

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

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MEDICAL BULLETIN

A PUBLICATION OF THE MINNESOTA MEDICAL FOUNDATION • FALL 2003

A Formula for Success

The University of Minnesota is finding ways to attract talented, community-minded physicians of tomorrow — meet the Class of 2007



ALSO IN THIS ISSUE: AIDS: Cause for Hope • A Building for the Future

MINNESOTA
MEDICAL
FOUNDATION

at the University of Minnesota



THE MISSION OF THE MINNESOTA MEDICAL FOUNDATION IS TO IMPROVE THE QUALITY OF LIFE FOR THE PEOPLE OF MINNESOTA, THE NATION, AND THE WORLD BY SUPPORTING THE ADVANCEMENT OF HEALTH-RELATED EDUCATION, RESEARCH, AND SERVICE AT THE UNIVERSITY OF MINNESOTA.

DEAR FRIENDS,

The excellence of the students at our Medical School continues to amaze me. You will read in this issue of the *Medical Bulletin* about some of the students who have just begun their medical education – the Class of 2007. This is one of the best-prepared classes we have ever had.

One of the great pleasures of my job is my interaction with the very bright, very dedicated individuals who choose the University of Minnesota for their medical training. As Minnesotans and as stewards of this University, we must ensure that we continue to attract the best and brightest to our University, and that is accomplished to a very significant degree with scholarships.

Although we have worked very hard to keep tuition increases to a minimum, among public medical schools we are the fourth most expensive in the United States. Did you know that an out-of-state student can attend Harvard Medical School for less money than he or she would have to pay here? In spite of these challenges, we have been successful in attracting a most impressive Class of 2007. And, according to their positive reports, they are thrilled to be here and embracing their new venture with a great deal of enthusiasm and commitment.

It is imperative that we find a way to increase not only the number of scholarships, but the dollar amounts. It is my hope that alumni and friends of the Medical School will accept this challenge – and that we can work together to bring the very best students from Minnesota and elsewhere to our school, and send them out as competent, compassionate physicians into our communities and beyond.

Deborah E. Powell, M.D.
Dean, University of Minnesota Medical School

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A Formula for Success

The University of Minnesota Medical School's personal touch, collaborative spirit, strength in clinical care and research, and financial support is attracting students with a great deal of talent, energy, and commitment to their goals.

Let's get the bad news over with first: the University of Minnesota Medical School has one of the highest tuitions in the nation for a public university medical school. The average debt load nationally for medical school graduates is \$109,000, including both public and private institutions. The average debt upon graduation for the Medical School's Class of 2003 was \$103,000 – not good at all. While administrators are working on ways to reduce costs, including cultivating more and larger scholarships, the financial cost of medical education remains staggering.

The good news is that applications to the University of Minnesota Medical School increased 20 percent since last year, while the national average increased only 1 percent. In spite of the cost, more students than ever are interested in the University of Minnesota Medical School. And the ones that are accepted are among the best and the brightest nationally, scoring higher than the national average on the Medical College Admissions Test (MCAT).

Not only are today's medical students test-smart, they are also life-smart. Many of them come into medicine from previous careers, giving them a deeper base of knowledge and life experience from which to draw as physicians. They bring resumes filled with varied personal, professional, and volunteer experiences.

Deborah Powell, M.D., dean of the Medical School, remarks, "I am continually impressed with the quality of students that come to Minnesota. In addition to their academic achievements, most of them have been involved in a large number of service and community-related activities, and are able to continue these interests once they enter medical school. I find this extremely commendable considering the size of their class loads along with their responsibilities outside school."

Greg Vercellotti, M.D., senior associate dean of medical education, states, "One of the things I am most impressed with at this school is the humanity of our students. They give to our community, whether it's forming a clinic for homeless people, or working in rural Minnesota to help prevent kids from taking up smoking."

How is the University of Minnesota Medical School able to attract these highly intelligent, community-minded physicians of tomorrow? What does Minnesota have that many of the other schools don't?

As representatives of their class, four members of this year's incoming class of medical students who received financial aid in the form of scholarships were interviewed to find out why they chose Minnesota as their medical school. While financial hurdles definitely figured into the decision, positive experiences with individual faculty, staff members, and students topped the list of reasons why these newest members of the Medical School chose the University of Minnesota.

THE PERSONAL TOUCH DURING THE ADMISSIONS PROCESS

The University's national reputation for strength in both primary care and research put the Medical School on a par with or even exceeded that of other schools, but very often the swing vote was determined by positive personal interactions with members of the Medical School community during the interview process. Powell says, "People like the fact that the school has developed the reputation in the last few years as being very welcoming to students."

Laura Speltz of Wausau, Wisconsin, received the Linda Shriro Schenck, M.D., Medical Student Scholarship and a University-funded tuition scholarship. She recalls, "The University of Minnesota physician with whom I interviewed left a very positive impression on me. She and I saw eye-to-eye on what are the right motivations for going into medicine."

Laura Speltz

Wausau, Wisconsin

B.A., Psychology, McGill University, Montreal

Linda Shriro Schenck, M.D., Women Medical Student Scholarship; Tuition Scholarship

As an undergraduate, I did an internship at the Montreal General Hospital in the addictions unit, which showed me how powerful healing could be. During that same time, my own experience with abdominal surgery also instilled in me the value of a compassionate physician. And it made me want to be that person for someone else, to comfort someone else in a similar situation.

While in college, I began to realize there are a whole host of issues women deal with that men don't encounter related to their careers, physical health, or psychological health. I'm personally interested in women's health and empowering other women.

To receive the Schenck Scholarship is very powerful, especially because it is given in memory of Dr. Linda Schenck, who probably had goals similar to mine. I think it's a beautiful thing that her husband would make this scholarship possible so that another young woman with similar interests can achieve her professional goals.



"It can't be about money and it can't be about prestige," Speltz explains. "It has to be about the genuine desire to help people and serve others, which my interviewing physician said the University of Minnesota Medical School emphasizes to its students. I decided if she represents the values in this school, then this is where I want to be."

Cyrilyn Walters, who comes to Minnesota from the British Virgin Islands with a master's in public health from Boston University, is a recipient of the Minority Student Scholarship and also a tuition scholarship. She knew of the University's excellence in her areas of interest, primary care and child and adolescent health. But it was an experience during the interview process that made up her mind to choose Minnesota.

"Coming from Boston there was a snowstorm and I got stuck in Philadelphia," Walters recalls. "By the time I got here my interview time had already passed. But my interviewer rearranged her schedule that day to accommodate me, which I felt was very thoughtful."

Joshua Chapman, a recipient of the Conrad I. and Ruth V. Karleen Scholarship, was born and raised in Jackson, Minnesota, a small town of about 4,000 in the southwestern corner of the state. He had been involved in pre-med activities as an undergraduate at the University of Minnesota, but still thought it wise to take two years off to really make sure medicine was what he wanted to do. During that time he took a position as the coordinator for the Standardized Patient Program, which provides realistic patient situations for medical students to practice proper patient interviewing techniques.

"I was very grateful for the opportunity to be a staff member of the Medical School," Chapman explains. "Being coordinator for the Standardized Patient Program, I was able to see how dedicated the staff and the faculty were about making sure the students got the education and training they needed. Based in large part on this experience, it was easy for me to decide on Minnesota by the time I needed to apply to medical school."

Sarah Berini, a recipient of a recruitment scholarship as well as a tuition scholarship, appreciated all of her interactions with members of the Medical School community. A Chicago native, she says, "Minnesota was the first school I interviewed at and I really liked it. The students I met were very friendly and not competitive. The environment here is more collaborative which is very important to me."

"I also felt the same about the faculty – they were very friendly, open to questions, and not intimidating. Marilyn Becker, director of admissions, who called me a couple of times during the admissions process, was very personable and friendly."

Vercellotti says, "Current students play a big role in the admissions process, whether it's giving tours or talking to the new students. The applicants see that these students are excited about learning and being here. They know they will be joining a student body that is excited about their journey to become physicians."

COLLABORATION NOT COMPETITION

The collaborative, rather than competitive, nature of the Medical School student body was cited as a major attraction by all four students. Much of this ethos is attributed to the pass/fail grading system now used during the first two years of Medical School.

Speltz explains, "The pass/fail system was a big attraction for me. I think anybody that makes it to medical school is almost by default a Type A personality, which could easily lead to an unhealthy environment of excessive competition. I'm really loving the fact that other students attracted here have a cooperative rather than competitive mindset."

Berini says, "With the pass/fail system, the emphasis is on content – what is relevant clinically and will help you become a better physician, not what we're going to be tested on. The pass/fail system was a big attraction for me because it indicates the administration values content more than just testing."

Walters expressed appreciation for the willingness of her classmates to share their knowledge and assist each other in the learning process: "A lot of people study in groups. Each of us has our areas of strength and we can go to each other for clarification in those particular topics. Everyone is so friendly here, unlike other schools. I've heard of 'Minnesota Nice' and it's true."

Chapman has been impressed with his class as a whole: "We're all working as a team to improve medicine, so there's no need to step on each other to get ahead."

CYRILYN WALTERS

Tortola, British Virgin Islands

*B.A., Biomedical Science, University of Guelph,
Ontario, Canada*

*M.P.H., Maternal and Child Health,
Boston University*

Minority Student Scholarship; Tuition Scholarship

I'm focused on community health and want to integrate public health with my medical degree. I have always enjoyed children and young people, so adolescent issues are important to me. I am glad I did my master's in public health before medical school because it helped me clarify more than ever that I want to get into pediatrics and community health.

People respect physicians in our society and I want to use that position and power to help change things for the better. I remember going to one interview where they asked me what kind of doctor I would like to become. When I said I was leaning towards working in a community health center, they cautioned me that there isn't much money in that field. I'm not going into medicine, specifically community health, for the money. It's really what I want to do and what I believe in.

Eventually I want to go home to the Virgin Islands to practice medicine because the health care system there on both the U.S. and British sides is really poor. But I'm getting so much help from America, and being aware of the vast health disparities here, I feel I have to give back. So I definitely want to stay in the U.S. for a couple of years, but will eventually head home to the Virgin Islands because they helped me and I think it's necessary to give back.



Berini says, "My classmates are genuinely good people, the kind to whom you can honestly say, 'I really want you to be my physician when you get your license.'"

Chapman agrees. "The motivation hopefully for everyone shifts from the grade and the number to the more long-term goal that we need to learn this information to be excellent physicians. Let's help each other learn it now, and set the bar as high as we can as a class."

Walters adds, "At the same time, they do everything here to help you succeed in your studies. Professors have review sessions every other day in case you have questions. They are really out to help you and not make things hard for you. They don't want you to fail – they do everything in their power so you understand the material."

Medical School faculty are supported in their commitment to teaching through the Office of Education Development and Research, which gives them the tools to improve their pedagogical techniques. Stuart M. Speedie, Ph.D., acting director of the program and professor in the Division of Health Informatics in the Department of Laboratory Medicine and Pathology explains, "Over three years, we've had 1,883 participants in 109 sessions. While faculty members receive CME credits for these seminars, participation is voluntary and not required. There is a real thirst among the faculty to learn more about how to teach medical students."

STRONG IN PRIMARY CARE AND RESEARCH

While new medical students are drawn to the Medical School because of the friendliness and concern shown by faculty, staff, and other students, they still demand an excellent formal education. The University of Minnesota delivers excellence in both primary care and research.

Berini says, "When I was doing my nursing degree at the University of Texas and looking into medical school, I asked physicians there, 'If you were to have a resident, which school would you like them to come from?' I wasn't looking for a school that just scored well academically in *U.S. News & World Report*; I wanted one that produced good clinicians. I was told you get good clinical training as well as good academic training at Minnesota in a lot of different hospitals with a variety of patient populations."

Powell observes, "I think students like the diversity of the clinical experience here. We have a large number of clinical teaching hospitals where students are able to see patients with different spectra of diseases." Minnesota's reputation for being a leader in health care had also caught Walters' attention. "Minnesota is one of the healthiest states, so I figured the health care system had to be pretty good."

Vercellotti states, "We have a unique position here in Minnesota in a vibrant, dynamic health environment. Students are training in some of the best medical facilities in the country."

The University also is able to offer unique primary care and research experiences through its groundbreaking programs in rural and international health. The Rural Physician Associate Program (RPAP) began in 1971 and serves as a model and resource for other medical schools both nationally and internationally. Approximately half of the 40 students in the program each year began at the School of Medicine in Duluth, which consistently ranks at the top or near the top nationally in training primary care physicians, particularly in the area of rural medicine.

The School of Medicine also produces the largest number of Native American physicians each year, second only to Oklahoma, which has the highest population of Native Americans. The International Medical Education and Research (IMER) program is a national leader and continues to be a popular program with approximately one third of students participating in an international clinical experience during their fourth year of school.

The four students interviewed were primarily drawn to Minnesota's reputation in primary care, but also recognized the strength of its research programs. Most have previously participated in research projects and plan to seek out research experiences as their schedules allow. Berini says, "There is a lot of interesting research going on here at the University. I am particularly interested in neuroscience and the functional MRI lab. I definitely will be taking advantage of some of these research opportunities."

JOSHUA CHAPMAN

Jackson, Minnesota

B.A., Biological Sciences, University of Minnesota

Conrad I. and Ruth V. Karleen Scholarship

I started college as a pre-med student without knowing what that meant. It took being involved in pre-med groups on campus for me to realize how much commitment medical school requires in terms of cost and time. Seeing these realities led me to pause in my career planning to make sure this was really what I wanted to do the rest of my life.

