2008

Department of Pathology History

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UNIVERSITY OF NORTH DAKOTA :: QUASQUICENTENNIAL :: DEPARTMENT HISTORY

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UNIVERSITY OF NORTH DAKOTA
1883-2008
CELEBRATING 125 YEARS

DEPARTMENT OF PATHOLOGY
HISTORY

Jean (Saumur) Holland, Eileen Nelson,
Mary Coleman, Cathy Perry, Mary Beth McGurran,
Ruth Paur, Mary Ann Sens

UND 125 1883™ UNIVERSITY OF NORTH DAKOTA

DEPARTMENT OF PATHOLOGY
HISTORY

1949-1982: Authored by Jean Holland Saumur

INTRODUCTION

The Department of Pathology originated as part of the Department of Bacteriology and Pathology when the two year School of Medicine was established under M.A. Brannon in 1905. The legislature appropriated $5,000 for maintenance and $2,000 for equipment to establish a Division of Medicine to include a public health laboratory with the School of Medicine. The director of that laboratory was to be ex-officio state bacteriologist and professor of bacteriology and pathology in the medical school. This relationship of bacteriology, pathology and public health laboratories continued until 1949, when the Department of Bacteriology, Department of Pathology and State Public Health Department became separate departments, each with separate department chairman, faculty and staff.

The first faculty member in the Department of Bacteriology and Pathology (occasionally in the catalogues this is listed as Department of Pathology and Bacteriology) was Gustave Ruediger, B.A. Wisconsin, M.S., Rush, Ph.D., Chicago. He served from 1907 to 1914. Geiger said, "only 31 years old, - - he possessed vigor and imagination, and the laboratory developed rapidly in the seven years he was at the university." Ruediger was the second full-time professor in the medical school. He was one of nine professors and seven instructors with nine students. In 1907, the Association of American Medical Schools granted accreditation In 1910, the School of Medicine passed the Flexner report.

The Bacteriology and Pathology Department and Public Health Laboratory were housed on the third floor of Science Hall where the rest of the Division of Medicine was also located, on second floor and the attic. Since Hall was built in 1901-02. The department remained there until the Summer of 1949 when the whole school moved to the Medical Science Building built with mill levy funds in 1948-49 as part of the North Dakota Medical Center.

After Ruediger left the school of Medicine, many different men assumed the title of Professor of Bacteriology and Pathology with the added title of Director of Public Health Laboratory. Dean Harley E. French intermittently assumed the title of Director of Public Health Laboratory. This apparent instability continued until Arthur K. Saiki, M.D. was appointed Assistant Professor of Bacteriology and Pathology in 1930. He came to the school originally as a medical student and came back after his years at Nebraska and M.D. degree as an instructor in the Department of Physiology and Pharmacology. After a year he as appointed to the Department of Bacteriology and Pathology and later promoted to associate and full professor. French, Saiki and George A. Talbert of

Physiology and Pharmacology were the major leaders of the school until Talbert's death in 1944.In 1949 the department to become the Department of Pathology and Department of Bacteriology. Dr. James D. Cardy was the first Chairman of the Department of Pathology. Dr. Saiki remained as Professor of Pathology, later Emeritus.

COURSES

The pathology and bacteriology courses were listed under the department heading, Pathology and Bacteriology. In the 1908-09 catalogue there were: General Pathology and Pathological Histology; Medical Bacteriology; Demonstration Course in Bacteriology; Laboratory Diagnosis; Advanced Pathology; and Hygiene. Textbooks were listed: American Textbook of Pathology; Stengel Textbook of Pathology; and Ziegler's General Pathology. "The laboratory", in this same year was described as, "well-lighted and heated and is provided with good microscopes, incubators, microtomes, reference books and a museum which is being added to continually. The departmental library is provided with the most important current medical pathological and bacteriological journals in the English, German and French languages."

The schedule of classes indicated that bacteriology met every morning the first semester and every morning the second semester.

