UNIVERSITY OF MINNESOTA

MEDICAL

BULLETIN FALL 1991

A Celebration: The University of Minnesota Cancer Center

STRIKING OUT ATAXIA

A PUBLICATION OF THE MINNESOTA MEDICAL FOUNDATION

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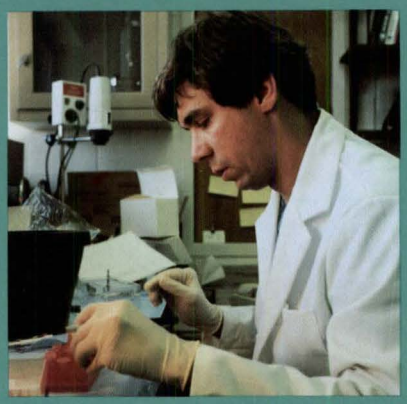

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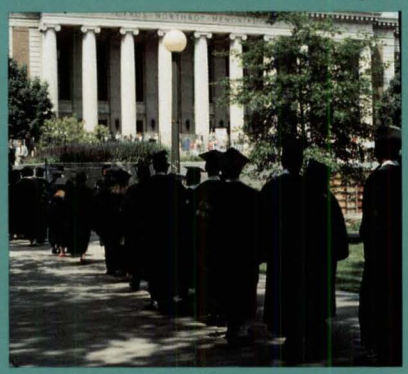

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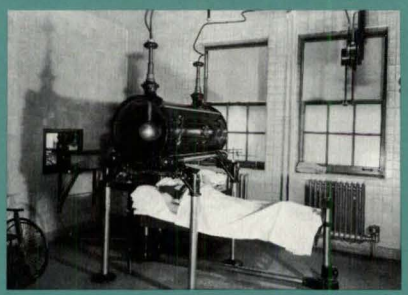

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The Minnesota Medical Foundation was founded in 1939 by a dedicated group of faculty members and medical alumni who saw the need for private support to build a strong future for the Medical School. A non-profit organization, MMF raises and disburses funds for medical education and research at the University of Minnesota Medical Schools in the Twin Cities and Duluth.

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On the Cover: Former Minnesota Twins outfielder Bob Allison is being treated for ataxia at the University of Minnesota. Inset photo courtesy of the Minnesota Twins. Photo of Allison at the plate, taken by John Croft in 1964, courtesy of the *Star Tribune*. Cover design by Jane Eschweiler.

The Minnesota Medical Foundation supports the research and educational missions of the University of Minnesota Medical Schools by encouraging private contributions.

Rural Health: An Update

In order to continue efforts to improve health care for rural Minnesota, both University of Minnesota medical schools and University Hospital, together with nearly 30 other organizations, have established the Minnesota Center for Rural Health. Each of these diverse consumer and health care organizations shares a common commitment to improve access to health care for rural Minnesotans. Strongly endorsed by the University of Minnesota and closely affiliated with the UMD School of Medicine, the Center for Rural Health is dedicated to achieving this goal.

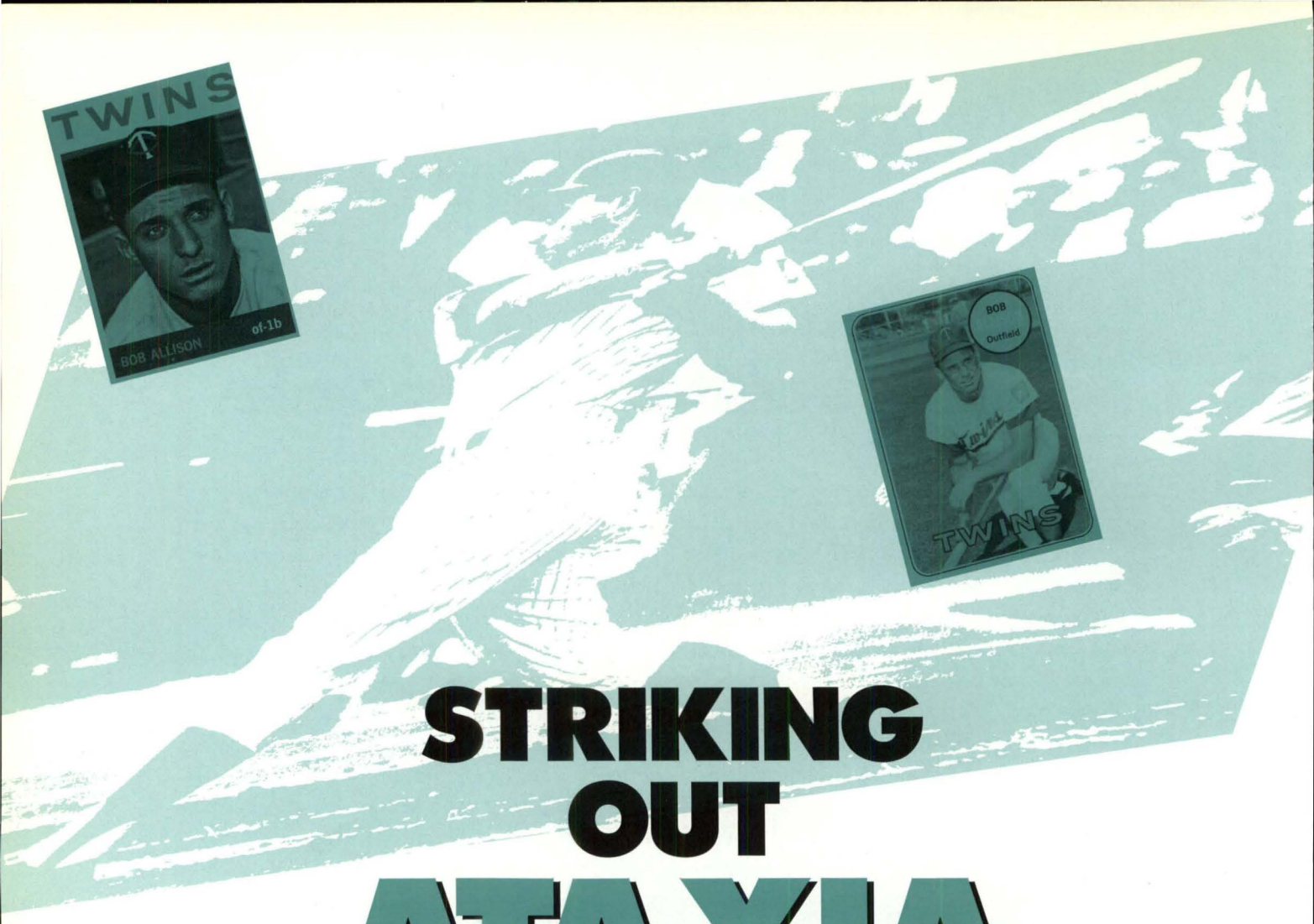
Specifically, the Center for Rural Health has four missions. The first is to increase the number of health care providers in rural communities throughout the state, with special efforts focused on supplying more physicians to practice in small, rural communities. Second, this Center will work with current health care systems in rural communities to improve their delivery of health care. As requested, the Center will help them assess their current needs and assist them in developing coalitions with neighboring communities, thereby sharing resources and reducing duplication of services.

In addition, the Center will help provide improved health care delivery to specific populations such as minorities and the elderly. These groups represent a disproportionately large number of rural citizens, and many do not have adequate access to treatment. Finally, the Center will serve as a distribution point for information related to rural health care delivery. It will act on behalf of patients and providers in rural Minnesota, aiding in public policy formation to enhance care for rural citizens.

The Center represents only one of several new initiatives by the medical schools to improve rural health care. The School of Medicine in Duluth is increasing its enrollment to help meet the growing need for rural physicians. The Rural Physician Associate Program (RPAP), based in the Medical School in Minneapolis, has also increased the number of participants. In addition, rural experiences for non-RPAP students are strongly encouraged. Leaders of residency programs in pediatrics and family practice are working to increase the number of residents who rotate through rural training sites. A proposal to provide an interdisciplinary training experience for these residents, and for nurse practitioners and pharmacy students, has been developed. We are identifying funding sources which will allow us to bring these teams of trainees to clinical sites in rural communities throughout Minnesota. These trainees will participate in the direct interdisciplinary care of rural patients, and will also work together to find solutions to health care delivery problems facing the rural community in which they are training.

With the need for more rural physicians, we must develop new and novel training experiences which match the ever-changing pattern of health care delivery in rural Minnesota. This has presented a series of interesting challenges to both medical schools. We are enthusiastic about this opportunity, confident that we will continue to provide leadership to the nation on these issues.

Ronald D. Franks, M.D.
Dean
School of Medicine, Duluth



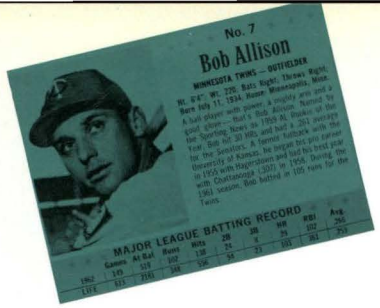
STRIKING OUT ATAXIA

A team approach by clinicians and investigators at the University of Minnesota's Ataxia Center promises significant progress in the effort to identify and treat certain degenerative brain diseases.

by Jean Murray

He's remembered for The Catch in the 1965 World Series. It was Game 2, Twins vs. Dodgers, on a cold, wet, windy October day in Minnesota. In the fifth inning, Dodger Jim Lefebvre hit a shot down the left field line. Outfielder Bob Allison made a diving catch just inside the foul line, slid about 15 feet, and held on to the ball. Allison's catch helped the Twins win the game.

Today, Bob Allison is facing a challenge far more demanding than the 1965 World Series. He is being treated at the University of Minnesota Hospital and Clinic for ataxia, the name given to a group of diseases characterized by slurred speech, unsteady gait, poor hand control, and other uncoordinated movements. Caused by certain degenerative brain diseases, ataxia often runs in families and affects both children and adults. To date, there is no prevention or cure.



To the neurologist, ataxia is a clinical term that refers to unsteadiness, particularly that associated with dysfunction of the cerebellum (along with its connections with other parts of the brain and spinal cord), which coordinates movement.

This part of the brain sends information to many of the major areas of the nervous system. The cerebellum probably does not produce movement by itself, but together with other parts of the nervous system, plays a critical role in maintaining normal motor control.

The cerebellum is important for activities as simple as walking and as complicated as speaking, writing, and using tools. Diseases of this part of the brain affect all types of movement, from reaching for a light switch to watching a bird fly across the sky, from swallowing to talking on the telephone. Cerebellar disease does not produce ataxia by making muscles weak, but rather by destroying muscle coordination and by making it difficult, and eventually impossible, to move any part of the body accurately.

Ataxias may be classified as secondary when the cerebellum and its connections are damaged by well-understood diseases such as stroke. The cerebellum and its pathways can also be the apparent selective target of certain primary ataxias, in which the mechanisms of damage are unknown. The latter may be familial or may occur as sporadic disorders.

No easy innings

"These primary ataxias are currently poorly understood," says Dr. Richard Price, professor and head of the University of Minnesota's Department of Neurology. "The onset of illness may be in childhood but more frequently is delayed until adulthood in both the familial and sporadic types. It remains a fundamental mystery why the cerebellum develops and functions entirely normally in some individuals, and then in the prime of life a highly restricted population of its cells dies prematurely."

Price notes that investigators are now close to identifying the abnormal gene associated with one of the familial types of the disease.

Diagnosis of ataxia is based on a complete neurological evaluation, coupled with a patient's medical and family history. It cannot be diagnosed before symptoms occur, and currently there are no specific blood or other laboratory tests that would definitively provide the diagnosis.

Early symptoms are often slight incoordination of walking and of fine hand movements accompanied by mild slurring of speech. In some patients slow deterioration occurs over years or decades, while in others the disease moves more rapidly, and leads to inability of patients to walk or feed themselves combined with speech that is very difficult to understand. "Usually," says Price, "thinking, reasoning, and personality are preserved."

There is no specific treatment for the primary ataxias, and they usually pursue a progressive course which varies in time in different patients.

A game plan

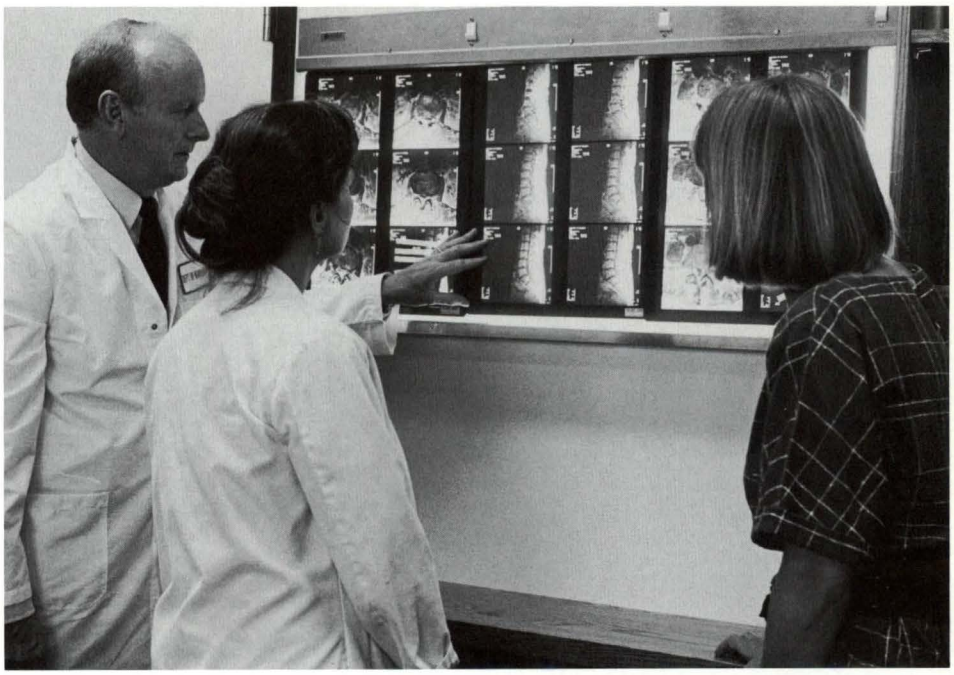
Despite the fact that there are still more questions than answers, there is a feeling of hope among both researchers and clinicians at the University of Minnesota with regard to ataxia. A significant step has been the founding of the Ataxia Center in the Department of Neurology.

"The Ataxia Center was founded in order to develop a more comprehensive program to deal with this group of disorders," says Price. "It is our hope that by drawing together physicians caring for ataxic patients, clinical investigators attempting to understand and test new treatments, and basic scientists investigating the normal and diseased cerebellum that we might more effectively make progress in dealing with this group of disorders."

Price says that "a particular opportunity was recognized here at the University of Minnesota where there is already a distinguished group of clinicians and investigators working independently in these areas. By bringing these clinicians and investigators together into a unified, focused program, patients will benefit from more effective treatment now and in the future."

The Ataxia Center meets needs not only in clinical care and clinical and basic research, but in education of patients, the community, and health professionals regarding the ataxias.

In order to extend the patient services



PHOTOS BY NANCY MELLGREN

Dr. Richard Price, professor and head of the Department of Neurology, studies the mysteries of the cerebellum with Drs. Jacqueline Bernard and Marian Roke.

offered by the Center, programs are being developed to provide educational materials about the ataxias and cerebellar disease. The Center is also planning a support group for patients, modeled after a successful program in the Department of Neurology for patients suffering from Lou Gehrig's Disease. These services are designed to help patients and their families better understand the disease, and to share ways of coping with others who suffer from ataxia.

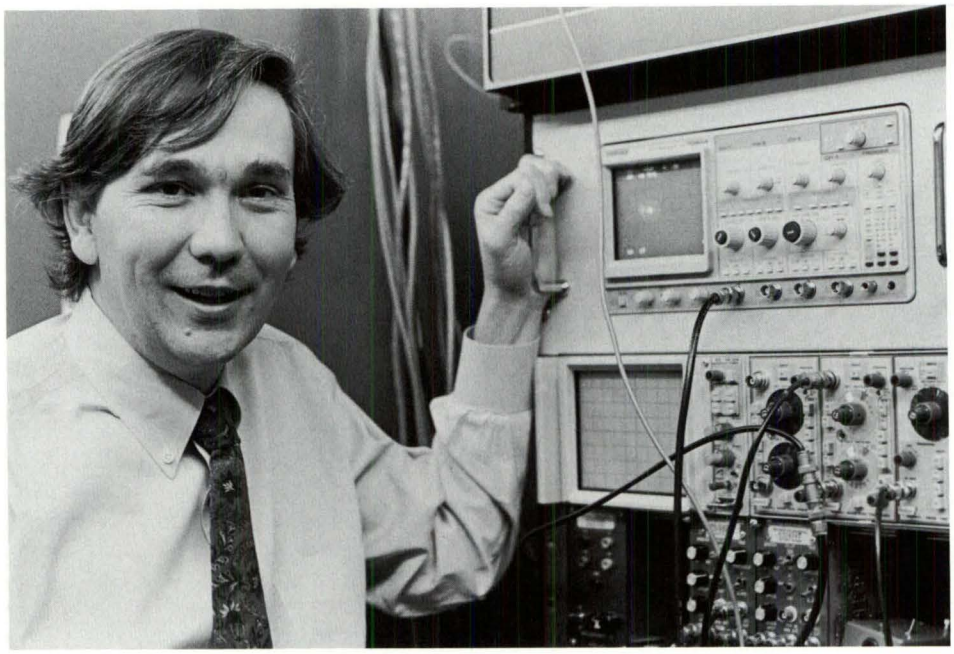
The Center's clinical care program also serves as an interface for clinical research, including trials of new therapies. The evaluation of patients includes an assessment in the Laboratory of Quantitative Neurology in order to perform accurate quantitative measurements of patients' incapacities. The clinicians are expert not only in the neurological aspects of ataxias, but also in helping patients find the speech therapy, physical therapy, and social services they may need.

At the same time, new methods of evaluating patients are being developed in Dr. Timothy Ebner's laboratory in the Department of Neurosurgery, in Dr. John Sidtis's laboratory in the Department of Neurology, through Dr. Harry Orr's work in human genetics in the Department of Laboratory Medicine and Pathology, and in the Positron Emission Tomography facility for metabolic imaging headed by Dr. David Rottenberg at the Minneapolis VA Hospital. It is hoped that such new techniques will provide additional insight into the abnormal physiology of the cerebellum and its connections in these patients.

