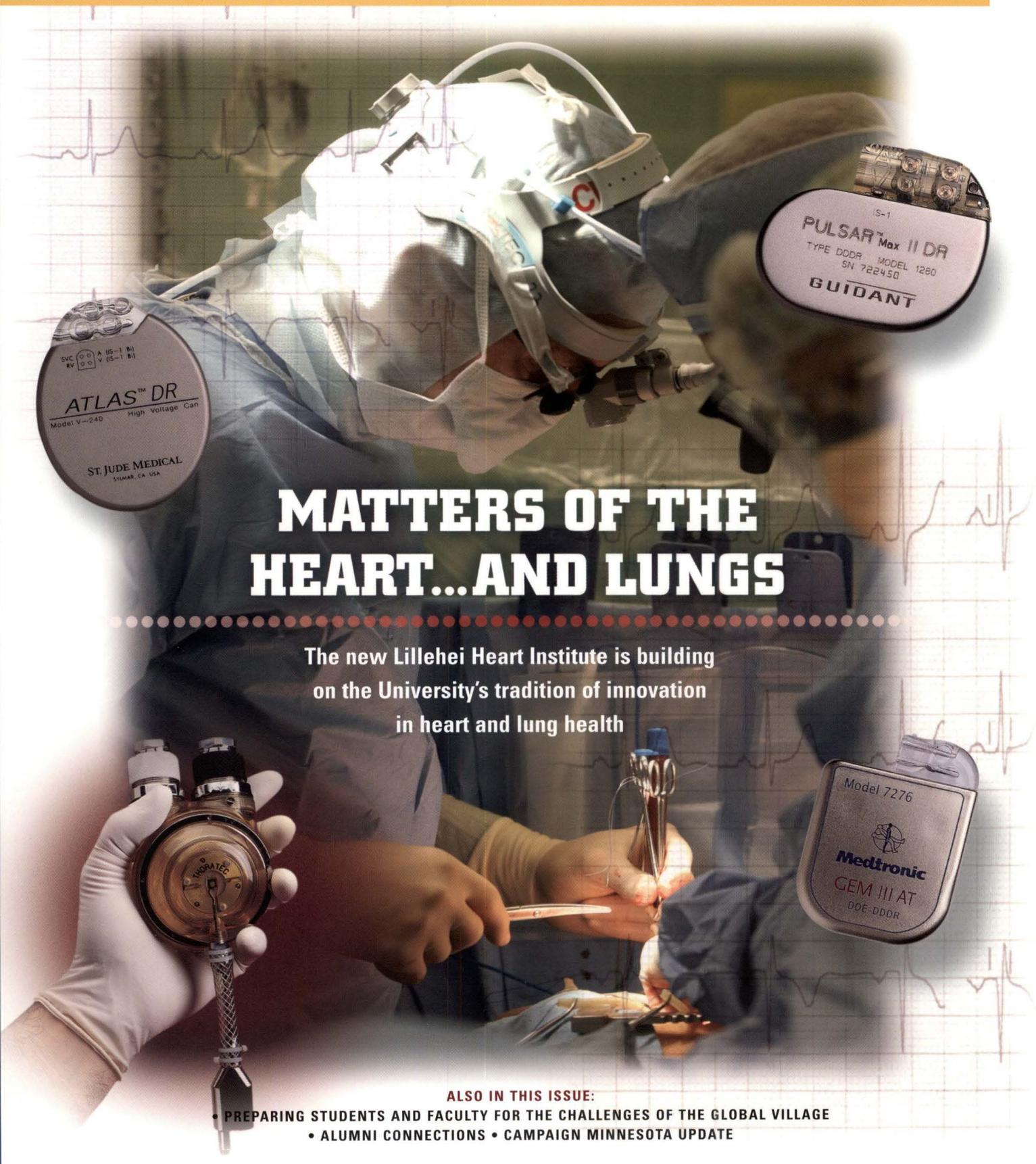


UNIVERSITY OF MINNESOTA MEDICAL SCHOOLS

MEDICAL BULLETIN

A PUBLICATION OF THE MINNESOTA MEDICAL FOUNDATION • SPRING 2002



MATTERS OF THE HEART...AND LUNGS

The new Lillehei Heart Institute is building on the University's tradition of innovation in heart and lung health

ALSO IN THIS ISSUE:

- PREPARING STUDENTS AND FACULTY FOR THE CHALLENGES OF THE GLOBAL VILLAGE
- ALUMNI CONNECTIONS • CAMPAIGN MINNESOTA UPDATE

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,

As many of you know, I will be stepping down as dean of the Medical School in June, but I will remain at the University as a professor of pediatrics. I look forward to continuing my strong and very satisfying relationship with the faculty and students of this fine Medical School.

It's been a very rewarding five years, and I have great confidence that the Medical School will continue on its path of growth and excellence in the years to come. Our faculty and administration, working together, have made wise decisions that will continue to enhance our research efforts, student experience, and outreach to the people of Minnesota. I firmly believe the Medical School is in very good hands.

As the articles in this issue demonstrate, great things are happening at the Medical School. The new Lillehei Heart Institute will be a catalyst to advance cardiovascular research here at the University, carrying on the tradition of Dr. C. Walton Lillehei, who revolutionized medicine with his pioneering efforts in heart surgery.

And as we all know, in a world where we are increasingly dependent upon each other, medical discoveries need to be shared with our neighbors – for the health of all inhabitants of our planet. Here at the University, we are active participants in the global village through forward-thinking programs such as the International Medical Education and Research Program.

Our Medical School is in a strong position to continue to grow – always enhancing and fine-tuning our education, research, and clinical missions to meet the needs of our state and our world. We have incredible support from our donors, and I am extremely pleased to report that the medical and public health segments of Campaign Minnesota have topped \$400 million. This is a tremendous vote of confidence in our mission from our alumni and friends.

Our past accomplishments are legendary, and our future achievements will be even greater.

A handwritten signature in black ink, reading "Alfred F. Michael". The signature is written in a cursive, flowing style.

Alfred F. Michael, M.D.

Dean, University of Minnesota Medical School, Twin Cities

UNIVERSITY OF MINNESOTA MEDICAL SCHOOLS

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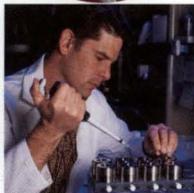
A PUBLICATION OF THE MINNESOTA MEDICAL FOUNDATION • SPRING 2002

FEATURES IN THIS ISSUE



2 MATTERS OF THE HEART ... AND LUNGS

The Lillehei Heart Institute, established in honor of Dr. C. Walton Lillehei's pioneering work in open-heart surgery, is building on the University's tradition of innovation in heart and lung health.



12 DEVELOPING INSIGHTS INTO CARDIOVASCULAR DISEASE

Minnesota Medical Foundation grant recipient Lincoln Ross Potter, Ph.D., is examining the intricacies of the body's biochemical reactions to high blood pressure.



14 WHAT A WONDERFUL WORLD IT COULD BE ... FOR EVERYONE

To prepare students, faculty, and health care providers for the new challenges of the global village, the University of Minnesota Medical School and School of Public Health are revising educational, clinical, and research priorities.



24 THE BETTER TO HEAR YOU

The Lions 5M Hearing Foundation has given more than \$5 million to open up the world of sound to thousands of people – from infants to senior citizens.



26 BUILDING THE FOUNDATION FOR EXCELLENCE

Dr. Judy Shank, chair of the Minnesota Medical Foundation Board of Trustees, reflects on Dr. Al Michael's legacy as dean of the Medical School.

DEPARTMENTS

28 ALUMNI CONNECTIONS

CAMPAIGN MINNESOTA UPDATE

ON THE COVER: Innovations such as the pacemaker and ventricular assist devices help University cardiac surgeons enhance and extend lives.

Photos by Tim Rummelhoff; design by Feigenbaum Design Group.

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MATTERS OF



Ventricular assist devices, such as the Thoratec™ Implantable Ventricular Assist Device, can sustain life in the event of a failed heart.

THE HEART... AND LUNGS

Fifty years ago, medicine entered a new era when the University of Minnesota became the venue for the world's first successful open-heart surgery. Today, the Lillehei Heart Institute is carrying on the University's grand tradition of innovation in heart and lung health.

Imagine not being able to make it from one end of your living room to the other without running out of breath. That's what life was like for Judy Murphy last year at this time. The previous winter, the St. Paul interior designer and mother of three had been stricken with what appeared to be pneumonia. When she failed to bounce back, her physician sent her to a specialist, who had troubling news.

Murphy was a victim of idiopathic pulmonary fibrosis, a disease in which the lungs fill with scar tissue, robbing them of their ability to move life-sustaining oxygen into the bloodstream.

Murphy's only hope was a lung transplant. And even that wasn't much to cling to. Her condition was deteriorating so quickly that doctors doubted she could survive the two or more years it might take for an organ from a deceased donor to become available.

Fortunately for Murphy, the University of Minnesota offered another, unconventional option: living donor transplantation. Last May, after a search for compatible donors, University surgeon Soon John Park, M.D., transplanted portions of lungs from Murphy's sister and grown son into her chest, where they took over for her own scarred lungs. Park is one of only a handful of individuals in the world who perform such surgery.

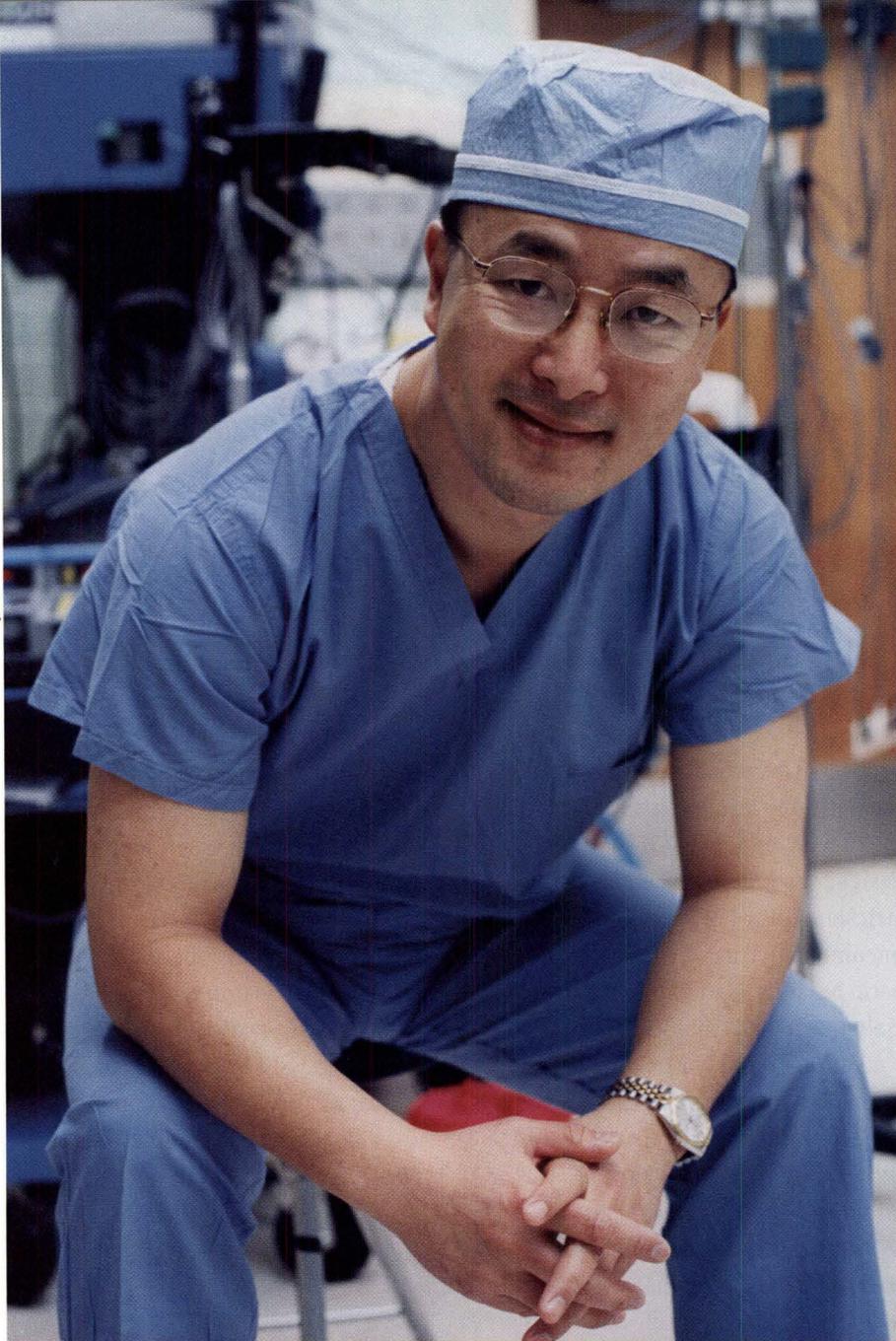
"I'm doing just great!" Murphy says today. Some might call it a miracle. And perhaps it is. But it's the kind of miracle that seems to happen more often than average at the University of Minnesota—thanks to the University's long-standing commitment to developing and applying novel approaches to the prevention and treatment of disorders of the heart, lungs, and circulatory system.

"What I love about the University is that it is willing to take a risk," Murphy says. "I feel very fortunate that I was able to partake of what the University has to offer."



"I feel very fortunate that I was able to partake of what the University has to offer."

Judy Murphy, lung transplant recipient



Soon John Park, M.D., holds the St. Jude Medical Cardiovascular Chair in Biomedical Engineering. "I came to the University of Minnesota because it is the place where cardiac surgery started. It's the premier program for organ transplantation. I hope to rekindle the pioneering work that Dr. Lillehei did here."

TRADITION OF INNOVATION

Whoever you are, wherever you live, chances are good that someone you care about owes his or her life to advances in heart and lung health spawned by this tradition of innovation at the University of Minnesota.

Half a century ago, on September 2, 1952, University surgeon F. John Lewis, M.D., and his team members, fellow professor C. Walton Lillehei, M.D., Ph.D., and others, made history by performing the world's first successful open-heart surgery using hypothermia. Just 18 months later, a team led by Lillehei introduced cross-circulation



for cardiopulmonary bypass.

In the years that followed, Lillehei and other University of Minnesota medical pioneers developed the world's first functional heart-lung machine, helped design the first portable pacemaker, and performed the first successful artificial heart valve implant. Yet others broke new ground in Minnesota with the first heart transplant, the first pediatric heart transplant, the first heart/lung transplant, and the first living-donor lung transplant in the state.

University of Minnesota researchers have been similarly instrumental in developing new medications to enhance heart and lung health. The University is an innovator in the establishment of protocols to prevent transplant rejection, is widely known for advances in the application of magnetic resonance imaging (MRI) technologies to diagnosing heart disease, and established the first nationally funded center to study lung healing.

Even as medical faculty were redefining care for ailing hearts, University of Minnesota epidemiologists were leading the way in exploring how to prevent heart disease from occurring in the first place. In the 1950s, scientists in the University's School of Public Health began landmark research linking heart disease with activity and diet.

