

# MEDICAL BULLETIN

UNIVERSITY OF *Minnesota*



*in this issue*

- THE CLASS OF 1955
- RESPONSES TO ENDOTOXIN
- RH-SENSITIZED PREGNANCY
- PANCREATIC ISLET TISSUE

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## **Entire Medical School Faculty Resigns**

In 1913 a drastic reorganization of the Medical College took place when all members of the medical staff were asked to resign. George E. Vincent, then president of the University of Minnesota, insisted on scholarly ties between the Medical College and the University itself. His plan was also designed to “concentrate in the smallest number of hands the work of doing efficient teaching.” Prior to the reorganization the faculty consisted of 184 members; it was reduced to 70 in the reorganization. A great deal of ill feeling existed among those who were asked to resign and were not reappointed. Moreover, there had been considerable demotions and loss of hope of future promotion among full-time laboratory teachers. The school was under criticism from a number of prominent alumni and when Elias P. Lyon replaced Dr. Wesbrook as Dean in 1913, he was facing a furor. To make matters worse, more storm clouds were brewing over the proposal of an affiliation with the Mayo Clinic in Rochester, Minnesota. The battle over the Mayo affiliation continued until 1915, when it was approved by the Board of Regents. The resolution provided for an interchange between graduate schools and approved the establishment of the Mayo Foundation, an independent fund of \$1.5 million, set up by the Mayo brothers to provide teaching facilities and fellowships.

As a result of the Mayo decision, twelve faculty members resigned. A great many alumni and faculty members thought the arrangement was an infringement on the University’s academic freedom and the feeling became very intense. Efforts to terminate the affiliation were lively for many years to come.

Under Dean Lyon a strong faculty in the preclinical sciences emerged. From that nucleus of men the vigor of research gradually extended to other areas of the school. It was said that he had the youngest faculty of any medical school in the United States. As far back as the 1920’s Dean Lyon had begun



Frank F. Wesbrook



George E. Vincent

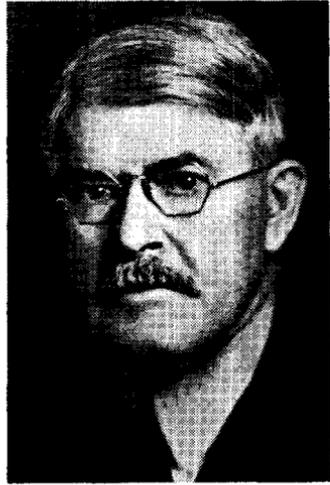
grooming such men as his successor, Dr. Harold Diehl; Dr. Cecil Watson, head of the department of medicine; and Dr. Owen Wangenstein, head of the department of surgery, for important future roles.

In 1931 the position of Dean of Medical Sciences was created by the University and Dr. Richard E. Scammon was appointed to the post, succeeding Dr. Lyon. Dr. Scammon was promoted to Distinguished Professor in the graduate school in 1935, and Dr. Harold S. Diehl, director of Students' Health Service, became Dean. When Dean Lyon retired from the faculty entirely in 1936, Dr. Diehl assumed the joint deanship. He was the first dean to have been a graduate of the University's School of Medicine, and was to serve longer than any other man in history.

Dr. Diehl was noted for his administrative abilities and was instrumental in securing both private and legislative support for the Medical School. From its earliest days the school had received generous support from private citizens and, in recent years, such groups as the Variety Club of the Northwest and the Masons of Minnesota have supported the construction of research hospitals.



Richard E. Scammon



Elias P. Lyon

When Dr. Diehl retired in 1958 after 23 years as dean, the College of Medical Sciences had risen to world prominence. Its research work in such areas as heart disease, cancer, "deep freeze" surgery and organ transplantation had led to a record of financial support matched by few universities. The worrisome affiliation with the Mayo Clinic had instead proved to have a profound and beneficial influence on the Medical School, drawing students and teachers from all over the world.

The present dean and Dr. Diehl's successor, Robert B. Howard, is Minnesota-educated, winning Phi Beta Kappa and magna cum laude honors at the University of Minnesota. He was appointed to the faculty in 1948, and made dean in 1958. Dr. Howard continues in the tradition of his predecessors, intent on the wise operation and development of a medical center complex which now houses 23 units, including four hospitals, and serving over 167,000 patients each year. More than 6,000 students have been graduated from the Medical School, and thousands more have received advanced training here.

The 75 years of leadership, foresight and sometimes painful development of the College of Medical Sciences provides a heritage for future excellence. Patient care, teaching, research

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—contributions in these areas have enriched not only the lives of Minnesotans, but people the world over. It is no wonder that they echo the statement of a noted science writer who commented after viewing open-heart surgery, "Say — this *is* the first team."



Harold S. Diehl

**NEXT MONTH:**  
**Other Giants of the Medical Faculty**



## Alumni Survey



### The Class of 1955

*Soon after the Class of 1955 graduated with 115 members, the size of Medical School classes began to increase. Several stages of expansion have since brought the size of classes to 150 students, with further expansion likely.*

*The MEDICAL BULLETIN located each member of the Class of 1955, finding at least 15 who are now full time faculty members at U.S. medical schools (10 at the University of Minnesota alone).*

*Ten years after graduation, 52 members of the class are still located in Minnesota. Another large group is in California. Twenty-eight are in general practice. Two are deceased.*

*The Class of 1955 included a rarity: identical twin brothers, Arnold and Stanley Leonard, who colleagues still find difficult to tell apart.*

**Albert E. Ackroyd** is practicing internal medicine at 27927 Deep Valley Dr., Palos Verdes Peninsula, Calif.

**Oscar D. Anderson** has been in ophthalmology practice in Mankato, Minn, since 1964. He is married to Dorothy Dibbern of Luverne, Minn., and they have three children, ages 4 years to 6 months. Their address is 2000 Rae Crest Dr. in N. Mankato.

**Gordon L. Backer** practices ophthalmology with his brother, William Backer, (Med. '57) in Wausau, Wis. He spent three years as a Navy flight surgeon, and took his residency at the Mayo Clinic. Gordon's wife is the former Arlene Isaacson of Litchfield, Minn., and they have four sons, ages 10 to 3. They live at 551 Sturgeon Eddy Road.

**Lloyd B. Backus** has been in general practice with the Raiter Clinic in Cloquet, Minn. since 1958. He served in the Army, and married Janice Tester of Proctor, Minn. They have four children, ages 10 to 4 years. Lloyd plans to remain in general practice. He is a flying and sailing enthusiast.

**Reno E. Backus\*** is a staff neurologist, specializing in pediatric neurology, at Children's Memorial Hospital, Chicago, Ill. He works in the hospital's seizure clinic and teaches at Northwestern University's Medical School. Reno served with the Navy in the Far East. He married Elizabeth Malec of Proctor, Minn., and they have five children. They live at 2331 Grey Ave. in Evanston, Ill.

**Bruce O. Berg** is a fellow in pediatric neurology at the University of California, and lives at 50 F North St., Sausalito, with his wife, Linda. He spent three years in the Army, and has completed a pediatric residency.



Robert Buckley



Charles Binger

**Dale Bergeron** was recently in practice in LeSueur, Minn., but is taking an internal medicine residency in California at the present time.

**Ligita G. Berzina-Moettus** is a hospital staff anesthesiologist in Westlake, O. Her address is 26915 Westwood Rd.

**Charles M. Binger\*** is a psychiatrist at the Langley Porter Neuropsychiatric Institute and teaches at the University of California Medical School, and is part time in private practice in San Francisco. His wife is Barbara Stoetzel of Litchfield, Minn., and they have three children. He enjoys raising tropical fish, gardening, and writes that his professional life is "currently a very busy and varied one." The family lives at 24 Mountain Court, San Rafael, Calif.

**Henry S. Bloch\*** is practicing internal medicine in suburban Bloomington, Minn., and lives at 3801 W. 103rd St., Bloomington, Minn. 55420.

\*Member, Minnesota Medical Foundation

**David Bloom\*** is in solo pediatrics practice in Golden Valley, Minn., and lives at 4301 Beverly Ave. He teaches at Hennepin County General Hospital, and hopes to find a pediatric associate soon. His family consists of wife Arlene and three youngsters under 10 years old.

**Russell R. Boehlke\*** has spent four years in an ophthalmology partnership in Fort Collins, Colo. He took his residency at Miller Hospital, St. Paul, and spent three years with the USPHS. Russell's wife is the former Donna Schendel of Deer Creek, Minn., and they have a family of five. They live at 1924 Navajo Dr.