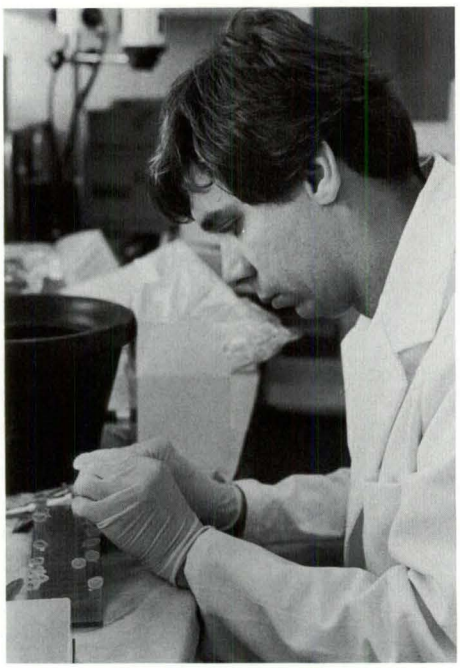
Price emphasizes, "Since one of the principal reasons for establishing the Center is to foster interchange and interaction in each of the component activities, the members of the Ataxia Center are planning a series of meetings among the investigators to describe ongoing work in each of the clinical and research facets of the program."

Looking for a winner

The mysteries of ataxia will eventually be solved through research. New technologies are helping investigators unravel the complexities of the brain, and they are excited about the progress being made.



Timothy Ebner, M.D., Ph.D., is associate professor of neurosurgery, specializing in motor physiology.



Christopher Gomez, M.D., Ph.D., is assistant professor of neurology, involved in clinical evaluation and experimental models of degenerative diseases.

Basic science studies are directed at better understanding of the cerebellum under conditions of normal function and disease. In the participating laboratories, a wide range of techniques are employed, ranging from the acoustic analysis of slurred speech to the detailed biochemical analysis of genetic material.

This multifaceted approach helps ensure that the Ataxia Center will foster a thorough understanding of how this part of the brain works, both alone and in conjunction with other areas of the brain. With such an understanding, the diseases of the cerebellum can be better appreciated and eventually treated.

Investigators at the University of Minnesota Medical School are working in many areas, including:

Quantitative neurology. The laboratory of quantitative neurology provides methods and procedures for establishing and measuring the severity of a patient's illness. In addition to the careful assessment of intellectual function, investigators are studying how the control of speech mechanisms breaks down in ataxia. They are also developing sensitive ways to measure control of the hands and feet during simple and complicated behaviors. Together with the measurements of speech, these motor assessments

"It is our hope that by drawing together physicians caring for ataxic patients, clinical investigators attempting to understand and test new treatments, and basic scientists investigating the normal and diseased cerebellum that we might more effectively make progress in dealing with this group of disorders."

will provide an indication of how changes in the ability to accurately control fine, precise movements are related to changes in less precise movements like walking.

The development of more sensitive measures of the disabilities produced by the ataxias — such as those in the area of speech production — will play an important role in establishing the correct diagnosis, in tracking the progress of patients over time, and in assessing the usefulness of new therapies for these diseases.

Brain imaging. Positron emission tomography (PET) is a technique that reveals how different brain areas use basic substances such as glucose or oxygen. PET provides important information about the earliest stages of many neurological diseases. Another technique, magnetic resonance imaging (MRI), produces high resolution images of the brain that allow researchers to detect and measure physical damage in great detail. Together, PET's information about brain function and MRI's data about brain structure are helping with the early diagnosis of ataxia and the study of how these diseases respond to treatment.

Motor electrophysiology. Through computer-aided study, investigators can link specific physical movements to the electrical patterns recorded in certain parts of the brain. In ataxia patients, these electrical patterns help show how the disease affects motion, and how the normal relationships between reflex and voluntary motor control are changed. This technique is an important tool in diagnosing the disease and evaluating new treatments.

Several studies in the motor electrophysiology laboratory are aimed at understanding the role of the cerebellum in the control and coordination of movements, with a goal of learning what features of movement are coded and controlled by the cerebellum, and deciphering the role played by the cerebellum in learning new movements. Understanding the cerebellum's exact role in normal motor behavior is essential to interpreting the disorders of movement produced by disease or injury.

Another series of studies focuses on imaging the activity of neurons in the cerebellum using voltage-sensitive probes. This approach is aimed at understanding the operation of the circuitry of the cerebellum, what this circuit computes, and how it transforms information needed to control movements.

Molecular genetics. By studying detailed family histories, researchers are gaining knowledge about how these diseases are passed from one generation to the next. In addition, the study of the genetic material from patients' cells eventually may reveal the abnormality that causes the disease. This discovery would provide powerful new diagnostic techniques and treatments.

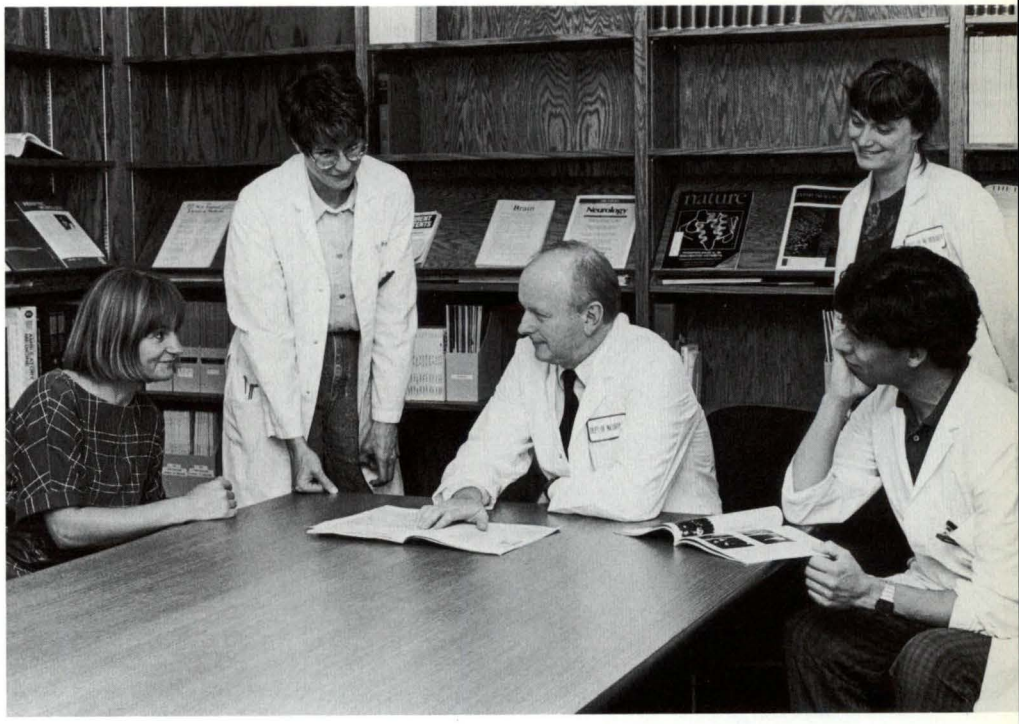
The molecular genetics laboratory is using recombinant DNA approaches to examine several aspects of cerebellar function. A major effort is directed at the isolation and characterization of the gene affected in an inherited form of ataxia that involves the spinal cord and cerebellum. The gene has been localized to a small portion of one human chromosome and its actual isolation is expected soon. This effort will very likely have broad implications for degenerative neurological disorders in general.

Cerebellum development. Understanding how the cerebellum develops may provide key insights into both childhood and adult ataxias. Studies of how this development is controlled may reveal what elements are necessary for this part of the brain to develop normally.

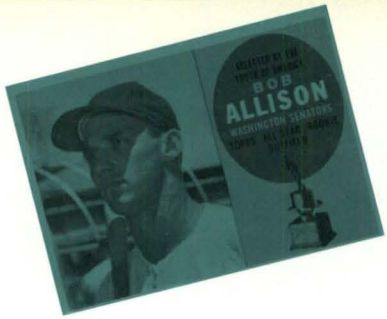
The focus of the neuronal development laboratory is the identification and characterization of genes crucial for development of the cerebellum. The studies deal with the role during brain development of cell-cell interactions that are mediated by adhesion molecules. Communication between cells is an important factor in the generation of both the great diversity of cell types and organization of these cells to form the mature brain.

It is anticipated that these studies will yield insight into the mechanisms by which the cerebellum achieves its adult form and function. This knowledge will have direct application to problems of birth defects, familial ataxias, and perhaps neuronal regeneration after injury.

Brain metabolism. Basic researchers are seeking a better understanding of the



Dr. Price (center) consults with colleagues Marian Roke, M.D., Melissa O'Donnell, Jacqueline Bernard, M.D. and Lautaro Perez, Ph.D.



cerebellum's role in regulating blood circulation to the brain and other organs. Studies will help pinpoint the causes of problems with blood circulation that often occur in patients with ataxia or other disorders affecting the cerebellum.

Neurochemistry and the immune system. Laboratory studies in these areas will provide important biochemical pieces in the puzzle of the ataxias. Such research holds the promise of producing laboratory tests for these disorders, and of explaining how the diseases attack the cerebellum. This information is essential to developing appropriate treatments.

The neurochemistry laboratory focuses on neurotransmitters — chemicals that are involved in sending information from one neuron to the next — and the receptors for these neurotransmitters that are involved in normal cerebellar function.

Experimental models. As more basic research information is obtained, experimental models of degenerative diseases can be developed. These models will allow investigators to test theories about how and why ataxias occur.

Elizabeth Ross, M.D., Ph.D., is assistant professor of neurology, investigating development of the cerebellum.

A team effort

The Ataxia Center also serves as a focus for fund raising, with contributions managed by the Minnesota Medical Foundation. Proceeds from fund-raising activities are divided between the Center's clinical care programs and its research programs.

The Ataxia Center's clinical program uses such funds to provide more comprehensive care for patients with ataxia, including genetic counseling, physical therapy, social work, and other support activities. Proceeds also support some of the costs of clinical therapeutic trials.

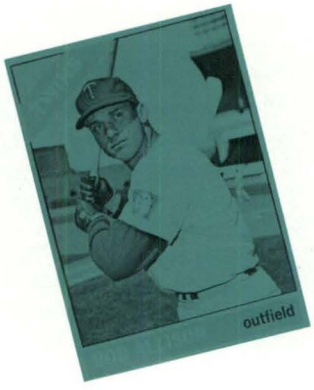
The research funds are devoted to supporting the initiation of new projects and collaborative projects among the investigators. The principal purpose is to seed new research activities related to the ataxias.

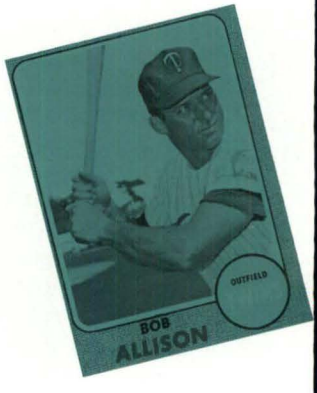
In October of 1990 the Ataxia Center held a fundraiser in cooperation with the Twin Cities Fall Sports Collectibles Show, an annual showcase and sale of sports memorabilia. Former Minnesota Twin Jim Kaat, a close friend of Bob Allison, helped organize the event and donated a number of items to be auctioned. Special attendees included Bob Allison, auctioneer Frank Quilici, John Castino, Paul Molitor, and Earl Battey, who donated their time and autographs to the fundraiser. Nearly $10,000 was raised from autographs, poster sales, and the auction.

The event helped make the public aware of the ataxias, and in addition, increased the professional baseball community's support of the effort.

The Minnesota Twins didn't win the 1965 World Series, but there were many heroes. Bob Allison was one of them. Today his spirit and courage have made him a hero again in the eyes of other ataxia patients and their families, the baseball community, and the public as he characteristically gives 100 percent in the effort to strike out ataxia.

Former Minnesota Twins outfielder Bob Allison and Lawrence Schut, M.D., assistant professor of neurology, display a Golden Glove award at the ataxia fundraiser.





To congratulate to counsel to challenge

Surgeon General Antonia Novello delivered the following commencement address on June 7, 1991, to the University of Minnesota Medical School Class of 1991.

PHOTOS BY NANCY MELLGREN

Surgeon General Antonia Novello

The University of Minnesota Medical School is one of the jewels in the crown of American medicine. This excellent school has it all — outstanding research, outstanding clinical training, and outstanding faculty — and you graduates of 1991 should be very proud of it.

This is why it is such a joy for me to join you today in celebrating this outstanding institution and to share your pride in these fine young men and women who will now carry your legacy into the future: your graduating class of 1991.

I stand before you today to do three things: to congratulate you, to counsel you, and to challenge you.

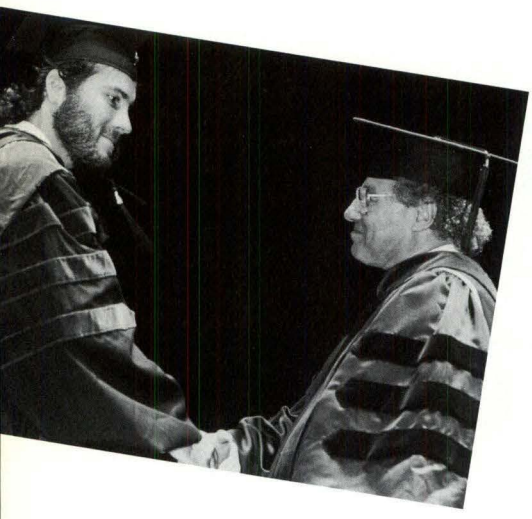
Congratulations. Just think of it — in one month you can finally start paying off your student loans. But seriously, I do want to congratulate you on your entry into the profession of medicine. I said "entry" into the medical profession. Yes, you are now back at the entry level.

As I'm sure you've heard from your previous high school and college commencement speakers, "Today marks not an end, but a beginning."

A cliché? Sure it is — but, like most clichés, it contains a kernel of wisdom — especially for physicians.

Think about it. Most of the science and technology you have learned will soon be obsolete. Even worse, in 10 years you probably won't remember more than 10 percent of all the facts you have had crammed into your heads. While I doubt that this frightens you, I hope it will trouble you . . . trouble you enough that you will continue to grow and to learn.

It troubles me that so much of medical education must be spent in the drudgery of memorizing facts: the Krebs cycle,



I urge you to embark upon a lifelong quest of learning, of healing, of caring, but above all, of questioning . . . I want you to be known not only for your triumphs, but also for your dreams.

origins and insertions of obscure muscles, the pathophysiology of Tsutsugamushi fever, and so little time spent in the teachings of public health.

Now, facts are necessary. They are the building blocks of our knowledge. Without them, scientific judgment is impossible, honesty is irrelevant, and compassion is fraudulent. . .but facts change.

That is why, for me, the true purpose of a medical education is not merely the accumulation of facts, but the creation of a habit of mind, a way of being.

By this I mean: The complete health professional must be humble in what facts he or she does not know.

Socrates said that if he was wiser than all the rest in Ancient Greece it was only because he knew what he didn't know.

That is why I prefer to evaluate health professionals not so much on the answers they give, but on the questions they ask.

Richard Feynman, the late Nobel Laureate, also cautioned against being too certain of your facts. He said: "When a scientist doesn't know the answer to a problem, he is ignorant. When he has a hunch, he is uncertain. And when he is pretty darn sure, he is still in some doubt."

Graduates, take no fact for granted. What matters is not the answers, but the questions. This "way of being," this "habit of mind" I speak of, are the true hallmarks of the educated health professional.

So, while I congratulate you most warmly today, I urge you to embark upon a lifelong quest of learning, of healing, of caring . . . but, above all, of questioning.

No matter what specific specialty path you choose, you will be at the center of ever more complex questions.

Dealing with them will require that you maintain your curiosity and continue to study science and technology, balanced by a lifelong interest in the humanities and compassion for your fellow human beings.

You stand upon the shoulders of your faculty, just as they stand upon the shoulders of their predecessors. And, like them, you too will one day pass the torch to a new generation of professionals. It is important that you continue to question, to challenge ideas, and to test new ones, for this is truly how we learn and how life and science advance.

You must keep the flame of medicine's torch burning brightly!

So, my dear graduates, cherish and advance your profession. For in the words of Hippocrates: "Whenever the art of medicine is loved, there also is love of humanity."

Counsel

Sir William Osler, in his farewell address to American medical students, said: "To each one of you the practice of medicine will be very much as you make it — to one a worry, a care, a perpetual annoyance; to another a daily joy and a life of as much happiness and usefulness as can well fall to the lot of man."

And so I counsel you now to set your goals. If you don't know where you're going, you're already there!

I ask, what kind of physician will you be? Plan thoughtfully and realistically — but also dare to reach for the stars. I want you to be known not only for your triumphs, but also for your dreams.

When I was a little girl growing up in Puerto Rico, I harbored a dream — a secret dream to become a doctor. Not just any kind of doctor, but a pediatrician. I dreamed only of caring for the children in my hometown of Fajardo.

After I completed my pediatric residency, I was drawn into a subspecialty, nephrology, largely because one of my aunts, really a second mother to me, had died of end-stage renal disease. Still later, I became interested in broader community health issues, so I joined the Public Health Service and earned an MPH degree. I have loved every step along the way.

So when Secretary Sullivan and President Bush asked me to become Surgeon General, I was stunned — stunned and honored.

The first woman, and the first Hispanic, Surgeon General of the United States. And all of this the result of the secret, simple dream of a little girl, whose only wish was to become a small-town pediatrician on a Caribbean Island.

I share something of my own story with you not because I enjoy talking about myself. I don't. But the mere notion that I am the Surgeon General of this country today means that dreams do come true. So I want you to dream also, to reach, and to be prepared for opportunities that will surely come your way.

It also helps, of course, to be lucky, but I'll tell you another secret. For me luck is when preparation meets opportunity. Therefore, the harder I've worked, the luckier I seem to get.

We must also remember that our work as professionals defines us as human beings. As it has been said, "Much of the good and the bad you will ever do in this world will come through your work."

How will you view it? Robert Bella, in *Habits of the Heart*, describes three types of work: First, there's the job, where the goal is simply making money and supporting your family. Then there's the career, where you trace your progress through various appointments and achievements. Finally, there's the calling, the ideal blending of activity and character that makes work inseparable from life.

My young friends, I hope you are not just looking for a job. I hope you are not just planning a career. I hope each and every one of you has a calling — a physicianly calling.

I know that you will do well. Your faculty has seen to that. But I pray you will do good.

A word of caution, dear friends, from one who sat in your seat 21 years ago. The world owes us nothing! To expect the world to treat you fairly because you're a good person and a graduate of this university is like expecting a raging bull not to charge you because you're a vegetarian!

The road to success has no shortcuts or fast lanes. There can be no eluding your responsibility to give something back to the community and to those responsible for you being here today.

So work hard, and avoid Kuschner's pillars of despair: complacency, mediocrity, and indifference. And beware those enemies of tranquility: avarice, ambition, envy, anger, and pride.

Will you strive to be happy in your work? I hope so. But how will you do it? Riches, fame, and power will not make you happy. In fact, the happiest physicians and health care professionals I know are those who go about their everyday lives — doing good things for other people — without asking, "What's in it for me?"

For them, happiness is really not a goal at all. It creeps silently into their lives from many sources: the heartfelt "thank you" from a grateful patient, the quiet discovery in a laboratory, the well-crafted lecture, the scientific paper, the book, or the public policy that may affect the lives of millions.