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MATTERS OF THE HEART... AND LUNGS

Over the years, they demonstrated that modifying diet could reduce blood cholesterol, that efforts to reduce high blood pressure reduced heart disease risk, and that education could convince individuals to adopt heart-healthy behavior. This research has been instrumental in helping people around the world live longer, healthier lives.

**AN INSTITUTE
FOR HOPE**

Last year, the University's tradition of advancing knowledge related to heart and lung health received an infusion of new energy in the form of a \$13 million gift from the family of heart surgery pioneer C. Walton Lillehei. The Lillehei family's generous contribution made possible the creation of the Lillehei Heart Institute (LHI), an interdisciplinary cardiovascular and pulmonary research and educational center.

The Lillehei Heart Institute's mission is to create a collaborative environment at the University of Minnesota that generates, nurtures, and promotes research and educational programs to improve the care and quality of life of patients with heart, lung, and vascular diseases. The institute brings together University researchers and educators from a broad variety of disciplines. In doing so, it creates a fer-

tile ground for interaction as they envision and advance the innovations that will grow into the time-tested therapies of tomorrow.

A key function of the institute is to help scientists and scholars build connections among themselves. By transcending disciplinary boundaries, they can create and tap the synergy that comes from bringing together a broad variety of backgrounds and perspectives, strengths and knowledge.

Whether their expertise is in medicine, epidemiology, surgery, pharmacy, complementary care, or other fields, Lillehei Heart Institute members have much to share with each other as they work toward a common goal of advancing heart and lung health through research and education.

In addition to sharing insights, institute-affiliated researchers also share resources. The institute provides access to advanced technologies such as magnetic resonance imaging and to services such as Experimental Surgery Services, which provides facilities needed to test new devices and procedures. This makes it possible for researchers to access expensive and sophisticated research tools while minimizing redundancy and maximizing economies of scale.

A third way in which the institute strengthens heart and lung research

**Lillehei Heart
Institute Facts**

ESTABLISHED: Inaugural event including ribbon-cutting, tour, and symposium held October 23, 2001, at new Lillehei Heart Institute, 425 East River Road, Minneapolis campus

MISSION: To create a collaborative environment at the University of Minnesota that generates, nurtures, and promotes research and educational programs to improve the care and quality of life of patients with heart, lung, and vascular diseases.

DISCIPLINES REPRESENTED: Departments of Medicine, Surgery, Pediatrics, Radiology, Pharmacology; Schools of Nursing and Public Health; Colleges of Pharmacy and Biological Sciences; Institute of Technology

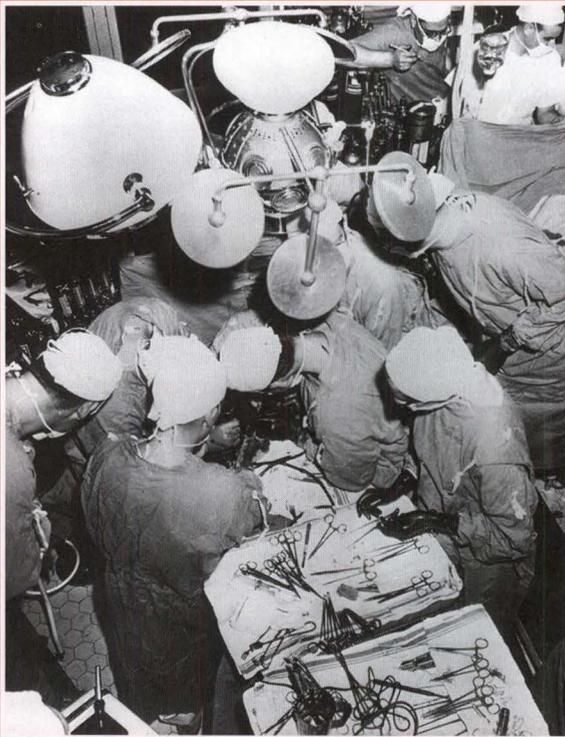
PARTIAL IMPACT TO DATE: Opened the C. Walton Lillehei Museum, showcasing the University and the early innovations attributed to Lillehei's team; developed 10 collaborative programs under the LHI umbrella; awarded six fellowships and recruited a faculty member in vascular biology; developed the new LHI space, including a state-of-the-art educational center and video conferencing center.

CONTACT: www.lhi.umn.edu
or 612-625-8988

FAMOUS FIRSTS

The University of Minnesota has long been a leader in innovations in heart and lung health:

- World's first successful open-heart surgery (1952)
- World's first successful open-heart surgery using cross-circulation (1954)
- World's first functional heart-lung machine developed (1955)
- World's first successful artificial heart valve implant (1958)
 - First portable pacemaker developed (1958)
- Anti-fibrillation heart drug bretylium developed (1960)
 - First Minnesota heart transplant (1978)
 - First Minnesota heart/lung transplant (1986)
 - First Minnesota heart/kidney transplant (1987)
 - First Minnesota single-lung transplant (1988)
 - First Minnesota double-lung transplant (1988)
- First Minnesota living-donor lung transplant (1991)



Above: the era of open-heart surgery began in 1952 at the University of Minnesota; *top right:* the University pioneered open-heart surgery using cross-circulation; *bottom right:* C. Walton Lillehei, M.D., second from right, trained hundreds of cardiac surgeons from around the world.



The institute brings together University researchers and educators from a broad variety of disciplines. In doing so, it creates a fertile ground for interaction as they envision and advance the innovations that will grow into the time-tested therapies of tomorrow.



MATTERS OF THE HEART... AND LUNGS

and education is through fellowships and scholarships. "At LHI, we carry out the highest quality peer-reviewed science and prepare the next generation of scientists to eclipse our accomplishments," says Peter Bitterman, M.D., LHI research director.

The Lillehei Scholar Program offers support to students and faculty engaged in original research. The availability of such support enhances the University's ability to recruit and retain leaders in respiratory and cardiovascular science. It also makes it possible for innovators to test the waters in unproven areas in order to gather baseline data needed to successfully compete for major national grants. Individual funds designated for undergraduate, medical student, pre-doctoral, and post-doctoral students also provide a much-valued "leg up" to tomorrow's researchers and clinicians.

Jennifer Hall, Ph.D., recently received the Lillehei Scholar Program's Dean's Faculty Recruit grant, designed to provide recognition and financial support to help attract superior faculty to the University of Minnesota. Hall's research involves understanding the molecular pathways responsible for the increased incidence of vascular disease in the diabetic population.

"The establishment of the Lillehei Heart Institute and the Dean's Faculty Recruit grant has allowed our laborato-

ry to extend our focus and tackle new and exciting areas of diabetes-related vascular research," says Hall. "We are grateful to the Lillehei family and the University of Minnesota for this opportunity to extend the great legacy of Dr. Lillehei."

PAVING THE PATH

The world has seen many advances in cardiovascular and respiratory health since Lillehei and his colleagues set the pace for progress in the 1950s. Once-radical procedures such as bypass surgery and pacemaker implantations have become everyday events.

At the University of Minnesota alone, more than 400 heart transplants and 300 lung transplants have been performed. Countless individuals are enhancing their health by acting on knowledge science has provided about behaviors and lifestyles that promote or detract from heart and lung health. A spectrum of drugs have been developed to save lives threatened by heart and lung disorders.

These all make a difference: cardiovascular disease deaths dropped a remarkable 22 percent between 1985 and 1995 alone. But it's not yet time to rest on our laurels. Today, heart disease remains the number one killer in the world. Lung diseases, not including cancer, kill hundreds of thousands of Amer-

icans each year. More than half of all deaths in the United States are due to heart or lung disease. More than five million Americans suffer from congestive heart failure. As our population ages, the problem will only grow.

The good news? Science marches on. The development of advanced electronics, antibiotics, and other 20th century innovations got us where we are today. In the same way, the 21st century's "leading edges" of science – computer technology, molecular genetics, and so on – are paving the path to ever-more sophisticated advances in cardiovascular and respiratory care.

INNOVATIONS

Lillehei Heart Institute members are advancing the science of heart and lung health in many ways:

TECHNOFIX FOR A FAILED HEART.

An exciting innovation under study at the University is the use of ventricular assist devices, or VADs, to sustain life and health in the face of a failed heart. VADs were developed to tide people over as they wait for a donor heart to become available for transplant. But recently researchers have been looking at using them as permanent life-sustainers for individuals for whom transplant is not an option.

Last fall a report published by Lille-

Lillehei Heart Institute members have much to share with each other as they work toward a common goal of advancing heart and lung health through research and education.



MATTERS OF THE HEART... AND LUNGS

hei Heart Institute members Leslie W. Miller, M.D., and Soon John Park, M.D., and colleagues at 22 sites nationwide indicated that such devices can indeed enhance survival and quality of life for individuals with congestive heart failure. That's particularly good news for Minnesotans: the University is a long-time leader in the use of VADs, so if the devices get FDA clearance as permanent implants, it is well-positioned to become a leader in the application of this life-saving technology.

READING THE SIGNS. The earlier we can detect heart disease, the better our ability is to head off major problems. The Lillehei Heart Institute is participating in the national Multi-Ethnic Study of Atherosclerosis (MESA). The 10-year study funded by the National Institutes of Health, which involves more than 6,000 men and women from a variety of ethnic backgrounds, is looking at ways to identify early on individuals who are on the road to developing coronary artery disease, stroke, or congestive heart failure.

By assessing risk factors and the development of heart disease in various groups, the study will lead to specific recommendations on what individuals might do to reduce the toll of heart trouble and determine the value of various

Just one of the kids

What does the face of cardiovascular research look like?

We see it in the rosy cheeks of a 12-year-old who's alive today because of innovative heart surgery.

Michaela Janssen first came to the University of Minnesota as a three-day-old infant, slowly suffocating because of a faulty link between her heart and lungs. A surgical team saved her life by installing a new device known as an outflow patch, a product of research to improve treatment of pulmonary arteria.

In 1999 Michaela underwent another newly developed procedure that allowed doctors to repair a second heart defect through an incision in her leg. And just this past year, she had surgery again to close a hole between the atria of the heart.

Today, Michaela is just "one of the kids," her mom, Melissa, says. "She plays basketball, softball, runs, jumps ... she's never let anything stop her."

And this winter, Michaela had the best day ever, as she carried the Olympic torch in Kenosha, Wisconsin. It was a day never to forget – a day where a little girl's strong heart was beating with pride.



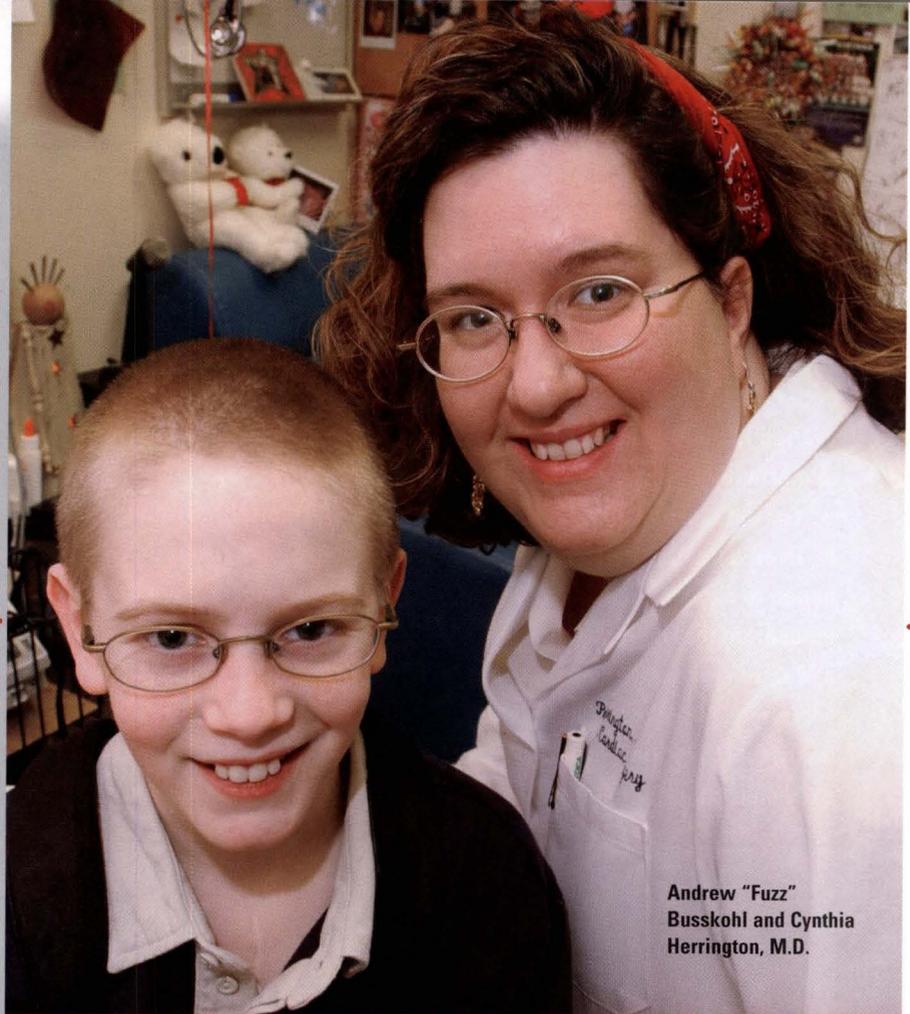
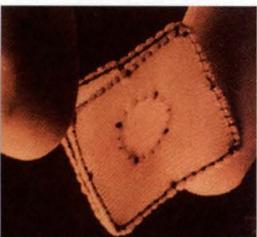
Michaela Janssen

diagnostic tests for the early detection of coronary atherosclerosis.

The School of Public Health's Division of Epidemiology is one of six centers nationwide that participates in the study. Various sub-projects have also been funded at the University of Minnesota to investigate further aspects such as myocardial perfusion and myocardial wall motion mechanics.

ANGEL WINGS. One in 500 babies has an atrial septal defect, in which an opening between the two top chambers of the heart fails to close, crippling the organ's ability to circulate blood through the body. In the past this has meant open-heart surgery, involving a large chest incision and days, if not weeks, of hospitalization. Atrial septal defects are often diagnosed in adult life, and are the most common congenital defect diagnosed for the first time in adults.

Recently, however, researchers have been working on ways to "patch" the hole without surgery. The concept of a device that self-centers in the defect to tightly occlude the defect was proposed as a



Andrew "Fuzz"
Busskohl and Cynthia
Herrington, M.D.

Hope for a heart

It's folks like Andrew "Fuzz" Busskohl that make the work of the Lillehei Heart Institute worthwhile.

A typical 12-year-old, Fuzz likes to do magic tricks, play video games, joke with friends. He connects with his classmates via webcam, and he dreams of a bright future.

But for now, life is on hold for Fuzz. His heart has begun to fail from complications of surgery he had to repair a congenital heart defect when he was seven. He's been living at Fairview Children's Hospital at the University of Minnesota for eight months, waiting for a heart transplant through the University's transplant program.