**John Bolander** has been in general practice for nine years in Santa Rosa, Calif. He served with the Army in Korea before attending Medical School, and married Judith Smith of Illinois. Their children are Jeff, age 4, and Katie, age 3, and they live at 3030 Hermit Way.

**Donald A. Bolt** is a surgeon with the North Clinic in Robbinsdale, Minn. He took his training at Minneapolis General Hospital and Walter Reed General Hospital in Washington, D.C. while in the Army. Don's wife is Mary Ingersoll of Okla., and they have five children, ages 11 to 2. The family lives at 6920 Lombardy Lane, where Mary works for a realtor. Don says he's "glad to be back in Minnesota after nearly ten years absence."

**John B. Brainard\*** is a general surgeon with the Earl Clinic in St. Paul, an association of five years. He received his M.S. in surgery in 1960, and teaches at the U. of M. John's wife is the former Andrea Ueland of Minneapolis. They have three children, and live at 785 Goodrich.

**Robert E. Buckley\*** practices psychiatry and teaches at the University of California Medical School in San Francisco. He has residency training in both internal medicine and psychiatry, and also serves on the emergency staff in psychiatry of the Highland-Alameda Hospital in Oakland. Bob is doing research in neurophysiology, dealing especially with epilepsy. He is unmarried, and lives at 2845 Broderick St.

**David E. Bushman** is in general practice with a four-man group in Watsonville, Calif. and teaches at the University of California branch at Santa Cruz. He served in the Navy, and married Jean Anderson of Cloquet, Minn. Their six children, he writes, "are half native Californians, the other half *converted* Californians." He enjoys skiing, photography and wine making. Dave's address is 520 Brewington.

\*Member, Minnesota Medical Foundation

**Robert A. Callewart\*** is in an orthopedic surgery partnership in Dallas, Tex., and teaches at the University of Texas Southwest Medical School. He served in the Air Force, and he and his wife, Mary Ann, have two children, ages five and 3 months, at home at 4508 Cedarbrush Dr. Bob writes, "Texas hunting is tremendous but I miss the Minnesota pheasant hunting."

**Homer J. Carlson** is in general practice with the Korda Clinic, Pelican Rapids, Minn., where he has spent 6 years. He served in the Navy, and has a wife and son. "My wife, Norma, is the better golfer of the family and is also taking flying lessons," he writes. "I enjoy general practice and the area where good fishing and hunting are near at hand. I would like to retire but can't afford it!"

**Samuel O. Cornwell** is with the Department of Mental Health in Raleigh, N.C., and has a part time practice of pediatrics.

**Robert D. Courteau** is practicing in Onamia, Minn.

**John P. Delaney** is a fulltime instructor in surgery at the Medical School having completed a residency here. He is married and lives at 1827 Wellesley Avenue, St. Paul, Minn.

**F. Richard Dion\*** practices pediatrics with the Mason Clinic in Seattle, Wash., and teaches at the University of Washington Medical School. He took his residency at the Mayo Clinic and served in the Air Force in Istanbul, Turkey. Dick's wife, Peggy, is from Iowa, and they have three children, ages 3 to 1. He writes that "the family has finally developed webbed feet and adjusted to the rain. The Pacific Northwest offers tremendous opportunities for all types of outdoor activities." The family lives at 1600 Federal Ave. E. in Seattle.

**Arndt J. Duvall, III,\*** is an assistant professor of otolaryngology at the Medical School and does research in temporal bone histopathology with emphasis on electron microscopy. Jack took his training at the U. of M. and the University of Iowa, where he was an NIH Special Fellow and received his M.S. degree. He also spent a year at the Karolinska Institute and served in the Army. His wife is the former Faye Bye of Minneapolis. They have three children, ages 6 to 1, and live at 1391 Fairmount Ave. in St. Paul.

**Richard B. Ellingson** is in solo ophthalmology practice in Edina, Minn., and teaches at the U. of M. He was a Mayo Fellow, and served in the Army in Germany. Dick's wife is

\*Member, Minnesota Medical Foundation

Helen Barlow of Iowa, and they have three children, ages 9 to 5. Dick writes that he is "glad to be back in Minneapolis and enjoys flying as a hobby." He lives at 6804 Dakota Trail, Minneapolis 55424.

**Garth W. Englund\*** is a pathologist with three others at General Rose Memorial Hospital in Denver, Colo., and teaches at the University of Colorado Medical Center, where he took his residency. Garth served in the Army and was in general practice for four years in Mabel, Minn. before specializing. He is married to Mary Warford of Denver, and they have three children ages 9 to 4. They live at 9084 E. Floyd Ave. in Denver.

**Wolfgang Epstein** is doing research at Harvard University Medical School. He took his residency in internal medicine at NYU's Bellevue Hospital, and served in the Army. His wife is Edna Selan of New York, and they have a son, Matthew, age 9 months. Wolf writes, "I plan a career in research and teaching. I have worked on membrane transport and control mechanisms in bacteria." The Epsteins live at 900 Memorial Drive, Apt. B-33-S, in Cambridge, Mass.

**Gerald H. Fink\*** is in private psychiatry and psychoanalysis practice in Silver Spring, Md. He took his training at the U. of M., St. Elizabeth's Hospital in Washington, D.C., and the Washington Psychoanalytic Institute, and served in the Army. He and his wife, Goldie, have four children, ages 9 to 1½ years. He writes, "we find living in Silver Spring most enjoyable—professionally, culturally and socially." His address is 3 Schindler Court.

**George H. Fish\*** is in solo otolaryngology practice in Campbell, Calif., and teaches at the Stanford University Medical School where he took his residency. He served in the Navy on Guam, and married Patricia Field of Minneapolis. They have a family of three, ages 10 to 4, and live at 2892 Castle Dr. in San Jose. George writes that he has a "small vineyard and my main hobby seems to be wine making."

**Stanley A. Fruchtmann** practices internal medicine and is an allergist in St. Louis Park, Minn. He took his training at the Minneapolis V.A. Hospital and at the University of Illinois. Stan's wife is Emily Cohen, and they have three sons, ages 8 to 5. They live at 1641 Independence Ave. So. in St. Louis Park.

**Charles N. Gamble\*** is a pathologist with the Scripps Clinic and Research Foundation in La Jolla, Calif.

\*Member, Minnesota Medical Foundation

**Floyd K. Gartz** is an assistant professor of psychiatry at the U. of M. Medical School, where he has been on the faculty four years. He received his M.S. in psychiatry from Minnesota and served in the Army for two years. Floyd's wife is the former Diane Pogaler of St. Paul, and they have four children, ages 10 to 2. They live at 2741 France Ave. So. in Minneapolis.

**Edwin M. Gordon** has practiced OB-GYN for five years with the Permanente Medical Group in San Rafael, Calif. He served in the Air Force and married Josephine Martin of Minneapolis. They have four boys, ages 12 to 4, and live at 14 Anchorage Ct.

**Leland J. Green\*** opened a solo allergy practice last January in Philadelphia, Pa., and teaches at the U. of Pa. School of Medicine. He took his residency at the U. of M., served in the Army, and married Sara Rosen of St. Paul. They have a son, Jonathon, 8, and live at 223 Benezet St. in Philadelphia. Leland writes, "I plan to remain in Philadelphia. Easy access to the Jersey Shore make summers delightful."

**Lee M. Griffin\*** is a resident in psychiatry at the Mental Health Institute in Cherokee, Ia. He served in the Navy, practiced in Washington, and then served two years as a medical missionary in Ethiopia. Lee "may return to Africa to teach in the Kilimanjaro Christian Medical Center now under construction in Tanzania." He is married to Cynthia Haakensen of White Bear Lake, Minn., and they have a family of five, ages 14 to 7.

**Robert W. Gustafson** is a GP at the Granite Falls, Minn. Medical Center. He spent two years in the Army, and married Delores Birkholz of Brownton, Minn. They have three children, ages 9 to 2. Bob enjoys flying. He writes that two of his partners are Minnesota graduates: Paul Schmidt (Med. '31), and Carl Lundell (Med. '43).

**John J. Hall\*** has spent 5½ years in solo general practice in Bryan, Tex. He served with the Air Force in Greenland, and married Yolanda Cavazos of Texas. They have four children, ages 6 to 4 mos., and live at 411 W. Brookside. John is secretary of the County Medical Society, enjoys ranching, and flies his own plane.

