Products Advisory Committee and the Institute of Medicine Planning Committee on the Inclusion of Women in Clinical Trials.

Internationally renowned, Cotton serves as editor of three prestigious publications: *AIDS Clinical Care*, *AIDS Compact Library* and *AIDS/HIV Treatment Directory*. She also is on the editorial boards of the *Journal of Women's Health* and the *Women's Health Advocate*. ■

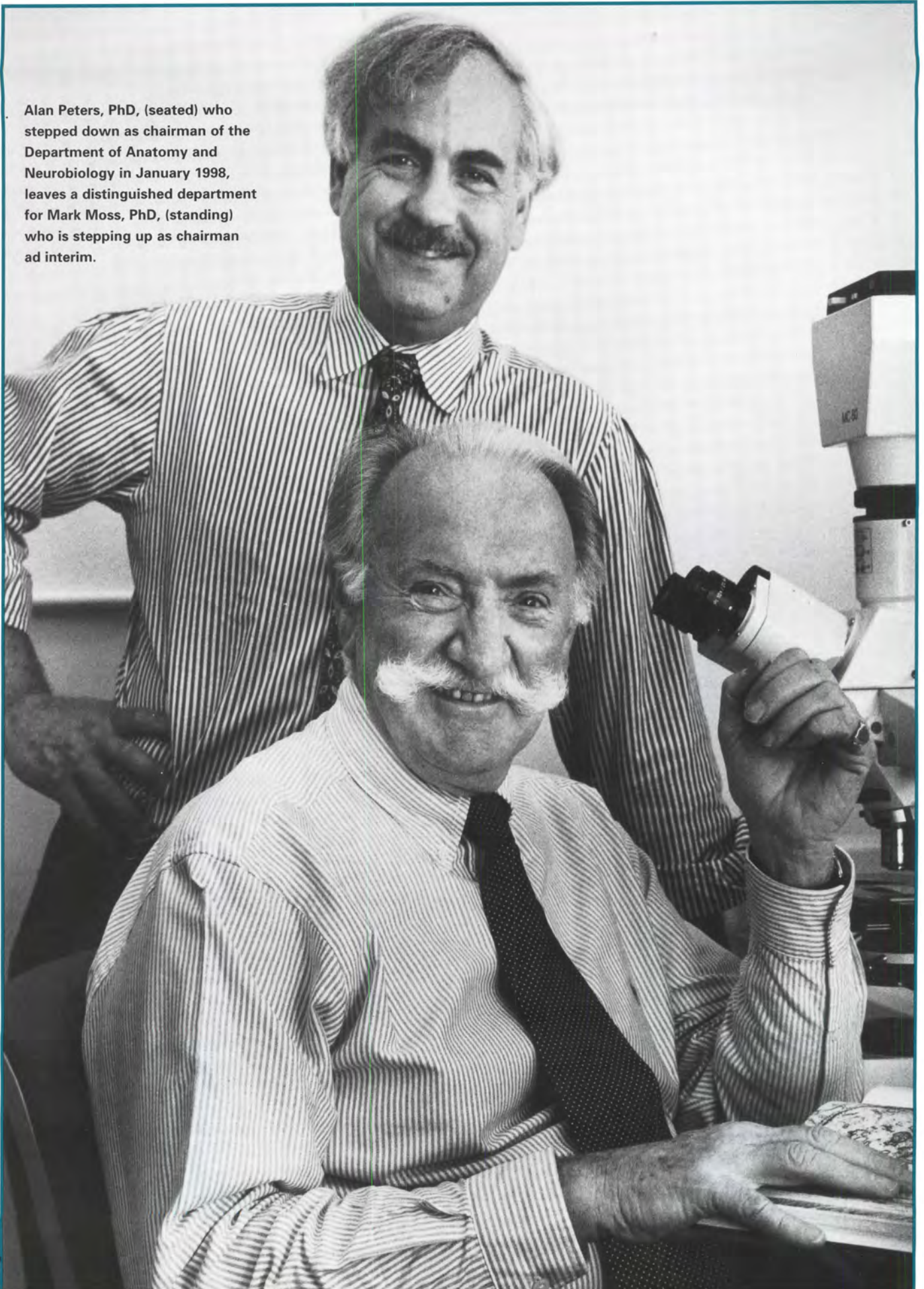
"WE ARE FORTUNATE TO HAVE RECRUITED SUCH AN EFFECTIVE AND CAPABLE CLINICIAN, RESEARCHER AND EDUCATOR."

—Dean Aram V. Chobanian, MD



Deborah Cotton '76 assumes her new position as director of the Office of Clinical Research in July.

Alan Peters, PhD, (seated) who stepped down as chairman of the Department of Anatomy and Neurobiology in January 1998, leaves a distinguished department for Mark Moss, PhD, (standing) who is stepping up as chairman ad interim.



ALAN PETERS Steps Down: The End of an Era



WHEN ALAN PETERS, PhD, STEPPED DOWN AS CHAIRMAN OF THE DEPARTMENT OF ANATOMY AND NEUROBIOLOGY IN JANUARY 1998, HE BROUGHT TO A CLOSE AN ERA OF OUTSTANDING LEADERSHIP AND INNOVATION AND LEFT BEHIND HIS LEGACY — ONE OF THE LEADING ANATOMY DEPARTMENTS IN THE COUNTRY.

When he was recruited to BUSM in 1966 from the University of Edinburgh, Peters' reputation as a premier scientist on the cutting edge of research preceded him. A pioneer in medical technology, he was one of the first to understand the extraordinary potential that the recently invented electron microscope held for basic biomedical research. Through his work with the instrument — thousands of times more powerful than the ordinary compound light microscope — he had uncovered many mysteries of the central nervous system, revealing the structure of myelin sheaths for the first time. He found that these invaluable structures work much like insulation for electric wires — wrapping around the nerve fibers of the brain to enable rapid communication between nerve cells, or neurons.

At BUSM, Peters inherited an industrious department with a focus on teaching and training, rather than on research. Although the department had made many important contributions to neuroanatomy, little research was being conducted prior to Peters' arrival. Faculty did not have time for pursuits other than teaching the 75 medical students in the first-year class. To stimulate research, Peters started instituting changes as soon as he arrived.

MAPPING OUT UNFAMILIAR TERRAIN

With an eye toward helping researchers perform cutting-edge work, Peters immediately set up a state-of-the-art electron microscopy unit, which allowed BUSM to take full advantage of the renaissance in anatomy research. "Electron microscopy

enabled the fine structure of organs, tissues and cells to be fully analyzed for the first time, which allowed researchers to ask fundamental questions about how cells function," he says.

In addition to the microscopy unit, additional space was provided for faculty offices. The transformation of the anatomy department from solely a teaching enterprise to a vital research force in the school was taking place. Gradually, the faculty reached 15 in number, and the department became one of the strongest in the nation. Over the years the breadth of research expanded, but the department's main focus has remained the nervous system.

During his tenure as chairman, Peters has published more than 120 research articles and has been on the editorial boards of a number of scientific journals, including the *Journal of Comparative Neurology*, *Anatomical Record*, *Studies of Brain Function* and *Anatomy and Embryology*. By stepping down from the chairmanship, he hopes to spend more time in his laboratory, where he is continuing to investigate the organization of nerve cells in the cerebral cortex and the effects of normal aging on the brain.

PROFILE

ALAN PETERS, PhD

Editorial Board

- *Journal of Neurocytology*

Editor

- *Cerebral Cortex*
(12 volumes published, three in planning stages)

President

- American Association of Anatomists
- Association of Anatomy Chairmen

Honors

- Symington Memorial Prize in Anatomy, 1962
- Javits Investigator Award, 1986
- Krieg Cortical Kudos Discoverer Award, 1991

MARK MOSS Steps Up

Peters' illustrations have graced the pages of dozens of journals over the years, including this one on the cover of *Cerebral Cortex* in 1997, which shows the organization of "pyramidal cells" in the monkey visual cortex.



Although Alan Peters, PhD, no longer serves as chairman, the Department of Anatomy and Neurobiology will continue to benefit from the leadership of a talented administrator and driven researcher — Mark B. Moss, PhD, associate professor of anatomy and chairman ad interim of the department.

Moss, who was recruited to BUSM in 1982, has been an integral force in the department's famed Program Project Grant on Aging — the first such grant issued by the National Institute on Aging in 1975 (see sidebar, page 7). Building upon the ac-

complishments of the Program Project research, Moss envisions a department that will continue to break new ground in the field of aging. "We've emerged as a leader in the study of aging and age-related disease because of our work over the past two decades. We hope to expand these programs in the future," he says.