The 1909-10, the catalogue spelled out the general pathology and special pathology as courses which "cover disturbances of the circulation; the retrogressive metamorphoses; the progressive changes; inflammations; tumors; special pathology of the circulatory system, respiratory tract, liver and kidneys."

In 1914-15, the catalogue under John W. Cox the students were expected to assist at autopsies with instructor supervision. "The course is arranged to emphasize the practical side. The cellular elements, from which various lesions are formed, are studied. The development from the simplest to the most complex lesions are traced".

When Dr. Saiki came into the department, Clinical Pathology was added as a course although Laboratory Medicine was mentioned as a course in the catalogue of 1908-09.

Parasitology was added as a separate course in 1944 when Francis C. Lawler was Professor of Bacteriology in the department.

Medical Technology courses were added with a new curriculum for BSMT in 1949.

When the Master of Science in Medical Technology was approved in 1975, the advanced Laboratory Medicine courses were added.

A Cytotechnology degree program started in 1975 necessitated adding clinical courses in this area.

Although Advanced (sometimes spelled "advanst") Pathology was listed in most early catalogues when the School of Medicine was a two year school, the most recent ones are considered courses for junior and senior medical students, as either required or elective courses in General and Clinical Pathology.

SPECIAL TEACHING PROGRAMS

Special teaching programs developed within the department were for pathology residents, medical technologists, histopathology technicians and cytotechnologists.

As early as the catalogue of 1928-29, a suggested preparation for laboratory assistants, medical technologists and laboratory technicians is described. "Selected credits could lead to a B.S. or M.S. degree." This was rather prophetic because a B.S. degree in Medical Technology was established in 1949 and the first students from it graduated in 1952. A Master of Science (M.S.) Program was approved in 1975 with a first graduate in 1978.

RESIDENCY PROGRAM

The residency program for both anatomic and clinical pathology was approved in 1963. Prior to that date the people who trained in the department applied for certification on an individual basis. The program was the first medical residency program offered in North Dakota.

The capacity for training is four, one person in each year of the four-year program.

Facilities utilized are the University of North Dakota and United Hospital and referring clinics and hospitals in Western Minnesota and North Dakota.

Residents have had the opportunity during the program for assistant teaching experience in the four-year medical school: lectures and laboratories for the sophomore medical students in general, special and clinical pathology, and also one-to-one teaching with junior and senior medical students.

Many residency students experienced a year or more of the UND Pathology Residency Program and occasionally took one year of pathology and then finished in Medicine, Surgery, Dermatology or other.

The residency program in Pathology ended in 1994. From 1963 through 1994, 32 residents trained in pathology at UND.

MEDICAL TECHNOLOGY

The first BSMT program (1949) in North Dakota was a joint effort of the College of Arts and Sciences and the School of Medicine. The College of Arts and Sciences granted the degree; the School of Medicine provided the two professional years.

In 1958, the BSMT curriculum moved to the School of Medicine and at about the same time the University College was established so that students spent one year in the University College and three in the School of Medicine, which granted the degree. At first, all students took the full four years in the UND program, including a rotating internship at local Grand Forks Hospitals. In 1958, students began to transfer to other hospital programs. About half o the students at the senior year transferred to affiliation hospitals in Minneapolis, St. Paul, Minot and Bismarck. The others stayed at UND–affiliating with St. Michael's, Deaconess, later United Hospital, Grand Forks.

The BSMT program is classified by the AMA as a 2+2 program, meaning there are two years of general college requirements and two professional years.

At one time the classes were small so that the students took necessary professional courses with the medical students. This was true, too, before there was a specific program or curriculum for medical technology. But as schedules became difficult to meet the needs of the usual college student, and as classes became larger, courses were created for the medical technology students. 454 students have graduated from the program to date (1982).

The internship has probably changed the most with much more structured teaching-learning; a student laboratory (early practice laboratory) has been added, for example. In the clinical laboratories the greatest change is in the use of automation for blood counts and hemoglobins, routine chemistries. The medical technologist student works more in quality assurance, problem-solving, developing new tests and therefore concentrates on tests not already automated.