**Kermit J. Halverson** practices anesthesiology at Virginia, Minn., and lives at nearby Parkville, Minn.

**Donald W. Herrick** is in solo ophthalmology practice in St. Paul, since finishing a residency at the Medical School in 1961. He served two years with the Air Force, now lives at 2195 Princeton Ave. with his wife, Helen, and seven children.

\*Member, Minnesota Medical Foundation

**William R. Hilgedick\*** is in general practice in Chisago City, Minn.

**Owen W. Holm\*** is a general surgeon with the Northwestern Clinic in Crookston, Minn. He took his residency at the U. of M. and St. Louis City Hospital and spent two years in the Air Force. Owen's wife is the former Beatrice Leino of Chisholm, Minn., and they have two daughters, ages 9 and 8.

**John W. Horns** is a resident in radiology at the University of California Medical Center, Los Angeles, Calif.

**Thomas L. Huseby\*** is a pediatric surgeon in St. Paul and teaches at St. Paul-Ramsey Hospital. He took his residency at the V.A. Hospital in Denver and at Children's Memorial Hospital in Chicago. He served in the Army in Germany and married Juanita Scamp of Minneapolis. They have two sons, ages 4½ and 1½, and live at 2091 Scheffer in St. Paul.



Dr. and Mrs. Lewis Johnson

**Maynard E. Jacobson** joined the fulltime faculty in the Department of Internal Medicine at the U. of M. in 1961, where he took his own residency. He served in the Navy and he and his wife, Ruth, have two children, ages 7 and 2. Maynard "plans to pursue academic medicine with clinical medicine, teaching and research. My chief areas of activity are in endocrinology and direction of the residency program in internal medicine." He lives at 1415 Cerry Hill Rd. in St. Paul.

**Lewis A. Johnson\*** began full time research in June, 1965 for the Tierfarm AG, an industrial research firm in Basle, Switzerland. He took his training at the U. of M., at Columbia-Presbyterian Hospital and Walter Reed General Hospital,

and taught at Columbia University's College of Physicians and Surgeons. He served in the Army and is married to Ursula Thron (see photo) of Munich, Germany. They have two sons, ages 5

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and 2. Lewis writes, "My research is in toxicologic and teratologic pathology. We enjoy music and skiing." The Johnsons' address is Doernliweg 23 in Basle.

**Paul E. Johnson** was a GP for 8½ years in Minneapolis before becoming a resident in radiology at Swedish Hospital on Jan. 1, 1965. He and his wife, Lois, are the parents of four sons, and live at 250 Peavy La., Wayzata, Minn.

**Ray A. Johnson\*** has spent five years with a four-man general practice group in Petaluma, Calif. He served in the Army in Germany, and he and his wife, Gogi, have two children, ages 7 and 4. Ray "enjoys the mild California climate and the advantage of living near San Francisco." His address is 920 5th St.

**Dennis J. Kane\*** is director of medical education at St. Paul-Ramsey Hospital and is an associate professor of internal medicine at the Medical School. He received a Ph.D. from the U. of M. in 1953, and served in the Air Force. Dennis is a trustee of the Minnesota Medical Foundation. His wife, Margaret Meaney, is from Conn. They have a son, Tommy, age 8, and they live at 144 So. Mississippi River Blvd., St. Paul.

**Louis J. Karish\*** is in general practice with the Itasca Clinic in Grand Rapids, Minn., where he has been since discharge from the Army in 1958. He married Jeanne Taransen of Duluth. They have three children, ages 8 to 5, and live at 3014 East Highway 169.



Arne L. Klepp



Dennis Kane

**Arne L. Klepp\*** began solo general practice in Mission Hills, Calif., in April 1964, after several years as part of a group. He served in the Navy on Guam, and has two children, ages 9 and 7. Arne enjoys hiking, camping and photography and lives at 17633 Community St. in Northridge, Calif.

\*Member, Minnesota Medical Foundation

**Harris W. Knudson** is overseas with the Air Force. His address: 3970th USAF Hosp., Box 4063, APO 283 New York, N.Y.

**Kenneth R. Knutson\*** finished a pediatric residency at Minnesota in 1961 and joined the 13-man Wausau, Wis. Clinic. He served in the Air Force prior to Medical School, and formerly was a GP in Hibbing, Minn. Ken's wife is Barbara Miller, a U. of M. graduate from S.D., and they have two children, ages 4 and 1½. The family enjoys camping, hunting and fishing and lives at 2311 Elmwood Blvd.

**Severin H. Koop\*** is a 4th year resident in otolaryngology at the U. of M. He spent four years in general practice in St. Cloud, Minn., served in the Army, and married Ruth Wenner of St. Cloud. They have six children, ages 10 to 1. He plans to enter private practice in Minnesota in 1966 and is presently living at 2139 Dayton Ave. in St. Paul.



Dr. and Mrs. Richard Kunin

**Richard A. Kunin\*** is in solo psychiatry practice in San Francisco, Calif. He took his residency at New York Hospital and Stanford University, where he received a fellowship in neurophysiology. Dick served in the Army in Korea, and married Matilde Menning (see photo) of Cleveland. They have a son, Gregory, age 3, and live at 1030 Leavenworth in San Francisco.

**Theodore G. Larson\*** is an assistant professor of psychiatry at the Medical School. He finished his residency in 1962 and joined the faculty. He served in the Army in Japan, and married Margaret Sivertsen of Minneapolis. They have two children, ages 8 and 7, and live at 601 Turnpike Rd. in Minneapolis.

**John R. Lee\*** is in general practice with a partner in Mill Valley, Calif., and is married to Patricia Boland of that state. They have two children, ages 5 and 3, and live at 178 Tamalpais Ave. John served two years in the Army, is on the board of directors of the Marin County Medical Society, and Academy of General Practice, and is editor of the *Marin Medical Bulletin*. He declares: "We need more family doctors in California!"

\*Member, Minnesota Medical Foundation

**Arnold S. Leonard** is an assistant professor of surgery at the U. of M., where he received his Ph.D. in surgery in 1963. He served in the Navy and married Mary Fist of Minneapolis. They have four children, ages 13 to 6, and live at 5212 Colonial Dr. in Minneapolis. Arnold received the distinguished service award of the Golden Valley, Minn. Junior Chamber of Commerce in 1964, and recently served as president of the Golden Valley PTA. He plans to stay in academic medicine.

**Stanley A. Leonard**,\* twin brother of Arnold Leonard, is in group pediatrics practice in St. Paul, and is on the clinical faculty at the U. of M., where he took his residency. He served in the Navy and married Suzanne Levy of St. Paul. They have four children, ages 11 to 4, and live at 1041 Colby in St. Paul.

**Richard L. Lessard** is in general practice with a group in St. Paul, and lives at 2864 Matilda, with his wife, Mary, and two children. He was in the Navy 1956-58, and "enjoys hunting and fishing."

**William R. R. Loney**\* practices dermatology in Bartlesville, Okla., and teaches at the University of Oklahoma School of Medicine where he finished a residency in 1962. Bill served 2 years in the Air Force and married Sylvia Kochert of Indiana.

**J. C. Loofbourow** writes from Woodland, Calif., where he is a GP: "We enjoy California very much, but have nothing against Minnesota except 'February.' General practice has worked out well for me, challenging, exhilarating, although apparently a dying art. My wife (Nancy) and children (Jenni, Amy, Abby, Fred, and Robert, 9 to 2) keep me happily impoverished. Not being old enough for golf, my hobbies are skiing, flying, classical guitar, history, and languages. We are looking for a new partner to replace a retiring member of our five-man GP group." He lives at 516 W. Keystone Ave., Woodland.

**Gerald R. Marschke** is practicing at the Marshfield, Wis. Clinic.

**Donald C. Martin**\* is in solo general practice in Boyes Springs, Calif., where he has been for two years. He served in the Air Force for two years and then spent two years at the American Embassy in Moscow, USSR. Don's wife is Mary Krueger, a nursing graduate of the U. of M., and they have three children, ages 9 to 3. His address is 17941 San Simeon Dr. in Sonoma, Calif.

**Joseph S. Massee**\* practices OB-GYN with a group at the Southdale Medical Center in Minneapolis, and lives at 2200

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Vale Crest Rd., Minneapolis 55422. He and his wife, Dorothy, have an 8-year-old daughter, Caroline. Joe says he's a "bad but enthusiastic golfer." He was in the Navy 1957-59, and took his residency at the Mayo Clinic.