Medicine, you see, offers many paths to happiness. But I caution you not to be good doctors or good health care professionals only. First and foremost, be good men and good women.

Do not forget to put balance in your lives: family, friends, leisure time, hobbies, social causes, voluntarism, and religion. Only by maintaining your own health — physical, mental, and spiritual — will you be able to look after the health of others.

Now, the Challenges:

I am convinced that physicians, and health care professionals, will practice their professions in a much different way in the very near future.

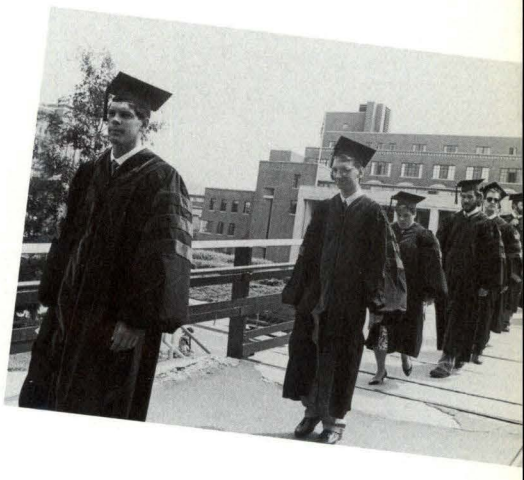
In a country of 250 million people, with more than 15 percent of our population African-American, more than 10 percent Hispanic, almost one in five of our citizens under 12 years of age, and more than one in ten over 65, we definitely need to recognize that the role of the health care professional in the future will have to change in order to accommodate the shifts in demographics and the needs of the emerging communities.

The health care professionals of the future must work to become skilled in areas that might not have been emphasized in their medical curriculum — like public health. They must work in places they never thought of finding themselves, and they must care for people they may never have dreamed existed. My friends, welcome to medicine — the ultimate equal opportunity employer!

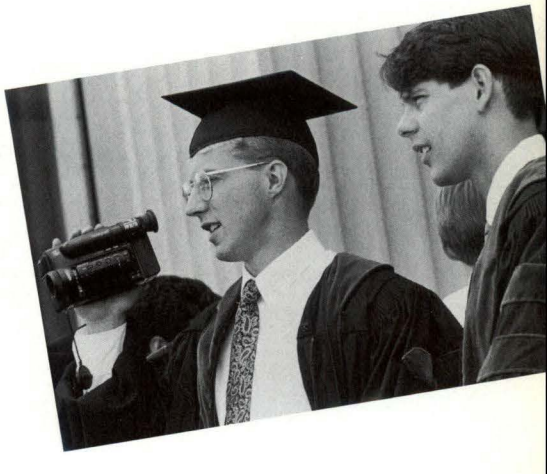
Class of 1991: the future is now. Consider just one example. At the National Institutes of Health, we are supporting the human genome project to decipher the information encoded on the human chromosome. Gene mapping will help scientists understand inherited disorders and may lead to new ways to diagnose, treat, and even prevent such disorders.

This new research, and the possibilities it presents, will be as revolutionary as the discoveries of Harvey, Pasteur, and Lister.

The health professional of the future will soon be asked to practice medicine



The happiest physicians and health care professionals I know are those who go about their everyday lives — doing good things for other people — without asking, "What's in it for me?"



I caution you not to be good doctors or good health care professionals only. First and foremost, be good men and good women.

at a new genetic and molecular level utilizing the most sophisticated biotechnological instrumentation.

Medicine is changing rapidly, and we all have a role to play in this developing field, but I am concerned that American medicine is perfecting the biotechnology side of medicine and resisting and/or neglecting the prevention side.

The top 10 causes of premature death in our nation are preventable, therefore, the most important challenge for the future should be prevention of disease. The health provider of tomorrow must be the keeper of the health. We must do more than treat disease — we must work harder to prevent it.

It is estimated that we could eliminate 45 percent of deaths from cardiovascular disease, 23 percent of deaths from cancer, and more than 50 percent of the disabling complications of diabetes by adopting prevention in our daily lives.

Another challenge we face deals with the children of this country. It cannot be denied that the overall health of American children has improved dramatically during this century. Childhood diseases that struck terror in the hearts of parents — such as polio, diphtheria, and scarlet fever — have been virtually eradicated through improved public health measures.

But like a picture-perfect apple with a worm inside, dramatic disparities lurk beneath the surface of this rosy picture of progress. And we need to start addressing them!

Far too many of our children are succumbing to the weight of poverty and the modern scourges brought on by substance abuse, AIDS, abandonment, despair, and neglect.

These disparities today are as devastating as the epidemics of yesterday.

If we are going to effectively restore and preserve the health of our nation's children, we must understand the impact of these factors in their daily lives as we plan strategies aimed at solving them.

I want to share with you now the challenge that has become very personal to me during my career not only as a physician, but now as the Surgeon General, and that is the issue of AIDS.

No other public health problem in modern history has had the impact that AIDS has had upon our society. While many of us in the health professions hoped with mixed anxiety early on that AIDS would simply fade away, or be rapidly contained, we now find ourselves facing the grim reality of approximately 174,893 cumulative AIDS cases in the U.S. and over 345,000 cases reported worldwide.

For the year 2000, the World Health Organization projects that there will be a cumulative total of about 40 million HIV infections in men, women, and children. And by the end of the decade, it is expected that more than 10 million children will be orphaned as their mothers or both parents die of AIDS.

Ten million orphaned children who will sadly have to bear the stigma of the disease, even when all of them won't harbor the virus. With increasing heterosexual transmission of the AIDS virus, the HIV epidemic will undoubtedly be the greatest medical challenge of your generation.

The urgency of reaching large numbers of persons in our communities who are not yet infected, but may be at high risk, will increasingly be a major challenge for all of us as health professionals. The knowledge, skills, and compassion which will be required in the provision of the entire spectrum of health care for HIV will challenge all our creativity, skill, and imagination and we must be prepared for this.

Please, I urge you to remember that behind the statistics of AIDS, there are human beings in need of our compassion and care.

Still another challenge for the future is the issue of violence.

Physicians are used to thinking that the issue of violence is the province of other groups — the police, the courts, politicians, the media, the church. I would suggest, however, that this thinking needs revision.

Violence in this country is one subject that we know will not simply go away because we wish it to. It permeates every corner of our land. It destroys our cities, it destroys our communities, and it destroys our families.

Young people, particularly those who have been excluded from many of the opportunities that this country offers, are at the highest risk for violence.

We know that homicide rates among young black men are seven to eight times higher than among white men.

Homicide rates among black women are three to four times higher than among

white women, and almost the same pattern holds true for Native Americans and Hispanics.

Simply put, homicidal violence is the leading cause of death among our youth. Violence is legitimately a public health issue, and it will be both your challenge and mine.

We could debate whether it is poverty or race that so intensifies patterns of morbidity and mortality, that so darkens the picture for violence, but at this point in time, suffice it to say that this country simply must stop accepting violence as a way of life.

Another challenge: access to care. It is well known that in many areas of our country, particularly in some rural areas and in economically-deteriorating urban areas, an inadequate supply of medical personnel and insurance coverage makes for an underserved group of people.

Access to care in these places is usually denied for very simple reasons: No one is there to provide it, or no one can afford it, or no one knows how to go about obtaining it.

And unless we adopt a plan that would allow for health care and health care professionals to be placed in the rural areas of West Virginia or Alaska, or Harlem or Watts, an insurance card alone is a ticket to nowhere.

In addressing the issue, we need to continue to recruit, train, and retain more women and minority health care providers. Both are seriously under-represented in health occupations, especially as physicians.

To be successful in dealing with the health care of minorities, all health care personnel will have to be sensitive to this shortage, and continue to be as knowledgeable as possible where minority health is concerned.

We are going to need culturally-sensitive programs. You must know Minnesota to design a program for Minnesota, just as you must know the burroughs of New York or the barrios of Texas to be effective in those locations. For a program to work, it must be sensitive to the language and the culture of the people it serves.

We must never forget that so much of our work requires effective communication.

As medical science becomes more complex, you will have to communicate effectively and become the educator of your community. You will be guide, voice, advisor, and a person of considerable power in helping patients make the decisions they have to make.

In doing so, we practitioners must be aware that at times our detached stance, so widely used to protect us from being aware of our own feelings, might deter us from getting close to the very same people we were trained to help.

So, before you are tempted to astound your patients with your new knowledge, take a moment to listen. Believe me, you will sooner listen your way into better doctor-patient collaboration than you will ever talk your way into it.

In the final analysis, we must care for all Americans. Our superb level of medicine must be available to all who need it — be they a Puerto Rican living in New York or on the Island, a homesteader in Alaska, a baby with AIDS in a boarder's ward in Los Angeles, a farmer in Iowa, a family on a far-flung island of Hawaii, a shipbuilder in Rhode Island, or a banker on Wall Street.

In this endeavor of caring for all Americans, physicians will not be able to do it alone. They must learn to work effectively with other members of the health care team as they will no longer be the sole proprietors of the state of America's health.

By this, I mean that you must work with other health care professionals who have expertise in their areas of competence, at least equal to your own: nurses, physician assistants, therapists of various types, dentists, engineers, researchers, pharmacists, administrators, legislators — and yes, even lawyers.

I believe that, if we as a nation are ever to provide adequate health care for all — and I believe we should — we must somehow find a way of joining the patient's, the administrator's, and the payor's concern for reasonable costs with the physician's dedication to the needs of individual patients, and the responsibility to avoid unnecessary expense by all members of the team. Medical care in the future must be available, accessible, affordable, accountable, and, yes, affable too.

You, young graduates, represent the best in American medicine. I challenge you therefore, to move our medicine of today to a new, enlightened, comprehensive form — one that builds in prevention, teaches about such things as the risks of addiction and AIDS, is concerned that men and women alike are included appropriately in clinical trials, makes sure that research accomplishments are there for the benefit of the entire spectrum of our citizens, and shares the responsibility of caring for the patient as a whole.

Medical care in the future must be available, accessible, affordable, accountable, and, yes, affable too.

I am sure you can see that the challenges of tomorrow are many and formidable. But as I look out at the Class of 1991, I am encouraged. Sitting before me I see our new generation of clinicians, teachers, researchers, communicators, administrators, and public policy makers. I believe you are ready to meet the challenges that lie in wait for you.

Your families have sacrificed to get you here and your faculty has prepared you well. The degrees you are receiving today testify to the support you have received from them along the way.

As a matter of fact, this day is theirs every bit as much as yours. Therefore, when given the opportunity to repay, do not forget them on your way to the top!

Today, I have congratulated, counselled, and challenged. The rest is up to you. May you seize this day and all others that are to follow to bring honor to your alma mater, joy to your family and friends, comfort to your patients, and true happiness to yourselves.

May you have the wisdom to grow in your knowledge, practice good science, use good common sense, and go forth in a spirit of service and compassion for your fellow man.

In doing so, do not lose your sense of who you really are, what your roots are, who helped you in getting to this point, and most importantly do not forget the impact of this institution in molding your life and professional future.

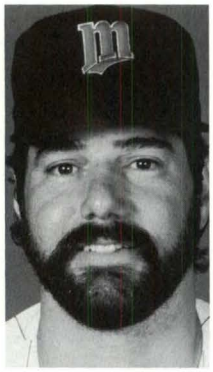
University of Minnesota graduates of the Class of 1991, may you think clearly, act decisively, and care tenderly.

Thank you very much and God bless you.

A whole new **ballgame**

CAN U

Steve Bedrosian is making a fresh start in baseball — and life — in Minnesota



Steve Bedrosian, relief pitcher for the Minnesota Twins, has agreed to act as a spokesperson for the Fund for the University of Minnesota Cancer Center.

Bedrosian and his family can speak from personal experience about living with cancer — their son Cody was diagnosed with leukemia in 1990. Their story from the Twins Magazine *is reprinted below.*

As part of his commitment to the Cancer Center, Bedrosian has made a video (produced by the Twins organization) to be shown during Twins games and will appear at several Cancer Center special events. He has also created the Cody Bedrosian Fund through the Minnesota Medical Foundation and will participate in several fundraising activities to benefit this fund.

The Minnesota Medical Foundation deeply appreciates the support of the Minnesota Twins and Steve Bedrosian.

by Britt Robson

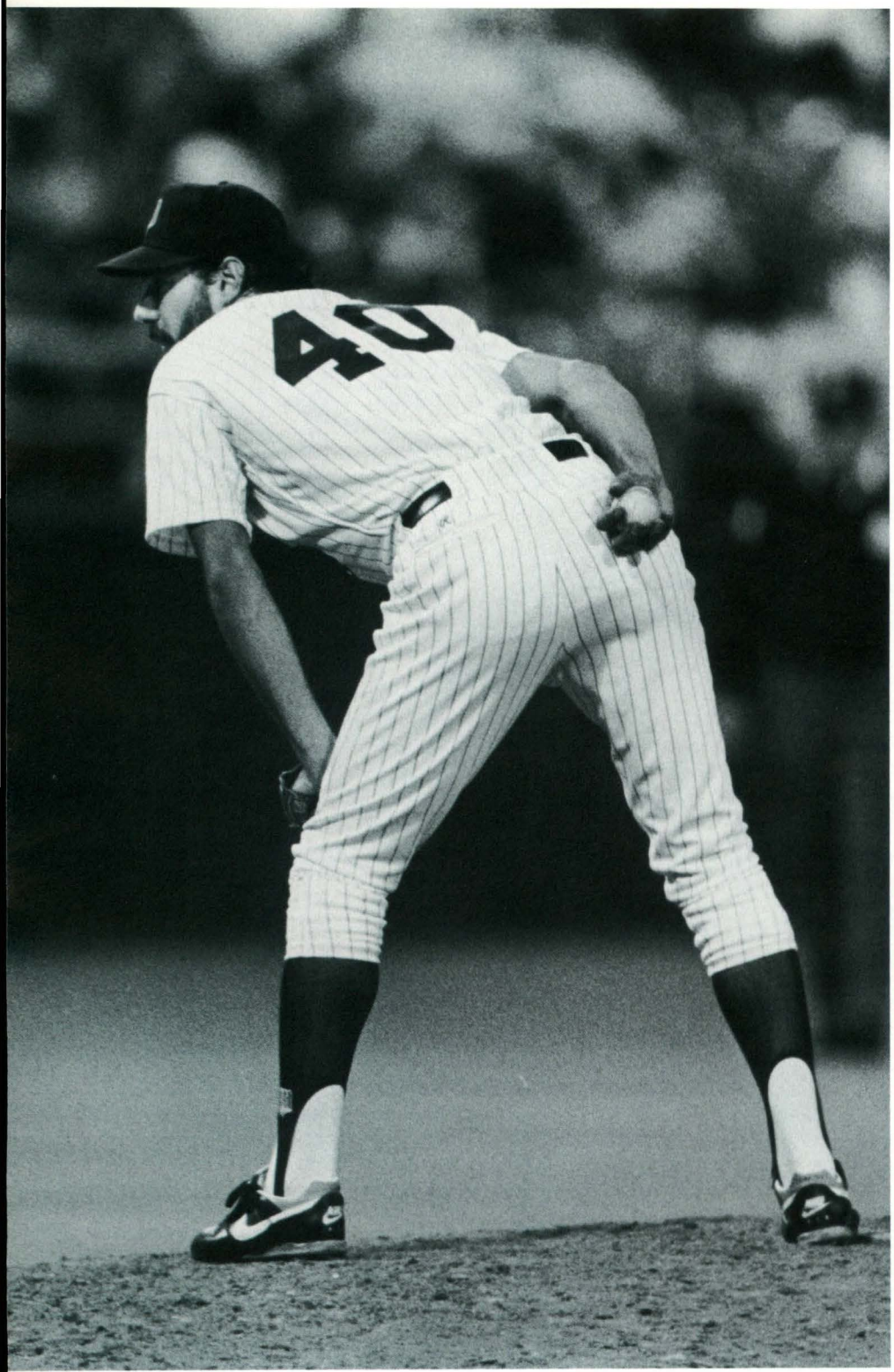
The most memorable gift pitcher Steve Bedrosian received on his 33rd birthday last December 6 was a clean slate. It was presented by San Francisco Giants' general manager Al Rosen in the form of a call to Bedrosian's home, telling him he had been traded to the Minnesota Twins. Little more than four months later, Bedrosian stood in front of his dressing stall in the Twins locker room with a big smile on his face, talking boisterously with his new teammates and even giving the equipment manager a friendly slap on the back as he walked by with his arms full of dirty laundry.

"I feel a thousand pounds off my shoulders this year," Bedrosian says. "All last year was just so miserable, and now there is a world of difference on the positive side. It is a new beginning."

Both on and off the baseball field, Bedrosian experienced the worst year of his life in 1990. It began with the baseball lockout and constant bouts of fever and swelling in Bedrosian's son Cody, who at the time was just two years old. Then on opening day, Cody was diagnosed with leukemia. With his son undergoing intensive chemotherapy treatments in a fight to survive, Bedrosian lost the focus that had made him one of the game's best relief pitchers.

"It wasn't so hard to concentrate during the game; it was the preparation for the game during the other hours (that suffered)," Bedrosian says. "Before, I'd wake up in the morning and start thinking about what I would do with different hitters in different situations — little things like the possible pinch hitters I might be facing. But last year it was impossible for me to have that focus. I'd be thinking, what if, God forbid, something happens to him and I've been on the road for 10 or 12 days?"

As if that weren't enough distraction, the Bedrosians adopted another child, a son named Carson, right in the middle of Cody's treatments. The adoption had been planned before Cody's diagnosis, and the two-year-old was excited about the arrival of a new sibling. Together with his wife, Tammy, Bedrosian



PHOTOS OF STEVE BEDROSIAN COURTESY OF THE MINNESOTA TWINS

believed "it was better to go ahead with our plans rather than have Cody feel his sickness prevented us from doing it.

"We received the baby three or four days after he was born," Bedrosian says. "Going into this little room and signing papers and then literally taking that baby out of the arms of his mother — it was very traumatic on both sides."

As family-related emotions nibbled away at his concentration, Bedrosian's effectiveness as a pitcher diminished. The first four months of the 1990 season were marred by a series of blown save opportunities, fewer strikeouts, more walks and an ERA over 5.00, nearly two runs per game above his career average.

"Things just seemed to snowball.

There was a stretch where whatever way you could lose, I lost. It really was a test. I hung in there as long as I could," Bedrosian says.

By mid-August, Cody's condition had begun to improve. Not coincidentally, Bedrosian reasserted himself as one of the premier relievers in the National League, allowing just four runs from August 12 until the end of the season. Reinserted as the Giants' closer, he was a key cog in their late-season (and unsuccessful) drive to catch the Cincinnati Reds, compiling a 3-1 record with a 1.46 ERA and seven saves after September 1. His performance earned him the league's Rolaids Relief Man Award for September and propelled him into the top 10 in saves, appearances and games finished in the National League.

