

# PATHOLOGY/MICROBIOLOGY

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UNIVERSITY OF NEBRASKA MEDICAL CENTER



## Phyllis Muellenberg Continues to Contribute After Retirement



Phyllis Muellenberg, MA, MT (ASCP)

An icon in her field, Phyllis Muellenberg, Director of the UNMC School of Allied Health's Clinical Laboratory Science Program (formerly Medical Technology Program), retired after 22 years of service. Her passion continues, however, as she will continue to supervise a special grant to develop more bioterrorism response curricula at UNMC.

"I am pleased that Phyllis will continue working part-time for the university; we will continue to benefit from her ideas," Mary Haven, Associate Dean for the School of Allied Health, said. "We plan on her sharing her grant writing expertise with other allied health faculty. We thank her for the 22 years she served as an excellent teacher and program director. Phyllis already has created a wonderful legacy, but she's not finished yet."

Twenty-one years after developing a medical technology program from scratch at Methodist Hospital, she was appointed director of Medical Technology Education at UNMC. Today, UNMC offers the only baccalaureate degree program in clinical laboratory science in Nebraska.

Muellenberg has been a key player in the evolution of clinical laboratory science into an important health care field. Students today receive extensive training in molecular diagnostics, genetics, immunology, management and automation.

"Phyllis has been a medical technology educator for the majority of her life. She exhibits an exemplary, conscientious approach to education. When she came to become our Program Director, under her guidance, Clinical Laboratory Science students who seemed 'average' were made to excel. Phyllis has made a difference in so many of the lives of her students. The program has continued to improve under her leadership, even though already excellent. I firmly believe that we now have the best Clinical Laboratory Science program in the county. We thank you, Phyllis, for a job well done," said Dr. James Newland.

## Mary Haven Retired



Mary Haven, MS, FASAHP

Thirty-seven years after joining UNMC as a clinical chemist and serving the last ten of those years as Associate Dean of UNMC's School of Allied Health Professions, Mary Haven was prepared to retire.

"During her tenure at UNMC, Mary was a part of the gyroscope that kept our department, the clinical laboratory, and the Allied Health programs on course. We have all been educated through one venue or another by Mary. I have personally enjoyed working with her both in the department and the College of Medicine over the years," says Vice-Chairman, Dr. Rodney Markin.

As a result of her dedication and hard work, the distance learning programs have expanded beyond that of most allied health schools and colleges. Four programs are offered by distance learning: medical technology, radiation therapy, radiography and cytotechnology.

Haven became nationally recognized for her work and research in clinical chemistry and her contributions to education. "She is one of the most impressive individuals I have known," declared department chair Dr. Sam Cohen.

Haven intends to stay involved with international programs at the medical center and plans to travel with her husband, UNMC Ophthalmologist Gerald Christensen, M.D.

"Mary is a friend of nearly 40 years. She came to our clinical laboratory as a clinical chemist in the 1970s and immediately established herself as a thoughtful, careful, and respected professional. She was superb at setting up and evaluating new laboratory tests and equipment. Mary possesses good common sense coupled with a charming, friendly personality, and the ability to work with and supervise others. She made the perfect Associate Dean for Allied Health. Just look at what Allied Health has accomplished! Thank you, Mary, for all you have done and all you have been to us," said Dr. James Newland.

*"Phyllis and Mary are two of the most remarkable people I have known and had the good fortune to have as colleagues. They both have tremendous vision for their areas of interest and know how to realize that vision."*

*Dr. Sam Cohen*

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## Letter from the Chairman



Samuel M. Cohen,  
M.D., Ph.D.

Happy New Year!

2005 was a challenging and exciting year, productive for both the Department and me personally. Our education programs continued to evolve, and importantly, our residency was again accredited for five years. We have also decided to expand the number of residents in our program and are investigating the possibility of developing a surgical pathology fellowship. The research efforts of the Department continue to expand in several directions, with extramural funding growing to approximately \$12.5 million per annum. Clinical programs also continue to grow, with outside consults reaching five thousand cases this year. Excitingly, the new Clinical Center of Excellence building is opening, with new surgical suites and a new frozen section laboratory for us. Congratulations to all the faculty and staff that have made these accomplishments possible.

This past year we added several new faculty, and are now in the process of recruiting four additional faculty positions. The coming year offers numerous challenges and opportunities which will be pursued vigorously. These are exciting times in medicine, pathology, and in biomedical research, of which we are privileged to be active participants.