As president of Alpha Epsilon Delta, the pre-med group on campus, I encouraged the entire group to use our time to make an educated decision about committing to a career in medicine. We brought in community physicians to give us first-hand accounts of life as a physician, and had people from the admissions office tell us what getting into medical school is like.

I was happy to be accepted to Minnesota as an early decision applicant, since I didn't want to go anywhere else. My wife and I are both from small towns in rural Minnesota, so we wanted to go to medical school here. Primary care is what I'm leaning toward at this point, and I want to practice in rural Minnesota.

As a physician, I will be a leader in the community and I take that responsibility very seriously. I'm not a very political person, but I feel I will need to advocate for positive changes in the health care system. My main motivation is service – if a person isn't healthy, very little else matters to that person. To be able to help people is a huge responsibility, and a tremendous privilege and motivator.



MONEY TALKS

Factors such as friendliness of staff and students, the collaborative spirit among students, and a national reputation for excellence in primary care and research strongly influenced the students, but financial aid was still critically important.

Berini and Speltz both said that if they had not received scholarships, they would not have been able to come to Minnesota.

Speltz says, "It would not have been an option for me to come here had I not had the tuition scholarship. I have a state school in Wisconsin I could have gone to, which would have been substantially less expensive. But I really wanted to come here and I'm glad I can, thanks to the tuition scholarship and also the Schenck Scholarship."

Berini concurs. "The scholarships allowed me to consider factors other than money when comparing schools. Money is a huge concern, especially for those of us going into medicine who are interested in service. If you're thinking that you might not end up in a high-paying specialty, there is this huge debt looming over your head. You want to have the freedom to choose what you want to do and not have to constantly think about finances."

Walters was prepared to pay for medical school with federal loans, and even loans from her parents if need be. Her parents had encouraged her to choose the school she was interested in and felt comfortable with. "The Minority Student Scholarship and the tuition scholarship were quite surprising," Walters recalls. "They actually help me a lot, so that I can just focus on the federal loan and not impose on my parents."

As a Minnesota resident, Chapman already had a lower tuition, but remaining costs were still high. He, too, was going to rely on federal loans as well as his wife's support. He even considered taking on a job himself as a research assistant to make ends meet. However, he was extremely relieved and grateful to learn he had been selected to receive the Conrad I. and Ruth V. Karleen Scholarship.

"The Karleen Scholarship has taken financial pressure off me. I don't have to worry about needing to work so my loans aren't so large. I can focus on school and other opportunities instead," explains Chapman. "I can't say enough about how grateful I am. There's a verse in the Bible that says 'to whom much is given, much is required.' That typifies the scholarship to me.

"That the Karleens would feel generous enough to give to students like me to whom they are passing on the torch speaks volumes about their values and commitment," Chapman reflects. "As a result, I feel a great responsibility both in the practice of medicine in a community and with regard to money. Somebody made this kind gesture toward me and I hope that I would do the same thing down the road."

by Andrea J. Peterson

INTRODUCING THE DEAN'S SCHOLARS SOCIETY

The need for scholarships to attract medical students from Minnesota and beyond is great. To help meet that need, a new initiative called the Dean's Scholars Society was announced at the Minnesota Medical Foundation Annual Meeting on October 27 by Medical School alumnus Dr. Richard Lindstrom – who is leading this effort.

The Dean's Scholars Society hopes to find 16 individuals who will commit a total of \$25,000 each to this program. Four donors will, together, fund a full-ride scholarship that will award a single student \$25,000 per year for each of the four years of their medical education. With 16 donors, the Dean's Scholars Society will be able to fund four of these recruitment scholarships for the next incoming class.

Dr. Lindstrom has made a commitment to be the first donor to this special project. For more information, contact Julie Crews Barger at 612-625-8676 or j.barger@mmf.umn.edu

SARAH BERINI

Chicago, Illinois

B.A., Human Biology, Stanford University

B.S., Nursing, University of Texas Health
Sciences Center

Recruitment Scholarship; Tuition Scholarship

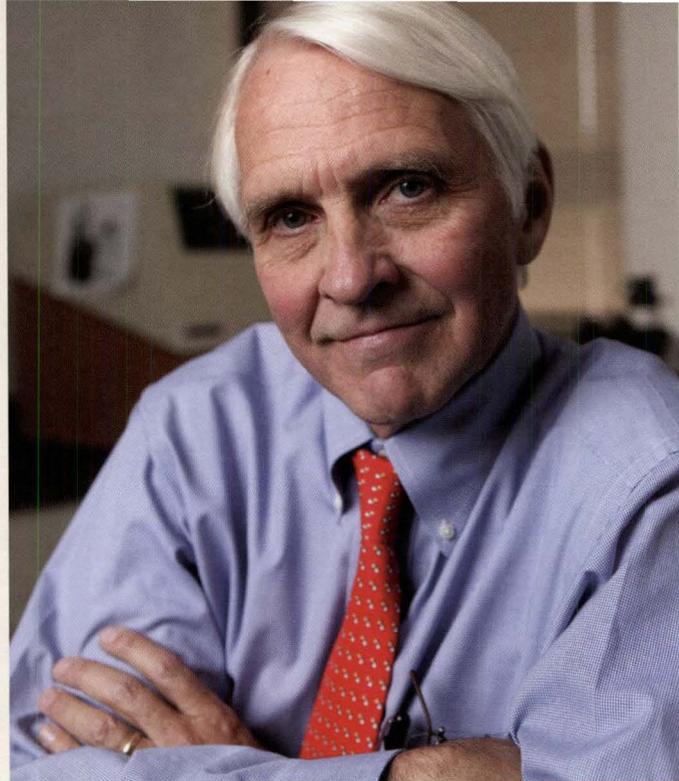
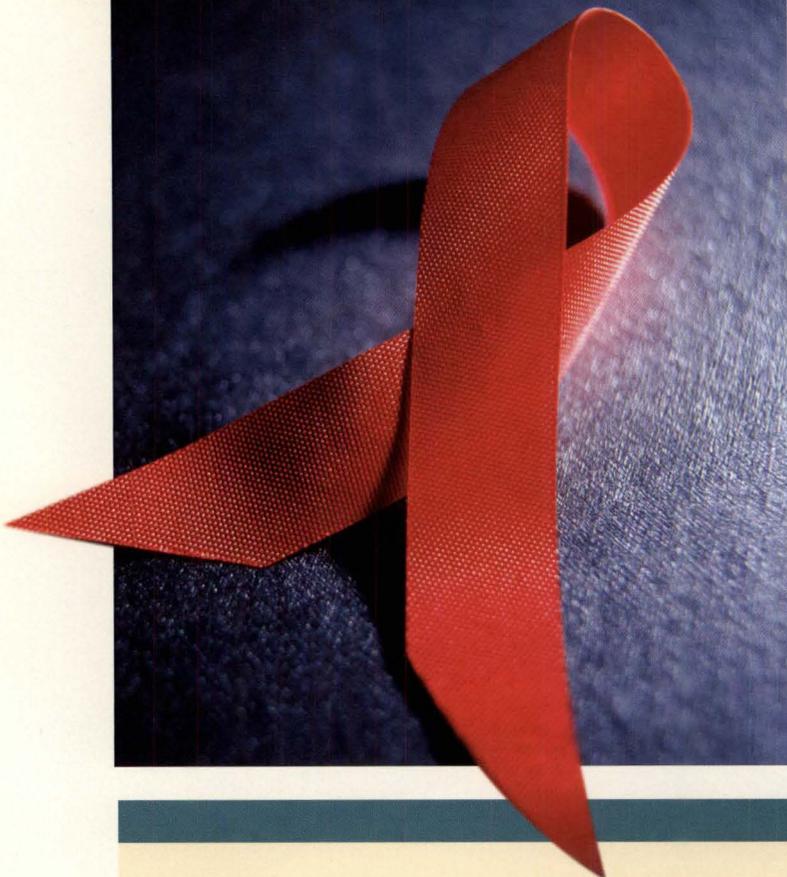
When I started looking for a medical school, I was looking for a place where I connected with the people, and where the system appreciated my values and what I had to contribute. I felt all of that here at Minnesota. They were confident in me as a student and future physician.

I'd been out of school awhile, and many people didn't understand when I went back to get my nursing degree. During interviews at other schools, I was amazed that some of my interviewers couldn't really see the connection between nursing and medicine. They wondered why I hadn't gone directly to medical school.

But here, my extra experience is valued and seen as an asset. The whole structure of the Academic Health Center is set up to foster interdisciplinary, collaborative teamwork. That was something I definitely saw here which I didn't see other places. There is no doubt in my mind that this is the place for me.

I definitely see myself involved in some sort of clinical practice. I also have a very strong interest in oncology, having worked on different units in pediatrics, adult oncology, and bone marrow transplant. I was part of the planning committee for Camp Discovery, a branch of the American Cancer Society, which provides a camp experience for children with cancer. I will probably start in pediatrics and internal medicine, though, and go from there.





PHILLIP PETERSON, M.D.

Cause for Hope: University Researchers Look for New Ways to Fight AIDS

Since the first case of AIDS was reported in 1981, human immunodeficiency virus (HIV) has killed more than 20 million people. Tremendous progress has been made in reducing mortality, but much work remains. Today, with more than 42 million individuals worldwide infected with HIV, researchers are searching for new and better ways to reduce the disease's impact and slow its spread.

It used to be that acquired immunodeficiency syndrome – AIDS – was a rare, isolated disease. But not any more. Since we first became aware of the existence of human immunodeficiency virus (HIV), the agent that causes AIDS, in the 1980s, the deadly pathogen has spread to every corner of the earth. By the end of 2002 the virus, which lives in (and unchecked, destroys) the immune system, had killed more than 20 million individuals. Today, 14,000 to 16,000 individuals are infected daily.

“This is without a doubt the number one health problem in the world,” says Phillip Peterson, M.D., professor of medicine and director of the Medical School’s Division of Infectious Diseases and International Medicine. “There’s never been an [infectious disease] epidemic the magnitude of this epidemic.”

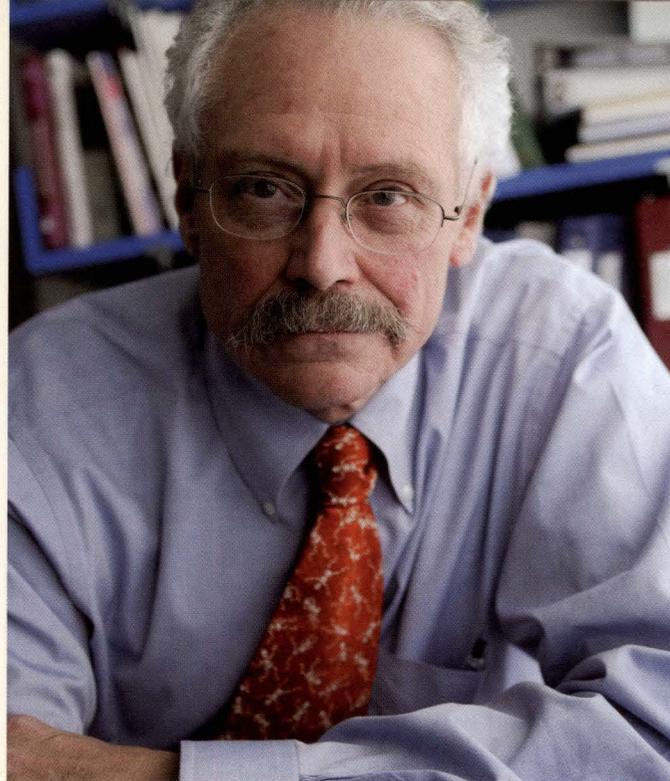
Gaining the upper hand over this deadly disease is a major focus for a number of University of Minnesota Medical School researchers. From working to understand the basic biology and pathology of HIV to testing the effectiveness of drugs aimed at destroying it, these scientists are participating in a variety of ways in the onslaught against HIV.

“Everybody in the Division of Infectious Diseases and International Medicine who is working on this problem does something a little bit different . . . from the molecular to the population level,” Peterson says. “It’s quite a diverse and broad approach.”

TESTING TREATMENTS

The sign near a door in the Academic Health Center says, very simply, ACTU. To those who have entered it over the past 16 years, those four letters spell Hope. Since it opened in 1987,

*“None of this gets done quickly,
and some of this never goes
anywhere. It’s going
to take time . . . but I think
we’re going to get there.”*



HENRY BALFOUR, M.D.

the University of Minnesota AIDS Clinical Trials Unit – one of only 32 such units in the country – has brought hope to more than 1,900 persons by providing access to clinical trials of drugs aimed at destroying HIV within the body.

AZT, the first drug to be approved for use against HIV, became widely available in 1987. The drug was effective at prolonging lives of persons with HIV, but it had down sides, too. It caused adverse side effects, from nausea to anemia. It was expensive. And HIV rapidly evolved strains resistant to its effects. As a result, the search for new and better treatments continued – and continues to this day, with researchers continually introducing and testing new treatments and treatment regimens, attempting to maximize effectiveness, minimize collateral damage, and keep one step ahead of the virus’s adaptive alterations.

“We’ve come from one FDA-approved drug to 19 and increased survival dramatically,” says ACTU head Henry Balfour, M.D., professor of laboratory medicine and pathology, who has been with the project since its inception. “That’s been an incredible accomplishment.”

The Minnesota ACTU is one of the key venues in the United States for developing and testing customized combinations of drugs aimed at disabling HIV. ACTU researchers are also creating and refining techniques for quantifying HIV and for measuring the effectiveness of treatments, and exploring how HIV is influenced by drugs and develops resistance. Current studies include assessments of viral fitness – how HIV’s ability to stand up to antiretroviral treatment differs in

different people – and of techniques to measure drug effectiveness in individual patients through blood tests.

