Healing and Discovering:

Michigan’s Ambitious MSTP Grads Bridge the Clinic and the Laboratory
Welcome to the sixth issue of Medicine at Michigan!
It’s hard to believe that the sesquicentennial celebration has ended. The events over the past year have become another important part of the legacy of our Medical School, and I want to thank each and every one of you who took advantage of all of the opportunities to help us celebrate our anniversary.

When the Michigan Marching Band left the field at half time during the October 14th homecoming game, the celebration of the Medical School’s sesquicentennial officially ended. The high-energy program was a fitting conclusion to the final week of campus events that began with a “birthday party” outdoor barbecue for nearly 5,000 students, faculty, staff and hospital employees.

Other major events during the week included the opening of Seeing Is Healing? at the University of Michigan Museum of Art; the dedication of the MCAS Hall of Honor in the Towsley Center; the Medical Center Alumni Society all-classes reunion activities including keynote addresses by noted alumni Donald S. Fredrickson, M.D., former director of the National Institutes of Health, and Marshall Nirenberg, Ph.D., Nobel-prize-winning medical researcher; and a sesquicentennial gala dinner.

While the last anniversary toast has been offered and the final set of remarks delivered, many lovely reminders of the celebration are now in place in the Medical School. Patients, visitors, staff and students alike pass through a permanent anniversary project when they walk through the connector between the Medical School and the hospital. Graduation class composites now hanging there re-establish the tradition begun when the composites first hung in the connector to Old Main. The turn-of-the-century doctor’s office exhibit in the hospital lobby offers a historic view of a typical Ann Arbor practice. Seven of our leading basic science faculty members now have lecture halls named after them. Near the third-floor entrance to Medical Science II Building is a colorful 27-foot-long art installation that pays tribute to John Jacob Abel, Minor J. Coon, James V. Neel, Horace W. Davenport, Frederick C. Neidhardt, Elizabeth C. Crosby and Gerald D. Abrams. (See pages 42-45 for details.) Lastly, four bronze markers are now located around campus to mark important sites in the history of the Medical School at the University.

With a newfound appreciation for the greatness of the Medical School’s proud history and of all the men and women who contributed to it over many years, we are more determined than ever to carry that illustrious heritage forward. In this issue, as in the five that have preceded it, you will learn more about the truly outstanding people and programs that make up this wonderful place. The Medical Scientist Training Program is one of our most prestigious and exciting programs, one in which, with the support of the National Institutes of Health, we train some of the most creative and most ambitious of the next generation of physicians and medical scientists. The efforts of Ron Koenig and all of the Medical School faculty who participate in recruiting and training these outstanding students is crucial to the success of the Medical School’s mission. Also, you’ll read about how Betsy Lozoff’s conscientious and long-running work examining the role of iron deficiency in the development of children’s brains is having an impact on children’s well-being in countries throughout the world.

Allen S. Lichter, M.D.
Dean
When “Giants Walked the Earth”

I thoroughly enjoyed your series of articles on the history of the Medical School. I, too, am a third generation graduate of this school, and was thoroughly imbued with its rich heritage. My grandfather was a member of the Class of 1899, and my father graduated in 1925. My first year there was one of much free-floating anxiety. I was one of three “legacies” in my class. Unfortunately the other two did not survive the first year.

I still recall the squeaking wooden floors of the West Medical Building. Changing classes in mid-morning I would descend the stairs under the disapproving gaze of both father and grandfather. Their unspoken question: “Why aren’t you doing better?”

In any event, with the combined efforts of Patton, Woodburn, Crosby, Nungester, Weller and countless others, I was sufficiently burnished that I was permitted to enter the clinical years.

This was the period of Michigan medicine when “giants walked the earth.” Dr. Alexander had just died, but Miller, Sturgis, Conn, Kahn (Reuben) and Kahn (Edgar), Coller, Badgley and Nesbitt were all in their heydays. Dean Furstenberg must have had some blackmail material on each of the department heads, because the junior clinical lectures were given almost exclusively by the chiefs and full professors. One of my most memorable days in the Medical School was the day of the announcement by Dr. Tommy Francis of the positive results of the polio vaccine study.

It took an additional five years of the Ann Arbor experience to qualify me as a relatively complete orthopedic surgeon. Although my son is a physician, he was not permitted the Michigan experience.

I have enjoyed every day of practice during the past 40-odd years and owe a debt of gratitude to the firm foundation provided to me, my father and my grandfather by your great institution.

Thomas F. Scott
(M.D. 1958, Residency 1963)
Huntington, West Virginia

“He, George W. Hicks, Was the Senior Shown”

One day last week, when my husband’s copy of Medicine at Michigan arrived, he was amazed to see, on the inside of the back page, scenes from LIFE Magazine of 50 years ago. He, George W. Hicks (M.D. 1950), was the senior shown. At that time we had three small children, George was working nights, and his GI bill was either a thing of the past or woefully inadequate. A $300 scholarship from a medical society and a modest and unexpected legacy from my step-grandfather in England enabled George to be graduated. He was the first U-M Medical School student with a child to be accepted. When he entered medical school he had a chemical engineering degree from Michigan and had served four years in the Army, honorably discharged with the rank of major.

As a family doctor, George practiced 22-and-a-half years in Pascagoula, Missis-
sippi, six years in Grand Bay, Alabama, and seven-and-a-half years on St. Croix, U.S. Virgin Islands. At Pascagoula he delivered about 3,000 babies, had a large office practice, made house calls, had adventures in the Gulf of Mexico with the Coast Guard, and went up a gantry crane once at Ingalls Shipyard to pronounce a man dead. He also made hospital rounds twice a day. He practiced solo except at St. Croix, when he was an emergency room doctor for the U.S. Virgin Islands Department of Health. For some years he raised Santa Gertrudis cattle on our farm in Grand Bay. While on St. Croix George was ordained a permanent deacon in the Catholic Church after studies at night for four years. We are the parents of six children. There has seldom been a boring time for we have had 17 homes since we married in 1940.

We wanted to let you know that it was good to be reminded of a time when we felt we were reaching a goal in spite of difficulties, confident of the future, and trusting in the next day.

Alice Brown Hicks
McDonough, Georgia

“One Might Wonder Why You Would Publish These Experiences”

Dr. Harry J. Schmidt, in “Alumni Reminiscences” (Fall 2000), reminded us of the admonition he heard as a medical student at Michigan, “Look to your right and to your left, one of you three will not be here to graduate.” He went on to tell of receiving a D because of an addition error by the person who graded his final exam in anatomy. The professor agreed that an error had been made, but refused to correct it, and the dean refused to intervene.

One might wonder why you would publish these experiences. Did you find them amusing? Do they enhance the reputation of the Medical School? I think you should be ashamed of such events. Or is your arrogance so vast that any kind of deviant behavior that unfairly punishes or intimates students can be laughed off under the rubric of, “Oh, well, that’s the way it was”? As the recipient of similar behavior I can assure you I didn’t find it funny then (1950), and I certainly don’t think it’s funny now, 50 years later.

Joel I. Hamburger
(M.D. 1954)
West Bloomfield, Michigan

“Isadore Lampe Did Not Found the Department of Radiology”

In the article “The Deans on Canvas” (Fall 2000), Isadore Lampe is listed as the founder of the Department of Radiology. Dr. Lampe was a superb physician, radiotherapist, and true gentleman. It was an honor for me to be one of his residents. However, he did not found the Department of Radiology.

Dr. William Martel’s The Distinguished History of Radiology at the University of Michigan correctly states that in 1917 Dr. James G. Van Zwaluwenburg became the first chairman of what was then the Department of Roentgenology. Dr. Willis S. Peck was the first director of radiotherapy, serving from 1933 to 1939, when he came to Toledo, Ohio. It was my privilege to be associated in practice with Dr. Peck from 1964 until his retirement in 1972. Dr. Lampe succeeded Dr. Peck in 1939, and served as director of radiotherapy for 35 years.

Charles M. Klein
(Residency 1962)
Jupiter, Florida

“Isadore Lampe Did Not Found the Department of Radiology”

I want to thank Howard Markel for his work (“An Example Worthy of Imitation,” Fall 2000). If we forget where we have been, we cannot find our future. I also want to express my joy at knowing that Horace C. Davenport is still contributing, and to have “Dr. ABC” know how important his quote “you live your life on the intellectual reserve accumulated during the first twenty-five years” has been to me. Another, “Michigan produces a high level of mediocrity,” has kept me humble and cautious to this day. Dr. Davenport is one of a very few who remain powerful long after their lectures are lost.

Another of Dr. Davenport’s great contributions to the Medical School was his distaste for provincialism and his awareness that greatness could come from many sources. Long ago and before many others, he embraced diversity not only because it was right and noble, but because, as he so clearly recognized, it was healthy and productive as well.

On the same day that I read Dr. Markel’s wonderful piece I had just mailed my friend’s grandfather’s Homeopathy College sheepskin signed by President Angell to my first cousin, Eric Bates, M.D., of your cardiology faculty to forward to the Historical Center for the Health Sciences! Grateful for your effort in recording and publishing our history, I am,

Randall R. Smith
(M.D. 1971)
Redding, California
Rrsmith@chw.edu
Recognizing the fundamental role basic science plays in the progress of medical knowledge and its applications to human health, the U-M Medical School, as part of its year-long sesquicentennial celebration, dedicated seven lecture halls in the names of basic scientists who, throughout the School’s history, have significantly contributed to basic science advances and, through effective communication of their work, have inspired those who have come to Michigan to learn medicine.

The seven scientists — John Jacob Abel, Minor J. Coon, James V. Neel, Horace W. Davenport, Frederick C. Neidhardt, Elizabeth C. Crosby, and Gerald D. Abrams — were selected as a result of nominations from their departments and are commemorated in a 27-foot-long multi-media installation, created by Ann Arbor artist Bill Burgard and showcased in the lobby of Medical Sciences Building II. To the primary medium of oil painting on laminated plywood, Burgard added elements of steel, granite, aluminum, Plexiglas and slate to depict and characterize the scientists and their work. Dedication of the installation and named lecture halls took place on August 21, 2000.
Gloria and Gerald Abrams at the Seven Scientists installation

Frederick Neidhardt and wife, Germaine Chipault

Tetsufumi Ueda (Ph.D. 1971) and Minor “Jud” Coon

Priscilla Neel, widow of the late James V. Neel, and Executive Vice President for Medical Affairs Gil Omenn
The Seven Scientists

James V. Neel, M.D., Ph.D., Department of Human Genetics. Neel founded, in 1956 at Michigan, the nation’s first department of human genetics and served as its chair for 25 years. Widely regarded as the father of human genetics, Neel’s work increased our understanding of the genetics of diseases such as diabetes mellitus, neurofibromatosis and sickle cell anemia, as well as our understanding of the effects of atomic radiation on humans and the genetic structure of Amerindian populations. The Neel Lecture Hall is located at 2901 Taubman Library.

Horace W. Davenport, Ph.D., D.Sc., Department of Physiology. For 22 years Davenport chaired the Department of Physiology, during which time he became the world’s leading authority on gastric secretion and acid-base balance. Noted historian, distinguished scientist and a popular teacher, Davenport was president of the American Physiological Society and author of several major textbooks, including the classic, The ABC of Acid-Base Chemistry. His Not Just Any Medical School chronicles the history of the U-M Medical School from its 1850 founding to pre-World War II times. The lecture hall located at 3699 Medical Science II South was named for Davenport.

John Jacob Abel, M.D., Department of Pharmacology. Considered the father of American pharmacology, Abel was appointed, in 1891, the first professor of pharmacology at Michigan (and in the U.S.). He founded the Department of Pharmacology, a change from Materia Medica that was quickly emulated by other medical schools across the country, and he was a founding member of the American Society for Biological Chemists and of the American Society for Pharmacology and Experimental Therapeutics. Abel was also founding editor of the Journal of Experimental Medicine, of the Journal of Biological Chemistry, and of the Journal of Pharmacology and Experimental Therapeutics. The lecture hall located at 5330 Medical Sciences I was named for Abel.

Minor J. Coon, Ph.D., Department of Biological Chemistry. Chair of the Department from 1970 to 1990, Coon’s work in unraveling the chemical, physical, catalytic and mechanistic properties of cytochrome P450, and in establishing its biomedical significance in steroid biosynthesis, chemical carcinogenesis and drug metabolism, led to worldwide recognition. Based on his pioneering research, he was elected to the National Academy of Science, the American Academy of Arts and Sciences, and the Institute of Medicine, and he was awarded an honorary medical degree from the Karolinska Institute in Stockholm. The lecture hall located at 3330 Medical Science I was named for Coon.
Frederick C. Neidhardt, Ph.D., Department of Microbiology and Immunology. Neidhardt joined the University of Michigan in 1970 as chair of the Department of Microbiology and went on to serve the Medical School as associate dean for faculty and the University as vice president for research. His own research focused on gene regulation and the molecular physiology of bacterial growth, and he served as president of the American Society for Microbiology. The Neidhardt Lecture Hall can be found at 2903 Taubman Library.

Elizabeth C. Crosby, Ph.D., Department of Cell and Developmental Biology (the Department of Anatomy in Crosby’s time). A neuroanatomist of international authority and one of the Medical School’s most beloved teachers, Crosby was the School’s first female professor, teaching 8,500 students between 1920 and 1958. She worked an additional 23 years in the Section of Neurosurgery and co-authored several volumes of *Correlative Neurosurgery*, the standard neurosurgery textbook for nearly 20 years. In 1980, President Jimmy Carter awarded Crosby the National Medal of Science. The Elizabeth Crosby Lecture Hall is located at 3695 Medical Science II North.

Gerald D. Abrams, M.D., Department of Pathology. A surgical pathologist with special expertise in gastrointestinal and cardiac pathology, Abrams is a 1955 graduate of the Medical School and has been a faculty member for over four decades. Particularly committed to medical education, he has served in a number of administrative roles including coordinator of pathology education, director of anatomic pathology, and member of the Dean’s Committee on Curriculum Improvement. Repeatedly recognized by students as an outstanding and inspirational teacher, Abrams has received every major teaching award in the Medical School. The lecture hall located at 3697 Medical Science II West was named for Abrams.

About the Artist

Bill Burgard (B.F.A. 1979) is an illustrator and designer in Ann Arbor. He teaches at the U-M School of Art and is perhaps best known for the posters he has created annually for the Ann Arbor Summer Festival since the festival began in 1984.
After more than two decades of studying the complex relationships between nutrition and childhood development, a team of scientific investigators from the University of Michigan may finally be on the verge of learning how iron deficiency affects the human brain.

“It’s exciting,” says Betsy Lozoff, M.D., director of the U-M Center for Human Growth and Development. “We have finally gotten to the point where it is possible to ask brain-behavior questions more directly. It used to be that I could never say what’s happening with the brain. We just had to put that aside.

“But now we can ask those questions, and it is very exciting to know we are getting closer to the answers. There is a handful of investigators who are looking at the basic science side of iron and the developing brain. A number of them are now starting to work together.”

Iron is required for myelin (the fatty sheath surrounding axons, which connects nerve cells and speeds nerve conduction). Iron is also required for normal functioning of the neurotransmitter dopamine. The hippocampus (a structure in the medial-temporal lobe of the brain), which is involved in memory processes, also seems to be particularly vulnerable to early iron deficiency. “These new understandings of iron’s role in the developing brain make it possible for the first time to design studies to test for these effects and to understand some of the findings in iron-deficient infants,” Lozoff notes.

Dramatic new insights regarding iron’s critical role in children’s development were recently revealed to Lozoff and her research team in a long-term study of 191 lower middle-class children in Costa Rica that began in 1981 in conjunction with colleagues there at National Children’s Hospital in San Jose. The researchers discovered that infants with an iron deficiency at the beginning of the project exhibited learning and behavior problems as teenagers — even though their original iron-deficiency anemia was corrected to normal levels through treatment.

Lozoff says the results of the study suggest there are long-lasting developmental effects among children who are afflicted with iron deficiency as infants.

The Costa Rican project was recently given a prestigious boost when Lozoff won a National Institutes of Health MERIT (Method to Extend Research in Time) grant that will allow researchers to continue studying the children after the current set of evaluations is completed.
“It’s great to be able to continue the research,” Lozoff says. “When I first started the project, I really thought the children would improve with iron. The fact that they didn’t has led to new ways of trying to understand what’s going on.

“At 12 years of age more of them have repeated a grade and have trouble with arithmetic and writing. These are problems in doing basic fundamental things that are going to make life harder for them as they go along. And then there is more anxiety and depression. When I started the work, I would never have predicted that.”

In addition to the Costa Rica study, Lozoff and her colleagues are involved with a similar study of more than 1,000 children in Chile that began in 1990. In a joint project with the University of Maryland, Lozoff is working with colleagues who recently launched a new study in India that involves both iron and zinc supplements.

“And,” she continues, “we are seeking funding for a program project grant to work on iron deficiency in the developing human infant, the monkey infant and the developing rodent. That’s a new phase of the project for us.

“I have to say that this research area is more intriguing now than at any time in the 25 years I’ve been working on it. There is still only a handful of people involved, but for a long stretch there was barely anybody. With the advancements in basic neuroscience and the ability to assess young children, I can’t help but be excited about the direction our research is taking.”

Lozoff was born in Milwaukee, grew up in Kansas and graduated from high school after her parents moved to the San Francisco Bay area. She earned degrees in social relations and computer applications at Radcliffe College in 1965, and wasn’t immediately inspired to attend medical school.

Instead, she found herself involved with anthropology projects that included summer fieldwork with the Otavaleno Indians of Ecuador for Harvard University, a study of the Indians of Martinique, and a stint in India for a project dealing with childhood diarrhea.

She graduated from Case Western Reserve University in 1971, then spent three years at nearby Rainbow Babies and Childrens Hospital in Cleveland, Ohio, followed by nearly 20 years on the faculty of Case Western. Lozoff came to the Department of Pediatrics in the U-M Medical School in 1993, and was named, later that year, director of the U-M Center for Human Growth and Development, a multidisciplinary collaboration among biomedical, behavioral and social scientists to further the understanding of the complex processes by which human beings develop and grow.
long-range goal of the Center is to optimize children’s physical, cognitive and socioemotional development.

“It was in the 1970s,” she recalls, “that I had the chance to hear Frank Oski, who was a wonderful hematologist, talk about his pilot study on iron deficiency. I listened to him and told myself, ‘That’s it!’”

It has been estimated that 20 to 25 percent of children throughout the world have anemia — a reduction in oxygen-carrying hemoglobin in the blood — due to severe iron deficiency. Although the problem is less common in this country, recent estimates indicate about five percent of poor African-American and 18 percent of Mexican-American infants and toddlers are iron deficient.

“In the U.S. we put iron in baby formula and cereals,” Lozoff explains. “We’ve also put ascorbic acid in certain foods to help the body absorb iron, and we’ve encouraged breast feeding. All of those things have helped reduce iron deficiency in the United States.

“But there isn’t a good way to prevent iron deficiency in most parts of the world. You’ve got areas where there are no safe water supplies and that means you’re feeding babies unsafe formula. You also see more iron deficiency in European infants than we have in the United States because many European countries have not endorsed the same iron supplementation recommendations as we have in this country.”

