

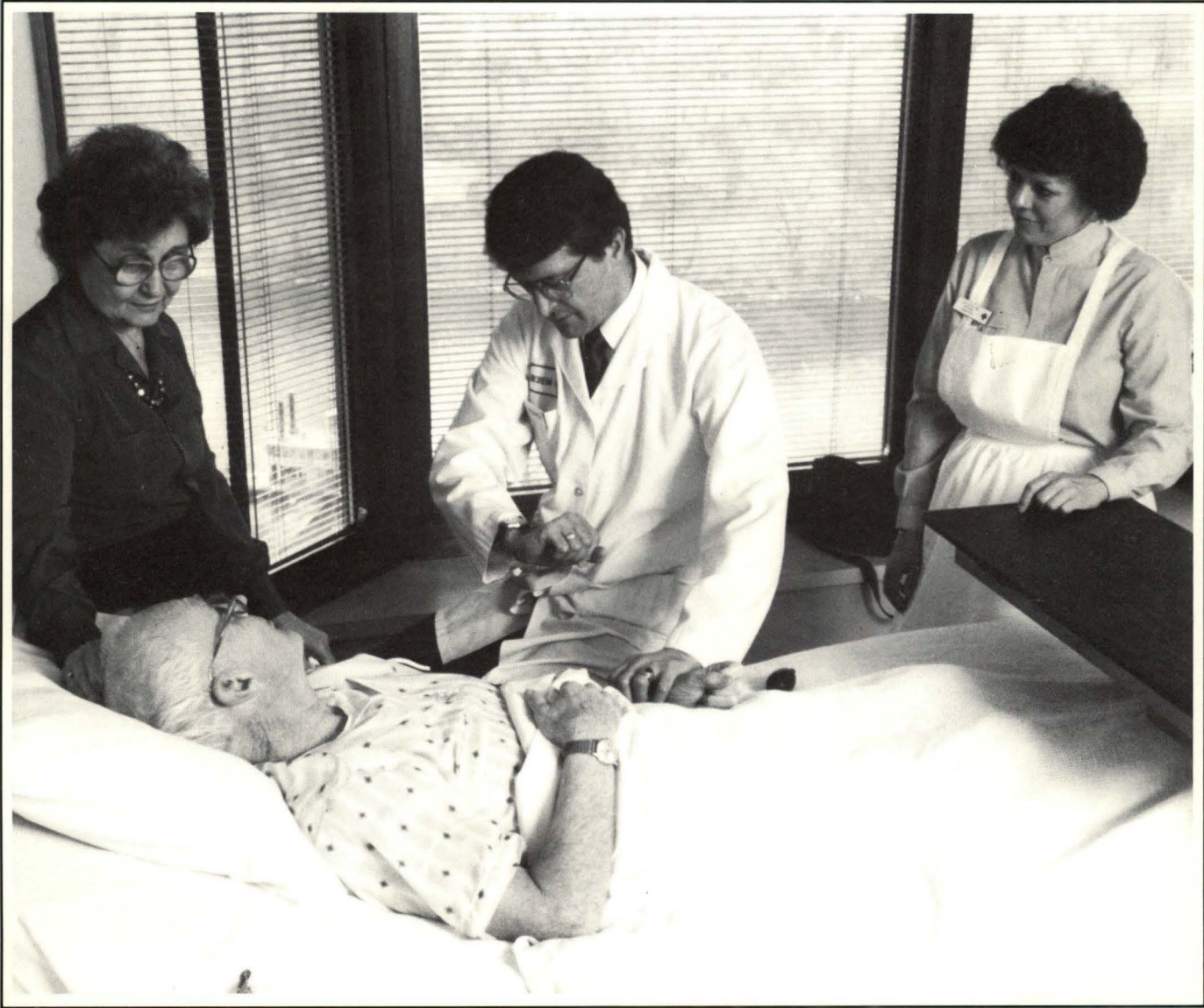
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Winter 1986

UNIVERSITY OF MINNESOTA

Medical Bulletin

A Publication of The Minnesota Medical Foundation





Editor's Column

Here is the last reminder of winter - the winter issue of the *Medical Bulletin*. And, this issue has lots to report. For, in spite of heavy snow, freezing winds and icy roads, winter is a busy time for the people of Minnesota.

It is no different for the faculty and students at the University of Minnesota Medical Schools. In all kinds of weather, teachers keep on teaching, students keep on studying, and editors keep on trying to dig up interesting and exciting stories for their readers.

In this issue of the *Medical Bulletin*, you readers will discover the University of Minnesota's Institute of Human Genetics. This new center for research and learning will keep Minnesota at the forefront of rapidly changing genetic technologies. It's been less than a year since its establishment, and already the Institute has developed some new and exciting genetic tests and methodologies. You can read about them on page 16.

What other activities occurred this winter at the University of Minnesota Medical School? Meet Dr. Stuart Jamieson, the new chief of cardiovascular surgery. He will direct the University's new heart-lung transplant program (see page 15). Read about the first pregnancies to advance beyond three months through the University's in vitro fertilization program on page 5. Or, learn about a woman whose life was saved by a unique cancer surgery (page 10).

Lots has happened this winter. Discover some of it within these pages. Until next time . . .

Elaine Cunningham
Editor

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Staff: Editor, Elaine M. Cunningham; Executive Director, David R. Teslow.



Cover Photo: The \$125 million, 460-bed replacement facility for the University of Minnesota Hospitals and Clinics is now complete, with patients scheduled to move in April. One of the buildings most attractive features is that 85 percent of the patient rooms, such as the one pictured here, overlook the Mississippi River.

MMF approves \$92,675 in research grants

More than \$92,600 in research grants was approved by the Minnesota Medical Foundation Board of Trustees at its quarterly meeting in January.

Thirteen faculty members and one student received a total of \$51,300 in MMF grants for medical research projects. Another \$41,375 in special grants was also approved by the board for research equipment and salary support.

Faculty members who received MMF research grants were: **Fred S. Apple**, assistant professor of laboratory medicine and pathology, \$2,000 to look at human isoferritin distribution and iron deficiency anemia in runners; **G. Eric Bauer**, professor of pediatrics, \$2,000 to study the origin of drug-induced islet tumors in rats; **Elizabeth A. Braunlin**, instructor of pediatrics, \$3,500 for research into the mechanical response of the isolated neonatal cat papillary muscle on graded hypoxia; **Donna J. Forbes**, associate professor of biomedical anatomy - UMD, \$5,000 for a rabbit cornea-trigeminal model to study ocular herpes; **Laurie S. Fouser**, medical fellow in pediatric nephrology, \$2,100 for research of cellular immunity of GBN components in Goodpasture's syndrome and Stebbay's nephritis; **James B. Howard**, professor of biochemistry, \$5,000 to look at the structure and mechanism of cardiac ketoacid CoA transferase; **Theodore J. Lillehei**, medical fellow in surgery, \$4,000 to study the ventricular function in cardiac allograft rejection; **D. Malejka-Giganti**, associate professor of laboratory medicine and pathology, \$5,000 for research of rat lysinophil peroxidase in metabolism of cardinogens; **Ora Pescovitz**, instructor of pediatrics, 5,000 to look at the role of growth hormone releasing hormone in the growth of the fetal rat; **William A. Sonis**, assistant professor of psychiatry, \$5,000 for the identification and treatment probe of childhood seasonal affective disorder;

Gail H. Vance, medical fellow specialist in laboratory medicine and pathology, \$1,500 for research into the molecular genetics of spinocerebellar ataxia; **William Vine**, assistant professor of laboratory medicine and pathology, \$5,000 to study liver transplantation; and **Sally A. Weisdorf**, \$5,000 to look at

infantile liver disease, protein metabolism and diet manipulation.

The student who received an MMF research grant was **Julie K. Drier**, Med. III, \$1,200 for research of S100 protein, cytokeratin, and epithelial membrane antigen as discriminants between malignant melanoma and anaplastic carcinoma.

UMD pharmacology graduate student awarded Sigma XI grant

Jeffrey Johnson, a master's degree student in pharmacology at the University of Minnesota, Duluth (UMD) School of Medicine, has received a \$250 grant from the national research society Sigma XI.

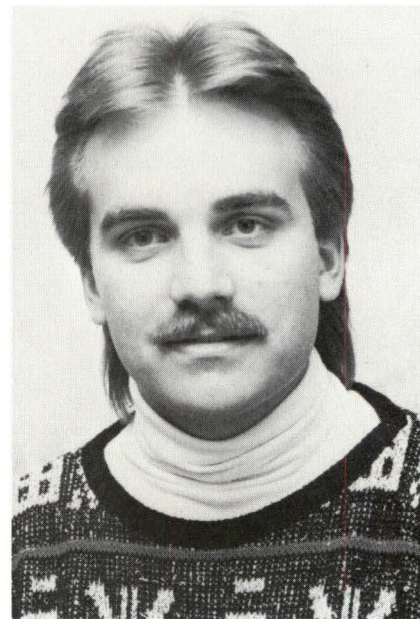
Johnson's grant is entitled "Structural Determinants of Nonconformity in Surrogate Species Extrapolation of Acute Chemical Lethality."

With the grant, Johnson will investigate species-related differences in the toxicity of organophosphate insecticides. Specifically, he will look at differences in organophosphate toxicity among rats, mice, fathead minnows and rainbow trout.

Many correlations have already been found between mammalian and fish toxicity data by researchers at both the Environmental Protection Agency's (EPA) Duluth Environmental Research Laboratory and the UMD School of Medicine. Johnson's research will be part of that project.

Unlike many other chemicals, organophosphates have so far shown no correlation between mammalian and fish toxicity data. In fact, organophosphate insecticides have proved to be much more toxic to mammals than would be predicted from the fish data.

Sigma XI's research grant program began in 1920. Its purpose is to benefit researchers like Johnson



Jeffrey Johnson

who are in the early stages of their scientific careers.

Last year, 1,900 grant applications were received by Sigma IX and 1,039 grants were approved. Of that number, four grants went to UMD students.

Johnson is the first UMD student to receive a Sigma XI grant in 1986.

Johnson's research is under the direction of Kendall B. Wallace, UMD School of Medicine assistant professor of pharmacology and director of UMD's Chemical Toxicology Research Center.

University of Minnesota Medical School endorses international health care congress to be held in May

What is WorldMed '86? It is a health care congress, an exhibit, a market place for products and ideas. WorldMed '86 will provide a window into the health care of the future.

Billed as an international health care congress, WorldMed '86 promises stimulating conferences, more than 300 exhibit booths, and exciting demonstrations of the latest in medical service and technology. It will be held May 7, 8, and 9 at the St. Paul Civic Center in St. Paul, Minnesota.

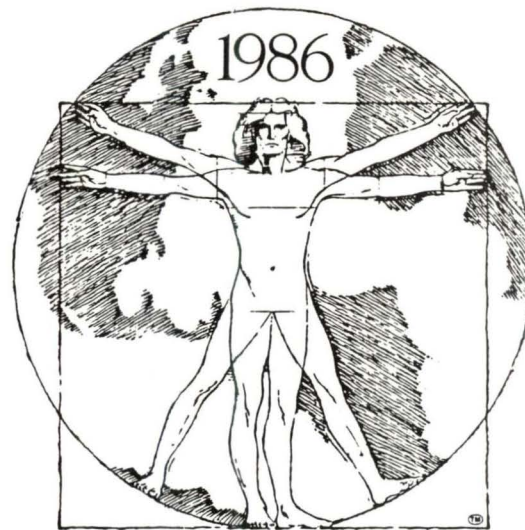
Sponsored by the Minnesota Trade Office and the Medical Alley Association, WorldMed '86 is endorsed and coordinated by the University of Minnesota Medical School and the Mayo Clinic.

Dr. John S. Najarian, professor and head of the department of surgery at the University of Minnesota Medical School, and W. Eugene Mayberry, chairman of the Mayo Clinic Board of Governors, are co-chairing the event.

Conceived, in part, to promote Minnesota as a world leader in medical research, education, alternative health care delivery and innovative approaches to treatment programs, WorldMed '86 will offer participants the opportunity to tour some of Minnesota's leading medical and

health care facilities. These include the University of Minnesota Hospital and Clinic, Mayo Clinic, Medtronic, Inc. (the world's leading producer of implantable medical devices), Courage Center, Hazelden Chemical Dependency Treatment Center, Sister Kinney Institute, Abbott Northwestern Hospital, and the International Diabetes Center (recently named the World Health Organizations Collaborating Center for diabetes education and management).