By coincidence, Twins vice-president of player personnel Bob Gebhard saw Bedrosian pitch three games in September as part of his routine scouting trek around both leagues. "It looked like he still had the good, live fastball and the sharp slider," Gebhard says. "So when he became available, we jumped at the opportunity to get him."

The Twins traded pitchers Johnny Ard — the team's first-round draft pick in 1988 — and Jimmy Williams to land Bedrosian. When Rosen informed him of the deal, Bedrosian says his first reaction was "that Cody would get some of the best possible care in the country at the University of Minnesota (Hospital). When we were in San Francisco, a lot of Cody's blood tests were sent to Minnesota, and I knew this area was the nucleus of the Children's Cancer Group (a nationwide medical program)."

But after more than nine years and 550 appearances in the National League, Bedrosian clearly regards the trade as a clean slate for himself professionally as well, a catalyst for changes in his pitching style that could lengthen his career.

In 1987, he won the Cy Young Award as the National League's best pitcher simply by challenging the hitters with a diet of 75 percent fastballs and the occasional hard slider. As recently as last year, that approach hadn't changed.

Kyle, Carson, and Cody Bedrosian.

CODY'S CAUSE

If the Twins feel they made a good trade acquiring ex-Cy Young Award-winner Steve Bedrosian for two minor-league prospects, imagine how the Minnesota Medical Foundation feels, receiving the Cody Bedrosian Fund in exchange for treating a charming three-year-old boy.

The fund was begun shortly after Bedrosian's son Cody was diagnosed with leukemia in April 1990 in San Francisco. Thanks to a series of personal appearances by Bedrosian and through proceeds from the sale of Cody Bear stuffed animals, the fund raised $100,000 for cancer research in the Bay Area. Now that Bedrosian is a Twin, he plans to re-create the fund here in Minnesota.

"We're setting up a whole series of potential events like an auction and special appearances," says Mark Zachary, director of development/cancer for the Minnesota Medical Foundation, the fund-raising arm of the University of Minnesota Medical Schools and its programs. "The thing that has struck me about Steve and his wife, Tammy, is their sheer enthusiasm. They are very committed to helping and they have left it up to us to develop plans (for their input)."

Money raised by the Cody Bedrosian Fund will go toward establishing an endowed chair for children's cancer research at the university. This $3 million endowment is part of an ambitious $30 million project to establish a University of Minnesota Cancer Center. Zachary says the center will bring some of the finest minds in the world to the university to conduct state-of-the-art research that will be made available to health-care providers around the globe. He notes that Minnesota was the site of the first successful bone-marrow transplant on a child, saying it is an example of the research-driven advances that can be made at the university.

Bedrosian was already impressed with the child-cancer technology in this area, because Cody's blood samples in San Francisco were sent to Minnesota for testing. He also likes the fact that this area is a hub for the Children's Cancer Group, a federation of hospital-based support programs around the country.

Most important, as of mid-April, Cody's chemotherapy treatments continued to be successful. "We feel we are out of the woods, but it is still a long road — another two years of chemo," Bedrosian says. "We just go along a day at a time."

The good feelings go both ways. "We are extremely pleased Steve is working with us, not only for the visibility he can draw, but because he and Tammy are such genuine people," Zachary says.

The best news of all is the prognosis for children afflicted with leukemia today. "Whereas once leukemia was a virtual death sentence for kids," says Zachary, "we are now saving anywhere from 65 to 75 percent of our patients."

And that statistic is more critical than any ERA for the Bedrosians.

If you'd like to get involved with the Cancer Center, contact Mark Zachary at (612) 625-4441.

"The scouting report I got on him was just to be ready because he comes right after you with everything he's got," says Twins third baseman Mike Pagliarulo, who encountered Bedrosian while playing with San Diego the past two seasons. "And that's what I thought when I faced him; he's a very aggressive pitcher who tries to throw it by you."

But this year, Bedrosian came to spring training knowing that if he was going to remain effective in his mid-30s, he needed to develop another pitch.

"He came in with the idea of throwing the forkball and the change-up, and after a while we eliminated the change-up," says Twins manager Tom Kelly. "But he is developing confidence in the forkball, and he is pretty well set up where we want him to be, with three pitches."

The biggest adjustment is psychological. "Steve has a God-gifted arm, so he could be a power thrower," says Twins bullpen coach Rick Stelmaszek. "Now he's got to concentrate on becoming a pitcher."

Bedrosian himself seems excited by the possibilities of his new pitch: "I'm still going to challenge hitters and come in with the hard stuff, but I'm also going to mix it up a little bit. I think the forkball will get some guys off balance, especially since my reputation is that I throw everything hard."

Bedrosian has already demonstrated that he has the mental toughness to excel in pressure situations. Every year from 1981 to 1988, the batting average against him was lower with runners on base than with the bases empty, a feat duplicated by no other major-league pitcher. Even with the poor season he experienced last year, opponents are batting a paltry .202 against him with runners in scoring position over the course of his career. If his forkball continues to improve, the Twins may be faced with the pleasant dilemma of finding enough save situations for two first-rate right-handed closers — Bedro-

sian and Rick Aguilera.

"Of course I was hoping to be the closer, but Aggie did a great job last year and earned the right to that position," Bedrosian says. "T.K. told me I'd be the set-up man with chances to close when Aggie is tired or can't otherwise go. We are going to pick each other up and work together to put that under our belts."

This kind of unselfish enthusiasm has typified Bedrosian's attitude since the Twins traded for him in December. Less than four years ago he was a Cy Young Award winner. Since then he has remained a credible closer. Yet he has accepted his set-up duties not only graciously but eagerly, willing to test his 33-year-old arm against the three-inning stints and frequent warm-ups the role requires.

"That's a big plus for us, for him to be able to go three innings," Twins pitching coach Dick Such says. "He is everything we expected. He throws the ball hard, he's aggressive and he's eager to pitch."

"He gives our bullpen a dimension we didn't have last year, because Juan (Berenguer), as good as he was, was never a closer. When Aggie wasn't able to go out and save the game, we struggled," Gebhard says.

Bedrosian seems at least as happy to be here as the Twins are to have him. In the clubhouse, on the field and in the community, he exudes the gratitude of someone emerging from crisis. Ten years ago, a child with Cody's condition would have lived only a few months longer; today, doctors estimate his chances of recovery as high as 80 percent. After the despair and uncertainty of last year, Bedrosian is treasuring his son's continued progress and the relative luxury of once again being able to mull over pitch selection and opposing line-ups when he wakes up in the morning.

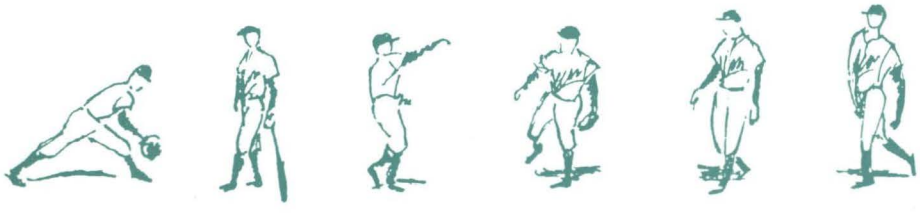
An uncomplicated man, Bedrosian has always put baseball and family at the center of his life. Whether his team is based in Atlanta, Philadelphia, San Francisco or Minnesota, Bedrosian's wife and later his children have joined him for the season and then spent their winters together in the permanent family home in Georgia. This year, his eldest son, Kyle, begins school, necessitating some more complicated juggling of locales.

The Bedrosians recently purchased a farm in Noonan, Georgia, and Steve is looking forward to working the land this fall. "I like to fish. I like hanging out with my kids. I collect coins," he says, pausing. "Mostly, it is time with the kids. I'd be lying if I said that everything is the same as it was before. The preciousness of life has been put into perspective for us. We spent a lot of quality time with our kids before, but when you're faced with a life-threatening illness in the family, the desire to be there is even greater."

When queried about Bedrosian's role with the Twins, general manager Andy MacPhail says, "The Reds certainly proved last year that having more than one closer is an effective strategy. I don't think it is beyond the realm of possibility that Steve will close some games for us."

If the Twins are to have any chance of emulating the Reds' rise to a world championship, Bedrosian will have to pitch well enough to make the two-closer idea feasible. Either way, Bedrosian has positioned himself well for October — he has more postseason experience than any pitcher on the Twins' staff, and he and Tammy are expecting their fourth child during that month. What a difference a year — or a clean slate — makes.

Reprinted from Twins Magazine, *June 1991 issue, with permission from the Minnesota Twins.*

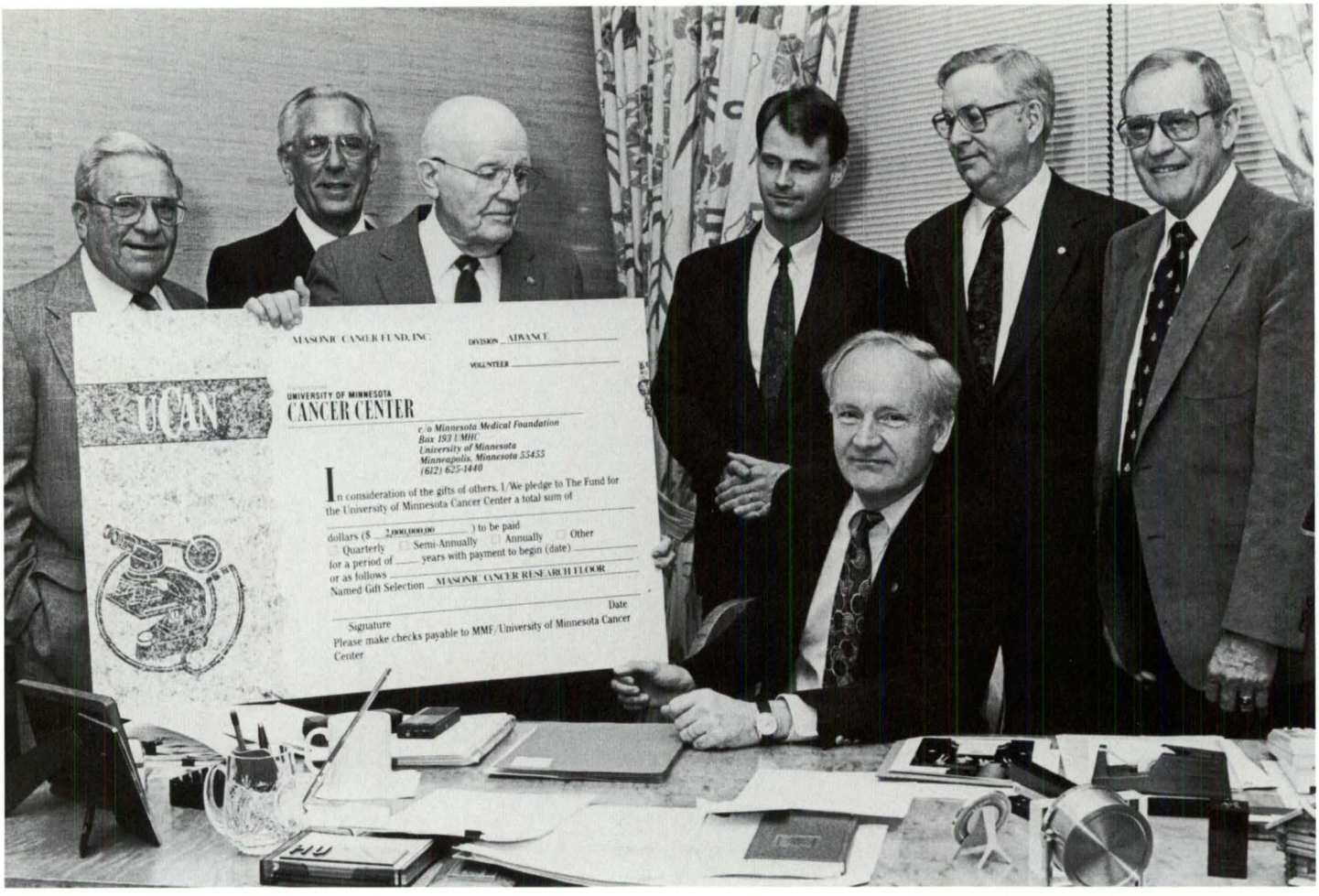


CCRF gives support to Cancer Center

Their dream is the prevention and cure of children's cancer. Their work in accomplishing this goal has been monumental. They are the volunteers of the Children's Cancer Research Fund (CCRF), a fund of the Minnesota Medical Foundation.

For the past 30 years, CCRF has been a major supporter of pediatric oncology at the University of Minnesota. From a variety of fundraising events through the years, CCRF has raised millions for the work of the Department of Pediatric Oncology, including $750,000 to establish the CCRF Land Grant Chair in Pediatric Oncology (currently held by Dr. John Kersey).

When the Fund for the University of Minnesota Cancer Center was created, CCRF was one of the first groups to lend its support. That support materialized as a pledge for $3 million to establish another endowed chair in pediatric oncology. CCRF volunteers will work during the next three years to fulfill this commitment, and come even closer to realizing their dream.



On April 25, 1991, University President Nils Hasselmo accepted the $2 million Masonic Cancer Center Fund, Inc. pledge to the University of Minnesota Cancer Center. Left to right: Robert E. Haugen, Masons' treasurer; Dr. B.J. Kennedy, Regents' Professor of Medicine; Franklin G. Emrick, Masons' vice president; Mark J. Zachary, MMF director of development/cancer; Dr. Nils Hasselmo, President, University of Minnesota; Donald M. Severson, Masons' vice president; and Ralph L. Hultquist, Masons' vice president.

Masons pledge $2 million to Cancer Center

The Masonic Cancer Center Fund, Inc. has pledged $2 million to the Fund for the University of Minnesota Cancer Center, a $30 million fundraising effort to build a new facility and enhance cancer research and treatment at the University of Minnesota. A floor of the new Cancer Center will be named the Masonic Cancer Research Floor in recognition of this generous commitment.

This is not the first time the Masonic Cancer Center Fund, under the direction of the fraternal organization, the Masons of Minnesota, has supported cancer care and research at the University. Over the past several years, the Masons have given nearly $7 million to these efforts. Most notable were the $1 million they raised in 1955 to build the Masonic Cancer Center, the additional $1.1 million they committed in 1963 to add two floors and 40 beds to that Center, and the funds they gave to establish the Masonic Professorship of Oncology (a position currently held by Dr. B.J. Kennedy, Regents Professor of Medicine).

Through the years, the Masonic Cancer Center has been the site of significant advancements in cancer research and in the management of patients with cancer, resulting in an international reputation for work done there. The Masons have continuously supported the mission of the Masonic Cancer Center, facilitating many of these contributions.

Now, with their generous $2 million pledge to the Fund for the University of Minnesota Cancer Center, the Masons have taken another giant step toward conquering cancer.

A celebration of hope

The University of Minnesota Cancer Center

Governor proclaims University of Minnesota Cancer Center Day.

August 21, 1991, was a day of celebration and a day of hope as the University of Minnesota officially announced the University of Minnesota Cancer Center. The comprehensive Cancer Center will enhance an already extensive cancer research and patient care program at the University of Minnesota.

At a press conference, University President Nils Hasselmo cited the importance of the Center to people in Minnesota and beyond. He noted that the Center will enable the University to develop new treatments more rapidly so that patients with cancer may benefit.

Dr. John Kersey, acting director of the Center, said the Center will bring together investigators from many areas of study to collaborate on projects and share ideas and knowledge. It will provide much-needed laboratory space and equipment. It will facilitate coordination of research funds. By allowing closer interaction among cancer researchers and clinicians, the Center will improve patient care, diagnosis, and treatment.

The University of Minnesota Medical School is working in cooperation with the Colleges of Biological Sciences, Pharmacy, and Veterinary Medicine; the Schools of Dentistry, Nursing, and Public Health; and the University Hospital and Clinic to establish the Center.

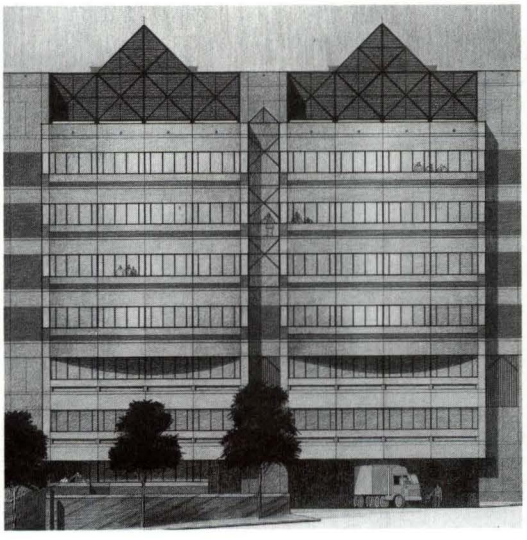
To provide the resources necessary to establish a Cancer Center at the University of Minnesota, the Medical School and the Minnesota Medical Foundation have embarked on a major fund-raising initiative. The goal of the Fund for the University of Minnesota Cancer Center is $30 million.

At the press conference, Medtronic Inc. Chairman Winston R. Wallin—who is chairing the statewide Cancer Center fundraising effort—announced that nearly $20 million had been raised as of August 21.

Proceeds will be used for three major elements:

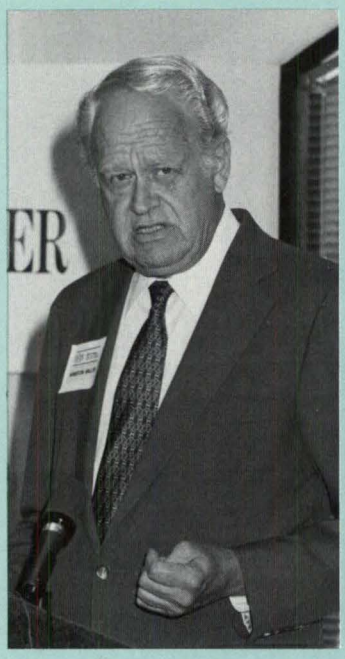
To build a 78,000-gross-square-foot, four-story facility that can serve as the focal point of cancer research at the University. The building will contain 20 new laboratories equipped with state-of-the-art technology, seminar space, and office areas.

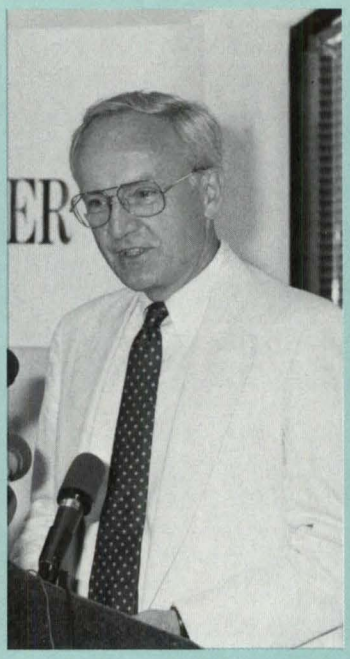
To provide three new endowed chairs at $3 million each and five junior faculty positions at $1 million each.