Dramatic new insights were recently revealed to Lozoff and her research team in a long-term study of 191 lower middle-class children in Costa Rica that began in 1981 in conjunction with colleagues there at National Children’s Hospital in San Jose. The researchers discovered that infants with an iron deficiency at the beginning of the project exhibited learning and behavior problems as teen-agers — even though their original lack of iron was corrected to normal levels through treatment.

Naptime in Santiago — In the Sleep and Functional Neurobiology Laboratory at the Institute of Nutrition and Food Technology of the University of Chile, infant subjects 6-18 months of age come into the lab, accompanied by their mothers, for their afternoon naps. While napping, the babies are measured for a variety of things such as auditory responses, sleep-wake pattern, motor activity, heart rate and respiration to determine their neurophysiologic development as it relates to iron deficiency. Infant health is generally excellent in Chile, but dietary iron deficiency is common.

The accompanying example of auditory brainstem response in two infants six months of age illustrates what Lozoff and her colleagues have discovered. When the response of nonanemic control infants (top wave) and infants with iron deficiency (bottom wave) are compared, the response time of anemic infants is longer. While differences were slight at six months, they got bigger at 12 and 18 months — a clear indication of slower development in the auditory pathway of the nervous system in infants with iron-deficiency anemia.

“The central nervous system used to be mostly a big black box about the effects of early iron deficiency,” says Lozoff. “Today Lozoff and colleagues around the world, including Vietnam where she will be speaking at the International Nutritional Anemia Consultative Group Symposium in Hanoi in February, know that a variety of factors, ranging from poverty and family disadvantages to the infant’s biochemistry and behavior, influence the development of a child’s brain.”
The interdisciplinary research team participating in Betsy Lozoff’s iron deficiency studies includes the following U-M scientists and faculty:

**Rosario Ceballo, Ph.D.:**
Assistant Professor, College of Literature, Science and the Arts, Psychology Department and Women’s Studies Program

**Barbara Felth, M.D.:**
Assistant Professor, Department of Pediatrics and Communicable Diseases

**John Hagen, Ph.D.:**
Director of Academic Programs, Center for Human Growth and Development

**John Jonides, Ph.D.:**
Professor, Psychology Department

**Rosa Angulo-Kinzler, Ph.D.:**
Assistant Professor, Division of Kinesiology

**Eileen Mollen, Ph.D.:**
Clinical Psychologist and Assistant Professor, Department of Pediatrics and Communicable Diseases

**Stephen Raudenbush, Ed.D.:**
Senior Research Scientist, Survey Research Center, and Professor, School of Education

**Arnold Sameroff, Ph.D.:**
Professor, College of Literature, Science, and the Arts, Psychology Department; Director of the Center for Development and Mental Health; and Senior Research Scientist, Center for Human Growth and Development

Lozoff says that as she began to become interested in iron deficiency, she was attracted to Central and South America as potential areas for research.

“I was looking for places where there was not generalized malnutrition,” she explains. “I wanted places where there weren’t problems with abnormal hemoglobins on a genetic basis, where there wasn’t malaria and where there weren’t a lot of parasites.

The Costa Rican government made a national recommendation to supplement children’s diets with iron as a result of the findings of Lozoff and her research team.

“My colleagues in Chile,” she says, “have also moved toward a national fortification program. The initiatives to try to reduce micronutrient deficiencies have taken off around the world. At the World Bank and UNICEF, it’s not only iron. It’s also zinc deficiency and vitamin A deficiency.

“It’s gratifying to be able to look back and say there is certainly a very different level of attention being paid to these issues than when we started.”
Med

Dan Ringler grew up on a dairy farm in New London, Ohio, the sort of operation where people were unsentimental about their animals, especially the non-working kind. So when he entered the veterinary medicine program at Ohio State in 1961, “I really wasn’t prepared to see the depth of feeling that urban people had for their pets, treating them just like members of the family,” says Ringler, who retired last May after 30 years on the laboratory animal medicine faculty, the last 15 of them as the director of the Unit for Laboratory Animal Medicine (ULAM).

By then, he had a pet of his own — a dog that his sixth-grade girlfriend, now wife, was forced to give away by her parents and the first animal ever allowed into his own parents’ home — and later had many more. “We’ve had a whole menagerie over the years,” he says, “dogs and cats and hamsters and guinea pigs and birds.”

Since one of ULAM’s principal functions is to house and care for the thousands of animals used in medical research at the University, as well as by the Unit’s own faculty and postdoctoral fellows, this might
come as a surprise to animal rights activists who take issue with the very enterprise that Ringler has run. It also leads to some gallows humor.

“I’ve had a lot of pets offered to me over the years,” he chuckles, “usually at social events after Bowser has had a particularly bad day.”

But he doesn’t just like animals; he esteems them. “I think humanity owes a lot to laboratory animals,” he says. And he believes their use in research eventually benefits their own kind as well as human-kind. “I say we’re in the business of reducing pain and suffering on the planet, and that medical research and laboratory animal medicine go hand in hand in doing that,” Ringler says. “Millions and millions of animals have been spared diseases and disability because of progress in human medicine, which eventually works its way into veterinary medicine.”

It was, in fact, the chance to contribute to advances in human medical knowledge that first drew him to the field of laboratory animal medicine. He graduated from Ohio State at the peak of the Vietnam War, still intending eventually to practice large-animal veterinary medicine, joined the U.S. Army Veterinary Corps rather than be drafted, and was sent for training at Walter Reed Army Institute of Research in Washington.

His job would be to direct a laboratory analyzing food being sent to the troops overseas — “The food inspection corps in the Army was mainly veterinarians, because of what we knew about public health and sanitation from our veterinary training” — but “part of our training was related to laboratory animals, because veterinarians are also responsible for all the laboratory animals, and doing that training piqued my interest in laboratory animal medicine, which was a new specialty of veterinary medicine at the time.

“I thought the field would assist in medical cures. That was the attraction, that taking care of the laboratory animals and ensuring that they were healthy and well would help medical researchers find cures for human diseases and diseases of other animals. It was a niche that a veterinarian could fill in the larger medical research enterprise that would be satisfying. I found that to be true over these last 30 years.”

After his Army stint ended in 1967, Ringler came to ULAM as a postdoctoral fellow, earning a master’s in pathology from the Medical School as part of his program. He joined the faculty as soon as he completed his training. The specialty was still in its infancy when Ringler came to Ann Arbor, having originated in the 1950s in the Chicago area. ULAM itself wasn’t established until 1962, when its founding director, the late Bennett Cohen, brought a

Photos on these and the following pages of Dan Ringler and his wife, Ariane, on a post-retirement motor tour of the U.S., at their campsite near San Diego, California, taken by Don Kohlbauer of the San Diego Union-Tribune.
That’s because surgery was the principal medical research specialty, and surgeons used dogs, because of their size, to perfect all the techniques of surgery that we take for granted now.”

These days, however, the mouse has become “the designer animal for biomedical research,” he says. “The genetics of the mouse are known, the genome is almost sequenced, and almost any disease can be induced in mice, any genetic disease certainly, and studied as a substitute for humans that have the same genetic defect.”

The average daily census of mice has quintupled during Ringler’s tenure, from 12,000 to 60,000, or about 90% of the animals housed at ULAM. At the same time, the number of dogs used every year has plummeted to 500.

Maybe that’s why the activists have been so quiet lately. “Dogs, cats and monkeys are the emotional species in this country,” Ringler says. “Other cultures have different animals that they treasure more or elevate to higher status for either religious or cultural reasons. There have been almost no demonstrations in Ann Arbor regarding the use of animals in research, but there have been a few minor demonstrations elsewhere in the last few years about the use of monkeys, in particular.”

He is very clear about his views on this subject, and he has very clearly had to explain them more than once or twice. “I feel that the animals are treated very well, better than most pet animals,” he says. “They seem healthy and happy in their existence here, and they are doing a great service for humans and other animals. The whole industry of laboratory animal care has grown up in this country since the 1950s to ensure that the animals are healthy and well treated and that the research is worthwhile. And I assure the activists of all of this. We give tours of the animal facilities to any responsible person or group. We’re proud of what we have and pleased to show other people, and I’m convinced that the citizens of Michigan would be proud of what we have also.”

National Institutes of Health training grant here with him from UCLA. Ringler, who succeeded Cohen as director in 1985, believes it’s the longest-running NIH training grant at U-M.

Cohen was one of the so-called “Chicago Five” who founded both the specialty and the American Association for Laboratory Animal Science, which now has about 7,000 members. “The veterinarians at that time were being hired by medical schools to improve the quality of care of laboratory animals and to deal with the animal activists who were picketing in Chicago in the 1950s,” says Ringler. “The training programs basically brought in graduate veterinarians who understood cows and horses and dogs and cats but had had very little training in diseases of the laboratory animals: rats and mice, guinea pigs, monkeys and rabbits.”

And dogs, lots of dogs. “When I came here, we were using about 6,000 dogs a year in medical research, probably the most numerous animal in use at that time,” says Ringler. “That’s because surgery was the principal medical research specialty, and surgeons used dogs, because of their size, to perfect all the techniques of surgery that we take for granted now.”

These days, however, the mouse has become “the designer animal for biomedical research,” he says. “The genetics of the mouse are known, the genome is almost sequenced, and almost any disease can be induced in mice, any genetic disease certainly, and studied as a substitute for humans that have the same genetic defect.”

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He is very clear about his views on this subject, and he has very clearly had to explain them more than once or twice. “I feel that the animals are treated very well, better than most pet animals,” he says. “They seem healthy and happy in their existence here, and they are doing a great service for humans and other animals. The whole industry of laboratory animal care has grown up in this country since the 1950s to ensure that the animals are healthy and well treated and that the research is worthwhile. And I assure the activists of all of this. We give tours of the animal facilities to any responsible person or group. We’re proud of what we have and pleased to show other people, and I’m convinced that the citizens of Michigan would be proud of what we have also.”
And he gives the activists their due. After all, they helped spur the creation of his specialty. “The animal activists all through the years have pushed medical administrators and national groups to improve the lives of the laboratory animals and the controls on, and scrutiny of, the research,” he says.

U-M established its University Committee on Use and Care of Animals in 1965. In 1986, a new federal law required that committee to approve all use of vertebrate animals on campus. “The regulations require that the committee also include a member of the public who is not affiliated in any way with the institution, and that that person be allowed to review the projects and file minority reports if there’s disagreement about whether the project should go forward,” Ringler says. “We’ve always had two outside members [out of 16], and we’ve never carried out a project where the outside members disapproved.”

He also points out what might, at the very least, be considered an irony. “Animals have access to veterinary medical care 24 hours a day, every day,” he says. “The federal animal welfare act requires that every animal be observed every day for distress or illness or injury, and that veterinary medical attention be available that day. There’s no such law pertaining to children that requires that standard of medical care.”

“Millions of animals have been spared diseases and disability because of progress in human medicine, which eventually works its way into veterinary medicine.”
They are the shining stars in a constellation that many believe is shrinking just when it should be growing. They are the ones whose charge, in a sense, is to turn scientific headlines into medical ones. They aspire to careers in that region where the knowledge produced by basic science is applied to the maintenance and restoration of human health.

Toward that end, they earn both M.D.s and Ph.D.s, and most of them devote their lives, in one proportion or another, to both clinical practice and scientific investigation. Many of them also teach. At the University of Michigan, they are students — "fellows," technically — in the Medical Scientist Training Program, one of 38 such programs nationally that are heavily funded by the National Institutes of Health. Launched in 1979 with an original class of three, Michigan’s MSTP now has 78 alumni and admits about 10 new fellows each year, or about five percent of incoming Medical School students.

They’re really smart, even by medical school standards. They’re so committed to their goals that they’ll spend up to twice as much time in training as they would for an M.D. or Ph.D. alone (an average of seven or eight years in the MSTP, plus internship, residency and post-doctoral fellowship). They’re also willing to accept the possibility that the financial rewards, and other forms of gratification, that they’ll reap from research will be less than those offered by clinical practice alone. Of the 16,000 who earn medical degrees annually in the United States, only 500, or a little over three percent, also earn Ph.D.s.

“The most important thing is that they are able to connect the worlds of medicine and basic science in a way that other people can’t,” says Ronald Koenig, director of Michigan’s MSTP since 1995 and an M.D./Ph.D. himself. “Part of the trouble with medicine in general is that everything is becoming very, very, very subspecialized, and that’s required because we’re getting so much more knowledge. But to really be able to diagnose and treat complex diseases, you have to get into the basic biology of the cell and how it works. And to have the best training to do that really requires you to
The training itself is well funded, too. The NIH’s National Institute of General Medical Studies supports Michigan’s MSTP to the tune of about $1.2 million a year, and the Medical School adds another $600,000. Michigan’s commitment to MSTP from the beginning has made it one of the biggest in the country.

Ironically, at a time when almost daily exposure to scientific “breakthroughs” has made the public impatient to see them translated into medical treatments, the ranks of such versatile thinkers appear to be dwindling. According to a study by the Federation of American Societies for Experimental Biology, a professional group that represents biomedical scientists, the number of physicians who view research as their primary activity dropped six percent between 1980 and 1997. That may be in part because those who choose the dual path face a dilemma: industrial research offers little opportunity to practice, and clinical practice leaves little time for research.

M.D./Ph.D.s can be successful in getting grant funding, however. “Of the Ph.D.s who apply for grants, an M.D./Ph.D. is far better able to compete for money,” says George DeMuth, the MSTP’s first director. “And,” Koenig adds, “we have Michigan MSTP graduates succeeding nationally in faculty appointments at academic medical centers all across the country, such as Harvard, the University of Pennsylvania, Washington University-St. Louis, the University of California-Irvine, and the University of Virginia.”

“These students span a gigantically broad array of research interests... so we work hard to get people together and feeling cohesive. The advantage is they may find there are commonalities between them. After all, the tools of science are fairly common among broad areas. If they get together and talk, they can start developing an exchange of ideas that would never happen otherwise.”

—MSTP Director Ronald Koenig
“Ph.D. training is so basic science-oriented that it can be difficult for a Ph.D. to have a medical perspective, to know how these basic science things really relate to a human being, to understand what the problems are that patients actually get,” says Koenig. “It’s important to connect those two.”

The strongest demand for M.D./Ph.D.s is “probably in academia right now,” says Koenig. “There’s been a tremendous growth in the number of basic scientists working in clinical departments; I’m an example of that. The advent of molecular biology has allowed really clinical problems to be addressed in a very basic molecular way. An M.D./Ph.D. is a natural person to fill that niche because they can see patients as well as do basic research.”

Although he has no hard data, Koenig estimates that MSTP graduates typically devote about 75 percent of their time to research, which would make academia a most attractive venue for them, given that few others allow, much less support, such breadth. But a few do choose to focus on being practicing physicians, and the “M.D.” part of the mix is significant for all, from an affective as well as an intellectual perspective.

“Part of the interview process [which typically takes at least two days] is for the Medical School to evaluate whether the candidates are indeed capable of succeeding in the M.D. part,” says Morris. “There’s a need to see evidence that these students have some sense of service and community and working with people. There’s a stereotypical Ph.D. candidate who would rather be in the lab and not need to communicate, but the medical schools are insistent that they choose applicants who not only have good academic credentials but also have provided evidence that they can serve the community, that they have some hospital or service experience.”

“Ph.D. training is so basic science-oriented that it can be difficult for a Ph.D. to have a medical perspective, to know how these basic science things really relate to a human being, to understand what the problems are that patients actually get,” says Koenig. “It’s important to connect those two. After all, the ultimate goal of biomedical research is to make patients better, either to prevent diseases or treat them. Understanding the patient is a very important part of that.”

Pharmacology professor Benedict Lucchesi is an M.D./Ph.D. He earned both degrees at Michigan in the early 1960s, long before there was an MSTP, much less NIH funding or structured programs, when students and interested faculty were obliged to cobble together their own arrangements. Although his first love was and is research, he has always valued the extra dimension of his medical training.

“I think the double degree is extremely important,” he says. “I wish everybody had the opportunity to go that route, particularly those that remain in an academic setting. It taught me the language of the physician, and it gave me a deep appreciation for the problems that the physician is confronted with every day, the fact that the answers aren’t always there. There’s a lot of trial and error, a lot of prayer that you’re doing it right.”

Moreover, says Dean Lichter, “There is a continuing need to make sure that those two facets of medicine do not become completely compartmentalized and stop speaking to one another. This is a cadre of individuals who serve as important translators between these two groups.”

The admissions process for the MSTP is, like medicine itself, part art and part science. “We get about 140 applicants a year,” says Assistant Director Morris. “We interview maybe 45 of them, and then we choose a class of approximately 10 new fellows. People who want to get both degrees are unusual, a very special breed. Our task is to find out who among those who apply really and truly know what they’re getting into. For example, all of our applicants have to already have a substantial amount of research experience. They
can’t just say, ‘This sounds like a good idea.’”

Morris points out that almost all the directors and assistant directors of the NIH-funded MSTPs know each other, and not only compete for the brightest stars but also cooperate with each other. “It’s not unusual to have people apply to multiple programs and get multiple acceptances,” she says. “Then our task is to make a good match for the student.”

Research interests usually constitute the major component of such a match. “The top 10 medical schools tend to be not terribly different from one another,” says Kirk Frey, an original MSTP fellow and one of two members of its first graduating class. “So most students are making their decisions of where to attend on the specifics of graduate school offerings and the scientific interests of the faculty.” Frey is now a U-M professor of radiology and neurology, as well as a senior research scientist at the Mental Health Research Institute.

“We’re lucky in that this is such a big medical center that almost any research interest would be well represented here on the faculty,” says Koenig, “but occasionally there is an applicant who has a very, very narrow research interest. For him or her, this may not be the best place. If there’s only one person here who’s an expert in that area, suppose that faculty member leaves or the student comes and decides that they don’t have a good personal chemistry with that mentor? I think it’s important that whatever the person perceives their research interest to be, it’s likely there are going to be several outstanding mentors here for them.

Most applicants are not that focused in their interest, so it’s not an issue.”

Another element might be called simply “chemistry,” when it seems as if the person and the institution just belong together. “Some applicants, when I talk to them about their own research or about the University of Michigan, just have a certain sparkle in their voice and eyes that makes me think this person would be great here,” says Koenig. “I must say that response isn’t unique to me. When I see that sparkle in an applicant, most of the other interviewers feel the same way. It’s a little bit hard to know exactly what it is.”

Recreational activities and even the size of Ann Arbor can also tip the scales one way or the other. “The School of Music here is very strong and there are a lot of musicians in our program,” he says. “Someone who is musically oriented might want to come here because they know they could find people to play music with or take lessons from. I usually tell them, ‘Yeah, if you can find the time.’ Sometimes there are things that make me feel a person would not be a good match here. I’ve met a lot of people that wouldn’t feel right if they lived in a city that had less than five million people in it, so Ann Arbor probably wouldn’t be the best place for them. It isn’t the best place for everybody. There’s nowhere that’s the best place for everybody.”

From its inception, one of the Michigan MSTP’s defining qualities has been its efforts to support its participants’ collegiality, including social events during the school year and a scientific retreat in northern Michigan each summer that features homemade entertainment in addition to the presentation of papers.

“There have been programs elsewhere that were cut back because students didn’t feel there was a sense of community,” says Morris. “You did your med school, you did your Ph.D., you came out educated, but you did it by yourself.”