Moss received his doctorate in neuropsychology from Northeastern University and is renowned for his research work on the neurobiology of memory, as well as on the effects of aging and Alzheimer's disease on memory and learning. A dedicated in-

WATERHOUSE PROFESSORSHIP: A TESTAMENT TO EXCELLENCE

After more than 30 years, Alan Peters, PhD, is not merely vacating a teaching post, but one of the oldest endowed medical professorships in the United States. The Waterhouse Professor of Anatomy symbolizes the dedication to excellence in research and the proud tradition of outstanding medical education at BUSM, which has its roots in the New England Female Medical College (NEFMC), the first all-female medical college in the nation.

In 1857, Elizabeth Waterhouse donated \$1,000 to NEFMC to serve as the nucleus for an endowed professorship in honor of her husband, Benjamin Waterhouse, MD, who played a key role in intro-

ducing vaccination into the United States at the beginning of the 19th century. In 1864, the trustees of

NEFMC received an additional \$9,000 from her estate, and the following year Frances Sproat Cooke, MD, assumed the title of Waterhouse Professor.

While the Department of Anatomy's quest for knowledge about the fundamental mechanisms at work in the human body began in the last century, two Waterhouse professors in this century are particularly responsible for establishing a tradition of rigor in research that continues today.

J. Leroy Conel, PhD, began teaching anatomy at BUSM in 1923. His research quickly distinguished him as one of the most influential minds in the department. Serving as Waterhouse Professor from 1944 until his retirement in 1948, Conel devoted himself to the study of the development of the human cortex. Even after his retirement, he continued to conduct research in neuroembryology, publishing eight volumes on the development of the human cerebral cortex during early infancy, the last appearing in 1967, when he was 84

years old.

The next Waterhouse Professor and Chairman of Anatomy, Arthur Lassek, MD, PhD, followed in Conel's steps by focusing on neuroanatomy research. During his tenure as Waterhouse Professor from 1949 to 1966, he made extensive contributions to the understanding of the motor cortex and

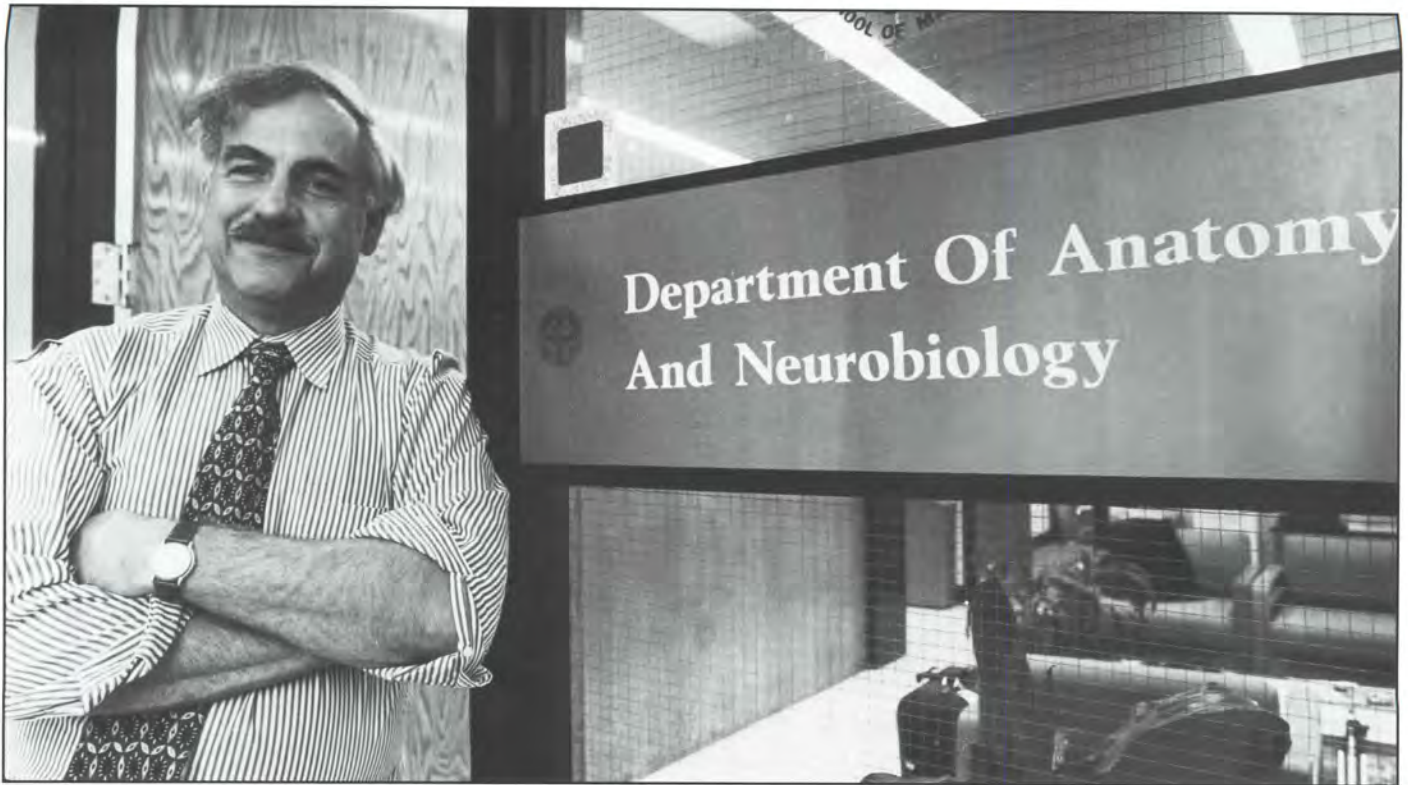


**Arthur Lassek,
MD, PhD**

the role of proprioceptive fibers (nerves that enable the body to locate its own position) in motor paralysis. He regarded his teaching duties as equally important, and his students fiercely admired him, referring to him in their 1967 yearbook as a "distinguished gentleman who taught us respect for the silent teachers whom we came to know deeply."



J. Leroy Conel, PhD



structor who continues to participate in teaching such courses as gross anatomy and the neurobiology of learning and memory. Moss currently serves on the editorial boards of the *American Journal of Alzheimer's Disease* and *Interdisciplinary Topics in Gerontology*.

Perhaps Moss' most important research contributions to the department have come through his work as the principal investigator of a \$3.6 million NIH-funded grant on cerebrovascular disease and cognition. The five-year grant is being used to study the relationship between hypertension and dementia — research that is changing how scientists and clinicians understand the causes of cognitive decline in the elderly.

Building on the past decade of research on dementia caused by vascular disease, Moss and his colleagues are focusing on "small vessel disease."

"We've learned that even mild forms of vascular disease can have a profound impact on cognition in the elderly, producing multi-infarct dementia and 'small vessel disease,'" says Moss. "Patients with what we call 'small vessel disease' have suffered several small strokes in the small blood vessels in the brain. It may turn out to be the most common form of vascular dementia and one that can be difficult to distinguish clinically from Alzheimer's disease."

Wanting to determine more about this mysterious form of vascular dementia, Moss' lab is investigating the role hypertension — the major risk factor for all forms of vascular dementia, including 'small vessel disease' — plays in cognitive decline in monkeys. Surprisingly, they found its impact was im-

mediate — within six months of the onset of hypertension, these animals already show signs of cognitive impairment, with the effects worsening as time passed. Moss' ultimate goal is to learn the neurobiological basis for this phenomenon. ■

Mark Moss, PhD, rolls up his sleeves in preparation for his role as chairman ad interim of the department.

A FOCUS ON AGING

BUSM's basic research on the effects of normal aging on the brain began in 1975 when it obtained the first Program Project awarded by the National Institute on Aging. Initially, the project examined the effects of aging on rats. But when Alan Peters, PhD, took over the project, the team shifted its focus to monkeys, whose brains are strikingly similar to those of humans and provide much better models to study.

When the team began its work, scientists originally thought that the decline in mental function that occurred as people aged was the result of a loss in neurons. However, partly through the work done at BUSM, researchers now know that neurons are not lost in significant numbers from the cerebral cortex during the normal aging process (although some loss occurs in patients with brain diseases such as Alzheimer's disease).

What, then, is the underlying cause of the cognitive decline that occurs during the aging process? No one is certain, but the BUSM Program Project team has shown that the myelin sheaths surrounding nerve fibers in the brain seem to break down. Now headed by Douglas Rosene, PhD, associate professor of anatomy and neurobiology, the group has hypothesized that this deterioration of the myelin might affect the timing of the neuronal circuits of the brain, and so make it more difficult to recall memories as people age. According to Peters, "As you get older and try to remember a name, it takes longer to search for that name, but it will eventually be recalled. Only by understanding the effects of normal aging on the brain will physicians be able to develop strategies for intervention and innovative therapies to slow down those changes."