The Master of Science in Medical Technology was developed in the department and Graduate School for persons interested in teaching, specializing or managing a laboratory. The courses added within the department to further this curriculum were advanced clinical courses in Hematology, Cytogenetics, Immunohematology and Microbiology. Most of the teaching has been one-to-one. The medical basic science departments were cooperative in accepting students to earn credits for this degree. Five students have graduated from the program to date (1982). A number of graduate students in Education, Biology, Microbiology and other departments have utilized the courses of the program for a minor concentration or as part of a related fields minor.

CLINICAL LABORATORY SCIENCE

1983-2008: MEDICAL TECHNOLOGY/CLINICAL LABORATORY SCIENCE

The program changed its name from Medical Technology (MT) to Clinical Laboratory Science (CLS) in 1993.

Undergraduate

The Medical Technology curriculum continued to grow with program specific courses taught from both the Department of Microbiology and the Department of Pathology.

In addition to the traditional curriculum delivery, from 1988-1993 a USDA grant was awarded and administered to support rural health education including medical technologists. The curriculum was taught by distant (audiotape) to teach certified medical technicians in a 2+2 format.

Currently, the CLS program teaches all of the laboratory science courses, with approximately 92 credits also available online. The curriculum includes an intensive summer lecture and laboratory experience for 12 weeks on campus, followed by distance courses delivered to the students at a clinical affiliate site.

The clinical laboratory course enrollment for Spring semester 2008 is 223. The courses are presented in face to face classrooms and laboratories on campus, through online and distance methods, and at clinical site experiences. The large enrollment makes UND's CLS program both the largest and most successful Clinical Laboratory Science Program in the United States.

As of December 2007, 920 students have graduated from the Clinical Laboratory Science program with a B.S. degree in CLS.

Clinical Affiliates:

From 1995 to 2008 the clinical affiliates have expanded from two clinical sites (St. Alexius Medical Center in Bismarck, ND and Altru Health Services in Grand Forks, ND) to include more than 65 hospitals and medical centers throughout Colorado, Illinois, Iowa, Minnesota, Montana, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Wisconsin, and Wyoming.

Western College Alliance for Clinical Laboratory Science Education (WCACLS):

In 1993, the University of Mary's Medical Technology Program (Bismarck, ND) was the first college to join the alliance with UND's CLS program. In this alliance, the students in the academic affiliates enroll in a 3+1 curriculum at their home college, which is aligned with UND's curriculum. The students from the academic affiliates join UND's program in the final year of curriculum. After completion the student is awarded a certificate of completion of a NAACLS approved 12 month program from UND and a baccalaureate degree from their home college. Included in the 12 month curriculum are: Summer Practicum on the UND campus distance courses, and two semesters at a clinical affiliate (total of 37 credits). Since 1995 the alliance has expanded to include the following 12 colleges:

Bemidji State University, Bemidji, MN

Jamestown College, Jamestown, ND

Mayville State University, Mayville, ND

Minot State University, Minot, ND

Montana State University, Bozeman, MT

Montana State University-Billings, Billings, MT

South Dakota State University, Brookings, SD

University of Mary, Bismarck, ND

University of Montana-Missoula, Missoula, MT

University of South Dakota, Vermillion, SD

University of Wisconsin LaCrosse, LaCrosse, WI

Winona State University, Winona, MN

Mayo Clinic Cohort Project:

In 2003, a partnership with the Mayo Clinic Department of Laboratory Medicine and Pathology was initiated to deliver courses and orchestrate the clinical experience to their employees. The curriculum model was developed to enable Mayo Clinic Laboratory professional's advancement from a two year associate degree or a baccalaureate science degree to become fully certified Clinical Laboratory Scientists while maintaining a full work schedule. Once the pre-requisites are completed, the actual CLS cohort education model can be completed in 18 months. The cohort curriculum model is comprised of three semesters of class work and one semester of review. Each of the three semesters of class work consists of three experiences which include: CLS courses, two weeks of intensive laboratory evening classes, and bench training in clinical laboratories at Mayo. At the creation of the program the estimated participation was approximately 15 students. In 2008, over 120 Mayo employees are actively participating in the program.