There are “both educational and social reasons” for this approach, says Koenig. “These students span a gigantically broad array of research interests. It’s not like graduate students in the Department of Biochemistry; they’re all interested in biochemistry, so it’s natural for them to be together. For us, it’s not so natural, so we work hard to get people together and feeling cohesive. The advantage to that is they may find there are commonalities between them. After all, the tools of science are fairly common among broad areas. If they get together and talk, they can start developing cross-fertilization and an exchange of ideas that would never happen otherwise.”

“And I think it’s important to have a social aspect to this interaction because it’s a long program. People are typically in the program eight years, seven if they’re lucky. Nobody’s life goes smoothly for eight years nonstop, and I think it’s really helpful to be able to talk to peers who have been through similar things, who have faced similar issues. Besides, when most people hear you’re an M.D./Ph.D. or you’re doing this combined training, they think you have to be some sort of mutant, and it’s good for people to interact socially and realize that these are real people.”
Catherine Keegan
Applying Developmental Biology to the World of Babies

It makes perfect sense that Catherine ‘Katy’ Keegan, a 1996 graduate of Michigan’s MSTP, is now working on adrenal gland development, even as she finishes her clinical fellowship in pediatric genetics. She can do research, see patients, and help kids.

“When you’re in the lab, you’re always relating your experience back to the clinical realm, to a patient that you’ve seen or some sort of clinical problem,” she says. “When you translate over into the clinical world, especially for me now doing genetics, I think about a lot of patients that I see in terms of how studying that disease or that problem could be approached from a basic science standpoint.”

Her Ph.D. is in cellular and molecular biology, and her role in the lab illustrates how research has become a “team sport,” so to speak. “I’m working on understanding how different genes function together to result in normal adrenal development. If this process is disrupted, it can result in life-threatening adrenal insufficiency,” she says. “I feel like I’m following along the career path that I had intended to follow, based on this training that I’ve received.”

Relating it to children completed the picture. “My Ph.D. research mentor, Sally Camper, did developmental mouse genetics, so I sort of had an interest in development from working in her lab,” she says. “And I found that children were the patients I enjoyed working with most. The more I thought about it, the more I felt pediatrics would be a good basis for what I wanted to do. When development goes wrong, that often results in a baby with a birth defect. Understanding that whole process from the scientific level all the way through a clinical level is very interesting to me.”

John Germiller
“Michigan was an easy choice.”

“It’s extremely hard to have a career where you’re a good scientist and also a good surgeon,” says this fourth-year surgical resident in otolaryngology and 1997 MSTP grad. “Being a good surgeon requires that you operate a fair amount to keep your skills up and get enough experience with your hands. Being a good researcher requires devoting a lot of time to being in the laboratory. To be honest, there are only a few people that do both really well, and I don’t fool myself that I’ll become the first person who is a great surgeon and a great scientist and has time for everything.

“The surgical disciplines in general seem to be aching for M.D./Ph.D. surgeon-scientists, so I knew there would be opportunities, no matter what specialty I went into. Michigan’s was his first choice among the MSTPs that he applied to. “There are a lot of great MSTPs and great medical schools, but there were very few that had strength in both medicine and in the type of biomedical engineering that I was interested in,” says Germiller. “There were few that even had Ph.D. programs in bioengineering, and fewer still that had real strength in biomechanics. Michigan was an easy choice.

“And my experience with the MSTP at Michigan was outstanding. It really allowed me to be exposed to a variety of disciplines and researchers, and they were very supportive of my desire to make my Ph.D. research project interdisciplinary — my goal was to understand how mechanical forces influence the development of bones in the fetus and the embryo — and they helped me out with the logistics of getting that done.”
Kirk Frey
Seeing Clinical Problems in a Different Way

The multiplicity of hats worn by Kirk Frey (M.D., Ph.D. 1984), a member of the original MSTP class, reflects the range of his interests and training: he’s a professor of radiology and neurology, as well as a senior research scientist at the Mental Health Research Institute and co-director of the Movement Disorders Clinic. “About 20-30 percent of my time is oriented towards clinical care or the use of clinical examples in resident and medical school education,” he says. “About half of my time is spent in basic neurochemical research, and the remainder is in clinical research, where I utilize my clinical contacts, particularly in the Movement Clinic, to recruit patients for clinical research protocols that are under way in my laboratory.”

Patients are the focus for academic physicians, too, not only to be cared for, but also to be learned from. “There are situations where the clinical problems presented by patients serve as a focus for a research direction,” he says, “or you’ll be presented with a clinical situation that offers a unique insight into a disease mechanism or human biology, and if you weren’t tuned to look for it or ask the right questions, it might go untapped.”

About his MSTP experience Frey says: “There were a number of very successful role models, not only in the immediate area that I had chosen for my studies but in clinical medical science in general. It was very enlightening, and the MSTP was key in exposing us to them.”

Charles Neal
Asking Questions about the Development of the Newborn’s Brain

Charles Neal (M.D., Ph.D. 1991) sought an MSTP because “it became really clear to me that answering the questions I was really interested in, how the brain works and knowing the brain, could be helped much more by understanding the human condition. Medicine seemed like the way to go, but I didn’t want to do straight medical school.”

He became enamored of neuroanatomy en route to his doctorate in anatomy and cell biology, and he became enamored of pediatrics during his rotation through it. “I fell in love with the kids,” he says, and did his residency, including a year as chief resident, at the University of California at San Francisco.

Neal was the only one of the M.D./Ph.D.s he knew during his residency who went back to the lab. While that decision necessarily came at the expense of clinical work, it did not come at the expense of compassion. His particular interest is in the long-term effects on the brain of drugs administered to premature newborns.

“Newborn premature babies are undergoing a tremendous number of stresses that they wouldn’t normally undergo, because their brains finish developing outside mom,” he says. “Not only light and sound and cold and pain and being separated from their mother, but we also give them a lot of drugs to help keep them alive, including opiates and glucocorticoids, a steroid hormone. We give premature babies a fair amount of that, so my research is going towards learning how it affects the development of the stress system in the brain and whether it has an impact that may be permanent.”
Heather Burrows
Immediate Gratification in Pediatrics

Even though she says “We didn’t come to any grand conclusions,” Heather Burrows’ (M.D., Ph.D. 2000) study of cell development in the anterior pituitary was named one of the Rackham Graduate School’s four most distinguished dissertations in 1999. She followed that in 2000 with the George R. DeMuth Medical Scientist Award for Excellence, given to a graduating senior in the MSTP “who has demonstrated outstanding accomplishments in research and who exhibits the personal and professional qualities desired in the complete physician.”

Despite such honors, she’s one of the few MSTP graduates to choose clinical practice over research, at least for now. “Research is more about delayed gratification and medicine is more about immediate gratification,” says the pediatrics intern at University of Michigan Hospitals, “and it’s easier to get hooked on instant gratification. I’m definitely going to do clinical work. I’m still interested in research, but I’m not sure how to incorporate it right now.”

Burrows describes the Michigan MSTP as “a great program. I’ve always been very happy that I picked U-M for my M.D./Ph.D.,” she says. “The two women whose labs I worked in — Sally Camper and Audrey Seasholtz — were wonderful mentors; they took that job seriously. One of U-M’s strengths is a youngish faculty that’s very involved in the lab and with graduate students. It’s important to get that kind of exposure. And the MSTP office is very supportive and nurturing; they look out for us. During the interview trail, I didn’t always get the feeling that some of the other programs would do that.”
More than 21 years ago, the University of Michigan Medical School became the first state-supported medical school in the country to become part of the national Medical Scientist Training Program network supported by the National Institutes of Health.

The program’s inception at Michigan can be attributed to the efforts of George DeMuth, professor emeritus of pediatrics and communicable diseases, who, in 1979, wrote the proposal to the NIH, building the case for Michigan’s participation based on its strengths not only in medicine but in public health, pharmacy and biology as well. He was also careful to demonstrate the excellence of those medical students then working toward their doctorates at Michigan. “There weren’t too many,” he recalls, “but they were very strong and they made a very good impression. We asked them to talk basic science, not medicine, because the site visitors from NIH were all scientists. Our message was, ‘If we can do this without NIH support, think what we could do with it.’”

DeMuth, whose medical stops prior to joining the faculty at Michigan in 1959 had included the Cincinnati Medical School (his M.D. and residency), the University of Michigan (his internship), as well as post-doctoral fellowships at both Cincinnati and the University of California, San Francisco, set his sights on attracting some of the best applicants from the pool of perhaps 100 candidates available nationwide at that time, all of whom had at least a dozen schools to choose from. He also began recruiting some of the most outstanding minority scientists, largely thanks to prodding from Charles Neal, M.D., Ph.D., who applied to the program late in 1983, too late to receive funding, but who sold himself anyway on the basis of his academic strengths and his own Minority Access to Research Careers fellowship.

“George is wonderful; I really love the man,” says Neal, now a researcher in U-M’s Mental Health Research Institute and a lecturer in pediatrics. “I was a very outspoken person, and George was very patient with that. I’m sure a lot of it came from insecurity and culture shock, and me not knowing if I fit in here. At 24 I probably just seemed angry. But I made sure I did well in classes. I didn’t want to let anyone down, particularly myself, and I didn’t want George to second-guess his decision to help me out here, and I don’t think he ever did.”

The quality of DeMuth’s personal relationships with MSTP fellows was a key ingredient in the program’s success at Michigan, many of them say today. “George raised us and then he booted us out of the house and told us we could make it,” Neal says. “He was supportive, and he’d give advice if you asked for it, but in general the message was, ‘You’ve got what it takes, now go out and do it!’”

“I always felt as though he was looking out for my best interests,” says Catherine Keegan, M.D., Ph.D., a 1996 MSTP alumna and now a house officer in pediatrics. “We got tremendous support from both the Medical School and from the Rackham School of Graduate Studies, and that, I think, was a result of George’s early work to promote the program.”

For Catherine Keegan and for many others, MSTP at Michigan means George DeMuth. “Without George,” she says, “the MSTP at Michigan would not be what it is today.”
ABOVE THE HURON

Scientists Find Molecular Switch that Inhibits Fat Cell Development

Tissue samples from experimental control mice in the U-M study show how expression of Wnt blocks formation of adipocytes. (Left) Fat cells develop in tissue grown from pre-adipocyte cells. (Right) Cells remain unchanged in tissue grown from the same preadipocyte cells when Wnt is expressed.

Photo: Ormond MacDougald

U-M Medical School scientists have discovered a molecular switch that controls the formation of fat cells in mice. If the switch is on, fat cells will not develop. Switch it off, and even would-be muscle cells turn to fat.

This powerful molecular switch is one of several related proteins called Wnts (pronounced “wints”), which exist in all types of animals. Wnts regulate the complex genetic and biochemical changes that take place during embryological development.

Development begins with a ball of generic stem cells capable of becoming any type of cell. Stem cells become precursor cells, which can change into a limited number of cell types. By the end of the developmental stage, cells are committed to just one cellular future.

Scientists knew that Wnt proteins were involved in early cell development, but the U-M study is the first to identify the importance of Wnts in fat cell formation. “We found that Wnt signaling represses adipogenesis or fat cell development,” says Sarah E. Ross, a U-M graduate student and first author of the study published in *Science* on August 11, 2000.

“Scientists knew that Wnt proteins were involved in early cell development, but the U-M study is the first to identify the importance of Wnts in fat cell formation. ‘We found that Wnt signaling represses adipogenesis or fat cell development,’ says Sarah E. Ross, a U-M graduate student and first author of the study published in *Science* on August 11, 2000.

‘This is just the first piece of the puzzle, but it is an important one,’ says Ormond A. MacDougald, Ph.D., who directed the study. MacDougald is an assistant professor of physiology in the Medical School and a member of the U-M Center for Organogenesis. ‘Understanding this developmental pathway could help scientists learn how and why obesity develops.’

MacDougald and his research team worked with two types of mouse cells — precursor muscle cells called myoblasts and precursor fat cells called preadipocytes. ‘In the absence of Wnt, both cell types consistently differentiated into fat cells,’ Ross says.
When Wnt protein binds to a cell membrane receptor, it sets off a chain of biochemical signals, according to Ross. Signals are passed from one messenger molecule to another until they reach the cell nucleus where they either turn on or turn off genes that regulate development.

Ross demonstrated Wnt’s power to control cell differentiation by blocking proteins in this signaling pathway to interrupt the Wnt signal. After just a few days, myoblasts already on their way to differentiating into muscle cells spontaneously switched gears and became fat cells instead. “This suggests that active Wnt signaling is required for continued commitment to the myocyte lineage,” says MacDougald.

Other significant results documented in the Science article include:

- Of 18 known proteins in the Wnt family, Wnt 10b is the one most likely responsible for regulating adipogenesis.
- Wnt appears to repress fat cell development by inhibiting production of two transcription factor proteins, C/EBPalpha and PPARgamma.
- Preadipocytes were injected beneath the skin of laboratory mice and allowed to grow for seven weeks into a small pad of tissue. Tissue grown from Wnt-free cells contained adipocytes, while tissue from cells expressing Wnt remained undifferentiated.

In future research, MacDougald will study whether Wnt 10b has the same fat cell-inhibiting effect in living mice as it does in mouse cell cultures. “We plan to use genetic engineering to direct expression of Wnt 10b to the developing adipocyte,” says MacDougald. “Our goal is to create a fat-free mouse.”

Other U-M collaborators in the study included Nahid Hemati, research associate; Kenneth A. Longo, Ph.D., postdoctoral fellow; Christina Bennett and Robin Erickson, graduate students; and Peter C. Lucas, M.D., Ph.D., resident in pathology. The study was funded by the National Institutes of Health, the Natural Sciences and Engineering Research Council of Canada, and the U-M.

Ormond MacDougald, assistant professor of physiology, and Sarah Ross, graduate student, examine assay results to determine which Wnt proteins are expressed during fat cell development. Ross and MacDougald’s discovery of how Wnts control the formation of fat cells in mice was featured in the Aug. 11 issue of Science.

Photo: Bill Wood, UM Photo Services

MacDougald can be reached at macdouga@umich.edu; Ross can be reached at saraross@umich.edu.

— Sally Pabojewski

U-M Project Documents History of Health Care in Michigan’s Black Community

Photographs, old letters, certificates, medical artifacts and testimonials collected by University of Michigan researchers reveal the rich history of medical care in southeast Michigan’s black community between 1940 and 1969.

Collected through the U-M’s Kellogg African-American Health Care Project and gathered from physicians, nurses and others who worked in and were treated at black proprietary hospitals and small doctors’ offices, the information has been placed in public locations around the region, including the Bentley Historical Library and the Center for Afro-American and African Studies at U-M, the Walter P. Reuther Library at Wayne State University, the Charles H. Wright Museum of African American History in Detroit, and the Detroit Public Library.

“We’ve been able to document a very important era in health care in southeast Michigan and I think we were surprised by some of the findings,” says Norman L. Foster, M.D., associate professor of neurology and senior research scientist at the Institute of Gerontology.

Research revealed that Detroit was among the cities with the highest number of black hospitals, most of which were black proprietary hospitals owned and operated by African-Americans. “There was a tremendous investment that individuals made in trying to deliver the best health care to their own people who were being denied access to care by others,” says Foster, who, with Harold W. Neigh-bors, Ph.D., associate professor in the U-M School of Public Health, led the research team.

The Medical School maintains the project’s Web site where visitors are given a preview of the information available at the public repositories. Foster hopes the collection influences two audiences in particular: “I hope that we can encourage students who are considering careers in the health sciences to explore the information,” he says. “It’s a record of achievement in African-American history that can encourage people of all types to overcome their personal barriers to succeed in the health sciences.” He also hopes the information will influence those who are trying to develop new health systems so that they may be more sensitive to the issues and attitudes of all patients.

— Valerie Gliem

For more information, visit the Kellogg Project at: http://www.med.umich.edu/haahc/.
The University of Michigan regents have approved a new Cardiovascular Center that will bring together all of the University’s resources in heart and vascular treatment, research, and education.

“Fighting such a deadly group of interrelated and common diseases requires the mus-tering of our resources in a cohesive and effective fashion,” says Gilbert S. Omenn, M.D., Ph.D., executive vice president for medical affairs and U-M Health System chief executive officer. “This center will help our institution serve the people of this state and this nation better, as we combat both the causes and the effects of cardiovascular disease.”

The Center will bring together cardiovascular programs from the Health System and the rest of the University, including adult and pediatric cardiology, adult and pediatric cardiac surgery, vascular surgery, vascular medicine, hypertension, stroke, and many related disciplines and projects. “Cardiovascular disease kills one person in this country every 33 seconds, and nearly 77 Michigan residents each day. We have no time to lose,” says Kim Eagle, M.D., interim chief of the Division of Cardiology and co-director of the current Heart Care Program. Eagle can be reached at keagle@umich.edu.

— Kara Gavin

**Cause of Manic Depression?**

**New Research at Michigan Points to Neurochemical Explanation**

People with bipolar disorder have an average of 30 percent more of a class of signal-sending brain cells, according to new evidence being published by U-M Medical School researchers. The finding, in the October 2000 issue of the *American Journal of Psychiatry*, strengthens the idea that the disorder has biological and genetic roots.

The discovery is the first neurochemical difference to be found between asymptomatic bipolar and non-bipolar people. “To put it simply, these patients’ brains are wired differently, in a way that we might expect to predispose them to bouts of mania and depression,” says Jon-Kar Zubieta, M.D., Ph.D., assistant professor of psychiatry and radiology. “Now, we must expand and apply this knowledge to give them a treatment strategy based on solid science, not on the current method of trial and error. We should also work to find an exact genetic origin, and to relate those genetic origins to what is happening in the brain.”

Zubieta and his colleagues made the discovery in 16 patients with type I bipolar disorder using positron emission tomography, or PET. The scans let them see the density of cells that release brain chemicals such as dopamine, serotonin and norepinephrine, which together are known as monoamines. Monoamines are involved in mood regulation, stress responses, pleasure, reward, and cognitive functions like concentration, attention, and executive functions. Scientists have hypothesized their role in bipolar disorder for decades, but have never proven it.

The new U-M result points to a clear difference in the density of monoamine-releasing cells in the brains of bipolar people even when they are not having symptoms. Using the PET scanner to examine areas of the brain where monoamine-releasing neuronal transmitters are concentrated, the team looked for the signal of radiotracer DTBZ, which they had injected into the bloodstream of the 16 participants and 16 people without bipolar disorder. The patients and control subjects had been carefully matched for age, gender and educational status.

DTBZ binds only to a protein called VMAT2 inside the synaptic connections of monoamine-releasing cells, making it a good tracking device for the density of those terminals. It is also often used in PET scanning to study Parkinson’s disease, which is characterized by a severe shortage of cells that produce dopamine. On PET scans, DTBZ density — and therefore monoamine cell terminal density — can be quantified by the amount of radioactive signal present in different areas. By looking at the intensity of the DTBZ signal in all the subjects’ brains, the U-M team found that bipolar patients averaged 31 percent more binding sites in the region known as the thalamus, and 28 percent more in the ventral brain stem.
Zubieta and his colleagues hope their initial finding will lead to further research on brain chemistry and bipolar disorder. Specifically, more study is needed to examine which kinds of monoamine cells are involved. Zubieta especially suspects those that produce serotonin and norepinephrine.