I wish you the best of health and success in the New Year.

*Samuel M. Cohen, M.D., Ph.D.*

## Promotions(\*) and New Hires

Kara Brown	Secretarial Specialist	Michelle Ngameue	Research Technologist
Jennifer Endres	Research Technologist I	Peter Oldenburg	Post-doc Fellow
Vicki Herrera	Lab Assistant	Colene Splichal	Client Service Rep.
Carolyn McKinley	Staff Assistant		

## Faculty & Staff Service

Mary Newcomb	25 Years of Service	Rakesh Singh, Ph.D.	10 Years of Service
William West	20 Years of Service	Richard Murcek	10 Years of Service
James Wisecarver	15 Years of Service		

## Special Announcements

### Recognitions:



- The Research and Development Committee has selected Rakesh Singh, Ph.D. as the recipient of the 2006 College of Medicine Joseph P. Gilmore Outstanding Investigator Award. The award reception is March 3, 2006 at 3:30 pm at Epley Science Hall Amphitheater.
- Dr. Mavis Fletcher will be the new Resident Director as of April 1, 2006.
- Dr. Kerry Bernal will be the new associate director of the M2 teaching program as of April 1, 2006.
- Dr. John Baker will be the new director of the autopsy service.
- Dr. John Chan has been named the Vickery Professor effective January 1, 2006.

### Graduates:



- Alicia Dafferner received her Master of Science degree in Forensic Science in December from Nebraska Wesleyan University.

### Fellowships:



- In honor of Phyllis Muellenberg, the pathologists of the University Medical Associates have donated \$10,000 to establish a graduate fellowship in Clinical Laboratory Sciences.
- In honor of Mary Haven, the pathologists of the University Medical Associates have donated \$10,000 to establish a graduate fellowship in Clinical Laboratory Sciences.

### Grants:



- Steve Hinrichs - Neurotoxin Mitigation - 10/21/05 - 11/21/06 - \$881,998 - Awarded by: US Army
- Peter Iwen - Dade Microscan - Synergies Plus Gram Positive, Panel C - 11/2/05 - 4/30/06 -

## Medical Technology Division is Renamed

The UNMC School of Allied Health Professions' (SAHP) former Division of Medical Technology has been renamed the Clinical Laboratory Science (CLS) Program.

Linda Fell, newly named director of the CLS Program, said the name change brings SAHP in line with the national trend to provide a more descriptive program name for potential students and graduates.

In addition to the name change, the program received a continuing seven-year accreditation, the maximum awarded for accreditation, from the National Accrediting Agency for Clinical Laboratory Sciences.

## Clinical Laboratory Science Program In-Depth



Linda Fell, newly named director, speaks about the CLS Program:

Our profession is evolving and there are unprecedented opportunities for new CLS graduates. It is thus a big responsibility to prepare graduates to work in molecular diagnostics, proteomics, clinical consultation, epidemiology, informatics and laboratory management. I have been privileged to be involved in these advancements through my work at UNMC and at the national level.

We at UNMC have an outstanding educational product that we should share with others for the sake of our profession. Our program is nationally known for distance education. This began in 1992 when I was hired to develop new clinical affiliate sites across Nebraska. This model has been very successful and has been imitated throughout the country. We currently have nine clinical affiliate sites who host students for 38 weeks each year. The UNMC contract with the University of Missouri is a model for further expansion of our CLS program into the region. The CLS Program has added a degree completion program whereby associate-degreed laboratory technicians can earn their BSCLS through distance education. I serve as the Co-Project Director for CLS on this Career Advancement through Distance Education Technology (CADET) project.

I am currently in discussions with the University of Iowa Hospitals and Clinics, the University of Colorado, Colorado Springs and the Mayo Clinic Clinical Laboratory Science Program concerning expansion of our distance education program.

"Linda's willingness to assume the leadership role in the division will ensure continued growth and expansion of their excellent training experience for Medical Technologists."  
Dr. Jim Wisecarver

*"I think that Linda Fell will do a great job as program director!! She has been involved in all program activities for 14-years and is well prepared to move the program to the next level. Having the entire curriculum web-based and packaged for delivery to other affiliated sites is the result of a lot of hard work by all the program faculty. I wish her the best of success and support from all concerned. I'm sure she will have the excellent support from Dr. Cohen and the entire Department of Pathology and Microbiology that I have experienced these last 21-years."*

*Phyllis Muellenberg*

CLS education is very expensive because of the clinical component and the level of expertise needed to teach specialized course work. Many hospital-based programs have closed due to the expense. I would offer our didactic courses to these programs in our region that could benefit from sharing curriculum, while working to add clinical affiliates in educationally underserved areas.