Phillip Meyers



Donald Moyer



Ken Neldner

**Phillip H. Meyers\*** is an associate professor of radiology at the Tulane University School of Medicine and a visiting radiologist at Charity Hospital in New Orleans. Author of 25 papers and 4 books, Phil recently was awarded a \$211,000 research grant from the Hartford Foundation. He is married to Betty Kramer of Baltimore and they have three sons, ages 5 to 18 mos. They live at 6300 Asher St. in Metairie, La.

**Maj. Donald G. Moyer** is in the Army Medical Corps and is assistant chief of the dermatology service at Brooke General Hospital in Ft. Sam Houston, Tex. He is married to Mary Callan of Minneapolis, and they have three children, ages 9 to 4. Don writes, "Military practice has been most rewarding. I spent 3½ years in Panama and was directly involved in the running of the Palo Seco Leprosarium." Don was awarded the Army Commendation Medal. He lives at 548 Graham Rd. in San Antonio.

**Robert J. Murtaugh\*** is in practice at Wadena, Minn.

**Milton G. Mutch, Jr.,\*** has practiced obstetrics and gynecology in Sioux Falls, S.D. since 1959, and is chief of the clinic at Sioux Valley Hospital. He took his residency at the U. of M. and served in the Navy. His wife, Ruby, is from Arlington, Minn., and they have three children, ages 11 to 7. Milton writes that he plans on a new partner in July of '66 and has just moved into a new building. He enjoys hunting, skiing, flying, and golf, and lives at 3004 Donahue Dr.

\*Member, Minnesota Medical Foundation

**Kenneth H. Neldner** practices dermatology and teaches at the University of Colorado Medical School. He was a Mayo Fellow in dermatology. Ken served in the Air Force, and married Lillian Hafner of Lewiston, Minn. They have three daughters, ages 13 to 9, and live at 715 14th St. in Boulder, Colo.

**Norbert J. O'Keefe** is a GP at Spring Valley, Minn.

**Robert W. Olson\*** is in practice in Minneapolis at 4119 E. Lake St.



Kenneth Osterberg

**Kenneth A. Osterberg\*** is engaged in research and teaches pathology at the U. of M. where he took residencies in neurology and pathology. He served in the Army in Formosa, and married Joan Bredlie of Crookston, Minn. They have two daughters, ages 3½ and 2½, and live at 2028 Sheridan So. in Minneapolis. (*Editor's Note:* Ken Osterberg was voted the Minnesota Medical Foundation's *Distinguished Teaching Award* by the Medical School student body in 1964.)

**Frank J. Owens** is deceased.

**Karl A. Palmer** is in practice in Menomonie, Wis.

**Raymond D. A. Peterson** is at the University of Uppsala, Sweden, for 2 years of pediatrics and immunology studies at the Histologic Institute. He is an assistant professor of pediatrics at the U. of M.. Ray served in the Army and married Carol Johnson of Minneapolis. They have three sons, ages 8 to 5. Ray is overseas as an established investigator of the American Heart Association. His address is Kantarellvägen 28, Uppsala 10, Sweden.

**Gordon L. Pierce\*** has been in general practice since 1958, and with a three-man group in Portland, Ore. since 1960. He served in the Air Force, and married Shirley Hessing of Jordan, Minn. They have four children, ages 8 to 7 mos., and live at 14214 N.E. Sacramento. Gordon writes, "Portland is a wonderful city in which to live, practice and raise a family." He likes golf, bridge and travel.

**John R. S. Remsberg\*** is a career USPHS physician and is deputy chief of medicine with the USPHS Hospital in Baltimore, Md. He took his residency in the USPHS in Boston, and now teaches at the University of Maryland Medical School. John married Audrey Hempel of St. Paul, and they have a daughter,

\*Member, Minnesota Medical Foundation

Lynn, age 8. John writes, "The practice of medicine keeps me well occupied but I enjoy gardening and cabinetmaking whenever time allows." His address is 125 Stevenson Lane in Baltimore.

**Maj. James S. Reynolds\*** is a resident in allergy with a subspecialty in internal medicine at Walter Reed General Hospital in Washington, D.C. Jim has been stationed in West Germany, and in Japan. He is married to Mary Heyer of N.Y., and they have three children, ages 8 to 5. Jim writes, "We have enjoyed traveling throughout the world. Residency training is using up most of my spare time, except for weekly golf (all fun and no trophies)." They live at 11403 Clara Street in Silver Spring, Md.

**Samuel Rotenberg** has been in private practice in North Minneapolis, but is presently on leave in California.

**Robert E. Rydell\*** is a pathologist at Minneapolis V.A. Hospital, and teaches at the Medical School. He completed a residency there in 1960, and lives at 515 Oak St. S.E., Minneapolis.



Barbara Subak



Raymond Peterson



John Remsberg

**Edward L. Salovich\*** is in a Minneapolis orthopedic surgery group with Harry B. Hall (Med. '35); Roland F. Neumann; his brother, Elmer R. Salovich (Med. '58); and Robert P. Soiseth. Ed teaches at the Medical School and received his orthopedic training at the Baylor University Medical Center in Dallas, Tex. He married Marilyn Sandberg of Minneapolis, and they have five children, ages 10 to 1. They live at 4020 Wood End Dr. in Minneapolis. Ed writes, "I have been blessed with five wonderful children and a very understanding and loving wife. The turning point in my career was when I continued further training in orthopedics and had the opportunity to return to

\*Member, Minnesota Medical Foundation

a very fine and busy practice in Minneapolis, but not to busy to exclude my favorite hobby, golf."

**Burton C. Sandberg** is in a group practice at the Fisher Hauch Medical Clinic, specializing in pediatrics in Pomona, Calif. He teaches at USC and took his residency at L. A. County General Hospital. Burt served in the Air Force, and married Sonya Carlson of Duluth. They have three children and live at 1963 Bard Court in Claremont. Burt writes, "I have a fine, healthy family in a wonderful community and climate (in spite of some smog!) Plans are to remain here."

**James R. Schuft\*** recently began a radiology residency at Charles T. Miller Hospital in St. Paul after seven years in general practice in Morris, Minn. He served in the Air Force, and married Mary Giffin of Hibbing, Minn. They have three children, ages 10 to 6, and live at 2212 Princeton Ave. in St. Paul.

**Robert W. Schulz** has been a GP for ten years in Fairmont, Minn. and plans to remain there in solo general practice. He served in the Air Force and married Rita Coleman of Morris, Minn. Bob enjoys photography, flying, and raising and showing Irish setters in his spare time.

**W. G. Sheldon** has been in general practice nine years in Blackwell, Okla. He was an Air Force pilot for 5 years and married Mary Johnson of Oklahoma City. They have four children, ages 13 to 4. He writes, "We own and subsidize a nursery school for 3-4 year olds. This is our own private 'Operation Headstart'."

**Richard Shepard** is a surgeon with the Medical Block Clinic in Red Wing, Minn. He served in the Army, and he and his wife, Marjorie, have three children, ages 9 to 3. Dick writes that he is doing general surgery and enjoys boating, hunting and fishing in his spare time.

**Marshall H. Short** is associate pathologist at Midway and Mounds Park Hospitals in St. Paul in a two-man partnership. He took his residency at the Minneapolis V.A. Hospital and served 2 years in the Army. His wife is Rose Kaufman of Minneapolis, and they have three children, ages 8 to 1. Marshall writes "I thoroughly enjoy pathology—find it very stimulating and rewarding—and like living in the Twin Cities." His address is 2512 Huntington Ave. in St. Louis Park.

**Stephen E. Silvis\*** is an internist and gastroenterologist with the Marshfield, Wis. Medical Clinic. He took his training at the

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Minneapolis V.A. Hospital and served in the Navy. Steve married Marilyn McDonough of St. Paul and they have a family of five, ages 12 to 1½.

**Richard K. Simmons\*** is in general practice with a three-man group in Minneapolis. He has been in general practice for 7 years, since military service. He married Jean Jamtaas, a U. of M. graduate, and they have three children, ages 8 to 2. He writes, "I enjoy traveling and the challenge of general practice. Will try to arrange an eleven-year reunion for next Spring." His address is 4800 Dunberry Lane in Minneapolis.