The study was funded by the U-M’s General Clinical Research Center, by the National Alliance for Research on Schizophrenia and Depression, and by the Mental Illness Research Association’s Arthur Forrest Tull II Research Fund.

Zubieta can be reached at zubieta@umich.edu.

— Kara Gavin

Find the complete version of this article at:
http://www.med.umich.edu/opm/newspage/bipolar.htm

"As authors, editors and readers of this journal, we hope to promote independent thinking and skillful investigation. To succinctly and clearly present ideas, to critically review essays and research papers, and analyze and digest information crucial — or maybe not so crucial — to the field of work we have chosen. We also want the Michigan Medical Journal to elevate the learning process and give encouragement to our fellow students. We want to awaken, educate and excite."

— Editor-in-Chief Binh An P. Phan in his introduction to the first issue of Michigan Medical Journal

Michigan Medical Journal:
A New Publication, Student-Inspired and Student-Run, Showcases Students’ Work in the Medical School

Third-year U-M medical student Binh An P. Phan was still an undergraduate doing research under the auspices of the U-M’s Student Biomedical Research Program and Undergraduate Research Opportunity Program when he began thinking about the idea of a student-run science journal to showcase research being done by U-M students. Without such a journal, he felt, the work of his fellow students might not be brought to the public’s attention. While students can submit their research to professional journals, the highly competitive nature of such journals makes acceptance of the work of such novice scientists unlikely.

“I thought there was a great need to have an effective medium to disseminate student work at the graduate and undergraduate level,” Phan says. When he began his first year in the U-M Medical School in 1998, he brought up the idea of a student-run science journal again. According to Phan, “the time was right,” and soon the U-M Medical School Office of Programs and Office of Research and Graduate Studies agreed to provide funding for the inaugural issue. What had begun as Phan’s good idea soon became a reality: the Michigan Medical Journal.

Students at all levels of the U-M now have a forum for allowing the University community to see what they are doing to contribute to science and medicine. According to Phan, the Michigan Medical Journal is more for students who don’t have the opportunity to publish their work anywhere else — it is an experience you get, a process you go through to pick up some knowledge along the way.” The first issue included a range of materials from original research on HIV ("HIV-Infected Macrophages Induce Apoptosis of Neutrophiles") by Brian Lane and Sara Cheng to a poem in which the author, Christina Yee, contemplated the impending death of a laboratory rat ("The Existential Lab Rat") to a piece by Genevieve Stewart, a 1999 graduate of the Medical School and former Peace Corps volunteer, who wrote on "Rites of Passage: The Construction of Female Adolescence in Sub-Saharan Africa.” Phan hopes the experience of preparing work for the Michigan Medical Journal will help develop in students the writing and analytical skills necessary for their future careers as physicians and scientific researchers.

It was important to Phan that the journal not just focus on original research being done by students but also explore the interplay of medicine and society as seen through reviews, essays, poetry, and interviews. He wanted the humanity of medicine and the diverse interests of these young scientists to also have a voice.

Response to last year’s inaugural issue has been positive. Medical School students, administrators and faculty, Phan says, have told him that the journal is needed and timely, and that they appreciate the opportunity it provides for the dissemination of important, first-rate student contributions to science and medicine.

Distribution of the inaugural issue of Michigan Medical Journal was limited, but the students who put together the journal also established a Web site (www.umich.edu/~michmedj) to provide another medium for reading their journal. With new funding from the Office of Student Programs, Phan and the rest of his editorial board and staff are working hard on the second issue of Michigan Medical Journal to come out in early 2001.

— Liz Nelson

Medicine at Michigan 9
Growing Bone:
A new technique holds promise for children with facial defects

Nine-year-old Ryan Dewald’s face has been deformed since birth, caved in on one side and not only affecting his appearance but also hindering his ability to chew, breathe and speak. But thanks to a pioneering treatment he’s receiving at the University of Michigan, Ryan’s face is changing. Plastic surgeon Steven Buchman, M.D., has led the effort to grow Ryan almost an entire left jawbone, and a joint to connect the bone to his skull.

The technique is called distraction osteogenesis — literally, growing bone by distracting, or pulling apart, the ends during the healing process. Buchman and a handful of other surgeons around the country are hopeful that with more research, the technique can be used to help thousands of children born each year with facial defects, and others with facial bone problems.

“This is a process by which new bone is formed from the old bone that was there,” says Buchman, who heads the Craniofacial Anomalies Program. “You cut the bone, and when you cut it, it wants to heal. If you fool the body by moving those two cut surfaces away from each other very slowly, almost like a clock moving every day, you fool the body into making new bone.”

Buchman is also studying the long-term effects of distraction osteogenesis on the psychosocial and communication status of children who have the procedure done for facial deformities, compared with those who do not. Since social and psychological factors are often cited as part of the reason to make such dramatic and costly efforts to fix facial birth defects, he hopes to show how the outcome and timing of each procedure affect patients in non-physical ways.

Buchman’s work is being supported in part by a three-year $447,000 gift from the Carls Foundation of Detroit. You can reach Buchman at sbuchman@umich.edu.

You can find the full article on-line at:
http://www.med.umich.edu/opm/newspage/distoste.htm

Tired But Not Sleepy:
It can be an important distinction in diagnosing sleep apnea

Being low on energy during the day might be caused by trouble breathing while you sleep, even if you don’t actually feel sleepy, a recent University of Michigan study suggests. In fact, doctors and patients may be missing the real cause of some cases of daytime fatigue: a potentially serious but treatable condition known as sleep apnea.

The study, described in an article in the August 2000 issue of Chest, notes that patients with undiagnosed sleep apnea don’t always describe their symptoms in ways that alert their physicians to the problem. “Sleep apnea is a common and under-diagnosed condition in which breathing stops temporarily dozens or even hundreds of times a night. It can have an important impact on a person’s productivity, quality of life and health if not treated,” says Ronald Chervin, M.D., M.S., assistant professor of neurology and director of the U-M’s Michael S. Aldrich Sleep Disorders Laboratory. “But the classic symptom doctors look for in a patient with apnea is sleepiness — and people with apnea often don’t talk about sleepiness, only that they’re tired much of the time or that they lack energy.”

Chervin arrived at his finding by reviewing patients’ descriptions of their symptoms as well as their sleep patterns. He reviewed survey answers and sleep test results from 190 people found to have sleep apnea during sleep studies at the U-M Sleep Lab. In all, 73 percent of the study’s subjects said they suffered from sleepiness, fatigue, tiredness or lack of energy often or almost all the time. But when the four descriptive terms were compared independently, less than half the patients reported feeling sleepy often or always, while 62 percent said they lacked energy often or always, 57 percent reported problems with fatigue, and 61 percent said they felt tired. Women were more likely to describe such symptoms.

Asked which of the symptoms was most significant to them, more patients chose “lack of energy” than any other problem. Chervin and his colleagues also asked subjects which symptom most kept them from accomplishing what they wanted to do during the day. Forty-four percent said lack of energy, while only 16 percent said sleepiness.

— Kara Gavin

You may read the full article on-line at:
http://www.med.umich.edu/opm/newspage/sleepy.htm
University of Michigan President Lee C. Bollinger announced in October that he has selected two prominent scientists — a biochemist from the U-M and a cell biologist from the University of California, San Diego — to serve as lead scientists and co-directors of the U-M’s new Life Sciences Institute.

Jack E. Dixon, currently the Minor J. Coon Professor of Biological Chemistry and chair of Biological Chemistry in the Medical School, will begin his new position on July 1, 2001, after completing his term as department chair. Scott D. Emr, professor of cellular and molecular medicine in the School of Medicine at the University of California, San Diego, and a Howard Hughes Medical Institute investigator, will become co-director in July 2002.

“We are very fortunate, indeed, to have as directors two great scientists who possess the personal qualities to attract and support other great scientists at our University,” said Bollinger. “They will be outstanding as scientific leaders and co-directors of the Institute, maintaining their own excellent research efforts while jointly building the new institute from the ground up.”

Currently under construction and scheduled for completion in spring 2003, the Institute building will contain laboratories and offices for 30 science faculty — dually appointed to their academic departments-of-origin as well as to the Institute — plus postdoctoral fellows, graduate students and staff.

— Sally Pobojewski

Additional information on the Initiative and the Institute may be found at:

Leading Breast Cancer Expert Named New Chair of Internal Medicine

The University of Michigan Medical School has appointed noted breast cancer specialist Marc E. Lippman, M.D., to chair its Department of Internal Medicine effective January 2001. Lippman heads one of the Medical School’s biggest departments, made up of 13 divisions and accounting for a sizable portion of the school’s faculty, clinical visits, medical curriculum and research grants. As chair, he also holds the title of John G. Searle Professor of Medicine.

Lippman comes to the U-M from Georgetown University Medical Center, where he directed the Vincent T. Lombardi Cancer Research Center and chaired its Department of Oncology. He was also a professor of medicine and chief of the Division of Hematology-Oncology at the Georgetown Medical School.

Lippman’s research specialty has been the basic biology of breast tumors. He established the first cell culture models for studying estrogen action; these human breast cancer cell lines were used to better understand the molecular mechanisms by which estrogens alter gene transcription and result in progression of breast cancer.

— Kara Gavin
Medical School scientist Denise Kirschner, Ph.D., has developed a new mathematical model that shows how HIV—the virus that causes AIDS—slowly destroys its victim’s immune system by accelerating a normal process called homing, which diverts white blood cells from the bloodstream to the lymph system. Increased understanding of the complex relationship between HIV and the immune system is important to helping scientists develop more effective treatments for AIDS and suggest new targets for therapeutic drugs.

“This model indicates that the key to extending survival time for people with AIDS is to minimize the number of CD4 cells exposed to signals in the lymph system which lead to apoptosis or cell suicide,” says Miles W. Cloyd, Ph.D., professor of microbiology at the University of Texas Medical Branch at Galveston. Developed in collaboration with G.F. Webb, Ph.D., of Vanderbilt University, Kirschner’s model validates the homing theory of HIV progression first proposed by Cloyd and his colleagues. Results from the model were published in the August 1, 2000, issue of The Journal of AIDS.

Many scientists believe HIV destroys the immune system by attacking white blood cells called CD4 or helper T-cells in the bloodstream. But Kirschner and Cloyd maintain that HIV’s lethal action is much more subtle and indirect. Their model shows that CD4 cells actually self-destruct in the lymph system. Death comes as a result of exposure to biochemical signals involved in the homing process, which trigger apoptosis or cell suicide.

“Previous HIV models have focused on what happens in the bloodstream, but the real action is in the lymph system,” says Kirschner, an assistant professor of microbiology and immunology in the U-M Medical School. “A very small percentage of cells dies from apoptosis on a daily basis, but over a seven-year period, it adds up to almost 100 percent.”

— Sally Pobojewski

For more information, read the complete article online at:
http://www.med.umich.edu/opm/newspage/AIDSmad.htm

Radioactive antibody compound, Bexxar, first developed at the U-M, produced tumor shrinkage in 97 percent of 76 previously untreated patients with advanced-stage, low-grade non-Hodgkins lymphoma. These promising results, from the first completed study of a first-line, stand-alone radioimmunotherapy for cancer, were presented last year at the meeting of the American Society of Clinical Oncology by Mark S. Kaminski, M.D., U-M professor of hematology/oncology and co-director of the U-M’s leukemia/lymphoma and bone marrow transplant programs.

Most notably, 76 percent of patients achieved a complete remission, with no sign of cancer. In addition, 84 percent of patients with evidence of molecular-level lymphoma at the start of the trial achieved molecular remission for as long as three years with the treatment. Molecular remissions were determined by a rigorous use of polymerase chain reaction, or PCR, technology, a method that is arguably the most sensitive cancer detection method available today.

The original studies in the therapeutic development of Bexxar, or Iodine I 131 tositumomab, were done at the U-M by Kaminski and his colleague Richard Wahl, M.D., professor of nuclear medicine and radiology. The therapy is now being jointly developed by Coulter Pharmaceutical, Inc. and SmithKline Beecham.
“We are extremely excited by these findings, which showed remarkable response rates and molecular remissions lasting up to and beyond three years,” says Kaminski. “Molecular remissions are seldom seen with chemotherapy in low-grade lymphoma, and appear to coincide with prolonged, durable responses. Furthermore, these results demonstrate the potential of this treatment as an effective and well-tolerated first-line, single-agent treatment for low-grade lymphoma, a disease without a known cure.”

The study was funded by Coulter Pharmaceutical.

— Kara Gavin

Read the complete version of this article on-line at:
http://www.med.umich.edu/opm/newspage/bexxar.htm

First Tobacco-Funded Grants Announced by State To Support Life Sciences Research

Awards to U-M Total $47.8 Million

The state of Michigan Life Sciences Corridor recently awarded the first grants from a $1 billion tobacco settlement to support life sciences research and economic development throughout the state. U-M scientists were lead investigators in 25 of 59 proposals approved for funding by the Life Sciences Corridor steering committee. U-M awards totaled $47.8 million. Winning proposals included research by U-M scientists developing a new gene therapy for cancer and tests by a U-M spin-off company of a substance to kill bacteria and viruses in food.

“The announcement is the result of a unique collaboration between Michigan’s state government, its research institutions and its growing biotechnology industry,” said Lee C. Bollinger, U-M president. “It is a tangible sign of the significance of today’s life sciences revolution to our state’s economy, the educational mission of its universities, and the profound impact the Corridor will have on medicine and society.”

The largest Life Sciences Corridor award of $58.7 million over five years will be used to develop a linked network of advanced technology laboratories in structural biology, proteomics, genomics, bioinformatics and animal models for researchers from universities, private research institutions, and biotechnology or pharmaceutical firms throughout Michigan. These core facilities will be physically located at the University of Michigan, Michigan State University, Wayne State University or the Van Andel Institute, but they will be open to all scientists affiliated with the Life Sciences Corridor. The U-M will house two of these facilities: the Michigan Proteome Consortium ($12 million in funds), which will use technology to separate and identify proteins created by cells in response to genetic instructions, and the Michigan Center for Biological Information ($9 million in funds), which will have advanced computing and bioinformatics resources for analyzing and interpreting massive amounts of complex data.

— Sally Pobojewski

Tree-Planting Honors U-M Role in International Geriatrics Training

Two gingko trees donated by the Japanese Planning Committee of the U.S.-Japan Training Institute were planted late last summer on the grounds of the U-M Geriatrics Center to commemorate 10 years of collaboration. The Institute, in partnership with the Geriatrics Center, the Japanese Ministry of Health and Welfare, Uniers Foundation and the Tanabe Selayaku Company, has provided training in Ann Arbor to more than 200 Japanese health care professionals, including physicians, nurses, social workers, psychologists and home health aides, in a team-based approach to geriatric care. In Japan, gingko trees symbolize long life.
STUDENTS WILL LEARN HOW CULTURE, RACE AND GENDER PLAY ROLES IN PATIENTS’ HEALTH AND CARE

Michigan’s future doctors, nurses and other health care professionals will gain a better understanding of the roles that culture, race and gender play in their patients’ health problems and needs, thanks to a newly awarded federal grant.

The $208,000 award, from the U.S. Department of Education’s Fund for the Improvement of Postsecondary Education, will allow professors from the University of Michigan, Wayne State University and Michigan State University to develop and teach an interdisciplinary curriculum for pre-med students and other undergraduates bound for health careers. It will also bring national experts to the classroom to discuss major issues and will provide for faculty workshops.

The aim of the project is to help students learn early on how culture and health intersect and interact, from beliefs about diseases and treatments to the health impact of a subculture’s history or diet. Such understanding may help them serve patients better in their future careers.

The program, housed in the U-M’s Institute for Research on Women and Gender and the Department of Psychiatry in the U-M Health System, is called “Seeing the Body Elsewise: Connecting the Health Sciences and the Humanities.”

The series of courses and lectures will use literature and other aspects of the humanities to teach students about the varying perceptions, experiences and expectations of people from different backgrounds, ethnicities and genders.

“Patients and educators alike have told us that health professionals need more awareness of cultural diversity,” says principal investigator Jonathan Metzl, M.D., Ph.D., assistant professor of psychiatry and women’s studies, and co-director of the Rackham Interdisciplinary Institute. “Our project will offer a unique way for students to explore cultural differences and understand how those differences may affect their interaction with patients in the future.”

—Kara Gavin

For the full article, visit:
http://www.med.umich.edu/opm/newspage/edgrant.htm

Child Magazine Names C.S. Mott Children’s Hospital One of Ten Best Children’s Hospitals in U.S.

A national survey of children’s hospitals in the February issue of Child magazine lists the University of Michigan’s C.S. Mott Children’s Hospital among the top 10 children’s hospitals in the U.S. The top 10 children’s hospitals were selected from among the 178 hospitals that are members of the National Association of Children’s Hospitals and Related Institutions. Criteria included quality of physicians and nurses, survival rates of common childhood cancers and amount of government research funding the hospitals receive. Each of the 10 hospitals was asked to name a physician on their staff who is an outstanding representative of their facility. Mott named Steven M. Donn, M.D., who led a series of clinical trials showing that a new ventilator allowed premature babies to breathe on their own earlier than did older types of ventilators. Alexa Canady, M.D., a leading pediatric neurosurgeon and a 1975 graduate of the University of Michigan Medical School, was the choice of Children’s Hospital of Michigan in Detroit.

New Drug Works Well as Sole Therapy for Difficult-to-Treat Epilepsy Patients

New results of a multicenter, double-blind study led by a Medical School neurologist demonstrate that a drug called oxcarbazepine is safe and effective enough to be used alone in patients with partial epilepsy who do not respond to other anti-epileptic drugs.

The study, published in the June 27, 2000, issue of the journal Neurology, looked at the safety and efficacy of the compound in trials at the U-M and several other sites. It compared the results of treatment with a dose of 300 milligrams per day with results from a dose of 2,400 mg/day.

“Patients participating in this study were averaging eight seizures a month despite treatment with other anti-epileptic drugs,” says Ahmad Beydoun, M.D., associate professor of neurology and director of the Comprehensive Epilepsy Center at the Health System. “The results are particularly encouraging as this difficult-to-treat population responded well to the drug, with 12 percent of patients in the 2,400 mg/day group remaining seizure-free during the four-month trial.”

The research was sponsored by Novartis Pharmaceutical Corporation, which makes oxcarbazepine as Trileptal. The drug was approved in January 2000 by the Food and Drug Administration, partly on the basis of the findings of this trial.

— Kara Gavin

Read the full article online at:
http://www.med.umich.edu/opm/newspage/ beydoun.htm

Golf Classic Raises Funds for Adrenal Cancer Research in Millie Schembechler’s Name

At the Millie Schembechler Memorial Golf Classic last July, former U-M head football coach Bo Schembechler presented Cancer Center Director Max Wicha, M.D., with $300,000, the final installment of the Millie Schembechler Adrenal Cancer Research Fund. Eight annual golf tournaments in Ann Arbor were hosted by Bo Schembechler to raise money for the Fund, with a goal of $3.2 million. The Fund, with a current market value of more than $5 million, will endow a professorship and support adrenal cancer research. Millie Schembechler died from adrenal cancer in 1992.
On a sunny Sunday afternoon last August, the 171 members of the Class of 2004 were inducted into the University of Michigan Medical School during the fifth annual White Coat Ceremony held in Rackham auditorium.