Incorporation of research is a future direction for the UNMC Clinical Laboratory Science Program, as well as other university-based CLS programs. UNMC must do this to remain economically viable. Efforts have been made through campus requests to support a funded researcher in infectious disease/molecular diagnostics who will be a faculty member in the CLS program. I am currently on a work group with other educators in ASCLS to support such efforts on the national level. An avenue for additional revenue lies in the offering of a Research Track for CLS and other baccalaureate prepared students who wish to earn certification in research technology. This is especially important for UNMC as there is a need for more than 400 research technologists on this campus.

The acute shortage of baccalaureate-prepared clinical laboratory scientists must be an important focus for the CLS program. This shortage makes it essential that we expand our education into other regions. We must be more proactive in recruiting young people into the profession throughout the country.

### Academic Preparation:

I earned a Bachelor of Science in Medical Technology in 1969 from Creighton University in Omaha, Nebraska, followed by a Master's Degree in Pathology from the University of Nebraska Medical Center in 1976. I am certified as a medical technologist by the American Society for Clinical Pathology (ASCP) Board of Registry. I also hold specialty certification in Hematology.

### Experience in Program Administration:

I have worked over 13 years as a program official (4.5 years as Rural Clinical Coordinator, 9 years as Education Coordinator/Associate Program Director) in the Division of Medical Technology (now the Clinical Laboratory Science Program) at UNMC.

## Bioterrorism Grant Continued



Phyllis Muellenberg,  
MA, MT (ASCP)

UNMC will continue to develop interdisciplinary bioterrorism-related curricula for its students and for health care students across the United States, with the renewal of a grant that it first received in 2003.

The Health Resources and Services Administration (HRSA) Bioterrorism Training and Curriculum Development Program (BTCDP) announced recently that it had awarded UNMC with a three-year, \$600,000 grant to develop the curricula. The UNMC project was one of three from the original 13 projects to receive another round of funding.

Phyllis Muellenberg is the director and the primary investigator for the grant. Muellenberg said the key to the project's success was the cooperation among all UNMC colleges as well as excellent information technology support.

Muellenberg states that every single college is using the curricula in some manner. The goal of the project is to have all health profession graduates be better prepared to serve as effective members of an interdisciplinary team response to any public health emergency.

Muellenberg wants to prepare the graduates to be ready for work in a teamwork setting if there is a bioterrorism event. By knowing what other people do, they can work more effectively to treat patients and to lessen the effects of the bioterrorism event.

The development and evaluation of the modules have involved more than 100 faculty members. All of the curricula being developed are Web-based, with eight modules covering different areas of bioterrorism preparedness or public health emergencies. They involve topics ranging from response to a bomb to challenges of an avian influenza pandemic.

The new funding will expand the current program. It will address application, problem solving and psychomotor skills development in workshops and simulation exercises. Computer software attached to lifelike mannequins will allow students to treat a "patient" during simulation exercises. The project also will support the participation of students in state sponsored disaster preparedness drills and continued enhancement and use of the modules already developed.

"The goal of the project is to have all health profession graduates be better prepared to serve as effective members of an interdisciplinary team response to any public health emergency."

## Dr. Johansson Named Vickery Chair



Sonny Johansson,  
M.D., Ph.D.

Sonny Johansson, M.D., Ph.D. has been named the first recipient of the Amelia F. and Austin L. Vickery Jr., Chair in Pathology.

Dr. Austin Vickery was a 1943 graduate of the Nebraska College of Medicine and became a world-renowned pathologist specializing in surgical pathology and thyroid pathology.

Dr. Austin Vickery died earlier this year. Before his death, Dr. Vickery donated nearly \$1.5 million to the UNMC College of Medicine with the intention of creating an endowed chair and professorship.

"Dr. Vickery had a long and distinguished career at Massachusetts General Hospital and Harvard University as an outstanding surgical pathologist specializing in thyroid pathology," said Samuel Cohen, M.D., Ph.D. "He was well known for his diagnostic acumen as well as his contributions to research. Dr. Johansson exemplifies both of these characteristics as well."