Last December, classmates at Bailey Elementary School in Woodbury raised more than \$6,000 for heart research in honor of Fuzz.

"It's just an incredible thing that these children collected their pennies, nickels, and dimes because their friend is in trouble," says Cynthia Herrington, M.D., Fuzz's doctor. "It was a remarkable gift of love, and it really lifted his spirits.

"Fuzz has a very positive attitude," says Herrington. "He is an extraordinary, caring child who visits other patients to lift their spirits, even though he's been here the longest. I'm just waiting for the day we can give him a new heart and he can go home."

Fuzz and all his friends are waiting too.

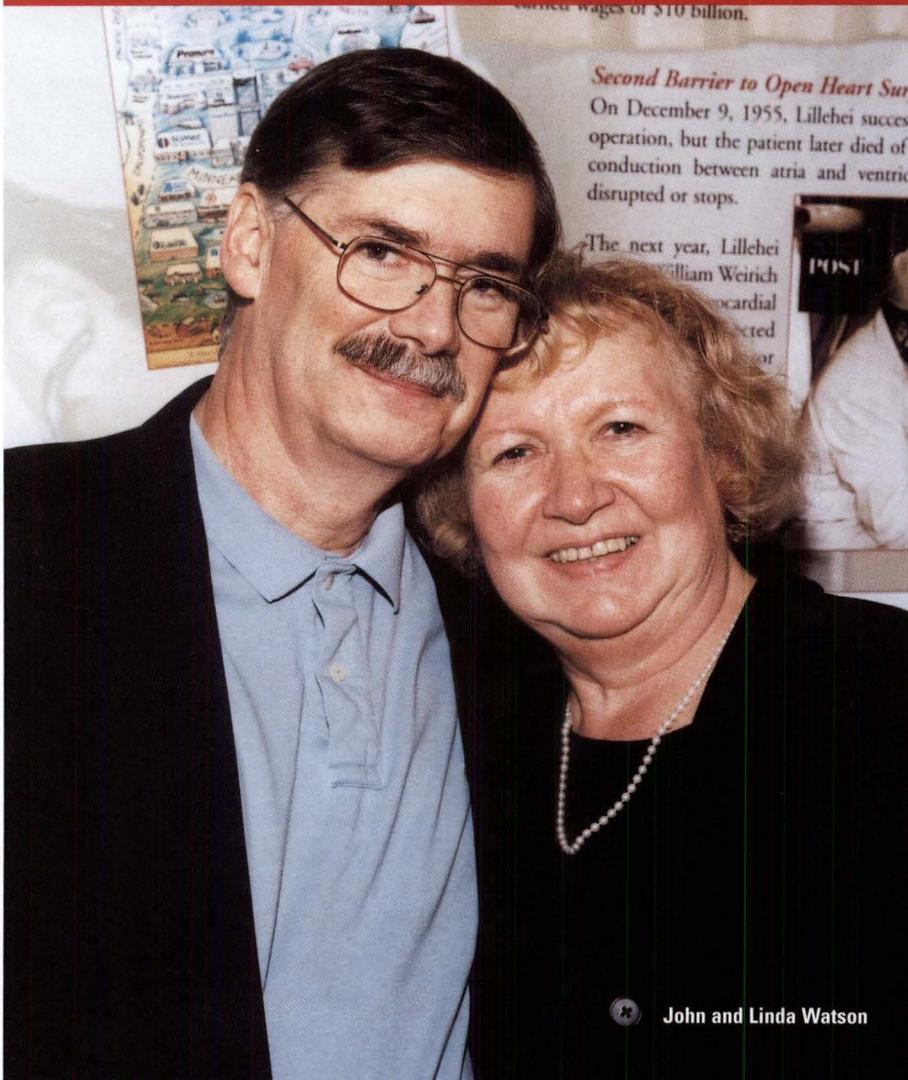
A special guest

Among those celebrating the opening of the Lillehei Heart Institute on October 23, 2001, was a very special guest – one of the first people in Minnesota to successfully undergo open-heart surgery.

Johnny Watson was seven years old when he came to the University of Minnesota with a congenital disorder that left him with a hole between two chambers of his heart. In August 1955, heart surgeon C. Walton Lillehei opened Watson's chest, hooked his circulatory system to a primitive bypass device, and repaired the faulty heart.

For the most part Watson, now a resident of Arden Hills, Minnesota, lived a healthy, normal life. Then, several years ago, his heart began to show signs of trouble. He received a pacemaker – another innovation that owes its existence to the University of Minnesota – and later a pacemaker-defibrillator.

But in 2001 Watson's heart began to fail. The only hope was a new heart, which he received in December. He is doing well today and is extremely grateful to the University for its history of heart innovations.



John and Linda Watson

solution by Gladwin Das, M.D., a Lillehei Heart Institute member.

Furled like a butterfly in a chrysalis, the metal-and-polyester device is threaded from a vein in the groin up to the heart. There it opens and centers itself on the hole, one “wing” on each side, closing the gap. “It’s relatively easy to do, and the patient is out within a day from the hospital,” Das says.

The AngelWings and other similar devices have been an important step in replacing open-heart surgery with minimally invasive methods of closure.

PICTURE THIS. The University of Minnesota is considered one of the best sites in the world for the application of cardiac magnetic resonance imaging (CMR) technology to diagnosing heart disorders. It is also increasingly applying imaging technology to other ends – for instance, assessing the effects of experimental treatments such as gene therapy in animal models.

CMR also provides cardiovascular surgeons with an inside look at congenital and coronary artery disorders in preparation for coronary bypass surgery, corrective heart surgery, and transplant surgery.

Recently, researchers led by Norbert Wilke, M.D., of the Department of

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MATTERS OF THE HEART... AND LUNGS

Radiology with LHI Executive Director R. Morton "Chip" Bolman, M.D., have been working to advance "interventional guided" magnetic resonance treatments for various heart disorders. The researchers are working with private industry to perfect these new techniques, which apply the most advanced magnetic resonance imaging to enhance the effectiveness and monitoring of delivery of, for instance, gene products and stem cells to the heart.

HELP FOR HEMOPHILIA.

Hemophilia A is an inherited disease in which a malfunctioning gene prevents production of human coagulation factor VIII (FVIII), a protein needed for blood to clot properly. In the past, individuals with hemophilia A have had to undergo repeated, costly infusion of FVIII.

But early this year, Lillehei Heart Institute member Robert P. Hebbel, M.D., and colleagues reported a major breakthrough: using a chunk of genetic material called a plasmid as a carrier, they were able to sneak a good copy of the faulty gene into human blood cells grown in culture, then get those cells to proliferate when infused into mice. The success brings us one step closer to developing a treatment for persons with hemophilia A that will allow them to make the factor on their own.

XENOTRANSPLANTATION.

With donor hearts in short supply, there is much pressure to develop alternatives to conventional transplantation for patients whose own hearts fail. Mechanical devices represent one line of research. A second, both intriguing and challenging, is xenotransplantation – the use of organs from another species.

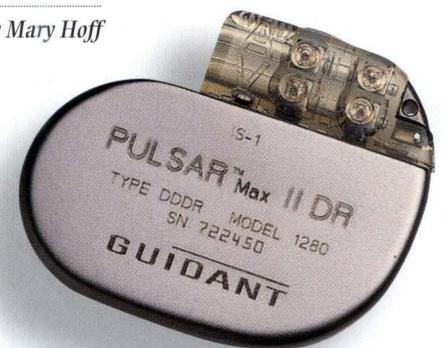
Lillehei Heart Institute member Agustin Dalmaso, M.D., is trying to overcome barriers to using hearts from pigs to save the lives of humans. Our bodies are equipped with mechanisms to rid themselves of anything that is not "self." Dalmaso's work focuses on finding ways to prevent the rejection and demise of the graft that would normally occur if our bodies were suddenly "invaded" by a pig heart. He's looking at a process called accommodation, in which exposure of a pig organ to certain substances from the recipient alters the organ in a way that it can survive in the recipient.

One approach he's using is to explore interactions between pig cells and human blood in the laboratory after the cells have been exposed to the substances that induce protection. He's carrying this approach further by testing whether such modifications can be induced in pig arteries so that when the arteries are exposed to human blood,

they are protected from injury. Ultimately, this approach will be successful if a modified pig artery or heart is protected from rejection when transplanted into a human. The goal is to combine this approach with other modifications of the donor organ, together with immunosuppressive treatment of the recipient, such that the pig xenograft survives long-term.

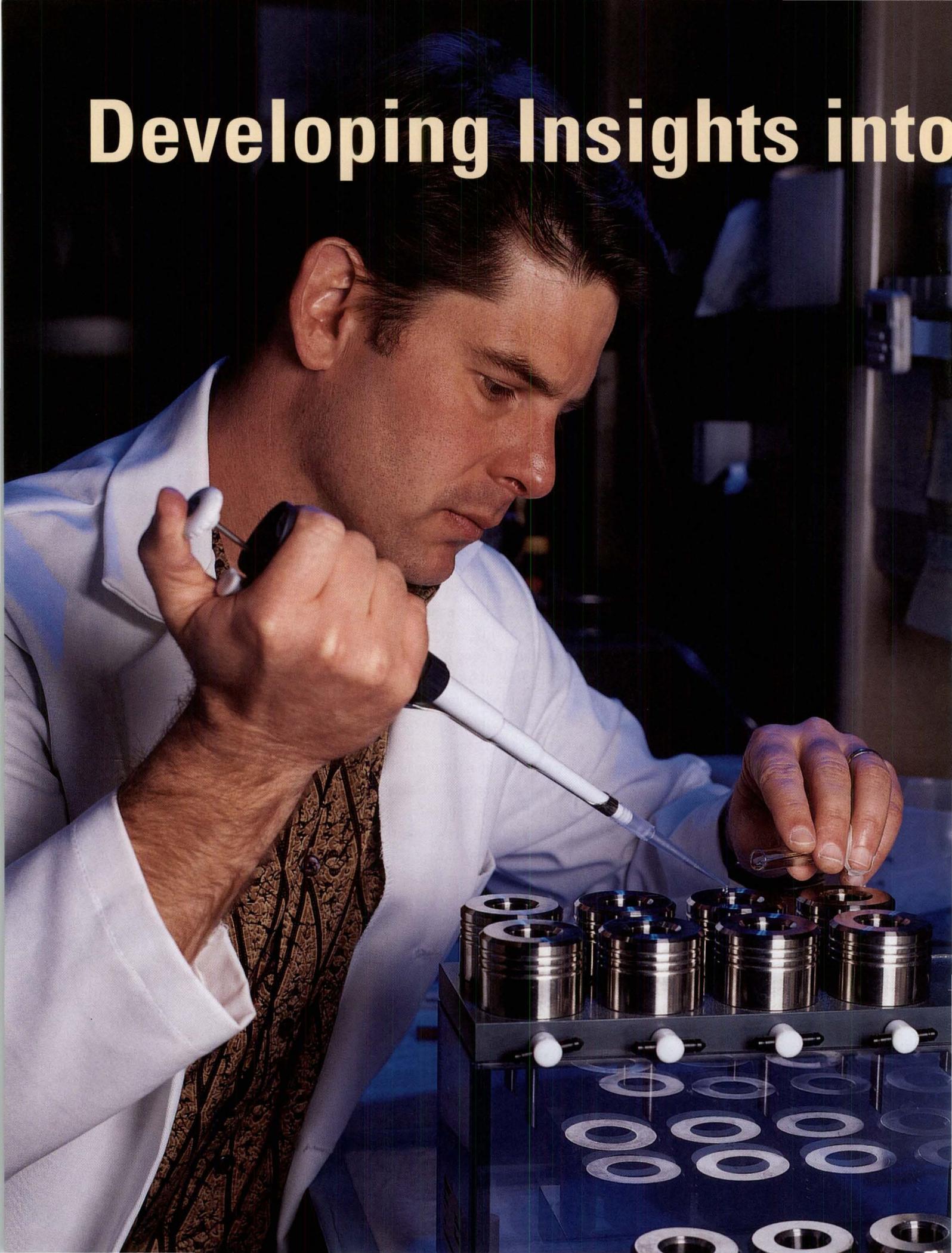
These are just some of the innovations which are helping Lillehei Heart Institute faculty improve and advance heart and lung health. The collaborative environment at the institute will serve to accelerate the pace – translating research findings into clinical treatments as quickly as possible – while building new traditions that will change lives.

by Mary Hoff



Medical devices pictured include cardiac pacemakers (pages 4, 8, and 11) and a mechanical heart valve (page 7).

Developing Insights into



Cardiovascular Disease

During fiscal year 2001, the Minnesota Medical Foundation grants program awarded a record \$1.3 million for 98 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 and other sources.

Congestive heart failure – a condition where the heart is weakened and is not circulating enough blood to meet the body's needs – affects many older adults and is generally the result of long-standing heart disease, or a complication of a heart attack or uncontrolled high blood pressure.

"If you live long enough, you will likely have some form of congestive heart disease," says University of Minnesota researcher Lincoln Ross Potter, Ph.D. Unfortunately, once congestive heart disease has developed, it usually can only be managed, at best, but not cured.

Research led by Potter is laying the groundwork for understanding the complexities of heart disease and, potentially, for creating new therapies. "We are excited about the possibility of using the information we glean from our basic research to contribute to new treatments for cardiovascular disease," says Potter.

With support from a Minnesota Medical Foundation grant, Potter is examining the intricacies of the body's biochemical reactions to high blood pressure. For example, what exactly happens in patients whose bodies cannot regulate blood pressure? When patients have prolonged high blood

pressure – hypertension – the body releases hormones that help fight the consequences of such an overload. These hormones, called natriuretic peptides, help tell the body to decrease blood pressure. "In congestive heart disease these hormones are elevated dramatically, which you want because they decrease blood pressure," says Potter. "Unfortunately, patients with congestive heart disease don't respond to these hormones anymore.

"We believe we've identified why this happens," he says. "If we can inhibit the process that causes this, we can then restore the patient's inherent responsiveness to these blood pressure-lowering hormones." Now that Potter and his colleagues have determined how this process works, they are striving to identify the specific enzymes involved.

"We are really interested in defining the basic mechanisms that regulate natriuretic peptide receptors. Understanding how the receptors work is crucial to deciphering how we can regulate blood pressure and treat heart disease," explains Potter. "We initially set out to investigate whether these receptors are regulated by protein phosphorylation, which is the process where a phosphate molecule is covalently attached to the hydroxyl group of an individual amino acid, the chain of molecules that form the receptor.

"Previously, it was reported that the receptors were turned off by direct phosphorylation. But, in our research we made exactly the opposite observation – the receptor was turned off by the removal of an already existing phosphate molecule." This finding was controversial at the time, but Potter and fellow researchers were subsequently able to identify the affected amino acids and definitively prove their finding, showing that dephosphorylation was responsible for turning off the hormone receptors, a process called desensitization.