More than 120 seminar hours will be offered at WorldMed '86 during four concurrent tracks. The **Clinical Applications** track focuses on the impact of technology on chronic care and features sessions on AIDS, bone marrow transplants, management of diabetes, cardiovascular disorders and the role of technology in rehabilitation. The **Medical Technology Advancement** track accents new developments in medicine and technology from new applications of computers in medicine, to robotics, to new diagnostic tools, to cost saving technologies. In **Development in Health Care Delivery**, participants will learn about the changing financial structure of the health care industry, government limits on medicare reimbursements, as well as new payment systems that are



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revolutionizing the health care industry. The final track, **Global Medical Market**, is designed specifically for those engaged or interested in trade or marketing on the international level.

Invitations to attend WorldMed '86 have been extended to doctors, nurses and other health care providers, administrators and manufacturers throughout the world. The educational seminars, most of which are accredited for continuing medical education, will feature internationally known speakers. Among the keynote speakers are Dr. Harrison C. Rogers Jr., president of the American Medical Association; Dr. Leroy E. Hood, professor in the division of biology at the California Institute of Technology; U.S. Senator David Durenberger, chairman of the U.S. Senate subcommittee on Health Finance Committee; Dr. Stanley J. Reiser, professor of humanities and technology in medicine at the University of Texas Health Science Center at Houston; and Dr. Paul M. Ellwood Jr., of Paul Ellwood and Associates in Excelsior, Minnesota.

The Minnesota Medical Foundation is providing major support for the educational programs of WorldMed '86.

Nutrition and metabolism expert visits UMD

Willard J. Visek, a noted professor of nutrition and metabolism from the University of Illinois College of Medicine, Urbana-Champaign, was a visiting professor in nutrition at the University of Minnesota - Duluth (UMD) School of Medicine in March.

Dr. Visek's visit to the UMD School of Medicine was made possible by a grant from the National Dairy Council. During his visit, he spoke on nutrition in medical education; diet and cancer; anemia in liver disease, Reye's syndrome and cancer promotion; and urea cycle

overload and its biochemical consequences.

Dr. Visek is the 1985 recipient of the prestigious Osborne and Mendel Award for basic research in the science of nutrition, presented by the American Institute of Nutrition. He holds a Ph.D. from Cornell University and received his medical degree from the University of Chicago. Prior to his appointment at the University of Illinois, he was associated with the pharmacology department at the University of Chicago and was professor of nutrition and comparative metabolism at Cornell University.

Change in phone numbers for MMF and medical school scheduled for April

The University of Minnesota is installing a new phone system which will mean a change in phone numbers for all colleges and departments on the Twin Cities campus.

The first phase of changes is scheduled for April. Included in this first phase will be the new University of Minnesota Hospitals, the medical school and the Minnesota Medical Foundation. The general number for the Minnesota Medical Foundation will be 625-1440. Other changes will be reported as they become known.

'Doctors on Call' competes with nation's number 1 TV show

Duluth's locally-produced *Doctors on Call* is giving the nation's number one TV show *The Bill Cosby Show* a run for its money.

Doctors on Call, hosted by University of Minnesota, Duluth (UMD) School of Medicine Dean Paul Royce, was Duluth public television's (WDSE-TV) eighth most-watched TV show last year. It shared that top rating with such popular public TV hits as *Nova* and *National Geographic*.

This year, however, the show, now in its fourth season, faces even stiffer competition. Both *Doctors on Call* and *The Bill Cosby Show* air on Thursdays at 7 p.m. Surprisingly, *Doctors on Call* is holding its own.

"We do real well against Bill Cosby, but we do even better when Ronald Reagan has a press conference," joked show director Marty Anderson.

Doctors on Call presents a different medical topic each week and three guest physicians join Dr. Royce in discussion of the topic. During the live, unrehearsed half-hour program, the viewing audience may call in with questions for the physicians to answer.

One of this year's shows recently had the second greatest number of

phone calls ever - 65 calls in a half-hour period.

As for the show's competition from *The Bill Cosby Show*, Anderson asked, "Who would you rather watch — a comedian playing a doctor or a real doctor?"

Doctors on Call is produced by WDSE-TV and the UMD School of Medicine in cooperation with physicians from the St. Louis County Medical Society, Douglas County Medical Society, and the Range Medical Society.



Doctors on Call is holding its own in competition with *The Bill Cosby Show*. Dr. Paul Royce (left), dean of the University of Minnesota-Duluth School of Medicine, hosts the half-hour talk and audience call-in show.

Two test tube pregnancies pass first trimester

Marie and Randy Theisen have been trying to have a baby for the past six years. Marie has suffered four ectopic pregnancies in that time. An ectopic pregnancy is a life-threatening condition for the mother where the fertilized egg begins to grow in the fallopian tube instead of the uterus.

Finally, after so many years of trying and so many problems, the Theisens are expecting a baby in July. Marie Theisen's pregnancy was initiated in a petri dish, through the University of Minnesota's in vitro fertilization program.

The in vitro fertilization or "test tube" baby program began at the University of Minnesota in the fall of 1983. Marie Theisen and a second woman who wishes to remain anonymous are the first in the University's program to have their pregnancies continue beyond the first three months.

Marie Theisen's problem, an abnormal or blocked fallopian tube, is the same for nearly a quarter of all infertile couples. The in vitro fertilization process can by-pass this problem because the woman's eggs, which have been stimulated by hormones, are removed from the ovary before they have a chance to lodge in the fallopian tubes. They are then placed in a petri dish containing nutrients and blood serum, fertilized with the husband's sperm, and then transferred to another dish where



Randy and Marie Theisen are expecting a baby in July, the result of in vitro fertilization through the University's VIP Program.

the cells divide. After division, the fertilized egg is surgically placed inside the woman's uterus where it attaches to the uterine lining and normal embryo development continues.

Officially called the Vital Initiation of Pregnancy (VIP) program, the in vitro fertilization process is under the direction of Dr. George Tagatz, professor of obstetrics and gynecology at the University of Minnesota. Since June of 1985, the VIP program has treated 17 cou-

ples, out of which 13 pregnancies have resulted. However, only four of these were considered clinical pregnancies and only the two survived past the first trimester.

Dr. Tagatz believes the program will become more efficient in the future and he hopes eventually to be able to help couples with infertility problems other than blocked fallopian tubes and low sperm counts. The cost of in vitro fertilization averages about \$5,300 a time.

U of M researchers receive American Heart Association grants

The American Heart Association, Minnesota Affiliate has allocated a total of \$973,000 for heart research projects in Minnesota during 1985-86. Eight researchers from the University of Minnesota were among the recipients of these grants.

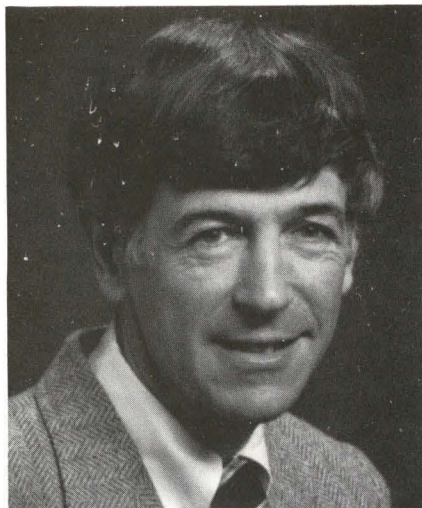
Ancel Keys, Ph.D.; **Patrick Schlievert, Ph.D.;** **Jeffrey Schwartz, M.D.;** and **David Thomas, Ph.D.,** all from the University of Minnesota, received grants-in-aid from the Heart Association. Awarded estab-

lished investigatorships were **David Benditt, M.D.;** **Richard Grimm, M.D.;** and **David Thomas, Ph.D.** **Jeffrey Platt, M.D.** received a clinician scientist award.

In addition, the University of Minnesota received the Medical Student Research Fellowship, an institutional grant to be used to encourage medical students to choose careers in research. Students Paul Hautema and Sung Kim have been selected to work under this fellowship.

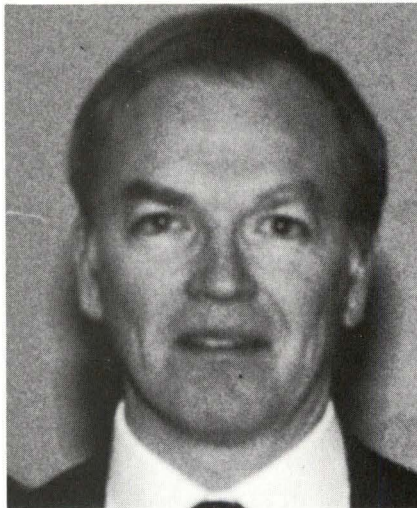
Through its ongoing commitment to research, the American Heart Association has played a key role in many of the major cardiovascular breakthroughs. Last year, the American Heart Association invested more than \$43.6 million for heart research nationwide. Included in this year's \$973,000 allocation was \$288,400 from the national association and \$644,600 from the Minnesota Affiliate.

Drs. Satran and Seim share Herz Faculty Teaching Development Award



Leon Satran

University of Minnesota Medical School faculty members **Leon Satran**, assistant professor of pediatrics, and **Harold C. Seim**, assistant professor of family practice, were selected to share the first Herz Fac-



Harold C. Seim

ulty Teaching Development Award of \$10,000.

Established with an endowment fund donated by the late Malvin E. Herz and his wife Josephine, the Herz Faculty Teaching Award is

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. Satran and Seim from six proposals submitted by faculty. For this year, preference was given to proposals which sought to stimulate student self-directed learning and incorporate medical ethics, medical economics, preventative medicine and uses of computers by physicians.

Dr. Satran was selected to receive \$6,000 in Herz Award funding for his project to study and improve the educational effectiveness of practicing physicians who serve as tutors in teaching hospitals. Dr. Seim will receive \$4,000 to establish a problem-based computer learning program for medical students at the University of Minnesota. One of the requirements of the Herz Faculty Teaching Development Award is that the recipients' departments must agree to provide one-third of the total expenses of the project.

UMD researcher looks at whether viruses can cause mental disorders

Can viruses cause mental disorders? Scientists are beginning to wonder.

Dr. Richard J. Ziegler, UMD School of Medicine associate professor of medical microbiology and immunology, has attended two World Health Organization conferences on that topic in the last four years and has presented papers at both.

According to Dr. Ziegler, the idea that viruses may cause mental disorders has been around for a long time. As early as the 1800s, scientists began to suggest that infection might play a role in the development of mental disorders. Viruses were first implicated because of schizophrenia-like symptoms noted in influenza patients following the

epidemic of 1918.

Scientists now know that viruses do, in fact, enter the brain. Acute viral infections can cause encephalitis, which is an inflammation of the brain.

But what about other, non-acute viruses? Do they persist in the brain?

"We know for sure that the AIDS (Acquired Immune Deficiency Syndrome) virus does get into the brain and persists there," Dr. Ziegler said. And a number of AIDS patients do come down with mental problems, he pointed out. However, there is still no evidence that the virus causes the mental problems.

Dr. Ziegler recently returned from a single-quarter leave at the

National Institutes of Health (NIH) where he examined nerve cell cultures exposed to cerebrospinal fluid from schizophrenic patients for possible alterations in normal cell behavior. Thus far, these preliminary studies have only revealed an altered growth rate of the treated cells, he explained.

"There's been a contagion hypothesis since the 1800s," Dr. Ziegler concluded. "The problem is, there's still no hard data. Recent advances in molecular biology and virology suggest that perhaps now is the proper time to once again explore the possible involvement of viruses and neuropsychiatric disease."

Researchers find evidence that cervical cancer is sexually transmitted disease

A virus associated with cancer of the cervix has been found in the semen of three men who are part of the University of Minnesota's research project on human papilloma virus (HPVS).