Balfour says his long-term goal is to develop treatments that can be simple and affordable enough to be used in less affluent countries, a key to slowing the spread of HIV. “The major part of the epidemic is not in the U.S. or Europe,” he says. “What we’re going to need to see is the development of drugs that are cheaper or drugs that somehow are able to avoid the virus resistance. What we’re doing is complicated and expensive. It works, but it’s not practical for developing countries.”

Though that goal may seem a long way off right now, Balfour says he has hope. “None of this gets done quickly, and some of this never goes anywhere,” he says. “It’s going to take time . . . but I think we’re going to get there.”

FOR THE LONG TERM

Keith Henry, M.D., associate professor of medicine and director of the clinical HIV research program at Hennepin County Medical Center in Minneapolis, has been a long-term investigator in the ACTU. He remembers the year 1996 as you would remember the year you were married, or your first child was born. That’s when a new generation of HIV-attacking drugs called protease inhibitors was introduced.

“I was having a young patient die every week – too many funerals even to go to,” he recalls. Protease inhibitors changed all that, dropping mortality 90 percent virtually overnight. “As far as I was concerned that was a miracle,” Henry says.



KEITH HENRY, M.D.

As the new generation of drugs evolved, Henry set out to, in his words, “make them the most cost-effective and safe as possible when used for decades.”

In one study, Henry is evaluating the safety and benefit of anti-HIV drugs in pregnant women. In others, he’s assessing which drugs are best for treating patients who have not yet received any treatment, and for patients whose current treatment is failing. He’s also looking at protocols for minimizing side effects by “pulsing” therapy so it’s only used when the individual is at high risk of getting sick – reducing cost, enhancing effectiveness, and minimizing adverse side effects.

In addition to testing treatments, Henry is also characterizing the “unnatural history” of HIV – heart and liver complications and other health issues that emerge in individuals kept alive with anti-HIV drugs. An important part of this study is educating patients on how to avoid spreading HIV.

“We’re looking for new problems arising in patients surviving a long time, plus building in prevention messages in clinics, finding ways to better promote [safe behaviors],” he says.

On an international front, Henry is studying generic drugs made in India, in hopes of improving the availability of affordable treatments in developing countries. He is also studying different subtypes of HIV in African immigrants in hopes of better understanding the virus.

Henry says he’s frustrated at times with the difficulties

“There are a lot of projects in the pipeline, and hopefully some surprises in terms of better, cost-effective ways to use the drugs. I’ve seen things change very dramatically.”

of getting HIV treatment to all who need it. But, like Balfour, he still has hope, built on the tremendous progress made so far.

“There are a lot of projects in the pipeline, and hopefully some surprises in terms of better, cost-effective ways to use the drugs,” he says. “I’ve seen things change very dramatically. That kind of gives me incentive to plug away.”

SLOW THE SPREAD

In AIDS, as in other infectious diseases, the best medicine of all is prevention. Huge inroads have been made in the past several decades in slowing the spread of HIV through several approaches. A key one is education – helping people understand how HIV is transmitted, how devastating it is, and what can be done to keep it in check. Specific treatment regimens have been developed that have dramatically reduced the likelihood the virus will travel from mother to child during pregnancy or birth.

Edward Janoff, M.D., a professor of medicine at the University and Infectious Disease Division at the VA Medical Center, and director of the Mucosal and Vaccine Research Center, is working on another strategy: heading off HIV infection at the mucous membranes, where the virus first breaches the protective barrier between a person’s body and the rest of the world.

Janoff’s main subject of study is the transmission of HIV from mothers to infants through breastfeeding in the African countries of Burkina Faso and Uganda. Such trans-



EDWARD JANOFF, M.D.

mission is uncommon in the United States and Europe, where infant formula is widely available as a substitute for breast milk. But in developing countries, where formula feeding is often not a viable option, a tragic number of infants become infected. About one infant becomes infected each minute, and a third of these infections occur by breastfeeding.

To gain information on what types of barriers might be effective at the level of the mucous membranes, Janoff is comparing the breast milk of mothers who transmitted AIDS to their babies with that of women who did not to see what factors might be making the difference. He hopes the information he gathers will lead to development of a mechanism for stimulating the production of such virus-blocking substances in others. "In addition to medications given at the time of birth, vaccines for mothers and children may provide substantial protection to the infants," he says.

Although this study is focused on finding mechanisms for preventing HIV from crossing from an infant's mouth or digestive tract into the body, information gained could provide insights that could lead to better ways to prevent entering at other mucous membranes as well, such as the reproductive and intestinal tracts.

IMPROVING UNDERSTANDING

A key factor in finding better means of controlling HIV's impact on infected individuals is improving understanding

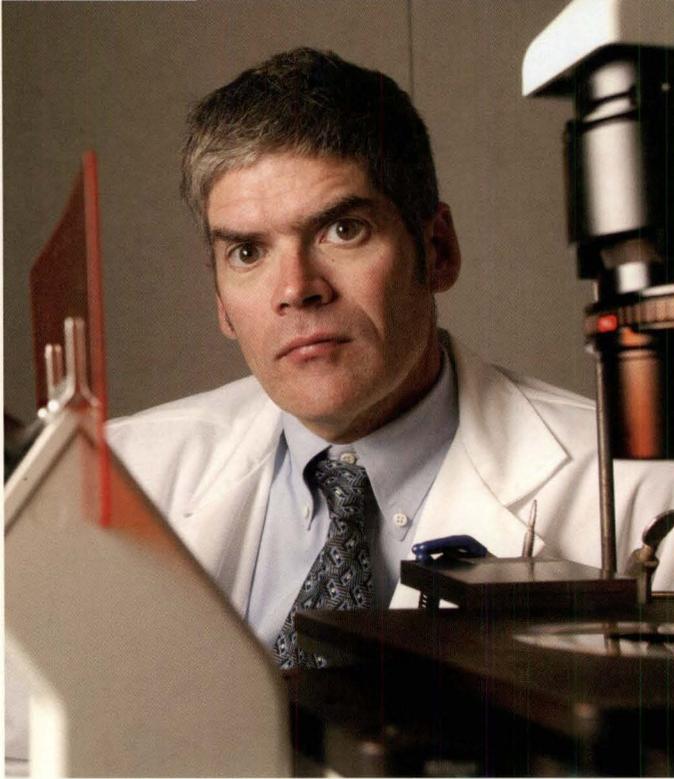
of where and how it acts within the body. Phil Peterson is using cell culture technology to study how HIV, which causes a form of dementia in many of its victims, acts in brain tissue. He's found that some common substances of abuse, such as opiates, cocaine, and marijuana, affect the presence of HIV in microglia – cells found in the brain that function as immune system cells to rid their surroundings of invaders. Some substances – cocaine and some opiates, for example – foster the growth of the virus in these cells. Others inhibit growth.

The mechanism by which opiates and cocaine increase and other substances inhibit viral growth appears in most instances to be related to an alteration in viral entry into microglia as well as into CD4 lymphocytes, a major target for HIV. By understanding how substances of abuse facilitate and inhibit the proliferation of HIV, Peterson hopes to lay the groundwork for therapies that would impact infection of the central nervous system.

"Inhibiting HIV growth in CD4 cells and macrophages has been the major emphasis in drug development, but new approaches aimed at blocking viral entry have become a promising new avenue for treatment and prevention," Peterson says. "This is a challenging goal but the work is fascinating. We're finding surprises all the time."

SCAR TACTICS

One of the mysteries surrounding HIV has been the inability of some individuals' immune systems to rebound after



TIMOTHY SCHACKER, M.D.

being treated with drugs that dramatically reduce the virus's attack on CD4 cells, the body's main orchestrator of host defenses against invaders. Last year Timothy Schacker, M.D., associate professor of medicine, and Ashley Haase, M.D., Regents' Professor of microbiology, discovered why. In addition to invading CD4 cells themselves – the process modern drug therapy is designed to squelch – HIV also harms lymphatic tissue that serves as the life support system for cells.

When HIV enters the body, Haase says, it starts by co-opting the lymphatic system, turning it into what he calls a "factory" for making more HIV. Lymphatic tissue may harbor some 50 billion individual viruses at a time – almost 10 times as many viruses as there are humans on the face of this planet. The result is ravaged tissue, crippled and scarred by the invasion to the point where it can't produce what's needed to defend the body against onslaught by other invaders.

This finding has important implications for combating the impact of HIV. "Most treatment strategies for HIV/AIDS focus on stopping the virus from replicating itself in the body, which is essential to begin the process of healing and repairing of the immune system," Schacker says. "But it does not happen for everyone, and we believe this may be due to the structural damage." If, as this study suggests, permanent damage has been done, additional strategies will be needed to help the body regain its invader-fighting capabilities.



ASHLEY HAASE, M.D.

Now that they recognize that lymph tissue damage is part of the picture, Schacker and Haase are working to apply that knowledge to improving diagnosis and treatment. One possible application they're studying is to use lymph node biopsies to determine how advanced the disease is, and therefore when to intervene with therapy. Another is to look for ways to minimize damage in the first place or reverse it once it occurs to help the patient better regain health with therapy.

In addition to studying the tissues themselves, the researchers are also looking at gene expression before and after treatment with anti-HIV drugs, watching to see what happens to the damaged tissues. They hope to continue their studies, correlating gene activity with immune system recovery.

"Knowing how those genes make a difference in terms of healing might suggest new approaches to therapy," Haase says.

Finding those new approaches to therapy is key to much of the work underway at the University of Minnesota in the fight against AIDS, along with solving the mysteries of the disease itself at its most basic level. But all the researchers agree with Henry Balfour when he says, "It's going to take time . . . but I think we're going to get there."

by Mary Hoff

During fiscal year 2003, the Minnesota Medical Foundation grants program awarded \$1.3 million for 93 start-up research projects and equipment purchases. Research funded with Foundation "seed money" is often used to leverage additional support from the National Institutes of Health (NIH) and other sources.

A Seek and Destroy Mission

Like fugitives hiding in trash cans while police scour the streets, a small fraction of the human immunodeficiency virus (HIV) within an infected person seems able to find refuge within certain cells and so elude strong drugs sent into the body to seek and destroy them. As a result, the drugs are able to kick back most of the disease but not cure it, and patients must continue with an exhaustive, costly drug regimen, sometimes with many persistent side effects.

Where are these fugitive viruses hiding – and what can be done to rout them? Winston Cavert, M.D., an assistant professor in medicine and lab medicine and pathology and a research associate in microbiology, has an idea. This fall, he'll begin testing it out with the help of a \$14,965 research grant from the Minnesota Medical Foundation.

"The long-range goal of our work is to understand at the level of single cell types analyzed directly in HIV-infected human central nervous system (CNS) tissues how this virus interacts with its host to persist despite powerful drug therapy," he explains.

Based on in vitro studies and autopsies of individuals who died with AIDS, the disease caused by HIV, Cavert believes at least some of the viruses are holed up in astrocytes, star-shaped cells found in the brain and other parts of the central nervous system. In healthy individuals these cells, which comprise the most abundant cell type in the central nervous system, nourish nerve cells, clean up debris, and guard the brain from threats approaching through the blood and the cerebrospinal fluid. In persons with HIV, they may also harbor viruses with slightly altered genetic material that allows them to fool the seek-and-destroy drugs into not recognizing them for what they are.

HIV researchers have long suspected the central nervous system as a refuge

for fugitive HIV, in part because individuals receiving anti-HIV drugs show a less dramatic decline in brain-related problems associated with HIV than in problems that occur in the rest of the body. That astrocytes are the likely culprit is suggested by observations made in tissue culture that HIV enters astrocytes in a different way than it does other cells, and behaves differently once in the cells.