Categorical Certificate Program

The Clinical Laboratory Science Program, in partnership with Mayo Clinic, developed the first 14 week categorical model that blends online didactic material with onsite laboratory training. This program successfully provides the required 36 semester credits in didactic and laboratory education in a combined format of 20 semester credits of prerequisite sciences and 16 credits of distance and onsite training required for categorical certification eligibility. The categorical curriculum includes four individual certificates: Immunohematology, Hematology and Coagulation, Chemistry and Urinalysis, and Microbiology. The final 16 credits involves 8 hours a day at the clinical affiliate with approximately four hours spent taking didactic courses online from UND and four hours spent on the clinical bench for the laboratory training. At the completion of the 14 week experience the students are eligible to take the NCA categorical exam in

one of the four topic areas. The Veteran's Administration Western States Network Consortium (across 13 states) is beginning a specifically designed categorical program for new hires through the CLS program.

Master of Science in Clinical Laboratory Science

In 2007, the graduate curriculum included two programs, the Master of Science (M.S.) degree in Clinical Laboratory Science and the CLS Management Certificate program. The M.S. degree is delivered to the student's entirely online with the exception of four-one week laboratory and capstone experiences held on campus. The CLS Management Certificate program is delivered completely online. Participation in the graduate programs have increased considerably since the initiation of the blackboard (online) system of course delivery with enrollment increasing from approximately 17 students in 2000 to the current enrollment of 58 Students in 2007-2008.

As of December 2008, 101 students have graduated from the Clinical Laboratory Science program with a M.S. degree.

CYTOTECHNOLOGY

Four students completed training in newly accredited Cytotechnology Program in 1967 under the direction of Walter A. Wasdahl, M.D. (Medical Director), Wallace W. Nelson, M.D. (Assistant Director) and Teaching Supervisor Mrs. Lynn Shouse, CT (ASCP). In 1971 Robert (Bob) Gay, CT (ASCP) replaced Mrs. Shouse as Teaching Supervisor and remained Program Director until 1989. Howard "Eric" Thompson was Program Director from 1990 until 2000; Katherine Hoffman currently holds this title.

The role of Education Coordinator was added to the program in 1987 to assist the Program Director in the day-to-day activities of the students. Education Coordinators have been Jackie Gallo (1987 – 1989), Kathy Hoffman (1989 – 2000), Kristi Pederson (2000 – 2002) and Kim Droog (2003 – current)

The Cytotechnology Program has graduated 161 students to date and exists as one of the only 48 accredited Cytotechnology Programs in 34 states.

The Program was upgraded from a non–credit, certificate course to a four year, degree granting program in 1975. In 1988 the program increased its training capacity from four to six students and most recently (2005) increased to eight. As part of the increased capacity, the Cytology Program moved from the west wing of the SMHS to the Pathology wing on the third floor and in January of 2008 moved to an even more spacious layout on the fifth floor of the SMHS.

The program is a 12 month training program consisting of three semesters in length, which can be taken as the fourth year of a baccalaureate degree program or as a post baccalaureate certificate. The first two semesters, spent as UND SMHS, are spent in teaching the students principles involved in screening and diagnosing cytology specimens and Spring Semester to non – gynecologic samples (respiratory, urinary, gastrointestinal, fine needle aspirates, and the body cavities). Summer session is the clinical practicum rotation where students spend twelve weeks at clinical affiliate

laboratory reinforcing principles along with practicing the skills learned in the previous two semesters.

HISTOLOGY

Prior to the development of the School of Histotechnology in the Department of Pathology, histotechnicians were trained on the job. After spending one year of on the job training in a qualified Pathology Laboratory, they could sit for the national certifying examination given by the American Society of Clinical Pathology. The requirement for taking the national exam was then changed. Now in order to take the exam, a person could go either one of two routes. One was being trained on the job for two years in a Pathology Laboratory. The second route was graduation from an approved school of Histotechnology.