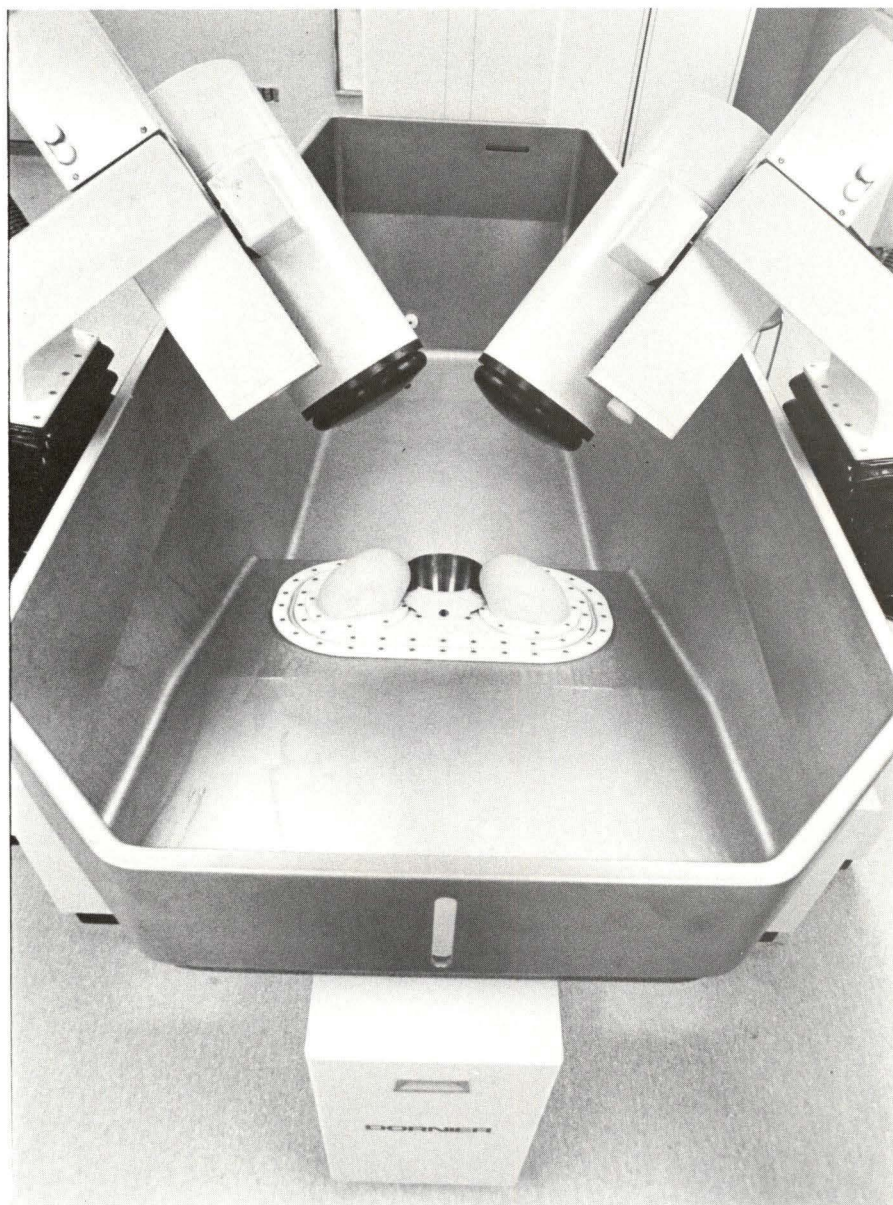
Past research has indicated that HPVS is related to 80 to 90 percent of genital cancers in women and men, although it has not been proven that HPVS causes these cancers. HPVS is, however, the principal cause of genital warts and of a chronic skin wart that becomes cancerous when exposed to the sun.

The three men whose semen was found to carry the virus have been part of the University's HPVS study for the past eight years. Two of the men suffer from genital warts and the third is the son of one of the men.

The significance of finding the HPVS virus in semen, according to Dr. Anthony Faras, head research investigator and director of the University's Institute of Human Genetics, is that it supports evidence that cervical cancer is a sexually transmitted disease because it shows how transmission could occur. Cervical cancer strikes 15,000 American women each year.

Dr. Faras said the next step in the research project will be to study women with genital warts or cervical dysplasia (a precancerous condition) to see if they can pass the virus to their sexual partners.

The test that researchers used to detect the HPVS virus in semen is an extremely advanced laboratory procedure that prohibits its availability to the general public at this time, Dr. Faras explained. He also said that he and his colleagues are trying to develop a vaccine that would be effective against HPVS.



The University Hospital's new lithotripter uses extracorporeal shock wave lithotripsy to disintegrate kidney stones, quickly and painlessly.

University Hospital acquires lithotripter

The University of Minnesota Hospitals recently acquired a lithotripter, a machine that uses revolutionary technology to destroy kidney stones painlessly and without surgery.

The only FDA-approved model of its kind in the Twin Cities area, the University's lithotripter uses extracorporeal shock wave lithotripsy (ESWL) to disintegrate kidney

stones. During the hour-long lithotripter procedure, the patient reclines in a tub of water and experiences little or no pain. In addition, the use of ESWL has drastically cut recuperation time compared to conventional kidney stone surgery and patients are usually able to resume normal activities soon after discharge.



Medical students from the University of Minnesota rehearsed for their performance at *Operation 86: Medical School Fun and Follies*, a benefit talent show to raise money for medical student scholarships.

Medical students sing and dance to raise money for scholarships.

Medical students from the University of Minnesota were singing and dancing and hamming it up on Friday, March 21 - all for a good cause. They were showcasing their talents for parents and alumni to raise money for medical student scholarships.

"Operation 86: Medical School Fun and Follies" was the theme for the benefit variety show which was sponsored by the Medical Student Council, the Parents Committee and the Minnesota Medical Foundation. Tickets, at \$25.00 each, entitled attendees to the show and a dinner catered by Lee Ann Chin. Proceeds from the event went to establish the Parents Medical Student Scholarship Fund which will provide scholarships to scholastically deserving, yet needy medical students.

The planning committee for the

event included students and members of the University of Minnesota Medical Student Parents Committee. Thanks goes to those committee members: Inge Schwochau, Doris Johnson, Marion Votel, Nina Bunik, Jean Conroy, Theresa Wollan, Jim and Joyce Tjornhom, Roger and Peggy Wald, Bill and Janis Wesa, Lucille Garr, and Bob and Patsy Huberty. Also on the planning committee were Helene Horwitz, director of programs for the Minnesota Medical Foundation and Pearl Rosenberg, assistant dean of the University of Minnesota Medical School.

Editor's Note: The final amount raised by the benefit variety show was not known at the time of publication. A final report will be included in the next issue of the Medical Bulletin.

Buchwald to speak at alumni association meeting

Syndicated columnist and humorist Art Buchwald will be the featured speaker at the Minnesota Alumni Association Annual Meeting on June 4, 1986.

Alumni of the University of Minnesota are invited to participate in the annual meeting which will be preceded by cocktails and dinner and followed by Buchwald's remarks, music and a social hour.

The evening begins at 6:00 p.m. and the cost is \$25.00 per person. For more details, contact the Minnesota Alumni Association, (612) 373-2466.

First Leonard Lang Lectureship to be held

The first annual Leonard A. Lang Memorial Lectureship will be held on Tuesday, May 20, 1986 as part of the annual symposium on gynecologic oncology sponsored by the department of obstetrics and gynecology at the University of Minnesota.

The guest lecturer for this important new lectureship will be Dr. Nina Einhorn from the Karolinska Institute in Stockholm, Sweden. She will speak on the current concepts in the treatment of ovarian carcinoma.

The Leonard A. Lang Memorial Lectureship was established through the Minnesota Medical Foundation in honor of Dr. Lang who died in 1984. A 1929 graduate of the University of Minnesota Medical School, Dr. Lang was a prominent Twin Cities obstetrician and gynecologist. For many years, he served as head of the ob/gyn departments at both Minneapolis General and St. Mary's Hospitals. He was instrumental in developing and leading the physician teaching program at St. Mary's. Dr. Lang also served as a clinical professor at the University of Minnesota Medical School from 1933 until his retirement in 1971 when he was named clinical professor emeritus.

Medical School reunions planned for June

Renewing old friendships, reminiscing about days gone by, sharing stories of careers and families . . .

That's what's in store for some of the alumni of the University of Minnesota Medical School who will be invited back to campus on June 6 and 7 to celebrate their reunions. This year, the festivities promise to be bigger and better than ever before because, for the first time, all reunion celebrations will be held on the same evening and in the same hotel.

Reunions are being planned for the classes of 1936, 1946, 1951, 1956, 1961, 1966 and 1976. Each class will host its own private reunion banquet but will be invited to join the other classes for several all-alumni activities.

The Radisson University Hotel

will serve as reunion headquarters and the festivities will kick off on Friday, June 6 with the graduation ceremonies of the Class of 1986. All alumni are invited to attend the ceremony at Northrop Auditorium and relive their own graduation day. Then, all alumni will be honored guests at the dean's reception back at the hotel, followed by the individual class dinners. The evening concludes with dancing till midnight for all reunion participants.

On Saturday, June 7, the reunion weekend will end with the New Horizons in Medicine Seminar, sponsored by the Medical Alumni Society. Speakers will include Drs. Fritz Bach, Harry Kay professor in the department of laboratory medicine and pathology; David Knighton, assistant professor of surgery; Chester

Whitley, pediatrics instructor; William Krivit, professor and head of the department of pediatrics; Paul Lange, professor of urologic surgery; and Paula Clayton, professor and head of the department of psychiatry. An all-alumni luncheon will follow the seminar.

The Minnesota Medical Foundation is coordinating the plans for the 50-year reunion of the Class of 1936. In addition to these activities, those celebrating their golden reunion will be invited to a few special events.

Individual class members will be receiving further details about their reunion in the mail. For more information, however, please feel free to contact Paula Sanders at the Minnesota Alumni Association, (612) 373-2466.

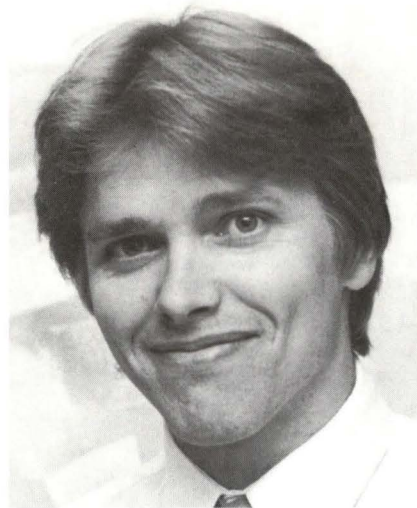
Med school researcher receives \$218,568 grant

George Trachte, University of Minnesota, Duluth (UMD) School of Medicine assistant professor of pharmacology, has received a three-year \$218,568 grant from the National Institutes of Health's (NIH) Heart, Lung, and Blood Institute to study the role of thromboxanes in the body.

Thromboxanes are fatty acid metabolites that cause blood to clot and blood vessels to constrict, thereby reducing blood flow. They act similarly to norepinephrine, which also restricts blood flow.

Thromboxanes were first discovered in 1975 and not much is known about them. Although scientists know that thromboxanes affect blood and blood vessels, they do not know if thromboxanes work directly on nerves. Thromboxanes may increase the amount of norepinephrine released by the nerves, or they may work to increase the action of norepinephrine once it is released, according to Trachte.

More understanding of thromboxanes may lead to different treatment of both hypertension and myocar-



George Trachte

dial infarction, which is damage to the heart muscle resulting from loss of blood flow following a coronary thrombosis.

Trachte holds a doctorate in physiology from Thomas Jefferson University. He joined the faculty at the UMD School of Medicine in 1982. He also holds a doctorate in physiology from Thomas Jefferson University. He joined the faculty at the UMD School of Medicine in 1982.

Pediatric metabolic team established at U of M Hospitals

The University of Minnesota Hospitals has established a Pediatric Metabolic Team to optimize the diagnosis and management of patients with various metabolic disorders. The team consists of pediatricians trained in biochemical disorders, a pediatric neurologist, a child psychologist, a clinical biochemist, dietitians and a social worker.

The complexity of metabolic disorders requires a team effort for proper diagnosis, acute management and follow-up of patients. The symptoms and signs seen in metabolic disorders are rarely specific enough for an accurate clinical diagnosis which makes laboratory diagnosis essential for these disorders.

Members of the Pediatric Metabolic Team are trained in the application of laboratory methodologies and do active research on the recent advances in metabolic diseases. The team offers consultations and laboratory evaluations to inpatients and outpatients of the University of Minnesota Hospitals.

Rarely performed cancer surgery saves woman's life

When 49-year-old Gail Zurn was admitted to the University of Minnesota Hospitals, her legs were extremely swollen and her life was in danger. The problem was a large cancer that extended from her kidneys through the great vessels in her heart. To save her life, University doctors performed a relatively new and complicated type of surgery.

Zurn's legs were swollen because the cancer was blocking the vena cava, which receives blood from the lower extremities and the greater part of the pelvic and abdominal organs. To safely remove all of the cancer, her physicians, urologic surgeon Paul Lange and cardiovascular surgeon W. Steves Ring, cooled Zurn's body to reduce the amount of oxygen needed during surgery. They also stopped her circulation by draining all of the blood from her system. This gave them time to remove the cancer from the left great vessel without causing massive bleeding — a problem in past attempts to remove this type of cancer — and without causing damage to vital organs.