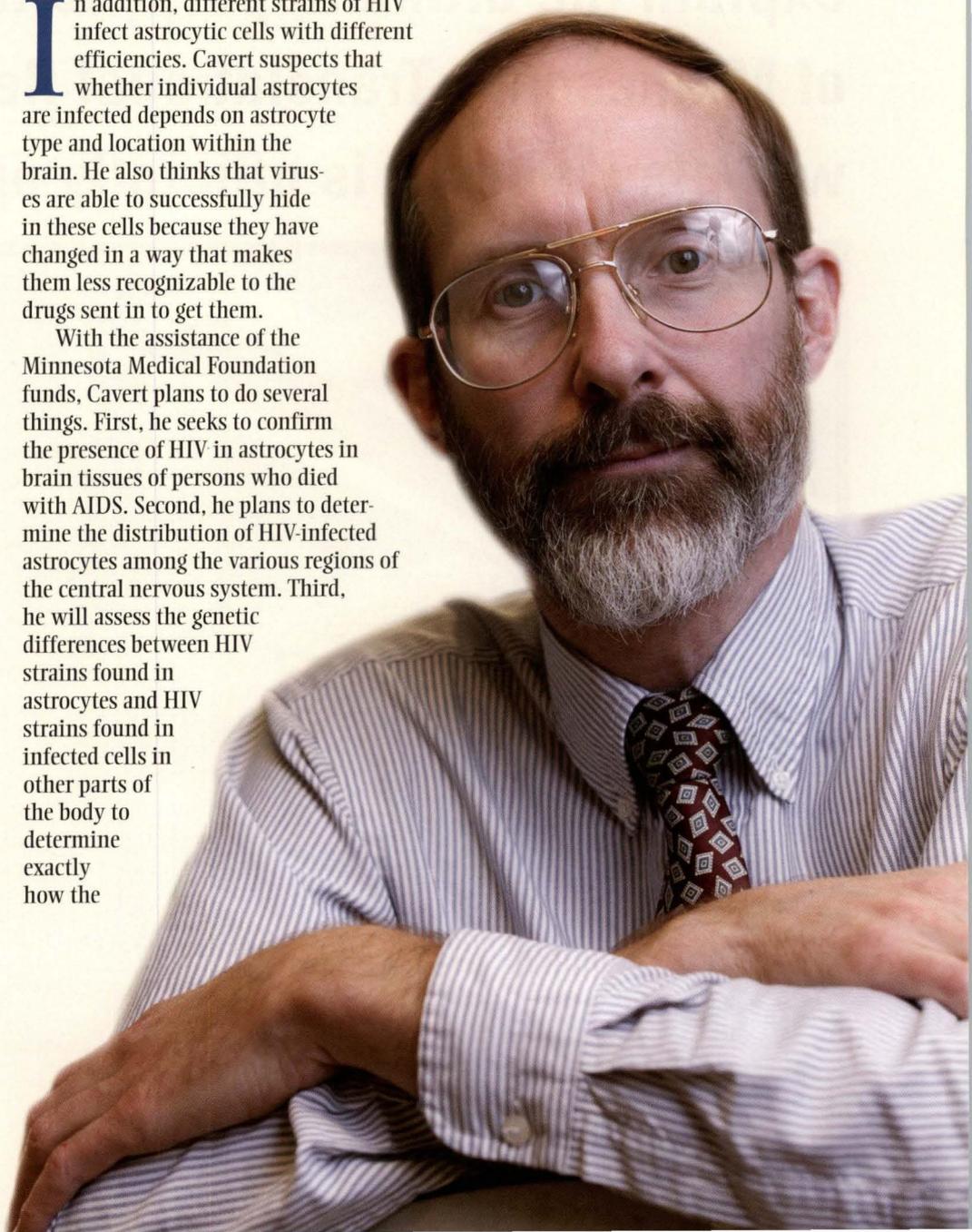
In addition, different strains of HIV infect astrocytic cells with different efficiencies. Cavert suspects that whether individual astrocytes are infected depends on astrocyte type and location within the brain. He also thinks that viruses are able to successfully hide in these cells because they have changed in a way that makes them less recognizable to the drugs sent in to get them.

With the assistance of the Minnesota Medical Foundation funds, Cavert plans to do several things. First, he seeks to confirm the presence of HIV in astrocytes in brain tissues of persons who died with AIDS. Second, he plans to determine the distribution of HIV-infected astrocytes among the various regions of the central nervous system. Third, he will assess the genetic differences between HIV strains found in astrocytes and HIV strains found in infected cells in other parts of the body to determine exactly how the

virus alters its identity within the brain.

His research will provide him with preliminary data that he can take to the National Institutes of Health as justification for obtaining a major grant to continue work on a larger, more detailed scale. Ultimately, Cavert expects insights obtained from these experiments to advance our understanding of the virology of HIV. They may also suggest therapies that could be used to clear hidden HIV from the central nervous system.

by Mary Hoff



A BUILDING FOR THE FUTURE

From the lab to the clinic is a quick way to explain the ultimate purpose the University of Minnesota's Translational Research Facility will play when it is officially opened in 2005.



The 96,000-square-foot facility will support the “translation” – or application of basic research into clinical methods and tools – by bringing together the work of researchers in neuroscience, cancer research, molecular medicine, clinical pharmacology, pharmaco-genetics, and more and helping them apply their insights into molecular biology, the human genome project, and other cutting-edge areas to clinical advances.

This summer, the dream of creating such a facility finally became a reality when the William W. and Nadine M. McGuire Foundation announced that it was pledging a \$10 million donation to the Translational Research Facility. The \$10 million also makes it possible for the University to receive state funding that was provided in the most recent bonding bill, pending the attraction of private money. The total cost of the facility will be \$37 million.

Recently, the *Medical Bulletin* spoke with Dr. William McGuire, spokesperson for the McGuire Foundation. Chairman and CEO of UnitedHealth Group, Dr. McGuire has also served as President and CEO at Peak Health Plan in Colorado, and was active in the Colorado Foundation for Medical Care and its Professional Review Committee during the time he was a practicing pulmonary and critical care physician in Colorado. From 1978 to 1980 he conducted basic research focused on immunologic and inflammatory diseases of the lung at Scripps Research Institute in LaJolla, California.

Medical Bulletin: Dr. McGuire, a good place to begin would be to ask why you and your wife, through the McGuire Foundation, decided to donate such a generous gift to the Translational Research Facility at the University as opposed to some other worthy organization?

McGuire: There are three components to that answer. The first relates to translational research as a concept. Increasingly this is an area that shows tremendous promise for advancing health for broad populations, not just here in Minnesota but everywhere. That was our first driver.

Then we chose the University of Minnesota as the beneficiary not so much because we live here, but because the school has many distinguished people doing research in this area, like Dr. Catherine Verfaillie [of the University’s Stem Cell Institute] whose work has the potential to make very meaningful contributions. The possible applications of the kind of research she is doing are substantial. So we were interested in some of the people already here, and also held the belief that the Translational Research Facility could increase the number of those kinds of people working at the University in expanded new facilities.

Third, we were motivated by a desire to be supportive of the Medical School more broadly – in its research, education, and clinical care missions. The existence here of a preeminent Academic Health Center benefits everyone in a variety of ways, and the interactive process that occurs between great researchers, clinicians, and teachers is an environment we want to foster. And it’s even better that this happens to be in the community in which we live.

MB: Do you see the ramifications of this gift as having long-term benefits for the company you lead, UnitedHealth Group?

McGuire: Our philanthropic interests are not necessarily linked to the interests of UnitedHealth Group. At the same time, of course, UHG has an overall interest in advancing health and well-being and in seeing scientific advances of the kind I have described, whether in Minnesota or elsewhere.

MB: Has the McGuire Foundation offered support to other areas of the Academic Health Center?

McGuire: We have been involved with both the University Pediatrics Foundation and Children’s Cancer Research Fund in varying ways.

MB: What is the overall philosophy for charitable giving of you and your wife?

McGuire: Our principle focus is in the areas of education, the arts, and the sciences. Those may seem somewhat diverse but they are connected by some common threads. For example, we prefer participating in situations where we can help get something started, and then can be leveraged on to other developments rather than simply contributing to already well-established ventures.

We also look to make meaningful contributions that have the potential of impacting an expanded universe of people. It’s like the difference in medicine between research and clinical practice, both of which are in my background. Clinicians have the joy of dealing with one patient at a time and doing good for individual patients. Researchers, on the other hand, have the opportunity to make breakthrough discoveries that can help thousands of people.

Meanwhile, the arts are also important for a variety of reasons, not just through the direct impact they have on children and adults but also for the way they can affect how individuals think and develop within our world. The same is true for the work around the environment and biodiversity that we have supported.

MB: Could you tell us more about that support?

McGuire: We started with the University of Florida where we funded jointly with the state a research facility for study of butterflies and their environment. Butterflies are an indicator of the health of habitats. There are also some genuses and families that are quite valuable in genetic and evolution-

ary studies. By funding this facility we are bringing together multidisciplinary teams of researchers from around the world as well as Florida to put together a world-class research center.

Here in town, we helped create a program for elementary school students in which we fund trips to the Minnesota Zoo that incorporate studies of the environment and habitat into their curriculum. For several years now every third grader in St. Paul, Mankato, and Rochester has been able to participate in this program.

MB: In the course of your career, you have made a dramatic transition from medical research and clinical care to business. Do you still engage in any research or clinical work?

McGuire: I keep up by talking with people who do this work and by reading in the field.

MB: Would you share with us the story of this personal journey?

McGuire: When I was in college I was in liberal arts studies, but I was always oriented toward medicine. I went to medical school and became focused on research and teaching, which is why I headed out to the Scripps Institute to do basic research.

At some point, though, I began to realize that my attention to this field was somewhat less than 100 percent. I have always believed that whatever you do you should do full-throttle. I want to be mentally and emotionally invested in whatever I do. I felt I was not as committed to research as I should have been, especially given the limited funding that's available for conducting research. So I made the difficult decision – difficult because of the wonderful opportunity I had at Scripps – to go into clinical care as a pulmonary specialist doing most of my work in intensive care units.

I very much enjoyed that work and was kept very busy by it. Eventually, I became involved in the Colorado Medical Society's peer review program and through that became involved with a health plan there. That health plan – which was a public company – asked me to help develop a new clinical/business approach to provide a better way to offer health care to employees, and I found I had to make a decision to do that full-time or not at all. I decided to pursue that new direction and end my day-to-day clinical practice. I went to work for Peak Health Plan. When it was acquired by United Health Group and Lincoln National in Fort Wayne, Indiana, the principals in Peak Health Plan decided to back away from the enterprise and I found myself in the enviable position of being able to look not just at clinical aspects of the organization but at other areas affecting its business. De facto, I had become the operations leader and not just its medical director. Eventually, I was given the opportunity to come here.

MB: Do you miss clinical work?

McGuire: Oh sure. It's an extraordinary field. The direct con-

tact with patients and responsibility for their health is wonderful work.

MB: There is widespread agreement that the health care system in the United States faces significant challenges. What is your assessment of the health of our health care system?

McGuire: Saying it is challenged is a real understatement. The state of our health care system is that it is suboptimal relative to what it could be. We have the greatest resources in the world, ranging from research and basic science to the people and facilities to deliver care – it's unparalleled – but the system doesn't work as it should and therefore appropriate care is not available to all people. The system is complex, fragmented, and replete with misinformation or incomplete information. There is way too much variation in the delivery of care and often too little reliance on science and what is proven; too much willingness to do things on the basis of anecdotal evidence; and frequently too little accountability in terms of the choices that are made.

None of this is new, of course. We spend a lot of money and get some very good outcomes but have not made the fruits of that spending as available as it should be to everyone. Our obligation is to make it better.

When we look at the field and what needs to be done, a couple of common themes emerge. One is, we have got to have essential or basic health care benefits available to all people, which is not the government running programs but the presence of essential benefits for everyone paid for by a variety of means. Secondly, we have to make our decisions on what we use and what we do much more based on evidence and proven science than we do today. Inherent in that is a better use of information and knowledge.

MB: Can you cite examples where that is not happening?

McGuire: One of the most important is the issue of antibiotics and the consequences of their overuse. We know a vast number of children get antibiotics for symptoms in which they have no value, sometimes just because parents demand it. Over a prolonged period of time this may promote drug resistance. There is also a plain hard dollar cost to this practice, too.

We also need for people to be better informed about choices and opportunities and not think they have to get some intervention for every complaint. Meanwhile, the administrative components of health care need to be standardized and we need to use a lot more technology for transmitting data about the latest research, treatments, and problems, as well as the administration of benefits.

I would personally like to see the medical community take a greater lead in these areas, particularly on the clinical side. More clinicians should be stepping forward to get the word



Dr. William McGuire, left, and Senior Vice President for Health Sciences Dr. Frank Cerra join Molly and Adam Nash at the groundbreaking for the Translational Research Facility on November 4. Three years ago, an innovative medical procedure at the University used stem cells from Adam's umbilical cord to save Molly's life. She suffered from Fanconi anemia, a rare blood disease. Dr. John Wagner of the University's Stem Cell Institute pioneered the procedure.

out to patients on what is proven and what is not proven in medicine, and to make clear the consequences of not pursuing evidence-based medicine.

Related to all this, of course, is the need to support research. It is expensive, it doesn't always pay off, but it is central to disease prevention and cure. Even as we grapple with how to make the day-to-day things better, we have to continue to make investments in our clinicians, our researchers, and our medical institutions.

MB: Is medical investment in this country adequate?

McGuire: That's a hard call. The President has stepped in and called for more and certainly more could be done. In some areas it is probably adequate, but other areas are deficient.

There are also questions of prioritization. I certainly don't think we are overspending on research and there is room for us to expand our levels of investment but it has to be selective. It is critical that we spend enough but we have to make the right choices about where to direct our investments.

MB: What breakthroughs can we expect from translational research?

McGuire: Diabetes is an interesting area, because we can talk about growing a certain kind of cell and literally stick it in a patient to correct the problem. I think there are also interesting possibilities in neuroscience, ranging from spinal cord injury to Alzheimer's to problems with neurotransmitters.

The gains that are being made are not always obvious. The discovery of a new technique for growing stem cells, for example, might someday lead to a breakthrough in an area entirely different from the area of the original research. And who knows what could happen with transplants? We have major shortages in available organs. Down the road we might be able to find innovative ways to offset that shortage as a result of work done at the Translational Research Facility.

I think it is important to recognize that this gift is not about us. It is about the uses to which it is put. The reason we went public with it was not to draw attention to ourselves, but to help promote awareness of the great potential and need for this kind of support and the hope that this will help spur

others to participate. We can't wait around for somebody else to do it. This state is fortunate to have a tradition of excellent health care. But it is a byproduct of many factors, like access to quality care and of living in a place with a top-quality institution training clinicians and conducting research. In the end, we decided that this was a good time to take some of what we are fortunate to have and to invest in the Medical School and the fulfillment of its potential.

Interview by Rich Broderick

Dr. William McGuire was the featured speaker at the Minnesota Medical Foundation's Annual Meeting on October 27. To read his speech, go to our website at: www.nmf.umn.edu

Doris Taylor, Ph.D., named to Medtronic Bakken Chair in Cardiovascular Repair



Duke University Medical Center

Doris Taylor, Ph.D., an internationally recognized leader in the field of cell and gene therapies – including adult stem cell therapies – for the treatment of cardiovascular disease, has been named holder of the University of Minnesota’s Medtronic Bakken Chair in Cardiovascular Repair.