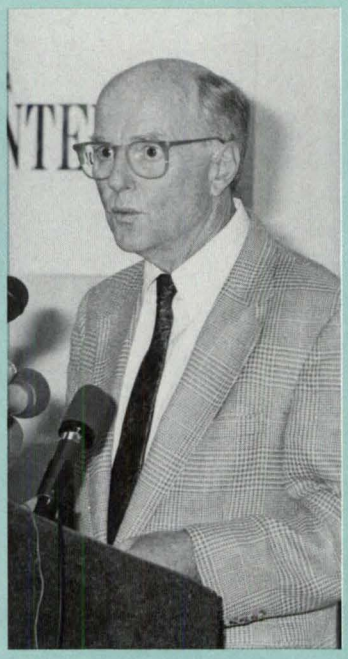


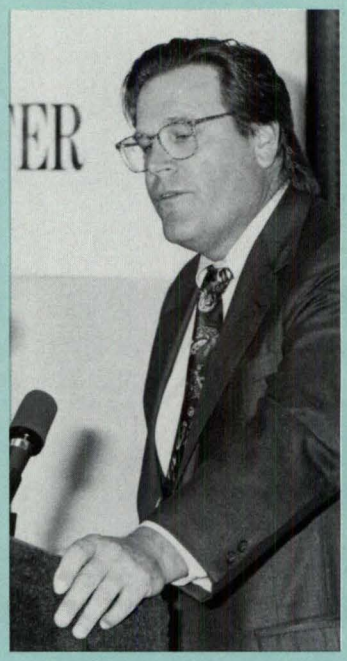
To fund new research programs in the broad fields of cancer immunology, molecular and cellular biology, pharmacology, biochemistry, dentistry, public health, veterinary medicine, oncology, neurology, otolaryngology, dermatology, nursing, surgery, and orthopaedics.

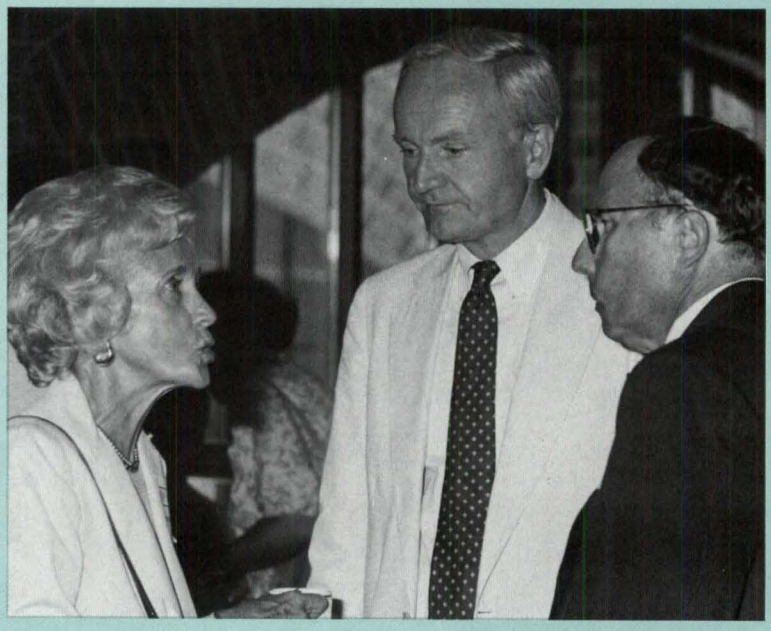
Gov. Arne Carlson, in a proclamation read by Hasselmo at the press conference, declared August 21, 1991, University of Minnesota Cancer Center Day in Minnesota.











Above from left:
Medtronic Inc. Chairman Winston R. Wallin is general chairman of the $30 million Fund for the University of Minnesota Cancer Center.

University of Minnesota President Nils Hasselmo told press conference attendees what the Cancer Center would mean for Minnesota.

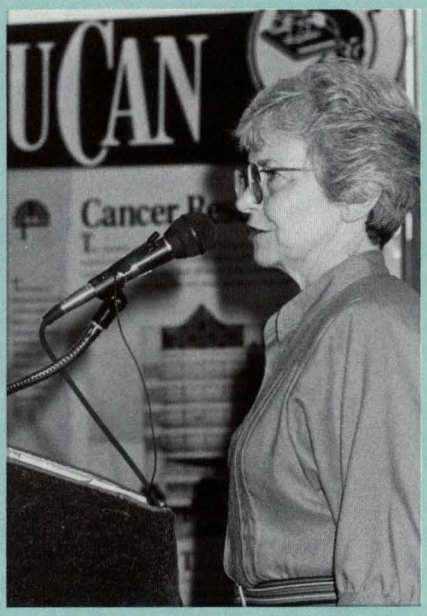
Acting director of the Cancer Center Dr. John Kersey detailed the studies underway in cancer research at the University of Minnesota.

Dr. Leo Twiggs, professor in the Department of Obstetrics and Gynecology, answered questions about the women's cancer program at the University of Minnesota.

Far left: Dr. Arnold Leonard, head of pediatric surgery, and *Star Tribune* medical reporter Lewis Cope.

Left: David Stahl received a bone marrow transplant at the University of Minnesota in 1975 to treat his cancer of the lymph glands. Twins pitcher Steve Bedrosian has established the Cody Bedrosian Fund through the Minnesota Medical Foundation to raise funds for children's cancer research. Three-year-old Cody, Steve's son, was diagnosed with leukemia in 1990.

Left: University of Minnesota Foundation Trustee Marilyn Bryant, University President Nils Hasselmo, and Dr. Arnold Leonard, head of pediatric surgery.



Top left: A press conference was held August 21 to formally announce the University of Minnesota Cancer Center. Front row: Dr. Arnold Leonard, head of pediatric surgery at the University, and Dr. Fatih Uckun of the Department of Therapeutic Radiology are both involved in state-of-the-art cancer research.

Top right: Cherie Perlmutter, acting vice president of health sciences, commented on the importance of the Cancer Center to all the health sciences units.

Above left: Win Wallin, chairman and CEO of Medtronic Inc., and Nils Hasselmo, president of the University of Minnesota.

Above right: Minnesota Twins pitcher Steve Bedrosian, MMF President David Teslow, Medtronic Chairman Win Wallin, and University President Nils Hasselmo.

Right: Robert Dickler, director of the University of Minnesota Hospital and Clinic; Mary Sumpmann, UMHC Comprehensive Cancer Care; and Dr. Christopher Zachary, Department of Dermatology.

STATE OF MINNESOTA

Proclamation

WHEREAS: The University of Minnesota has long been recognized as one of the nation's leading cancer research and treatment institutions; and

WHEREAS: University of Minnesota cancer researchers bring nearly $20 million annually from federal funding into the State of Minnesota for their cancer research projects; and

WHEREAS: The University of Minnesota ranks fourth nationwide among public institutions in the number of federal grants it receives for cancer research - an indication of the high esteem in which the University is held; and

WHEREAS: Survival rates for cancer have risen dramatically in the past 60 years, due in part to the research being done at the University of Minnesota and elsewhere; and

WHEREAS: Because of its excellence in cancer research and treatment the University of Minnesota has long served as a resource for physicians and health care providers throughout the State; and

WHEREAS: The University of Minnesota has embarked on a major campaign to improve and expand its cancer research and treatment efforts to benefit people everywhere;

NOW THEREFORE, I, ARNE H. CARLSON, Governor of the State of Minnesota, do hereby proclaim Wednesday, August 21, 1991 to be

U N I V E R S I T Y O F M I N N E S O T A

C A N C E R C E N T E R D A Y

in Minnesota.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Minnesota to be affixed at the State Capitol this twenty-first day of August in the year of our Lord one thousand nine hundred and ninety-one, and of the State the one hundred thirty-third.

Arne H. Carlson
GOVERNOR

Joan A. Growe
SECRETARY OF STATE

Historical episodes . . .

in the struggle against cancer at the University of Minnesota

by Leonard G. Wilson, Ph.D.

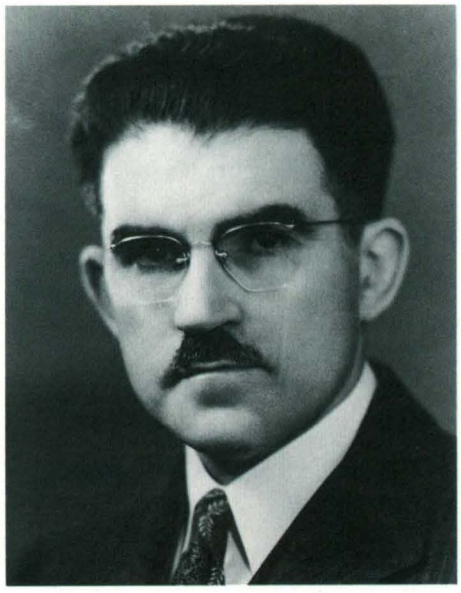
Editor's note: The following article is based on excerpts from the author's book Medical Revolution in Minnesota: a History of the University of Minnesota Medical School *(St. Paul: Midewiwin Press, 1989).*

From the earliest days, Minnesota surgeons were confronted with the terrible consequences of cancer. At first they could do little to help cancer patients, but with the introduction of antiseptic surgery to the United States about 1880, surgeons could begin to operate to remove cancerous tissue with relative safety.

At the Minnesota College Hospital in St. Anthony on October 21, 1882, Dr. Frederick Dunsmoor of Minneapolis operated to remove a large ovarian tumor, estimated to weigh 60 pounds, from a young married woman, the mother of two children. Following the procedures then recommended by Joseph Lister, Dunsmoor operated in a carbolic acid spray and afterwards dressed the wound with carbolic acid gauze. The patient recovered well and went home December 4, after a stay of some six weeks in the hospital.

In Vienna in 1881 Theodor Billroth performed a pioneer operation for stomach cancer, and during succeeding decades operations for cancer formed an ever-growing field of surgery. Meanwhile, the discovery of x-rays by Wilhelm Roentgen in 1895 — and the discovery of radium in 1898 — was followed by the realization that radiation might be used to destroy cancerous tissue that could not be removed surgically.

Karl Wilhelm Stenstrom. Courtesy of Eleanor M. Larson, Minneapolis.



Leo G. Rigler. Courtesy of University of Minnesota Archives.

Radiation treatment

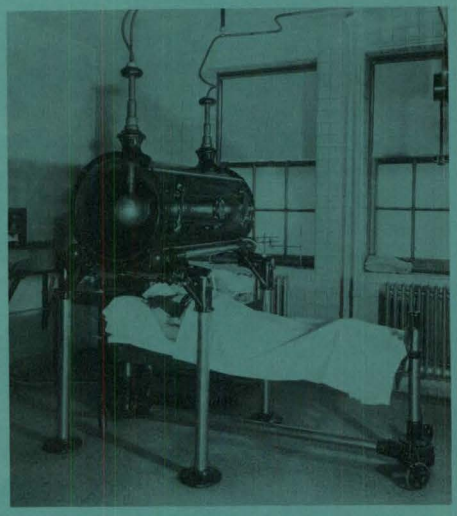
When the George Chase Christian Cancer Hospital was opened in October 1925 as part of the University of Minnesota Hospitals, it was planned to include facilities for the radiation treatment of cancer both by x-rays and by the use of radium. To select appropriate equipment, then very new, and oversee its installation, the hospital invited a radiation physicist, Karl Wilhelm Stenstrom, and his wife, Dr. Annette Stenstrom, a physician specializing in radiation therapy, to come to Minnesota from the New York State Institute of Malignant Disease at Buffalo.

The special radiation treatment room, lined with green tiles, was sheathed completely — floors, walls, and ceiling — with a layer of lead more than half an inch thick, designed to prevent the escape of radiation. With the aid of a bequest from the Howard Baker estate, the hospital purchased a half grain of radium that cost more than $30,000 (the equivalent of perhaps $500,000 today) and had to be kept within a lead sphere that was in turn stored inside a large iron safe.

When the facilities in the Christian Cancer Hospital were finally completed and ready for use in February 1927 they could provide the most modern and powerful radiation treatment for cancer available in the Northwest.

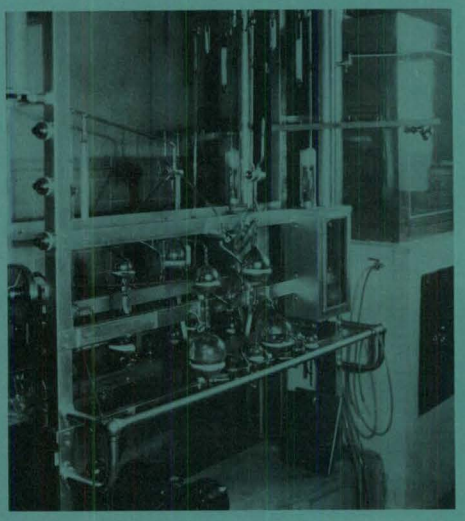
The following July Dr. Leo G. Rigler returned to Minnesota from a year of advanced study in diagnostic radiology in Stockholm, Sweden, to become chief of the Division of Radiology, which at that time formed part of the Department of Medicine. At the Christian Cancer Hospital Rigler assumed charge of diagnostic radiology, while the Stenstroms supervised radiation therapy.

During the 1930s Karl Wilhelm Sten-



Deep x-ray radiation therapy. Courtesy of University of Minnesota Archives.

Christian Cancer Hospital, adjoining the East end of the Elliot Memorial Hospital. Courtesy of University of Minnesota Archives.



Radium equipment, Christian Cancer Hospital, 1926. Courtesy of University of Minnesota Archives.

strom pioneered in the aggressive use of radiation therapy to treat Hodgkin's disease (lymphoblastoma). His remarkable success with certain individual patients encouraged Stenstrom to persist in a search for the most effective mode of radiation treatment. By 1940 it was clear that patients given radiation treatment survived for an average of more than four years, whereas patients without treatment had an average survival of less than 17 months.

By 1947 Stenstrom had refined the radiation treatment of Hodgkin's disease sufficiently that he had achieved a five-year survival rate of 21 percent and a ten-year survival rate of 8 percent. He gave a full course of radiation treatment to each area of lymph gland involvement and treated large masses with even greater intensity. The aggressive radiation treatment of Hodgkin's disease has continued to evolve along the lines pioneered by Stenstrom so that today it is one form of cancer, that, if treatment is begun early enough, can be effectively cured.

In 1937 the National Cancer Institute, in recognition of the successful work accomplished at Minnesota in cancer treatment, designated the University of Minnesota one among several regional centers for special training in cancer. The same year Dr. Harold O. Peterson joined the Department of Radiology where he studied especially tumors of bone and of the central nervous system.

John L. McKelvey. Courtesy of University of Minnesota Archives.

The Citizens Aid Society also provided the Radiology Department with an additional 220 kilovolt x-ray machine for deep radiation treatments, and for several years made an annual grant of $10,000 to the Christian Cancer Hospital to provide stipends for instructors and fellows, to support cancer research, and for social work related to the needs of cancer patients. In 1942 the Citizens Aid Society made an additional grant to the University to support a George Chase Christian professorship in cancer research to which Dr. John Bittner was called from the Jackson Laboratory at Bar Harbor, Maine.

Gynecological cancers

In 1938 Dr. John L. McKelvey came to Minnesota from Peking Union Medical College to succeed Jennings Litzenberg as chief of the Department of Obstetrics and Gynecology. When McKelvey began to work at the University of Minnesota Hospitals, the largest and most serious problem in gynecology was how to deal with the various forms of cancer that occurred so commonly in the reproductive organs of women, and were so frequently fatal.

Two methods of treatment were then available: the surgical removal of malignant tissue, and the use of radiation. In order to be effective, both kinds of treatment had to be guided by a reliable differentiation of diseased from normal tissue and an exact determination of the location of the malignant tissue.

As a result of a year of training in Berlin in 1931-32 under the world-renowned gynecological pathologist, Dr. Robert Meyer, and an enormous pathological experience gained in China, McKelvey was prepared to recognize the presence of cancer in women even in its early, obscure, or unusual forms.

Early in 1939, just a few months after McKelvey began work at the University Hospital, his former teacher in Berlin, Robert Meyer, wrote to say that the Nazi authorities had declared that as a Jew he must leave Germany, and therefore he

was seeking an appointment in the United States. McKelvey was able to offer Meyer an appointment at Minnesota, and in September 1939 Dr. and Mrs. Meyer arrived in Minneapolis. Although then 75 years old, Meyer worked actively in the Department of Obstetrics and Gynecology through the next seven years.

At Minnesota, Robert Meyer demonstrated that carcinoma arose from the basal cells within a limited area of old squamous epithelium. The tumor grew from its point of origin by proliferation of cells, destroying the surrounding normal epithelium, and could be diagnosed before it had broken through the basement membrane into the deeper tissues. Meyer disproved the earlier opinion that the cells had to be shown to invade the underlying tissues before they could be diagnosed as malignant.

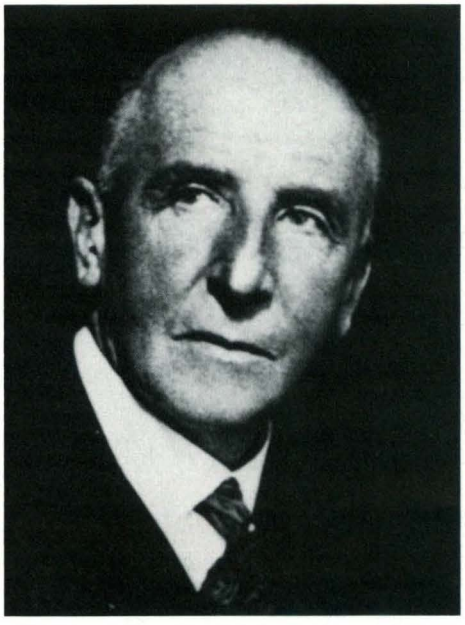
In 1939 John McKelvey and his colleagues began to treat women suffering from carcinoma of the cervix with large, but carefully measured, doses of radiation, with Karl Wilhelm Stenstrom supervising the administration of radiation. For 28 days the patient received x-ray therapy, followed by the insertion within the uterus of radium, which was left in place for 100 hours. During the whole period of treatment the patients remained in the hospital where their condition, especially their blood cell levels, was watched carefully, and particular attention was paid to their nutrition.

When in 1949 John McKelvey described the results of such therapy applied to 577 patients during the eight years 1939 through 1947, he was able to report an overall five-year survival rate of 53.6 percent, which was about double the world five-year survival rate reported in 1939 by the League of Nations Health Organization, and significantly above the survival rates reported by other leading medical centers in the United States.