The operation was successful. Drs. Lange and Ring were able to completely remove the cancer. Zurn was released in good health from University Hospital in January.

MMF sponsors mini symposium

The Minnesota Medical Foundation co-sponsored a mini-symposium in April at the University of Minnesota Medical School that featured a host of authorities in the field of neurobiology.

Called *Frontiers in Neurobiology*, the symposium featured Geoffrey Melville Jones of McGill University, Barry W. Peterson of Northwestern University, Edward L. Keller of the University of California at Berkeley, Gerald E. Loeb of the National Institutes of Health, Paolo Viviani of

the CNR in Milano, Italy, Apostolos Georgopoulos of Johns Hopkins University, James H. Abbs of the University of Wisconsin, and John F. Soechting of the University of Minnesota.

In addition to the Minnesota Medical Foundation, the mini-symposium was sponsored by Minnesota Mining and Manufacturing Company, the departments of neurosurgery and physiology and the neuroscience program at the University of Minnesota.

Additional categories added to distinguished teacher recognition program

Two additional faculty members of the University of Minnesota Medical School will be honored this year for their teaching accomplishments through the Distinguished Teacher Recognition Program, sponsored by the Minnesota Medical Foundation.

In the past, three teachers in the

basic and clinical sciences have been selected by student ballot to receive the Distinguished Teacher of the Year Awards. This year, an additional award, "Distinguished Medical Resident Teacher," will be given as determined by the balloting of third and fourth year medical students. These four award winners will receive \$500 cash prizes.

In addition, MMF has established the "Outstanding Medical School Teacher Award" to honor a faculty member who has demonstrated achievement in teaching and advising, in academic program development and in educational leadership. The recipient of this new award will receive a \$1,500 cash prize.

Nominations for Outstanding Medical School Teacher will be accepted from any member of the medical community including faculty, staff, students, medical residents, administrative units, and medical student organizations. The winners will be selected by MMF's Honors and Awards Committee. The deadline for this year's nominations is April 30, 1986.

Myers presented Distinguished Service Award

Ruth Myers, co-director of the American Indian Programs at the University of Minnesota, Duluth (UMD) School of Medicine, has received a Distinguished Service Award for "outstanding service and dedication to public education" from the Minnesota Elementary School Principals' Association (MESPA).

Myers is currently president of the State Board of Education. She has been a member of the Board since 1975, and has served as president since 1984. She was a member of the Duluth Board of Education from 1971 to 1975, and has been a staff member at the UMD School of Medicine since 1979.

In making the award, MESPA acknowledged Myers' near 20-year commitment to community service and public education.

A Native American, Myers is a

member of the Grand Portage Band of Minnesota Chippewa. Her career includes active participation in Indian education and health issues. She was a member of the Minnesota State Advisory Committee to the U.S. Commission on Civil Rights and has served on numerous boards and commissions on behalf of minorities, women, and the poor. Last fall, she was appointed by Lt. Governor Marlene Johnson to serve on the Minnesota Women's History Interpretive Center Task Force.

In making the Distinguished Service presentation, MESPA stated, "Ruth Myers has demonstrated a life-long commitment to quality public education. Her encouragement and support of Minnesota elementary education has been a significant contribution to the strength of our school systems."

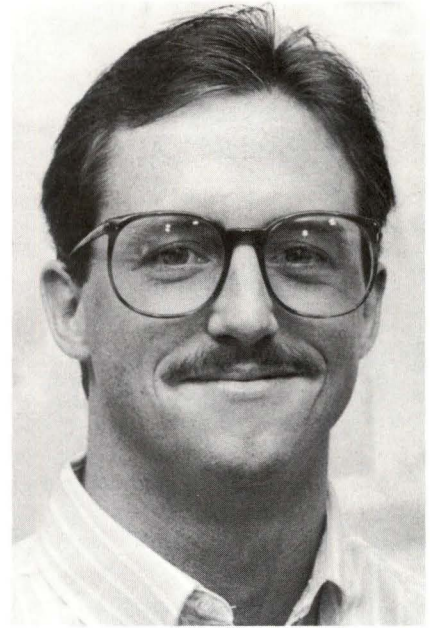
Five UMD medical students receive Tilderquist scholarships



George Fall



Beth Osterlund



Tom Rice

Five second-year students at the University of Minnesota, Duluth (UMD) School of Medicine are this year's recipients of the David L. Tilderquist Memorial Library Revolving Scholarship.

The awards were presented at the January meeting of the St. Louis County Medical Society. **George Fall, Beth Osterlund, Tom Rice, Bonnie Rohr, and Paul Terrill** received awards and checks for \$1,000.

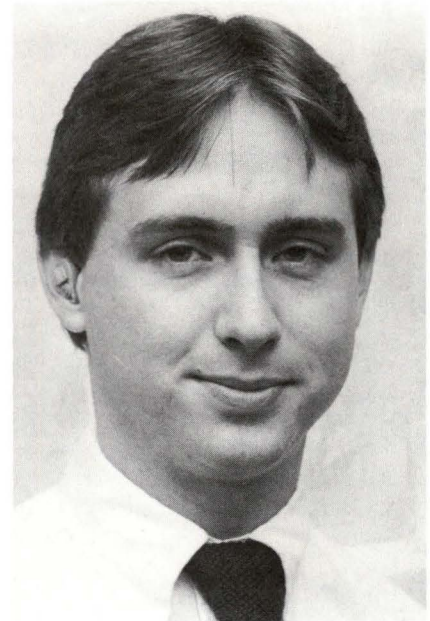
This is the first year that five scholarships have been awarded, according to Dr. Gerald Cotton, secretary-treasurer of the scholarship fund and head of the clinical sciences department at the UMD School of Medicine. The greatest number of scholarships awarded in any one year in the past was three, Cotton said.

The scholarship fund was established in 1974 by the board of directors of the David L. Tilderquist Memorial Library.

Dr. Tilderquist, who was a specialist in eye, ear, nose, and throat medicine, was a prominent Duluth physician for many years.



Bonnie Rohr



Paul Terrill

New \$125 million hospital building opens

April 18 and 19 will be moving days for employees and patients of the University of Minnesota Hospital. Unit J, the long-awaited hospital replacement facility, is now complete and ready for occupancy.

Tours, open houses and other festivities were held in March to hail the completion of the \$125 million hospital building. University of Minnesota faculty, staff and alumni, as well as community physicians and the public, were invited to tour the

hospital which features 566,000 square feet of space, 460 replacement beds, state-of-the-art equipment and spacious patient rooms overlooking the Mississippi River.

A magnetic resonance emergency unit, a lithotripter, a thermatron-RF hyperthermia machine, cardiopulmonary and heart catheterization labs and organ, krypton and YAG lasers are just a few of the new pieces of diagnostic and treatment equipment housed in the new hospital.

Not all patient care units will move into Unit J. The epilepsy nursing station, four psychiatric stations, obstetrics and gynecology, labor and delivery and the rehabilitation nursing station will remain in the Mayo Building. Most of these will eventually move into remodelled areas of Mayo. The other vacated areas of Mayo will become research laboratories, teaching facilities and offices.



State-of-the-art equipment and spacious patient rooms are part of the new nursing stations in the recently completed replacement facility for the University of Minnesota Hospitals and Clinics.

Medical school faculty receive grants

The medical school faculty are proud of their accomplishments in research. The University of Minnesota Medical School, Minneapolis ranks sixth in the nation in the number of principal investigators (the lead investigators on grants) and thirteenth among all medical schools in the amount of outside funded research expenditures per faculty member. We will be announcing in each issue of the *Medical Bulletin* some of the recipients of new grants.

David Brown, M.D.
Dean, University of Minnesota Medical School

Department Principal Investigator	Grant Agency Amount	Research Project	Department Principal Investigator	Grant Agency Amount	Research Project
Biochemistry			Neurology		
Dempsey, Mary E.	American Cancer Society \$83,000	Malignancy and regulation of metabolism lipid	Birnbaum, Gary	National Institute of Health \$82,034	Mechanism of depressed immune function in aging man
Edstrom, Ronald D.	American Diabetes Association \$12,500	Zero-order ultrasensitivity in phosphorylase regulation	Lambert, Edward	National Institute of Health \$65,777	Disease of neuromuscular transmission
Family Practice and Community Health			Otolaryngology		
Nesvacil, Leon, Sanderson, M. Olwen	Revlon Health Care Research \$25,635	A multicenter double-blind parallel comparison of once-daily and moderate hypertension	Morizono, Tetsuo	Deafness Research Foundation \$11,951	The effect of hyperlipidemia on auditory function
Laboratory Medicine and Pathology			Pediatrics		
Bach, Fritz	Endotronics \$317,640	Studies of organ transplantation	Klein, David	American Diabetes Association \$8,000	Interactions of glomerular proteoglycans with fibronectin and other extracellular matrix components in diabetes mellitus
Oleary, James	National Cancer Institute \$124,372	Mechanism of lymphocyte mitogenesis	Michael, Alfred	Viking Children's Fund \$142,200	Numerous projects
Steffes, Michael	Juvenile Diabetes Foundation \$16,875	Pathophysiology of diabetic nephropathy in man	Sinaiko, Alan	National Institute of Health \$589,064	Immune clearance in murine SLE
Medical School Administration			Pharmacology		
Manning, Patrick	Division of Research Resources \$183,824	Developing and improving institutional animal resources	Whitley, Chester	Human Growth Foundation \$20,000	Molecular genetic analysis of skeletal dysplasias
Medicine			Physical Medicine and Rehabilitation		
Azar, Silvia	National Heart, Lung and Blood Institute \$162,181	Dietary salt and blood pressure regulation	Sparber, Sheldon	National Institute of Health \$67,245	Response to neurotoxins after neonatal undernutrition
Bantle, John	American Diabetes Institute \$5,000	Comparison of the predictive capabilities on the diabetic exchange list and glycemic indices of food	Cameron, Jeffery	U.S. Department of Education \$107,684	Traineeships in rehabilitation medicine
Cohn, Jay	National Heart, Lung and Blood Institute \$10,112	Studies of left ventricular dysfunction	Dykstra, Dennis	Spinal Cord Society \$2,640	A study of the effects of botulinum toxin to reduce spasticity in humans
Meryhew, Nancy	National Institute of Health \$50,760	Kinetic analysis of murine immune hemolytic anemia	Physiology		
Messner, Ronald	National Institute of Health \$105,585	Monoclonal anti-B2-microglobulin and lymphocyte function	Poppele, Richard	National Institute of Health \$81,869	Neurophysiological study of dorsal spinocerebellar tract
Oppenheimer, Jack/ Fish, Alfred	National Institute of Health \$27,000	Thyroid hormone effects of genomic expression in brain	Psychiatry		
Tobian, Louis Jr.	National Heart, Lung and Blood Institute \$111,049	Markers in the pre-hypertension of youth which reliably indicate future adult hypertension	Clayton, Paula	Minn. Department of Human Services \$2,500	Psychiatric consultation on refugee mental health services
Weisdorf, Daniel	Procter and Gamble Company \$133,896	Randomized trial of chlorhexidine in marrow transplant patients	Mitchell, James	National Institute of Mental Health \$325,582	Bulimia treatment group therapy versus antidepressants
Microbiology			Surgery		
Plagemann, Peter	National Institute of Health \$59,930	Purine transport and metabolism in red cells and lymphocytes	Delaney, John	USDOD - Defense Nuclear Agency \$136,000	Prostaglandin's and radiation enteritis
Schlievert, Patrick	Public Health Research Institute \$54,220	Molecular analysis of TSS Exotoxin	Migliori, Richard/ Simmons, Richard	National Institute of Health \$27,000	Gram negative surgical shock: immunoprophylaxis and therapy
			Tveter, Kevin/ Foker, John	National Institute of Health \$26,004	Recovery of energy metabolism and function after cardiac surgery

Dr. Anthony Faras to head Institute of Human Genetics



Back in 1978, Dr. Anthony J. Faras, then an associate professor of microbiology at the University of Minnesota Medical School, was asked to look at a viral infection which was causing tumors in cows in Faribault. Dr. Faras agreed to investigate the infection and he and his colleagues eventually developed an effective vaccine against the virus.

This discovery led to the establishment of Molecular Genetics, Inc., a company which develops animal vaccines and works in plant genetics. Dr. Faras took a leave of absence to help run the company for awhile, but his intent was "always to return to teaching and research at the University of Minnesota." When he did return, he wanted to develop "something good at Minnesota; something far-reaching."