Potter and his team are the primary research group focusing on this particular aspect of heart disease research and were, in fact, the first to recognize the importance of this process. "We've definitely made progress," he says, "It never really ends, but we continue to contribute to the process."

Potter points out that the potential to develop new drug therapies generally has come from basic research. "It is very important to fund such research, but it is also important to fund the translational aspects of research as well. The Minnesota Medical Foundation funds both and we are grateful for their support," says Potter.

by Jodi Ohlsen Read

As the world decreases in size, global medicine is increasing in complexity. We have become citizens of the world – a world where access to medical care varies greatly, whether in an AIDS-ravaged African country or a poverty-stricken section of our own city.

What a Wonderful World

"By becoming more global in its reach, the University is positioning itself to retain and increase its status as a top-notch university for the 21st century," observes Moïse Desvarieux, M.D., M.P.H., Ph.D., assistant professor in the Division of Epidemiology in the School of Public Health.

The need for well-trained health professionals continues to grow for several reasons. Mark Becker, Ph.D., dean of the School of Public Health, says, "The tragedies of September 11 and subsequent acts of terrorism have awakened our nation from its slumber of public health neglect."

Ian Greaves, M.D., associate professor in the Division of Environmental and Occupational Health and associate dean for research in the School of Public Health, states, "From the humanitarian perspective, it does us no credit as a wealthy and prosperous country to sit back and watch other people suffer incredible hardships. We have a humanitarian and moral obligation to help those in need."

If a more mercenary reason is needed to support international health efforts, consider that the U.S. State Department has long recognized global health as a major security issue. For example, it is believed that if HIV/AIDS is not contained, particularly in sub-Saharan Africa where most of the 38 million people afflicted with this scourge live, the result will be rebellion and ultimately instability throughout the world.

Infectious diseases worldwide are still by far the most prevalent causes of death in developing coun-



Patients wait for treatment in a clinic in Zimbabwe.

tries. HIV/AIDS alone causes three million deaths annually, while 11 million more die annually in developing countries from infectious diseases such as tuberculosis and malaria, most of which are treatable and preventable. Even though about 20,000 cases of tuberculosis occur in the United States each year, few result in death. This is not the case in the developing world where only approximately \$15 per person per year is available for health care. Treatment is inadequate due to the impoverished state of these countries.

"If America continues to have a blind eye to what's going on in these countries,

we will pay the price," says Phillip Peterson, M.D., professor in the Department of Medicine, director of the Medical School's International Medical Education and Research (IMER) Program, and director of the Division of Infectious Disease at Hennepin County Medical Center. "It is in the United States' self-interest to invest in global health. For example, many of our companies in Minnesota are global corporations. If they have healthy employees overseas, they're going to be more productive."

Greaves says a fairly good job has already been done to reduce the infant and child mortality rates in many developing countries, allowing more people to grow into adulthood. A larger adult population means a larger labor force, which is essential for the

To prepare students, faculty, and health care providers for the new challenges of the global village, the University of Minnesota Medical School and School of Public Health have responded by revising educational, clinical, and research priorities.

What Could Be ... for Everyone

economies of these countries to grow.

"Working age adults are of greater benefit to a country, so they need to be kept healthy," explains Greaves. "If we improve the health of the developing world physically and economically, everyone benefits as these countries are able to participate more fully in the world economy as workers and consumers."

The down side of this exported prosperity is that developing countries now have a double problem: tropical diseases and emerging western diseases. "They say, 'You've given us the plague of western diseases,'" says Greaves. "We've given them a more affluent lifestyle – and also diseases of affluence, primarily cardiovascular disease from obesity due to overeating and lack of physical exercise." It is estimated that by the year 2020, cardiovascular disease will outnumber HIV/AIDS as the cause of death in developing countries.

Peterson identifies poverty as the number one health problem: "Poverty has to be addressed in a more meaningful fashion. The World Bank and G-7 nations have begun to give monies to the big three – HIV/AIDS, tuberculosis, and malaria. It's a good start, but not enough. Now with the concerns about bioterrorism and the economy since September 11, the fear is that attention and funding is going to be diverted away from these pre-existing crises."

The World Health



Nick Benson, Class of 2001, in a village near Bangalore, India.

Organization has recently published a major study which concludes that the investment of one U.S. dollar in the international health arena returns six dollars to the global economy. "Funding international health was previously seen as a luxury," says Peterson, "but it is now clear that if the global economy is to flourish, investment needs to be made in global health. Business needs to be at the table."

Human rights organizations are already at the table. Peterson explains, "Most of the infectious disease problems are really human rights issues that have led to these problems. It's just not right

to see people dying from diseases we can readily cure." Women's health and human rights have been identified by Peterson and others as the most important issue in global health, even ahead of HIV/AIDS.

"If you could do only one thing, empowering women would be it," states Peterson. "The impact of educating women and putting them on an equal footing with men would be enormous, particularly on the HIV/AIDS crisis."

In the face of the enormous challenges facing us in the new global village, it is tempting to give in to a "public health nihilism," and do nothing, says Desvarieux, borrowing a phrase from Ronald Bayer, a medical ethicist at Columbia University.

"In an ideal world, we'd like wars to stop, hunger to end, and the infrastructure to be perfect," Desvarieux continues. "But we can't wait for a perfect world – we can strive to make it better now." ■

Increasing the international exchange rate

For many years, University of Minnesota medical and public health faculty and students have initiated their own international educational and research exchanges. The International Medical Education and Research (IMER) Program was created in 1998 under the leadership of Medical School Dean Al Michael, M.D., and Greg Vercellotti, M.D., senior associate dean for education, to facilitate these exchanges.

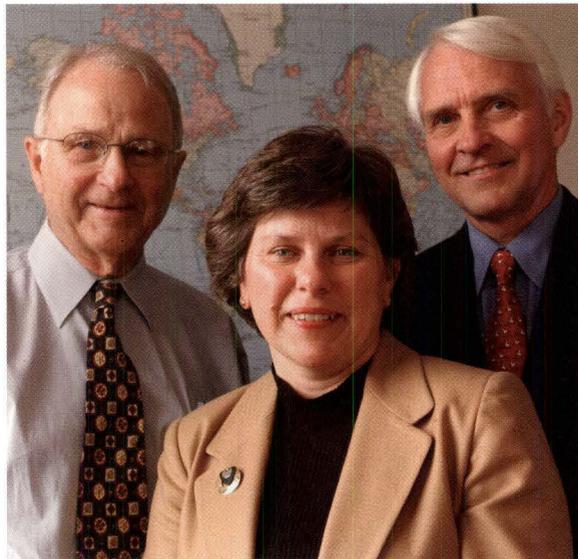
"IMER helps faculty establish exchanges more efficiently now. They were reinventing the wheel every time they set up a position," explains Susan Jackson, IMER program associate and coordinator, who also spends much of her time helping students find overseas sites related to their interests.

IMER was also created in response to the large influx of immigrants and refugees to Minnesota in recent years from Somalia, Latin America, and Southeast Asia. "It's difficult now to function as a physician in Minnesota without international health experience," says Phillip Peterson, M.D., IMER director.

Ideally, Peterson and IMER co-director Paul Quie, M.D., Regents Professor Emeritus of Pediatrics, would like every medical student to study outside the United States, preferably during the third or fourth year. "We know from students who have gone overseas that the experience will change their lives and career goals for the rest of their lives," asserts Peterson.

Quie continues, "I feel very strongly that students should live for a time in a different culture, preferably in a resource-poor area which you find in developing countries."

Currently, approximately 20 percent of third- and fourth-year students participate in international medical education experiences. Support for student travel and living expenses is available in the form of a few awards, most notably the N.L. and Sarah Gault Travel Awards and the Maynard and Elaine Jacobson Travel



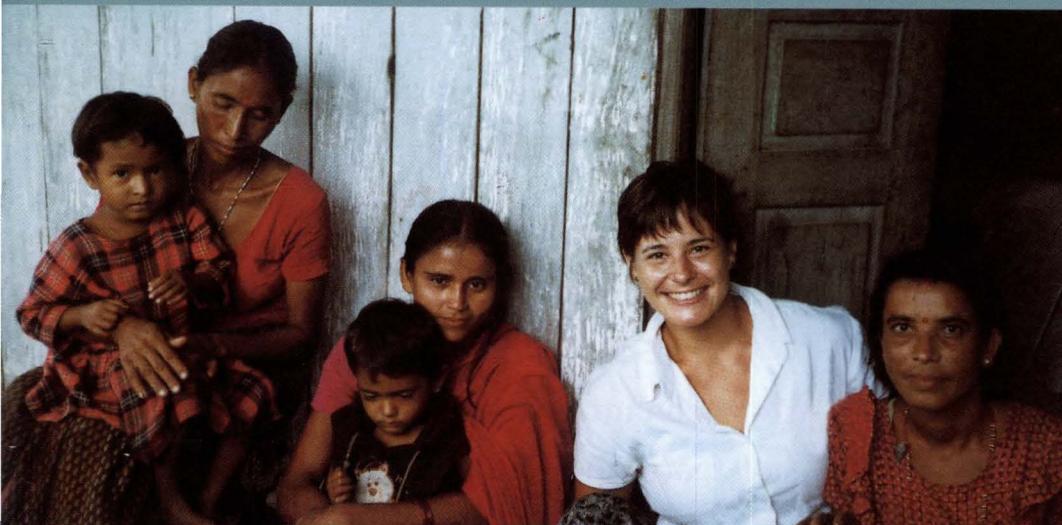
IMER administrators include, from left, Dr. Paul Quie, co-director; Susan Jackson, coordinator; and Dr. Phil Peterson, director.

Award, both established by former Medical School faculty. The Gault awards annually support 20 to 30 students while the Jacobson award can send two or three students; IMER awards average \$1,200 per year. Quie and his wife, Elizabeth, have also chosen to demonstrate their commitment to global health by establishing two scholarships for international medical study.

Another important source of travel awards is the endowment established by Minnesota entrepreneur Curtis Carlson to support student and faculty exchanges and collaborations between

the Medical School and the Karolinska Institute in Stockholm, Sweden. The institute is the largest medical training and research center in Sweden and the only Swedish university focused exclusively on medicine. Twelve medical students, six from each school, currently take part in this exchange opportunity; IMER hopes to increase the number of students and faculty who can participate.

While all these awards make overseas health experiences possible for many students each year, even more are needed. A lack of current funding stands in the way of reaching the ambitious goal of sending 50 percent of all third- and fourth-year students overseas. Funds are



Jeannette Lager, Class of 2003, shown here in a village in Nepal, is taking an extended leave this year to study and serve overseas. She writes, "I just wanted to share what a wonderful learning experience I'm having abroad. I really appreciate the support of the Medical School."

also needed to support endowed research positions to attract internationally recognized experts.

Peterson is working with Moïse Desvarieux, M.D., M.P.H., Ph.D., assistant professor in the Division of Epidemiology in the School of Public Health, to enhance the partnership between the Medical School and School of Public Health. For example, they are particularly interested in the program at St. John's Medical College in Bangalore, India, brought to their attention by Kumar Belani, M.D., professor and interim head of the Department of Anesthesiology, a graduate of St. John's, and an IMER board member.

Peterson says, "We believe there is a huge opportunity at St. John's for the Academic Health Center to develop what Senior Vice President Frank Cerra calls a platform – having a number of faculty and students from the Medical School, School of Public Health, School of Nursing, School of Dentistry, and College of Veterinary Medicine all participating in the same program.

"If we're able to realize all of these goals – support for scholarships, faculty research and leadership, and infrastructure – we can join the ranks of Harvard and Johns Hopkins as a university with a major presence in international health."

For more information, please visit IMER's web site at www.meded.umn.edu/IMER/index.html, or contact Sue Jackson at 612-625-7933 or IMER@umn.edu. ■

Ambassador for global health

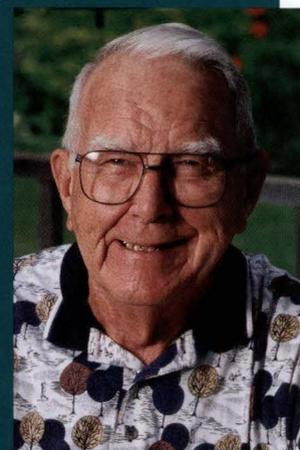
N.L. (Neal) Gault, M.D., has a long and illustrious relationship with the University of Minnesota. A 1950 graduate of the Medical School along with his wife, Sarah, he has served in a number of

capacities, most notably as dean of the Medical School from 1972-84. A two-year assignment in the late 1950s to the medical school of Seoul National University in South Korea set Gault on a course of several years of leadership experience in medicine around the globe – and gave him a lasting belief in the necessity of global health education and research exchanges.

In appreciation for their international medical experiences, the Gaults established the N.L. and Sarah Gault Travel Awards to enrich students' appreciation for other practices, cultures, and traditions, and to encourage cooperation and improved health care throughout the world.

"There has been a large immigration of people from other countries to our state in recent years along with increased mobility of our own citizens in traveling and being employed in nations around the world. This dictates that our medical education and research provide a different perspective on how we practice medicine," observes Gault.

"It's one world, and it's small. Teaching our doctors how to communicate with people of all cultures is essential," asserts Gault. "We all need to keep this in mind and provide the necessary support for this new emphasis in medical education and research." ■



N.L. (Neal) Gault, M.D.

Blessed are the peacemakers

Many Medical School alumni have shown personal commitment to global health by serving as volunteers throughout their careers and in retirement. James Hart, M.D., Class of 1975, is a prime example and was recognized last fall by IMER and the Medical School with the Alumni International Distinguished Physician Award.

An internist at HealthPartners Midway Clinic, Hart is involved in the care of immigrants and refugees and has been active with Minnesota International Health Volunteers for many years, serving primarily as a board member. He has made trips to Africa and Russia with his wife, Maureen Reed, M.D., Class of 1979, medical director and vice president of the Contracted Care Division of HealthPartners, and chair of the University's Board of Regents.

Hart considers another alumnus, Mark Jacobson, M.D., Class of 1978, to be his mentor and inspiration. Jacobson was a medical student on rotation at the hospital where Hart was serving his residency. "Even at that time, Mark knew with certainty that he wanted to practice overseas," remembers Hart. In the intervening years, Jacobson, along with his wife, Linda, has done amazing work in building up Selian Lutheran Hospital in Arusha, Tanzania. Last spring Jacobson, medical director of the hospital, was recognized with the University's Outstanding Achievement Award.

Hart is a firm believer in international medical experiences for medical students: "What students learn through international work is that what is done medically is a small part of health. Related issues of poverty, nutrition, war, and hopelessness all have tremendous impact on health.

"Leaving portions of the world poor and sick is not good for world peace," concludes Hart. "Doctors are going out not just as healers when they do international work, but also as peacemakers."

To our Medical School alumni: If you have volunteered your services in any global health capacity, we would like to hear from you. Please contact Carmela Kranz in the Minnesota Medical Foundation office at 612-625-1114 or c.kranz@mmf.umn.edu. ■

School of Public Health:

Thinking locally, acting globally

The School of Public Health has always been international in scope. Many of its teaching programs are overseas. One quarter of the school's students are international, the highest percentage in the Academic Health Center. Schools of public health are uncommon outside the United States, making the school a resource for people from overseas.