In 1979, the process of developing an accredited School of Histotechnology in the Department of Pathology, UND School of Medicine was undertaken by G. Eileen Simonson Nelson. This involved extensive planning and work, with a final onsite visit by an accreditation team from NAACLS (National Accrediting Agency for Clinical Laboratory Sciences). The School was accredited in 1980. One of the accreditation requirements was that lectures and exams be given by faculty members of the Department of Pathology. Some of the subjects covered were chemistry, histology, physiology, histologic techniques and special staining procedures, to name a few.

After the completion of one year in the School of Histotechnology, students were eligible to take the National Certifying Examination given by ASCP. This exam consisted of both written and practical parts. The practical examination required the submission of about 12 microscopic slide preparations of various tissues. These included H&E stains as well as special stains. Sometimes repeated slides had to be prepared before an acceptable one was obtained, that was free of knife lines or other imperfections. This was at times very difficult to accomplish.

The graduates of the School of Histotechnology performed very well on the National Certifying exam (both written and practical parts), with scores usually in the upper 5%. The School continued until my retirement in 1994. – G. Eileen Simonson Nelson (9/12/05).

In 2005, the Pathology Department received permission from the State Board of Higher Education to start a new program with the first enrollment beginning in Spring semester of 2006. In November of 2007, the Histotechnician Program received accreditation for the maximum allowed of five years. The Histotechnician Certificate Program is designed as a 16 week combination of lectures delivered through the internet and clinical training at the Medical Center Laboratory. A certificate will be granted at the successful completion of the program. As of February of 2008, 15 students have graduated from this program.

RESEARCH

Research and scientific inquiry into the mechanisms underlying the pathobiology of human disease has always been a focus of all members of the Department of

Pathology. The foundations and importance of research has been woven within the fabric of our department since its inception. This focus was further enhanced in 2002 with the establishment of a solid and extramurally funded research program and the first research division of the Department of Pathology.

The recruitment of Mary Ann Sens, MD, PhD as Chair of Pathology in September of 2002 included the active research group of Donald Sens, PhD and two other scientists, Scott Garrett, PhD and Seema Somji PhD. The research was particularly appropriate for North Dakota and the Northern Plains. These new research areas were focused on the general area of cancer, the environment and biomarkers. Specific research areas include the role of heavy metals in renal toxicity, breast cancer, prostate cancer and bladder cancer.

New laboratories to support this research were completed in 2004 on the third floor of the West wing of the UND SMHS building. Expansion of the third floor of the Jones Research Wing of the school occurred in 2005 to accommodate the growing and successful program. Since arrival in North Dakota, the group has continued to expand with recent NIH funding for breast cancer research, centered on investigating the role of metallothionein and environmental influences. New alliances are also developing since Donald Sens became Principle Investigator for the multi – million INBRE grant, which links researchers and resources of UND and NDSU with the predominantly undergraduate universities and tribal colleges of North Dakota. A state wide tissue bank has also been initiated to further study the unique influences of rural and environmental factors on cancer and other diseases. Collaborations are developing with the Center for Rural Health to address the rural and agricultural related health issues of the state. The focus and unifying theme of research in the pathology department centers around the environment and human health, including the influences of a rural agricultural environment on the development and progression of disease.

SERVICE ACTIVITIES

With the retirement of Dr. Wasdahl in 1994, the cytogenetics laboratory came to a close. Dr. Wasdahl had forged a close working relationship with Dr. John Martsolf, medical geneticist in the Department of Pediatrics at UND and they had offered people of North Dakota a valuable service.

In 1995, the Department of Pathology moved from Medical Science South (now O'Kelly Hall) to Medical Science North (previously St. Michael's Hospital). A new addition had been built onto Medical Science North that housed the Departments of Anatomy, Biochemistry, Microbiology, Physiology and Pharmacology. Much to Dr. Wasdahl's chagrin, Pathology was not included in that addition. We were the last department to move from Medical Science South to Medical Science North.