"Two ceremonies will mark your time here," Dean Allen Lichter (M.D. 1972) told them. "Graduation day in 2004 when you become doctors of medicine, and today when you receive the white clinicians' coats you will wear during your time as medical students here." By becoming Medical School alumni, a group numbering approximately 16,000 living members, the incoming students will be joining a worldwide fraternity that supports the School spiritually as well as financially, the dean said.

Coming from 61 different undergraduate schools and selected from among nearly 5,000 applicants, the entering Medical School class was welcomed by Tom Varbedian (M.D. 1956), speaking on behalf of the Medical Center Alumni Society, to this "rite of passage into one of the proudest professions." MCAS co-sponsored the ceremony with the Medical School.

Delivering the keynote address, Professor of Pathology Gerald D. Abrams (M.D. 1955) noted that the entering class comes from the top one percent of the population intellectually. Calling them "learning machines that, by succeeding, make faculty look good," Abrams complimented them on a "fabulous career choice" and quoted Studs Terkel, author of the seminal book on work, Working, who said, "Physicians work not for daily bread but for daily meaning and astonishment." "Practicing medicine is an incomparable endeavor," Abrams said. "Every day as a physician is a fascinating parade of human experience, and no other experience except war so alters the cognitive power of the mind."

But certain obligations come with the profession, Abrams pointed out. Since the public substantially funds education, a social contract exists that calls upon physicians to give with equal measure, to turn unselfish attention to the welfare of the public, to nurture the faith and trust patients place in doctors and to guarantee that faith and trust are not misplaced. "Each of you has the individual task to become the best physician you can be."

Abrams, who was himself inducted into the medical profession in Rackham Auditorium nearly 50 years ago, thanked the parents of entering students for inspiring and enabling them to this point in their education. As Francis Collins did in his commencement address to the Class of 2000 last spring, Abrams encouraged the students to not slight the needs of their personal lives and to nurture the close professional relationships with colleagues they will form. In light of the demands of medical education and the rigors of the careers that follow, Abrams said, such connections will prove to be "wonderfully supportive and sustaining."
"Practicing medicine is an incomparable endeavor. Every day as a physician is a fascinating parade of human experience, and no other experience except war so alters the cognitive power of the mind."

—Gerald Abrams
1940s
Keith Weller (M.D. 1943, Residency 1948) and Robert Tupper (Residency 1962) were inducted into the Grand Rapids Medical Hall of Fame for 2000. They were among 39 U-M alumni/ae in medicine, medical education, nursing and medical business who were nominees. Tupper, an internist with a specialty in gastroenterology who retired in 1999, is known for his work in instituting physician-training programs. For 27 years he was vice president for graduate medical education with Blodgett Hospital and later Spectrum Health, and earlier taught gastroenterology at the University of Michigan. Keith Weller, who in his retirement spent 11 years providing medical care to the homeless through Saint Mary’s Health Services, was chosen for his humanitarianism.

1950s
Victor Bloom (M.D. 1957) is in private practice in Grosse Pointe Park and writes a weekly column for the Grosse Pointe News, as well as articles for the Detroit Medical News (Wayne County Medical Society) and the Academy Forum (a quarterly publication of the American Academy of Psychoanalysis). He can be reached by phone at (313) 882-8640 or by e-mail at vbloom@compuserve.com.

1960s
Robert Tupper (Residency 1962) was inducted into the Grand Rapids Medical Hall of Fame for 2000. See 1940s entry on Keith Weller.

William J. Hall (M.D. 1965), an internist in Rochester, New York, has served as president-elect of the American College of Physicians-American Society of Internal Medicine since last April and will become the organization’s president in March 2001. Hall is professor of medicine and pediatrics and chief of the general medicine/geriatrics unit at the University of Rochester School of Medicine and Dentistry. He is director of geriatric programs at Strong Partners Health Systems in Rochester.

Hossein Gharib (M.D. 1966) has served as vice president of the American Association of Clinical Endocrinologists since May 2000, when he was chosen for the post at the ninth annual meeting of the American Association of Clinical Endocrinologists. He is professor of medicine at the Mayo Medical School in Rochester, Minnesota, and a consultant in the Department of Internal Medicine, Division of Endocrinology and Metabolism at the Mayo Clinic in Rochester. He did his internship at Philadelphia General Hospital and was a resident, endocrine trainee and research fellow at the Mayo Clinic.

Robert Bartlett (M.D. 1963, Residency 1969), professor of general and thoracic surgery who headed the Medical School’s Sesquicentennial Celebration Committee, has designed a dinner plate in honor of the School’s 150th anniversary. The plate has as its centerpiece “Old Main,” which served as the University’s main hospital for almost 60 years. Other historic hospital and Medical School buildings are featured on the rim of the plate. The plates are available in the U-M Hospital Gift Shop for $70 or can be ordered from Classic Collegiate China at (888) 866-9321 or by mail at 556 Galen Circle, Ann Arbor, MI 48103.

1970s
Steven L. Giannotta (M.D. 1972, Residency 1978) has been elected president of the American Board of Neurological Surgeons. Giannotta, professor of neurological surgery at the University of Southern California School of Medicine, has served as director of the Board for five years and as secretary for one year. He will be joined by fellow alumnus William Chandler (M.D. 1971, Residency 1977) who this year begins a six-year term as a director.

1980s
Douglas S. Paauw (M.D. 1985), associate professor of medicine in the Division of General Internal Medicine at the University of Washington School of Medicine, has named the first holder of the Rathmann Family Foundation Endowed Chair in Patient-Centered Clinical Education. Paauw is an attending physician at the University of Washington Medical Center and Harborview Medical Center. He has received distinguished teaching awards from both the University of Washington and from its School of Medicine. He also has received the Clinician-Teacher Award of Excellence from the Society of General Internal Medicine, the Paul M. Beeson Teaching Award, and has three times been named one of the “Best Doctors in America.” Paauw is the editor of the book, Guide to Internal Medicine and Continuing Medical Education editor for Scientific American Medicine.

Want to locate classmates or other graduates of the University of Michigan Medical School? Want classmates and other graduates of the Medical School to be able to locate you? Try the popular feature, “Search Alumni Doctors,” on the Medical School’s Web site. It’s a listing of those who have chosen to provide information about themselves for the site.
Lives Lived

Arthur L. Lennox (M.D. 1934) died March 21, 2000, in Naples, Florida, after more than four decades as an obstetrician and gynecologist in the greater Toledo, Ohio, area, including three years in practice with his son, John Lennox, M.D. He was a fellow of the American College of Surgeons and the American College of Obstetricians and Gynecologists, and he served on the staff of Toledo Hospital and on the courtesy staffs of St. Luke’s and Flower hospitals in Toledo. Lennox, who was 90, left a bequest to the University to establish the Jennie I. Lennox Endowed Medical Student Loan Fund, honoring his mother who loaned him the money to attend the U-M Medical School.

William Kaufman (M.D. 1938) died on August 24, 2000, in Winston-Salem, North Carolina, at age 88. For many years he maintained a private practice in Bridgeport, Connecticut. He did clinical research on niacinamide, a form of vitamin B3, and its ability to lessen or eliminate osteoarthritic pain, and was considered a pioneer in vitamin therapy for rheumatism and arthritis. A prolific writer, he was the author of two books on niacinamide as well as many articles dealing with arthritis, nutrition, food allergies and psychosomatic medicine. He was also a playwright and artist. He is survived by his wife, Charlotte, who, with him, established the Dr. William and Charlotte S. Kaufman Endowment Fund for Library Technology at the University of Michigan.

Delbert Pearson (Residency 1955), who established his medical practice in Ypsilanti in 1960, died at age 75 on May 28, 2000, from complications of diabetes. He completed his residency in pediatrics and communicable diseases at University Hospital where he was chief resident from 1955 to 1960, at which time he joined the staff of Beyer Hospital where he remained until his death, serving as chair of the Department of Pediatrics from 1981 to 1985. Especially interested in sports medicine, Pearson served as team physician for the Ann Arbor Public Schools from 1953 to 1985, for the Ypsilanti Public Schools from 1985 to 1986, and for Eastern Michigan University from 1986 to 1998. He was a supervisor/fellow in sports medicine in the U-M Department of Family Practice from 1994 to 1998.

Rex Goodnow Wilcox (M.D. 1960), died on June 20, 2000, at age 64.

David Cheris, M.D. (Residency 1963), 66, died in Newton, Massachusetts, on April 21, 2000. Participating in Syracuse, New York, for 34 years, Cheris was former chairman and director of the Department of Radiology at Community General Hospital and associate professor at Upstate Medical Center of the State University of New York. Cheris was the author of several publications, including Basic Physics: Principles of Diagnostic Radiology, co-authored with Barbara Cheris, his wife of 42 years.

U-M Psychiatrist Raymond Waggoner Dies at 98

Raymond W. Waggoner, (M.D. 1924), Sc.D., a noted University of Michigan psychiatrist, medical administrator and government advisor who was one of the first to see mental illness as both an emotional and physical problem, died of natural causes at Heartland Health Care Center in Ann Arbor on June 27, 2000. He was 98.

Throughout his career, Waggoner worked to modernize treatment of the mentally ill, and to bridge the gap between the Freudian psychosocial model and the discipline of neuroscience, which aims to find biological explanations for psychiatric disorders. “That biopsychosocial model, which he helped pioneer, now forms the basis of our entire medical specialty,” according to John Greden, M.D., Ph.D., current chair of the U-M Department of Psychiatry.

Waggoner received his undergraduate and medical degrees from the U-M by the age of 22. After earning his doctorate in neuropsychiatry in 1928 at the University of Pennsylvania, he returned to the University of Michigan in 1929 as a neurologist. Eight years into his 65-year U-M career, he switched to the Department of Psychiatry and soon began a 33-year term as department chair. In those years, 1937 to 1970, he built a nationally renowned clinical and research faculty noted for its eclectic mix of disciplines and for integrating psychotherapy and neuroscience. Under Waggoner’s direction, the Department grew from a small clinical and teaching unit in the 1930s to a major force in psychiatry research, care and education.

Waggoner also had a strong interest in ethics and values, which he saw as combining the human and the humane. Since 1985, the U-M has held an annual lecture on the topic in his name. Gifts may be made to the Raymond W. Waggoner Lectureship on Ethics and Values in Medicine, care of Philip Margolis, M.D., Waggoner Lectureship Committee Chair, U-M Department of Psychiatry, 900 Wall Street, Ann Arbor, MI, 48105.
The University of Michigan Medical School capped the year-long commemoration of its 150th anniversary with a special Sesquicentennial Celebration and All-Classes Reunion in Ann Arbor October 13-14, 2000. Alumni from 53 different classes and 31 different residency and graduate programs comprised the largest and most diverse representation ever assembled for a Medical School reunion.

Observing that it is “the mark of a great institution to keep its past alive,” Dean Allen S. Lichter opened the two days of reflection and celebration with a special Heritage Program and introduced Howard Markel, M.D., Ph.D. (M.D. 1986), director of the Historical Center for the Health Sciences, as the first George Wantz Professor of the History of Medicine. Markel referred to the Wantz Professorship, created by George E. Wantz (M.D. 1946) of New York, as a shining example of alumni support, noting that receiving an endowed professorship from the institution at which he trained is “the highest honor.” Markel presented a history of the Medical School, highlighting its contributions to research and education as an “example worthy of imitation,” a phrase derived from the Flexner Report of 1910 which identified the University of Michigan and a handful of its early peers as models of medical education.

Following Markel’s address, George Morley (M.D. 1949, Residency 1952), the Norman F. Miller Professor Emeritus of Gynecology, presided over the induction of 76 “true Michigan greats” into the new Medical Center Alumni Society Hall of Honor which recognizes alumni/ae who have contributed significantly to medical science and education over the past 150 years. Located in the lobby of Dow Auditorium in the Towsley Center for Continuing Medical Education, a collection of plaques bearing the image and brief biography of each honoree was unveiled and dedicated by Dean Lichter and Executive Vice President for Medical Affairs Gil Omenn. A complete listing of the first members of the MCAS Hall of Honor appears on pages 26-28.

Donald S. Fredrickson (M.D. 1949), former director of the National Institutes of Health and the Howard Hughes Medical Institute, concluded the Heritage Program with a reflective address recounting his life journey from youthful origins in Colorado to college-town Ann Arbor via troop trains during World War II. His rather casual choice of medicine as a course of study turned out, he said, to be inspiration borne of youthful ignorance. “Science is an unselfish, incurable addiction,” he said, describing the way in which his life had been happily consumed by his love of medical science and the challenges it presented to him. Even greater challenges remain for those who choose to pursue them, he suggested, with tremendous opportunities for study and exploration ahead.
That prediction was echoed by luncheon speaker Marshall W. Nirenberg (Ph.D. 1957), winner of the Nobel Prize in 1968 for his early work on the genetic code and its role in protein synthesis. “There has been no other time with such great opportunities in medical research.” Nirenberg said. Stating that the age of gene discovery is already over, Nirenberg predicted that the genome will accelerate research and that computers will make an enormous difference in processing the resulting information—information that used to reside in the minds of the men and women performing the research. “Fifty years ago, no one knew where we’d be today,” Nirenberg said, advising younger researchers who might be inclined to avoid high-risk projects with uncertain outcomes to embrace the unknown, that even though they might not realize it at the time, “those projects are the most important.”

A spectacular black-tie gala, with reception, dinner, entertainment and dancing, brought the day to a rousing end, followed the next afternoon by a sesqui-romp over the Indiana Hoosiers in Michigan Stadium, 58-0, with a special half-time salute to the Medical School by the U-M Marching Band.
Guests view the newly unveiled Hall of Honor.

Gil Omenn with Cozette “Cozie” Grabb, wife of the late William C. Grabb (M.D. 1953, Residency 1956) who was named to the MCAS Hall of Honor.

Howard Markel, the George E. Wantz Professor of the History of Medicine, begins the morning Heritage Program with a history of the University of Michigan Medical School.

Heritage Program speaker Donald S. Fredrickson, M.D.: “Science is an unselfish, incurable addiction.”

George W. Morley, M.D., the Norman F. Miller Professor Emeritus of Gynecology and professor emeritus of obstetrics and gynecology, announces the 76 “Michigan greats” inducted into the MCAS Hall of Honor.
Chair of the Department of Dermatology John Voorhees, M.D., with Sesquicentennial Committee Chair Robert Visscher (M.D. 1995) (below, right) of Holland listens to remarks during the luncheon program.

Marshall W. Nirenberg delivers the reunion luncheon address: “There has been no other time with such great opportunities in medical research.”

Awards and Transitions

During the luncheon program, which also saw the MCAS presidency pass from Jeffrey M. Dunn, M.D. (Residency 1977), to Richard L. Bucciarelli (M.D. 1972), the following Medical School alumni/ae received MCAS honors:

**Early Distinguished Achievement Award**

Kirk Frey (M.D., Ph.D. 1984) for distinguished achievements by an alumnus/alumna who graduated within the last 20 years

**Distinguished Achievement Award**

Bernard Agranoff, M.D.

James Stanley (M.D. 1964, Residency 1970) for distinguished achievements in their fields

**Distinguished Service Award**

Saeeed Farhat, M.D. (Residency 1964)

Gerald S. Connor, M.D. (Residency 1958) for outstanding service to the U-M Health System, MCAS, or health services

**Student Award**

Christy Petroff

for demonstrated service by a third-year student to the Medical School, hospitals, community or fellow students

In addition, three alumni joined the MCAS Board:

James E. Wasco (M.D. 1966)

Boxford, Massachusetts

Kenneth McClatchey (M.D. 1975)

Ann Arbor

Keith L. Black, (M.D. 1981, Residency 1987) Los Angeles, California

Two alumni became MCAS Academy members (those who have completed Board terms);

Timothy Laing (M.D. 1981, Residency 1984)

Kirt Nichols (M.D. 1966)
John Jacob Abel
1857-1938
Widely regarded as the father of American pharmacology, he was appointed to the first chair of pharmacology in the U.S., at U-M.

John Alexander
1891-1954
Thoracic surgeon and professor of surgery at U-M, he advanced the treatment of tuberculosis and other chronic lung conditions.

Mathew Alpern
1920-1996
Professor of ophthalmology and physiology as well as psychology, and an expert on human vision, he made significant contributions to our understanding of the mechanisms of human vision.

Edmund Andrews
1824-1904, M.D. 1852
Surgeon and professor of comparative anatomy at U-M and Rush Medical College, he developed anesthetic agents and advanced surgical instrumentation and technique.

Carl E. Badgley
1893-1973, M.D. 1919
Orthopedic surgeon and professor of surgery, he is best known for his work with crippled children, especially congenital dislocation of the hip and non-union of infected fractures.

Albert Moore Barrett
1871-1936
Psychiatrist and neuro-pathologist, professor and chair of Psychiatry, he improved the care of the mentally ill in Michigan.

William Lemuel Benedict
1885-1969, M.D. 1912
Professor of ophthalmology, University of Minnesota, and head of ophthalmology at the Mayo Clinic, he contributed significantly to the development of postgraduate teaching worldwide.

Delev W. Bronk
1897-1976, Ph.D. 1925
Physiologist and president of Johns Hopkins University, founding president of Rockefeller University, he also served as president of the National Academy of the Sciences.

Hugh Cabot
1872-1945
Professor and chair of Surgery and dean of the Medical School from 1921-1930, he expanded the residency program in the new University Hospital in London.

Roy Bishop Canfield
1874-1932, M.D. 1899
Professor and chair of Otolaryngology, he pioneered the use of local anesthesia, helped advance surgical techniques, and established a residency program for ear, nose and throat conditions.

Charles Gardner Child III
1908-1991
Professor and chair of Surgery, his work focused on surgery of the abdominal organs, especially the liver and pancreas.

Frederick Amasa Coller
1887-1964
Professor and chair of Surgery, he was recognized as an authority in the surgical treatment of thyroid diseases and developed a replacement for water and electrolyte loss in surgical patients that is used worldwide.

Jerome W. Conn
1907-1994, M.D. 1932
Endocrinologist and professor of internal medicine, he identified primary aldosteronism (Conn’s syndrome) and was an inspiring teacher and noted clinician.

David Murray Cowie
1872-1940, M.D. 1896
U-M’s first professor of pediatrics and infectious diseases, he was an ardent promoter of iodized salt to prevent goiter.

Elizabeth Caroline Crosby
1888-1983
Professor of anatomy, she was a noted investigator and teacher of neuroanatomy and taught its clinical application on patient rounds with neurosurgeon Edgar Kahn.

Arthur Robertson Cushing
1866-1926
Professor of pharmacology, he later established the pharmacology department at the University College in London.

Russell N. DeJong
1907-1990, M.D. 1932
Professor and chair of Neurology and founding editor of Neurology, he performed meticulous research on migraine and other disorders and diseases and wrote a classic textbook on neurological examination.

Lydia Adams DeWitt
1859-1928, M.D. 1889
A pathologist and research scientist known for her contributions to the anatomy of the pancreas and heart and for pioneering work in the chemotherapy of tuberculosis, she founded the Woman’s Research Club at U-M.

Reed O. Dingman
1906-1985, M.D. 1936
Plastic surgeon and professor of surgery, he established and served as the first head of the Section of Plastic Surgery. Several surgical devices bear his name.