Even with this impressive record, the School of Public Health (SPH) plans to increase enrollment by 25 percent over the next five years, expand the faculty, and increase student and faculty diversity. "The demand for well-trained public health professionals was strong before September 11, and the situation is markedly more acute looking forward," says Mark Becker, Ph.D., dean of the school.

"Our students are asking for more and more perspective on global health," explains Ian Greaves, M.D., associate professor in the Division of Environmental and Occupational Health and associate dean for research. "We have a task force looking at how we can increase the global health focus within the school, including developing a curriculum in global health." An introductory course for anyone interested in public health, including SPH students, medical students, pharmacists, dentists, and the general public, is already being offered. An exciting new partnership, led by Moïse Desvarieux, M.D., M.P.H., Ph.D., assistant professor

in the Division of Epidemiology, between the University of Minnesota and the University of Paris has added a course on managing infectious diseases to the curriculum (see page 21).

This year also marks the inauguration of the combined M.D./M.P.H. program for medical students who have expressed an interest in studying infectious diseases. Approximately a dozen students are enrolled in this program which is one of only a few in the United States, and the only one in Minnesota.

SPH's current activities and future plans build on a rich history of leadership and discovery. The first head of the Division of Epidemiology, Ancel Keys, established much of his reputation – and thus the school's – on the now-famous Seven Countries Study. This study on heart disease was begun in 1952 and continues today.

"In fact, a number of us are going to meet in Amsterdam in May to discuss the long-term follow-up of many people in the study," says Russell Luepker, M.D., M.S., professor and head of the Division of Epidemiology, and Mayo Professor in Public Health. Luepker's area of expertise is cardiovascular disease research. He worked throughout the 1980s on Soviet health projects in the former republic of Georgia, and is currently working with colleagues at Göteborg University in Sweden on comparative studies in heart disease between populations in Göteborg and the Twin Cities.

The school's reputation and status is enhanced by its location in the Midwest. Greaves observes, "The majority of schools of public health are either on the east or west coast of the country. Students in the Midwest with philanthropic and altruistic sensibilities have come to us looking for more opportunities in global and international health."

In addition to students, faculty are also drawn to the School of Public Health. "I was attracted to the University of Minnesota by the strength of the Division



Ian Greaves, M.D., associate professor in the Division of Environmental and Occupational Health, is associate dean for research in the School of Public Health. His current research activities include traveling to the Philippines to study urban air pollution, asthma, and mercury contamination, which impairs immunity and increases the risk of contracting common tropical diseases such as malaria.

of Epidemiology, which is recognized as one of the top in the country, as well as the school itself," says Desvarieux, who came to the University from Columbia University in 1999. "The extraordinary reputation of the department in cardiovascular diseases was another attraction."

Although the School of Public Health enjoys a long history of international recognition, public health as a field can still slip by unnoticed. Many of the basic public health problems in the developing world are no longer issues in the developed world.

"Issues of public health such as clean air and water, waste disposal, and vaccinations for the entire population of a country have largely been solved in this country in the last 100 years, or have systems to deal with them," explains Greaves.

"Our approach is to share what has been learned here and provide public health workers in other countries with the administrative tools they can adapt to their particular situation." ■

Getting smarter about AIDS

With an estimated 17,000 people per day becoming infected with HIV, research into the cause and management of this global scourge remains a top priority at the University. James Neaton, Ph.D., professor in the Division of Biostatistics in the School of Public Health, and his staff are breaking new ground with two separate large HIV/AIDS trials.

ESPRIT (Evaluation of Subcutaneous Proleukin in a Randomized International Trial) is trying to determine if using interleukin-2 (IL-2) along with anti-retroviral drugs is more effective in delaying the progression to AIDS than using anti-retrovirals alone. IL-2 is a protein which, when given intermittently, selectively

increases the number of CD4+ white blood cells, which are one of the body's natural infection fighters. SMART (Strategies for Management of Anti-Retroviral Therapy) is addressing a different question than ESPRIT: do HIV-infected people need anti-retroviral drugs at all when their CD4+ numbers are high enough?

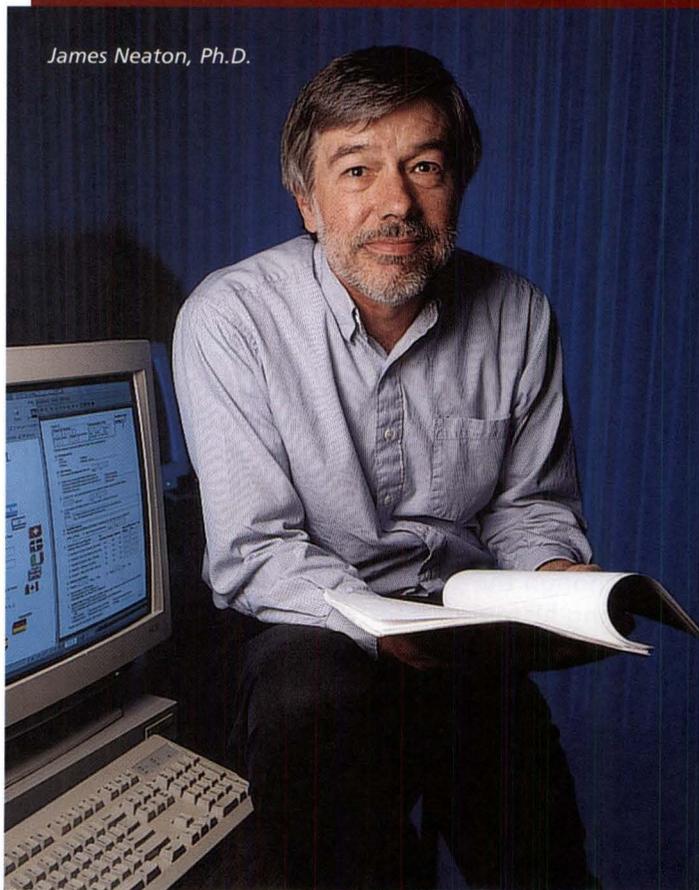
ESPRIT serves two purposes: the study itself, but also setting up an infrastructure for large international trials. "It is truly a collaborative effort, with many HIV researchers and biostatisticians around the world enrolling patients and coordinating efforts," says Neaton, principal investigator. Funded by an NIH grant to the University of Minnesota, ESPRIT is the largest HIV trial to date with 4,000 people to be enrolled at 273 sites in 22 countries.

SMART, if successful, will be larger yet, with 6,000 people to be enrolled around the world. The study is being carried out by the University's NIH-funded Community Programs for Clinical Research on AIDS (CPCRA). Faculty and staff from biostatistics and statistics work in the University's Statistical Center on SMART and other CPCRA trials. Neaton leads the Statistical Center and is co-chair of the SMART protocol team.

While sites initially involved in the SMART study are in the United States and Australia, the CPCRA hopes to expand the network to countries in Europe and to resource-poor countries after 1,000 patients have been enrolled and safety of the management approaches under study has been established.

"We can't cure AIDS with the current treatments available, and the anti-retroviral drugs have some long-term, unintended, adverse effects," explains Neaton. "Our goal is to determine how to best use them to keep people alive and well longer. Trials like ESPRIT and SMART are aiming to do that." ■

James Neaton, Ph.D.



Intrepid researcher takes on the world



Moïse Desvarieux, M.D., M.P.H., Ph.D.

An assistant professor in the School of Public Health's Division of Epidemiology, Moïse Desvarieux, M.D., M.P.H., Ph.D., is a busy person whose research interests include global health, infectious diseases, cardiovascular disease, HIV/AIDS, tuberculosis, and infant mortality. Since coming to the

University of Minnesota in 1999 from Columbia University, he has focused on infectious diseases and cardiovascular health, including a stroke study he initiated between the two universities based on the ethnically diverse population in northern Manhattan.

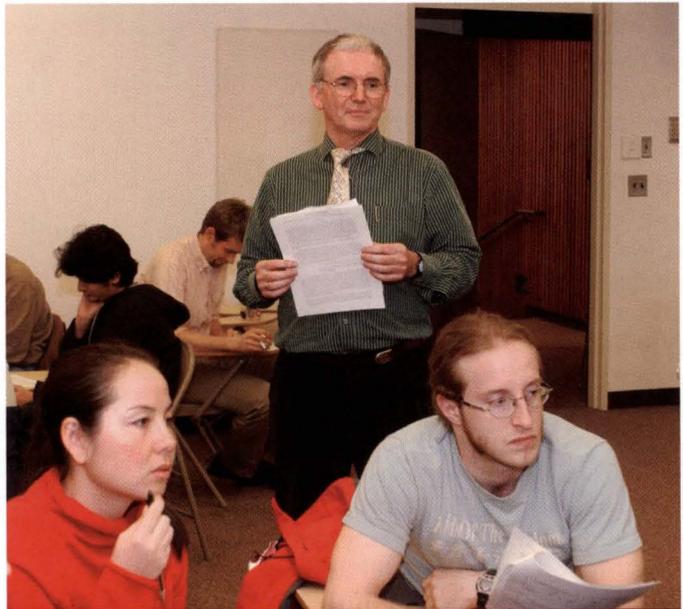
Desvarieux is also working on a multi-center, multi-country international project which he modestly admits might be a milestone 10 to 20 years down the road like the Seven Countries Study, originated by Ancel Keys, which contributed to what we know about diet affecting cardiovascular disease. The new study is funded by the National Institutes of Health (NIH): "The fact that the School of Public Health and Division of Epidemiology already had credibility from the original study made it easier for us to acquire the NIH grant," says Desvarieux.

A year ago, Desvarieux invited Jean-Pierre Coulaud, his mentor and director of the French Institute of Tropical Medicine and African Epidemiology at the University of Paris, to visit and discuss a possible collaboration. The result is a new program, the International Training Research and Exchange Program in Infectious Disease Epidemiology (INTREPIDE; www.epi.umn.edu/intrepide) spanning three continents;

research exchange sites have been set up in Paris and Africa.

As part of this innovative partnership, a new course in international health was offered this spring to Academic Health Center students and professionals. Both institutions have been able to provide initial funding for INTREPIDE, but the program will need continued funding to allow growth and build credibility.

Desvarieux sees his projects in infectious and cardiovascular diseases as ways to contribute and give back to the University. "The University has been very good to me, and I've been very happy with its support," he says. "Everyone is very collegial here. I hope these international collaborations, especially INTREPIDE, will offer opportunities to everyone." ■



Jacques Lebras, center, is one of the world's foremost experts in malaria research and education. A professor of pharmacy and biology at Rene Descartes University and director of the National Reference Center for Malaria in France, he is one of a dozen professors from the University of Paris who are team-teaching a new course in international health with Moïse Desvarieux, assistant professor in the Division of Epidemiology in the School of Public Health. Lebras is shown here facilitating small group discussions after one of his lectures.

The global village in our backyard

Located in the heart of the city, the Community-University Health Care Center/Variety Children's Clinic (CUHCC) has, throughout its history, adapted to the social and cultural needs of the community whose residents represent a variety of cultural and ethnic groups. The clinic, which offers services in more than seven languages, was established in 1966 as part of a national effort to decrease infant mortality and has expanded over the years to serve the entire family with medical, dental, and mental health care.

The Phillips neighborhood of Minneapolis, where the CUHCC clinic is located, serves as a port of entry for many immigrants and refugees coming to the Twin Cities. As a result, Phillips' population rapidly changes and the needs of its residents are great. Karl Self, D.D.S., M.B.A., associate professor in the Department of Preventive Sciences and director of the clinic, says, "We have to be prepared to meet their needs and respond to challenges in a quicker time frame."

Toward this goal, CUHCC became a member of the Institute for Clinical Systems Improvement (ICSI), a project funded by HealthPartners and the Mayo Clinic. ICSI will assist the clinic in implementing and adapting best practice guidelines for CUHCC's diverse populations in the areas of diabetes, depression, and ADHD (Attention Deficit Hyperactivity Disorder).

The clinic's funding comes primarily from the Academic Health Center; federal, state, and county monies; and some patient reimbursements from insurance. Colleen McDonald, CUHCC's development specialist, writes grants to secure funding for the Mental Health Division. She observes, "Serving the poor and uninsured through



Greg Plotnikoff, M.D., M.T.S., visits with Shoua Hang, a 90-year-old Hmong grandmother, and her family during a routine appointment.

culturally appropriate services requires more than typical health care. But I think it pays off in the long run because when people have providers they know and trust, they will utilize preventive care more than the emergency room."

For more information about CUHCC, please visit their web site at www.ahc.umn.edu/cuhcc, or call 612-638-0700.

"Every patient encounter is a cross-cultural experience"

Greg Plotnikoff, M.D., M.T.S., Class of 1989, is an associate professor in the Departments of Medicine and Pediatrics and medical director of the University's Center for Spirituality and Healing (www.csh.umn.edu), which he co-founded in 1995. He works part time at CUHCC as part of his work with the center.

"CUHCC is my grounding in reality – the Center for Spirituality and Healing is where I help shape curriculum and research agendas. CUHCC has been the main clinical site for opening student, resident, and faculty eyes to the clinical implications of global health here in Minnesota, and provides real-life opportunities to serve.

"CUHCC is the premier place for sharing knowledge and wisdom, and that sharing is a two-way street. The practical clinical skill which students learn here is not necessarily multicultural competence, but rather, cultural humility – being open and willing to learn about another's way of life. Faculty have learned the power of saying to their patients, 'Please teach me.' Communication, partnership, and continuity are the three hallmarks of effective patient care across the cultures."

Respecting teens

Nimi Singh, M.D., M.P.H., is an assistant professor in the Division of Adolescent Health in the Department of Pediatrics and fellowship director of the Adolescent Health Training Program. She works one day a week at CUHCC as part of her responsibilities.

"What's interesting in seeing teens at CUHCC is that they're not only dealing with the normal developmental issues of adolescents, but they have this overlay of coming from a minority culture and struggling with issues of conflict between the ▶

Making connections

Ismid Khalif, a 23-year-old research assistant at CUHCC, came to the United States eight years ago from Somalia. She is helping Susan Ferron, M.D., medical director of the clinic, on a study examining the possible relationship between the *H. pylori* bacteria, which can cause stomach ulcers and is common in patients from Somalia, and the unusually high incidence of severe nausea and vomiting among pregnant Somali women.

If a connection is found, treatment for the bacteria will then be tested to determine if it will significantly reduce the problems experienced by pregnant women infected with the bacteria. Ferron's study is supported in part by a research grant from the Minnesota Medical Foundation. Khalif is studying to be a certified medical assistant, and hopes to become a doctor one day.



Ismid Khalif, left, research assistant, and Susan Ferron, M.D., CUHCC medical director.

The global village, continued

values of their culture and the dominant culture. A lot of what we do is help adolescents find their way to positive coping behaviors for dealing with the stresses or conflicts in their lives.