In 1996, another major change occurred. The practice of Pathology, Pathology Associates, Ltd. was dissolved. The pathologists became members of the Grand Forks Clinic and eventually Altru Health System.

THE FACULTY

Over the years there has been remarkable faculty in the department. We have already noted the leadership of Ruediger. A testimony to good teaching and inspiration is the long list of students who later entered the field of Pathology. Among the faculty who stand out is Dr. Saiki, a legend in his time, who was perhaps the "best – known and best – loved medical educator in the School of Medicine history". His interests in continuing education (summer courses, correspondence programs, and the development of a reprint library) were some of his ways of keeping abreast of new developments in pathology. He was prominent in the early beginnings of the pathology residence program.

Dr, Wasdahl has been an indomitable, spirited, inspirational leader in gathering together a faculty and staff to expand and enlarge the teaching – learning situation on all levels of Pathology in the school: sophomore pathology, special and clinical pathology courses, the electives for Juniors and Seniors, and most recently, the third and fourth year curriculum. With his leadership and vigor he got the pathology residency program approved for both Anatomic and Clinical Pathology. He has furthered the development of programs of medical technology, cytotechnology, histopathological technique and cytogenetics.

Dr. Wasdahl resigned as Chairman of the Department in 1981. However, he was acting Chairman until 1984, when Dr. Patrick C. J. Ward was named as Chair. Dr. Ward's tenure at UND was quite short with him resigning in 1986. In the interim, Dr. Marvin Cooley was acting Chairman. In 1988, Dr. Roger L. Sopher was named Chair. He was Chair of Pathology until 2001, at which time he retired from the University. Again, Dr. Cooley assumed the Chair's position, until 2002, when Dr. Mary Ann Sens was named chair of the Department of Pathology.

FACULTY (Year of appointment and highest rank):
Gustave Ruediger, M.D., Ph.D., 1907, Professor of Bacteriology and Pathology

Hjorleifur T. Kristjanson, M.D., 1913, Assistant Professor of Bacteriology and Pathology

Leveret Dale Bristol, M.D., 1915-1916, Director of Public Health Laboratory and Professor of Bacteriology

John Cox, M.D., 1915-1918, Professor of Pathology and Acting Director of Public Health Laboratory

Benjamin Clawson, Jr., M.D., Ph.D., 1919-1921, Professor of Pathology

Edward John Scannell, M.D., 1921-1922, Director of Public Health Laboratories

Aldo C. Massaglia, M.D., 1922-1923, Professor

Anfin Egdall, M.D., 1923, Professor of Bacteriology and Director of Public Health Laboratories

Horace McMurran Banks, M.D., 1924-1927, Professor of Pathology and Bacteriology, Acting Dean of School of Medicine, 1926

Bjarne Houkom, M.D., 1928, Pathologist, Public Health Laboratory

Ernest Verdon Lewis, M.A., 1928, Acting Professor of Bacteriology and Pathology

Marion Bell McGlumphy, M.D., 1928-1930, Professor of Pathology and Bacteriology

Emma Robbins, M.D., 1929-1933, Health Director

Arthur Kazu Saiki, M.D., 1931, Professor and Chair, Department of Pathology; 1971, Emeritus

James D. Cardy, M.D., 1949, Professor and Chair, Department of Pathology

Jean Holland Saumur, M.S., CLS(NCA), 1949, Associate Professor of Pathology; 1962-1978, Program Director Medical Technology, 1985 Emeritus

Miltza Luper, M.S., 1951, Instructor in Medical Technology, Technical Director, M.T. Program

Yukio H. Tsumagari, M.D., 1951, Associate Professor of Pathology

Harlan L. Papenfuss, M.D., 1951, Assistant Professor of Pathology

John H. Lunseth, M.D., 1958, Assistant Professor of Pathology

G. Eileen Simonson Nelson, B.S., MT(ASCP), HTL(ASCP), 1958, Assistant Professor of Pathology, Medical Technology, 1994 Emeritus