The Medtronic Bakken Chair is named for Earl Bakken, one of the world’s pre-eminent biomedical pioneers and technological innovators. Bakken founded Medtronic, Inc. in 1949, and invented the first wearable, transistorized heart pacemaker in collaboration with University surgeons in 1957. The Medtronic Foundation has donated \$5.3 million for the chair and other projects since 1987.

Building on the expertise of two University entities – the Biomedical Engineering Institute and the Stem Cell Institute – Taylor will explore the convergence of traditional medical devices and breakthroughs in the biosciences, and accelerate the transition from basic scientific research in this area to practical clinical applications.

“The University of Minnesota provides incredible synergies that allow researchers and clinicians in this field to find and test a treatment and then, if it is right, to move it toward clinical applications that will benefit patients,” says Taylor. “This appointment is a chance to work with leading stem cell researchers as well as top-notch cardiologists and surgeons who intimately understand cardiovascular disease and its devastating consequences. The time is right to pursue the tremendous promise of new approaches to treat the number one killer in America.”

Taylor comes to the University from Duke University Medical School. Among many other academic responsibilities, she is co-chair of the International Society for Heart & Lung Transplantation Cell Therapy Tissue Engineering Council and on the scientific committee and jury of the Grand Prix Lefoulon-Delalande Foundation at the Institut de France. ■

University designated National Center of Excellence in Women’s Health

The University of Minnesota has been designated a National Center of Excellence in Women’s Health by the U.S. Department of Health and Human Services, Office of Women’s Health.

The University of Minnesota was chosen because of its superiority in five key areas: clinical care, education, research, leadership development, and outreach.

“This is truly an interdisciplinary effort including the Schools of Nursing, Public Health, Pharmacy, the Medical Schools in the Twin Cities and Duluth, and our community partners that will allow us to share superb University resources across the state,” says Anne Taylor, M.D., associate dean of faculty affairs and co-director of the program. “Our faculty, affiliate hospitals, and community partners allow us to address women’s physical, psychological, and social health – in rural and urban settings, and among the diverse cultural and geographic populations across the state.”

Examples of collaborative work include developing a network of all women’s health services across disciplines and institutions, so that physicians can easily access the most appropriate treatment for patients; developing culturally sensitive women’s health care best practices to use across the state; working with community partners to find out the most efficient ways of providing patient education; and making the University’s innovative women’s health research available more widely to all Minnesota women. ■

Cancer Center renewed as Comprehensive Cancer Center

The University of Minnesota Cancer Center has received renewal of its Comprehensive Cancer Center designation and a five-year grant of more than \$17 million supporting its interdisciplinary cancer research. The Cancer Center is one of only 39 institutions in the nation to hold this designation, awarded exclusively by the National Cancer Institute (NCI).

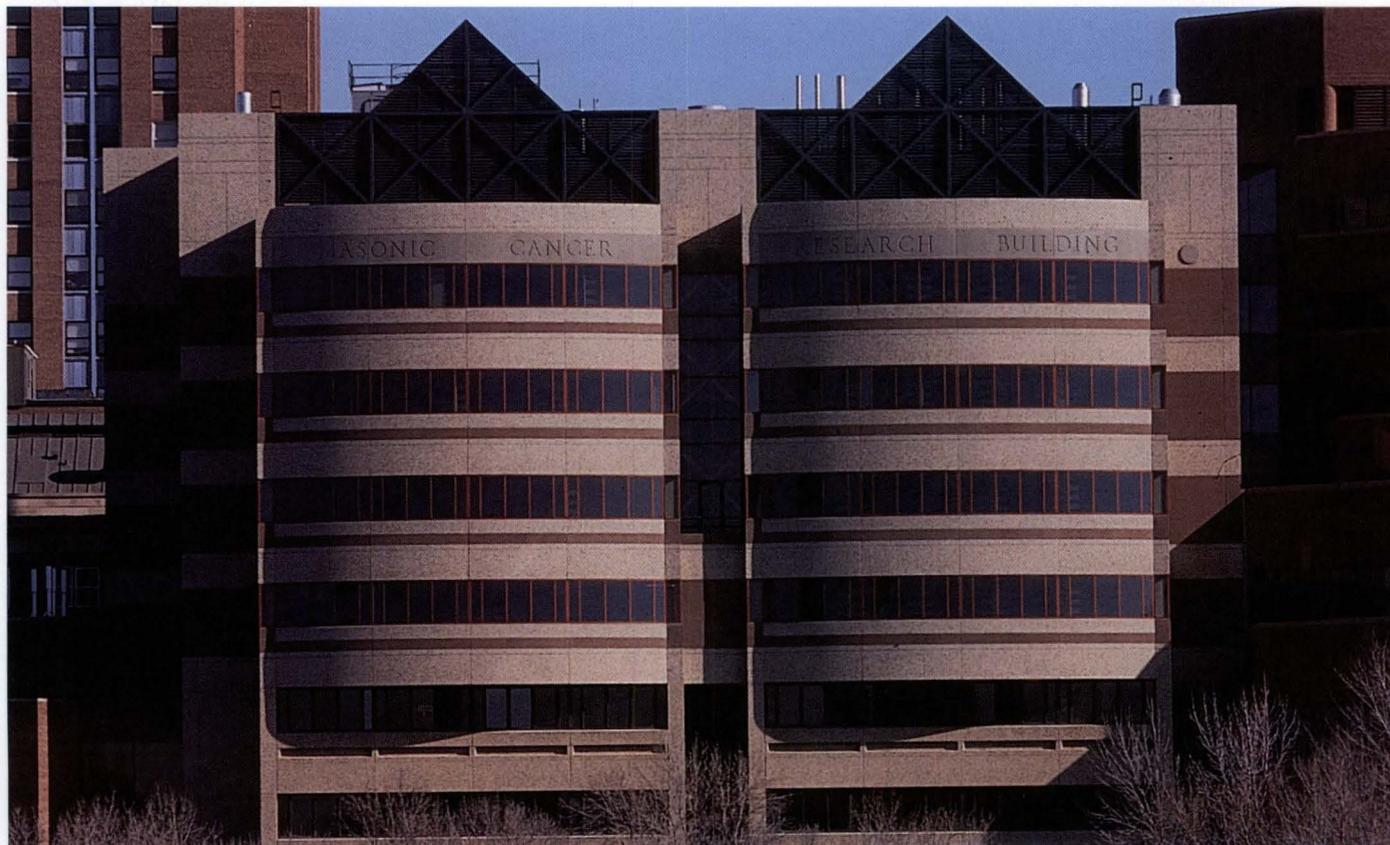
The Comprehensive Cancer Center status is given only to institutions that make ongoing, significant advances in research that are key to understanding, preventing, and treating cancer. Following its initial designation as an NCI Comprehensive Cancer Center five years ago, the Cancer Center has grown to include 415 laboratory and clinical scientists, health care professionals, and staff. Since 1997, the Cancer Center has seen an 82 percent increase in peer reviewed grants, climbing from \$38.5 million to more than \$80 mil-

lion in grant funding during fiscal year 2002.

The University of Minnesota has been active in cancer research for decades, and is home to several "firsts" in cancer research. Accomplishments include performing the world's first successful bone marrow transplant for lymphoma, discovering the cancer-preventing qualities of fruits and vegetables, proving nicotine is addictive, and creating the first animal model for studying, identifying, and disabling the cells responsible for causing bone cancer pain.

Some of the Cancer Center's innovative current research projects include:

- A unique clinical trial only available at the Cancer Center that is examining whether cells of the immune system called "killer cells" can be used to help kill leukemia and kidney cancer cells; the cells are isolated from an unrelated donor and administered to a patient with leukemia or kidney cancer.
- Using MRI and MRS (spectroscopy) to improve the distinction between benign and malignant tumors and develop better tools to predict their response to chemotherapy.
- Applying microsurgery/minimally invasive surgical techniques to treat lung and other cancers.
- Groundbreaking tobacco research, including studies that have provided a better understanding of the carcinogens that trigger cancers (either directly or from second-hand exposure) and advances in our ability to help hard-core smokers quit. ■

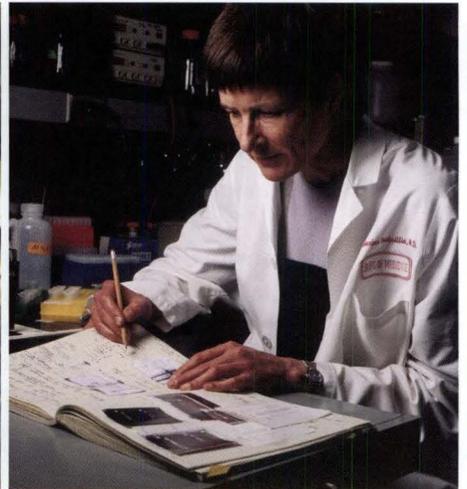


Campaign Minnesota – A Defining Moment

Campaign Minnesota was an unprecedented fundraising effort by the University of Minnesota to raise \$1.3 billion to enable the University to recruit, retain, and develop top faculty; attract students with promise and help them succeed; and invest in Minnesota's future. **The final University-wide total for Campaign Minnesota topped \$1.6 billion.**

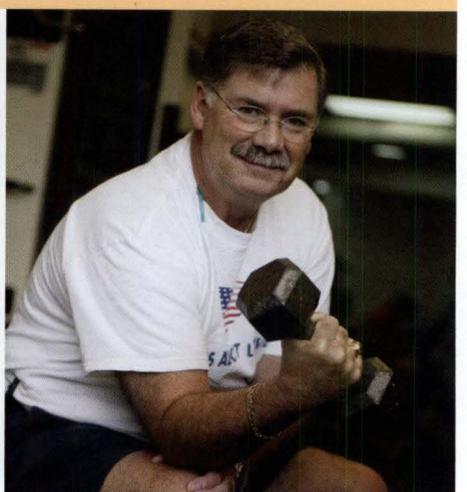
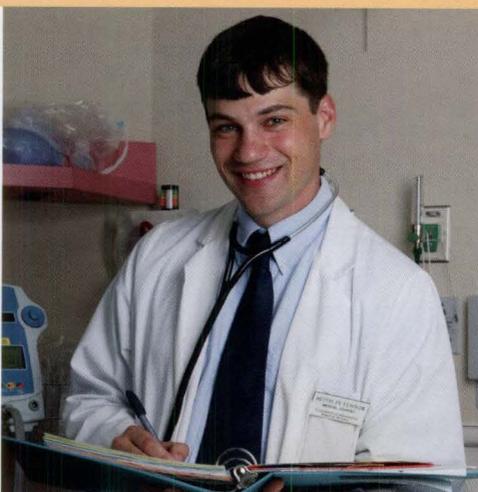
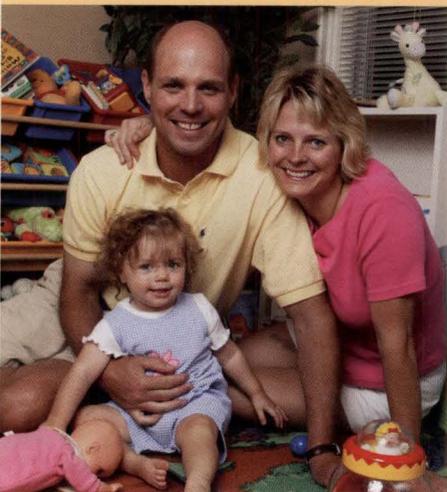
To benefit the Medical School and School of Public Health as part of Campaign Minnesota, the

Minnesota Medical Foundation sought to generate \$500 million to support breakthrough research, educate tomorrow's health care professionals, outfit laboratories with state-of-the-art equipment, and enhance the leadership position of the University in the scientific revolution of the 21st century. **The final Campaign Minnesota total for the Medical School and School of Public Health was \$516 million.**



Campaign Minnesota highlights for the Medical School and School of Public Health:

- More money was raised in the seven-year period of Campaign Minnesota than in the entire 100-plus year history of the Medical School.
- More than 66,000 generous benefactors chose to support the Medical School and School of Public Health with their gifts.
- Faculty and staff of the Medical School and School of Public Health contributed more than \$13 million to Campaign Minnesota.
- Forty-one new endowed faculty positions were established, with an additional 21 positions pledged through deferred gifts, enabling the University to recruit and retain top researchers in numerous disease areas.
- More than \$22 million was raised for medical student scholarships, and 119 new scholarships were established during the campaign.
- A number of new centers and institutes were established, including: the Lillehei Heart Institute, the Center for Minimally Invasive Surgery, the Center for Prostate Cancer, the Stem Cell Institute, and the Center for Infectious Disease Research and Policy.



CAMPAIGN TOTALS

Medical School, Twin Cities = \$457,272,114

School of Medicine, Duluth = \$9,202,109

School of Public Health = \$49,887,969

Total = \$516,362,192

CAMPAIGN HIGHLIGHTS

Campaign Minnesota goals were met and exceeded. These campaign priority areas – established by faculty and leadership of the Academic Health Center at the beginning of the campaign – are now poised to move forward at a pace never before imagined.

CANCER: \$52 MILLION

This great accomplishment is tribute to thousands of donors' care and concern for their loved ones, and to their conviction that the University of Minnesota is a valued resource for applying emerging knowledge in genetics and biomedicine to help conquer cancer.

CARDIOVASCULAR HEALTH: \$25 MILLION

A \$13 million gift from the family of Dr. C. Walton Lillehei was used to establish the Lillehei Heart Institute and to initiate programs that are continuing Minnesota's world-class reputation for heart research.

CHILDREN'S HEALTH: \$30 MILLION

By retaining and attracting talented faculty, providing support for innovative research, and enhancing clinical services, campaign contributors are making Minnesota and the world a better, healthier place for all our children.