"CUHCC is a great setting for me to teach adolescent medicine, because working with minority youth really drives home those important points of respectful listening and not making assumptions about the individual. I tell the trainees I work with, 'This is the approach you want to use with everybody. Don't assume just because they look like you, and grew up where you grew up that you know what their story is. You need to respect and really see the individual.'

"I'm glad CUHCC was one of the clinical opportunities available to me when I came to the University. It's very fulfilling to be able to work here – I absolutely love this site."

"I feel like an angel!"

Stephanie Nguyen and Veera Som are two of the seven full-time interpreters on staff at CUHCC. Their experiences in emigrating from Vietnam and Cambodia, along with their deep compassion toward their fellow emigres, have made them invaluable and respected members of the CUHCC team. They are the crucial link between the immigrant patient and the American doctor. Not only do they translate the conversations during a clinic visit, but they find themselves translating American culture to people who are often overwhelmed by it.

"It's social work, except we don't have the degree," laughs Veera. Stephanie agrees: "We call to confirm appointments, we arrange transportation, we help with billing problems, and sometimes we even help with legal situations such as divorce and immigration issues with the INS." Veera explains, "If we don't help them, they won't come back. We teach them how to use the clinic."

Both Veera and Stephanie find extreme satisfaction in their roles as interpreters. Veera says, "I feel like an angel, because when people come here they don't know anything. They are so scared and they need somebody who can speak their own language to help them understand what's going on." Stephanie adds, "I feel good that people look to me and trust me enough to be able to share their feelings and problems. Every time I help, I feel good myself."

by Andrea J. Peterson

The Better

Just hours after she was born, Ellen Voiss was screened at the hospital and diagnosed with severe hearing loss. Thanks to the Lions' Infant Hearing Screening Program, Ellen received further testing and was put in the care of an audiology team who planned her treatment and counseled her family. The family's local Lions club even provided financial assistance with Ellen's hearing aids.

As a direct result of early detection and prompt treatment, Ellen, and many other Minnesota infants, will talk and laugh and learn along with hearing family and friends.

The Lions 5M Hearing Foundation, together with Lions International, has given more than \$5.5 million to equip labs and promote research, train physicians, and provide clinical services to people throughout Minnesota.

In 1977, their partnership with the Department of Otolaryngology at the University of Minnesota created the Lions 5M International Hearing Center, where patients are treated for audiology concerns, ear, nose, and throat disorders, head and neck cancers, dizziness, and craniofacial and skull base problems.

The Lions' philanthropy has helped create the only center for the study of otitis media in the Midwest and one of the most extensive temporal bone collections in the world. They have supported substantial faculty growth in the Department of Otolaryngology, and made possible the construction of the Lions Research Building, adding 24 new labs.

Promoting hearing health worldwide

The International Hearing Foundation (IHF), an affiliate of the Minnesota Medical Foundation, supports both clinical and basic otological research in the University's Department of Otolaryngology, and also serves in countries around the world promoting hearing health.

Projects of IHF include everything from providing hearing aids and classroom amplification equipment to South American children to training physicians and surgeons in Senegal, Africa.

Dr. Michael Paparella, who served as chair of the Department of Otolaryngology for 18 years, founded and is a director of IHF. He and his wife, Treva, IHF's executive director, established the Paparella Endowed Fund in the Department of Otolaryngology to provide faculty support.

For more information on the International Hearing Foundation, call: 612-339-2120.

to Hear You

The Lions 5M Hearing Foundation responded to the urgency of early hearing loss detection by establishing the Infant Hearing Screening Program – a program so effective and timely it was adopted as a state resource by the Minnesota Department of Health.

The goal of the ambitious five-year project is to establish universal infant hearing screening in hospitals throughout Minnesota. Funded by the 5M Lions and the Department of Health, training and referral support are provided by the University's Department of Otolaryngology.

"Discovering hearing loss at birth is crucial to a child's speech, language, and social development," says Kirsten Coverstone, Lions Infant Hearing Program screening coordinator. "Not only does it help children thrive, but it saves thousands of dollars in remedial teaching costs when they enter school."

The Lions are looking ahead to the next step in pediatric care through establishment of a multidisciplinary Center for Childhood Hearing Disorders. Currently, no comprehensive facility for childhood hearing disorders exists in the Upper Midwest.

100 years of advancing ear health

On June 6-7, the Department of Otolaryngology at the University of Minnesota will celebrate its centennial. One hundred years of research and clinical care at the University have seen treatments for deafness go from ear trumpets to bionic ears; the championing of hearing screening for schoolchildren, and later infants; the development of a world-class otopathology lab; early use of the electron microscope; the first cochlear implant performed in the Upper Midwest; and the first and longest continuously funded NIH otitis media program center in the United States, to highlight a few.

Friends and alumni are invited to dinners, a scientific seminar, resident graduation, and a golf outing. For more information, call 612-625-5602.

The Lions 5M Hearing Foundation and the Department of Otolaryngology are celebrating 25 years of listening to the needs of the community – helping open the world of sound to people like baby Ellen and many, many more.

by Sarah Barker, Department of Otolaryngology



Sarah Voiss, Ellen Voiss, and Kirsten Coverstone, coordinator of the Lions Infant Hearing Screening Program

Building the Founda

Thanks to Dr. Al Michael's legacy, the University o

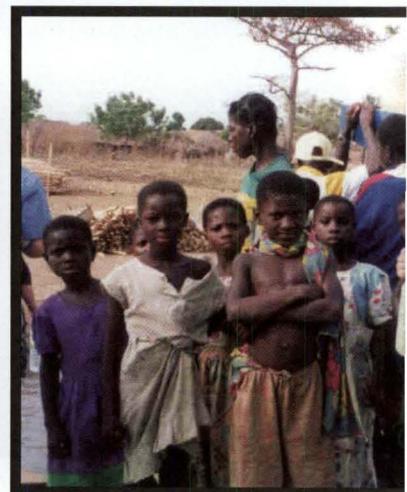
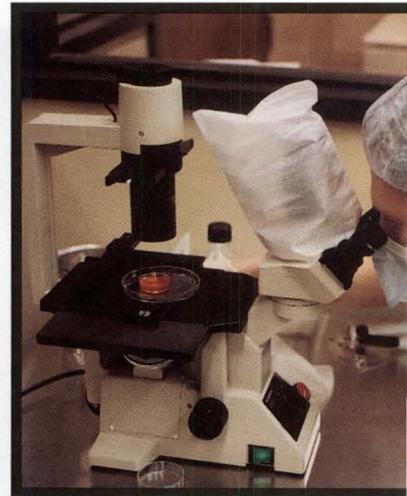
Dr. Michael steps down from his position of dean of the Medical School in June. All of us on the Minnesota Medical Foundation Board of Trustees are grateful to have been a part of an exciting period of growth and rebuilding during his five years as dean.

Dr. Michael became dean during a time of great challenge for the Medical School – a time of financial crisis, low faculty morale, and lack of a clear vision for the school.

Today, following a number of tough choices designed to move the school forward, we can once again look at the University of Minnesota Medical School with great pride and anticipation for the future. This momentum and renewed pursuit of excellence is due in large part to Al Michael's vision.

Under his leadership, the Medical School has developed a multilayered strategic plan, addressed changing medical education needs, established critical research priorities, redesigned the school's administrative and financial structure, provided a more supportive environment for students, developed strong interdisciplinary programs between and within departments, and enhanced community outreach efforts.

Major changes during Dr. Michael's tenure also include the sale of University Hospital to the Fairview System, creating Fairview-University Medical Center; the formation of University of Minnesota Physicians, replacing more than 30 separate clinical practice groups; the



tion for Excellence

Minnesota Medical School is poised for greatness

reorganization of the biological sciences to meet the challenges of the genomic era; and the decision to move forward with a number of new facilities designed to enhance research capabilities.

With Dr. Michael's support, the relationship between the Medical School and the Medical Alumni Society has been renewed and invigorated. Thousands of alumni are interacting with students as mentors, serving as preceptors, attending reunions, and supporting the school with their gifts.

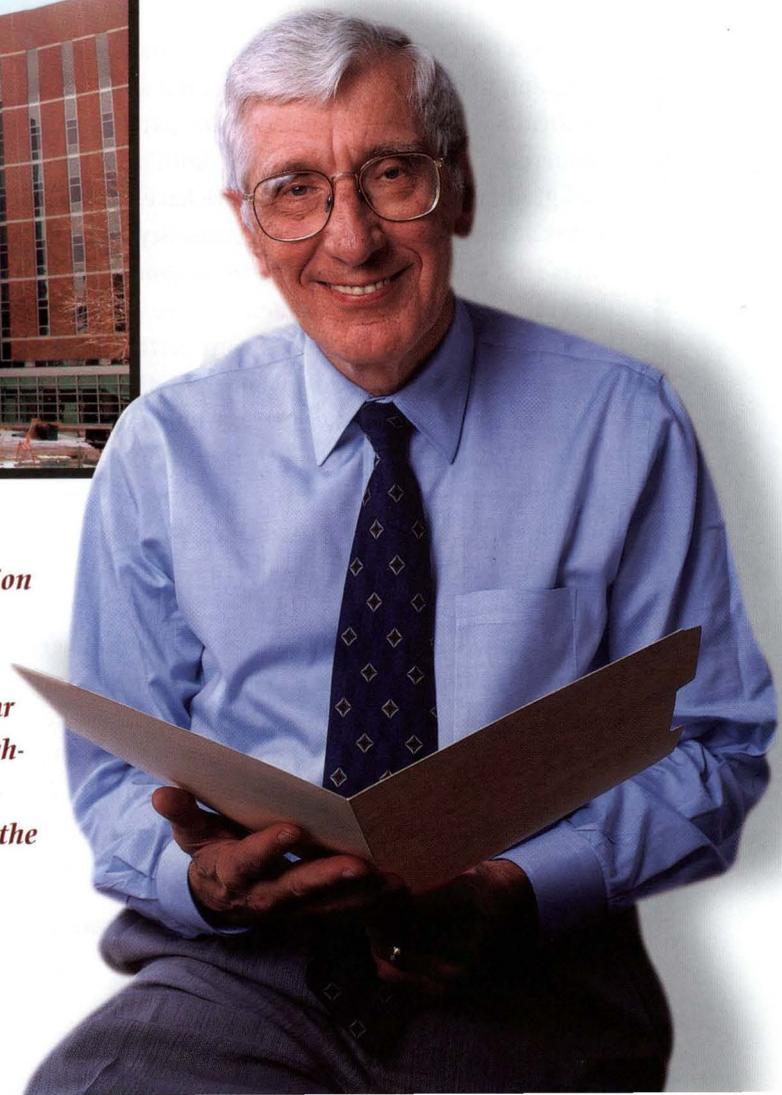
Those of us who have worked with Dr. Michael over the years know that in addition to being a wise leader, he is a role model for students and faculty, a compassionate

physician, and a committed educator. He is a warm, approachable person who has been willing to go into the community to tell the Medical School story – meeting with physicians, legislators, donors, students, and friends. He has demonstrated a great deal of character taking on the challenges of the Medical School and seeing them through successfully. Certainly, much of Dr. Michael's success can be directly attributed to his personality and the esteem others have for him.

We are deeply appreciative of Dr. Al Michael's leadership and vision over the past five years – a vision that will be the foundation for a strong Medical School far into the future.



Changes and innovations during Dr. Al Michael's tenure as dean include the creation of Fairview-University Medical Center, the establishment of critical research priorities, the construction of the Molecular and Cellular Biology Building, the establishment of the White Coat Ceremony for first-year medical students, and the creation of the International Medical Education and Research Program.



A very positive picture

With another academic year at the Medical School drawing to a close, my term as Medical Alumni Society board president is also nearing an end. The past four years have gone very quickly, and have given me a very positive picture of where our Medical School has gone and is going.

The medical student experience is better than even I remember from my medical school days in the late 1960s. The tumult of the last few years has, in my mind, forced everyone to really look at what is most important in our mission. For the Medical Alumni Society, it is to support medical students by assisting the Medical School staff, and to form a coalition of current physicians interested in helping their alma mater.

Through the creation of the Connections mentoring program, which involved the Hennepin and Ramsey Medical Societies and resulted in the participation of numerous community physicians (both our alumni and graduates of other schools), we have given students a friend in the medical community, beginning their first year and continuing throughout their time here. By adding medical students to the MAS board, we have not only given them a voice within our organization, we have created a wonderful dialogue and flow of information between the student and alumni bodies. And, by raising money from all of you, our loyal alumni, we have provided essential support for scholarships and for programming critical to the student experience.

At the same time, I hope we have successfully served you, our alumni. By enhancing reunion programming, we have made reconnecting with classmates an even more enjoyable and meaningful event. By adding the Alumni Recognition Award to the long-standing Diehl Award, we have recognized even more of the outstanding achievements of our alum-

ni. And by hosting receptions around the country, we have brought news of your alma mater to alumni from Portland to Palm Beach to Washington, D.C.



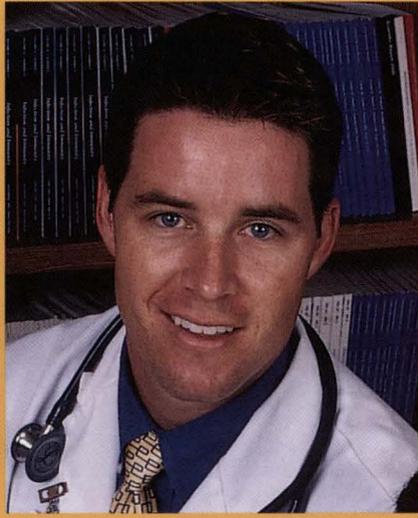
Serving in this role has been just plain fun, giving me a chance to meet with wonderful people. Dean Al Michael has been very open, and is now stepping down as well, giving my successor a chance to start a totally new and wonderful relationship with the new dean. I encourage each of you, if you have not already done so, to find ways to get involved, whether it is serving as a mentor to a medical student, as chair of your class reunion, or as a host to a Medical School applicant or a fourth-year student interviewing for a residency. I think that you, too, will find it a very fulfilling experience. For those of you who already do these things and more, I thank you for the difference you are making in the lives of fellow alumni as well as tomorrow's alumni, our medical students.

Finally, I would like to thank all the people who really make the alumni organization function. My boss, Julie Crews Barger, has been absolutely wonderful. Brad Choate and Dan Saftig at the Minnesota Medical Foundation are superb friends of the Medical School. To all their staff, I say, "Thank you, and goodnight."

Best regards,

A handwritten signature in black ink that reads "Eugene W. Ollila M.D." The signature is written in a cursive, flowing style.

Eugene W. Ollila, M.D., '70
President, Medical Alumni Society



Frank Casey: A student's perspective

Frank Casey, Class of 2002, is a student member of the Medical Alumni Society Board of Directors. He grew up in Golden Valley, Minnesota, and currently lives in Eden Prairie. Outside of school, he enjoys spending time with his wife, Amanda, as well as biking, hockey, golfing, computers, and running. We asked him about his involvement with MAS and about his medical school experience.