Third-year student Almer Ray Love II examines his patient's x-rays during rounds.

A Day in Two Lives...

**INTENSITY,
CHALLENGES AND
DRAMA MARK THE
LIVES OF TWO
DOCTORS-IN-
TRAINING.**

Medical school is a unique rite of passage — a time when exhilaration fights with exhaustion, student idealism collides with the unyielding realities of health care today, and pressure to choose a pathway looms at every corner. For third-year students, the pressure intensifies, as they face the challenge of translating what they have assiduously learned in the classroom to the bedside of patients. From the hospital setting to the home to the neighborhood health center, third-year students, such as Almer Ray Love II and Katharine “Kit” Leaning, hone their skills under the close tutelage of the compassionate and renowned physicians at BUSM. Drawing aside the curtain, Leaning and Love provide a glimpse of what makes an aspiring doctor become a dedicated physician.



On pediatric surgery rounds, third-year student Katharine "Kit" Leaning checks up on a patient.



CARING

for the most vulnerable

(Above) Sophonie Edouard is tickled pink to have Leaning caring for her.

For Katharine “Kit” Leaning, her travels through New England to West Africa and the West Coast of the United States were what it took to get her “hooked” on medicine.

As a comparative literature student at Brown University, Leaning was headed for a teaching career, but a semester in West Africa inspired her to explore a different path.

“While in Africa, I met some very sick kids and their families and became very good friends with a mother whose child had died of diarrhea — sadly, a preventable death. I realized then that I could make a concrete difference by becoming a pedia-

trician — a profession that incorporates teaching and practicing medicine. I could be *a good teacher and a great doctor* if I could only get through medical school.”

After postbaccalaureate work at Brown and a stint teaching high school, Leaning headed to Seattle, Wash., to test her resolve and solidify her choice. After six months as a research assistant in pediatric asthma and allergies, the Vermont native returned to the East Coast to confront the rigorous demands of BUSM.

“That final push was in Seattle. I loved the kids, and I wanted to understand them, why they were sick

PROFILE

KATHARINE "KIT" LEANING

Reflection
"I am so lucky to be learning medicine — it is extraordinary."

other interests, my friends and family to devote this time to medicine."

Inspiration
Aunt Jennifer — an Emergency Department physician and human rights activist

Most Rewarding
"When you form a connection with a kid."

Most Challenging
"Putting aside all my

School Project
Planned the first BUSM student calendar planner

"I try to distill from this torrent of daily experience some of the lessons of practice and compassion that I will need to be a better doctor."

and how I could treat them."

As a third-year student, Leaning is getting closer to realizing her dream of caring for inner-city and immigrant children — teaching them how to be safe and to make good choices, and treating them for illnesses. "Children who don't speak English and are from lower-income families are the most vulnerable people of our society. I see myself getting involved in children's rights. It is clear to me that that is worth fighting for," says the 29-year-old, who is a member of Physicians for Human Rights and the American Women's Medical Association.

In the meantime, there are the daily challenges and joys of apprenticeship in the art and science of medicine.

TWENTY-FOUR HOURS WITH KATHARINE "KIT" LEANING

6:15 a.m.

Pediatrics Ward — I prepare to present my patients at 7 a.m. rounds. First, I check my notes on Baby Boy M — a 7-day-old infant with possible in utero exposure to syphilis and HIV, and a brother who died of HIV-complications at the age of 3 — to make sure I know the plan for the day. While his mother won't consent to HIV testing, she will consent to treatment for him, so he receives AZT. As I watch him sleep for a moment, I think what a chunky, beautiful baby he is.

I then check on another of my patients — an 18-year-old woman with active pulmonary tuberculosis. She's awake, full of questions and wants a cigarette. I examine her and talk to her through my blue particulate mask.

7 a.m.

Rounds — we all present our patients. I feel I am thoroughly prepared, and yet, predictably, when the time comes, my face turns red and my heart pounds. I feel ridiculous that I get nervous even after thoroughly preparing.

1 p.m.

Dr. Vinci sends us in to do a cardiac exam on a 2-month-old infant with triple X syndrome. We cluster around her crib and take turns listening. As a group, we decide we hear a holosystolic murmur. In the conference room, Dr. Vinci draws the four chambers of the heart, adding holes in different areas. He wants to know what would happen to the flow and pressure gradients, what we would expect to hear, what we would worry about.

5 p.m.

On call. I'll work up a patient and present the case tomorrow at rounds. The ER calls about a 7-year-old with an asthma exacerbation. I take the full history with the junior resident and intern watching, and we do the exam together. The resident then asks me what plan I propose. I am pleased to have an understanding of the patient's illness. We talk to her mother, explain the treatment plan and then tell the girl we'll see her upstairs.

9:30 p.m.

My patient is sitting up in bed getting a nebulizer treatment. I read her one of the books the nurse has brought her. She then draws me a picture of herself, complete with earrings and shoelaces, signing her name. I thank her for the picture and tell her I'll see her in the morning.

10 p.m.

My apartment is cold and dark. I sit down to read, but end up thinking about my new patient. Having seen many sick kids in many sad situations during this rotation, I am glad this little girl only has asthma and that her mother seems to know how to take care of her. I think that being exposed to so much human suffering — and particularly the suffering of children — is probably changing me in ways I do not realize yet. With the few stolen moments I have to reflect, I try to distill from this torrent of daily experience some of the lessons of practice and compassion that I will need to be a better doctor. For now,

I ignore my pile of mail and phone messages once again and opt instead for sleep.



A Love for **Medicine**

A transplanted Texan and African-American history buff, Almer Ray Love II greets every morning with a smile — although he is the first to own that his megawatt grin is a bit slower to materialize during Boston's frosty winter mornings. But materialize it always does as Love opens his mind and his heart to another day in "the new exciting world of medicine."

From the moment when he turned 12 years old and medicine won out over law as his calling, Love has never doubted that he made the right choice, despite the necessity of postbaccalaureate work, grueling exams and long hours. In fact, the continual challenge of medicine is part of what

keeps the alert and ever-questioning Love on his feet. "Medicine is a passion that continually inspires me and will forever be challenging," says the 27-year-old, who currently lives in Dorchester. "Studying a disease and the way the body works is amazing — each discovery is like a light turning on in my head. I like to push myself and want others to push me as far as possible because then I know I am on my way to being the best physician I can be. I want each of my teachers here to be able to say 'I am proud of him,' when I graduate."

As past president of the school's chapter of the Student National Medical Association and current co-chair of the Legislative Affairs Committee, Love is striving to ensure that other minority students have the same educational opportunities he has. Committed to preserving a diverse physician population, the graduate of the University of Texas at Austin laments the dismantling of affirmative action as a

Love discusses his patients with his intern Mindy Bard, MD.



TWENTY-FOUR HOURS WITH ALMER RAY LOVE II

6:45 - 8:30 a.m.

With the help of two alarm clocks and the radio, I manage to arrive bright and early at the Ambulatory Care Center for my continuing rotation in Obstetrics and Gynecology (OB/GYN). First on the agenda is a teaching session with Dr. Dick A.J. Brown (director of Medical Education, OB/GYN), who usually presents a puzzling clinical situation to elicit thoughtful, probing questions from us. This morning proves no exception. How would we treat a 50-year-old woman with a uterine fibroid so large her uterus is expanded as if she were 16-weeks pregnant?

9 a.m. to 3 p.m.

Clutching our notebooks and numerous indispensable reference books, we start in the ambulatory clinic. Working in four-student teams, we try to always be one step ahead — constantly asking ourselves what kind of patients we are going to see and worrying about providing adequate write-ups. Our nerves are highly attuned, for at



tragedy that has exerted a terrible effect on state medical schools in his home state and in California.

"I will be a better doctor and person for knowing, learning and working alongside physicians and fellow students of different cultures, from traditionally Jewish to Haitian to Indian," says Love. "We can learn so much from one another. For instance, if I have a patient from Haiti and the attending physician is Haitian, I can learn a lot about the best way to interact with my patient. In turn, as a Southerner, and as one who works with youth in violent communities, I can be helpful in elaborating to a physi-

cian or fellow student what a typical Southern diet is and how to improve it, or what patients mean when they say they feel threatened by a violent community. What a rich and wonderful environment for all involved, and what a shame it would be to lose it." ■

PROFILE

ALMER RAY LOVE II

Most Challenging

Multiple choice exams

Inspiration

"My belief in God, first and foremost. My mother offers me continual support and love, and my cousin, Dr. Melvin Manning, offers me guidance."

Best Advice

My mom, my cousin and my pastor: Hold fast to your dream and never give up in the face of adversity. Perseverance, dedication and diligence are the keys to excellence.