George Dock
1860-1951
Professor of internal medicine, he introduced a program of clinical instruction at Michigan that became a model for medical schools around the country.

Hubert Arthur Eaton
1916-1991, M.D. 1942
Medical and civil rights activist, physician and surgeon, he is best known for his work on behalf of racial integration of hospitals.

Charles Wallis Edmunds
1873-1941, M.D. 1901
Professor of pharmacology and director of the Pharmacology Laboratory, he is best known for his digitals assays and his leadership in the standardization of drugs.

George Edward Frothingham
1836-1900, M.D. 1864
Professor of materia medica, ophthalmic and auricular surgery, and clinical ophthalmology, he was the first chair of Ophthalmology and developed the department’s course of lectures.
Hall of Honor

Albert Carl Furstenburg
1890-1969, M.D. 1915
Professor and chair of Otolaryngology, he contributed to the understanding of the fascial planes of the neck and the neurology of the ears, nose and larynx. As dean of the Medical School, he promoted high standards for education, research, and clinical service and oversaw expansion of the medical campus.

William C. Grabb
1929-1982, M.D. 1953
Plastic surgeon and professor of surgery, he directed the Section of Plastic Surgery, performed research on cleft lip and palate, and authored four textbooks, including a concise guide to clinical practice in plastic surgery.

Moses Gunn
1822-1887
Professor of anatomy and surgery, dean, and a highly skilled teacher and surgeon, he was one of the first five professors to be appointed to the Medical School.

Cameron Haight
1901-1970
Professor of surgery and head of the Section of Thoracic Surgery, he was widely recognized as the first American surgeon to remove an entire lung successfully.

Alice Hamilton
1869-1970, M.D. 1893
Pathologist, bacteriologist, industrial hygienist, assistant professor of industrial medicine at Harvard, and special investigator for the U.S. Department of Labor, she is recognized as the founder of the field of occupational medicine; her work led to the enactment of the first federal laws to protect workers.

Preston M. “Pop” Hickey
1855-1930
Professor and chair of Roentgenology, he promoted the importance of strong clinical diagnostic skills, technical mastery and knowledge of physics. He was the founding editor of the American Quarterly of Roentgenology.

Fred Jenner “Ted” Hodges II
1895-1977
Professor and chair of Radiology, his early work focused on radiologic heart measurements in normal and diseased states, and he envisioned a treatment for cancer with radioactive material produced by a cyclotron.

John Floyd Holt
1915-1991
Professor of radiology and first director of Pediatric Radiology, he published papers on physiologic bowing of the legs in children, neurofibromatosis and, with Fred J. Hodges and Isadore Lampé, a popular book on radiology for medical students.

Gotthelf Carl Huber
1865-1934
Professor and chair of Anatomy, director of the Anatomical Laboratories, and dean of the U-M Graduate School, he was primarily interested in embryology and histology.

Charles Brenton Huggins
1901-1997
Professor of surgery at the University of Chicago, he completed his residency under Frederick Coller and trained in urology under Reed Nesbit, winning the 1966 Nobel Prize for discoveries concerning the hormonal treatment of prostate cancer.

Edgar A. Kahn
1900-1985, M.D. 1925
Neurosurgeon and professor of surgery, he developed, with Max Peet, techniques to treat tumors, trauma and infection, and contributed much to standardizing cordotomy for intractable pain.

Reuben Leon Kahn
1887-1979
Professor of serology and chief of the Serology Laboratory, he developed the first practical and rapid precipitation test for syphilis; the Kahn test replaced the Wasserman test in 1941.

Isadore Lampé
1906-1982, Ph.D. 1938
Professor of radiology and director of the Radiation Therapy Division, he initiated a tumor coding system that became a national model, and he proved radiation therapy successful in curing certain types of cancer. Principles developed by him are still basic to the field.

Jack Lapides
1914-1995, M.D. 1941
Urologist and professor of surgery, his classification of neurogenic bladders is in widespread use. His greatest contribution was the development of clean, intermittent self-catheterization.

William J. Mayo
1861-1939, M.D. 1893
Surgeon, with his brother and father, he developed the Mayo Clinic in Rochester, Minnesota, into one of the foremost centers for patient care, training and research.

Norman Fritz Miller
1894-1990, M.D. 1920
Professor and chair of Obstetrics and Gynecology and a superior surgeon, he advanced the surgical treatment of benign and malignant diseases. With Isadore Lampé, he established a gynecologic tumor registry and one of the first tumor conferences in the country.

Charles B.G. deNancrerde
1847-1921
Professor and chair of Surgery and director of the surgical clinics for nearly 30 years, he stressed the importance of antiseptic and aseptic surgery.

James Van Gundia Neel
1915-2000
Professor and chair of Human Genetics, he did groundbreaking work that identified the genetic basis for sickle cell anemia and studied atomic bomb radiation effects. Many of the principles he introduced are basic to our understanding of genetics today.

Reed M. Nesbit
1898-1979
Urologist and professor of surgery, he is best known for his work on prostatic obstruction and for designing the Nesbit resectoscope, a one-handed endoscope for use in transurethral prostatectomy.

Louis Harry Newburgh
1883-1956
Professor of clinical investigation in Internal Medicine, he focused mainly on nutrition and metabolism with specific reference to obesity, diabetes mellitus, nephritis and body water and electrolytes.

Frederick G. Novy
1884-1957, M.D. 1891
Professor of bacteriology for over 40 years, he studied the chemistry of bacteria, the cultivation of trypanosomes and spirochetes, immunization, and microbic respiration. A jar for the culture of anaerobes bears his name, as do several microorganisms.

Alonzo B. Palmer
1815-1887
Professor of internal medicine and dean of the Medical School, he lobbied successfully for a nine-month, three-year curriculum and adding laboratory courses in physiology, hygiene and pathology.

Walter R. Parker
1866-1955
Professor and chair of Ophthalmology, he established a three-year residency program in ophthalmology and contributed significantly as teacher, researcher and surgeon.

Bradley Merrill Patten
1889-1971
Professor and chair of Anatomy, he promoted the growth of gross anatomy, microscopic anatomy, neuroanatomy and embryology, and is best known for his classic textbook, The Early Embryology of the Chick.

Max Minor Peet
1885-1949, M.D. 1910
Professor of surgery, he is best known for his research and extensive experience in treating malignant hypertension with lumbar sympathectomy as it related to the adrenal gland.
**Reuben Peterson**  
1862-1942  
Bates Professor of Obstetrics and the Diseases of Women and Children and chair of his department, he started the residency program that developed into a four-year program and improved facilities for maternity care and advanced gynecologic surgery.

**Zina Pitcher**  
1797-1872  
Physician, surgeon, naturalist, public official; as a U-M regent, he orchestrated the approval of a medical school and helped frame its first policies and name its first faculty. As mayor of Detroit, he lobbied successfully for free public schools.

**William D. Robinson**  
1911-1988, M.D. 1934  
Professor of internal medicine and director of the Rackham Arthritis Research Unit, he inspired the development of rheumatology as a subspecialty and contributed to its growth nationally.

**Abram Sager**  
1810-1877  
Professor of obstetrics and diseases of women and children and first dean of the Medical School, he endorsed admission of women to the School in 1870. A botanist and zoologist, he gave his impressive collections to the University.

**Maurice Harrison Seever**  
1901-1977  
Professor and chair of Pharmacology, he promoted growth of the faculty and programs in clinical pharmacology, performed research on narcotic analgesics and general anesthetic agents, and was long associated with Japanese pharmacologists.

**Hearty Sewall**  
1885-1936  
Professor of physiology, he performed research on equilibrium, muscle contraction, respiration and color vision, and is best known for immunizing animals against snake venom, demonstrating the principle of antitoxin production.

**George Linius Streeter**  
1873-1948  
Professor and chair of Anatomy, director of the Anatomical Laboratory, and noted embryologist; under him, a graduate program in research was established.

**Cyrus Cressey Sturgis**  
1891-1966  
Professor and chair of Internal Medicine and director of the Simpson Memorial Institute for Medical Research, he encouraged scientific research and strengthened teaching at all levels.

**Homer Stryker**  
1894-1980, M.D. 1925  
Orthopedic surgeon and inventor in Kalamazoo, he founded the Stryker Corporation, a medical equipment manufacturing firm, his best known invention being the Stryker Frame which allowed staff to turn a patient easily.

**Robert B. Sweet**  
1917-1980  
Surgeon and professor and chair of Anesthesiology, he started the Department’s resident training program. Under his leadership, the Department performed much of the research work on the drug ketamine.

**Harry A. Towsley**  
1905-1993, M.D. 1931  
Professor of pediatrics and communicable diseases and of postgraduate medicine, he served as historian for the 298th General Hospital, the U-M World War II unit. The Center for Continuing Medical Education and a visiting professorship are named after him.

**Bertha Van Hoosen**  
1883-1952, M.D. 1888  
Associated with Cook County Hospital, Women and Children’s Hospital in Chicago, and Loyola University, she was known as the dean of women surgeons in America, founding and serving as first president of the American Medical Women’s Association.

**James G. Van Zwaluwenburg**  
1874-1922, M.D. 1908  
Professor and chair of Roentgenology, he advanced fluoroscopy and stereography and improved the interpretation of roentgenograms of the lungs, heart and abdominal organs.

**Victor Clarence Vaughan**  
1851-1929, Ph.D 1876, M.D. 1878  
Professor of hygiene and physiological chemistry and dean of the Medical School for 30 years, he built a scientific faculty and implemented the four-year curriculum in addition to performing research on bacterial toxins, tuberculosis and typhoid fever.

**Raymond W. Waggoner**  
1901-2000, M.D. 1924  
Professor and chair of Psychiatry and director of the Neuropsychiatric Institute, he established residency programs in adolescent and child psychiatry and significantly improved mental health services in Michigan.

**Aldred Scott Warthin**  
1886-1931, M.D. 1891, Ph.D. 1893  
Professor of pathology and director of the Pathological Laboratory, he inaugurated the demonstration course on physical diagnosis and the course in microscopic pathology.

**John Elmer Weeks**  
1853-1949, M.D. 1881  
Physician and ophthalmologist, he and Robert Koch discovered, separately, the causative organism of pinkeye and Egyptian ophthalmia, now known as the Koch-Weeks bacillus.

**Carl Vernon Weller**  
1887-1956, M.D. 1913  
Professor and chair of Pathology, he expanded research and consultation services and established weekly conferences in which all facets of a case were discussed.

**Walter M. Whitehouse**  
1916-1985, M.D. 1941  
Professor and chair of Radiology, he promoted growth in the subspecialties and kept pace with advances in nuclear medicine and imaging techniques.

**Reuben Peterson**  
1862-1942  
Bates Professor of Obstetrics and the Diseases of Women and Children and chair of his department, he started the residency program that developed into a four-year program and improved facilities for maternity care and advanced gynecologic surgery.

**J. Robert Willson**  
1912-1993, M.D. 1937  
Professor and chair of Obstetrics and Gynecology at Temple University and at U-M, he was the primary author of a popular textbook and promoted the idea of primary care for women.

**Frank Norman Wilson**  
1890-1952, M.D. 1913  
Cardiologist and professor of internal medicine, he transformed electrocardiography into a science and advanced the diagnosis of myocardial infarction.

**James Leroy Wilson**  
1898-1978  
Professor and chair of Pediatrics and Communicable Diseases, he focused his research on children with poliomyelitis and was an expert in respiratory problems.
Last Call for MCAS Nominations!

The Medical Center Alumni Society seeks nominations for the following:

**MCAS BOARD**

Appointment to the Society’s board, for a term of office lasting three years. The board meets twice a year, usually in Ann Arbor. The board serves the Health System in a variety of ways, through its outreach programs to students and by assisting faculty and Health System leadership in promoting and strengthening the worldwide network of graduates of the University of Michigan Medical School.

**THE MCAS AWARDS**

- The Distinguished Service Award for outstanding service to the University of Michigan
- The Distinguished Achievement Award for professional accomplishments
- The Early Distinguished Career Achievement Award for professional accomplishments in the first 20 years following graduation

In each case, please submit relevant information, including biographical data and qualifications for service or for awards, to Michael DeBrincat in the Office of Medical Development and Alumni Relations, 301 E. Liberty, Suite 300, Ann Arbor, MI 48104-2251. Questions may be directed to DeBrincat at (734) 998-8107 or via e-mail at mikeajd@umich.edu.

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**Michigan’s Continuing Medical Education Calendar**

**Winter/Spring 2001**

**February**

- 4-9 25th Annual Midwinter Family Practice
  Boyne Highlands Inn, Harbor Springs
- 14-17 Echocardiography
  The Registry, Naples, Florida
- 16-17 Advanced Trauma Life Support (Student Course)
  Towsley Center, Ann Arbor
- 16-18 GI/Liver Wrap-Up
  South Seas Resort, Captiva Island, Florida
- 19-21 Management of the Difficult Airway
  South Seas Resort, Captiva Island, Florida
- 21-25 Radiology in the Desert
  Marriott’s Camelback Inn, Scottsdale, Arizona

**March**

- 1-3 Infectious Diseases
  South Seas Resort, Captiva Island, Florida
- 2-3 Clinical Informatics
  (Location to be determined)
- 6-9 Spring Family Practice 2001
  (Location to be determined)
- 24 Advanced Trauma Life Support (Refresher Course)
  Towsley Center, Ann Arbor

**April**

- 2-4 Management of the Difficult Airway
  DoubleTree La Posada Resort, Scottsdale, Arizona
- 4-7 Obstetrics and Gynecology-Perinatal course
  (Location to be determined)
- 21-22 Neuro-Ophthalmology
  Kellogg Eye Center, Ann Arbor
- 27-28 Advanced Trauma Life Support (Instructor Course)
  Towsley Center, Ann Arbor

**May**

- 3-5 29th Annual Spring Update in Internal Medicine
  Towsley Center, Ann Arbor
- 17-19 Practical Picture Archiving and Communication Systems (PACS)
  (Location to be determined)
- 19 Vascular Disease
  Dearborn Inn, Dearborn
- 30-1 Automated Information Management in the Clinical Laboratory
  Towsley Center, Ann Arbor
Five New Professorships
Further Enhance the Medical School’s Ability to Reward Distinguished Achievement in Teaching, Research and Clinical Medicine

Five new endowed professorships in the Medical School were made possible last year with funds totaling $6.5 million.

A gift from Max Karl Newman (M.D., 1934) of Bloomfield Hills and the Newman Family Foundation established the Newman Family Professorship in Radiation Oncology. The gift was made in recognition of the longstanding relationship of Max Karl Newman and his sons, Donald L. Newman (M.D., 1973) and Steven E. Newman (M.D., 1970) with the University of Michigan and to honor the many accomplishments of their medical careers. Max Newman was a pioneer in physical medicine and rehabilitation and one of the founding members of his specialty. All three of the Newmans are practicing physicians in the Detroit area, Donald in family medicine and Steven in neurology. The Newmans’ gift is also to honor Dean Allen Lichter, M.D., who will be the first holder of the Newman Professorship and whom Max Newman knew many years ago as the young son of his friend and classmate, Max Lichter, M.D. A ceremony to inaugurate the Newman Family Professorship was held December 10, 2000, at the Michigan League in Ann Arbor.

Two professorships in surgery were made possible with an endowment established by bequest in 1958 to benefit the Department of Surgery from the estate of Battle Creek resident Maud T. Lane. Distributions from the Maud T. Lane Scientific Research Fund provided $2.4 million toward the professorships, with the balance coming from the Department of Surgery. An earlier 1996 distribution from the Lane bequest funded a professorship in her name in the Department of Surgery.

Lane was a patient of the late C. Gardner Child, M.D., who served as chair of the Department of Surgery from 1959 to 1974. One of the new professorships is named in honor of Hugh Cabot, who was professor of surgery and director of the Department of Surgery from 1919 to 1930. He also served as dean of the Medical School from 1921 to 1930.

The first C. Gardner Child Professor of Surgery is Frederick E. Eckhauser, M.D., who joined the faculty in 1976 and whose major areas of clinical interest include pancreaticobiliary cancer, chronic pancreatitis, and portal hypertension. His professorship was inaugurated on May 30, 2000.

The first Hugh Cabot Professor of Surgery is Alfred Chang, M.D., who joined the Michigan faculty in 1988 and whose major research interests include cancer immunotherapy and gene therapy. His professorship was inaugurated on September 28, 2000.

The first Hugh Cabot Professor of Surgery is Alfred Chang, M.D., who joined the Michigan faculty in 1988 and whose major research interests include cancer immunotherapy and gene therapy. His professorship was inaugurated on September 28, 2000.

Timothy M. Johnson, M.O., associate professor of dermatology, otolaryngology and surgery, was inaugurated January 13, 2000 as the William B. Taylor Collegiate Professor of Dermatology. Johnson is also the director of Cutaneous Surgery and Oncology in the Department of Dermatology, and serves as the clinical director of the Cutaneous Oncology Program in the Comprehensive Cancer Center. His clinical research concerns the systematic surgical management of malignant melanoma, basal cell carcinoma and squamous cell carcinoma.

The Taylor Professorship honors William Brooks Taylor, a member of the Medical School faculty for 40 years, 25 of them as a professor. Taylor’s legendary diagnostic skills and knowledge of his patients inspired many, including more than 250 residents who trained with him. As a pioneering teacher, Taylor helped establish the clinical teaching program in dermatology at the University of Michigan. Taylor retired from teaching in 1992, and died in 1997.

The Taylor Professorship was established through gifts from friends of the Department of Dermatology, graduates of the dermatology residency training program, faculty members and grateful patients.

In the Department of Anesthesiology, Ralph Lydic, Ph.D., has been named the Bert N. La Du Professor of Anesthesiology Research.

The professorship honors Bert N. La Du Jr. (M.D., 1945), Ph.D., a former chair of the Department of Pharmacology and a biochemist-physician whose illustrious career included research into metabolic pathways, specifically those involved in drug metabolism. La Du was among the first to describe the drug-metabolizing enzyme system of liver microsomes that later became known as cytochrome P-450, now recognized as the major enzymatic pathway responsible for most of the metabolic detoxication of therapeutic drugs, as well as the metabolism of hundreds of other organic compounds in the environment. La Du has also made major contributions in clinical research on several inherited errors of metabolism of amino acids and in pharmacogenetics, the study of genetic traits that cause unusual reactions in some people to therapeutic drugs.

The Bert N. La Du Professorship of Anesthesiology Research was created with gifts from faculty, residents and alumni/ae to acknowledge and commemorate La Du’s contributions to academia and science. La Du recently celebrated his 80th birthday.

Lydic, whose own research focuses on the cellular and molecular mechanisms that cause respiratory depression during unconscious states, is the current president of the North American Sleep Research Society.
Michigan’s Ambitious MSTP Grads Bridge the Clinic and the Laboratory
At a time when the nation’s health maintenance organizations are among the favorite targets of physicians, politicians and even potential members, M-CARE — the University of Michigan’s HMO — is drawing praise instead of criticism.

In recent months, M-CARE has garnered national recognition and high rankings in such HMO-related categories as customer satisfaction, quality of care and overall excellence. Enrollment, which includes about 51,000 members from U-M, has skyrocketed to more than 180,000 since the plan was conceived a little more than 16 years ago by a team of researchers and planners led by John Forsyth (currently chairman and chief executive officer of Wellmark Blue Cross and Blue Shield for the states of Iowa and South Dakota) and George D. Zuidema, M.D.