What do medical students bring to the MAS board?

As a member of the Medical School Class of 2002 and as president of the Medical School Student Council, I feel I can bring student opinions and views on a variety of topics to each meeting. Being a part of MAS also allows other board members to interact with current medical students in a direct and immediate way. We not only bring opinions, but also updates of current events and projects in which the Student Council and student body are actively participating. The student members of MAS also take information gained from our meetings and share it with fellow students and the Student Council.

Have you had much contact with alumni during your medical school years, and has it been helpful?

I have worked with several members of the alumni during medical school, in particular Dr. Gene Ollila. As a first-year medical student I spent time with him at the hospital and his clinic. This was an excellent opportunity to work one-on-one with a mentor and experience medicine on a personal level. Since that time most of my interaction has been through MAS and Medical School Student Council. I found my experiences extremely helpful and enjoyable. I continue to be impressed by the time, effort, and enthusiasm all the alumni members devote to improving the quality of our education and our clinical experiences.

I continue to be impressed by the time, effort, and enthusiasm all the alumni members devote to improving the quality of our education and our clinical experiences.

What made you decide to go into medicine, and have you chosen a specialty?

I like to consider myself a "non-traditional" student. I've always enjoyed helping and educating people as well as trying to solve complex problems. During my undergraduate years, I considered medicine as a career, yet I chose to obtain a business degree. After graduating, I worked for seven years as a technical sales representative. Early in my sales career, I realized that I truly did want to pursue a career in medicine. I returned to school in order to achieve my goal of becoming a physician.

Choosing a specialty was a very difficult task for me. I thoroughly enjoyed each and every rotation during my clinical years. After much investigation, I have chosen a career in urologic surgery. My match day was January 28, and I will begin my five-year residency in urology at Louisiana State University in July of this year.

Where would you like to practice?

I would like to practice either in Minnesota or the southeastern United

States near my parents and my wife's family. Minneapolis/St. Paul would be an ideal setting due to its strong medical community and the great quality of life. Plus, as Dorothy said, "There's no place like home!" ■

2001-2002 MAS 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, mutually beneficial, relationship that exists between the Medical Schools and their graduates.

Eugene W. Ollila, M.D., '70, President
Edward M. Beadle, M.D., '78

Stuart H. Bloom, M.D., '95

James R. Breitenbucher, M.D., '71

Frank M. Casey, Jr. (4th year medical student)

Daniel P. Dewey (3rd year medical student)

Patrick J. Flynn, M.D., '75

Carol M. Grabowski, M.D., '88

Kristofer A. Kimber (2nd year medical student)

Fred A. Lyon, M.D., '57

Frederic D. Nemer, M.D., '70

Arthur L. Ney, M.D., '77

Gregory A. Plotnikoff, M.D., '89

Tanya L. Repka, M.D., '84

Daniel R. Sherry, M.D., '73

Keith L. Stelter, M.D., '88

Martin J. Stillman, M.D., '97

Wendy L. Sydlewski (2nd year medical student - UMD)

Robert J. Zajac, M.D., '00

Pair gives mentor program high marks

Second-year medical student Rondi Blomberg has ambitious goals, and her mentor, Dr. Rosemary Kelly, is helping her get there.

Currently, 372 pairs of physicians and medical students are matched in the Medical Alumni Society's Mentoring Program, and the reaction from both sides is overwhelmingly positive.

"The mentoring program has been absolutely invaluable during my first year-and-a-half of medical school," says Rondi. "It has allowed me the opportunity to interact with a physician outside of a setting where I am being evaluated, and it's given me insight into the 'lifestyle' of medicine.

"I appreciate having a role model who has been through the challenges I'm facing and who encourages me in the pursuit of my dream. I have also been blessed with a mentor I can relate to as a friend and a colleague, and in addition is someone I respect and look up to as a professional. Rose has been wonderful in showing me the fun side of medicine, and allowing me to participate in her life as she participates in mine."

Rondi and Dr. Kelly get together at least once a month, and while Rondi knows she is always welcome to shadow her mentor in the clinic or the O.R., she especially enjoys their social times together. They have gone to the theatre, horseback riding, out for dinner or coffee, to a baseball game. "It's sharing 'real life,' and I enjoy that," says Rondi. "I like the opportunity to interact with a doctor outside of the clinic or hospital, where I already spend so much of my life."

Rondi comes from Cypress, California, and chose the University of Minnesota Medical School partly because of its strong international health program.

"I decided to go into medicine when my family spent three months in the Philippines," she says. "I was struck with the realization that many children die in developing countries of curable diseases, like bronchitis and pneumo-

"Rose has provided me with wonderful advice on how to balance many competing demands and continue to excel in every undertaking."

nia, because they don't have access to medical care. I love science and love the study of medicine, and have found a good match in a field that combines scientific discovery with service to others. I have traveled to Guatemala three times and to Haiti once to work in medicine. I am interested in surgery, and definitely want to spend some time working in a developing country."

Rondi is also planning to get a Master of Public Health degree, based on her interest in international and community health.

"Rose has encouraged me in terms of my interest in public health and my decision to pursue an M.D./M.P.H.," says Rondi.

"I appreciate so much her encouragement of me as a woman who is interested in surgery and yet wishes to have a life and a family. She has provided me with wonderful advice on how to balance many competing demands and continue to excel in every undertaking."



A TWO-WAY STREET

For Dr. Rosemary Kelly, the experience is equally rewarding.

“I’ve been amazed at how much I’ve gotten out of the relationship with Rondi,” Kelly says. “She reminds me of what it was like to be in medical school and why I wanted to become a doctor. Her enthusiasm is infectious and I look forward to meeting with her. In addition, she has introduced me to her classmates and her activities, re-introducing me to medical school.”

Kelly attended medical school at the University of Chicago, did general surgical training at the University of Southern California in Los Angeles, and cardiovascular and thoracic (CV) surgery training at the University of Minnesota. She stayed at the University of Minnesota, and is an assistant professor in the Cardiovascular and Thoracic Surgery Division, working

“I’ve been amazed at how much I’ve gotten out of the relationship with Rondi. She reminds me of what it was like to be in medical school and why I wanted to become a doctor.”

primarily at the VA Medical Center. She has a clinical practice that includes cardiac and thoracic oncology, conducts research, and is involved in the fellow training for CV surgery.

“As I look ahead to the future of thoracic surgery,” she says, “I realize that it is this relationship with medical students that we need to foster. Otherwise we will lose the best candidates to other specialties. Also, it is just plain fun to be reminded of the experiences you had as a medical student, learning to become a doctor. Rondi reminds me of the idealism and enthusiasm with which one enters medical school. That reminder alone is a remarkable benefit of our relationship!”

Kelly says she decided to become a mentor because it is a relationship she would have liked to have had as a medical student. “I went to medical school at the University of Chicago and I was away from everything familiar in regard to family and friends. I was very

fortunate to have excellent classmates, but in many ways felt that I was struggling to help find the right career path and knowing what to expect in the future. Since that time I’ve had many mentors in my surgical training who have given me a solid foundation in personal and professional expectations.

“In addition, I have been particularly fortunate in finding women in medicine who are really strong, innovative, dynamic people. They helped me define my personal and professional expectations. I hoped that by mentoring a medical student – rather than just residents or fellows – I could assist a new physician in her personal and professional development at a very critical time period.”

Kelly is quick to recommend mentoring to other physicians.

“I think there is so much to be gained, by the mentor as well as the medical student,” she says. “I don’t think it has to be just a professional relationship. In fact, Rondi and I have focused very much on the social aspect! Medical students are often overwhelmed with the sheer volume of knowledge to be gained, so I wanted our time to be fun and relaxing. I figured that once we got to know each other, and if Rondi wanted to discuss it, then we could focus on the professional aspects.

“I think in the mentoring relationship, medical students have enthusiasm and the physicians have experience. The combination of these assets is dynamic and unpredictable, which makes it so interesting. I think mentoring is an incredibly worthwhile endeavor and I have already encouraged other physicians to become involved.” ■



Connect with a medical student

There are many ways to get involved in the life of the Medical School. You can be a mentor to a student, host a Medical School applicant in your home, and much more. Community physicians as well as alumni are welcome to participate. To learn more, visit the alumni section of the Minnesota Medical Foundation web site at: www.mmf.umn.edu

Dr. Rosemary Kelly and medical student Rondi Blomberg

Out of tragedy, Compassion for the world

Dr. Marianne Mason has found a way to create hope from profound personal tragedy.

A member of the University of Minnesota Medical School Class of 1987, Mason chose obstetrics as a career and practiced at Fairview Riverside Women's Clinic in Minneapolis. In 1998, she and her husband and two small daughters went to Guyana, in South America, where Mason worked as a medical missionary.

But shortly after their arrival, Danielle, not quite 2 years old, became infected by a virulent strain of E. coli bacteria. The bacteria shut down her kidneys, which led to heart and lung problems and finally total organ shutdown. Despite being airlifted to Trinidad and then Miami, Danielle died in March of 1998.

Mason returned to Guyana, determined to make something positive come from Danielle's death. She brought medical equipment and books for the library, and helped raise money to renovate the hospital.

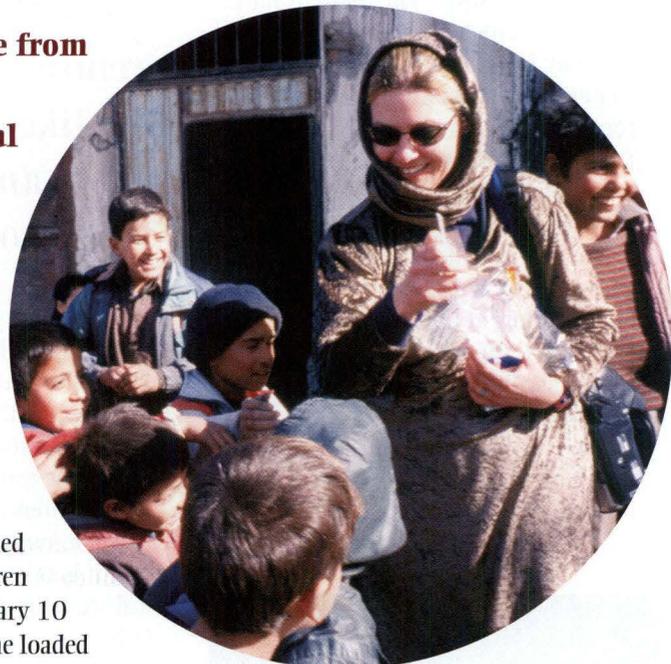
But tragedy struck again after Mason returned to the Twin Cities. Daughter Nicole had just finished kindergarten when an inoperable brain tumor was discovered. Ten months

later, Mason buried her second child.

Today, Mason has turned her attention to the children of Afghanistan. On February 10 of this year, a 747 airplane loaded with clothing and medical supplies took off for Kabul, with Mason on board. Mason organized the relief mission through Evergreen Humanitarian and Relief Services, a division of Portland, Oregon-based Evergreen Aviation, to honor her daughters.

The cargo included socks, shoes, blankets, and coats collected by students in Woodbury, Mahtomedi, St. Paul, and Prior Lake. Minnesota students also wrote letters to Afghan orphans for Mason to take along.

In an article in the *Star Tribune*



Dr. Marianne Mason in Kabul, Afghanistan

Mason said, "These children are innocent victims of this war. The children in Afghanistan are dying of things that are curable: cold, hunger, poverty. I can't live with that.

"I feel for those parents, watching their children die and knowing there's nothing they can do because of their poverty. Believe me, there's nothing worse than feeling helpless when your child is sick."

Mark your calendars for Reunion Weekend!

Plans for this year's Medical School Reunion Weekend are in the works, and it is shaping up to be a spectacular weekend of celebration. Members of the classes of 1942, 1947, 1952, 1962, 1967, 1972, 1977, and 1992 will return to campus May 30 to June 1 to mark this special occasion.

Reunion Weekend festivities will include the Medical Education and Research Forum featuring Dr. Greg Vercellotti (Senior Associate Dean for Education) and Dr. Jeffrey Kahn (Director of the Center for Bioethics), the Half Century Club Luncheon honoring the Class of 1952, stimulating CME programming featuring prominent faculty members, and the

weekend's highlight – private class dinners at the Marriott City Center Hotel in downtown Minneapolis. Additional activities ideal for family participation will be offered as well.

If you are a member of one of these celebrating classes, you should have received a Reunion Questionnaire to be used in the compilation of your class memory book. If you have not yet received this item, please contact Sue Clark at 612-626-0619, 1-800-922-1663, or s.clark@mmf.umn.edu. If they have not arrived already, you should receive your reunion invitation and registration materials shortly. Be sure to take advantage of this wonderful opportunity to reconnect with your classmates by signing up for this special weekend of activities here at the U!

Golf Classic upcoming

On August 26, supporters of the Medical Schools will gather for the 12th annual Minnesota Medical Foundation Golf Classic. Tournament Chair Dr. Bill Jacott, along with the Golf Classic Executive Committee, is in the midst of planning another spectacular event, highlighted by a day of golf at the renowned Minneapolis Golf Club.

In addition to organizing a great round of golf, the committee has been hard at work revitalizing the event's evening festivities. Changes include a move to a more informal and social gathering in the evening instead of the formal banquet. The event's organizers are confident participants will enjoy the newly re-energized program.

Another shift in this year's program involves the event's honorary co-chairs. Rather than a single honorary chair whose primary role is to serve as a keynote speaker at the evening dinner, this year's Golf Classic will feature a handful of prominent Twin Cities figures who will be available to play golf with the event's major sponsors. Past Minnesota Medical Foundation Golf Classic honorary chairs have included local celebrities such as Kevin McHale, Greg Coleman, John Harris, and John Gordon.



MINNESOTA MEDICAL FOUNDATION

Golf Classic

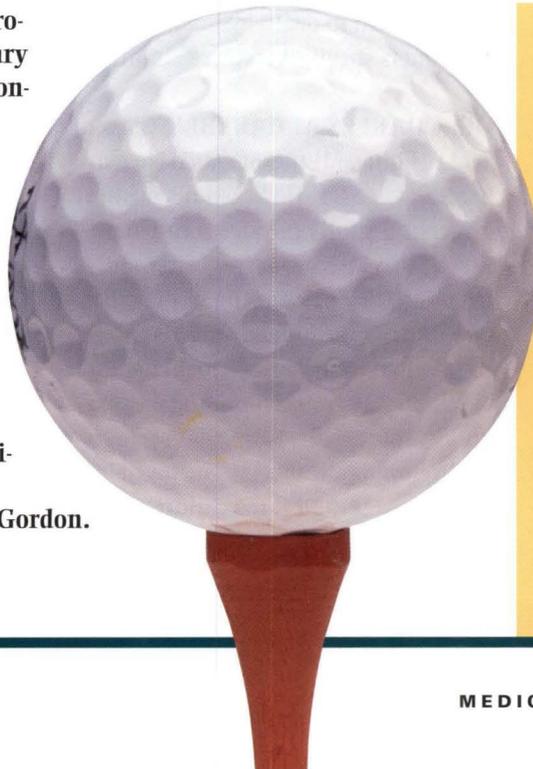


As always, the vitally important contributions to the University's medical education and research programs are the most important part of the Golf Classic. Thanks to our friends throughout the Twin Cities business community, more than \$492,000 has been raised over the past 11 years. The committee looks forward to surpassing the \$500,000 mark this year, and seeks the support of alumni and friends of the Medical School to help it achieve this milestone.