Ideal Future

"Professionally, I would like to be at an academic medical center in an urban area where I can combine clinical medicine with teaching and community outreach. In my personal life, when I get married, I look to be a devoted family man."

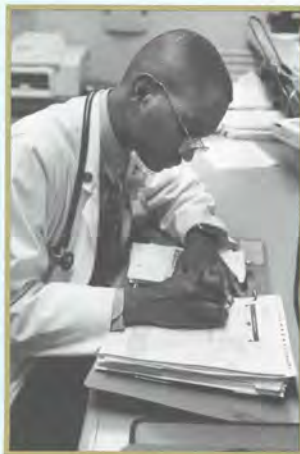
Outside Interests

- Community service
- African-American history
- Public policy

any moment Dr. Brown may ask us questions.

My first patient of the day — I introduce myself and perform a complete examination (barring a breast and pelvic exam, which requires a chaperone) based on notes from the nursing assistant. Quickly, I must organize all the information I learned from the patient and present it to Dr. Brown before he will step foot in the room and supervise the pelvic and breast exam.

The volume of patients I see daily varies, depending on how many students there are and the issues the patients present. Some cases raise troubling questions for me, particularly as I have been attuned to women's health issues most of my life. Last week, I saw a 44-year-old pregnant woman — a former cocaine addict and alcohol abuser — who was at



an increased risk for having a Down's Syndrome child. Homeless and currently living in Rosie's Place, she couldn't remember the approximate date of her last menstrual period, which made it hard to determine how far along she was in her pregnancy. What most disturbed me was the sadness in her eyes when I asked her the standard questions about the father.

She didn't want to disclose the father's name or include him at all. In my mind I am thinking: *This is a bad start for the child.* But it is my job to get this child off to the best start possible by ensuring that it is born healthy.

5:30 p.m.

Our clinical obligation usually ends now, and most of us try to get something to eat since Dr. Brown doesn't believe in lunch, claiming that, "In the old days of the iron-

man physician, they never took a lunch."

8 p.m.

At home, I immediately search for food and settle on spaghetti with sauce jazzed up with Cajun spices. I make sure to leave some for my roommate, Robert, who is in the middle of a super sub-internship in medicine.

8:30 p.m.

I call mom in Dallas. She told me all about the birthday party they had for my grandmother, who recently turned 83. Thank goodness she doesn't ask the usual question: What are you going into? Although I still cannot answer, I am deciding among medicine, pediatrics, and obstetrics and gynecology. All I can say with certainty is that I am most inclined toward direct patient care.

9 p.m.

I work on my presentation for tomorrow, about the efficacy of the traditional Pap smear versus the new automated technologies. I decide that, at present, the cost of the new technologies exceeds the benefit. At midnight, I go to bed.

Setting the Standard

BUSM courses in the forefront

Innovative, pioneering, cutting-edge — from its founding, those words have always defined BUSM's approach to its curriculum. In 1878, 16 years after BUSM opened its doors, an entering student would encounter a rigorous

schedule of instruction that would prove the forerunner for medical schools throughout the country. In that year, the school became one of the first in the United States to offer a four-year medical degree program alongside its more traditional three-year program, then the norm at medical colleges. Within 12 years, BUSM required four years of study, and eventually all medical schools in the United States followed suit.

While schedules from that period reflect a different scientific age, before the advent of x-rays and antibiotics, the school created the layout for medical education followed today — two years of training in the general biomedical sciences followed by two years of clinical instruction and practice. Though the content of the instruction during the first two years has changed greatly — among the courses required were physics, comparative anatomy and general chemistry, subjects which have since become part of the undergraduate premedical curriculum — students still spend that formative period mastering the basic medical sciences, from gross anatomy to biochemistry. Third- and fourth-year students attended lectures in areas still standard today, such as obstetrics, surgery, dermatology and ophthalmology. By 1898 (at which time the cost of the entire medical education was slightly more than \$500), a fourth-year student spent several hours getting on-the-job training — the forerunner to the modern day medical clerkship.

By the middle of this century, BUSM had changed its curriculum to keep pace with the rapid advances in medicine, and most recent graduates would recognize the similarities between their own schedules and that of one from 1948. Nearly all of the first two years were spent in basic science lectures and laboratories. The first semester consisted of almost 600 hours of gross anatomy, microscopic anatomy and embryology — a number that has since been nearly cut in half. Only by the end of the second year were students being exposed to work with patients in physical diagnosis sections. Clinics in obstetrics, medicine, environmental medicine, surgery and pediatrics occupied almost all of the final year of instruction.

Four-Year Schedule 1997-1998

YEAR 1

	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	
VACATION	Orientation	Anatomy				VACATION	Neurosciences	Biochemistry	VACATION	Biochemistry			VACATION
		Histology	Physiology	Physiology	Endocrinology								
			Psychiatry	Biostatistics & Epidemiology	Socio-Med. Sciences			Immunology					
		Integrated Problems			Integrated Problems			Genetics					
		Intro-Clinical Medicine	Intro-Clinical	Intro-Clinical Medicine									

YEAR 2

	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY
VACATION	Microbiology & Infectious Diseases				VACATION	Biology of Disease I			VACATION	Biology of Disease II		VACATION
	General Pathology		Psych	VACATION		Integrated Problems	Reading	USMLE Step 1				
	Pharmacology									Intro - Clin. Med.		
	Integrated Problems		Intro - Clin. Med.									
	Intro-Clinical Medicine		Intro - Clin. Med.									

YEAR 3 (in various combinations)

	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY
Medicine	Surgery				Pediatrics	Obstetrics	Psychiatry	Vacation or Electives				
11 WEEKS	11 WEEKS				7 WEEKS	7 WEEKS	7 WEEKS	7 WEEKS				

YEAR 4 (in various combinations)

	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Radiology	Vacation	Home Medical Service	Sub-Internship	Neurology	Primary Care Clerkship	Electives					
4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS	4 WEEKS
1	2	3	4	5	6	7	8	9	10	11	

In the late 1980s, Dean Aram V. Chobanian, MD, and a blue-ribbon curriculum revision committee led by Thomas LaMont, MD, and Associate Dean John McCahan, MD, took several steps to revitalize medical instruction in response to the most recent insights in medical and scientific knowledge. The amount of time spent listening to classroom lectures was reduced to no more than three hours per day, and students began working with patients from the very start of their medical careers instead of after two years of classroom instruction.

“We want to teach our students to acquire the lifelong habit of learning that will stand them in good stead throughout their professional lives, especially in an era when new medical breakthroughs are made every day. By placing students in a clinical setting as soon as possible, they are more comfortable — and thus more compassionate and respectful — toward patients,” Chobanian says.

Today’s curriculum has put this approach in

place. The “Introduction to Clinical Medicine” class for first-year students exposes them to patients, while “Integrated Problems” coordinates educational activities across departments, making the curriculum more interdepartmentally based. Finally, the amount of time spent in clerkships in pediatrics, obstetrics and gynecology has increased more than 20 percent.

What changes will come next? In all likelihood, the computer will have the biggest impact on future medical education. Computer simulations of clinical situations, interactive computer demonstrations and clinical research on the Internet are showing promise already. While curricula in the next 50 years may seem impossibly distant from those 100 years ago, BUSM’s commitment to providing its students with the finest possible education will remain constant. ■



A look back 100 years in time: Much of the first-year schedule from 1898 (colored) has since become part of the undergraduate biology and premedical curriculum. Third- and fourth-year students studied cases in hospitals in much the same way modern students round through clerkships.