“We were at a point in 1984 when people were beginning to think HMOs would be the answer to saving the health care system,” recalls Zuidema, who lives in his hometown of Holland, Michigan. Zuidema, who was on the U-M Medical School faculty from 1960 to 1964, returned after 20 years as surgeon-in-chief and professor of surgery at Johns Hopkins to become professor of surgery and U-M vice provost for medical affairs.

“There was a general sense that we should somehow get involved,” he continued, “but we first had to figure out how HMOs operated. Then we had to figure out what we would have to do to make such a plan acceptable to the medical staff and faculty before presenting it to them and their families.”

Two years later, M-CARE was launched from its drawing-board infancy and toddled into reality. Zuidema says he is not surprised at M-CARE’s steady growth in membership or prestige.

Under Executive Director Zelda Geyer-Sylvia’s leadership, M-CARE has managed to reverse a frustrating series of annual financial losses.
"As a matter of fact," he explains, "It appears that many of the things that I had hoped would happen actually did happen. I am pleased with the way things turned out in the same way that you want to be able to say you gave birth to a healthy child."

This particular health-care child may have started out small, but it has grown to include a membership base scattered over 16 Michigan counties. M-CARE holds contracts with nearly 2,000 employer groups and has access to a cadre of more than 5,500 physicians and affiliation with more than 40 hospitals in southeastern Michigan, Flint, Jackson and Lansing.

M-CARE also supports Medicaid and Medicare plans. Medicare is a federal health insurance program for the elderly and disabled. Medicaid is a federal assistance program that pays medical bills for eligible needy persons.

By definition, an HMO is an association that provides a specified package of health care for a fixed sum that is paid in advance and furnishes coverage for a specified period of time. Generally, a patient cannot seek care outside the providers or hospitals under contract with the HMO. Primary care physicians in an HMO provide and coordinate a member’s health care, approving or requesting referrals to specialists in the plan’s network for consultation.

HMOs have drawn the fire and ire of critics because of strictly interpreted coverage limitations, and allegations that patients are frequently deprived of appropriate care because non-medical personnel are making treatment decisions.

“Everyone seems to be beating up on HMOs, although our own M-CARE gets very high marks from members and providers alike,” observed Gilbert S. Omenn, M.D., Ph.D., during a recent forum on health policy that was held at the University of Michigan.

Omenn, the chief executive officer of the U-M Health System and the University’s executive vice president for medical affairs, went on to say during the forum: “There is no doubt in my mind that a compromise patients’ bill of rights, more focused on assuring prompt resolution of clinical care coverage disputes and less on generating business for attorneys, would be widely acceptable. Unfortunately, the advocates on each side have staked out extreme positions.”

George D. Zuidema, M.D.
M-CARE’s niche lies somewhere short of those extremes, according to the organization’s executive director, Zelda Geyer-Sylvia. “What we are finding is that our M-CARE members are generally satisfied,” she says. “People are aware of the negative images that are out there, but they say, ‘that is an HMO, but it is not my HMO.’ ”

“That means our main focus is on our delivery system, which has as its heart the U-M Health System. We have a lot of relationships with very good health systems throughout our service area, including Beaumont, Oakwood, St. John, Genesys and Providence, but our base is still the U-M Health System.”

Those close ties to the U-M Health System give M-CARE an advantage over competing HMOs, she continues. “For example, we use all of the Medical School-developed and faculty-developed clinical guidelines — the guidelines on how to practice. We adopt them, don’t have to develop our own, and it turns out to be a very good partnership for both of us.

“M-CARE is different because the Medical School adds a lot of value in terms of the quality of our programming.”

The opposite is also true, according to Omenn, who points out M-CARE’s importance to the U-M Health System. “M-CARE gives us a window on the insurance world at a time of unprecedented changes,” he says. “It also gives us an opportunity to experiment with managed care strategies and instruction. And it’s an excellent health plan option for our employees.”

It is also an extremely important source for scientific research, with M-CARE members having the opportunity to voluntarily participate in a number of wide-ranging studies involving everything from diabetes to pediatrics and pharmacology.

“We also have an educational mission,” Geyer-Sylvia says. “We have a couple of grants — one from the state Medicaid program and another sponsored by the Robert Wood Johnson Foundation to promote interdisciplinary education in managed care for physicians, nurses, social workers and pharmacists.

“We have a real commitment to Medicaid and Medicare and continue serving these populations because they are important to us as part of our mission to serve the community.”

Geyer-Sylvia earned her master’s degree in public health from Yale in 1976. She has spent nearly 15 years in the health care plan industry, including a stint as a regional administrator for Vermont Community Health Plan which developed the first HMO in that state.

She came to M-CARE in 1998, after Community Health Plan merged with Kaiser-Permanente, the largest HMO in the country. Under Geyer-Sylvia’s leadership, M-CARE has managed to reverse a frustrating series of annual financial losses.

“There continues to be a need for physicians and educators to work together on the managed care evolution. Managed care is evolving but probably will not go away,” she says, “and that’s why it is so important for us to partner with the health care delivery system.”
"It allows for all the different pieces of the system — including the physicians and the hospital — to really understand what the financial issues are in relation to health care. It helps them understand that there isn’t an open checkbook out there. There are financial realities, and employers are only going to pay just so much. We bring a consciousness of the need for cost efficiency.

“In addition, a strong partnership with the health care delivery system allows us to focus on providing high quality care. We can demonstrate our quality — in a tangible and measurable fashion — to employer groups and others who want to take a look at our performance.”

Omenn says the achievements of the recent past have been impressive, but they have also generated high expectations for the future. “I expect M-CARE to be an increasingly well recognized model of a top quality, financially sound health care program which pays its physicians, hospitals and other providers well while offering employers and members highly cost-effective and innovative benefit programs for clinical care, home services, patient education and health promotion.”

Geyer-Sylvia acknowledges the challenges that lie ahead. She says M-CARE will fulfill its future mission through planned, careful and controlled growth. “What we have to do is make people understand that there are differences between us and those big insurance companies who have adopted managed care. We are not an insurance company. M-CARE is a health maintenance organization that believes in prevention and quality services.”
In the Limelight

Five U-M Medical School faculty elected fellows of world’s largest science organization

Five University of Michigan Medical School faculty members have been elected fellows of the American Association for the Advancement of Science, the world’s largest organization of scientists. They make up the majority of the U-M’s seven new AAAS fellows, the largest group from any single U.S. institution this year.

AAAS fellows are a select group chosen by their peers for distinguished efforts in advancing science or scientific applications. The 251 individuals elected this year will officially become fellows on February 17, 2001, at the national AAAS meeting in San Francisco.

The five Medical School faculty members are:

- **Huda Akil**, Ph.D., Gardner C. Quarton Professor of Neurosciences, professor of psychiatry and co-director and senior research scientist of the U-M Mental Health Research Institute. She was recognized for her outstanding contributions to the neurobiology of depression and stress, and for leadership in creating a modern scientific basis for psychiatry.

- **Jack E. Dixon**, Ph.D., Minor J. Coon Professor of Biological Chemistry and chair of the Department of Biological Chemistry. His nomination cited his pioneering discoveries of peptide hormones, structure and catalytic mechanism of phosphotyrosine phosphatases, and the lipid second-messenger target of the tumor suppressor PTEN.

- **George J. Brewer**, M.D., professor of genetics and internal medicine. He was elected for his clinical research on copper metabolism and Wilson’s disease, and the development of zinc and tetrathiomolybdate treatments that have transformed care of patients with the disease.

- **Stanley J. Watson**, M.D., Ph.D., Raphael Collegiate Professor of Neurosciences in the Department of Psychiatry and co-director and research scientist at the U-M Mental Health Research Institute. He was elected in recognition of his distinguished contributions to understanding the neurobiology of stress and depression.

- **Max S. Wicha**, M.D., professor of internal medicine and director of the U-M Comprehensive Cancer Center. He was elected for his contributions to the understanding of apoptosis in the biology and treatment of breast cancer, and for national leadership in the fight against cancer.

The other two U-M faculty elected AAAS fellows were **Vincent Pecoraro**, Ph.D., professor of chemistry in the College of Literature, Science and the Arts, and **Nancy Reame**, M.S.N., Ph.D., professor, School of Nursing, and a research scientist in the Reproductive Sciences Program.
Robert M. Anderson, Ed.D., professor and senior research scientist in the Department of Medical Education, received the Outstanding Educator in Diabetes Award from the American Diabetes Association on June 10, 2000, at their annual Scientific Sessions meeting in San Antonio. The award is presented each year to the distinguished health professional who has made exceptional educational efforts in diabetes. The honor recognized Anderson’s work in defining the essence of diabetes education as encouraging informed decision-making and personal responsibility, and in positioning the health care system to better respond to the ongoing needs of people with diabetes.

Diane Baker, M.S., clinical associate professor of human genetics and director of the Genetic Counseling Program, has been selected as a 2001 AAAS Congressional Fellow. Approximately 80 fellows per year take part in this program, which allows accomplished, socially aware scientists/health care professionals to participate in and contribute to federal policy-making processes. The program is supported by the American Association for the Advancement of Science, the American Society of Human Genetics, and the fellow’s home department.

Steven R. Buchman, M.D., associate professor of surgery in the Section of Plastic and Reconstructive Surgery and director of the Craniofacial Anomalies Program, has been selected as the Robert H. Ivy Society Award Winner at the 2000 national meeting of the American Society of Plastic Surgeons. The award is given annually for the paper showing the greatest degree of excellence in preparation, presentation and illustration of scientific material as well as the greatest degree of excellence in scientific merit, originality and impact.

Alphonse Burdi (Ph.D. 1962), professor of cell and developmental biology and research scientist in the Center for Human Growth and Development, was awarded an Honorary Doctor of Science degree at the University of Athens commencement exercise on May 26, 2000. This high honor, recommended by medical and dental faculty at the University, recognizes Burdi’s more than 200 scientific and clinical contributions to the world literature on developmental craniofacial biology and the causes of leading birth defects and syndromes such as clefts of the lip and palate.

Horace Davenport, Ph.D., D.Sc., the William Beaumont Professor Emeritus of Physiology and former chair of the Department of Physiology, has been listed as one of the 50 most influential gastrointestinal professionals of the past century by the vGastroenterology.com Web site. In consultation with leading professionals, vGastroenterology.com identified 50 scientists, clinicians and inventors who have had the biggest influence in the field of gastroenterology over the past 100 years. A brief description of Davenport’s contribution to the field of gastroenterology and some biographical information are posted on the site.

Kim Eagle, M.D., Albion Walter Hewlett Professor of Internal Medicine and chief of clinical cardiology, has been appointed editor of Current Journal Review by the American College of Cardiology. The College is a professional society of over 25,000 cardiovascular physicians and scientists from around the world who support the mission of fostering optimal cardiovascular care and disease prevention through professional education, promotion of research, leadership in the development of standards and guidelines, and the formulation of health care policy.

Eva Feldman, M.D., professor of neurology and director of the Juvenile Diabetes Foundation Center for Complications of Diabetes, was honored by the American Diabetes Association for her commitment and dedication to diabetes research. Feldman has been continuously funded by the American Diabetes Association since 1995, and her work was highlighted in their 2000 Progress Report. Feldman also received the 2000 Jane L. Cobb Promise Award for excellence in scientific research from the Juvenile Diabetes Foundation.

John Greden, M.D., Rachel Upjohn Professor of Psychiatry and Clinical Neurosciences, chair of psychiatry, senior research scientist in the Mental Health Research Institute and director of the new Michigan Depression Initiative, has been appointed chair of the American Psychiatric Association’s Council on Research. The American Psychiatric Association is a medical specialty society recognized worldwide, with a membership of 40,500 U.S. and international physicians specializing in the diagnosis and treatment of mental illnesses and substance use disorders.
Michael J. Imperiale, Ph.D., professor of microbiology and immunology, was selected to receive a University of Michigan 2000 Faculty Recognition Award. He was recognized for groundbreaking research in cancer biology and gene therapy, outstanding teaching, and exemplary leadership and administrative service.

Mohamed K. Khan, M.D., Ph.D., lecturer in the Department of Radiation Oncology, has been elected to the American Medical Association’s Council on Scientific Affairs (CSA). There are 11 members who sit on the Council; each is elected by the AMA’s House of Delegates. CSA is an advisory council within the AMA regarding scientific medical issues. It also drafts reports that serve as a national source of information on science and research-based issues that affect the practice of medicine and the quality of patient care. The Council prepares policy positions and makes policy recommendations, most of which have been approved by the AMA House of Delegates and are now the official policy of the AMA.

The American Academy of Physical Medicine and Rehabilitation recently honored James A. Leonard Jr., M.D., clinical professor and chair of the Department of Physical Medicine and Rehabilitation, with a Distinguished Clinician Award. The Academy honors physical medicine and rehabilitation physicians who have achieved distinction on the basis of their scholarly level of teaching and their outstanding performance in physiatric patient care activities. Leonard has devoted most of his clinical career to the care and treatment of patients needing orthotic and prosthetic services. He is a renowned teacher and clinician, has authored numerous publications and has presented more than 130 lectures to medical and professional organizations on topics in the field of medical rehabilitation.

Medical School Professor Receives Top National Medical Teaching Award

Cyril Grum in 1996 with students Tina Hahn and Kwabena Osei-Boateng (standing) and Wilmer Balaoing (seated)

One of the Medical School’s leading educators of future physicians has now been named one of North America’s top teachers of medicine. Cyril Grum, M.D., professor of internal medicine and coordinator of many medical education activities at the U-M Medical School, received a major national award for medical student teaching last October at the meeting of the Association of American Medical Colleges in Chicago.

Grum and three co-recipients were honored with the Alpha Omega Alpha Robert J. Glaser Distinguished Teacher Award, recognizing outstanding contributions to medical education by gifted teachers. The four were chosen from a select group of faculty, one nominated by each medical school dean in the U.S. and Canada. The award carries with it a $10,000 prize for each recipient, $5,000 for each institution’s teaching activities, and $1,000 for each local chapter of the Alpha Omega Alpha medical student society.

“It’s a tremendous honor to be recognized for my teaching efforts over the past 20 years,” says Grum. “As a teacher, I work to excite, inspire and lead students — I do whatever it takes. My greatest duty is to send them out on a career journey where they’ll surpass what I have done. Every teacher should strive for that.”

At the Medical School, Grum directs the curriculum for all third- and fourth-year students, as well as directing his department’s clerkship program, during which third-year students practice the art and science of medicine in patient-care settings. He also teaches second-year students, counsels fourth-year students on their career directions, and carries out research designed to improve the effectiveness of medical education.
The Graduate Program in Cellular and Molecular Biology has named its annual lectureship the Myron Levine Lectureship to honor Professor Emeritus Myron Levine, Ph.D., founding director of the Cellular and Molecular Biology Program, now in its 27th year. The inaugural lecture, “Signal Transduction Mechanisms that Control Nervous System Development and Function,” was presented on September 5, 2000, by Michael Greenberg, Ph.D., professor of neurology and neurobiology at Harvard University, at the Annual Symposium and Poster Session of the Cellular and Molecular Biology Program.

Simon Levine, Ph.D., associate professor and director of the Rehabilitation Engineering Program in the Departments of Physical Medicine and Rehabilitation and Biomedical Engineering, was awarded the esteemed Mentor Award by the Rehabilitation Engineering Society of North America. The award is given for leadership in counseling and nurturing of others in the rehabilitation and assistive technology field. Levine was also elected as a fellow of the Society for his national and international contributions to rehabilitation technology.

Manuel O. Lopez-Figueroa, Ph.D., a postdoctoral fellow in Stanley Watson’s lab at the Mental Health Research Institute, was recently presented with the 2000 Young Investigator Award for Superior Research Achievement in the Field of Nitric Oxide Biology/Chemistry. The award was presented by the three Nobel Laureates in Medicine and Physiology for 1998 at the First International Conference of the Biology, Chemistry and Therapeutic Applications of Nitric Oxide.

Barbara Luke, Sc.D., M.P.H., professor of obstetrics and gynecology, won the American Society of Journalists and Authors Outstanding Book of the Year (Service Category) for her book, When You’re Expecting Twins, Triplets or Quads: A Complete Resource. Founded in 1948, the American Society of Journalists and Authors is the nation’s leading organization of independent nonfiction writers.

Ralph Lydic, Bert LaDu Professor of Anesthesiology, director for research in the Department of Anesthesiology, and professor of physiology, has been named president of the Sleep Research Society. The Sleep Research Society exists to promote understanding of the processes of sleep and its disorders through research, the training of practitioners of research and the dissemination of the fruits of their efforts to the scientific and medical communities as well as to the general public.

John Moran, Ph.D., assistant professor of human genetics and internal medicine and one of the Medical School’s first Biological Sciences Scholars, has received one of five 2000 Keck Distinguished Young Scholars awards. The Keck award carries a grant of up to $1,000,000 over the next five years and was instituted by the W.M. Keck Foundation to support the nation’s most promising young scientists involved in biomedical research addressing the fundamental mechanisms of human disease.

James J. Mulé, Ph.D., Maude T. Lane Professor of Surgery, was named by the director of the National Cancer Institute to serve on its Board of Scientific Counselors, beginning July 1, 2000. Mulé is responsible for the review of the Institute’s entire intramural clinical research program and will serve as an adviser to the director. Mulé also serves as the chairman of the Institute’s Experimental Therapeutics study section. He is the director of the U-M’s Graduate Program in Immunology and the Cancer Center’s Tumor Immunology Program.

Elizabeth Petty, M.D., associate professor of internal medicine and of human genetics, received the 2000 University of Michigan Regents’ Award for Distinguished Public Service. The Regents’ Award, presented annually since 1991, recognizes public service activities that relate closely to teaching and reflect professional and academic expertise. Petty was chosen for her contributions to the public’s and medical profession’s understanding of genetics; her service to the Medical School, University and the state of Michigan; and the example she provides for students and young physicians.
Julia Richards, Ph.D., associate professor of ophthalmology and visual sciences, has been selected to receive the Lew R. Wasserman Merit Award from the Board of Trustees of the Research to Prevent Blindness (RPB) health organization, a world leader in support of eye research.

Richards was appointed last year to the Scientific Advisory Board of the Glaucoma Foundation in New York. In September of 2000, she was the co-chair of the Seventh Annual Optic Nerve Rescue and Regeneration Think Tank entitled “Immune Modulation and Gene Expression in Glaucoma: Toward a Unified Field Theory of Glaucoma.” Richards is engaged in the search for genes which cause glaucoma, one of the leading causes of blindness in the U.S.

Jean Robillard, M.D., professor and chair of Pediatrics and Communicable Diseases, has been elected to a six-year term on the Board of Directors of the American Board of Pediatrics. Throughout his career, Robillard has been a member of numerous boards and committees. For the American Board of Pediatrics, he has served on the Certifying Examination Planning Committee, the Task Force on Transplantation Medicine, and the Examination Committee for the Sub-Board of Pediatric Nephrology. He also has served as the chairman of the Sub-Board of Pediatric Nephrology.

The American Board of Pediatrics is one of 24 certifying boards of the American Board of Medical Specialties. Board certification represents dedication to the highest level of professionalism in patient care. The Board of Directors consists of distinguished pediatricians in education, research and clinical practice, as well as one or more non-physicians who have a professional interest in the health and welfare of children and adolescents.