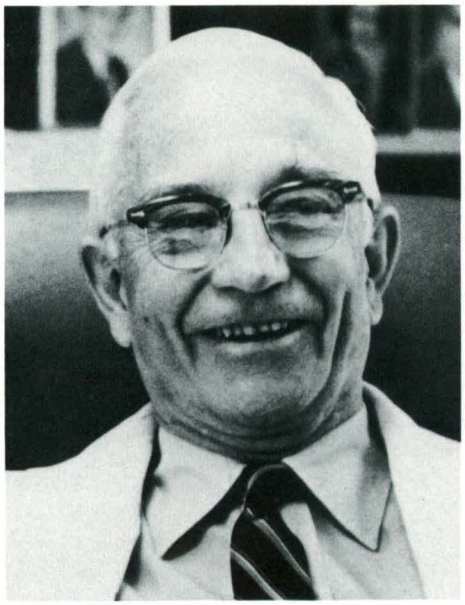
McKelvey and his colleagues were particularly successful in treating cervical carcinoma in its early stages where they achieved a five-year survival rate of over 81 percent. The early detection of carcinoma depended on the identification of carcinoma cells in biopsies of the cervix. "For all those who have passed five years since treatment," said McKelvey, "the histologic material has been passed upon by the late Dr. Robert Meyer. There is no questionable carcinoma in the series."

In 1947 Meyer died at the age of 83, but even past the age of 80 he had continued to contribute significantly to cancer research at Minnesota.

The aggressive radiation treatment of Hodgkin's disease has continued to evolve along the lines pioneered by Stenstrom so that today it is one form of cancer, that, if treatment is begun early enough, can be effectively cured.



Robert Meyer. Courtesy of *Journal of the History of Medicine and Allied Sciences.*



Owen H. Wangensteen. Courtesy of University of Minnesota Archives.

Stomach cancer

During the 1930s the young chief of the Department of Surgery at the University of Minnesota Hospitals, Dr. Owen H. Wangensteen, became concerned about the improvement of surgery for stomach cancer, a common disease that surgeons had then been battling with limited success for more than 50 years. In 1940 Wangensteen adapted a technique used formerly only for a closed anastomosis of the small intestine to create a closed anastomosis of a portion of the stomach with the jejunum, following the removal of a stomach cancer or an ulcer. The new technique reduced the incidence of peritonitis after gastric surgery and with it the number of post-operative deaths.

For patients suffering from advanced stomach cancer, removal of part or whole of the stomach was merely a palliative procedure that permitted the patient to live in reasonable comfort for an interval of usually no more than two years. Nevertheless, if the cancer was detected early enough, it could be removed completely and the patient cured.

From 1936 through 1945, Wangensteen and his colleagues found that they were able to operate upon an increasing proportion of cancers and remove more of them, while during the same period operative mortality dropped to less than a fifth of what it had been in 1936. The reduced mortality reflected not only improved surgical procedures but also better nutritional preparation to overcome the effects of semi-starvation caused by stomach cancer, better control of the patient's fluid balance, and by 1945 the availability of antibiotics, especially penicillin.

More than 20 percent of patients who had undergone gastrectomy for stomach cancer survived the operation more than five years, indicating that they had been cured permanently. Nevertheless, only about a quarter of patients with stomach cancer were suitable candidates for a curative type of operation. If stomach cancer could be detected earlier, more patients might be curable. The difficulty was that a stomach cancer might become inoperable before the patient was aware of any symptoms.

Frequently after a radical operation for cancer of the stomach, Wangensteen learned from the pathologist that cancer cells were still present in the tissues of the stomach wall along the line of resection. In such patients, he observed that there was an interval of 18 months to two years before symptoms of stomach cancer recurred. A Minnesota surgeon, Dr. Stanley R. Friesen, designated the period before the reappearance of cancer symptoms as *the silent interval,* a period he found to be about 20 months, followed by about two months of illness before death.

A similar silent interval following surgery for cancer of the colon and rectum caused Wangensteen to suggest in 1949 that if at the time of the operation patients were found to have lymph node metastases of their cancer, they should, after a period of three to four months, undergo a second operation to remove any cancerous growths that might have developed in the interval. Such second operations were known as *the second look* for which the Minnesota surgical clinic became famous.

Fluorescein treatment

In 1946 the study of cancer in the Department of Surgery took a new turn when Dr. George Moore, then a surgical resident, began to inject sodium fluorescein into patients who were to be operated upon for stomach cancer, in the hope that under ultraviolet light there might be revealed a difference in the amount of fluorescence between normal and malignant tissues. At first Moore found no variations in fluorescence, but when he injected the sodium fluorescein several hours before the operation, patches of cancerous tissue on the surface of the peritoneum fluoresced with a vivid yellow color that distinguished them sharply from the surrounding normal tissue.

However, if the tumor tissue lay even a few millimeters below the surface, it did not fluoresce, probably because the ultraviolet light could not penetrate much below the surface of the tissue. Colon, stomach, and breast cancers were less likely to fluoresce, but when biopsies were taken from brain tumors and placed under ultraviolet light they fluoresced consistently.

During the following year Moore pursued the application of fluorescein dye to the localization of brain tumors. Using radioactive iodine, he prepared diiodofluorescein. Two to four hours after radioactive diiodofluorescein was injected into a patient, a Geiger counter detected an increase in radiation over the suspected tumor. In one patient in whom the Geiger counter outlined a definite area on the surface of the skull, the outlined area coincided closely with a meningioma found during the operation.

Nevertheless, radioactive diiodofluorescein ultimately proved less useful than injection of sodium fluorescein. Brain tumors were so often accompanied by cerebral edema that frequently neurosurgeons could not determine the size and location of a tumor before the operation, and consequently did not know where best to open the dura mater. They had been accustomed to making a needle biopsy and to sectioning the biopsied tissue in order to locate a tumor before opening the dura mater. Such procedures were time-consuming and difficult.

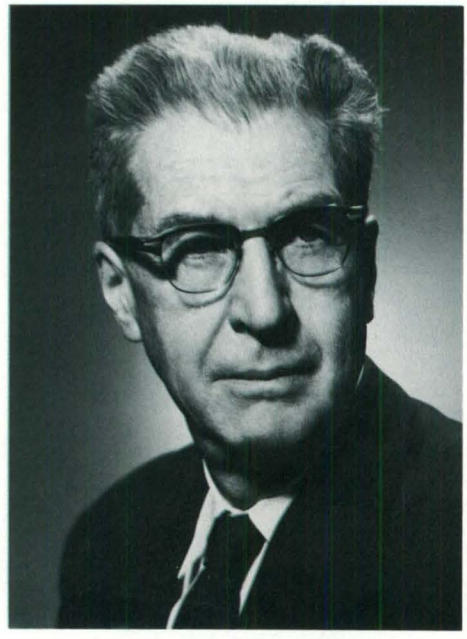
By contrast, in a patient who had been injected with fluorescein, they could simply place the biopsied tissue under ultraviolet light. If it were tumor rather than normal brain tissue, it showed a brilliant yellow green fluorescence.

By March 1948 Moore had used the fluorescein technique on 46 patients on Dr. William Peyton's neurosurgical service and had determined the presence or absence of tumor tissue correctly in 44 of them, thereby demonstrating clearly the clinical value of the method. When ultraviolet light was shone into the cavity after surgical removal of a brain tumor, it sometimes revealed small pieces of tumor tissue that had previously been overlooked, so the fluorescein method also provided a check on the completeness of the surgery.

At the University of Minnesota, basic scientists have also sought to determine the fundamental causes of cancer. In the Department of Bacteriology during the 1930s Dr. Robert Green showed that rabbit papilloma disease was transmitted by the bites of ticks. Green also argued that viruses might stimulate the proliferation of host cells so as to act as a more general cause of the uncontrolled growth found in cancer, a line of research still being pursued by cancer scientists.

McKelvey and his colleagues were particularly successful in treating cervical carcinoma in its early stages where they achieved a five-year survival rate of over 81 percent.

George Moore. Courtesy of University of Minnesota Archives.



William Peyton, pioneer Minnesota neurosurgeon.

Leonard G. Wilson, Ph.D., is Chairman of the History of Medicine Department at the University of Minnesota.

MEDICAL SCHOOL NEWSBRIEFS

Anesthesiology

Drs. Paul A. Iaizzo, Christopher Kehler, and **Mark Stuckey** have been appointed assistant professors.

Dr. David S. Beebe was the recipient of a grant for the study of anesthesia in laparoscopic procedures. **Dr. Paul A. Iaizzo** was awarded a $10,000 grant to study heat stress in humans, and a second grant to study malignant hyperthermia. **Dr. Mark Stuckey** was awarded a grant for research on pain mechanisms.

Dr. J.C. Liao was visiting lecturer at the Japanese Society of Anesthesia meeting.

Cell Biology and Neuroanatomy

Dr. H. Joseph Yost has been appointed assistant professor.

Dermatology

Dr. Ellen B. Rest has been appointed director of the Division of Dermatopathology in the Department of Dermatology.

Laboratory Medicine and Pathology

Dr. Jose Jessurun was appointed associate professor in the Division of Anatomic Pathology. **Dr. Esther Freier,** professor, was named president-elect of the Academy of Clinical Laboratory Physicians and Scientists in June. **Dr. Karen Karni** was appointed to the advisory panel for allied health of the health professions commission by the Pew Charitable Trusts of the American Society of Allied Health Professions. **Dr. Karni** was also awarded the Robin H. Mendelson Memorial Award by the Education and Research Fund of the American Society for Medical Technology for significant and sustained contributions to the profession. **Dr. Michael Steffes** was elected to a three-year term on the University's Committee on Committees.

Dr. Douglas Christie was awarded an established investigatorship to study immunologic problems of blood platelets by the AHA. The National Institutes of Health awarded **Dr. Carol L. Wells** a $579,288 grant to research translocating bacteria: the role in postsurgical sepsis.

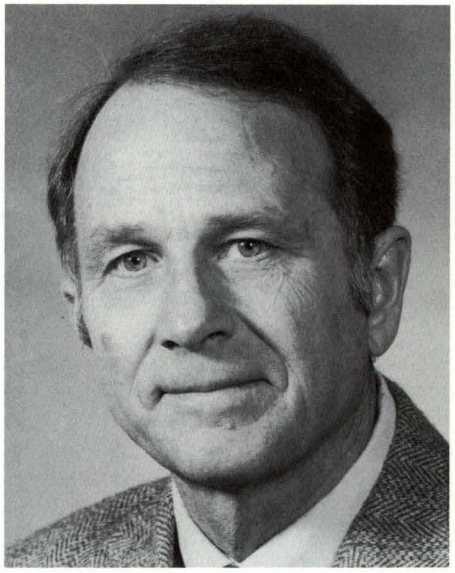
Obstetrics and Gynecology

Dr. June LaValleur joined the department as assistant professor on July 1. She will be director of the Mature Women's Center, a new program opening August 1 in UMHC's Women's Health Center. The Center will address needs of women who already have or are about to undergo natural, surgical, or premature menopause. **Dr. Hardin Olson** also joined the department on July 1 as clinical associate professor.

Dr. Linda Carson was guest lecturer at the Society of University Surgeons meeting held in Germany during the spring. **Dr. Leo B. Twiggs** spoke on the topics of endocervical evaluation, vulvar intraepithelial neoplasia, and interferon at the American Society of Colposcopy and Cervical Pathology in New York during mid-March.

Orthopaedic Surgery

Drs. Dennis Clohisy, musculoskeletal oncology, and **Kirkham Wood** of spine surgery, have been named assistant professors. **Dr. James H. House** was visiting professor and lecturer on "current concepts of upper extremity surgical reconstruction in tetraplegia after spinal cord injury" in February and March at University of California-San Diego, UCLA, University of California-San Francisco, Stanford, and Rancho Los Amigos Hospital of the University of Southern California. **Dr. Edward V. Craig** was the invited speaker at the 16th symposium of orthopaedic surgery in the Netherlands in April, and was invited to speak at the Combined Japan/Scandinavian Shoulder meeting held in Japan during June.



Dr. Paul Quie

Dr. James H. Moller

Pediatrics

Dr. Paul Quie, American Legion Heart Research Professor of Pediatrics, has been named Regents' Professor of Pediatrics. Regents' professorship is the highest honor the University can give to a faculty member.

Dr. James H. Moller was elected to the 12-member executive board of the 41,000-member American Academy of Pediatrics. He will serve as district chairman, representing nine Midwestern states. Dr. Moller was also reappointed to the board of the American Heart Association, and selected to chair a special task force on Children and Youth.

Pharmacology

Dr. Akira E. Takemori was the invited speaker at the Greater Lakes Division of the American Society for Pharmacology and Experimental Therapeutics conference held in May. **Dr. Ben Zimmerman** was the speaker at the Centennial Symposium celebrating 100 years of University of Michigan Pharmacology.

Psychiatry

New faculty appointments include **Dr. Esam E. El-Fakahany,** associate professor, and **Drs. Matt G. Kushner** and **Nancy Raymond,** assistant professors.

Dr. Paula J. Clayton received the 1991 National Depressive and Manic Depressive Association Lifetime Research Award.

Radiology

Dr. James W. Walsh has joined the department as head of computed tomography and professor. He is the president-elect of the Society of Computed Body Tomography. **Dr. James E. Crowe** has joined the pediatric section of the department. **Dr. Lenore Everson** has joined Dr. Harry Griffiths in running outpatient radiology which includes orthopaedics and mammography. **Dr. David Finlay** will be joining the junior faculty as one of Dr. Janis Letourneau's group doing ultrasound. **Dr. Christopher Engeler** will also join the junior faculty in charge of the chest section of the department. Joining neuroradiology will be **Dr. Mark Myers** as junior faculty, and **Dr. Richard Latchaw** as head of the section.

Dr. Xiaoping Hu recently became a new Radiological Society of North America Scholar. Dr. Hu will be investigating "an alternate method to the Fourier transfer for image reconstruction (chemical shift imaging)."

Surgery

Dr. Kenneth Brayman was awarded the 11th American College of Surgeons Fellowship. **Dr. Robert Goodale** has been named director of the new minimally invasive surgery section. **Dr. Clarence Dennis** has been appointed new director of the department's Cancer Detection Center. Resident **Dr. Scott Nyberg** has been awarded the 1991-93 Ethicon-Society of University Surgeons Surgical Research Fellowship.

The University of Minnesota's Outstanding Achievement Award was presented to **Dr. C. Walton Lillehei** on April 19, the same date that the department's Lillehei Library was dedicated. **Dr. Mitchell Spellman** has been named the 14th Surgical Alumnus of the Year. **Dr. Joseph Murray** was selected to be the Fifth Wangensteen Visiting Professor in Surgery. The Medical Alley Lifetime Achievement Award was recently awarded to the late **Dr. Albert W. Sullivan.**

On May 17, the Department of Surgery signed an educational, scientific, and clinical collaborative agreement with the Institute of Surgery in the USSR's Republic of Georgia.

UMD School of Medicine

Dr. Gerald L. Hill

Dr. Gerald L. Hill, director of the Center of American Indian and Minority Health at the School of Medicine at the University of Minnesota-Duluth, has been elected to a four-year term on the National Board of Medical Examiners in Philadelphia. The board prepares and administers qualifying examinations in medicine and medical education.

Outstanding Achievement Awards Given at Commencement

Howard B. Burchell, University of Minnesota professor emeritus of medicine, and **Earl H. Wood,** professor emeritus of physiology and medicine at the Mayo Medical School and Mayo Clinic, received the University of Minnesota's highest alumni honor, the Outstanding Achievement Award, at the Medical School's June 7 commencement.

Burchell, who received a doctorate from the University in 1939, is internationally recognized for his work in the advancement of electrocardiography and the diagnosis and treatment of cardiac arrhythmias. He was a member of the University faculty from 1941 to 1976, and was editor-in-chief of the cardiology journal *Circulation* from 1966 to 1970. He received the American Heart Association's Gold Heart Award in 1970 and its James Herrick Award in 1972.

Wood, a pioneer in the fields of cardiovascular physiology, biophysics, aerospace medicine, and biomedical instrumentation, is known for his work concerning the effects of gravitational forces on the body's cardiovascular and respiratory systems. He received four University degrees between 1939 and 1940, including a medical degree and a doctorate in physiology. He received the American Heart Association's Career Investigator Award in 1962 and its Research Achievement Award in 1973. In 1983, he won the American College of Physicians' John Phillips Memorial Award. He was a faculty member at the Mayo Medical School and Mayo Clinic from 1942 to 1982, when he retired. □

MMF REPORT

MMF approves $196,424 in research grants

The Minnesota Medical Foundation board of trustees approved $196,424 in research and special grants at its spring quarterly meeting. The amount includes $74,824 in faculty research grants, $21,600 in student research grants, and $100,000 in special grants for research equipment and salary support.

Faculty grants include: **Vincent Barnett, Ph.D.,** Biochemistry, $6,500, Molecular mechanics of muscle; **Chad Boult, M.D.,** Family Practice, $5,000, Identifying elders at risk; **Peter Duane, M.D.,** Medicine, $5,000, Streptococcus pneumoniae and alveolar epithelial function; **Gregg Fields, Ph.D.,** Lab Medicine and Pathology, $5,000, Synthetic triple-helical collagen model peptides for study of cell adhesion; **Donna Fontana, Ph.D.,** Microbiology, $5,000, Regulation and cellular localization of the dictyostelium adenylyl cyclase; **Michael Georgieff, M.D.,** Pediatrics, $2,500, Tissue iron deficiency following fetal hyperinsulinemia; **Stuart Johnson, M.D.,** Medicine, $5,000, Neutralization of clostridium difficile toxin A by human serum and secretory antibodies; **Linda McLoon, Ph.D.,** Ophthalmology, $5,000, Mitosis in injured eyelid muscles; **Richard Purple, Ph.D.,** Physiology, $7,500, Long-term perfusion studies of the isolated eye; **M. Elizabeth Ross, M.D., Ph.D.,** Neurology, $11,224, Neuronal migration in the developing brain-cloning and characterization of the cell adhesion molecule, astroactin; **David Thomas, Ph.D.,** Biochemistry, $5,000, Biophysical studies of membrane molecular dynamics; **Brian Van Ness, Ph.D.,** Human Genetics, $9,600, Regulated expression of immunoglobulin genes; and **John Van Pilsum, Ph.D.,** Biochemistry, $2,500, Studies on the transport of creatine into rat kidney cells.

Special grants include: **Stanley Finkelstein, Ph.D.,** Lab Medicine and Pathology, $5,000, Arterial vascular compliance - development equipment; **Joan Fox, M.D.,** Medicine, $5,000, Transgenic murine model of pulmonary fibrosis; **Walter Hall, M.D.,** Neurosurgery, $5,000, Immunotoxin treatment of central nervous

Continued on page 29

MMF Grant Recipient: Chad Boult

Chad Boult, M.D., M.P.H., assistant professor in the Department of Family Practice, was one of 23 faculty members to receive a grant at the Minnesota Medical Foundation's spring meeting of the board of trustees. In all, the MMF board approved $196,424 in faculty research grants, student research grants, and special grants (see adjacent article).