Order of Lectures 1898

FIRST YEAR

	9 O'Clock	10 O'Clock	11 O'Clock	12 O'Clock	2 to 4 O'Clock
MONDAY	Allard Physiology	Smith & Allen, Anatomy	Coon, Laboratory Comp. Anat.	Coon, Laboratory Comp. Anat.	Schubmehl, Microscopy. Fiske, Physics.
TUESDAY		Smith & Allen, Anatomy	Coon, Laboratory Comp. Anat.	Coon, Laboratory Comp. Anat.	Schubmehl, Microscopy. Fiske, Physics.
WEDNESDAY	Calder, General Chemistry	Calder, Laboratory	Calder, Laboratory		
THURSDAY	Allard, Physiology	Smith & Allen, Anatomy	Coon, Laboratory Comp. Anat.	Coon, Laboratory Comp. Anat.	Schubmehl, Microscopy. Fiske, Physics.
FRIDAY		Smith & Allen, Anatomy	Coon, Laboratory Comp. Anat.	Coon, Laboratory Comp. Anat.	Schubmehl, Microscopy. Fiske, Physics.
SATURDAY	Calder, General Chemistry	Calder, Laboratory	Calder, Laboratory		

SECOND YEAR

	8 to 10 O'Clock	10 O'Clock	11 O'Clock	12 O'Clock	2 O'Clock	3 to 5 O'Clock
MONDAY			Thomas, Davis	Sutherland, Anatomy	Emerson, Minor Surgery	Dissections
TUESDAY	Rockwell, Physiological Laboratory	Rockwell, Physiological Laboratory	Rockwell, Physiological Laboratory	Sutherland, Anatomy	Batchelder, Physiology	Dissections
WEDNESDAY	Rockwell, Physiological Laboratory	Sutherland & Rockwell, Laboratories	Sutherland & Rockwell, Laboratories	Calder, Medical Chemistry	Calder, Laboratory	Dissections
THURSDAY	Rockwell, Physiological Laboratory	Rockwell, Physiological Laboratory	Rockwell, Physiological Laboratory	Sutherland, Anatomy	Emerson, Minor Surgery	Dissections
FRIDAY	Rockwell, Physiological Laboratory	Rockwell, Physiological Laboratory	Rockwell, Physiological Laboratory	Sutherland, Anatomy	Batchelder, Physiology	Dissections
SATURDAY		Sutherland, Histological Laboratory	Sutherland, Histological Laboratory	Calder, Medical Chemistry	Calder, Laboratory	Dissections

THIRD YEAR

	9 O'Clock	10 O'Clock	11 O'Clock	12 O'Clock	2 O'Clock
MONDAY	W. T. Talbot, Pathology	Powers, Clinical Surgery		Smith, Materia Medica	C. Wesselhoef, Turner, Pathology & Therapeutics
TUESDAY	Hopkins, Diseases of Children	Clinics for Chest, Throat, Women's Diseases, & Surgery, in Sections		Windsor, Obstetrics	
WEDNESDAY	Briggs, Operative Surgery	Clapp, Chest Diseases	Hom. Hospital, Surgical Operations	Percy, Clinical Medicine	Elliot, Obstetrics
THURSDAY	W. T. Talbot, Pathology	Rice, Throat Diseases	Coffin, Dermatology	Windsor, Obstetrics	C. Wesselhoef, Turner, Pathology & Therapeutics
FRIDAY	Cahill, Diseases of Women	Clinics for Chest, Throat, Women's Diseases & Surgery, in Sections		Smith, Materia Medica	
SATURDAY	Hayward, Briggs, Operative Surgery	Homeopathic Hospital, Surgical Operations		Percy, Materia Medica	

FOURTH YEAR

	9 O'Clock	10 O'Clock	11 O'Clock	12 O'Clock	2 O'Clock
MONDAY		Boothby, Gynecology		Clinic; Surgical Diagnosis, Eye & Ear, Nervous & Rectal Dis.	Smith, Materia Medica C. Wesselhoef, Turner, Pathology & Therapeutics
TUESDAY	Packard, Surgery	Jackson, Electro-Therapeutics	Payne, Ophthalmology	W. Wesselhoef, Earl Obstetrics	Bellows, Otolaryngology
WEDNESDAY	W.T. Talbot, Pathology	Homeopathic Hospital, Surgical Operations		Percy Clinical Medicine	Boothby, Operative Clinics
THURSDAY	Halsey, Rectum Hayward Surgery	Colby, Nervous Dis.	Clinic for Eye & Ear, Nervous & Rectal Diseases	Richardson, Nervous Dis.	C. Wesselhoef, Turner, Pathology & Therapeutics
FRIDAY	Packard, Surgery	Paine, Insanity, also Hospital Clinics	City Hospital, Surgical Operations	Smith, Materia Medica	
SATURDAY	W.T. Talbot, Pathology	Homeopathic Hospital, Surgical Operations		Percy, Materia Medica	

TRAINING FUTURE PHYSICIANS IN THE ART OF MEDICINE, AS WELL AS THE SCIENCE, HAS GUIDED BUSM SINCE ITS INCEPTION IN 1873. THIS TEACHING PHILOSOPHY, COUPLED WITH THE SCHOOL'S COMMITMENT TO SERVING THE COMMUNITY, GAVE BIRTH TO THE NATIONALLY RENOWNED HOME MEDICAL SERVICE IN 1875 — THE OLDEST AND LARGEST PROVIDER OF PHYSICIAN HOME SERVICES IN THE UNITED STATES. IN THE FOLLOWING PAGES, *BU MEDICINE* TAKES A *LOOK* BACK AT THIS SERVICE AS IT WAS PRACTICED IN THE 1940s AND SHOWCASES IT IN ITS PRESENT MANIFESTATION AS A GERIATRIC MEDICAL PRACTICE THAT SPECIALIZES IN CARE OF THE HOMEBOUND ELDERLY.



Looking Back: March 1949

BUSM students are taught that patients need sympathy and understanding

—From *Look* magazine; By Maynard Austin, MD

The laundry-decorated alley through which student Rachel Boone picks her way is typical of the kind of place many of her patients live.



A good doctor must not only know medicine, he must know how to deal with people. It's comparatively easy to teach a student the necessary medical knowledge. It's not so easy to teach him the importance of listening to a patient's troubles, and that these troubles may have some bearing on physical illness. Though he works with patients in the hospital, a medical student sees so many he rarely has time to really talk to them. He is likely to remember them as conditions — the ulcer in bed 13 or the diabetic on Ward C.

PATIENTS ARE PEOPLE

To help its students understand the importance of really knowing their patients, BUSM's Department

of Preventive Medicine started a course in social and environmental medicine. In this course, students work as if they were already in private practice. They go out on calls alone, visit patients in their homes away from the formal and often hurried atmosphere of the hospital. They find out firsthand how their patients live. They meet other family members, get an intimate knowledge of each patient's particular worries and problems. The patients cease to be textbook problems and become human beings.

These patients live in Boston's teeming South End. The one-mile area which the students serve has a population of 50,000 of every sort of racial background. Persons needing medical care range from an 80-year-old with a heart condition to a week-old baby with the croup.

Every fourth-year student spends a month on this course, working in groups of four or five. They are on 24-hour duty seven days a week, but only the men make night calls. Each student averages be-

tween six and 25 calls a day, and the average is rising with the increasing popularity of the service. All cases are checked by a staff doctor, but the student makes the first call alone and is given as much freedom as possible. About 90 percent of the patients can be treated at home, and students carry a small amount of drugs to give those who cannot afford to buy them. They also do all their own routine blood tests and urinalyses. If a case turns out to be serious, students can send the patient to the hospital. He follows the patient during the time he is hospitalized and cares for him again when he returns home.

ALL KINDS OF CASES

New cases are telephoned in to the Outpatient Department and students divide them. A student has his list, and he starts out on his rounds on foot or by

trolley, unless he's lucky enough to have a car. His first stop is a brick apartment house in a fairly clean street. But inside, the hall is dark and musty, and the stairs are rickety. He gropes his way up with the aid of the flashlight. The woman who answers the door looks tired and sullen. A pasty-faced 3-year-old clings to her hand. The patient is a 5-year-old girl asleep in one of the apartment's two tiny bedrooms. Her face and body are covered with a rash and a thick paste of sulphur and lard which somebody told the mother was good for any skin ailment. The student makes a thorough examination, decides the child has chicken pox. He warns the mother not to let the younger child sleep with the patient, tells her he will get a public health nurse and will return later in the day.

His only other new case is in a tumbled-down tenement in a garbage-strewn alley. The patient this

It takes more than textbook knowledge to be a good doctor.



Dr. Maynard Austin, who criticizes present training of doctors, below, recommends the kind of training, above, showing Boston University medical student



Maurice Vanderpol visiting a patient at home, learning to know her better.

A DOCTOR TELLS WHAT'S WRONG WITH

Too many of them look upon a patient merely as a broken leg or an incision. They don't see their patient as a human being whose family quarrels or financial worries may be the underlying cause of his illness

I FAILED as a doctor when I first started practicing. I failed because no one ever told me that sick people craved friendship. A man with a broken leg was just a broken leg that had to be set. An appendix case was just something that required removal or drainage. The incision and its healing was all I worried about. What were the patients like?—I didn't know. HE or SHE might have been I, as far as his personality was concerned. My work was good, but families seldom called me back. It was a bewhiskered country doctor who

showed me how ignorant I was. He taught me things I never dreamed were important. He taught me that a friendly contact with patients and their families may often give a doctor more valuable information than any laboratory; that no technician or busy specialist can gain the confidence of a patient. Nor can he bring out the emotional upsets which may be the underlying cause of a physical illness; the social, sexual, financial, political and matrimonial worries of a patient are a part of the case history prepared by a family doctor.