Sanjay Saint, M.D., M.P.H., has won a 2000 Excellence in Research Award for Physicians from the Blue Cross Blue Shield of Michigan Foundation, for his work examining the effectiveness of a clinical practice guideline for the management of uncomplicated urinary tract infection in women. For the work, published in the *American Journal of Medicine*, Saint, assistant professor in the General Medicine Division of the Department of Internal Medicine, receives $10,000 in funding for future research on clinical protocol and pathway evaluation.

Jochen Schacht, Ph.D., professor of biological chemistry and professor of otolaryngology, is part of a small group of scientists and teachers working, with funding from the National Institutes of Health, to develop curriculum materials, including experiments and computer-based exercises, for middle school students to help them learn about the ear as a sound processor. The initial results of their work, which began last summer, will be posted on the Web for field-testing by students in selected schools in 2001. The project is supported by the Office of Science Education at NIH.

Thomas L. Schwenk (M.D. 1975), professor and chair of Family Medicine, has been elected to the National Depressive and Manic Depressive Association (DMDA) Board of Directors. The National DMDA is the largest patient-run, illness-specific organization in the nation.

Schwenk was also elected to the Board of Directors of the American Board of Family Practice. The American Board of Family Practice is the second largest medical specialty board in the U.S. Schwenk was elected for a five-year term.

Audrey F. Seasholtz (Ph.D. 1983), associate professor of biological chemistry and senior associate research scientist in the Mental Health Research Institute, received the University of Michigan’s 2000 Research Scientist Recognition Award. The award recognizes exceptional scholarly promise in primary research faculty.

Kent J. Sheets, Ph.D., associate professor of family medicine, received the Society of Teachers of Family Medicine “Innovative Program Award” at the Annual Spring Conference in Orlando in May. Sheets was honored for his work in developing and directing the Preceptor Education Project. These highly successful materials were designed to help busy community family physicians become more effective teachers of medical students in their private practice settings. The materials teach basic skills in several core teaching areas — organization and planning, observation, assessment, teaching, feedback, evaluation, tips on handling problems, and collaborative teaching and learning.
Jason Wening, a graduate student in biomedical engineering in the lab of Steve Goldstein, won the gold medal in the 400-meter freestyle at the 2000 Paralympics in Sydney, Australia, in October. Wening is a bilateral below-the-knee amputee who was also born with a partially formed left arm and hand.

Wening is the defending gold medalist from the 1996 and 1992 Paralympics. He set a new world record during his gold medal swim at 4 minutes, 42.97 seconds, improving his previous world record by almost three seconds. He had set that record earlier the same day in a qualifying swim.

Breaking the record twice in one day was an accident, Wening said, because he’d only targeted it for the final. “I thought breaking the record in the morning might have sapped too much energy but I guess it worked out,” he said. “I knew it would take a world record to win it because every time I’ve won at the Paralympics, the silver medalist has gone under the old record as well.”

Wening, who is the co-captain of the U.S. swim team, has not been beaten in his 400-meter freestyle class since 1991.

Dara Spearman, a graduate student in the Program in Biomedical Sciences, is serving a three-year term on the National Heart, Lung, and Blood Institutes Sleep Disorders Research Advisory Board. The Board, comprised of 12 physicians, scientists, and representatives of patient advocacy groups and 11 National Institutes of Health representatives, advises the director of the NIH on research activities of the National Center on Sleep Disorders Research. Spearman’s role on the Board will be to review research proposals and advise in long-range planning for sleep disorders research. Spearman is also pursuing an M.D. degree as a member of the Class of 2004.

Two Medical School faculty members have been selected to serve as members of the 2000-2001 Class of fellows in the Hedwig Van Ameringen Executive Leadership in Academic Medicine Program for Women.

Denise G. Tate (top), Ph.D., associate professor and director of research in the Department of Physical Medicine and Rehabilitation, and Hope Haefner, M.D. (bottom), associate professor of obstetrics and gynecology, join only 42 faculty nationally who were selected to participate. Over the year-long fellowship, fellows work together with eminent faculty and national leaders to find innovative ways of implementing the positive changes in leadership that are necessary to recast and reconfigure academic health centers, and, ultimately, health care for the 21st century.
Michael Aldrich, Sleep Pioneer Noted for Narcolepsy Work, Dies at 51

Michael S. Aldrich, M.D., a University of Michigan Medical School neurology professor who was the founder of the U-M Sleep Disorders Laboratory and a prominent clinical and basic sleep researcher, died July 18, 2000, at his home in Ann Arbor after a long fight against osteosarcoma. He was 51.

Known internationally for his work on narcolepsy, Aldrich was considered a pioneer neurologist in the relatively young field of sleep medicine. He established the U-M Sleep Disorders section of the U-M Department of Neurology in 1985, when sleep disorders were mainly the province of psychiatrists. Over the next decade and a half, he developed the center into a burgeoning clinical service, a home to groundbreaking research on sleep and its relationship to neurological disorders, and a training ground for numerous young sleep specialists. The Sleep Disorders Laboratory has been renamed the Michael S. Aldrich Sleep Disorders Laboratory in his honor, with Ronald Chervin, M.D., serving as director.

Aldrich’s narcolepsy research explored both the basic underpinnings of the disorder in the neurotransmitters of the brain, and its clinical manifestations. Aldrich is credited with codifying the signs of narcolepsy and establishing the most effective diagnostic methods, allowing physicians to distinguish it from other causes of excessive sleepiness.

In 1990, his seminal New England Journal of Medicine article on the topic provided an eye-opening primer for general physicians and specialists, giving them the means to detect cases of narcolepsy that might have otherwise gone undiagnosed. His recent book on the topic in the Oxford University Press Contemporary Neurology series is already considered a classic.

Aldrich’s wife, Leslie Aldrich, M.D., is a clinical assistant professor of gastroenterology at the Medical School.

The Michael S. Aldrich Sleep Disorders Fund has been established to help the Sleep Disorders Laboratory continue to advance research on sleep disorders, to provide the best in clinical care to patients seeking help with sleep disorders, and to ensure that many future physicians wishing to specialize in sleep medicine may obtain the advanced training they need to become contributors to this important and growing field of medicine. Gifts can be made to the Michael S. Aldrich Sleep Disorders Fund, U-M Office of Medical Development, 301 E. Liberty Street, Suite 300, Ann Arbor, Michigan, 48104-2251.
Brian Zink, M.D., associate professor of emergency medicine and assistant dean of medical student career development, has been elected president of the Society for Academic Emergency Medicine for 2000-2001. The Society is a 5,000-member organization whose mission is to improve patient care by advancing research and education in emergency medicine.

Leaving Retirement Assets to the University of Michigan Medical School:
A great way to help educate future generations of physicians

Retirement assets, which are often subject to income taxes and estate taxes at a combined marginal rate of 75% or more, are an excellent vehicle for making a gift to a charitable institution such as the University of Michigan Medical School. By simply advising the plan administrator of your wishes and signing the appropriate beneficiary designation form, you can make the Medical School the beneficiary of the balance of your retirement plan accounts during your lifetime or after your death. Because this area of estate planning is relatively new and complex, guidance from your attorney or other professional knowledgeable about tax law is advisable. If you would like more information about contributing retirement assets to the University of Michigan Medical School, please call the Office of Medical Development and Alumni Relations at (734) 998-7705 or write to director Jim Thomas by e-mail at jimthom@umich.edu or by U.S. mail at 301 E. Liberty, Suite 300, Ann Arbor, MI 48104-2251.

Jorge Iniguez-Lluhi, Ph.D., and Ursula Jakob, Ph.D., have become the seventh and eighth Biological Sciences Scholars at the University of Michigan.

Iniguez-Lluhi, of the Department of Pharmacology, is a native of Mexico City and earned his doctorate at the University of Texas Southwestern Medical Center in Dallas before doing postdoctoral work at the University of California at San Francisco. His research focuses primarily on cellular signal recognition, transduction and response.

Jakob, who earned her Ph.D. in biophysics and physical biochemistry from the University of Regensburg in Germany, completed postdoctoral work at the U-M where she has continued as a research scientist focusing on the structural and functional characterization of recently identified heat shock proteins. Jakob’s Biological Sciences Scholar appointment, in the Department of Biology in the College of Literature, Science and the Arts, begins September 2001.

The U-M Biological Sciences Scholars program recruits top faculty to the emerging Life Sciences Initiative through appointments within the Medical School and in other life sciences-related departments throughout the University.
A Special Message from University of Michigan Provost Nancy Cantor Regarding

Late last year, W.W. Norton & Co. published the book Darkness in El Dorado, by Patrick Tierney, which contained serious allegations regarding the 1960s research of the late geneticist James V. Neel, M.D., Ph.D., and anthropologist Napoleon Chagnon (Ph.D. 1966) among the Yanomami, an indigenous people of the Amazon River basin. Following is a statement, edited slightly for length, by University of Michigan Provost Nancy Cantor regarding the allegations and the findings of scholars who investigated those allegations. Supporting research was conducted by the offices of the Executive Vice President for Medical Affairs, the Vice President for Research, the General Counsel, and by faculty in the Medical School and the Department of Anthropology in the College of Literature, Science and the Arts. Complete text of Provost Cantor’s statement can be found at: http://www.umich.edu/~urel/darkness.html

The University of Michigan takes allegations of impropriety in research very seriously. When we first learned of the claims made in the book Darkness in El Dorado, we immediately convened a team of senior administrators, research staff and scholars to begin an internal inquiry. These individuals spent hundreds of hours over the course of several weeks conducting a careful and thorough review. Their efforts included interviews with individuals who had firsthand knowledge of the work of James Neel and Napoleon Chagnon, as well as medical experts on measles vaccination; review of James Neel’s research logs and other published and unpublished writings; and research into other relevant literature and published materials.

The evidence uncovered by our review supports the conclusion that the claims are false. We are satisfied that James Neel and Napoleon Chagnon, both among the most distinguished scientists in their respective fields, acted with integrity in conducting their research, and that their medical care of the Yanomami and their attempts to halt the spread of a pre-existing measles epidemic through vaccination were humane, compassionate and medically appropriate.

We believe that Tierney did not consult important original source material that was readily available for review. Analysis of that material and other material from persons familiar with the expeditions, the measles outbreak and the measles vaccine refutes the allegations. The serious factual errors we have found call into question the accuracy of the entire book as well as the interpretations of its author.

The allegations were circulated widely throughout the academic community in September 2000 in an e-mail message from two reviewers, Terry Turner of Cornell University and Leslie Sponsel of the University of Hawaii. The e-mail message implied that the two had just learned of these allegations, but in fact they were interviewed for the book as early as 1995 and are credited in the ‘Acknowledgments’ section.

Below are listed some of the claims made in either the book or the e-mail message, and a description of our findings.

CLAIM: Improper use of a vaccine initiated and exacerbated a measles epidemic that killed “hundreds, perhaps thousands.”

OUR FINDINGS: The measles outbreak occurred in November 1967. Measles was introduced into the region by a party of Brazilian missionaries before the January 1968 arrival of the Neel expedition. There is substantial evidence of the outbreak existing long before Neel left for Venezuela, so Neel could not have been the cause.

Previous studies in 1966 had indicated a substantial absence of measles antibody in the Yanomami. There were some individuals in Villages J and W with antibodies to measles, indicating there had been sporadic prior exposure but many individuals were not protected. Accordingly, in the fall of 1967, in anticipation of the January 1968 expedition, Neel initiated requests to pharmaceutical companies and obtained 2,000 doses of Edmonston B vaccine plus gamma globulin. He also consulted with a Centers for Disease Control expert on measles on the best way to administer the vaccine.

Upon hearing of the outbreak, Neel acted quickly and responsibly to stop the spread of the disease. The records show Neel spent at least two full weeks providing vaccine, antibiotics and medical care as needed. Forty Indians and Brazilians in the immediate area of the noted cases received vaccine and then Neel initiated an extensive program of immunization throughout the region. One thousand doses were administered by Neel; the rest were provided to and given by missionaries and medical auxiliaries of the Venezuelan government to “get ahead” of the disease. All doses, except for the original 40, were given with gamma globulin. At that time, administration of vaccine, with or without concomitant gamma globulin, was the accepted and recommended procedure. No death or serious untoward events resulted from use of the vaccine with or without gamma globulin.

Edmonston B vaccine, developed in 1958, was an internationally tested and safe vaccine. Samuel L. Katz, professor emeritus and chairman of Pediatrics at Duke University Medical School, was the co-developer of the vaccine (with John F. Enders) and he reports that its use was safe and appropriate in this population.

It is claimed that a “fatal” epidemic was “caused” or “greatly exacerbated” by the vaccine. Live attenuated vaccine has never been shown to be...
transmissible from a recipient to a subsequent contact. Katz has studied the vaccine in developed and developing nations and never saw any transmission of vaccine to susceptible contacts. Moreover, death as a result of the vaccine is exceedingly rare in any population.

CLAIM: Neel held extreme eugenic theories.

OUR FINDINGS: Neel’s published works show that he was a critic of eugenics from his graduate student days in the late 1930s. Far from holding “eugenics” positions, Neel strongly supported maintaining the rich diversity of the entire human gene pool and urged “egalitarian control of population growth” to protect the future of our species. He championed the view that each individual be able to maximize genetic potential; this is a far cry from eugenic efforts to “improve” the species through reproductive theory and policy. His work with the Yanomami helped them survive the pre-existing measles outbreak and was a humanitarian act by a compassionate physician.

CLAIM: Neel did not conduct any radiation studies with the Yanomami.

OUR FINDINGS: Neel did not conduct any radiation studies with the Yanomami. In 1962 and 1968 a physician named Marcel Roche conducted a population study of thyroid uptake in the lowlands of Venezuela and high in the Andes showing that at very high altitudes there was a uniformly higher thyroid radiiodine uptake. This study used proper doses of radiiodine (I-131). Radiiodine was then and remains today a commonly used diagnostic tool to measure pathological conditions including thyroid function.

Neel was well known for his extensive study on the aftereffects of atomic radiation on survivors of Hiroshima and Nagasaki and their children. A review of Neel’s field journal and daily logs makes it clear that he never conducted any “secret radiation” studies.

CLAIM: Clanahan himself is directly or indirectly responsible for endemic warfare among the Yanomami.

OUR FINDINGS: Clanahan’s characterization of the Yanomami as “fierce people” encouraged 40,000 invading gold miners to use violence against them between 1980-1987.

OUR FINDINGS: We have already established that Clanahan was not the first author to describe the Yanomami as violent. In fact, critics who have accused him of this characterization forget that the Yanomami refer to themselves as waitiri, ‘fierce and valiant.’ What Clanahan did was translate the term into English.

Given that the behavior of miners toward indigenous people during ‘gold rushes’ in the 1850s and 1860s in places like California and Australia was similar to that seen in the 1980s in the Amazon, the idea that Clanahan is responsible for such behavior is not convincing. Published accounts of Yanomami violence had preceded Clanahan’s arrival by a considerable length of time. Thus it seems much more plausible that the miners were familiar with sensationalized newspaper articles on Yanomami warfare than that they had spent time reading the anthropological literature.

CLAIM: Clanahan and Sponsel learned of this “impending scandal” from reading the galley proofs of Tierney’s book.

OUR FINDINGS: While the e-mail letter to the American Anthropological Association by Turner and Sponsel leaves the impression that they had just learned of the allegations against Neel and Clanahan, there is published evidence that they knew about them long before. The first piece of evidence, according to sources who have seen uncorrected page proofs of the book, is that both Turner and Sponsel are thanked in the ‘Acknowledgments’ section of Tierney’s book, which indicates that they read it long before the galley stage. A second piece of evidence is that Tierney’s book cites a 1995 interview with Terence Turner.

Evidence leads us to believe that the accusations against Clanahan in Tierney’s forthcoming book were known to both Turner and Sponsel long before that book reached the galley proof stage. Some allegations had already been made in print by Turner as far back as 1994, and others in print by Sponsel in 1998. The accusations are part of a long-standing academic feud that shows no sign of diminishing, rather than recent discoveries by an investigative reporter.
Message from the Executive Vice President for Medical Affairs

This issue of *Medicine at Michigan* highlights our outstanding M.D./Ph.D. program for medical students keen about careers in the science of medicine. We are expanding this program, and building a base for clinical translation, as well as laboratory work. The opportunities here at Michigan during the next decade will be tremendous, as the Life Sciences Institute and the Life Sciences Initiative on campus, plus the Life Sciences Research Corridor of the state of Michigan, enable us to greatly enhance our facilities, equipment, faculty, research and technology transfer programs.

We are also making remarkable innovations in the delivery of clinical services, including the role of M-CARE (see page 50). M-CARE is an important element of the University of Michigan Health System. Founded in 1986, M-CARE currently has 180,000 subscriber-members, including more than 50,000 faculty, staff, graduate students, retirees and their dependents at the University of Michigan campuses.

We recruited M-CARE’s executive director, Zelda Geyer-Sylvia, from Kaiser Northeast in October 1998; she has more than 15 years’ experience in the HMO world. Zelda has done a remarkable job of reshaping her executive team, with colleagues who have local, regional and out-of-state experience. They have markedly improved member satisfaction and physician satisfaction, enhanced relationships with key employer clients (including the U-M) and their provider network, and worked with the U-M Health System’s Faculty Group Practice and the Hospitals and Health Centers to assure competitive payment for our clinical services. M-CARE has been an essential component of our development of innovative partnerships directly with Ford Motor Company (Partnership Health) and with General Motors (Activecare).

M-CARE has earned an enviable record of regional and national recognition for quality and leadership. With the guidance of Medical Director Robert Church, D.O., M-CARE received maximal accreditation for its commercial, Medicaid and Medicare HMO plans from the National Committee for Quality Assurance (NCQA). M-CARE was commended for excellence in service, quality improvement programs and consumer protection. M-CARE was one of only 38 health plans nationwide — and the only one in Michigan — to have a quality initiative highlighted in the first edition of *Quality Profiles: In Pursuit of Excellence*, published by NCQA with support from Pfizer, Inc.

The Health Plan Employer Data and Information Set (HEDIS) scores used by employers and the media to compare health plans put M-CARE in the top 10 percent nationally for mammography, prenatal care, childhood immunizations and comprehensive diabetes care. Regionally, M-CARE received a five-star (highest) rating from the Greater Detroit Area Health Council in the “Staying Healthy” category.

Moreover, General Motors rated M-CARE quality and price an outstanding value. Thus, GM offered its employees the lowest employee contribution for their monthly health insurance premium if they chose M-CARE — and 2,500 additional GM employees did so in 2000. Each year for several years an increasing percentage of U-M employees have chosen M-CARE.

Financially, the M-CARE team has turned around a series of annual losses and completed calendar year 2000 with a positive margin and a good contribution to reserves. The marketing strategy now focuses primarily on seven counties in southeast Michigan. We anticipate a moderate growth rate, which the current strategic plan shows reaching about 250,000 members after five years.

The leaders and staff of M-CARE are active participants in many initiatives in the Health System and excellent University citizens. I am proud that my family and I and so many U-M colleagues are members of M-CARE.

Gilbert S. Omenn, M.D., Ph.D.
U-M Executive Vice President for Medical Affairs and CEO,
U-M Health System