**James W. Sipe** is in practice at the Coon Rapids, Minn. Clinic, 9920 Zilla St.

**Alan G. Smith** is chief of orthopedics at the V.A. Hospital in Brooklyn, N.Y., and teaches at the Downstate Medical School. He and his wife, Joyce, have three children, ages 9 to 6. Alan moved to Brooklyn a year ago from Wilmington, Del., and went to Viet Nam in 1964 for a month with the MEDICO program. He lives at 235 87th St. in Brooklyn.

**Paul O. Sorkness\*** practices obstetrics and gynecology alone in Los Gatos, Calif. He served in the Air Force in Japan, and is currently teaching at Santa Clara County Hospital. A bachelor, Paul lives at 16579 Los Gatos-Almaden Rd.

**Keith H. Stolen** is "happy with general practice in Grand Rapids, Minn.," and calls it a "wonderful town, ideal for duck hunting and skiing." He's married to Carolyn Johnson of Minneapolis, and has four daughters, including 8-year-old twins.

**Claire J. A. Strobel** is a general surgeon with the Mankato, Minn. Clinic where he has spent four years. He took his residency at the Minneapolis V.A. Hospital and is married to Janet McKee. They have four children, ages 9 to 3. He writes that he is associated with a 20-man group of specialists with two other general surgeons. He enjoys hunting and farm management, and lives at 110 Jamaica Dr.

**Barbara H. Subak\*** is in general practice with Maxine Nelson (Med. '49) and pediatricians Elizabeth Jerome and Nancy Lund (Med. '62) in Minneapolis. She is married to Nick Subak, a Minneapolis businessman, and they have three children, ages 9 to 3. Barbara enjoys bowling and reading and lives at 3501 Stinson Blvd. in St. Anthony Village.

**Kenneth F. Swaiman** is a fulltime assistant professor of pediatrics and neurology at the U. of M., where he also took

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Leslie Syverson and his Ladies

his training. He served in the Army, and married Marilyn Burstein of Minneapolis. They have three children, ages 10 to 4, and live at 3334 Decatur Lane in St. Louis Park.

**Ralph H. Swanson** is in general practice with his brother, Lawrence Swanson, (Med. '46) in West St. Paul, Minn. He served in the Navy before Medical School, and is married to Helen Sloan of St. Paul. They have two daughters, age 10 and 7, and live at 202 18th Ave. No. Ralph is vice chief of staff at Riverview Memorial Hospital. He enjoys music and serves as organist occasionally at several local churches.

**Don P. Swenson** is in practice in the Medical Arts Bldg., Duluth, Minn.

**Richard W. Swenson** is an internist with the North Clinic in Minneapolis, where he has been for 2½ years. He took his residency at the Minneapolis V.A. Hospital and served in World War II. Dick's wife is Jennie Askin of St. Paul, and they have three children, ages 7 to 4. Dick writes, "After nine years of renting and moving, we have finally built our own home in Golden Valley, and have the largest mortgage on the block." His partners are John Giebenhain (Med. '44), Fred Hass (Med. '44), Marvin Muske (Med. '52) and a classmate Don Bolt (Med. '55). His address in Golden Valley is 6475 Westchester Circle.

**Leslie A. Syverson\*** has spent seven years in general practice with the six-man Fergus Falls, Minn. Clinic. He served in the Air Force, and married Lee Perth of Edina, Minn. They have three daughters, ages 9 to 3½. Leslie writes, "I have found gen-

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eral practice an engaging and rewarding challenge. My spare time is spent with the family, church, and community projects and, recently, oil painting."

**Neil R. Thomford** is a resident in general surgery at the Mayo Graduate School of Medicine, but is on temporary leave this quarter.

**Eddy S. Truppan** is believed to be in practice in Miami Beach, Fla. His address is 1880 N.E. 163rd St.

**Omar A. Tveten\*** has been in general practice in St. Paul since completing Navy duty in 1958. His address is 2242 N. 77th St.

**Robert Vaaler** is an anesthesiologist with Anesthesia Associates in Minneapolis. He was previously in general practice before taking a residency (1959-61) at the U. of M. He served in the Navy, and married Betty Tolmie of Cannon Falls, Minn. They have five children, ages 12 to 3, and live at 6329 Tingdale Ave. in Edina. Bob reports: "My practice is primarily at Northwestern Hospital. I find living in Minneapolis weather reasonably compensated for by the cultural and sports events. The weather this year has been so bad, however, that the Twins will have to win 2-3 more pennants to make up the deficit."

**Frances Valasek** is in practice in Brawner Hospital, a private psychiatric hospital in Smyrna, Ga. where she is primarily engaged in psychological testing. She has two chihuahua dogs which she has trained to show and enjoys playing the piano, classical music and color photography, as well as hiking. Her address is 157 Davis St.

**Thomas E. Vanderpool\*** is in general practice at the Koronis Medical Center, Paynesville, Minn.

**Carol Vilen Vaubel** has a GP-Pediatrics practice in St. Paul, where she has spent six years. She is married to Lawrence J. Vaubel and they have a son, Charles, age 8. Carol has not practiced the past several months because of illness. The family lives at 4321 York Ave. S. in Minneapolis.

**James G. White** is a fulltime assistant professor of pediatrics at the Medical School, where he also took his residency. He served in the Army and married Mary Simonet of Minneapolis. They have three children, with an increase expected in November, and live at 1919 Humboldt in Minneapolis. Jim was awarded the *Jane Nugent Cochems Prize* in 1964 for work in basic physiology of blood platelets. The electron microscope (see photo) is his main tool for research, and he enjoys golf.

\*Member, Minnesota Medical Foundation

**Francis R. Williams** is in general practice at 910 Maple St., Redwood City, Calif.

**Robert Kent Wilson** is deceased.

**R. L. Witter** practices general medicine in Wadena, Minn., where he has been located ever since his internship. He served in the Air Force prior to Medical School, and married Peggy Myers of Tennessee. They have four children, ages 13 to 4 mos. He writes that he enjoys hunting, and a "pleasant smalltown practice."

**Bertram F. Woolfrey** is engaged in research and teaching as a fulltime instructor in pathology at the U. of M. He served in the Army, and married Dona Eder of Lakefield, Minn. They have four children, ages 8 to 8 mos., and live at 1811 Venus Ave. in St. Paul. Bert "intends to continue in academic pathology."

**Richard D. Yoder** has been associated with the Division of Medical Computing Science at Tulane University since 1962. He served in the Army in Korea, and married Patricia Iverson of Idaho. They have a daughter, Danna Joe, age 3, and live at 11 Laux Manor Dr. in Metairie, La.

**Alvin S. Zelickson** practices dermatology in Minneapolis and is a clinical assistant professor at the Medical School. He spent 2 years in the Navy, and married the former Sue Zipperman of Minneapolis. They have two sons, ages 6 and 5, and live at 101 Ardmore Dr. No., Minneapolis 55422.

**Charles W. Zinn\*** has been in general practice with a group in Wayzata, Minn. for five years. He served in the Navy 1944-46, and married Marilyn Meinke of Wisconsin. They have three children, ages 9 to 4, and live at 16201 Holdridge Rd. Chuck enjoys fishing, gardening, golf and water skiing in his spare time.



Robert Vaaler



Charles Zinn

\*Member, Minnesota Medical Foundation

## Staff Meeting Report

### Comparative Hemodynamic and Humoral Responses of Puppies and Adult Dogs to Endotoxin\*

Jack L. Reddint†

Over the past decade it has been repeatedly emphasized that patients commonly develop shock as a result of bacteremia due to gram-negative organisms. The concept that shock results from the liberation of endotoxin (a lipoprotein-carbohydrate complex) from the cell wall of these microorganisms has gained general acceptance. Investigations in animals indicate that the presence of endotoxin induces vasoconstriction through the release of endogenous vasoactive substances. It has been proposed that the propensity to develop shock results from the acquisition of hypersensitivity to antigens (endotoxin) of gram-negative bacteria following prolonged exposure to the intestinal flora.

Extensive investigations on endotoxin shock have been reported previously from our laboratory in which adult dogs were used. The purpose of the present study was to determine whether puppies at different stages of maturation varied in physiological, pharmacological and immune responses to endotoxin.