Dr. Johansson assumed the Chair on July 1, 2005. He has served as professor of the department of pathology and microbiology since coming to UNMC in 1985 from the University of Goteborg, Sweden. He is the director of anatomic pathology and is a world-renowned surgical and experimental pathologist, specializing in urologic pathology, the pathology of soft tissue and bone tumors, and head and neck pathology.

Dr. Johansson has published extensively in both clinical investigations and in basic research. He is best known for his seminal work in phenacetin-containing analgesic-induced urothelial cancer, research he began while still a resident. His research ultimately led to the banning of phenacetin as a component of analgesics in the 1980s.

Dr. Johansson is also well known for his research on interstitial cystitis, snuff-induced squamous cell cancer of the oral cavity and numerous aspects of the pathology and clinical investigations of a variety of urologic tumors and other lesions.

"Being chosen for the Vickery chair was unexpected," stated Dr. Johansson. "It will allow me to spend five more years doing what I like most---surgical pathology and teaching the residents this difficult topic."

Dr. Johansson said the extra funds allow him to extend his research efforts and also invite top-notch researchers and physicians to speak at UNMC. Dr. Victor Reuter, M.D., of Sloan-Kettering Memorial Cancer Center in New York, is already scheduled to speak in April.

Dr. Reuter will give a presentation to the Nebraska Association of Pathologists on testicular tumors followed by a slide-presentation seminar on urologic pathology to UNMC residents.

## GRADUATE PROGRAM

**2005 PATH/MICRO GRADUATES:**

**Heth Turnquist (Ph.D.):** June 17, 2005– Advisor: Dr. Joyce Solheim. “Altering immune recognition and defining the antigen presentation of pancreatic cancer cells”. Destination: Research fellowship with Dr. Angus Thomson, dept of surgery at the University of Pittsburgh.

**Scott Koepsell (Ph.D.):** June 22, 2005– Advisor: Dr. Steven Hinrichs. “Biochemical investigations of the bacterial primase and helicase”. Destination: Return to medical school at UNMC.

**Gina Razidlo (Ph.D.):** July 15, 2005– Advisor: Dr. Rob Lewis. “Proliferative control by KSR1 in response to growth factors and DNA damage”. Destination: Postdoc at UNMC Department of Biochemistry.

**Eric Benner (Ph.D.):** July 22, 2005– Advisor: Dr. Howard E. Gendelman. “Immunity in dopaminergic neurodegeneration”. Destination: Return to medical school at UNMC.

**Travis J. Henry (Ph.D.):** September 6, 2005– Advisor: Dr. Steven Hinrichs. “Activation of HTLV by mutated tax and differential signaling of CD4+ lymphocytes stimulated by superantigen”. Destination: Postdoc in laboratory of James Lee, Mayo Clinic, Scottsdale, AZ.

**Luke Handke (Ph.D.):** October 24, 2005– Advisor: Dr. Paul Fey. “Phenotypic variation and *icaADBC* gene regulation in *Staphylococcus epidermidis*”. Destination: Postdoc Fellow, lab of Dr. Linc Sonnenshien– Department of Molecular Biology and Microbiology, Tufts University.

**AWARDS RECEIVED:**

**The 36th Midwest Student Biomedical Research Forum– February 18 & 19, 2005**

**Tiana McCoy**– 1st Place Graduate Student Poster (\$500); Ben Swanson– 2nd Place Graduate Student Oral (\$500); Heth Turnquist– 3rd Place Graduate Student Oral (\$100);

**Michael Olson** received the **Jeanette Wilkins Award** for best basic science paper presented at the Musculo Skeletal Infection Society Conference August 4-5. Michael received a certificate and \$1,000.

**Anguraj Sadanandam** received a **CAP Foundation Conference Travel Award** to attend the 10th Annual APIH Conference August 24-26. Anguraj received a \$1,500 award.

**SUMMARY OF APPLICATIONS:**

Completed applications: Ph.D. = 16; M.S. = 3

Number of applicants accepted: Ph.D.=5; M.S. = 1

## RESIDENT'S CORNER

The residency program received welcome news in early December that the Pathology Residency Program had been granted Continued Full Accreditation for five years, the maximum length of time! It was a long wait since the ACGME site visitor was here in the department last February, but the good news helped offset the wait.

The Pathology Residency Review Committee (RRC) commended the program for the good overall quality of the education provided to our residents and noted strengths in the response to the ACGME's general competencies and outcome evaluation initiatives. We were encouraged to continue our commitment to provide high quality, well-structured resident education.