DIABETES: \$12 MILLION

Campaign Minnesota has made great strides toward improving treatment of – and bringing new hope for a cure for – individuals with diabetes, from enhancing traditional approaches to diabetes care to setting the stage for a cure through islet cell transplantation.

NEUROSCIENCE: \$31 MILLION

Contributions to Campaign Minnesota are funding a wide range of projects with the common goal of enhancing research, education, and clinical cure for diseases of the brain and nervous system such as Alzheimer's disease, depression, Parkinson's disease, and much more.

NEW THERAPIES: \$7 MILLION

The world's first stem cell institute was established through Campaign Minnesota gifts, with a goal of advancing the understanding of stem cells and the application of this understanding to enhancing human health.

TRANSPLANTATION/SURGERY: \$7 MILLION

Campaign Minnesota has helped enhance the University's status as a premier institution for the advancement of minimally invasive surgery – the fastest growing area in surgery today – by raising funds to establish the new Center for Minimally Invasive Surgery.

WOMEN'S HEALTH: \$3.7 MILLION

Contributors to Campaign Minnesota have dramatically enhanced the University's ability to advance the health of women by providing gifts to support innovative research, attract top physician-scientists, and provide equipment needed to enhance research, education, and clinical care.

SCHOLARSHIPS: \$22 MILLION

Campaign contributors responded to the tremendous need for scholarships with \$22 million raised to help promising students finance the journey to their degree. A total of 119 new scholarships were established in the Medical School and School of Public Health.

SCHOOL OF PUBLIC HEALTH: \$50 MILLION

The School of Public Health and its alumni have long been known for contributions to public health on a local, national, and international level. Gifts to the campaign have enhanced those contributions in many ways – spearheaded by the establishment of the Center for Infectious Disease Research and Policy.

UNIVERSITY OF MINNESOTA, DULUTH, SCHOOL OF MEDICINE: \$9 MILLION

Campaign Minnesota has made exciting progress in advancing the vision of better health for all rural and small-town Minnesotans. The energy and innovation at the UMD School of Medicine has an impact throughout the state.

Generous benefactors support

Many thanks to the following donors who have made recent commitments of \$100,000 or more to

Thanks a Million!

Drs. Marvin D. Dunnette and Leatta Hough, St. Paul, have pledged \$1 million to the Hazel Hough Memorial Fund for Parkinson's disease to advance research studies, particularly the application of stem cell research, to bring a cure for this debilitating disease. Marvin Dunnette is a founder of Personnel Decisions, Inc. and retired faculty member of the Psychology Department. Leatta Hough also holds a faculty position in the department.

Dr. Robert L. and Katherine Goodale, Minneapolis, have funded the Robert and Katherine Goodale Chair in Minimally Invasive Surgery with a \$1 million gift. Dr. Goodale's substantial work in endoscopic procedures beginning in the 1970s was a key factor in helping create the receptive climate for minimally invasive and robotic surgical techniques at the University of Minnesota. The Center for Minimally Invasive Surgery opened in Spring 2003 thanks in part to strong corporate and individual philanthropic support. Goodale retired from the Department of Surgery in May 2002.

Roger L. and Lynn C. Headrick, Wayzata, Minnesota, have committed a \$1 million legacy gift to establish the Roger L. and Lynn C. Headrick Family Chair in Cancer Therapeutics. The Headricks have a long-time interest in cancer research and have contributed time and resources to support the University of Minnesota Cancer Center. Roger Headrick serves on the Cancer Center's advisory committee and recently completed his term on the Minnesota Medical Foundation board of trustees. Lynn Headrick has served on the University Pediatrics Foundation board of directors.

Dr. Gisela Konopka, Minneapolis, has made a \$1 million legacy gift that will establish the Gisela and E. Paul Konopka Chair in Adolescent Health and Development. Dr. Konopka, University of Minnesota Professor Emeritus, is an innovator in social work methods and practices, and a tireless advocate for the humane treatment of adolescents.

Elaine and Robert Larson, St. Paul, have made an estate gift of \$1 million to establish the Elaine and Robert Larson Endowed Vision Research Chair. Macular degeneration has impacted the lives of Elaine Larson's brother and many of her friends. The Larsons' support will help to preserve, enhance, and restore eyesight through research made possible by this new endowed position.

Margaret 'Dusty' and George A. Mairs III, Mendota Heights, Minnesota, are making a \$1 million gift to the Department of Orthopaedic Surgery to establish the Mairs Family Chair to benefit the Bone and Soft Tissue Tumor Center in the Department of Orthopaedic Surgery. The chairholder will pursue critical research resulting in improved treatments for diseases affecting the musculoskeletal system.

Dr. Jerome D. and Meredith Poland, Deerwood, Minnesota, and **Rodger and Janie Finke**, Hopkins, Minnesota, have committed \$1 million to establish the Dr. Jerome D. and Meredith Poland and Rodger and Janie Finke Endowed Chair in Ophthalmology. Dr. Poland is an alumnus of both the Medical School and Ophthalmology Residency Program and is a clinical faculty member of the department. The fund also reflects the generosity of Rodger and Janie Finke, close friends of the Polands, who hope their legacy will make a difference in vision research, care, and education for future generations.

Mark and Muriel Wexler, Golden Valley, Minnesota, have pledged \$1 million to establish the Dr. Harold M. Wexler Professorship in Internal Medicine, in honor of their brother and brother-in-law. Dr. Wexler is a distinguished physician and teacher who has established a national reputation in patient care and the delivery of medical education.

research and education

the future progress of health-related education, research, and service at the University of Minnesota.

Florence Bach, Edina, Minnesota, made a \$200,000 gift to the Nash Avery Search for Hope Fund in honor of her great grandson, Nash Avery. The fund supports muscular dystrophy research with the hope that he and others with this neuromuscular disorder will have a brighter future.

Frederick J. Bollum, Ph.D., Potomac, Maryland, has contributed \$400,000 in a deferred gift annuity to the F.J. Bollum, Ph.D., Endowed Research Fund for ongoing basic science research in the Department of Biochemistry, Molecular Biology, and Biophysics. Dr. Bollum is a 1956 alumnus of the department and a long-time supporter of basic science research in the Medical School.

Dr. H. Mead and June S. Cavert, St. Paul, added a \$100,000 charitable gift annuity to the already established endowed scholarship fund bearing their names. The scholarship was originally funded by colleagues and friends to honor Dr. Cavert, former associate dean of the Medical School and a member of the faculty for more than 30 years.

Dr. Robert W. and Patricia A. Goltz, La Jolla, California, made a \$100,000 gift to the Robert W. Goltz, M.D., Endowed Fund for Dermatology Research, assuring the \$500,000 minimum to establish an endowed professorship in dermatology research. Dr. Goltz's outstanding legacy as a clinician, dermatopathology researcher, and department chair is well known.

The Iacocca Foundation's myCFO Foundation II, Mountain View, California, has awarded \$245,000 to the Diabetes Institute for Immunology and Transplantation. This is the second of a

three-year commitment to annually fund three Mary K. Iacocca Fellowships that support research toward a cure for diabetes through islet cell transplantation.

Ixora Bio Medical Inc., New York, has pledged \$125,000 toward the establishment of an endowed chair in sexual health to be held in the Program in Human Sexuality.

A \$200,000 gift from the estate of **Pauline Lepinski**, St. Cloud, Minnesota, will be used for cancer research. Ms. Lepinski, who died in December 2002 at age 93, established the trust in 1975.

Glen and Kathleen Ludwig, Shoreview, Minnesota, have each established legacy gifts in the Medical School. Glen Ludwig's \$150,000 bequest will support the research mission of the Department of Therapeutic Radiology. Kathleen Ludwig's \$150,000 bequest will support pulmonary research and cardiology development.

Maude E. Michel, Minneapolis, designated \$600,000 in her estate plans to support scholarships and research for Minnesota Medical Foundation sponsored programs. She strongly believed in philanthropy to support medical education so students could "further medical knowledge and research not only in our nation but throughout the world."

G. Wayne Miller, Pascoag, Rhode Island, author of *The King of Hearts*, the biography of Dr. C. Walton Lillehei, has donated the tapes and transcripts he used to write the book to the University of Minnesota. These documents are archived in the University of Minnesota Libraries.

The Regis Foundation for Breast Cancer Research, Minneapolis, has pledged \$150,000 to fund a research nurse position in the Cancer Center's Breast Cancer Research Program. The Regis Foundation for Breast Cancer Research is an affiliate of Regis Corporation; owners Myron and Anita Kunin are generous benefactors of breast cancer research in Dr. Doug Yee's laboratory. Anita Kunin serves on the Cancer Center's community advisory board.

The estate of **Edward "Bud" Stenberg**, Duluth, Minnesota, has provided more than \$158,000 to establish the Edward B. Stenberg Endowed International Scholarship to enable medical students to further their medical training by studying and/or working abroad.

Yoshi Tani, St. Paul, has made plans for a \$500,000 legacy gift called the Tani Family Endowed Professorship in Ophthalmology. This new endowed position will honor the memory of Dr. George Tani and recognizes the contributions and achievements of Drs. George Tani and his sons Paul and Douglas Tani in the Minnesota ophthalmic community. Tani Eye Associates, the family-run ophthalmology practice, has been in St. Paul since 1955.

Wyeth-Ayerest Pharmaceuticals, Philadelphia, Pennsylvania, has made a corporate gift of \$100,000 to the Department of Surgery's Transplant Continuation Course Fund. This fund supports a nationally known semi-annual CME continuation course on immunosuppression in transplantation.

Minnesota Medical Foundation welcomes new board members

The Minnesota Medical Foundation was pleased to welcome new members to the board of trustees at the October 27 annual meeting. The board of trustees is charged with the overall guidance of the Foundation in accomplishing its mission of supporting health-related research and education at the University of Minnesota Medical School and School of Public Health.

Seven individuals were elected to four-year terms on the board:



ATUM AZZAHIR is co-founder and president of the Powderhorn/Phillips Cultural Wellness Center, a unique organization that brings together cultural traditions, community, healing, and personal empowerment for better health. Azzahir is a past recipient of the Robert Wood Johnson Community Health Leadership Award.



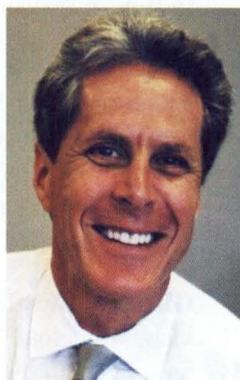
JEAN FOUNTAIN is owner and principal of VIA Foundation Associates, an executive search firm. Fountain graduated with an MBA from the Carlson School of Management at the University of Minnesota in 1974. She is a past national president of the University of Minnesota Alumni Association.



SIDNEY KAPLAN is a senior partner with Parsinen Kaplan Rosberg & Gotlieb, practicing in the areas of estate and tax planning, trusts, estate administration, and business planning. Kaplan is a past chair of the University Pediatrics Foundation board, an affiliate of the Minnesota Medical Foundation. He is a graduate of the University of Minnesota and the University of Chicago School of Law.



MICHAEL McQUADE, PH.D., is vice president of the 3M Medical Division. He has three degrees from Carnegie-Mellon University including a Ph.D in physics. McQuade began his career with 3M, and served as president of Eastman Kodak Health Imaging before returning to 3M in 2002 to assume his current position.



STEPHEN OESTERLE, M.D., is senior vice president for medicine and technology for Medtronic, Inc. He was previously an associate professor of medicine at the Harvard University Medical School and director of Invasive Cardiology Services at Massachusetts General Hospital. Oesterle is a graduate of Harvard and the Yale School of Medicine.



SUSAN PLIMPTON is a retired marketing executive from American Express Financial Advisors who now devotes her time to non-profit organizations. She held marketing positions at General Mills, Green Giant, and Pillsbury before moving to IDS/American Express.



REED TUCKSON, M.D., is senior vice president of consumer health and medical care advancement for United HealthGroup, Inc. Previously he was senior vice president of professional standards for the American Medical Association, president of Charles Drew University of Medicine and Science, and commissioner of public health for the District of Columbia. He is a graduate of Howard University and Georgetown School of Medicine.

Welcome new Presidents Club members

Because of their generous support, the following people have recently become members of the University of Minnesota Presidents Club. Their gifts have been designated (all or partially) to the Medical School, School of Public Health, Cancer Center, or other areas served by the Minnesota Medical Foundation.

BUILDERS SOCIETY

\$1 million and above

Drs. Marvin D. Dunnette and Leaetta Hough
Dr. Robert L. and Katherine D. Goodale
Margaret 'Dusty' and George A. Mairs III
Dr. William W. and Nadine McGuire
Judith H. and John M. Murphy, Jr.
Laurence O. Pilgeram, Ph.D.
Mark and Muriel Wexler

REGENTS SOCIETY

\$500,000 to \$1 million

Maas Foundation

TRUSTEES SOCIETY

\$100,000 to \$500,000

Pete and Margie Ankeny
James H. and Jayne M. Bradshaw
Dr. Robert W., '44 and Patricia A. Goltz
G. Wayne Miller
John R. Pfrommer, M.D., MPH
Dr. Eugene S., '64 and Shirley L. Strout

CHANCELLORS SOCIETY

\$50,000 to \$100,000

Drs. William E., '59 and Paula P. Bernstein
Cancer Benefit Fund
Mary Sue Comfort
Myron D. and Arlene Hill
Dr. Eddie, '53 and Shelley Segal
Jane A. Starr
+ Auleen R. and + Willis G. Sweet

FOUNDERS SOCIETY

\$25,000 to \$50,000

Drs. Linda F. Carson and Roderick A. Barke
Thomas J. and Patty J. Cartier
+ Helen L. Clark
Dr. Donald J. and Carol L. Doughman
+ Lois O. James
Dr. Hugo R. Paulson, '66
Dr. Darrel J., '74 and Carrie J. Rosen
Drs. Sharon J. Ruggiero and Christopher J. Widstrom
Dr. Richard L. and Barbara B. Spielvogel
Drs. Carolyn L. Williams and James N. Butcher

HERITAGE SOCIETY

The following individuals have committed future gifts through estate plans or other planned giving programs.