During the first 6 months of life the puppy was found to be approximately 4 times more sensitive to the lethal effects of endotoxin than the adult dogs. The mechanism of lethality was obscure, particularly in view of the fact that endotoxin failed to induce hypotension in puppies below 1 month of age. Our previous studies had shown that in adult dogs the onset of hypotension was associated with a striking rise in plasma catecholamines, especially epinephrine. Although hypotension did not occur in the very young puppies with the onset of shock, a marked rise in plasma catecholamines occurred, exceeding elevations seen in adult dogs. Such elevations in the puppy may

\*From a report to the Staff Meeting of University Hospitals on November 26, 1965, and supported by USPHS Research Grant AI-04415-04

†Medical Fellow, Department of Medicine; Recipient, 1965 C. J. Watson Award, Minneapolis Society of Internal Medicine

reflect a poorly integrated sympathetic nervous system and diminished vascular responsiveness to endogenous catecholamine. These factors may partially explain the increased susceptibility of the puppy to endotoxin. Sensitivity of the vascular endothelium to catecholamines is looked upon as a part of the homeostatic mechanism or defense against peripheral vascular failure.

At 6 months of age the puppy responded to endotoxin with a marked and immediate fall in blood pressure and a rise in catecholamine, principally epinephrine; however, histamine, often considered responsible for mediating hypotension, was not released into the blood in measurable amounts. On the other hand, large amounts of histamine were demonstrated in the plasma of adult animals. Repeated challenges with endotoxin in the puppies were accompanied by progressive elevations in plasma histamine and increased resistance to endotoxin. While the significance of these findings are not entirely clear, they suggest that histamine can function under certain conditions in a protective manner. This view is supported by the finding that pre-treatment of puppies and adult dogs with histamine afforded protection against endotoxin.

In both the puppy and in the adult dog serum complement levels fell shortly after the administration of endotoxin. This fall was consistent with the concept that complement is bound in an interaction of endotoxin and *E. coli*-specific antibody as an initiating event in the lethal action of endotoxin. The puppy receives large amounts of antibody in the colostrum during the first days of life; however *E. coli* does not appear in the feces until 2 weeks of life.

The significance of these experiments with endotoxin is that varying physiological and pharmacological changes occur in the dog with maturation. These alterations influence the outcome of the animals when exposed to endotoxin.



## Staff Meeting Report

### Amniotic Fluid Pigments in Rh-Sensitized Pregnancy\*

William D. Cohen, Ph.D.†

Several proposed methods for quantitative evaluation of the yellow "bilirubinoid" pigments of amniotic fluid have been compared with regard to their predictive value in 90 Rh-negative, sensitized pregnant women. Although none of the methods examined has given results correlating perfectly with the clinical status of the infants, information of prognostic value was obtained by applying any of the methods examined, provided cut-off points were suitably chosen and allowance was made for gestational age.

The possibility of assessing the severity of erythroblastosis fetalis by examination of amniotic fluid sampled before delivery is attractive for several reasons. It would be valuable to have a good estimate of the activity of the hemolytic process, to choose candidates, and to select suitable times for selective early induction of labor, since indiscriminate early induction does not decrease perinatal mortality. Also since intrauterine transfusion of severely affected fetuses has recently been shown to be possible, it would be desirable to choose only the most severely affected pregnancies, in which fetal survival would otherwise be unlikely, for this heroic procedure.

It has been suggested that levels of various substances in the amniotic fluid may be correlated with hemolysis of fetal erythrocytes *in utero*. Among these are porphyrins, hemoglobin, non-heme iron, and bilirubin measured either by direct spectrophotometry or as azobilirubin. The methods selected for the present study were: (1) estimation of bilirubin spectrophotometrically by evaluation of the optical absorbance of the fluid at four wavelengths, assuming that only four substances, bilirubin, oxhemoglobin, methemalbumin, and the vernix caseosum, contribute to the spectrum; (2) graphic determination of excess optical density at 450  $m\mu$  due to "bilirubinoid" pigments; and

\*From the Department of Obstetrics and Gynecology, University of Minnesota Hospitals

†Assistant Professor, Department of Obstetrics and Gynecology

(3) determination of the pink azobilirubin at  $540\text{ m}\mu$  after treatment of the fluid with diazotized sulfanic acid and methanol. Severity of erythroblastosis was graded on the basis of Rh- and Coombs antiglobulin-typing of the infants, the levels of hemoglobin and bilirubin in umbilical cord blood, the number of exchange transfusions required, and survival. Specimens were obtained by transabdominal amniocentesis, usually at 29 to 33 weeks of gestation, protected from light, centrifuged promptly, filtered, and refrigerated prior to analysis. Often a second specimen was obtained two to four weeks later.

Evidence that the major absorption band in the amniotic fluid specimens at or near  $415\text{ m}\mu$  was due to oxyhemoglobin was obtained by demonstrating a shift of this band to  $430\text{ m}\mu$  under reducing conditions (inert gassing, sodium dithionate). Reported maxima in this region are: oxyhemoglobin in  $414\text{ m}\mu$ ; reduced hemoglobin  $430\text{ m}\mu$ . The validity of the calculated and graphic determination of excess optical density at  $450\text{ m}\mu$  in the presence of varying amounts of hemoglobin was established by the addition of 5 to 10 mg./100 ml. of oxyhemoglobin (as well-washed, lysed adult erythrocytes) to amniotic fluid samples and redetermination of the absorption spectra. No significant effect on the excess optical density at  $450\text{ m}\mu$  was seen.

Comparison of the three methods of evaluation of the pigments revealed closely correlated results. However, the excess optical densities at  $450\text{ m}\mu$  were systematically slightly higher when calculated by Bevis' method than when estimated graphically according to Liley. The calculated optical densities were converted to "bilirubin" concentrations by using the absorption coefficient of bilirubin in aqueous solution containing protein, as suggested by Bevis, and compared with the azobilirubin levels. The consistently lower levels by the latter method suggested the presence of small amounts of yellow pigment(s), not closely related to bilirubin.

For the evaluation of the prognostic value of varying amounts of the pigments, regions of increasing risk with higher pigment levels were established retrospectively, taking into account the expected gradual decrease of pigment levels with advancing gestational age as suggested by Liley. In this way any of the three methods could be used to outline low-risk zones (75% unaffected or only mildly affected, requiring no treatment) and high-risk regions (75% perinatal deaths due to erythroblastosis fetalis, or severely affected, requiring multiple exchange transfusions). In addition, a "highest risk" area could be identified, in which all or nearly all of the pregnancies terminated in fetal

death *in utero*, stillbirth, or neonatal death. An intermediate zone was also seen, comprising some 35% of all specimens, in which predictions of severity were not well-correlated with pigment levels. Some improvement in prognostic value in this region could be obtained using the trend of results of two or more specimens taken several weeks apart, rising pigment levels being associated with more severe disease.

When considered together with all other available data in Rh-sensitized pregnancies, amniotic fluid pigment determinations provide additional useful information in predicting the severity of erythroblastosis fetalis.

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## Staff Meeting Report

### Biochemical Studies on the Pancreatic Islet Tissue Using the Microdissected Rat Islets\*

Padmakar K. Dixit, Ph.D.†

This investigation deals with the insulin content and the enzyme activity of the microdissected rat islet tissue at various time periods following the administration of a diabetogenic dose of alloxan. The purpose is to study the mechanism by which alloxan selectively destroys the beta cell of the pancreatic islets.

The quantitative histochemical methods described by Dr. Oliver Lowry of Washington University, St. Louis, are adapted to islet tissue. Rat pancreas is frozen in liquid nitrogen, 20 $\mu$  sections are cut in a cryostat at  $-20^{\circ}$  C. and these are lyophilized at  $-40^{\circ}$  C. Islets are microdissected under a binocular microscope and weighed on a quartz fiber balance. Enzyme analyses are carried out on tissue samples weighing approximately 0.100  $\mu$ g.; the amount of disphosphopyridine nucleotide (DPN) or reduced triphosphopyridine nucleotide (TPNH) formed during the enzyme reactions is measured fluorometrically. The insulin content of the islets is determined by the epididymal adipose tissue technique.

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\*From a report to the Staff Meeting of University Hospitals on November 19, 1965

†Assistant Professor, Department of Anatomy

*Enzyme Activity of Rat Islets at Various Times Following Alloxan Administration*

Following alloxan injection the activity of islet malic dehydrogenase (MDH), a tricarboxylic acid cycle (TCA) enzyme, is unchanged at 12 hours but it is decreased to 54% of the normal at 24 hours. There is a subsequent decline to 35% of normal at 72 hours. By contrast, no significant change in the MDH activity is observed in the acinar tissue. Islet lactic dehydrogenase (LDH) activity is increased two to four fold at 24 and 48 hours. No appreciable changes are observed in the acinar LDH values. Activity of islet 6-phosphogluconic dehydrogenase (6-PGDH), an enzyme of the hexose monophosphate shunt (HMP) shows a progressive increase following alloxan administration, similar to that observed for LDH. The activity of both islet and acinar tissue isocitric dehydrogenase (ICDH) shows a small decrease at 24 hours.