Thank you to everyone who helped with the preparation (yes, it was a lot of work and paper) and to those who participated in the site visit. Maintaining a robust residency program does indeed require group effort!



- *The Accreditation Council for Graduate Medical Education is a private, non-profit council that evaluates and accredits medical residency programs in the United States.*
- *The ACGME was established in 1981 from a consensus in the academic medical community for an independent accrediting organization.*
- *The mission of the ACGME is to improve the quality of health care in the United States by ensuring and improving the quality of graduate medical education for physicians in training.*

**Congratulations:**

Allison Cushman-Vokoun,  
M.D.

An abstract by Dr. Cushman-Vokoun presented at the 2005 Annual Meeting of the American Association for Clinical Chemistry was given a Distinguished Abstract Award by the National Academy of Clinical Biochemistry.

The abstract, entitled “Evaluation of Effects of Varying Hematocrit on Injected Mass of Internal Standard in Immunosuppressants Measurement by Tandem Mass Spectrometry”, was coauthored by Drs. Stickle, Cushman-Vokoun, and Landmark along with NMC Special chemistry technologist Kim Plath. The entry was one of 25 (out of a total 830 meeting abstracts) selected for this award.

## Gram-Positive Pathogenesis

UNMC was the meeting place on October 27th and 28th for several researchers in the region from various universities including UNMC, UNL, Creighton University School of Medicine, University of Arkansas for Medical Sciences, and University of South Dakota School of Medicine.

The meeting came about because Kenneth Bayles, Ph.D., of UNMC, recognized that there was a strength in Gram-Positive pathogenesis research in the region. The goal of the meeting was to bring together researchers to exchange ideas and expertise on a variety of Gram-Positive pathogens.

The meeting went very well with much enthusiasm to continue meeting on a monthly basis via teleconferencing and twice per year face-to-face. The ultimate goals are to establish a Center for Bacterial Pathogenesis Research and to establish an annual international conference focused on Gram-Positive pathogens in Omaha.

Members of the research group include: Ken Bayles, Ph.D., Paul Dunman, Ph.D., Paul Fey, Ph.D., Steve Hinrichs, M.D., Mark Rupp, M.D., Kelly Rice, Ph.D., Toyin Asojo, Ph.D., all of UNMC, as well as Rich Goering, Ph.D., of Creighton University, Greg Somerville, Ph.D., Andy Benson, Ph.D., Robert Powers, Ph.D., all of UNL, Keith Weaver, Ph.D., Mike Chaussee, Ph.D., Indranil Biswas, Ph.D., Adhar Manna, Ph.D., all of University of South Dakota School of Medicine, Mark Smeltzer, Ph.D., and Chia Lee, Ph.D., of University of Arkansas for Medical Sciences, Lynn Hancock, Ph.D., and Helmut Hirt, Ph.D., of Kansas State University.

## Ty and Julie Moreno Adopt Two Beautiful Girls



The adoption of Ashley and Sabrina Moreno was finalized on December 13, 2005.

Continued article suggestions are appreciated!

## Students Alliance for Global Health (SAGH)



Dr. Dominick DiMaio

SAGH passed a reindeer around as a fundraiser for a medical service trip to Costa Rica. The trip is one of the four trips sponsored by SAGH which gives students of all disciplines the opportunity to travel to serve a medically underserved country.

The Costa Rica trip is in its pioneering year, scheduled to leave on March 11th, 2006. There are a total of 16 students from the colleges of medicine, pharmacy, nursing, and graduate studies going to work with the people of Costa Rica. They will be educating people on common health problems encountered in their country, touring local health facilities, learning about the Costa Rican health care ministry, and examining some school age children to help monitor their health (height, weight, visual acuity, etc.).

"Our goal is to emphasize preventive medicine," says trip leader Evan Pike. "Our group is going to blaze the trail for future student groups to be able to return to do more extensive health service activities." Fundraising is the students responsibility in an effort to help defray the costs of the trip. It is estimated to cost \$1500/student for the trip. The group hopes to raise at least \$500 per student to reduce the cost. To date, the estimated amount raised is \$400.

Donations can be made to the Student Alliance for Global Health office via campus mail (zip 5735) denoting "Costa Rica" on the donation.

### Upcoming Events:



- Department Baby Party; March 21st, 2006; 3:00—5:00 PM; Private Dining Room C.
- Department Picnic at the Henry Doorly Zoo will be July 22, 2006.

### Newsletter Team

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