A career-long interest in the origin of diseases, his background in biology and his association with plant genetics, all seemed to point to the field of human genetics.

"I was interested in promoting and exploring genetics in the area of health care," he explained.

At the University of Minnesota, he saw a lot of programs which related to genetics, but, he felt, new technologies dictated that a critical mass of researchers and programs be pulled together to make significant advancement in the area. Thus, began Dr. Faras' campaign to bring a genetics institute to Minnesota.

His campaign was successful when the Institute of Human Genetics was established less than a year ago (see story on page 16). Dr. Faras was recently named director of the new Institute, after serving as acting director since its inception.

Dr. Faras credits many people with supporting the idea of the Institute, including former dean of biological sciences Richard Caldecott, former medical school dean Neal Gault, University president Kenneth Keller and vice president for health sciences Neal Vanselow. The concept and goals for the new Institute were established by a human genetics task force which was appointed by Dr. Vanselow, chaired by Dr. Faras, and comprised of faculty members from throughout the University.

Now that the Institute is up and running, Dr. Faras is serving on a fund-raising committee, charged with finding outside support for the next phase of the Institute's development.

Originally from Chisholm, Minnesota, Dr. Faras says he has always had an interest in biology, plants and diseases. Thus, it is not surpris-

ing that his undergraduate degree is in biology from the University of Minnesota-Duluth. He also did post-graduate work in biology at the University of Colorado. While at Colorado, he accepted a fellowship in the medical school's department of pathology. At that point, he had the option of entering the M.D. or Ph.D. program.

"I was interested in diseases," Dr. Faras recalled, "and was doing research in molecular biology. I decided not to get into the clinical area."

In 1970, he received his Ph.D. in pathology from the University of Colorado and then accepted an NIH fellowship in microbiology at the University of California Medical School to study retroviruses in cancer. His research entailed collaboration with many geneticists and his interest in the genetic components of diseases increased.

In 1973, he accepted an assistant professorship in microbiology at the University of Michigan Medical School and continued his research in cancer.

He came to the University of Minnesota in 1975 as an assistant professor of microbiology, was appointed associate professor in 1976 and professor in 1978. While at Minnesota, Dr. Faras has pursued his cancer research.

"Now," he said, "I'm interested in different types of problems, such as those cancers which develop from benign tumors; like cervical dysplasia."

Dr. Faras is a member of numerous professional societies and has served on the grant review committees of the American Cancer Society and the NIH National Cancer Institute. He is also the author of more than 120 scientific articles.

Dr. Stuart Jamieson to direct heart-lung transplant program



Dr. Stuart W. Jamieson has been named chief of cardiovascular surgery at the University of Minnesota and will direct the University's new heart-lung transplant program.

Formerly the director of the heart-lung transplant program at Stanford University, Dr. Jamieson is one of only a small group of surgeons in the country who perform heart-lung transplants. At Stanford, he performed 30 double transplants, with a one-year survival rate of 70 percent.

The University of Minnesota's heart-lung program will be the first double organ transplant program in the Midwest. Stanford's program was the first in the country and remains the busiest.

Dr. Jamieson said he was attracted to Minnesota because of its central location which means organs can be collected more easily from throughout the United States and parts of Canada. Stanford's west coast location, he said, made transfer of donor organs more difficult and as a result, the list of patients waiting for organs became lengthy.

Heart-lung transplants were first performed on humans in the late

1960s, but discontinued in the early 1970s. Stanford resumed the procedure in 1981 and the first patient is still alive and active.

Heart-lung transplants are required when the damage to one organ causes damage to the other. Dr. Jamieson said recipients generally fall into one of two groups: those with congenital heart defects with associated lung disease, and those who are victims of sudden heart disease, such as a virus attack. Overall, Dr. Jamieson estimates there are more than 1,000 candidates for heart-lung transplants.

While at Minnesota, Dr. Jamieson will perform lung-only transplants and conventional open-heart surgery as well as heart-lung transplants.

Dr. Jamieson received his medical education at the University of London through St. Mary's Hospital. He held several positions at St. Mary's including house surgeon, demonstrator in anatomy, and registrar of the renal and transplantation units and later of the surgical unit. He also held positions at the Royal Lancaster Infirmary, Norwick Park Hospital, Brompton Hospital, and Lon-

don's National Heart and Chest Hospitals.

In 1978, Dr. Jamieson came to America to take a post doctoral fellowship in cardiovascular surgery and transplantation service at Stanford University Medical Center. He was named a chief resident at Stanford in 1979, assistant clinical professor of cardiovascular surgery in 1980, assistant professor in 1981 and associate professor in 1983. He also served as assistant chief and co-director of cardiac surgery for the Veterans Administration Hospital in Palo Alto and as director of both Stanford's heart-lung transplant program and its cardiac surgery experimental laboratories.

Dr. Jamieson is a member of numerous professional societies including the International Cardiac Transplantation Society, of which he is president-elect. He also holds many honors and awards and has authored a book on cardiac surgery, as well as more than 200 articles on that and related topics.

New Institute of Human Genetics pulls together researchers,

Ten years ago it sounded like science fiction. Today, gene analysis, gene repair, genetic engineering and other genetically-oriented technologies are becoming a reality.

And, the University of Minnesota doesn't want to "get lost in the dust" in the national molecular genetics race. Thus, the Institute of Human Genetics was established less than a year ago to pull together genetic researchers, clinicians, professors and scientists to study genes and how they function in order to keep Minnesota at the forefront of new genetic technologies.

Currently, the Institute of Human Genetics is consolidating already existing genetic programs within the University of Minnesota into a more cohesive unit, with plans to strengthen and expand them. Individual staff members are being relocated to the Institute which will be housed on the fourth and fifth floors of the Malcolm Moos Health Sciences Tower. About two to four

new professional researchers and scientists will be hired each year. Eventually, the Institute will employ about 150 employees. New clinics, research laboratories and equipment will also be added.

With salaries, equipment and building renovations, the cost of the Institute may exceed \$7 million dollars over the next few years, according to Dr. David M. Brown, dean of the University of Minnesota Medical School.

The importance of the Institute, however, justifies its expense in the view of University administrators. Dean Brown put the Institute in his list of top ten priorities for the medical school and only the Super Computer Institute and the Biotechnology Processing Center were higher on the University's list of projects to receive designated funding from the legislature. The Institute's first phase of development was accomplished with funding from the University's central administration, the

medical school and the state. In the future, it is hoped that the Institute will attract outside support from corporations, foundations and the community.

Why was an Institute of Human Genetics so critical for the University of Minnesota?

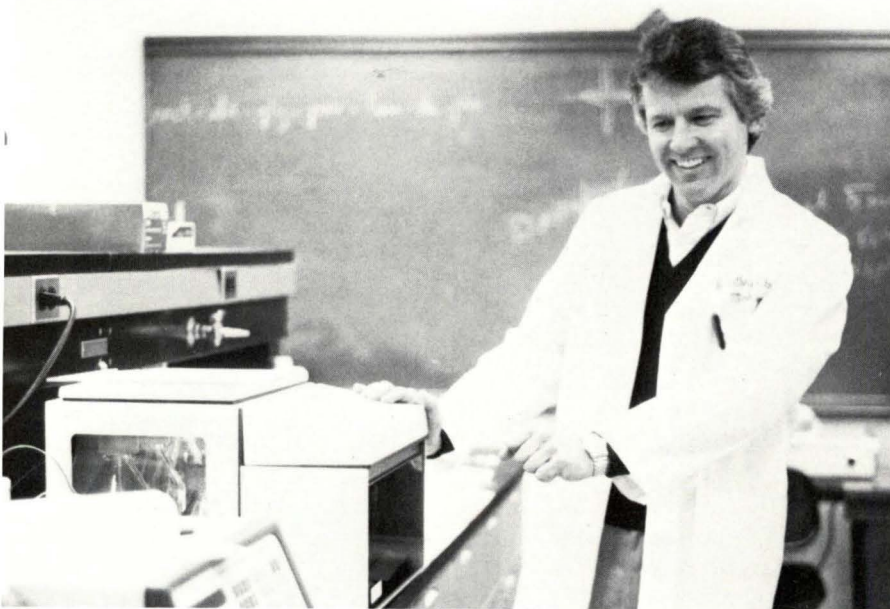
Because, according to Dr. Anthony Faras, director of the new Institute, Minnesota was "falling out of the competition" in discovering and using genetic technologies. "What we were doing up until the Institute," he said, "was to just use conventional technologies to study a particular genetic disease while the rest of the world used new technologies to look at these diseases."

As an example, Dr. Faras pointed to the use of genetic probes which can now diagnose about a dozen genetic diseases. In the future, these probes will be used to identify hundreds, perhaps thousands, of difference genetic lesions responsible for certain diseases and family predisposition to these genetic diseases. Cancer, heart disease, Alzheimers, cystic fibrosis and many other common diseases, including contagious diseases, may prove to have genetic components. The University of Minnesota was doing very little in advancing genetic probe technology.

A major goal of the Institute will be to develop and apply new techniques, such as genetic probes. To make the most of its resources, the Institute will be divided into five divisions: molecular genetics, behavioral genetics, clinical genetics, population genetics and genetic services.

Molecular Genetics

The goal of this area of the Institute is to develop and maintain state-of-the-art technologies to fa-



Dr. Anthony J. Faras, director of the Institute of Human Genetics.

clinicians, and programs to advance genetic technologies

Facilitate research programs of geneticists and biologists. New molecular biological techniques such as gene analysis and gene repair have become available and are revolutionizing human genetics, according to Dr. Faras.

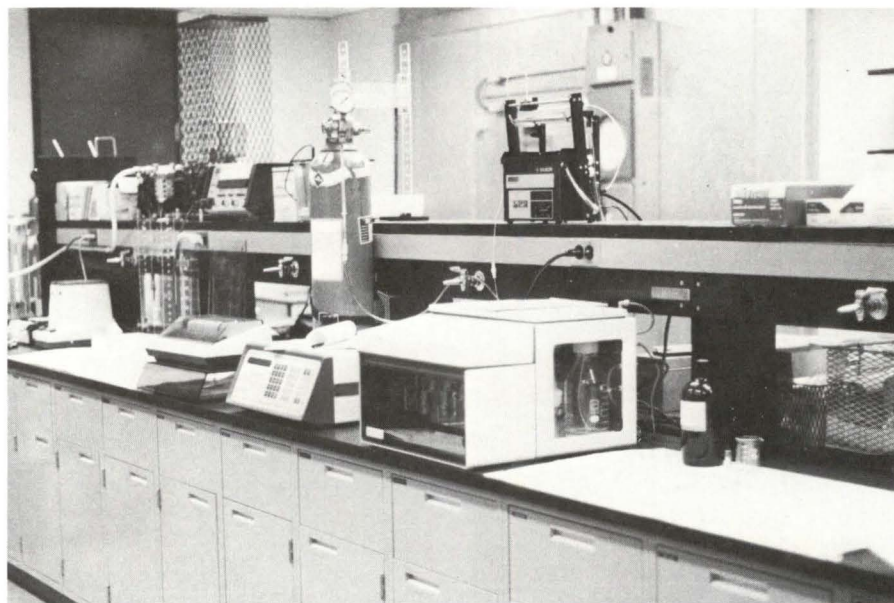
As this area of the Institute is completed, it would provide proficiency in all areas relevant to the study and analysis of human genetic disease including:

- normal and abnormal human gene structure;
- development of diagnostic tools for the identification of abnormal genes;
- normal and abnormal control of expression of human genes and the development of strategies for activation and suppression of expression of human genes;
- isolation, modification, transfer, and expression of human genes in surrogate cells and the development of techniques and conditions for gene repair;
- the study of cell growth regulatory factors in tissue culture and animal models and the development of strategies for interference with factors promoting cell growth.

Research training will be made available to undergraduate, graduate and postgraduate students in these molecular technologies and their application to human genetic disorders.

Behavioral Genetics

The departments of psychology (College of Liberal Arts), genetics and cell biology (College of Biological Sciences), and psychiatry (Medical School), along with the Institute of Child Development (College of Education) are the academic units which will participate in the research, teaching and service missions of the behavioral genetics sec-



The Microchemical Facility is a laboratory already operating within the Institute of Human Genetics. It contains state-of-the-art genetic equipment to analyze genes and proteins.

tion of the Institute of Human Genetics. This section will coordinate efforts to:

- investigate the genetic nature of behavior and determine the means for alleviating human behavioral disease by research at all levels—molecular, cellular, individual and population;
- provide a balanced curriculum and a research training environment for the University's behavioral genetics students;
- provide financial support, through training grants, for graduate students and postdoctoral fellows;
- promote seminars, workshops and informal study activities for faculty and students;
- develop a faculty and research environment that will attract long-term financial support of unique and outstanding research programs.