Walter O. Bockting, Ph.D.
Professor Iver and Nancy Bogen
Dr. Thomas G. and Mary L. Boman
Dr. Earl E., '53 and Iris N. Cammock
Dr. Richard J., '46 and Evelyn L. Frey
Dr. Nathan M., '93 and Laura J.D. Frink
+ Dr. William P., '39 and Elizabeth V. Gjerde
Dr. Michael J. and Shirleen R. Hieb
Dr. Young Song, '58 and + Shin Hyung Kim
Dr. Richard O., '50 and Ann A. Leavenworth
Stephen E. and Kathleen R. Otto
Laurence O. Pilgeram, Ph.D.
Dr. Elizabeth A., '78 and Richard Riesgraf-Wyman
Beatrice E. Robinson, Ph.D.
B.R. Simon Rosser, Ph.D., M.P.H.
Dr. Stuart P., '67 and Janice M. Westburg
+ Deceased

Minnesota Medical Foundation names new VP for Marketing and Communications

The Minnesota Medical Foundation has named Catherine Henry as its new Vice President for Marketing and Communications. She comes to the Foundation from Chicago, where she was most recently Vice President of Communications for the Alzheimer's Association. Prior to that she was Director of Publications at Northwestern University.

Henry fills the position previously held by Dan Saftig, who is now President and CEO of the Iowa State University Foundation. ■



ALUMNI CONNECTIONS

Alumni Helping Students

In keeping with its mission, the Medical Alumni Society offers volunteer opportunities both nationally and in the Medical School's own back yard.

Residents Away From Home

University of Minnesota medical students often conduct their residency searches and interviews outside the Twin Cities area. The cost of the searches can be greatly reduced when Medical School alumni agree to host a visiting student in their homes. Furthermore, it provides the student an opportunity to spend time with a physician living and practicing in that community and offers the alumnus a chance to learn about today's University of Minnesota Medical School.

If you live outside the Twin Cities area and would like to volunteer to host a visiting student, contact Sue Clark, Alumni Relations, s.clark@mmf.umn.edu, 612-626-0619 or 1-800-922-1663. ■

Connections Mentoring Program

The Connections Mentoring Program has matched hundreds of students with physicians who understand firsthand the rigors of practicing medicine. Relationships vary depending on what the student and the physician want from the mentorship, but in many cases lifelong friendships have resulted.

The Connections Mentoring Program pairs first-year medical students with physician mentors, with the intention of the relationship lasting the duration of the students' medical school education. In partnership with the Hennepin and Ramsey Medical Societies, we invite all Twin Cities-area physicians to participate.

For more information about both the Connections Mentoring Program and the Residents Away from Home program, visit the Minnesota Medical Foundation web site at www.mmf.umn.edu/alumni, and click on Volunteer. You may also contact Emily Heagle, Director of Alumni Relations, at e.heagle@mmf.umn.edu, 612-624-9161 or 1-800-922-1663. ■

2003-2004 Medical Alumni Society Board of Directors

The Medical Alumni Society board represents alumni of the Medical Schools in the Twin Cities and Duluth and seeks to build and promote the reciprocal and mutually beneficial relationship that exists between the Medical School and its graduates.

- Richard A. Carlson, M.D., '72, President
- Edward M. Beadle, M.D., '78
- Stuart H. Bloom, M.D., '95
- James R. Breitenbucher, M.D., '71
- Raymond G. Christensen, M.D.
- Frazier Eales, M.D., '76
- Laura A. France, M.D., '93
- Carol M. Grabowski, M.D., '88
- Jon S. Hallberg, M.D., '92
- Fred A. Lyon, M.D., '57
- Arthur L. Ney, M.D., '77
- Eugene W. Ollila, M.D., '70
- Tanya L. Repka, M.D., '84
- Daniel R. Sherry, M.D., '73
- Keith L. Stelter, M.D., '88
- Martin J. Stillman, J.D., M.D., '97

REUNION!

University of Minnesota Medical School Alumni Reunion Weekend is May 21 and 22, 2004 Mark your Calendar!

All alumni are invited to participate in Alumni Day on May 21. Special reunion celebration activities will be held for the classes of 1944, 1949, 1954, 1964, 1969, 1974, 1979, and 1994. Members of the celebrating classes will receive more information on Reunion Weekend in Janu-

ary. Until then, visit the web site at: www.mmf.umn.edu/reunions. If you have questions, please contact Emily Heagle (612-624-9161) or Sue Clark (612-626-0619). E-mail inquiries can be sent to: MAS@mmf.umn.edu. If you are calling from outside the Twin Cities, please call 1-800-922-1663.

MEDICAL SCHOOL



UNIVERSITY OF MINNESOTA

IN MEMORIAM

DR. MURARKA AMAL, Class of 1994, Chapel Hill, North Carolina, died August 16 at age 33. He was an assistant professor of pediatrics at the University of North Carolina Children's Hospital. He spent one year serving as a medical field officer at the Makerere University Medical School in Kampala, Uganda, and two years in the Robert Wood Johnson Clinical Scholars Program at Johns Hopkins. He completed a post-doctoral fellowship in anesthesiology and critical care medicine, also at Johns Hopkins. Amal is survived by his wife, Dr. Marjorie Sue Rosenthal, and two daughters.

DR. WERNER W. AMERONGEN, Class of 1946, Roseville, Minnesota, died May 3 at age 85. He was a physician and surgeon at St. Joseph's and Bethesda Hospitals for many years. He is survived by his wife, Bernadette, and seven children.

DR. NED M. AUSTIN, Class of 1980, Enid, Oklahoma, died August 8 at age 50. He completed his residency in pathology and a fellowship in forensics at Hennepin County Medical Center in Minneapolis. In 1986, he established a practice in pathology and was affiliated with St. Mary's Medical Center in Enid. He is survived by five children.

DR. LAURA A. BIGLOW, Class of 1985, Hopkins, Minnesota, died May 2 at age 43. She completed her internship at Hennepin County Medical Center in 1986. Biglow practiced family and emergency room medicine at the U.S. Army Base in Frankfurt, Germany, for three years before returning to the United States, where she worked as a medical writer for 3M, with plans for further involvement in medical research. She is survived by her companion, Steve Gardner.

DR. DONALD BRAUN, Class of 1972, Pierz, Minnesota, died March 11 at age 56. He spent four years at the Mayo Clinic where he became an orthopaedic surgeon. He also spent one

year in Newfoundland at the Children's Hospital, and also practiced at St. Mary's Hospital in Duluth.

DR. JOHN P. COOPER, Class of 1945, Edina, Minnesota, died June 24 at age 86. He began his career as a general practitioner in Excelsior, Minnesota. He had a special interest in children's health care and was instrumental in the development of the Pediatric Urology Department at Children's Health Center in Minneapolis. He was also a long-time staff member of Abbott Northwestern Hospital. Cooper is survived by his wife, Barbara, and three children.

DR. CYRIL J. CORRIGAN, Class of 1949, St. Paul, died January 27 at age 83. He served in World War II in Europe with the 109th Tactical Reconnaissance Squadron, Minnesota Air National Guard. Corrigan practiced radiology with the Olmsted Medical Group in Rochester from 1957-90. He is survived by five children.

DR. HAROLD COULTER, Class of 1942, Tucson, died May 23 at age 88. He was a family practice doctor for 15 years in Madelia, Minnesota, and an anesthesiologist at Fairview Riverside Hospital for more than 20 years. He is survived by three sons.

DR. ROBERT COURTEAU, Class of 1955, Onamia, Minnesota, died March 25 at age 79. He is survived by his wife, Florence, and four children.

DR. MYRON I. DOEBLER, Class of 1958, Princeton, Minnesota, died September 16 at age 82. He is survived by his wife, Mardell, and five children.

DR. ABEL R. ELLINGSON, Class of 1956, Alta Loma, California, died March 12, 2002, at age 71. After medical school he joined the U.S. Navy and completed a residency in orthopaedic surgery at the Naval Hospital in Oakland, California, and the Children's Hospital in Charlotte, North Carolina. He served as commanding officer for the U.S. Marine Hospital in Da Nang, Viet Nam, in 1966-67. Ellingson is survived by his wife, Ann, and five children.

DR. WILLIAM D. ERICKSON, Class of 1962, St. Peter, Minnesota, died March 8 at age 67. He practiced pediatrics in Virginia, North Dakota, Pennsylvania, and Minnesota. He later changed specialties and began practicing psychiatry. He is survived by his wife, Mary.

DR. DONNELL D. ETZWILER, Class of 1953, Bloomington, Minnesota, died April 6 at age 76. A pediatric endocrinologist, he was founder and president of the International Diabetes Center at Park Nicollet Health Services. He is survived by his wife, Helen, and four children.

DR. THOMAS B. FITZPATRICK, Class of 1952, Lexington, Massachusetts, died August 30 at age 83. He was professor and head of dermatology at the University of Oregon and at Harvard Medical School. He served as chief of the Massachusetts General Hospital (MGH) Dermatology Service from 1959-87. An endowed chair was established in his name at Harvard Medical School in 1982. Fitzpatrick was a pioneer in basic dermatology and he and his colleagues at MGH were responsible for the discovery of the treatment for psoriasis called PUVA. He is survived by his wife, Beatrice, and three sons.

DR. GEORGE H. HALL, Class of 1938, Moorhead, Minnesota, died April 19 at age 89.

DR. WAYNE L. HOSETH, Class of 1947, Plymouth, Minnesota, died May 30 at age 78. He served as a lieutenant in the U.S. Navy. Hoseth was on staff at the University of Minnesota Hospital, the VA Medical Center, Swedish and St. Barnabas Hospitals, and was chief of staff at Fairview Southdale Hospital. He was in private practice from 1958-92. He is survived by his wife, Mary Kay, and seven children.

DR. JAY J. JACOBY, Class of 1941, Palm Beach, Florida, died March 13 at age 85. A pioneering anesthesiologist, he started the Anesthesiology Department at Ohio State University College of Medicine in 1947 and moved to Philadelphia in

Continued

IN MEMORIAM

continued

1965 to establish the Anesthesiology Department at Jefferson Medical College. During his long teaching career he trained hundreds of anesthesiologists. He wrote numerous articles on anesthesia and was internationally known for developing techniques to secure patients' airways during emergencies and surgery. He is survived by his wife, Helene, and three children.

DR. ARTHUR B. JOHNSON, Class of 1930, Edina, Minnesota, died January 26 at age 97. He was a physician and surgeon for 53 years. He is survived by his daughter, Janet Nelson.

DR. DONALD JORGENSEN, Class of 1961, Willmar, Minnesota, died March 30 at age 72. Jorgensen practiced in St. Paul for six years, prior to moving to Willmar in 1972. He practiced ophthalmology in Willmar from 1972 until his retirement in 1996. He is survived by his wife, Virginia, and three children.

DR. SEVERIN H. KOOP, Class of 1955, St. Cloud, Minnesota, died July 8 at age 73. After earning his medical degree he served in Germany as a captain in the Army Medical Corps. He then began general practice in St. Cloud. In 1962, Koop returned to the University of Minnesota to specialize in otolaryngology. He founded the St. Cloud Ear, Nose & Throat Clinic in 1966, where he practiced until his retirement in 1993. Koop served as president of the Minnesota Medical Association, delegate of the American Medical Association, and associate clinical professor at the Medical School. He is survived by his wife, Ruth, and five children.

DR. PAUL G. LARSON, Class of 1944, Sacramento, California, died May 26 at age 82. He served in World War II as a captain on the Hospital Ship Mercy in the Pacific. Larson practiced internal medicine in Sacramento for 30 years, and retired from his medical career in 1985 as a physician for the State of California at the Sierra Conservation Cen-

ter near Sonora. He is survived by his wife, Meg, and four children.

DR. NORMAN J. LEE, Class of 1944, Coon Rapids, Minnesota, died September 7 at age 83. He dedicated 50 years of his life to practicing obstetric and gynecological medicine, and delivered more than 5,000 babies. He is survived by his wife, Mary Ellen, and four children.

DR. HELEN W. LONGFELLOW, Class of 1936, Roseville, Minnesota, died August 22 at age 90. She had a general practice in medicine and surgery in Brainerd, Minnesota, from 1945-81. She was inducted into Brainerd High School Hall of Fame in May 2003 for Distinguished Achievement in the Field of Medicine. Longfellow is survived by four children.

DR. JOHN MICKELSON, Class of 1938, Burbank, California, died April 27 at age 88.

DR. NEIL M. PALM, Class of 1950, Bloomington, Minnesota, died May 3 at age 81. He served in World War II as an Army Air Corps pilot with 50 missions in the Pacific. He was an associate professor of surgery at the University of Minnesota Medical School, and was chief of staff at Miller and United Hospitals. He completed his medical practice at the VA Medical Center as chief of outpatient surgery. Palm served as president of the Minnesota Academy of Medicine. He is survived by his wife, Mariellen, and four children.

DR. LEONARD F. PELTIER, Class of 1945, Albuquerque, New Mexico, died May 4 at age 83.

DR. BYRON H. ROBERTS, Class of 1951, Sanibel, Florida, died January 25 at age 76. He served in the U.S. Navy and later founded Minneapolis Anesthesia. He was chief of anesthesia and a significant force in the growth of Fairview Hospital from 1951 until his retirement in 1986. He is survived by his wife, Dolores.