The observations indicate that activity of MDH in the beta cells is much greater than that in the alpha cells; following the disappearance of the beta cell by alloxan (at 48 to 72 hours after alloxan) there is a marked decrease in the islet MDH activity. The residual MDH activity is contributed by the alpha plus endothelial cells. Observed increases in LDH and 6-PGDH activity following beta cell disappearance reflects the altered islet cytology which now consists primarily of alpha and endothelial cells.

*Effect of Alloxan on the Islet Insulin Content*

Microdissected rat islets contain more than 100 times the amount of insulin present in the whole pancreas. When the islet insulin content is measured, no significant change in the insulin content is found during the first 24 hour period despite the presence of a marked hyperglycemia. Thus the alloxan treated beta cell appears to be unable to release its insulin in response to the hyperglycemia. The almost complete disappearance of insulin from the islets at 48 and 72 hours, parallels the disappearance of the beta cells.

These observations are consistent with the hypothesis of Cooperstein, Watkins and Lazarow, that alloxan kills the beta cell by altering its permeability, possibly through an interaction with the sulfhydryl (SH-) groups of the cell membrane. The changes in the enzyme activity are secondary to the beta cell death which occurs as a result of the altered membrane permeability.

TABLE 1  
 CHANGES IN THE VARIOUS ENZYME ACTIVITIES OF THE ISLET AND ACINAR TISSUES  
 FOLLOWING ALLOXAN ADMINISTRATION

Enzyme activity in Moles per Kg. dry weight of tissue per hour  
 (\*N.B. In the case of 6-PGDH the activity was M/K/2 hr.)

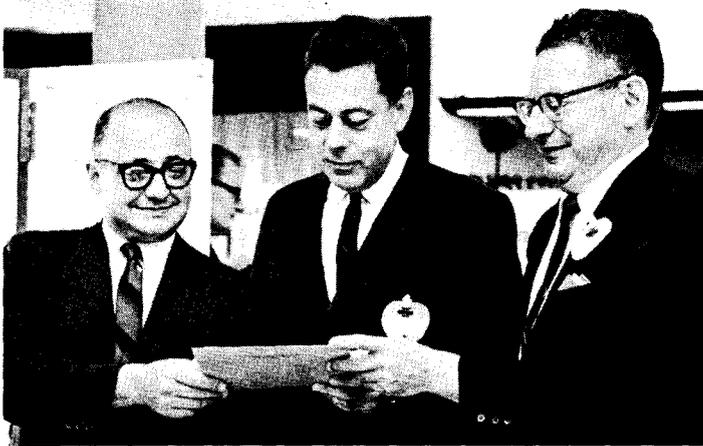
Enzyme	Control		Hours after alloxan (40 mg./Kg body wt.) injection									
	Islet	Acinar	12		24		48		72		168 (7 days)	
			Islet	Acinar	Islet	Acinar	Islet	Acinar	Islet	Acinar	Islet	Acinar
MDH	174	61	—	—	94	55	74	46	60	53	65	40
LDH	4.6	10.8	4.2	12.2	9.1	12.6	19.0	12.5	11.8	10.8	8.1	13.3
6-PGDH*	0.40	0.12	0.61	0.31	0.85	0.18	0.93	0.20	1.34	0.31	0.96	0.28
ICDH	3.13	4.17	4.08	3.58	2.32	2.54	2.96	3.80	3.29	4.73	—	—
ATPase	3.55	2.52	2.84	1.35	—	—	—	—	—	—	—	—
Insulin content units/gm. dry weight	3604	53	—	—	3635	—	155	—	93	—	—	—

## *Medical School News*

### OTOLARYNGOLOGY

Drs. Henry L. Williams, Jr., W. Dixon Ward, Conrad Holmberg, Douglas Kusske, and Lawrence R. Boies, Jr., attended the VIII International Congress of Otolaryngology in Tokyo, Japan in October.

Dr. Williams presented a paper on "*Latent or Dormant Osteitis of the Cell Tracts of the Temporal Bone.*" Dr. Ward addressed the Congress on "*The Relation Between Noise and Deafness*"; the Japanese Association of Industrial Health on the "*Development of the New American Damage-Risk Criteria for Noise Exposure*"; and the Japanese Society of Industrial Hygiene on "*The Concept of Susceptibility to Hearing Loss.*" Dr. Boies, Jr. presented a paper to the Congress on "*Some Observations on the Efferent Activity of the Auditory Nervous System.*"



Dr. Reuben Berman (right), (Med. '32), was recently elected president of the Minnesota Heart Association. He succeeded Dr. W. F. Mazzitello (left), clinical assistant professor of medicine in the Medical School. Named president-elect was Dr. Ivan D. Frantz, Jr. (center), professor of medicine at the Medical School. Dr. Berman is a clinical professor of medicine at Minnesota.



## Medical Foundation Membership Rising

The Minnesota Medical Foundation welcomes 134 persons to membership since the official registry was published in the June, 1964 MEDICAL BULLETIN. Their enrollment brings total membership in the Foundation to approximately 2,950, which is the highest in 26 years. The dues and gifts of members and non-members support the work of the Minnesota Medical Foundation, which is a nonprofit organization dedicated to the Medical School of the University of Minnesota.

Membership in the Foundation is open to alumni, non-alumni, and laymen who are interested in the advancement of medical education and research at the Medical School. Dues and gifts are tax deductible. Some recently enrolled members:

### Class of 1904

*A. D. Hoidale*

### Class of 1910

*Frank T. Cavanor*

### Class of 1916

*Lyle J. Roberts*

### Class of 1918

*John N. Perkins*

### Class of 1920

*Earl R. Crow*

### Class of 1924

*William W. Heck*

### Class of 1927

*Murray B. Bates*

### Class of 1928

*R. B. Allen*

*Laura K. Howard*

*John D. Keyes*

*C. Dexter Lufkin*

*Melville H. Manson*

*J. Ethel Montgomery*

*Cecil A. Warren*

### Class of 1929

*Ferdinand Fetter*

*Herman E. Hilleboe*

*L. Kenneth Onsgard*

### Class of 1930

*Clarence G. Owens*

*Archie M. Smith*

### Class of 1931

*Burr Dalton*

*Paul C. Leck*

*Elisabeth M. Murray*

### Class of 1934

*Miles Gullickson*

### Class of 1935

*James H. Bender*

*Carl H. Coombs*

*Hymer L. Friedell*

*L. M. Hanmar*

*Eugene F. McElmeel*

### Class of 1936

*Clarence Siegel*

### Class of 1938

*Karl E. Johnson*

*Robert G. Kvarnes*

*Edward W. Sickels*

*Charles B. Will*

### Class of 1939

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*H. Charles Ballan*

*Russel E. Carlson*

*Kenneth W. Douglas*

*J. E. Eckdale*

*Edward S. Vanderhoof*

*Sydney J. Weisman*

THE MEDICAL BULLETIN

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*Olive Lundgren*  
*D. G. MacMillan*  
*Eugene Rinkey*  
*G. Charles Sutch*  
*N. E. Tostenson*

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*John C. Poore*  
*James Robert West*

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*John P. Stapp*  
*Elizabeth Troxil*

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*Roy T. Pearson*

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*Stanley J. Graiewski*  
*Henry J. Krawczyk*  
*Sheldon L. Mandel*  
*Sheldon J. Peik*  
*A. M. Whiting*

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*Robert P. Meyer*  
*Philip Y. Paterson*  
*Arnold J. Spanjers*

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*John E. Egdahl*  
*George W. Heine*  
*Fred Madenberg*  
*Dan Reikes*  
*A. O. Rholl*

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*Elaine M. Hacker*  
*Hazel L. McGaffey*

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*Pat Rollins*  
*Wesley Tomhave*  
*Edwin O. Wicks*  
*O. L. Zahrendt*

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*W. R. Weyhrauch*

Class of 1953

*Jason Aronson*

Class of 1955

*Charles M. Binger*  
*R. R. Boehlke*  
*Gerald H. Fink*  
*Lee M. Griffin*  
*Owen W. Holm*  
*John R. Lee*  
*William R. R. Loney*  
*Gordon L. Pierce*  
*John E. Quast*  
*Stephen E. Silvis*  
*R. W. Swenson*  
*L. A. Syverson*  
*Omar A. Tveten*