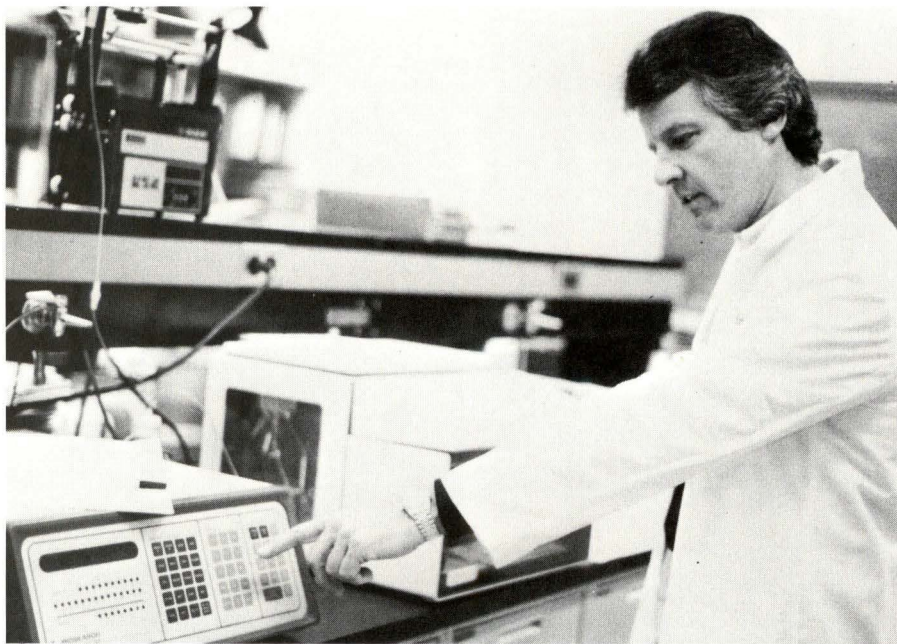
Clinical Genetics

The Institute's clinical genetics section will integrate all the re-

search and training activities of the Institute with the clinical programs throughout the University's health sciences areas. These clinical programs include the University Hospital Genetics Clinic and inpatient services, the Genetics Eye Clinic, the Genetic Dermatology Clinic, the Neurofibromatosis Clinic and the regional genetics clinics in Duluth, St. Cloud and Mankato. Through this section, the Institute will offer human genetics seminars and classes for clinicians working in specialized areas of medicine, pediatrics, obstetrics, surgery, ophthalmology, neurology, dentistry and others. In addition, research in areas related to human genetics, such as metabolic liver disease, diabetes, lung disease, cancer, and dysmorphism will be developed and promoted.

Population Genetics

The population genetics division will focus on establishing comput-



Dr. Faras pointed out the automated oligonucleotide synthesizer which synthesizes fragments of DNA.

erized methodologies to facilitate research in human genetics by providing such information as the mathematical properties of genetic transmission in families and populations. In particular, computer programs will be designed to determine the mode of transmission of human disease susceptibility genes and their chromosomal location.

Currently, the population genetics division is being developed to provide a wide variety of services including:

- providing expertise in designing appropriate sampling strategies for specific genetic diseases;
- developing analytic procedures required for both segregation and linkage analysis;
- maintaining a library of genetic analysis computer programs;
- developing pedigree and cell culture database for family studies;
- investigating pedigree structures with specific relationship to the in-

formation content obtained from sequence polymorphisms;

- promoting collaboration between clinicians and potentially informative families and researchers within the Institute;
- establishing a computer linkage between the molecular diagnostic unit, the Laboratory Data Division, the Clinical Research Center, and the Genetics Program Library.

Genetic Services

The genetic services division is comprised of the Molecular Diagnostic Laboratory and the Microchemical Facility and will provide services to both the clinical and basic research communities.

The Molecular Diagnostic Laboratory is already up and operating. Researchers are using new technologies to provide novel methods of diagnosing genetic diseases. The first genetic test developed by the laboratory determines bone marrow engraftment. A second test being

developed allows detection of very early stages of cervical cancer. Other genetic tests being developed include ones for sickle cell anemia, thalassemia, hemophilia, cystic fibrosis, Duchene's muscular dystrophy, Huntington's disease and polycystic kidney disease.

The Microchemical Facility is a laboratory, available to all faculty of the University, which contains instruments for the analysis of genes and proteins and the synthesis of genes corresponding to known proteins or proteins corresponding to known genes. Among the instruments in the laboratory are an automated protein microsequencer, an automated DNA synthesizer and a peptide synthesizer.

With the use of this new instrumentation and as the result of the research programs available within the Institute, it won't be long, Dr. Faras explained, before researchers will be able to correct genetic defects with gene therapy programs using molecular genetics and gene transplantation technologies. Once researchers know the structure of genes, said Dr. Faras, they will be able to find ways to repair defective ones and eventually replace bad genes with good genes through gene transplantation.

One single cell genetic disease that researchers are looking at to use gene therapy on is immunodeficiency disease. Patients with this disease have a deficiency of the ADA enzyme - adenosine deaminase - which affects the immunological system, allowing these patients to be susceptible to infectious diseases. The gene for the ADA enzyme can be isolated from individuals who don't have the disease and then inserted into the bone marrow of the affected patients and retransplanted.

In general, Dr. Faras is very excited about the future of the Institute of Human Genetics. "It is really moving now and will continue to gain momentum," he said. A committee is being put together to raise funds for the next phase of expansion.

Dr. Faras believes the Institute has great potential for attracting considerable interest from a number of corporations "with respect to certain technologies that we're developing."

He also believes that the Institute will have far-reaching impact not

only on the diagnosis and treatment of genetic diseases but on the community and state economy as well.

"If we understand how genes are activated in the cells of higher organisms," explained Dr. Faras, "we should be able to identify it in lower organisms as well. For example, we are looking at growth producing genes in poultry and fish. If we can help produce faster growing fish in northern Minnesota, we may be able to keep the fishing industry from going to Canada."

Forensic medicine and paternity determination may also benefit

from the technologies developed in the Institute. Gene probes are now available for use in DNA fingerprinting, Dr. Faras explained, and can determine the origins of semen or of blood and tissue samples left at the scene of a crime.

Ten years ago most of the genetic technologies used in the Institute of Human Genetics were unknown. "Ten years from now," said Dr. Faras, "new genetic technologies will become available. This is really just the beginning of where the power of this technology can bring us."



The gas-phase peptide sequenator is used to determine the primary structure of peptides diagonal proteins.

Now may be the best time ever for women to make it into medical school

No one told Carolyn Torkelson back in the 1960s that she could be a doctor. So, like most other women of her generation with an interest in medicine, she became a nurse.

Now, two decades later, Torkelson is out to launch a career that changes in society have made possible for her.

Torkelson is a first-year student at the University of Minnesota, Duluth (UMD) School of Medicine. She is one of 48 students accepted each year from some 500 to 1,000 applicants.

"When I was going through nursing, I'd watch doctors and think, I could do this! But, of course, no one ever thought then that a woman should be a doctor. Now, times have changed."

The change in times was instrumental in Gail Baldwin's return to school also. Baldwin, another first-year student at the UMD medical school, was told 10 years ago that she couldn't become a doctor. Now, a decade later, she is proving that advice wrong.

"In 1975, when I was an undergraduate student at Purdue," she explained, "my advisor told me to give up my dream of becoming a doctor. Back then, a woman had to have a higher grade point average than a man to get into medical school. He said that if I didn't have a straight-A average, to forget it."

Baldwin says she must have had a poor sense of self-confidence at the time. "When my advisor, whom I thought knew his stuff, said I couldn't be a doctor — I believed him."

Today, Torkelson and Baldwin are medical school heirs of the women's movement.

"The increase in the number of women entering medical schools began in earnest in the 1970s and



Carolyn Torkelson, a first-year student at the University of Minnesota-Duluth School of Medicine, is out to launch a medical career that changes in society have made possible for her.

has continued ever since," pointed out John Leppi, director of admissions at the UMD School of Medicine.

During the 14-year history of the UMD School of Medicine, the number of women who have gained admittance has averaged 30 percent. And, there is every indication that opportunities in this area for women will continue to grow.

In fact, now may be the best time ever for women to make it into medical school.

Medical school applications have been steadily declining since the peak was reached in 1974-75. This decline has largely been due to a drop in the number of men seeking admittance.

According to the Association of American Medical College statistics, 16,268 spaces existed in medical schools across the United States in 1985. Since only 32,893 applicants applied for those spaces, the

chance of getting into medical school in 1985 was one out of two — the best it has been in years.

Baldwin, in medical school a decade after the women's movement began, said she can't really be considered a pioneer in that movement. She does feel, however, that she has played a part in gaining greater opportunities for women over the years.

"I won't say I've been in the forefront of the women's movement, but there was still some stomping of barriers left to be done when I went through school. I really had to work twice as hard as some of the men to be believed."

Although turned away from a career in medicine 10 years ago, she went on to get a degree in pharmacy at a time when pharmacy was largely a man's field. When she entered the working world, she was one of the first five women hired, from a sales force of 1,000, to be a traveling salesperson for a pharmaceutical company. At the time, women were just not hired for traveling sales, she explained.

Because of strong encouragement from her parents, Baldwin always believed she could do whatever she set her mind to. So, in 1980, when she decided to get her pilot's license, she did.

"I always dreamed I was going to fly and I just decided I would. It was one of those goals left over from forever that I decided to make come true."

Ironically, it was not another woman who convinced Baldwin to try once more for medical school. Instead, her decision was prompted by the example of a 63-year-old male co-worker.

"Charlie told me that when he retired, he was going to go to medical school. He was very realistic about

it. He knew, at his age, he couldn't get into a school in the states. So, he was going to go to one of the foreign medical schools.

"That's what really got me here," she said. "I thought if Charlie could try it at age 63 why couldn't I? What's the worst that could happen if I tried? I decided then that I didn't have to cut that goal out of my life."

Torkelson, too, spent many years in the work force before returning to school. Working as a nurse and a nurse practitioner, which included stints in Guatemala and at the Turtle Mountain Indian Reservation in North Dakota, she made up her mind two years ago to try for medical school. Lacking many of the pre-med requirements, she enrolled as a part-time student at UMD.

"I had to pick up a lot of math — algebra, trigonometry, calculus, and even physics — to get ready for the MCATS (Medical College Admissions Test)," she said.

But even with her nursing background and her pre-med requirements behind her, Torkelson didn't make it into medical school until her second try.

Once there, however, she has found it relatively smooth sailing.

"Med school is about what I expected," she said. "It's about as hard as I thought."

Surprisingly, she finds it easier going now than when she was working full time and taking classes part time.

"It's better now because I can devote all my time to studying instead of trying to balance both a job and studying. Now, my time is not divided."

At first, Torkelson was worried that her age might be a problem at school. She has found however, that the opposite is true. Having already worked in the medical field she feels has given her an advantage.

"I'm fortunate," she said. "Some students aren't sure if med school is for them. 'Is that what I really want,' they ask. They haven't yet worked in a clinical setting. On the other hand, I already know what the real world is like. I know what it's like to work weekends."

Baldwin confesses that she, too, was a little apprehensive about returning to school after a 10-year absence.

"But I was surprised to find that med school isn't all youngsters. I really thought I was going to be a grandma and I'm not," she explained.

Like Torkelson, Baldwin says her time spent in the working world has been an advantage.

"I know that I'm more prepared to be a caring physician now that I would have been 10 years ago. So the gap has been good. It gets a little age on you, and you realize that people have faults and you have to learn how to live with them. Having a few years gives you that perspective."

If Baldwin and Torkelson are second-generation representatives of the women's movement, there's a third generation coming right behind, according to Baldwin.

"Women today have freer access to the options," she said. "In my generation, we had the options, but the access wasn't free." Baldwin also believes that women's ever-increasing involvement in sports will be an asset to them all through their lives.

"Thank God women are in sports now," she said. "It prepares you for

the competitive world. You have to know how to work with a team. I still like the 'loner' things like flying, working as a sales rep, and doing clinical research. But, you've also got to know how to combine forces to be strong as you can be."

And even though medical school doors are open wider to women now, neither Baldwin nor Torkelson made it in on their first try.