The event is structured as a double shotgun start played in a scramble format. A limited number of spaces are available during the morning round for players with a handicap of 20 or better to play their own ball in lieu of the scramble format. Sponsorship opportunities and golfer registration space currently remain, but are filling quickly. For more information or to register, contact Sue Clark at 612-626-0619, 1-800-922-1663, or s.clark@mmf.umn.edu.

2002 Minnesota Medical Foundation Golf Classic Executive Committee

William E. Jacott, M.D., Chair
Elizabeth A. Arendt, M.D.
Alan J. Bank, M.D.
Robert J. Beck, M.D.
Glen J. Giesler, Jr., Ph.D.
James F. Hart, M.D.
Kenneth N. Kephart, M.D.
Thomas B. Mackenzie, M.D.
Robert K. Meiches, M.D.
Stephen C. Olson, M.D.
Gregory M. Vercellotti, M.D.
Timothy F. Walseth, Ph.D.



IN MEMORIAM

DR. GERALD S. AHERN, Class of 1939, Kerrville, Texas, died December 11 at age 87. A commissioned officer in the Army Medical Corps Reserves at Fort Snelling, he served active duty from 1942-45, stationed in the Aleutian Islands, Alaska. Ahern began medical practice in Albuquerque, New Mexico, then was at the Fargo Clinic in North Dakota for two years before moving to Corpus Christi, Texas, where he was chief of orthopaedics and chief of staff at Memorial Medical Center. In 1977 he became chief of orthopaedics at Veterans Hospital in Kerrville. In 1978 he became clinical associate professor of orthopaedic surgery at the University of Texas Health Science Center in San Antonio and retired in 1988. Ahern is survived by three children; his wife, Margaret, preceded him in death on November 9.

DR. JOHN F. ALDEN, JR., Class of 1945, St. Paul, died January 9 at age 79. Alden practiced as a general surgeon in St. Paul for over 40 years. He was a clinical professor of surgery in the Medical School and instrumental in building the Minnesota Medical Foundation, serving on its board of directors and as its president. He helped establish the state medical association scholarship program and also served on the board of the University Foundation. Alden was one of the founding partners of the practice that is now St. Paul Surgeons, Ltd. He is survived by his wife, Meredith, and three children. Memorials may be sent to the Minnesota Medical Foundation; Northland College, Ashland, Wisconsin; or the charity of the donor's choice.

DR. JOHN B. BEUNING, Class of 1927, St. Cloud, Minnesota, died February 15 at age 97. He practiced medicine in Albany, Minnesota, from 1928-38, general surgery in St. Cloud from 1938-76, and served a number of terms as chief of staff and chief of surgery at the St. Cloud Hospital. After retirement he worked part time for the Minnesota State Health Department from 1976-81 and was a member of the St. Cloud Retired Physicians Group. He is survived by his wife, Maureen, and eight children.

DR. RAYMOND L. ECK, Class of 1937, Hillsboro, Oregon, died November 8 at age 89. He served in the U.S. Army Medical Corps as a captain during World War II. He was a general practice physician in Montana. He worked at the Department of the Navy in Alameda, California, and was medical director of Civil Service Medicine in Washington, D.C. In 1979 he retired and moved to Tigard, Oregon. Eck is survived by his wife, Hazel, and three children.

DR. DANIEL L. FINK, Class of 1938, St. Paul, died January 1 at age 87. He was one of the longest practicing radiologists in the state of Minnesota. He was preceded in death by his wife, Carroll, and is survived by three children.

DR. CHARLES A. HABERLE, Class of 1945, Edina, Minnesota, died November 22 at age 81. He began his medical career as a family physician in Thief River Falls, Minnesota, and later moved to Duluth prior to serving in the military. During the Korean War his interests shifted from general medicine to psychiatry. He was a founding partner of the Minneapolis Clinic of Psychiatry and Neurology. Haberle is survived by his wife, Vera, and three children.

DR. THOMAS HARRINGTON JOHNSON, JR., Class of 1954, Minneapolis, died January 8 at age 83. Johnson was a leader in providing medical services in the African-American community, even when his patients could not afford the treatments, and was also an active civil rights advocate. He founded the Plymouth Avenue Medical Center. Johnson was preceded in death by his wife, Henrietta, and is survived by their six children.

DR. LAMONTE P. KOOP, Class of 1966, Hallock, Minnesota, died October 31 at age 61. Koop served in the U.S. Air Force from 1967-81. After his discharge from the Air Force he did a fellowship at the University of Minnesota, and became board certified in addiction medicine. He was practicing at Kittson Memorial Healthcare Center, Hallock, at the time of his death. Koop is survived by three children.

DR. SHIRLEY BEAN LANSKY, Class of 1960, Minneapolis, died November 18 at age 66. She is survived by her husband, Dr. Lester L. Lansky, Class of 1965, and four children.

DR. NORMAN F. PARADISE, Class of 1966, Clive, Iowa, died December 23 at age 58. In addition to his medical degree, he also earned a Ph.D. in physiology from the University of Minnesota. Throughout his career he lived and worked in Rochester, Minnesota; Kent, Ohio; and Minneapolis, before moving to Des Moines where his most recent position was executive director of research for the Iowa Health Systems. He was also vice president of Valley Anesthesia Educational Programs. He is survived by his wife, Barbara, and four children.

DR. JOHN T. PEWTERS, Class of 1937, Minneapolis, died January 11 at age 89. During World War II he served as a physician in the U.S. Army Air Corps. A longtime member of the Abbott Hospital and Abbott Northwestern Hospital medical staffs, Pewters was chief of staff for several years at Abbott Hospital. He spent six years on the Minneapolis Board of Public Welfare. He was a co-founder of the American Association of Family Practice and a charter member of the American Board of Family Practice. Pewters is survived by his wife, Mary, and two children.

DR. EDWARD L. SALOVICH, Class of 1955, Minneapolis, died November 8 at age 74. A retired orthopaedic surgeon, he spent most of his 32-year medical career at North Memorial Medical Center in Robbinsdale, where he had served as its chief of staff for surgery and orthopaedics. He was also a clinical associate professor of orthopaedics in the Medical School. Before becoming a doctor, Salovich served in the Merchant Marines and in the Navy during World War II. In the early 1980s, he helped create Physicians Serving Physicians, which provides counseling and treatment for doctors with chemical dependency, and served as its chairman in 1984. Salovich is survived by his wife, Marilyn, and six children.

DR. JAMES L. VADHEIM, Class of 1937, Tacoma, Washington, died November 3 at age 89. He went to the Mayo Clinic for his surgical training after spending a year in a small town general practice with his father, Dr. Alfred Vadheim. He moved to Tacoma in 1944 to practice medicine and served as chief of surgery at St. Joseph's and Tacoma General hospitals. He was president of both the Washington State Chapter of the American College of Surgeons and the North Pacific Surgical Society. Vadheim was an assistant clinical

professor of surgery and a member of the Turner Society at the University of Washington. He is survived by his wife, Jeanne, and three children.

DR. STEPHEN A. WALKER, Class of 1940, Anna Maria, Florida, died November 7 at age 91. During World War II he served as a medical officer at Alcatraz Island, and flew submarine patrols for the Civil Air Patrol. Walker is survived by his wife, Virginia.

DR. STUART B. "STU" WALKER, Class of 1958, Gilbert, Minnesota, died December 18 at age 70. He served in the U.S. Air Force as a flight surgeon. He joined the East Range Clinic in Aurora in 1962 and practiced there until his retirement in 1993. He was preceded in death by his wife, Judy, and is survived by four children.

DR. P. THEODORE WATSON, Class of 1943, Minneapolis, died January 1 at age 83. He was born in Fenchow, China, where his father, Dr. Percy T. Watson, had built a hospital, taught, and practiced medicine. After serving two years as a Navy doctor in Iwo Jima and Okinawa, he practiced obstetrics and gynecology in St. Paul from 1946 until his retirement in 1980, primarily at Miller and St. John's Hospitals, and delivered over 7,000 children. After retirement from private practice, Watson was medical director at the Women's Clinic at Boynton Health Service, University of Minnesota, for four years. He was the first medical director of FACE-to-FACE clinics, organized the hospice program at St. John's, was head of obstetrics at United Hospital, started the St. John's Hospital and Health Resources Foundation, and assisted his wife, Jeanne, in the nationally recognized Father-Infant program. The Watson Education Center was opened in 1992 at St. John's Hospital in honor of the Watsons. He is survived by his wife, Jeanne, and four children.

DR. ROBERT A. WEYHRAUCH, Class of 1947, Waterloo, Iowa, died December 23 at age 78. He served as an Army medic during World War II, a captain in the Air Force at Luke Air Force Base in Arizona, and as a physician during the Korean War. He practiced as a family physician in Waterloo from 1953 until his retirement in 1991. He was past president of the Iowa Academy of Family Physicians and a past chief of staff at Schoitz Memorial Hospital. Weyhrauch is survived by his wife, Marion, and four children. He was preceded in death by his twin brother, Dr. William R. Weyhrauch, Class of 1951.

We have also received word of the following deaths:

DR. NORTHROP BEACH, Minneapolis, died February 10 at age 90. He graduated from Harvard Medical School in 1938, interned at Johns Hopkins University, and was a pediatric resident at the University of Minnesota. He was one of the original members of the Nicollet Clinic (later Park Nicollet Clinic) in Minneapolis. He was also an associate professor of pediatrics at the University of Minnesota Medical School for many years. His grandfather was Cyrus Northrop, second president of the University of Minnesota. He is survived by his wife, Myrtle, and three children.

DR. JAMES F. BERRY, Roseville, Minnesota, died December 22 at age 74. Berry survived paralytic polio as a youth in 1944. He retired as professor of neurology at the Medical School in 1985 because of physical disability partly due to post-polio syndrome. Prior to his appointment at the University in 1961, he served on the faculty of the Department of Biochemistry at Johns Hopkins University and the Department of Medicine, Sinai Hospital, Baltimore, from 1957-61. Berry is survived by his wife, Ann, and four children.

IN MEMORIAM

continued

DR. CYRUS C. BROWN, JR., Duluth, died January 17. He was a graduate of Dartmouth and Harvard Medical Schools. He did his residency at the University of Minnesota Graduate School of Medicine. He served in the Royal Canadian Air Force prior to transferring to the U.S. Army Air Force after Pearl Harbor and was discharged in 1946. He was an instructor in medicine at Northwestern University and at the University of Minnesota prior to joining the internal medicine staff of the Duluth Clinic in 1958, where he specialized in pulmonary disease. He became the first medical director of the clinic in 1981 and retired in July 1987. During his medical career he served as president of the Minnesota Society of Internal Medicine, the Minnesota Thoracic Society, the Minnesota Society for the Study of the Heart and Circulation, and as chief of staff of St. Mary's Hospital. He was also a clinical professor of medicine at the University of Minnesota, Duluth, School of Medicine. Brown is survived by his wife, Mary Beth, and eight children.

DR. JAMES T. GARVEY, Plymouth, Minnesota, died December 14 at age 77. He served in the U.S. Navy from 1942-48, and also worked for the U.S. Public Health Service. He was a psychiatrist at Glenwood Hills Hospital, a founding partner of the Minneapolis Clinic of Psychiatry and Neurology, and practiced at North Memorial Hospital from 1954-89. He was past president of the Hennepin County Psychiatric Association, and a professor in the University of Minnesota Department of Psychiatry. He is survived by his wife, Betty, and four children.

Dr. Russell V. Lucas, Jr.

DR. RUSSELL V. LUCAS, JR., Centerville, Minnesota, died December 12 at age 73. He was professor of pediatrics and former director of pediatric cardiology at the University of Minnesota Medical School. He was an internationally acknowledged authority in the diagnosis and treatment of congenital cardiovascular disease and led one of the most successful pediatric cardiology training programs in the United States.

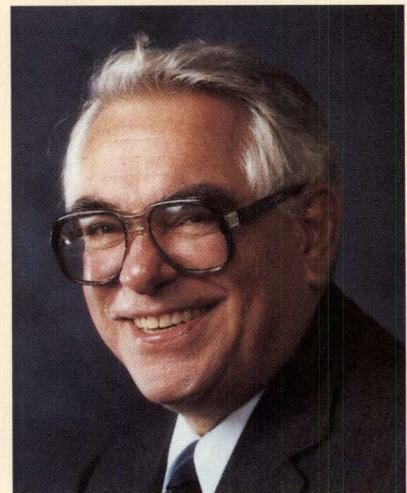
Lucas' initial academic appointment was as Director of Pediatric Cardiology at West Virginia University in Morgantown, West Virginia, where he served from 1961-66. Lucas returned to the University of Minnesota in 1966 to assume the directorship of the Division of Pediatric Cardiology, where he remained until his retirement in 1998.

Lucas was the first faculty member to hold the Paul F. and Faith S. Dwan Endowed Professorship of Pediatric Cardiology at the University of Minnesota Medical School, a position he held from 1968-98. During his productive academic and clinical career, he was actively engaged in the practice of pediatric cardiology at both the University of Minnesota

Hospital and Children's Hospital of St. Paul.

Lucas and his wife, Pat, contributed years of service to the Variety Children's Association, and he served as president of both the Variety Club Heart Hospital and the Variety Club of Minnesota. They established the Variety Medical Student Scholarship Fund to help support medical students.

Lucas is survived by Pat, four children, and five Vietnamese siblings he and Pat adopted in 1975. The Russell V. Lucas, M.D., Pediatric Cardiology Fellowship has been established in his honor at the Medical School.



Dr. Russell V. Lucas, Jr.

WILLIAM G. KUBICEK, Ph.D., Minneapolis, died January 12 at age 88. He was a retired professor of physical medicine at the Medical School. He is survived by his wife, Rosemary, and two children.

DR. HERBERT E. WARDEN, Morgantown, West Virginia, died January 14 at age 81. Warden was a member of the surgical team at the University of Minnesota which performed the world's first successful complex open-heart surgery. He was one of the original

trainees of Dr. C. Walton Lillehei. In 1960 he joined the faculty at West Virginia University and established the school's heart surgery and surgical training programs. In 1962, he led the team which performed the first open-heart surgery in the state of West Virginia. He became a WVU team physician in 1968 and served in that capacity through the 2001 season, upgrading physical testing and monitoring of the physical fitness of players. Warden is survived by his wife, Audrey, and four children.

The Minnesota Medical Foundation is a non-profit organization which provides support for health-related research and education at the University of Minnesota Medical Schools in the Twin Cities and Duluth and the School of Public Health.

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