Our doctors get a training which increases their knowledge of disease. But they are not taught the art of practicing medicine. Medical schools and hospital training students, interns and residents emphasize assembly-line methods of diagnosis. They all but ignore the social background of the patients. To ignore the patient as a personality and think of him only as a case is poor medical practice. Ninety per cent of our patients need the feeling that their doctor takes a personal interest in them as much as they need medical treatment. Nurses

DOCTORS

BY MAYNARD AUSTIN, M.D., F.A.C.S.

expecting to go into family practice should be given at least six weeks apprenticeship with a general practitioner, preferably in the country. Here, the young doctor discovers what can be done without the facilities of a hospital behind him. He learns he can sterilize a needle on a kitchen stove. He learns he doesn't need a laboratory technician to give an electrocardiograph and that he can get along perfectly well without a nurse at his beck and call. He gets much closer to his patients. And, as a result, he will be a much better and a more successful doctor.

To see how one medical school solves this problem, turn page



Students learn to do without hospital equipment. A syringe is sterilized in a patient's home.



Paul Burke hears that "It's better now, doctor" as a patient refuses to be hospitalized.



Hugh Pyle finds three small patients on one visit. He examines them for colds and bug bites.

time is a 12-year-old African-American boy with a sore throat. There isn't much for the student to do except give the boy aspirin. But the mother is worried about her son who has constant colds and is very upset about the run-down state of her home. The student listens patiently to her complaints, goes with her to inspect the kitchen where the roof leaks so badly that "it rains just as hard inside as out." He can't do much to help her, but she feels happier for having a sympathetic listener, and he now knows why the boy has so many colds.

After students have visited their new cases, a

staff doctor goes with them to check each one. He makes sure the right diagnosis was made and the right treatment prescribed. Students then set out to visit old patients who still need care. They report each day on progress of old patients as well as new ones. And once a week they meet with a psychiatrist and social worker to discuss cases that need more than medical aid.

The training is hard, but students get a taste of real medical practice and a realization that it takes more than textbook knowledge to be a good doctor. ■

WHAT'S WRONG WITH DOCTORS *continued*

Doctor (white coat) checks student's diagnosis and treatment of new case. Check-up is made same day student sees patient.

Conferences with psychiatrist, social worker and medical staff teach students to look for the family problems, financial worries which may contribute to patient's physical illness.

At Boston University School of Medicine, students are taught that patients need sympathy and understanding as well as pills

Dutch born Maurice Vanderpol bicycles to his patients, uses flight bug to carry equipment.

A GOOD doctor must not only know medicine, he must know how to deal with people. It's comparatively easy to teach a student the necessary medical knowledge. It's not so easy to teach him the importance of listening to a patient's troubles; and that these troubles may have some bearing on physical illness. Though he works with patients in the hospital, a medical student sees so many he rarely has time to really talk to them. He is likely to remember them as diseases—the ulcer in bed 13 or the diabetic on Ward C.

Students Must Learn Patients Are People

To help its students understand the importance of really knowing their patients, Boston University Medical School's Department of Preventive Medicine with the co-operation of Massachusetts Memorial Hospitals started a course in Social and Environmental Medicine. In this course, students work as if they were already in private practice. They go out on calls alone; visit patients in their homes away from the formal and often hurried atmosphere of the hospital. They find out firsthand how their patients live. They meet other members of the family; get an intimate knowledge of each patient's particular worries and problems. The patients cease to be textbook problems and become human beings.

The patients the students work with live in Boston's teeming South End slums. The one mile area which the students serve has a population of 50,000 of every sort of racial background; living in everything from new, clean housing developments to vermin-infested, ill-smelling shanties. Persons needing medical

care range from an 80-year-old with a heart attack to a week-old baby with the croup.

Every fourth year student spends a month on this course, working in groups of four or five. They are on 24-hour duty seven days a week, but only the men make night calls. Each student averages between six and 25 calls a day and the average is rising with the increasing popularity of the service. All cases are checked by a staff doctor, but the student makes the first call alone, and is given as much freedom as possible. About 90 per cent of the patients can be treated at home, and students carry a small amount of drugs to give those who cannot afford to buy them. They also do all their own routine blood tests and urinalyses. If a case turns out to be serious, students can send the patient to the hospital. He follows the patient during the time he is hospitalized and cares for him again when he returns home.

They Get All Kinds of Cases

New cases are telephoned in to the Out Patient Department and students divide them up. When a student has his list of calls, he starts out on his rounds on foot or by trolley, unless he's lucky enough to have a car. His first stop is a brick apartment house in a fairly clean street. But inside, the hall is dark and musty and the stairs are rickety. He grogs his way up with the aid of a flashlight. The woman who answers the door looks tired and sullen. A pasty-faced three-year-old clings to her hand. The patient is a five-year-old girl asleep in one of the apartment's two tiny bedrooms. Her face and body are covered with

(Continued on page 38)



FEBRUARY 1998

Fifty Years Later

House calls still vital to learning

They still get “all kinds of cases” at the Home Medical Service, now called Boston University Geriatric Services — a medical practice that serves the homebound and other elderly of Boston. As in 1949, the service affords a unique opportunity for training BUSM students in the care of patients in a non-institutional setting, still providing them a chance to “find out firsthand how their patients live” away from the frenetic and crisis-oriented atmosphere of the hospital. Every fourth-year student participates in the four-week geriatric services rotation, making house calls on four to five patients a day, following up on clinical issues and coordinating care with other community services, such as visiting nurses and home health aids. On a gray February day in 1998, nearly half a century later than the Look article, a BUSM physician and his two students take to heart the message that patients are much more than “diseases from a textbook.”

Patient Yvonne S. receives premier care from **George Rosenthal, MD, (standing)** and students **Carrie Tibbles** and **Stephen Thomas**. Her husband and constant companion, **Rudolph S.**, keeps a watchful eye on the proceedings.

Their first stop is the impeccable brick home of Rudolf and Yvonne S. in Dorchester. With backpacks and bulging canvas bags slung on their shoulders, George Rosenthal, MD; Carrie Tibbles; and Jason Worcester walk up the neatly swept stairs to the porch, where they are ushered in by the waiting Rudolfs, a former BUSM custodial services employee. After a warm hello, Rudolf waves Rosenthal and the students down the carpeted hallway lined with pictures of smiling family and friends. Entering the bright white kitchen, Rosenthal greets his first patient of the day — the 76-year-old Yvonne.

Although she is suffering from a complex set of illnesses, including complications from a stroke and hemorrhage, Yvonne gives her doctor and his companions a big smile and hello from her wheelchair, her head tilted slightly to the right from the stroke she suffered in 1989. Rudolf reaches across his wife of 52 years to turn down the volume on the small old television set as the theme song to the *The Newlywed Game* plays, while Worcester pulls up a chair to begin the routine three-month checkup, supervised by Rosenthal.

“How are you today?” asks Worcester gently, preparing to take her vital signs.

“I’m all right,” says Yvonne in a voice accented by her native French. “As long as I have my coffee and TV, I am okay. This man of mine — he cooks so good for me since my stroke — and we go out every day, I can tell you I am fine.”

“She’s crazy. She wants to go out no matter the weather, even if it’s raining. What can I do?” asks Rudolf fondly with a shrug of his shoulders and shake of his head.

After determining that her blood pressure is high and asking a series of questions to help pinpoint why, Worcester says he and Tibbles will return tomorrow to take another reading. “If it is still high, we might want to go up on your blood pressure medicines,” he says, when Yvonne laughs and explains that her pressure is high because her visitors make her nervous.

Rosenthal prompts Worcester to draw blood so the lab results will be available before the students return tomorrow. Pulling syringes, tubes, rubber gloves and tape (in lieu of Band-Aids) from his blue bag, Worcester takes blood from Yvonne. He then throws the used items in a small portable red trash can marked “biohazardous” and gathers his tools.

“Jason, are you going to be a good doctor some day?” says Yvonne as they prepare to leave. With the training in compassionate and high-quality care as exemplified in this visit, Worcester is certainly on his way.

The caregivers visit three more patients in Roxbury and Dorchester — 82-year-old Mattie M., who suffers from cardiac problems, diabetes and complications from a stroke; 75-year-old James J., who has an amputated leg from his diabetes; and 97-year-old Elsie R., who was hospitalized two months ago with a low platelet count and suffers from anemia with a host of other complications.

At M.’s apartment in Dorchester, Tibbles elicits from the elderly patient that she has pain in her chest and is having trouble breathing. An informative learning session ensues on distinguishing the subtleties of heart murmurs. Under Rosenthal’s guidance, Tibbles listens several times to M.’s chest with the stethoscope and studies the EKG carefully, coming to the conclusion that she is hearing one systolic murmur, rather than the two separate murmurs she thought she heard previously.