DR. ARTHUR B. QUIGGLE, Class of 1950, Maple Lake, Minnesota, died

October 1 at age 81. In keeping with his wishes, his body was given to the University of Minnesota Medical School. He is survived by his wife, Anna Mae, and five children.

DR. MORRIS S. ROTHNEM, Class of 1944, Scottsdale, Arizona, died July 7 at age 83. He served as a captain in the U.S. Army Medical Corps in Japan and Hawaii. After completing his residency, he joined the Paul Larson Obstetrics and Gynecology Clinic in Minneapolis and continued practicing until his retirement in 1989. He is survived by his wife, Jerelyn, and five children.

DR. JOHN T. SAIDY, Class of 1946, Hillsborough, California, died February 21 at age 80.

DR. DONALD O. SCHULTZ, Class of 1944, Minneapolis, died June 2 at age 82. He served in the Army Medical Corps in World War II. He is survived by two sons.

DR. HANNS C. SCHWYZER, Class of 1938, Santa Fe, New Mexico, died on December 12, 2002, at age 90. He is survived by his wife, Mary, and four children.

DR. HERMAN SELTZ, Class of 1935, Elkins, West Virginia, died May 12 at age 91. He practiced in Elkins until his retirement in 1981. He is survived by his daughter, Deborah.

DR. MARILOU SOLLUM, Class of 1996, International Falls, Minnesota, died April 26 at age 41. She completed her residency at United Family Health Center in St. Paul and began her career as a family practice physician at MeritCare Clinic in Detroit Lakes. She later moved to International Falls where she worked at the St. Mary's Clinic. She is survived by her husband, Barry, and her son.

DR. JAMES C. TRAUTMANN, Crosslake, Minnesota, died September 17 at age 75. He was in family practice in Duluth from 1958-63 before joining the staff of the Mayo Clinic Department of Ophthalmology where he served from 1964-91. He is survived by five children.

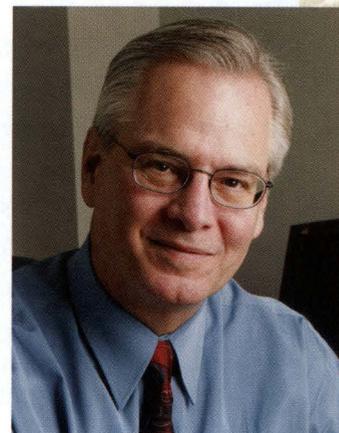
DR. MARK P. VIRNIG, Class of 1933, Wells, Minnesota, died August 16 at age 93. He began his practice in Wells in 1934. His medical and surgical practice was interrupted from 1942-46 when he served in the Naval Reserve as a medical officer on Adak in the Aleutian Islands and later in St. Peter, Minnesota. Upon completion of his naval service, he returned to Wells where he continued his practice and raised four adopted children with his wife Genevieve. His brother, Dr. Richard P. Virnig, joined him in his practice in 1947. During his 50 years as a community physician he delivered several family generations in the Wells area. He is survived by three children.

DR. ALBERT WALONICK, Class of 1950, Center City, Florida, died May 24 at age 77. He was a U.S. Navy veteran of World War II. Walonick was a general practitioner for 16 years and a urologist at the University of Minnesota for 17 years. He is survived by his wife, Char, and two sons.

DR. DARRELL E. WESTOVER, Class of 1944, Mendota Heights, Minnesota, died September 9 at age 82. He served in the U.S. Navy from 1944-46 and later in a Mash Unit during the Korean War. After returning from the war, he was in surgical practice for 36 years in St. Paul. He served as chief of staff of both St. Luke's and United Hospitals, and was a clinical associate professor of surgery at the University of Minnesota and served as a mentor to many surgical residents. He is survived by three daughters.

DR. MYRON WOLTJEN, Class of 1950, Abilene, Texas, died June 5 at age 80. He was in private practice for seven years in Rushford, Minnesota, before joining the Air Force during the Korean War. Woltjen received his Masters in Public Health from John Hopkins in 1960. In 1962 he completed a specialty in aerospace medicine. He was also a veteran of the Vietnam War, and ended his military career at Dyess AFB as Hospital Commander after 27 years of service. He then served as a director of health in Texas for 11 years. He is survived by his wife, Evelyn, and four children.

DR. G. SCOTT GIEBINK, Class of 1969, died August 29 at age 59. Giebink was interim head of the University of Minnesota Medical School's Department of Pediatrics, American Legion Research Professor, and director of the Division of Pediatric Infectious Diseases. He was also a professor of otolaryngology and director of the NIH-sponsored Otitis Media Research Center at the University. He chaired the Minnesota Department of Health Immunization Task Force.



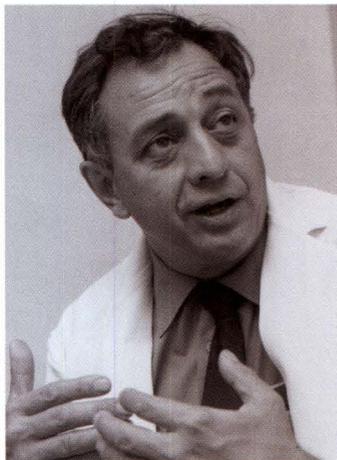
In addition to his long and successful career at the University of Minnesota, Giebink's passion for children caused him to be a champion for legislation to improve the health and well-being of all Minnesota children. He was honored by the Children's Defense Fund for his advocacy leading to the enactment of MinnesotaCare, a program for Minnesotans who do not have access to affordable health care.

Giebink was a founding member of the University Pediatrics Foundation, an affiliate of the Minnesota Medical Foundation, which supports research to identify and cure children's diseases.

He is survived by his wife, Susan Casey, and three children.

DR. ROBERT A. GOOD, Class of 1947, St. Petersburg, Florida, died June 13 at age 81. A pediatrician, microbiologist, and pathologist, Good gained international recognition for nearly 30 years of research at the University of Minnesota Medical School. He documented the importance of the thymus gland and, in 1968, performed the first successful human bone marrow transplant. He was a winner of the Albert Lasker Medical Research Award in 1970, recognizing his pioneering work in solving the mysteries of immunity and applying the findings to fatal diseases.

In the 1970s, Good became the chief scientist, president, and director of the Sloan-Kettering Institute for Cancer Research in New York, as well as a professor of medicine, pediatrics, and pathology at Cornell University Medical College. He was most recently physician-in-chief and director of research at All Children's Hospital in St. Petersburg, and a distinguished research professor at the University of South Florida.



He was a founding member of the National Institutes of Medicine. He was author, co-author, or editor of more than 2,000 papers and book chapters, received more than a dozen honorary degrees, and trained hundreds of students in immunology. He is survived by his wife, Dr. Noorbibi K. Day-Good, five children, and two stepchildren.

Doc About Town

Jon Hallberg is not just a Twins fan. He is one of their team physicians. He is not just a theater aficionado, but also the company physician for both the world-renowned Guthrie Theater and the Ordway Center for the Performing Arts. He has found his way onto the sets of films, in theaters, and baseball stadiums through his interest in the arts and humanities, his unique approach to medicine, and just plain timing.

Hallberg's interest in treating artists really took off during a rheumatology rotation at the Fairview Nicollet Mall Clinic in downtown Minneapolis. He was working as a third-year resident with Gerald Mullin, M.D., Class of 1958. Mullin's son was a production assistant and needed medical treatment for someone on the film set. Hallberg expressed an interest and suddenly he was on the set of *Beautiful Girls* starring Rosie O'Donnell and Matt Dillon. Similar experiences followed: the wife of a colleague was working on *Beauty and the Beast* at the Orpheum Theater, and Hallberg was called to treat members of the cast and crew. Since then he has been asked to care for cast and crew at the Target Center, the Guthrie Theater, the Ordway Center for the Performing Arts, and at least 10 other movie sets.

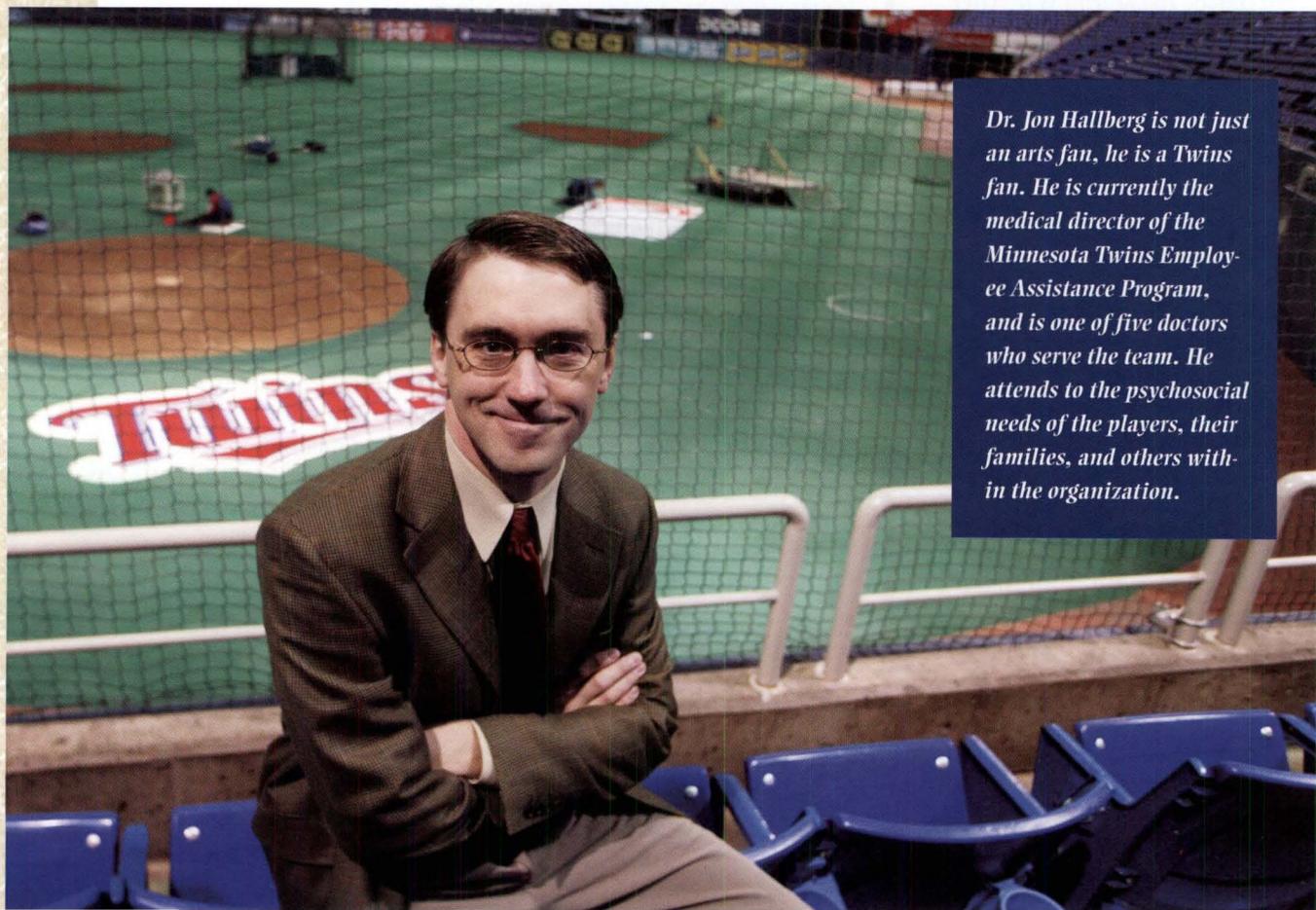
Hallberg has also blended the arts with medicine through his teaching. In 1995, he taught a course at St. Olaf College entitled "Plagues and Pestilence: AIDS in Perspective" that not only examined plagues from a scientific point of view, but also from the perspective of writers, filmmakers, and other artists.

He has written articles about issues of arts and medicine, like "Seduced by Smoke," *Minnesota Medicine*, March 2000, that discussed how smoking has been presented in film. As assistant professor, Hallberg currently contributes by teaching the human side of medicine or the "professionalism" segment of the Physician and Society course at the University of Minnesota Medical School, which incorporates dramatic readings and films to discuss topics like the ethical treatment of human research subjects or compassionate care for the dying.

Hallberg has enjoyed how his interests in the arts continue to be integrated with his practice of medicine. Thanks to timing and the artists he treats, Hallberg is becoming a bit of a local celebrity himself. He continues to write for *Minnesota Medicine* and other publications, and is the regular medical and health analyst on Minnesota Public Radio's "All Things Considered." He also appears on other radio and television programs, like PBS' "Health Diary," as their medical expert. In addition to being a member of the Medical Alumni Society board of directors and medical director of the University of Minnesota Primary Care Clinic, Hallberg has hosted a "patient-physician relationship" segment of Orientation Day for first-year students and is the new host of "Mini-medical School," designed to help educate Minnesotans about new and emerging health-related issues.

"I'm proud to be back at the institution where I learned medicine," Hallberg says. "There are so many fantastic things happening here, and it's rewarding to be here trying to improve the health of our region." ■

by Emily Heagle



Dr. Jon Hallberg is not just an arts fan, he is a Twins fan. He is currently the medical director of the Minnesota Twins Employee Assistance Program, and is one of five doctors who serve the team. He attends to the psychosocial needs of the players, their families, and others within the organization.

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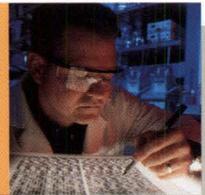
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