Boult received $5,000 in support of his project entitled "Identifying Elders at Risk."

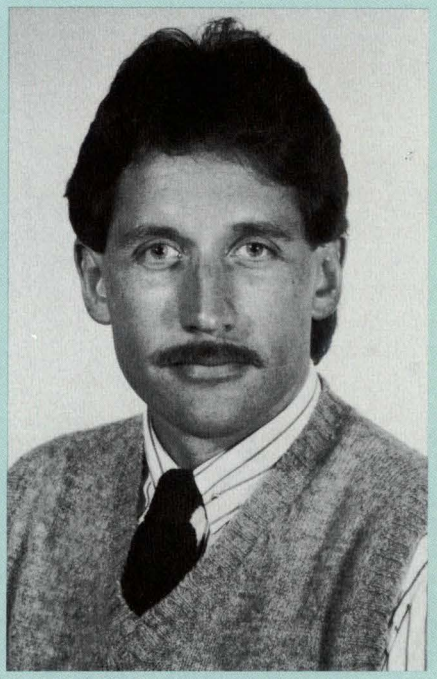
He describes his project by saying, "Many elderly people suffer from combinations of progressive, but potentially reversible, conditions that often lead to expensive care in hospitals and/or nursing homes. I propose to develop a method for identifying such vulnerable elders while they are still living in the community.

"The method will combine three approaches to screening the community-dwelling elderly population: reviewing electronic records of their past use of health services, assessing their responses to a brief questionnaire, and interviewing those who are at risk for deterioration.

"This project launches a program of research that seeks to demonstrate that early treatment of frail elderly people preserves functional ability, improves satisfaction (of elders and their family caregivers), and reduces the cost of care."

Boult will create and test a protocol for screening community-dwelling elders in order to identify those who are at risk for admission to a hospital within two years, and from this group, identify those whose risk can be reduced. The protocol will be used to recruit subjects into a subsequent clinical trial that will assess the cost-effectiveness of multidisciplinary, preventive care.

The protocol will be created and tested in five steps: 1. A list of factors that characterize elders who are at risk for admission to a hospital within two years will be hypothesized by a panel of geriatricians and researchers. 2. The ability of these factors to predict admissions to hospitals will be quantified. 3. The panel will delineate factors that distinguish, among high-risk elders, those for whom multidisciplinary, preventive care can reduce the probability of admission to a hospital. 4. A system for detecting the elders who possess the predictive factors selected will be created. 5. The screening protocol will be field-tested.



Dr. Chad Boult

Boult received his M.D. from Wayne State University School of Medicine in Detroit in 1974 and his M.P.H. in epidemiology from the University of Minnesota School of Public Health in 1989. He currently serves on the Geriatrics Advisory Committee of the Department of Family Practice and Community Health and previously served on the department's Home Care Curriculum Development Committee. □

MMF announces award winners

The Minnesota Medical Foundation sponsors a number of awards throughout the year to honor the faculty and students of the University of Minnesota Medical Schools. The following awards and scholarships were recently announced by MMF.

Kerry Kallas receives the Wallace D. Armstrong Award from Mrs. Mary Armstrong.

American Red Cross Transfusion Sciences Research Award

Stacene Maroushek

Recognizes exceptional research in transfusion medicine by an undergraduate medical student, a physician in postgraduate training, or a graduate student in the medical sciences.

Wallace D. Armstrong Awards

Kerry Kallas
Christopher Ta

Memorializes Dr. Armstrong, former chair of the Department of Biochemistry, by recognizing outstanding achievement in first-year biochemistry.

Bacaner Research Awards

Hyae Gyeong Cheon
Patricia Haugen
Julia Johnson
Keats Nelms
Erica Ten Broek
Wallace Thoreson

Memorializes Jacob and Minnie Bacaner through recognition of creative research in the basic sciences.

Thomas P. Cook Scholarship

Andrea Joplin

Honors Mr. Thomas Cook, long-time executive director of the Hennepin County Medical Association Foundation, and recognizes academic excellence, leadership, and financial need.

Daniel A. Coyle Award

Lisa Poss Benson

Honors an outstanding woman medical student in obstetrics and gynecology.

Dr. Luther Forest Davis Memorial Scholarship

Christopher Pensinger

Recognizes outstanding clinical skills by a senior medical student specializing in family practice.

Roger Dell Memorial Scholarship

Stefanie Swanson

Funded by the Roger L. and Agnes C. Dell Charitable Trust.

Allan Hemingway Endowed Scholarship

Li Ming Shen

Established in memory of Dr. Allan Hemingway, long-time member of the Department of Physiology, recognizing outstanding merit, potential, and financial need.

Richard C. Horns Memorial Award

Andreas Stefan

Memorializes Dr. Horns, former professor of ophthalmology, by recognizing a senior medical student who has shown outstanding clinical promise.

J. Thomas Livermore Award

Peter Lee

Recognizes outstanding original research in hematology.

Medical Alley Association Scholarship

Michael Momont

Recognizes an individual who has demonstrated interest and outstanding competence in the biomedical field.

Medical Student Achievement Awards

Ellen Coffey
Bruce Kletscher
Krishna Komanduri
A. Randal Olson

Minnesota Medical Foundation-funded awards which recognize graduating seniors who have excelled in student leadership, community service, academics, and research.

Mary Bizal Peterson Memorial Award

Bret Haake

Established by Dr. Edward Peterson in honor of his wife, the award recognizes a meritorious student embarking on a first-year residency in neurology at the University of Minnesota Medical School.

Undergraduate Research Awards

Daniel Boue
Gregg Jossart

Minnesota Medical Foundation-funded award which recognizes the most meritorious research paper written by a graduating senior.

George E. Williams Scholarships

Henry Flores
Laure Waschbusch

Honors Dr. Williams, assistant dean of student affairs of the Medical School for many years, recognizing medical students who have demonstrated humane qualities and the potential to become good physicians. □

Grants

Continued from page 27

system neoplasia; **H.P.C. Hogenkamp, Ph.D.,** Biochemistry, $15,000, Acquisition of an ultracentrifuge; **R. Scott McIvor, Ph.D.,** Lab Medicine and Pathology, $14,000, Microinjection station for introduction of embryonal stem cells into mouse blastocyst; **Mark Paller, M.D.,** Medicine, $3,500, Oxygen consumption by renal epithelial cells during hypoxia and reoxygenation; **Christopher Pennell, Ph.D.,** Lab Medicine and Pathology, $20,000, Genetically engineered therapeutic antibodies; **Fatih Uckun, M.D., Ph.D.,** Therapeutic Radiology, $7,500, SCID mouse model for AIDS and cancer; **Catherine Verfaillie, M.D.,** Medicine, $20,000, Receptors for adhesion of human hematopoietic cells to fibronectin; and **Brian Zelickson, M.D.,** Dermatology, $5,000, Effects of topical tretinoin on photoaged skin.

Student grants include: **Nancy Brunsvold,** Year 4, $1,800, Is the decreased endothelial dependent vasodilation induced by methacholine in heart failure patients influenced by increased sympathetic tone etc.?; **Durand Burns,** Year 4, $1,800, Endothelium dependent vasodilation in dogs with shock-induced left ventricular dysfunction; **Ku-Juey Raymond Chang,** Year 2, $1,800, Isolation and characterization of rat pancreas transamidinase; **Michael De La Hunt,** Year 1, $1,800, Chronic fatigue syndrome — development of an animal model; **Daniel Elieff,** Year 4, $1,800, Site of sweat gland dysfunction in Alopecia Areata; **Anthony Evangelista,** Year 3, $1,800, Does topical 15-deoxysperqualin inhibit corneal allograft rejection in the rat penetrating keratoplasty model?; **Henry Flores,** Year 1, $1,800, Evaluation of natural antibody suppression and production in a discordant xenograft cardiac model by various immunosuppressive agents; **Jeffrey Ketcham,** Year 3, $1,800, Will rapamycin suppress graft rejection in the allogenic rat penetrating keratoplasty model?; **Margaret Niesen,** Year 3, $1,800, Are office solutions and equipment that come in contact with the patients' contact lenses contaminated?; **Richard Spong,** Year 3, $1,800, How good is quality of care for women with abnormal mammograms?; **Yale Wang,** Year 3, $1,800, Are humoral elements responsible for immediate islet cell dysfunction in xenotransplantation?; and **Keith Wyche,** Year 1, $1,800, Does adenosine deaminase activity increase in the hypertrophied ventricles of pressure-overloaded rat hearts? □

UMD awards announced

At the end of each school year, awards of excellence are presented to faculty and students at the University of Minnesota Duluth (UMD) School of Medicine.

Fifth-time winner of the Basic Science Teacher of the Year Award was **Dr. Arthur Aufderheide. Drs. Lillian Repesh and Kendall Wallace** received honorable mention. **Dr. Linda Van Etta** was named Clinical Teacher of the Year, with **Drs. Jay Parker** and **Paul Severson** receiving honorable mention.

Four student awards were also presented. Winner of the Herbert G. Lampson Memorial Award was **Angela O'Neil,** in recognition of outstanding contributions to the class. The award is given in memory of Dr. Herbert G. Lampson, a former St. Louis County health officer who was one of the first physicians to effectively study the incidence and epidemiology of tuberculosis in Minnesota.

The Laird W. and Mary C. Lampson Memorial Award was presented to **Patrick Morris.** The award and a certificate of recognition, presented on the basis of scholarship and contributions to students and the UMD School of Medicine, is given in memory of Laird and Mary Lampson.

The Memorial Award was presented to **Lori Lynner** for exhibiting the characteristics of generosity and kindness to others, helping classmates to achieve, and exhibiting the ability to interact with others in a positive manner.

The Dr. Reino Puumala Memorial Award is given on the basis of a student's promise as a practitioner of family medicine in the tradition of the late Dr. Reino Puumala of Cloquet, Minnesota. Winner of this year's award was **James Sayovitz.** □

Herz Faculty Teaching Awards announced

Two Herz Faculty Teaching Development Awards have been given for 1991. Recipients are **Steve Downing, Ph.D.,** associate professor in the Department of Anatomy and Cell Biology at the School of Medicine, Duluth, and co-investigators **Connie Parenti, M.D.,** assistant professor in the Department of Medicine, VA Medical Center, and **Kathleen Whitley, M.D.,** assistant professor in the Department of Medicine, Hennepin County Medical Center.

Downing's award will support his proposal to develop a histology videodisc and computer-based learning program, with the overall goal of providing students alternative ways to study and learn histology.

Parenti and Whitley's award will support development of an innovative third-year medical school Objective Structured Clinical Examination (OSCE) for teaching and evaluation.

Established with an endowment fund donated by the late Malvin E. Herz and his wife, Josephine, the Herz Faculty Teaching Awards are presented to encourage the faculty of the University of Minnesota Medical Schools to pursue projects which will improve their methods and skills in teaching medical students.

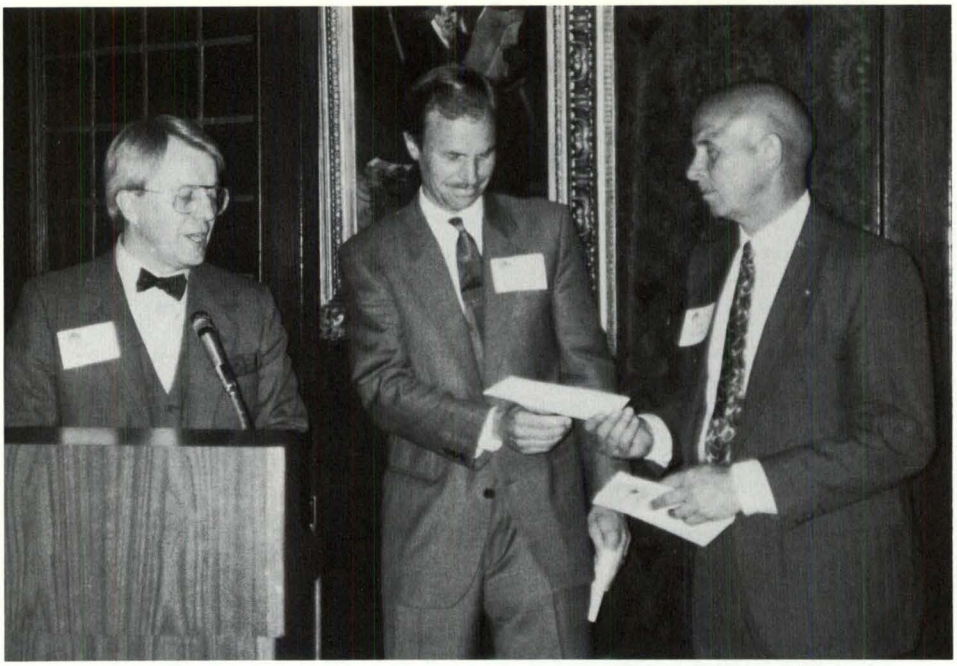
The Honors and Awards Committee of the Minnesota Medical Foundation selected Drs. Downing, Parenti, and Whitley from a number of proposals submitted by the faculty. Preference is given to faculty members who have demonstrated interest in teaching, leadership, creativity, and innovation in education. □

Union establishes scholarship

A $10,000 scholarship award was presented in May to the Minnesota Medical Foundation by trustees of the James T. Housewright—United Food and Commercial Workers International Union Scholarship Fund. The award is targeted for scholastically qualified students with economic hardships.

Jerry Menapace, international secretary and treasurer of the organization, presented the check to David Teslow, president of the Minnesota Medical Foundation. □

David Teslow, MMF president, left, and Jerry Menapace of UFCW.



Dr. R. Morton (Chip) Bolman, center, director of the University's Heart and Lung Institute, and David Teslow, right, president of the Minnesota Medical Foundation, accept a $450,000 check from Robert P. Larson, J.D., secretary and director of CRC, to establish the Perfusion Training Program at the University.

Perfusion Training Program begins at Medical School

The Garamella Lynch Jensen—Cardiac Research Committee Perfusion Training Program at the University of Minnesota was dedicated June 5 at a reception at the Minneapolis Club.

The program, formerly at North Hennepin Community College, became the Upper Midwest's first to offer perfusionist training when it was founded in 1972. Perfusionists operate heart and lung machines and related equipment during medical situations where it is necessary to support or temporarily replace a patient's circulatory or respiratory function. Since 1972, the program has trained more than 90 perfusionists, most of whom continue to work in Minnesota.

A grant of $450,000 from the Cardiac Research Committee (CRC) will endow the program. CRC was founded in 1954 by Drs. N.K. Jensen, Reuben Berman, and Lyle J. Hay. Drs. Joseph J. Garamella and Michael F. Lynch became involved with CRC shortly after its founding. □

Puttin' on the Ritz at the Galleria to benefit children

Gregory Hines, Moore by Four, and Janis Hardy will headline a November 9 extravaganza put on by the Galleria in Edina for the benefit of the Children's Cancer Research Fund, the Ronald McDonald House, and the University Children's Foundation.

The shopping center is expanding its space, and with the support of *Mpls. St. Paul* magazine, WCCO Radio, and WCCO Television, is planning a memorable evening of song, dance, and fun.

Well-known dancer Gregory Hines will entertain, singers Moore by Four will add their own special style, and the Twin Cities' Janis Hardy will present the best of Gershwin, Berlin, and Porter in an evening that will salute the Roaring Twenties as well as new sounds from the Nineties. A silent auction will be contributed by shopkeepers of the Galleria.

The Children's Cancer Research Fund, the Ronald McDonald House, and the University Children's Foundation share the goal of improving the lives of children and adolescents through research, prevention, and treatment of disease.

For ticket information about Puttin' on the Ritz, call the Galleria at (612) 925-9534. □

MMF names new staff members

The Minnesota Medical Foundation has added two development officers to its fundraising staff, according to David R. Teslow, president.

Joining the foundation are Barbara A. Becker as director of annual giving and alumni relations, and Lynn Slifer as director of development for the Department of Obstetrics and Gynecology.

As director of annual giving and alumni relations, Becker will be responsible for coordinating events and programs for the Medical Alumni Society, overseeing MMF's annual phonathon, and maintaining other annual giving programs.

Becker is a University of Minnesota graduate with a degree in international relations and the Russian language. She comes to MMF from Catholic Charities, where she managed the annual campaign for Catholic Charities of the Archdiocese of St. Paul and Minneapolis.

As development director for the Department of Obstetrics and Gynecology, Slifer will be responsible for raising private gifts to support a variety of programs in the department.

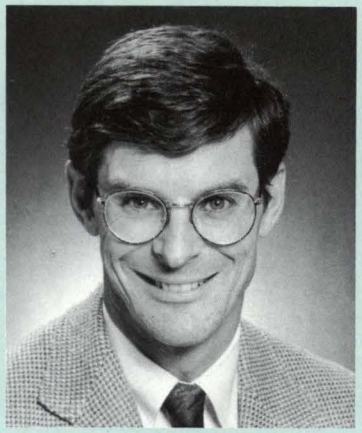
Slifer was previously with the University's Freshwater Foundation. She holds a Bachelor of Music in Voice and a Bachelor of Arts in Humanities from Valparaiso University, Valparaiso, Indiana, and a Master of Fine Arts in Voice Performance from the University of Minnesota.

Barbara Becker

Lynn Slifer

In another recent appointment, Robert Burgett, former director of annual giving and alumni relations, has been named associate vice president of development for MMF. □

ALUMNI UPDATE



Dear Colleagues,

The 1991-92 University of Minnesota school year is about to begin, and I am pleased to join you as president of the Medical Alumni Society (MAS). I have been active in MAS for several years and look forward to another year of exciting and worthwhile alumni activities.

Elections at the June annual meeting brought us new officers. They are: President, John F. O'Leary, M.D., '77; Vice President, Richard Simmons, M.D., '55; Secretary Treasurer, Neil Stein, M.D., '71; Past President, Margaret MacRae, M.D., '74

Congratulations to the new officers, and also to our new board member, J. Patrick Smith, M.D., '76.

The Alumni Reunion Weekend in June was a fantastic success. More than 550 alumni and guests attended the reunion dinner, and the weekend provided lots of fun for our colleagues celebrating their reunions. Next year, the following classes will be celebrating: 1932, 1942, 1947, 1952, 1962, 1967, 1972, and 1982. Members of these classes will receive information about their reunions in the near future.

The Alumni Annual Phonathon begins later this month. Please take a moment to speak with the student caller when you are contacted, and consider making a gift in support of the programs at our two medical schools. Discretionary monies which are often targeted for scholarships, research, and other programs and activities are difficult to come by. Alumni support in these areas has been very helpful over the past few years and aids in our alma mater's ability to attract students and faculty.