Walter Arling Wasdahl, M.D., 1955, Professor and Chair, Department of Pathology, 1994 Emeritus

Gerard J. Obert, M.D., 1962, Assistant Professor of Pathology, Director of Medical Technology

Orlyn D. Engelstad, M.D., 1966-1971, Assistant Professor of Pathology, Director of Medical Technology

Peter Isaacson, M.D., Ch.B., 1966 - 1968, Assistant Professor of Pathology

Wallace Nelson, M.D., 1967-1980, Associate Professor of Pathology, Assistant Director, Cytotechnology

Raymond Flaa, M.D., 1969 - 1971, Assistant Professor of Pathology

Subash C. Vidyarthi, M.D., 1970, Associate Professor of Pathology

Judith North, M.S., MT(ASCP), 1970, Instructor of Pathology, Teaching Coordinator, Medical Technology

A.K. Dutt, M.D., Ch.B., 1971 - 1973, Assistant Professor of Pathology

Cyril J. Dillenburg, M.D., 1973 - 1984, Assistant Professor of Pathology, Medical Director, Medical Technology

Linda M. Larson, M.S., CLS(NCA), CLsp(Cg)NCA, 1971, Assistant Professor of Pathology, Clinical Laboratory Science, 2005 Emeritus

Jane Robb, B.S., MT(ASCP), 1974, Instructor of Pathology, Clinical Coordinator, Medical Technology

Don V. Hellerman, M.D., 1975 - 1977, Associate Professor of Pathology

A. Wayne Bruce, Ph.D., CLS(NCA), 1974 - 2007, Professor of Pathology, 1978-2003 Program Director, Clinical Laboratory Science

Robert Gay, B.S., CT(ASCP), 1975 - 1990, Instructor of Pathology, Education Coordinator/Program Director, Cytotechnology

Jon V. Eylands, M.D., 1976 - 1979, Assistant Professor of Pathology

Mary Coleman, M.S., CLS(NCA), CLsp(Cg)NCA, 1976 - Present, Assistant Professor of Pathology, Education Coordinator, Clinical Laboratory Science

Malva Johnson, B.S., MT(ASCP), 1977, Instructor of Pathology, Education Coordinator, Medical Technology

Ali Gransar, M.D., 1977 - 1979, Assistant Professor of Pathology

A. Marvin Cooley, M.D., 1978 - Present, Associate Professor of Pathology

Karen Bergseng, M.A., MT(ASCP), 1979, Instructor of Pathology, Medical Technology

Patrick C.J. Ward, M.D., 1984 - 1986, Professor and Chair of Pathology

Jackie Gallo, B.S., CT(ASCP); 1987, Instructor of Pathology, Education Coordinator, Cytotechnology

Roger L. Sopher, M.D., 1988 - 2001, Professor and Chair of Pathology, 2001 Emeritus

Les A. Torgerson, M.D., 1988 - Present, Assistant Professor of Pathology

Dianne L. Iverson, M.D., 1988 - 2006, Assistant Professor of Pathology

Judith Bruce, M.S., MT(ASCP), CLS(NCA), 1989 - 1995, Instructor of Pathology, Clinical Laboratory Science

Katherine M. Hoffman, M.M., SCT(ASCP), 1989 - Present, Assistant Professor of Pathology, Program Director, Cytotechnology

H. Eric Thompson, B.S., SCT(ASCP), 1990 - 2000, Instructor of Pathology, Program Director, Cytotechnology

Tim L. Weiland, M.D., 1994 - Present, Assistant Professor of Pathology

Ann K. Brown, M.D., 1994 - Present, Assistant Professor of Pathology

Ruth Paur, Ph.D., MT(ASCP), CLS(NCA), 1995 - Present, Assistant Professor of Pathology, Program Director, Clinical Laboratory Science

Laura A. Raymond, M.D., 1996 - Present, Assistant Professor of Pathology

Mary Naboulsi-Banman, M.S., MT(ASCP), CLS(NCA), 1999 - 2003, Instructor of Pathology, Clinical Education Coordinator, Clinical Laboratory Science