While Baldwin applied to 12 schools her first time around, she narrowed her application to just two the second time, the UMD School of Medicine in Duluth and the University of Minnesota Medical School in the Twin Cities.

"I decided that, this late in my life, if I was going to make a change, I was going to live where I wanted to live," she said.

For Baldwin and Torkelson, and for many other women across the United States, they are now finding a world of increased opportunity — another chance to make one of those goals left over from forever come true.

"This was, indeed, my first choice," Baldwin concluded about her medical education at UMD. "I'm pleased to say it's everything I had hoped it would be."

Written by Carole Jaworski, science editor, UMD News Service



Gail Baldwin was told 10 years ago that she couldn't become a doctor. A decade later, she is proving that advice wrong.



Dr. Richard L. Reece, editor-in-chief of *Minnesota Medicine*.

Dr. Richard Reece: Diversity and pluralism will characterize health care system

Editors Note: This article was reprinted with permission from the Ramsey County Medical Society *Bulletin*, November-December 1985 issue. Dr. Richard L. Reece is editor-in-chief of *Minnesota Medicine*.

The restructuring of the medical care establishment which is currently taking place in the Twin Cities and across-the-nation will lead to the development of a tremendously pluralistic, tremendously diverse medical care system. This was the view expressed by Richard L. Reece, M.D., an expert on medical socioeconomics and a pathologist, in an interview prior to his talk at the November Ramsey County Medical Society general meeting.

Noting that a number of experts, including Paul Ellwood, former President of Interstudy, have predicted the dominance of just a few giant health care corporations in the next decade, Reece said he is doubtful that such a scenario will occur. The reason? It flies in the face of trends towards decentralization in the economy at large. "The Fortune 500 is already losing its grip on American Society," he pointed out. "In the last ten years the number of people employed in the largest

companies has dropped by six million, while the number of jobs in the economy has grown by 24 million."

This is not to say that Reece expects health care corporations to fade away. On the contrary, he said that in becoming increasingly diverse in the services they provide and in the way in which they provide these services, they will become increasingly powerful. "Corporations are winning the struggle with physicians for the control of health care," he said, "and the reason they are winning is because they have access to capital, because they can cope with bureaucratic phenomenon, because they have management skills and because they think in terms of organizations and

"I think the medical profession is just as pluralistic as society as a whole."

their market. We need to be resigned to the fact that organizations are going to control health care."

To cope with this transformation, Reece said physicians must come to understand the industrialization of medicine. "Physicians must learn to adopt its methods that are appropriate and learn how to organize to accommodate it rather than to react negatively against it." Those who are able to do so will prosper, according to Reece.

One area of opportunity, said Reece, is HMOs, which are becoming a doctor's biggest customer. "For a physician, an HMO affiliation now may mean the difference between economic calamity and pleasant living." This is especially true for primary physicians in large groups which are capable of negotiating with an HMO. "The HMO needs such physicians for growth and to serve as gatekeepers to the hospital or specialists." For specialists and solo practitioners, however,

HMOs may cause trouble, according to Reece. "The primary care gatekeeper may be writing the check of specialist physicians in the future and specialists may have to join with other specialists to gain negotiating strength." While he said he sees the impact of HMOs to be growing, Reece said he doesn't see a surge of HMOs dominating the market in the next decade. In fact, he pointed out, a number of Twin Cities HMOs are currently in the economic doldrums.

"Physicians must sensitize themselves to the needs of the consumer and modify their practices accordingly."

Another major area of opportunity, according to Reece, is joint ventures between physicians and hospitals. Pointing out that these ventures have increased about five-fold in the Twin Cities in the past year, while tripling nationwide, Reece said such ventures may involve various strategies. They may involve hospitals purchasing physicians' practices, or hospital management facilitating the mergers of various practices. They also may involve the building of family practice centers which provide patients with access to a full range of specialists, or they may involve administrative support. While all such ventures, according to Reece, will not succeed, he said they can provide some real negotiating opportunities for physicians.

To help position themselves in the changing market place, physicians should become more knowledgeable about their place in the world, said Reece. "Physicians must sensitize themselves to the needs of the consumer and modify their practices accordingly. Who are my patients – the affluent? the elderly? two career couples? – and how can I best meet their needs? Every physician ought to ask himself these questions."

Doctors also need to devote more time to the community and developing alliances with people they trust. "Traditionally, medical groups haven't thought this was important, but they will find it increasingly desirable to do so." In addition, Reece recommended that physicians become more familiar with the changes occurring in the non-medical world by reading books such as Naisbitt's *Megatrends* and Drucker's *Innovation and Entrepreneurship*.

To prevent the erosion of their power, physicians need to identify and emphasize their existing strengths, said Reece. They also need to take advantage of these strengths by forming alliances to increase their bargaining power. "As physicians, we need to recognize the interdependencies of the various components of Society in a world of limits and use these interdependencies to our best advantage," he said.

Finally, said Reece, physicians will need to become more disciplined in managing their time – especially as it relates to paying

patients. "It sounds very materialistic," he said, "but this is what we will have to do."

Though Reece envisions the future delivery of medical care to consist of interactions between organizations rather than between patients and doctors, he is not entirely pessimistic about the effect of these changes on physicians. "I don't see the future of doctors as organization men in grey flannel suits," he said. "I think the medical profession is just as pluralistic as society as a whole. Many physicians will still want to control their own destiny, and will continue to do so by becoming independent contractors. Other physicians will decide to become executives who help shape their own destiny, while still others will be glad, for lifestyle reasons, to become salaried employees."

"As physicians, we need to recognize the interdependencies of the various components of Society in a world of limits and use these interdependencies to our best advantage."

Noting that physicians' incomes will not be as predictable as in the past, Reece said he thought the average doctor will continue to do well. "And," said Reece, "those who anticipate the changes, those who organize and innovate, are going to do very well indeed."

Class Notes

'13 Dr. A.J. Wentworth, celebrates his 95th birthday in April. Dr. Wentworth is a retired radiologist, living in Mankato, Minnesota.

'26 Dr. Arno W. Sommer reports that he and his wife Eunice will celebrate their 38th wedding anniversary this year. Dr. Sommer has been retired since 1971. Before that, he was a radiologist at the Scott and White Clinic in Temple, Texas from 1948 to 1971. He also served as chairman of the radiology department from 1956 to 1965. He is a Fellow of the American College of Radiology.

'40 Dr. Michael A. Wainstock, Bloomfield Hills, Michigan, has been elected to the rank of Fellow in the American Institute of Ultrasound in Medicine. This honor is by invitation of the Board of Governors and is only extended to a handful of the 7,000 members. It is given in recognition of outstanding research accomplishments, teaching and dedication to the field of ultrasound. Dr. Wainstock is a clinical professor of ophthalmology in the Michigan State University Department of Ophthalmology; clinical associate professor and director of ophthalmic ultrasound at the University of Michigan, Ann Arbor; and a director of ophthalmic ultrasound at Wayne State University (Kresge Eye Institute) in Detroit.

'43 Dr. Howard Andersen, a consultant in the department of thoracic diseases and internal medicine, retired after 34 years at the Mayo Clinic. He was also a professor of medicine at the Mayo Medical School. From 1968 to 1974, Dr. Andersen served as head of the divi-

sion of thoracic diseases and internal medicine. He has always been active in the American College of Chest Physicians and continues today as historian and delegate to the AMA House of Delegates. Dr. Andersen helped develop the technique of parenchymal lung biopsy through a bronchoscope. He has served on the editorial board of the journal *Chest* and authored over 95 publications.

'44 Dr. Edmund Burke, a consultant in the department of pediatrics at the Mayo Clinic, retired after 34 years there. Dr. Burke first came to the Mayo Graduate School of Medicine as a fellow in pediatrics following his graduation from medical school, internship and military service. He received the M.S. degree from the University of Minnesota in 1951. He was a research fellow in medicine at Harvard Medical School in 1952, and a resident fellow in pediatrics that year at Children's Medical Center in Boston. Dr. Burke was appointed to the Mayo staff in 1952, and became an instructor in pediatrics in the Mayo Graduate School of Medicine in 1954. He advanced to assistant professor in 1958, associate professor in 1964, and professor in 1971. In 1973, he was named professor of pediatrics.

'45 Dr. John P. Storaasli retired from the Case Western Reserve Medical School faculty and from private practice in 1984.

'47 Dr. John Mayne, a consultant in the division of rheumatology and internal medicine, retired after 30 years on the Mayo Clinic staff. He came to Mayo in 1949 as a fellow in medicine and in 1955 was ap-

pointed to the staff. Dr. Mayne started, organized and perpetuated courses and seminars in human values for the Mayo Medical School. He has counseled, guided, and became friends with a number of medical students and residents. Dr. Mayne also started the Arthritis Volunteer Action Committee of Olmsted County in 1972, in conjunction with the Minnesota Chapter of the Arthritis Foundation.

'54 Dr. Edward O. Jorgensen has been appointed head of the medical gynecology section of the department of obstetrics/gynecology at the Mayo Clinic. He joined the Mayo staff as a consultant in OB/GYN in 1969.

'56 Reunion Year

Dr. Martin Fruchtman is past president of the Wisconsin Allergy Society, and past chairman of the Wisconsin Medical Society Commission on Continuing Medical Education. He has three children and one grandchild.

Dr. Jerome H. (Jerry) Stulberg has been in the private practice of diagnostic radiology in Beverly Hills, California for the past 17 years. He has had teaching appointments at Cedars-Sinai, UCLA, and Martin Luther King Hospitals. He and his wife Elaine celebrated their 30th wedding anniversary in March with a trip to Australia, New Zealand, and Fiji. They have four sons. Dr. Stulberg is looking forward to his class reunion in June.

'59 Dr. Freedolph D. Anderson has been promoted to director of medical reproduction and vaginal therapeutics for the Ortho Pharmaceuti-

cal Corporation in New Jersey. He joined Ortho in 1982 as assistant director of clinical research and was appointed associate director in 1984. Dr. Anderson is a member of the American Board of Obstetrics and Gynecology.

Dr. Richard O. Lundborg has terminated his practice in anesthesiology at Hilo Hospital in Hawaii to devote more time to lobbying for medical issues in the Hawaii State Legislature.

'64 **Dr. Michael B. Pliam** has opened a practice in cardiac, thoracic and vascular surgery in downtown Minneapolis and Robbinsdale, Minnesota. Dr. Pliam holds fellowships in the American College of Surgeons, the American College of Chest Physicians and the American College of Cardiology.

'66 Reunion Year

Dr. Dexter D. Whittemore has been appointed medical director of the Willow Creek Center for Youth and Families in Minneapolis, Minnesota. The Willow Street Center opened in January of 1986 in the remodelled Eitel Hospital building to provide mental health services to youth and their families. All services provided are under the direction of Dr. Whittemore.

'70 **Dr. William S. Shimp** was appointed to the board of directors of the Methodist Hospital Foundation in St. Louis Park, Minnesota. Dr. Shimp has been a member of the Park Nicollet Medical Center since 1976. He is certified by the American boards of Internal Medicine and Oncology and is a member of the Minnesota

and Hennepin County Medical Societies and the Minneapolis Society of Internal Medicine.



Dr. William S. Shimp, Class of 1970.

Dr. Frederic M. Stone was recently elected to fellowship in the American College of Cardiology. He is currently affiliated with the Minneapolis Heart Institute. The American College of Cardiology is a 14,500 member, non-profit professional medical society and teaching institution dedicated to ensuring optimal care for persons with cardiovascular disease or those with the potential for developing this disease.

'73 **Dr. Robert J. Strukel** is now an associate member of the American Orthopedic Society for Sports Medicine. This society, founded in 1972, has as its purpose the promotion of investigative knowledge of sports medicine and the teaching of this information to those responsible for the prevention, recognition and orthopedic treatment of sports injuries. Dr. Strukel has been with

Grants Pass Orthopedic Surgeons in Oregon since 1978. He holds medical appointments at the Josephine Memorial Hospital and the Southern Oregon Medical Center. He is a member of the AMA, the Oregon Medical Association and the Josephine County Medical Society. In addition, he is a diplomate of the American Board of Orthopedic Surgery, a member of the American Academy of Orthopedic Surgeons, a member of the Western Orthopedic Association and a fellow of the American College of Surgeons.

'74 **Dr. Dan N. Olson** has practiced general internal medicine in Warren, Ohio since 1981. Prior to that, he was a flight surgeon in the United States Air Force. He is now a national affiliate faculty member of ACLS and assistant professor of clinical medicine at Northeastern Ohio University College of Medicine.