“There is nothing wrong,” Rosenthal reassures M. throughout the process. “They are just learning about heart sounds.”

“Your heart sounds good,” adds Tibbles. “It’s interesting for me since I am still learning. There is

BUSM named Center for Excellence in Geriatrics

Long recognized for its expert and compassionate care of the elderly, the Geriatrics Section of the Department of Medicine at BUSM and Boston Medical Center can now add another accolade to its already long list of credits.

In December 1997, BUSM was designated a Center for Excellence in Geriatrics by The John A. Hartford Foundation of New York. The three-year grant of more than \$500,000 enables Patricia P. Barry, MD, MPH, chief of the Geriatrics Section and professor of medicine, to establish an innovative geriatrics training program for clinician-educators.

“This award acknowledges BUSM’s leadership and stellar reputation in geriatrics and provides us with a tremendous opportunity to teach generalist physicians how to address the special health care needs of our older population,” says Barry, who has been chief of Geriatrics since 1992. “In the United States today, there is a shortage of faculty trained in geriatrics, and there are not enough geriatricians to provide care for the increasing numbers of elderly. Through the center, we hope to help remedy this situation in Boston by preparing 18 generalist physician faculty members based at Boston Medical Center and in the community to train future providers to care for the elderly.”

Faculty participants will undergo a 12-month training program, which will provide the clinical, scientific and educational skills necessary for them to become effective clinician-educators and teachers of geriatric medicine. In addition, fellows in geriatric medicine will receive invaluable education and research skills that will prepare them for faculty positions.

“In effect, we have been given an opportunity to train future leaders in geriatric medicine — one that we are taking advantage of to the fullest extent,” says Barry.



breathing and will decrease the swelling of her ankles.

At R.'s pale yellow Victorian home, it takes all three of the caregivers to draw blood from the petite patient, who stiffens when she sees the syringe and takes in quick, shallow breaths of consternation. Flanked by her grandson and daughter, R. heaves a sigh of relief when the process is finished. "I'm glad that's done," says R., whose drug regimen was modified to try to increase her white blood count after her hospitalization.

"I bet you are," says Tibbles sympathetically, pressing her patient's hand. "Thank you." If her white blood count has not increased then R. will be referred to a hematologist, Rosenthal explains. After calling Medicare for R.'s daughter, who was worried about paying her grandmother's medical bills, Rosenthal and the students pack up.

"Seeing patients in their own home away from the inpatient clinics and the hospital

is a unique opportunity for us," says Worcester, who plans to make some house calls of his own as an internal medicine physician. "It's invaluable to understand the everyday life of a patient — it helps us to provide care for the total person, which is what we hope to do as physicians." ■

one thing I am worried about — you have a little fluid in your ankles." Tibbles gently presses the swollen ankles, while Rosenthal makes a quick call to the podiatrist's office to ensure a visit for M.

At the end of the visit, they decide to increase M.'s dosage of Lasix, a diuretic that may help her

"Seeing patients in their own home away from the inpatient clinics and the hospital is a unique opportunity for us."

— JASON WORCESTER

TACKLING ALZHEIMER'S: A JOINT VENTURE

In acknowledgement of their excellence in geriatric research, BUSM and the Bedford Veterans Affairs Medical Center (BVAMC) received a grant of more than \$3 million from the National Institutes of Health in 1996 to establish the Boston University Alzheimer's Disease Center. Led by an outstanding group of BUSM researchers seeking to unlock the clues to this baffling disease, the center is the result of a long-

standing collaboration between BVAMC and BUSM. The funds are being used to conduct research on Alzheimer's disease and to translate discoveries at the bench to useful treatments at the bedside.

The Alzheimer's Disease Center is led by Neil Kowall, MD, professor of neurology and pathology at BUSM and head of the Geriatric Research, Education and Clinical Center at BVAMC — one of only 16

such programs in the country. "By combining the resources of BUSM and the Bedford VA, we are in a unique position to promote Alzheimer's disease research at Boston University and throughout the country. Our research incorporates the suburban population in Bedford and the racially, ethnically and culturally diverse population served by the Boston University Medical Center — a vital asset," Kowall says.

Sesquicentennial UPDATE

How do you celebrate a distinctive birthday? For BUSM students, staff and alumni, the answer is a fresh cup of coffee, some history reading, running a road race and, to cap it off, a scientific seminar and a little dancing. Throughout 1998, the school has sponsored numerous events commemorating the founding of the New England Female Medical College (NEFMC), the precursor of BUSM, in 1848.

When bleary-eyed students came to school to begin their second semester this year, BUSM awakened them — and kicked off the year-long Sesquicentennial celebration — with deans past and present handing out mugs and serving coffee and a continental breakfast. Nearly 1,500 mugs printed with the Sesquicentennial logo were handed out to appreciative java fans at the January event. Later that afternoon a more formal re-



BUSM students are happy to wait for birthday cake at the afternoon reception held in January to celebrate the Sesquicentennial.



ception was held in Hiebert lounge, and a throng of several hundred heard remarks made by BUSM student Deenah Atieh '00, president of the Student Committee on Medical School Affairs; Donald Grande '73, president of the

Alumni Association; and Dean Aram V. Chobanian, MD.

"The New England Female Medical College students were women who not only had the gift of intelligence to learn and discover medical techniques, but also had the ability to endure and resist criticisms from the medical community of the day," Atieh said, citing the sometimes harsh criticism leveled at the institution in its day as immodest and even immoral. "They became great physicians and leaders within their fields, laying the foundation upon which the goals of our school and profession are built." Chobanian added that BUSM has now "grown to a point of national prominence as a medical school and a medical center. We have developed a unique character, an independent spirit, and a heart and soul that reaches out to the community."



Students fill their free BUSM mugs with coffee at the morning kickoff celebration.



At left, James Becker, MD, James Utley Professor and chairman of the Division of Surgery at BUSM; and right, John O'Connor, MD, associate dean of admissions and professor of pediatrics, radiology and anatomy, share early morning conversation at the morning festivities in January.



Students who attended career day gleaned valuable information from alumni.

students. Keynote speaker Mardia Harris Stone '79 spoke to students about "Diversity in a Career: Challenges and Opportunities."

On May 1, an awards ceremony was held honoring the outstanding achievements made by women in science at BUSM. The recipients included Anna Bissonette, RN, associate professor; Rachel Boone Keith '49; Reshma Kewalramani '98; Susan Leeman, PhD, professor of pharmacology; Ruth Levine, PhD, professor emerita and former associate dean; Helen Lyons '98; Adrienne Rogers, MD, director of the Office of Medical Education; Elaine Ullian, president and CEO of Boston Medical Center; and Judith Vaitukaitis '66, director of the National Center for Research Resources at

the National Institutes of Health.

The school also sponsored the Rebecca Lee, MD, 5K Road Race on May 2. The well-attended event, in which participants ran and walked on the Cambridge side of the Charles River, honored the NEFMC graduate of 1864, the first female African-American physician in the United States.

BUSM also marked its birthday with more permanent tokens. Chobanian presented wristwatches featuring the BUSM Sesquicentennial logo to all stu-



Sara Nucifero '89, medical director for Primary Care at Boston Medical Center's Harrison Avenue Campus, was one of more than 16 graduates of BUSM featured at the first annual Student Alumni Career Day, held in April.

dents and staff. A history of the institution, *Generations*, written by Owen McNamara, former director of Boston University Medical Center's publications,

was published in April. In the coming months, watch for the 1998 Alumni Directory, which will include information on all 5,600 alumni. ■



Cara Chun, a first-year MD/PhD student at BUSM, reaches for a pastry at the January morning reception.

Remaining BUSM Sesquicentennial Events

May 15-16	Alumni Weekend
May 29	Dean's Reception in New York City
June	Dean's Reception in California, date to be announced
August 25-29	Eighth Symposium on Subtypes of Muscarinic Receptors (Held in Danvers). For information, please call Ruth Levine, PhD, at 617 638-5123.
September 17-18	Scientific Session: The Brain — Sensory Transduction, Channels, Neural Circuits, Computation and Higher Functions of the Brain
September 18	BUSM Convocation
September 27-28	The Framingham Heart Study's 50th Anniversary Celebration
October 10	Sesquicentennial Gala at Boston Copley Marriot Hotel
November 16-20	Evans Week, sponsored by the Department of Medicine
November 17	Cardiovascular Symposium in honor of the 25th anniversary of the Whitaker Cardiovascular Institute at BUSM

For more information on the Sesquicentennial events, please call Peter Reich at 617 638-5240.