I look forward to the new academic year and working with many of you. If you have any questions or comments about alumni activities, please feel free to contact me through the MMF Alumni Office at (612) 625-1440.

Sincerely,

John F. O'Leary, M.D., '77
President
Medical Alumni Society

P.S. Please join me in welcoming our new alumni director, Barbara Becker. She will be assisting us with alumni activities and programs.

Reunion weekend: A CELEBR

Drs. David McQuoid, '61, Robert Lind, '71, and Wayne Hass, '71, enjoyed the Medical Alumni Golf Tournament.

The 1991 Alumni Reunion Weekend took place June 5-8. More than 550 alumni and guests returned to the University of Minnesota campus to celebrate their respective Medical School anniversaries. Classes represented were: 1931 (60th), 1941 (50th), 1946 (45th), 1951 (40th), 1961 (30th), 1966 (25th), 1971 (20th), and 1981 (10th).

Reunion activities began with the First Reunion for the Class of 1991. This event, sponsored by the Medical Alumni Society and the Minnesota Medical Foundation, provides graduating students the opportunity to reunite after two years of specialty rotations. Students and guests met at the International Market Square in Minneapolis for one last gathering before graduation the following Friday.

Campus tours and a welcome reception were held on Thursday, June 6, for reunion attendees. The Half Century Club, designed to bring together those who graduated 50 years ago or more, started the Friday morning activities. Dr. Jim Bensen, president of Dunwoody Institute, was the honored speaker. The Half Century Club Luncheon featured Twin Cities Medical School Dean David M. Brown, and included an induction ceremony for new members of the Half Century Club.

The 4th annual Medical Alumni Golf Tournament was once again held as part of the Reunion Weekend. Les Bolstad University Golf Course offered another challenging round of golf to returning medical alumni golfers.

This year's winners of the tournament were: First place, Mike Kelly, M.D., Class of 1981; second place, Reimert Ravenholt, M.D., Class of 1951; and third place, Peter Rusterholtz, M.D., Class of 1981.

The Friday evening Reunion Dinner and Class Programs were the focal point of the weekend. Representatives of the Medical Schools, as well as the Minnesota Medical Foundation and Minnesota Alumni Association, addressed the audience during a brief dinner program. Afterwards, the respective reunion classes gathered for photos, individual class programs, and fellowship.

On Saturday, June 8, the Medical Alumni Society featured the New Horizons in Minnesota Medicine program. Several members of the Medical School faculty gave presentations in their area of research.

The final event of Reunion Weekend was the MAS Annual Meeting and Luncheon. New officers and members of the Medical Alumni Society were elected, and the Harold S. Diehl Award was presented to Drs. Irving and Dorothy Bernstein for their outstanding contributions to medicine.

ATION

Harold S. Diehl Award recipients Drs. Irving and Dorothy Bernstein.

CLASS NOTES

1943

Dr. John W. Rebuck, Birmingham, Michigan, gave the 1991 Beaumont lecture on April 8 at the Seventieth Annual Beaumont Lecture in Detroit. Dr. Rebuck is senior hematopathologist at Henry Ford Hospital there. His lecture subject reflected his greatest scientific contribution, the development and introduction of a human skin window technique in 1955 whereby one could observe the cellular exudate of single lesions produced in man and sample these at intervals.

1946

Dr. Anthony C. Gholz, Port Huron, Michigan, retired from his 40½ year pediatrics practice on January 1.

1968

Dr. Thomas C. White, Sioux Falls, South Dakota, ophthalmologist and his colleagues have over the past several years secured nine U.S. patents and several international patents on ophthalmic devices, including intraocular lenses, the first implantable pump shunt for drainage of aqueous in glaucoma, a myopia implant, an ocular infusion cannula for treating deep-seated eye infections including cytomegalovirus which afflicts many AIDS patients, and artificial corneal transplants. In 1990, Dr. White was awarded the highest honor of achievement by the Italian Ophthalmological Society for the development of the pump shunt.

1977

Dr. Robert C. Florek, LaCrosse, Wisconsin, served in the U.S. Army Medical Corps for 12 years, including two overseas tours. He is formerly director of Electrophysiology and Pacing at Gundersen Clinic in LaCrosse, and this summer joined Cardiac Consultants, P.A. at Good Samaritan Hospital in Portland, Oregon.

1980

Dr. Louis Ling, Minneapolis, Minnesota, an emergency physician at Hennepin County Medical Center, was elected chairman of the Residency Review Committee for Emergency Medicine of the ACGME. He was also named president-elect for the Society for Academic Emergency Medicine, the world's largest association of emergency medicine teachers and researchers.

1984

Dr. Richard R. Owen, Jr., Little Rock, Arkansas, completed a research fellowship at the National Institute of Mental Health. He was named assistant professor of psychiatry at the University of Arkansas for Medical Sciences in Little Rock, and appointed staff psychiatrist at the Veterans Administration Medical Center there.

MAS Board News

New officers and board members were elected at the Medical Alumni Society's Annual Meeting and Luncheon held during reunion weekend on Saturday, June 8, 1991.

Members of the 1991-1992 MAS board of directors are:

Executive Committee:
- President–John F. O'Leary, M.D., '77
- Vice President–Richard K. Simmons, M.D., '55
- Secretary/Treasurer–Neil A. Stein, M.D., '71
- Past President–Margaret A. MacRae, M.D., '74

Members:
- Dale L. Anderson, M.D., '59
- Gary L. Falk, M.D., '68
- Joyce L. Funke, M.D., '50
- Roy H. Good, M.D., '52
- Dorothy J. Horns, M.D., '76
- Wayne D. Liebhard, M.D., '83
- Frank G. Lushine, M.D., '71
- Elmer C. Paulson, M.D., '37
- J. Patrick Smith, M.D., '76
- Richard E. Student, M.D., '54
- Donald B. Swenson, M.D., '51
- Celeste M. Taylor, M.D., '85

26th General Hospital Unit, University of Minnesota

Attention all members of the 26th General Hospital Unit, University of Minnesota.

A 50-year reunion is being planned for all members of the unit and is scheduled for Thursday, June 4, 1992 at the University of Minnesota. Drs. Norman Holte and Russell Lindgren are serving as co-chairs. Details will be forthcoming, but in the meantime, your help is needed. If you can provide information, especially addresses, etc., it would be very helpful.

Inquiries or information can be directed to:

26th General Hospital Unit
c/o Minnesota Medical Foundation
Attention: Bob Burgett
Box 193 UMHC
Minneapolis, MN 55455
Phone: (612) 625-1440

The first information mailing is planned for September. Let us know if you can help work on the reunion, or if you have information which would be helpful in locating members of the unit.

AAMC reception upcoming

A reception for alumni and friends of the University of Minnesota Medical Schools, in conjunction with the Association of American Medical Colleges Annual Meeting, will be held Saturday, November 9, 1991, in Washington, D.C. For more information, contact the Medical Alumni Office at (612) 625-1440.

In Memoriam

Clayton T. Beecham, M.D.,

Class of 1932, retired obstetrician and gynecologist of Sunbury, Pennsylvania, died in December 1990 at age 83. Dr. Beecham was a professor at Temple University Medical Center. He was emeritus director of OB/GYN and senior consultant in gynecology at the Geisinger Medical Centre, in Danville, Pennsylvania. He was also a member of the American Gynecologic and Obstetrical Society, Society of Gynecologic Oncologists, and Society of Obstetric Surgeons. He is survived by his wife, Anne.

Bernard A. Cohen, M.D.,

Class of 1934, Minneapolis family physician, died May 10 at age 82. Dr. Cohen opened his first practice in Minneapolis in 1936. In 1942, he enlisted in the U.S. Navy and served as a medical officer in the South Pacific during World War II. He returned to Minneapolis where he practiced medicine for 45 years, retiring in 1984. Dr. Cohen was on staff at Lutheran Deaconess Hospital in Minneapolis, where he also served as chief of staff in 1958. He was also on staff at Ebenezer Luther Hall for many years. He is survived by his wife, Barbara, two daughters, a son, sister, and four grandchildren.

Phillip H. Gates, M.D.,

Class of 1936, former psychiatrist from Lexington, Massachusetts, died May 31 at age 81. Dr. Gates specialized in psychoanalysis and child psychiatry. He was well known for his study of lead poisoning in children. He served in the U.S. Army Medical Corps with the Seventh General Hospital during World War II and retired from the military as a lieutenant colonel. Dr. Gates was a member of Alpha Omega Alpha and a number of other professional organizations. He is survived by his wife, Mary, two daughters, a son, and four grandchildren.

Robert L. Ginsberg, M.D.,

Class of 1946, Los Altos, California, physician, died May 22 at age 68. He is survived by his wife, Beverly, three daughters, and two brothers.

F. John Grimmell, M.D.,

Class of 1952, Robbinsdale, Minnesota, family practitioner, died April 26 at age 68. Dr. Grimmell interned at Mount Sinai Hospital and was one of the original staff members of North Memorial Medical Center in Robbinsdale where he practiced until his death. He was past president of the International Arabian Horse Association and raised champion Arabian horses. He is survived by three sons, a daughter, sister, and six grandchildren.

Karl R. Lundeberg, M.D.,

Class of 1925, former Minneapolis health commissioner, died May 15 at age 91. Dr. Lundeberg began private practice in Willmar. He joined the army as a preventive medicine specialist in 1930 and served as a bacteriologist at Walter Reed Hospital in Washington, D.C., a pathologist in San Antonio, Texas, and chief of the epidemiology branch of the Office of the Surgeon General in Washington, D.C. He was chief of preventive medicine for the American forces in India and Burma during World War II. Following the war he was named chief of medical affairs in the public welfare branch in the Office of the High Commissioner for Germany. He later returned to the United States where he served as director of the Army Environmental Health Laboratory in Maryland. Dr. Lundeberg instigated the polio vaccine program for Minneapolis and helped develop the polio vaccine syrup for children. He also helped to control a citywide Asian flu epidemic in 1957. He began a $3 million Public Health Center in Minneapolis during 1958, and in 1965 was designated medical director of the Division of Public Assistance for the Minnesota Department of Public Welfare. Dr. Lundeberg was a recipient of the Diehl Award and the Army's Legion of Merit. In 1960, Governor Orville Freeman appointed him as a delegate to the White House Conference on Aging. He retired in 1969. He is survived by a daughter, three sisters, and a brother.

Samuel J. Ravitch, M.D.,

Class of 1926, retired psychiatrist from Irvine, California, died May 14 at age 90. Dr. Ravitch is survived by his wife, Louise, and a brother.

James S. Westby, M.D.,

Class of 1970, medical services director of the St. Louis Park, Minnesota, Group Health clinic, died May 12 at age 45. Dr. Westby practiced medicine in the naval reserve for four years before joining the St. Louis Park Group Health clinic in 1976. He is survived by his wife, Carole, a daughter, and a son.

Ferdinand A. Zinter, M.D.,

Class of 1938, Minneapolis family physician, died in July at age 84. Dr. Zinter was on staff at St. Andrew's and St. Barnabas hospitals, North Memorial Medical Center, and Riverside (Fairview) Hospital. He was a member of the Minnesota Medical Association-50 Club, Minnesota American Academy of Family Practice, and was past president of the Minnesota Physicians Art Association. Dr. Zinter is survived by a son, daughter, two brothers, three grandchildren, and two honorary grandchildren.

We have also received news of the following:

Robert I. Roelofs, M.D.,

Neuromuscular disease expert and associate professor of neurology at the University of Minnesota Medical School, died June 10 at age 52. Dr. Roelofs received his medical degree in 1965 from the University of Iowa. He founded and directed the muscular dystrophy clinic and was director of the Neurology Department and the neurology residency program. Prior to joining the University of Minnesota faculty in 1978, he worked at Vanderbilt University in Nashville, Tennessee. Dr. Roelofs wrote many scientific articles, primarily on amyotrophic lateral sclerosis and muscular dystrophy. He is survived by his wife, Pat, two daughters, a son, and a sister.

— *Jan Hickey*

For $10,000 . . .
some of your dreams can live forever . . .

Memorandum of Agreement (Sample)
Your Name Endowed Fund
and the Minnesota Medical Foundation

Your Name and the Minnesota Medical Foundation agree to establish a permanently endowed fund.

Name	**Your Name Endowed Fund**
Purpose	Description of how your fund is to be used, such as for scholarships, research, lectureship, chair, equipment, or any other program or potential program of the medical schools, Minneapolis or Duluth.
Source of Funds	How your endowed fund is or will be funded.
Selection Process	Who will make the decision and what criteria will guide the use of the income from your fund.
Use of Income and Principal	This endowment will be maintained in perpetuity and will be invested in accordance with the normal investment practices of the Minnesota Medical Foundation endowment funds.
Administration	The assets of this fund may be commingled with other assets of the Minnesota Medical Foundation for the purposes of investment. Separate records will be kept of receipts, income, and disbursements of this fund.
	It is with deep appreciation the Trustees of the Minnesota Medical Foundation accept the responsibility of administering **Your Name Endowed Fund**.

YOUR NAME, Donor _____ Date _____

David R. Teslow, President and CEO _____ Date _____

The Memorandum of Agreement is developed in conversation with you.

For information on establishing an endowed fund, write: Gary G. Hargroves, Minnesota Medical Foundation, Box 193 UMHC, Minneapolis, Minnesota 55455. (612) 625-5463

ALUMNI VOLUNTEER FORM

Use this postage-paid card to let us know how you'd like to participate in alumni activities at the U of M Medical Schools.

Residents Away From Home

This program aids residency searches by connecting Medical School students with volunteer alumni across the country. Providing overnight accommodations in your home would be especially helpful in defraying costs.

Yes, I want to help medical students with their residency search.

- ❑ I am willing to answer student questions about a residency site in my area.
- ❑ I am willing to host a student overnight.

Student Recruitment

Join our network of medical alumni who will contact students in their communities who have been accepted to the Medical Schools and encourage them to matriculate. Your support could ensure that top-notch students accept and attend our schools.

Yes, I would like to assist with student recruitment:

- ❑ of Duluth medical students.
- ❑ of Minneapolis medical students.
- ❑ at either campus.

Location/area you would serve (city, county, state, etc.)

_____

Receptions

The Alumni Office often holds receptions in areas outside Minnesota where there are concentrations of Medical School alumni and friends. Let us know if you would like a reception held in your area.

- ❑ I would be interested in attending a Medical School alumni reception held in my area.
- ❑ I would like to host a reception in my home.

Location/area _____

Alumni Reunions

- ❑ I am willing to assist with the coordination of reunions for my Medical School class.

Contact the Alumni Office if you would like further details on any of the programs mentioned above (612-625-1440).

Name _____

Address _____

City/State/Zip _____

Daytime Phone ( ) _____

Evening Phone ( ) _____

Class Year_____ Specialty _____

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WHAT'S NEW WITH YOU?

Use this postage-paid card to let us know how you're doing and to share news of relocations, new positions, awards and honors, community activities, or personal experiences.

Name _____ Specialty/Degree _____ Year _____

Address _____ Telephone _____

City/State/Zip _____

News _____

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THANKS FOR GIVING

Dr. Joseph W. Dassett

by Jean Murray

Dean Elias Potter Lyon would be pleased with his decision 70 years ago to admit Joe Dassett to the University of Minnesota Medical School. "I talked him into it," says Dr. Joseph W. Dassett, age 91. "My grades weren't so good, but he took a chance on me."

The gamble paid off, and Dr. Dassett had a long and rewarding career as a pediatrician, touching the lives of many children and their parents. He is pleased that he continues to hear from a number of the families he served during his 36 years in Whittier, California, due perhaps in part to a more personal type of medicine practiced earlier in this century. "I made lots of house calls," he recalls, "both day and night."

Although a California resident during his practice and in retirement, Dr. Dassett has a rich Minnesota heritage which played a part in his career choice. His maternal grandfather, Dr. William Russell, founded the Russell Hospital on 31st and Hennepin around the turn of the century. Time spent at the hospital with his grandpa made a strong impression on young Joe. His father owned a meat market at 8th and Nicollet in Minneapolis, where Joe helped out and learned at a young age the value of good service to customers. Many, Joe recalls, arrived in carriages to pick up their orders.

Dr. Dassett also likes to tell the story of an ancestor, Flemish botanist and doctor Matthias de Lobel, who in 1616 grew a flower since named the "lobelia." The same flower grows today in the garden of Dr. Dassett's nephew Bobby who lives near Minnehaha Creek in Minneapolis.

Dr. Dassett inherited the love of flowers, and spends much of his free time at his Laguna Hills home tending his garden. He also enjoys travel, and navigates the freeways of California with skill.

Dr. Joseph W. Dassett

Keeping in touch with his Minnesota roots is important to Dr. Dassett, and he returns for a visit about once a year. He likes to keep abreast of the ongoing changes at the Medical School, and enjoyed attending the Medical School's Centennial Celebration in 1988.

In appreciation of the excellent education he received at the University of Minnesota Medical School, Dr. Dassett has established the Joseph W. Dassett, M.D. Endowed Scholarship. He is concerned about the extremely high costs of medical education today, and understands the dilemma faced by talented students who are unable to finance such an education.

The Minnesota Medical Foundation is very appreciative of Dr. Joseph Dassett's generous contributions to medical education. His gifts will enable students to pursue their dreams of becoming physicians, and the long-term benefits will be many.

Minnesota Medical Foundation
Box 193 UMHC, University of Minnesota
Minneapolis, MN 55455
(612) 625-1440

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CALENDAR OF EVENTS

Second International Conference on the Treatment of Sex Offenders CME (612) 626-7600	**September 22 - 24**
Annual Autumn Seminar in Obstetrics and Gynecology CME (612) 626-7600	**September 26 - 27**
Current Update in Arrhythmia Management CME (612) 626-7600	**September 27**
Internal Medicine Review CME (612) 626-7600	**October 2 - 4**
Principles of Colon and Rectal Surgery CME (612) 626-7600	**October 9 - 12**
Endoscopic Sinus Surgery CME (612) 626-7600	**October 11 - 12**
Adolescent Sexuality: Issues for the '90s CME (612) 626-7600	**October 11 - 12**
Radiology/91: Vascular Interventional CME (612) 626-7600	**October 14 - 18**
Exploring the Interface between Asian and Western Health Care Practice CME (612) 221-3992	**October 18**
Emergency Medicine for Primary Care Physicians CME (612) 221-3992	**October 24 - 25**
Facial Malignancy and Reconstruction CME (612) 626-7600	**October 25 - 26**
Ultrasound in Africa CME (612) 626-7600	**October 28 - November 1**
Seminar on Lyme Disease CME (612) 626-7600	**November 1**
ET Bell Fall Pathology Symposium CME (612) 626-7600	**November 8**
Annual Primary Care Medicine Conference CME (612) 221-3992	**November 14 - 16**
Pre-hospital Advanced Burn Life Support CME (612) 221-3992	**November 19 - 20**
Seventh Ramsey Trauma Conference CME (612) 221-3992	**November 21 - 22**