Kristi Pederson, B.S., CT(ASCP), 2000 - 2002, Instructor of Pathology, Education Coordinator, Cytotechnology

Janna M. Schill, M.S., MT(ASCP), 2001 - Present, Instructor of Pathology, Clinical Laboratory Science

Susan Kuntz, Ph.D., MT(ASCP), 2002-2002, Instructor of Pathology, Clinical Laboratory Science

Mary Ann Sens, M.D., Ph.D., 2002 - Present, Professor and Chair of Pathology

Seema Somji, Ph.D., 2002 - Present, Research Assistant Professor of Pathology

Scott Garrett, Ph.D., 2002 - Present, Assistant Professor of Pathology

Kimberly Droog, B.S., SCT(ASCP), 2003 - Present, Instructor of Pathology, Education Coordinator, Cytotechnology

Lucy Zheng, M.D., 2003 - Present, Assistant Professor of Pathology

Karen Peterson, M.S., MT(ASCP), 2004 - Present, Instructor of Pathology, Clinical Education Coordinator, Clinical Laboratory Science

Robert Porter, M.S., MT(ASCP), CLS(NCA), 2004 - Present, Instructor of Pathology, Mayo Cohort Director, Clinical Laboratory Science

Donald A. Sens, Ph.D., 2005 - Present, Professor of Pathology

Linda Ray, B.S., MT(ASCP), 2006 - Present, Instructor of Pathology, Clinical Laboratory Science

Brooke Solberg, M.S., MT(ASCP), 2007 - Present, Instructor of Pathology, Clinical Laboratory Science

Chris A. Triske, M.S., MT(ASCP), 2007 - Present, Instructor of Pathology, Clinical Laboratory Science

Current Staff

1. Cathy Perry, 1978, Administrative Officer
2. Mary Beth McGurran, 1986, Administrative Assistant
3. Tina Forte, 2004, Administrative Secretary
4. Kelsey Friezen, 2007, Administrative Secretary

History of Chairs
Department of Pathology

1. Arthur K. Saiki, M.D.; 1936 - 1949
2. James D. Cardy, M.D.; 1949 - 1961
3. Walter A. Wasdahl, M.D.; 1961 - 1984
4. Patrick C. J. Ward, M.D.; 1984 - 1986
5. A. Marvin Cooley, M.D.; 1986 - 1988
6. Roger L. Sopher, M.D.; 1988 - 2001
7. A. Marvin Cooley, M.D.; 2001 - 2002
8. Mary Ann Sens, M.D., Ph.D.; 2002 - Present

RESIDENTS IN PATHOLOGY

Name	Date & Certification		Present Address
Yuko Tsumagari, M.D.	1953	AP	Laramie, WY
Harlan E. Papenfuss, M.D.	1956	AP	Lincoln, NE
Walter A. Wasdahl, M.D. (D)	1959	AP	
John G. Gooselaw, M.D.	1964	AP/CP	Chicago, IL
Peter G. Issacson, M.D., Ch.B.	1966	AP/CP	Southhampton, England
Raymond Pilot, M.D.	1966	AP/CP	Largo, FL
Linda Wood, M.D.	1966	AP	
Cyril J. Dillenburg, M.D. (D)	1967	AP/CP	
James R. Stone, M.D. (D)	1968	AP/CP	
Subash C. Vidyarthi, M.D.	1969	AP/CP	Duluth, MN
Darrell P. Skarpohl, M.D.	1970	AP/CP	Green Bay, WI
John H. Saiki, M.D.	1970	IMHO	Albuquerque, NM
R. Curt Flaa, M.D.	1970	AP/CP	Duluth, MN
R. P. Hajela, M.D.	1971	AP	Halifax, Nova Scotia
John H. Uecker, M.D.	1972	AP/CP	Minneapolis, MN
Ramon E. Gallego, M.D.	1976	AP/DP	Coral Springs, FL
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