Class of 1957

*William W. Baak*

Class of 1958

*Eric O. Feigl*  
*Ralph Langsjoen*  
*Gerald T. Mullin, Jr.*

Class of 1959

*Thomas O. Nichols*

Class of 1960

*James R. Allen*  
*Wendell G. Geary*  
*Corrin J. Hodgson*  
*John E. Larkin, Jr.*  
*Morris L. Lommen*  
*Richard E. Olson*  
*Bernard Pollara*  
*Odean M. Severseike*  
*David B. Siewert*  
*Darrell T. Weinman*

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Class of 1961

*Bruce J. Bart*

Class of 1962

*David George Smith*

Class of 1963

*Larry Erickson*

Non-Alumni

*Robert K. Anderson*

*Theodore M. Cole*

*Charles G. Fitch*

*W. L. Fowlks*

*L. Floyd Hobbs*

*Sara McKinney*

*J. Singer*

*Mary G. Weisensee*

Class of 1964

*Walter L. Bailey*

*Ralph W. Bergstrom, Jr.*

*Robert W. Conroy*

*James E. DeMeules*

*Allan L. Dewald*

*David E. Glass*

*William Jacott*

*Lawrence D. Jones*

*Thomas J. Rose*

*Alvin Shemesh*

*Clyde W. Smith*

*Clinton F. Snyder*

## Minnesota Alums Meet in Philadelphia

Thirty five "Minnesotans" enjoyed a Minnesota medical alumni party at the Union League club in Philadelphia, Pa. on October 31, 1965 as guests of Dr. and Mrs. Harold G. Scheie and the Minnesota Medical Foundation. Dr. Scheie (Med. '35), is head of ophthalmology at the Hospital of the University of Pennsylvania.

Following the social hour and dinner, Mr. Eivind Hoff, executive director of the Foundation, spoke on the "Past and Present Medical School Scene." A slide showing, commentary by Drs. H. M. Cavert and N. L. Gault, associate deans, and a question-and-answer session concluded the evening.

Alumni of the Medical School now residing in the Philadelphia area were invited. In 1964, the Foundation held a similar event in Denver, Colo., and in 1966 will hold it in San Francisco, Calif. The occasion is tied to the location and time of the annual meeting of the Association of American Medical Colleges.

Attending the party at Philadelphia were: *Dr. and Mrs. Edward G. Torrance (Med. '23), Drexel Hill, Pa.; Dr. Lucy Balian Rorke (Med. '57) and Mr. Rorke, Philadelphia; Dr. Lavonne M. Painter (Med. '58), Philadelphia; Dr. and Mrs. James L. Michie (Med. '57), Phoenixville, Pa.; Dr. Janet M. Lindquist (Med. '63), Philadelphia; Dr. and Mrs. F. Douglas Lawrason (Med. '44), West Point, Pa.; Dr. and Mrs. Roy G. Holly (Med. '43), Philadelphia; Dr. and Mrs. Robert H. Hamilton (Med. '34), Philadelphia; Dr. Margaret L. Grunnet (Med. '62), Philadelphia; Dr. Esther M. Greisheimer (Med. '32), Philadelphia; Dr. and*

## THE MEDICAL BULLETIN

Mrs. Leland J. Green (Med. '55), Philadelphia; Dr. and Mrs. Richard N. Harner (Med. '59), Philadelphia; Dr. and Mrs. Bernard Sandler (Med. '54), Philadelphia; Dr. M. J. Rosenholtz (Med. '56), Baltimore, Md.; Dr. John Gronvall (Med. '56), Jackson, Miss.; and Dr. and Mrs. William F. Maloney (Med. '45), Evanston, Ill. Medical School officials attending included Gertrude M. Gilman, director, University Hospitals; Dr. N. L. Gault, Dr. H. M. Cavert, and Dr. Robert B. Howard, Dean; Dr. W. A. Sullivan, and Mr. Hoff.

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## LETTERS

The Editor:

Some of us members of the Class of 1917 are looking to our 50th anniversary a year from next Spring. I am wondering if you could furnish me a list of known survivors so that I may get in touch with them. Having been in World War I and having lived in California since that time, I have lost all contacts

Thanks in advance.

CHESTER O. TANNER, M.D.  
5242 Cromwell Ct.  
San Diego 16, Calif.

EDITOR'S NOTE: Glad to help out. There were 42 members of the Class of 1917. Eighteen are known to be deceased, and perhaps 21. Those classmates who survive should get in touch with Dr. Tanner.

The Editor:

Just a note to tell you we have enjoyed very much all of the MEDICAL BULLETINS . . . especially the survey of the Class of 1934. It is really touching to rediscover our long lost classmates.

FRED and ELEANOR GUNLAUGSON  
121 W. Elmwood Pl.  
Minneapolis, Minn.

## *Alumni Deaths*

◆ 1929

**Dr. William F. Schoffman**, Phoenix, Ariz. Died June 19, 1965, aged 59 years, of acute coronary occlusion.

◆ 1930

**Dr. Robert P. Hargreaves**, San Antonio, Tex. Died August 12, 1965, aged 59 years, when he was shot by a patient. Dr. Hargreaves was affiliated with the San Antonio State Hospital in the practice of psychiatry and neurology, and had retired from the U.S. Army Medical Corps with the rank of Lt. Col.

◆ 1933

**Dr. Egil Hanssen**, Glendale, Calif. Died June 19, 1965 of bronchopneumonia. He was 66 years old and had practiced medicine and surgery in California since 1944, after completing a surgical residency at Minneapolis General Hospital.

### **MEMORIALS**

The Minnesota Medical Foundation acknowledges with gratitude recent contributions made in memory of:

**Mrs. Lidija Akmenkalns**  
St. Paul, Minn.

**Paul Eckhoff**  
St. Paul, Minn.

**Otto R. Gartz**  
Minneapolis, Minn.

**Jerome Hirsh**  
St. Paul, Minn.

**Mrs. Amalie Kimmer**  
Hopkins, Minn.

**Miles H. McNally**  
New Richmond, Wis.

**Mrs. Maud W. Sanborn**  
St. Paul, Minn.

**J. Phillips Shipley**  
St. Louis Park, Minn.

**Richard Spielberger**  
Mt. Vernon, N.Y.

**Mrs. Emil Thorsch**  
Minneapolis, Minn.

Memorial gifts are a thoughtful means of honoring the memory of a relative, friend, or colleague. They serve the living by strengthening medical education and research at the University of Minnesota Medical School. Gifts may be designated for specific purposes. The Minnesota Medical Foundation acknowledge all gifts to both donor and next of kin.

# COMING EVENTS

*University of Minnesota Medical School*

## CONTINUATION COURSES FOR PHYSICIANS

University of Minnesota  
Center for Continuation Study

### 1965

- November 3 - 5 . . . . . Ophthalmology (Refraction)  
November 11 - 13 . . . . . Orthopedic Surgery  
December 9 - 10 . . . . . Pulmonary Disease

### 1966

- January 3 - 7 . . . . . Electrocardiography (Intermediate)  
January 17 - 18 . . . . . Psychiatry  
February 14 - 18 . . . . . Proctology  
February 18 - 19 . . . . . Neurosurgery  
February 21 - 23 . . . . . Neurology  
March 10 - 12 . . . . . Obstetrics  
April 1 - 2 . . . . . Trauma  
May 2 - 4 . . . . . Ophthalmology  
May 19 - 21 . . . . . Surgery  
June 1 - 3 . . . . . Anesthesiology

The University of Minnesota reserves the right to change this schedule without notification.

Courses are held at the Center for Continuation Study or the Mayo Memorial Auditorium on the campus of the University of Minnesota. Usual tuition fees are \$50 for a two-day course, \$60 for a 2½-day course, \$70 for a three-day course, and \$100 for a one-week course.

Specific announcements are sent out about two months prior to each course to all members of the Minnesota State Medical Association and to any physicians who request information for a specific course. For further information write to:

DIRECTOR  
DEPARTMENT OF CONTINUATION MEDICAL EDUCATION  
THE MEDICAL CENTER (Box 193)  
UNIVERSITY OF MINNESOTA  
MINNEAPOLIS, MINNESOTA 55455

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First unit of University Hospitals, named Elliott Memorial Hospital, was erected on the campus in 1911 at a cost of \$113,000. It remains in use today as part of the 800-bed University of Minnesota Medical Center.

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