'75 **Dr. Thomas John Von Rueden** has been elected to fellowship in the American College of Cardiology. He is currently staff cardiovascular surgeon at Minneapolis Heart Institute.

'76 Reunion Year

Dr. Robert A. Gill has been elected to fellowship in the 61,000 member American College of Physicians. Dr. Gill, a specialist in internal medicine and gastroenterology, will be honored during the convocation ceremony at the College's annual session in San Francisco, California in April. Dr. Gill is a practicing physician at Park Nicollet Medical Center in Minneapolis. Election to the ACP signifies that a physician has attained a high level of medical

scholarship and achievement in internal medicine.

'78 Dr. Carmen Rita Nevarez was appointed medical director and director of clinical services at La Clinica De La Raza, a multi-specialty comprehensive community health center serving a multi-ethnic population in East Oakland, California. Her specialty is obstetrics/gynecology. Dr. Nevarez is also a graduate student in public health and a fourth year resident in preventive medicine, with a major emphasis on policy analysis and administration, at the University of California, Berkeley.

'79 Dr. Steven Koop was appointed an assistant professor in the department of orthopedics at the University of Minnesota Medical School. He is also on staff at Gillette Children's and St. Paul Ramsey Hospitals and volunteers his services at Shriners' Childrens Hospital.

Dr. Cynthia Aronsen has finished her residency in otolaryngology, head and neck surgery at the University of Washington in Seattle. She is now an assistant professor of otolaryngology, head and neck surgery at Stanford Medical Center in California.

'81 Dr. Julie Dostal is in her second year as a full-time family medicine instructor in the Wyoming Valley Family Practice Residency Program in Pennsylvania. Last year, she completed the Michigan State University Faculty Development Fellowship in family medicine. She also is actively involved in the Planned Parenthood of Northeastern Pennsylvania. Living in Dallas, Pennsylvania with her husband Sandy

Rhodes and two sons, Dr. Dostal expects her third child in April.

'82 Dr. George H. Kramer has completed graduate training in physical medicine and rehabilitation at the Mayo Graduate School of Medicine. Dr. Kramer will enter into practice at the Minnesota Center for Health and Rehabilitation in Golden Valley, Minnesota.

Dr. Skott Niels-Jorgen Nielsen has begun a residency training program in obstetrics and gynecology at the Mayo Graduate School of Medicine.

Dr. Judy L. Schmidt has begun a residency training program in hematology-oncology at the Mayo Graduate School of Medicine.

'83 Drs. Les R. Buhr and Anna Marie B. Gonzoles report that they will complete their family practice residencies in Springfield, Illinois this year; Les in June and Anna Marie in December. They then plan to spend four to six months in Nepal before Les starts his two-year NHSC commitment. Drs. Buhr and Gonzoles are the proud parents of two daughters; 27-month-old Nora and seven-month-old Rachel.

Dr. Bradley T. Heppner will be completing an internal medicine residency at Madigan Army Medical Center in Tacoma, Washington in June 1986. He will then be starting a cardiology fellowship at Letterman Army Medical Center in San Francisco.

'84 Dr. Jeff Thompson has begun a residency training program in physical medicine and rehabilitation at the Mayo Graduate School of Medicine.

'85 Dr. Brian C. Aamlid has begun a residency training program in orthopedic surgery at the Mayo Graduate School of Medicine.

Dr. Kevin Bjork has begun a residency training program in surgery at the Mayo Graduate School of Medicine.

Dr. Paul A. Dale has begun a residency training program in orthopedic surgery at the Mayo Graduate School of Medicine.

In Memoriam

Dr. Robert J. Davies, Class of 1934, died in Seattle, Washington on January 23, 1985. After graduation, Dr. Davies specialized in tuberculosis and diseases of the chest. He practiced in Nopeming, Minnesota, and in Florida. From 1959 to 1962, he sub-specialized in psychiatry at the University of Washington Medical School. He then practiced that specialty in Seattle until his death. He was a clinical associate professor in psychiatry at the University of Washington and active in internal medicine and psychiatric organizations.

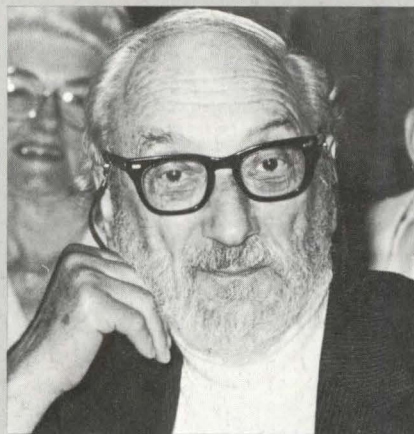
Dr. Robert D. Mooney, Class of 1938, died on January 5, 1986 in St. Paul, Minnesota. Since 1968, Dr. Mooney was director of the Minnesota Veterans' Home in Minneapolis. He was a veteran of the U.S. Army and U.S. Air Force. He is survived by sons Robert, Michael and James; daughters Susan and Sarah; and five grandchildren.

Dr. Carl O. Rice, Class of 1925, died in September 1985 at age 87. Dr. Rice was a pioneer in health care, inventing new surgical tools and procedures. He was the first to inject procaine into fracture sites to make fracture reduction painless and he invented swaged sutures which are now used throughout the world. After graduating from medical school, Dr. Rice practiced at the Mayo Clinic and in Switzerland. He joined the staff of St. Barnabus Hospital (now merged with Metropolitan Medical Center) in Minneapolis in 1937 and retired from Metropolitan in 1979. From 1961 to 1971, Dr. Rice served as editor of *Minnesota Medicine*. He received the honor award for distinguished service to medical journalism in 1967. This award is given to what is judged the best state medical journal in the United States. Dr. Rice was also a recipient of the Harold S. Diehl Award from the University of Minnesota Alumni Association.

Dr. Lawrence F. Richdorf, Class of 1921, died in January of 1986 at age 94. He had practiced medicine for 50 years in the Twin Cities area, specializing in pediatrics. In 1925, he earned a Ph.D. in pediatrics, the first person to earn this degree at the University of Minnesota. In recognition of his outstanding achievements in medicine, Dr. Richdorf was the recipient of the St. Barnabus Bowl in 1971, the Gold Headed Cane Award in 1972 and the Harold S. Diehl Award in 1975. He was a member of numerous professional societies, as well as a number of community organizations. Dr. Richdorf is survived by his sons Michael Richdorf and James Lynch, daughters Eileen Bortolussi and Patricia Margarit, 25 grandchildren, and 35

great-grandchildren.

Dr. E. Robert Schwartz, Class of 1937, died on December 17, 1985, at the age of 73. He had practiced medicine at Stewartville, Minnesota from 1939 to 1941; in Wakonda, South Dakota from 1941 to 1952; and in Minneapolis from 1952 to 1982 when he retired. Dr. Schwartz was the co-founder and first president of Chapter 3 of the Minneapolis/St. Paul Mended Hearts, Inc. and co-founder of the Camden Emerson Clinic. He was a member of numerous medical societies and a supporter of Twin City cultural and community organizations. Dr. Schwartz is survived by his wife Selma, two sons, a daughter, and six grandchildren.



Dr. Phillip Shapiro

Dr. Phillip Shapiro, Class of 1934, died of heart failure at age 70 at his home in San Francisco, California. Dr. Shapiro was a well-known teacher and therapist in the San Francisco area. He had a private practice in psychiatry and was also senior attending psychiatrist at Mt.

Zion Hospital until his retirement in 1979. Dr. Shapiro was a social activist and devoted his last years to the disarmament movement. He was founder of the Bay Area Chapter of Physicians for Social Responsibility. He was also instrumental in convincing San Francisco officials to issue pamphlets explaining the medical consequences of nuclear war to every household in the city. During the Vietnam War, Dr. Shapiro chaired the San Francisco Chapter of the Medical Committee for Human Rights. His opposition to medical experiments on prisoners earned him an appointment to the California Commission for the Protection of Human Subjects. Dr. Shapiro was a life member of the San Francisco Psychoanalyst Institute and the American Psychoanalytic Association. He is survived by his wife Frances, one daughter, one son and four grandchildren.

The Minnesota Medical Foundation also received notice of the deaths of the following alumni: **Dr. Nels P. Anderson**, Class of 1932; **Dr. Robert La Bree**, Class of 1934; and **Dr. Oscar L. Nelson**, Class of 1929.

In addition, the *Medical Bulletin* was informed of the death of **Dr. Barry Campbell**, a former professor at the

University of Minnesota Medical School. Dr. Campbell was a distinguished neuro-physiologist and taught at Minnesota for 15 years. He was the recipient of numerous awards and the author of more than a 140 publications. He is survived by his wife Irene, two daughters, two sons, and seven grandchildren.

Calendar

April 28-May 2	Family Practice Review: Update '86 - Radisson Hotel, St. Paul, CME (612) 373-8012.
May 5-9	Cardiovascular Radiology Review - sponsored by the Armed Forces Institute of Pathology. Associate Director for Education (AFIP-EDZ), Armed Forces Institute of Pathology, Washington, D.C., 20306.
May 7-9	32nd Annual Meeting - sponsored by the American Society for Artificial Internal Organs, Inc. American Society for Artificial Internal Organs. (305) 391-8589.
May 7-9	World Med '86 - International Health Care Congress - St. Paul Civic Center, St. Paul CME, (612) 373-8012.
May 7-9	Allergy and Clinical Immunology - St. Paul Civic Center, St. Paul - CME (612) 373-8012.
May 10	Innovations in Allergy and Immunology - Holiday Inn Town Square, St. Paul - CME (612) 373-8012.
May 14-15	Human Aging IX: Health Maintenance and Wellness - Mayo Memorial Auditorium, University of Minnesota, Minneapolis CME (612) 373-8012.
May 15	Changing Profiles in Clinical Toxicology-St. Paul Ramsey Medical Center, 640 Jackson Street (612) 221-3992.
May 19-21	National Cancer Advisory Board Meeting - Sponsored by the National Cancer Institute, (301) 496-5708.
May 20	Gynecologic Oncology - Radisson University Hotel, Minneapolis. CME (612) 373-8012.
May 21-23	Current Concepts in Radiation Therapy - Mayo Memorial Auditorium, University of Minnesota, Minneapolis. CME (612) 373-8012.
May 21-24	Partnership for Change: Working Together For Rural Health - Sponsored by the National Rural Health Care Assoc. (616) 421-3075.
May 30-31	Symposium on Gay and Lesbian Adolescents - Radisson University Hotel, Minneapolis. CME (612) 373-8012.
June 2-4	Consensus Development Conference on the Utility of Therapeutic Plasmapheresis for Neurological Disorders - sponsored by the National Institute of Neurological and Communicative Disorders and Stroke. (301) 468-6555.
June 4	Options in Cardiovascular Medicine - Radisson University Hotel, Minneapolis - CME (612) 373-8012.
June 6-7	Clinical Hypnosis: Introductory and Advanced Workshops - Earl Brown Center, University of Minnesota, St. Paul. CME (612) 373-8012.
June 6-8	Surgery for Primary Care - Maddens Resort, Brainerd, Minnesota. CME (612) 373-8012.
June 11-13	1986 International Health Conference - sponsored by the National Council for International Health. (202) 466-4740.
June 13-14	Hospital Nutrition Support - Radisson University Hotel, Minneapolis. CME (612) 373-8012.
June 18-21	Trauma and Critical Care Surgery - Willey Hall, University of Minnesota, Minneapolis. CME (612) 373-8012.
June 25-27	Topics and Advances in Pediatrics - Radisson University Hotel, Minneapolis. CME (612) 373-8012.
July 24-25	Nuclear Medicine - Radisson University Hotel, Minneapolis. CME (612) 373-8012.



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for University of Minnesota
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Minnesota Medical Foundation
(612) 625-1440

Class of 1946 – 40 Year
Dr. Richard Frey – Chair

Class of 1951 – 35 Year
Dr. Donald Swenson and
Dr. Kenneth Berge – Chairs

Class of 1956 – 30 Year
Dr. Mitchell Rosenholtz – Chair

Class of 1961 – 25 Year
Dr. Patrick Scanlan,
Dr. Roger Lundblad and
Dr. Karen Olness – Chairs

Class of 1966 – 20 Year
Dr. Judy Smith – Chair

Class of 1976 – 10 Year
Dr. Frazier Eales – Chair

See page 9 for more details about the reunion activities planned for the alumni from these years. Questions about any of the above reunions may be directed to the Minnesota Alumni Association at (612) 373-2466.

Join the Fun!