1998 Distinguished Alumnus/Alumna Awards

Every year, the Alumni Association and BUSM recognize the outstanding accomplishments of four graduates. The honorees, through their determination and insight, have made important contributions to medicine.

Joanne Lynn '74 is professor of health care sciences and medicine at The George Washington University Medical Center in Washington, founder and director of the Center to Improve Care of the Dying (CICD) at The George Washington University Medical Center, and president of Americans for Better Care of the Dying. A nationally known geriatrician, Lynn is a fellow and former vice president of the Hastings Center, a medical ethics research organization; a fellow of the Kennedy Institute of Ethics; and a fellow of the American Geriatrics Society. In 1996, she was named to the prestigious Institute of Medicine. She has served as medical director for The Washington Home, Hospice of Washington, George Washington Cancer Home Care Program and Home Health Services. She currently serves on the Geriatrics and Gerontology Advisory Committee to the Department of Veterans Affairs.

Deeb N. Salem '68 is professor and chairman of Medicine at Tufts University School of Medicine. A founder of the North American Society of Pacing and Electrophysiology, he is a specialist in cardiac catheterization, congestive heart failure and pacemakers. He headed the Heart Transplant Team of the Boston Center for Heart Transplantation of the New England Medical Center Hospital and is the president of the American Heart Association Massachusetts Affiliate, Inc. With more than 120

publications to his credit, his area of special interest is balloon dilation of heart valves.

Joshua Wynne '71 is professor of medicine and chief of the Division of Cardiology at Wayne State University School of Medicine. He is also chief of the Section of Cardiology at Harper Hospital, executive director of the Cardiac Center at Harper Hospital/The Detroit Medical Center and vice president of Affiliated Internists.

A prominent cardiologist, Wynne has been at the forefront of clinical investigation of non-invasive technology, particularly in the areas of echocardiography and nuclear cardiology. With more than 180 publications to his credit, he has made important advances in the understanding of ventricular function as it is influenced by drugs and as it is modified by disease states, with major contributions to the understanding of cardiomyopathies and coronary artery disease.

1998 Humanitarian Award

Allen C. Waltman '73 is clinical instructor of medicine at Tufts University School of Medicine and director of Home Medical Service and Geriatrics for New England Medical Center (NEMC). He also serves as attending physician at the Boston Evening Medical Center and at the New England Health Associates of NEMC.

FACULTYNOTES

Howard Bauchner, MD, associate professor of pediatrics, was appointed to the editorial board of the journal *Pediatrics*.

Edward Bernstein, MD, associate professor of emergency medicine; and **James Taylor, MD**, clinical professor of medicine, were co-recipients of the Massachusetts Medical Society's Special Award for Excellence in Public Health.

Robert Dolan, MD, assistant professor of otolaryngology, was initiated into the Fellowship of the American College of Surgeons.

Harry Gavras, MD, professor of medicine, was elected chairman of the Hypertension Council of the American Heart Association.

Leonard Gottlieb, MD, MPH, professor and chairman of the Department of Pathology, was honored recently by the American Friends of The Hebrew University of Jerusalem for his work in advancing higher education at The Hebrew University in Jerusalem.

Ruth Levine, PhD, professor emerita and former associate dean, was elected to the Hunter College Hall of Fame. The distinguished group to which Levine was elected includes Nobel Prize winners Rosalyn Yalow and Gertrude Elion.

Elinor Levy, PhD, associate professor of microbiology, gained national and international recognition with the publication of her book *The Ten Best Tools to Boost Your Immune System*.

Joseph Loscalzo, MD, PhD, Wade professor and chairman of Medicine, was recently elected to membership in the Association of American Physicians. He also taught as a visiting professor at the University of Texas at Galveston and was the Howard Hughes Visiting Professor at the University of Florida.

Carol Rosenberg, MD, assistant professor of medicine, won a Department of Defense Breast Cancer Research Program Career Development Award.

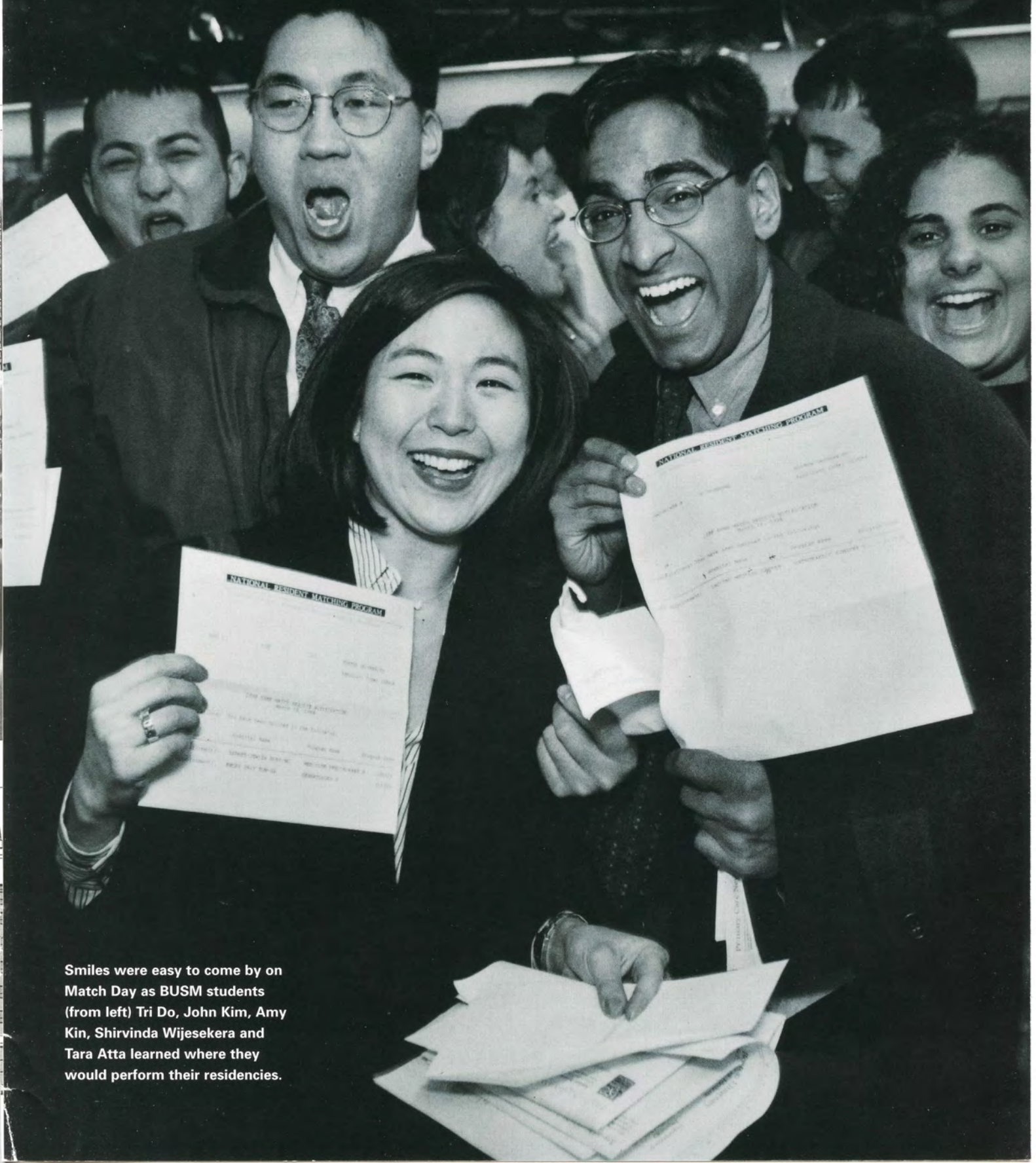
Thomas J. Ryan, MD, professor of cardiology, was awarded the prestigious James B. Herrick Award from the Council on Clinical Cardiology of the American Heart Association.

John Sandson, MD, dean emeritus and professor of medicine, received the Distinguished Alumnus Award from Washington University for his ongoing teaching and research.

Donald Small, MD, professor and chairman of biophysics, was recently selected by the American Gastroenterology Association as having written one of the 10 most important papers in the field of gastroenterology in the last 100 years, "The Physicochemical Basis of Cholesterol Gallstone Formation in Man." Small authored the study with W.M. Admirand, MD, in 1967.

Alan Sugar, MD, associate professor of infectious diseases, won the Will Solimene Award of Excellence in Medical Communication. ■

BOSTON UNIVERSITY SCHOOL OF MEDICINE



Smiles were easy to come by on Match Day as BUSM students (from left) Tri Do, John Kim, Amy Kin, Shirvinda Wijesekera and Tara Atta learned where they would perform their residencies.



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