Faculty Highlight — Sara Miller, PhD

Dr. Sara E. Miller, professor in the Department of Pathology, has been awarded a High-End Instrumentation Grant by the National Institute of Health to purchase a serial block face scanning electron microscope. This instrument, costing $1.3 million, provides the capability to produce three-dimensional images inside tissue at the ultrastructural level (a few nanometers, depending on the type of specimen). It operates by photographing a tissue block face, slicing off a very thin section from the face, and then reimaging the tissue face again; this is performed hundreds to thousands of times. Ultimately, all the digital serial images are reconstructed into a 3D block of tissue that can be rotated electronically to view the backside or inside to examine relationships and contacts between cells. Investigators will use this microscope to determine how cells communicate with each other.

In addition to 3D electron microscopy, this microscope will augment the current biological electron microscopic capabilities of the EM shared resource located in the Department of Pathology. This facility has operated for over four decades and served hundreds of Duke researchers over the years. The new microscope will also serve as a shared resource for the Southeast, as no other similar instruments exist anywhere in North Carolina or even in neighboring states, the closest being in Florida and Maryland. There are only about 20 in the United States and 50 in the world, and this is the first time NIH has awarded an S10 HEI grant for a serial block face scanning electron microscope.
The Department of Pathology held a day-long retreat on December 3, 2016, at the 21c Museum Hotel in downtown Durham to celebrate the accomplishments of the past year of the research and clinical divisions and to foster intradepartmental interactions. At this event, several faculty, post doctoral fellows, residents, and graduate students gave talks or presented posters on their research and clinical activities. Also present at this event were Chancellor Gene Washington and Dean Nancy Andrews. Both leaders welcomed our new Chairman, Jiaoti Huang, and highlighted the critical role of the department in the Duke medical school community. There were over 100 attendees present at the retreat.

Inaugural Scientific Retreat

Alumni Spotlight:
Fred Sanfilippo, PhD’75, MD’76, H’76-79

Fred Sanfilippo is director of the Emory-Georgia Tech Healthcare Innovation Program, a network that accelerates innovation in health care research, education, and service across the universities and health systems in Atlanta and the Southeast. He is professor of pathology & laboratory medicine, Emory School of Medicine, and health policy & management, Rollins School of Public Health. He also serves as trustee and medical director of the Marcus Foundation. We are honored that Fred has served as the chair of the Duke Department of Pathology’s Alumni Advisory Council since January of 2016.

Continued on next page
Alumni Spotlight: Continued

From 2007-2010, Fred was Emory University’s executive vice president for health affairs; CEO, Woodruff Health Sciences Center; and board chair of Emory Healthcare. Previously he was Ohio State University’s executive dean and senior VP for health sciences; CEO of OSU Medical Center; and dean of the College of Medicine and Public Health. From 1993-2000, he was the Baxley Professor and Chairman of Pathology and pathologist-in-chief at Johns Hopkins, and research director of the Johns Hopkins Comprehensive Transplant Center.

A member of the Duke faculty from 1979-1993, Fred was professor of pathology, surgery, and immunology. He did his pathology residency training at Duke Hospital and received his MD and PhD in immunology as an NIH Medical Scientist Training Program Fellow at Duke University School of Medicine, where he served as class and student body president. He received BS and MS degrees in physics from Penn. He has mentored numerous graduate students and fellows, published over 275 articles, received three patents, and been awarded over $30 million in sponsored research. He has been an invited speaker at over 200 meetings; a consultant to over 80 university, government and corporate institutions; board chair of five non-profits; and president of seven academic and professional organizations.

Fred’s wife Janet, BA’72, MBA’80, is associate dean of the Goizueta Business School at Emory University. While at Duke, she was associate dean of the Fuqua Business School after serving as director of School of Medicine Alumni Affairs. They have two children: Lisa, a nurse at NYU, and Joseph, a healthcare consultant for Huron in Chicago.

Faculty Interview — Victor Roggli, MD

How did you make the transition from reviewing clinical cases to reviewing medical/legal cases full time?

When I retired from the Durham VA in 2006 I started working full time at Duke, where Tom Sporn and I were signing out all of the pulmonary clinical cases (75% Tom and 25% me). When Elizabeth Pavlisko completed her training in 2011, I gave her my clinical cases. At that time I reviewed interesting and difficult clinical cases with Dr. Sporn and Dr. Pavlisko, and the rest of my clinical time was spent on medical/legal cases.

What do you enjoy most about your medical/legal case work?

The interesting cases, especially the very rare cases where no one else has gotten the diagnosis right.

What types of activities do you enjoy in your free time?

Karaoke; travel; watching favorite programs with my wife, Linda; relaxing at the beach.

What are your greatest challenges?

Staying alive! Staying alive! This is particularly important since I am 65 years old and happen to be a delta F508 homozygote for the cystic fibrosis gene. Combining full-time work with treatment schedules (and the occasional setback) is always a challenge. Professionally, I am seeing great challenges to academic medicine. In addition to decreased reimbursement for medical services, funding for research has continued to decline, making it difficult for young people to stay and flourish in academic medicine.

What are your goals for the upcoming year both personally and professionally?

Staying alive! Staying alive! I owe it to the CF community to show those who struggle with this disease that it is possible to have a full, productive, and complete life. Beating the disease and staying productive is my personal goal. Professionally, I want to do my part to help young physicians stay in academic medicine and continue the great research we have done to benefit many more patients. To that end, Tom Sporn and I have been putting aside portions of our professional fees to establish a “Victor Roggli Fellowship in Pulmonary Pathology.” Morgan Pope is our department’s development officer who can address any questions you may have.

Describe your most successful accomplishments:

Promotion to full professor in 1994 (at age 43); my textbook, Pathology of Asbestos-Associated Diseases now in its third edition; collaborations and publications with my clinical and pathology colleagues and with our pathology residents; training of six pulmonary pathology fellows; participation in international pathology committees that resulted in important publications. Oh yeah, I almost forgot...I’ve won three karaoke contests!
**News and Notes**

Robin Bachelder, PhD, was awarded a new Breakthrough Award from the Breast Cancer Research Program of the Department of Defense. Her project was one of eight selected out of 231 applicants. This three-year project will examine the efficacy of targeting a novel determinate of docetaxel-resistance in triple-negative breast cancer.

Thomas J. Cummings, MD, spoke at the 11th combined meeting of the Verhoeff-Zimmerman Society and the European Ophthalmic Pathology Society on the ocular pathology in oculocerebrorenal (Lowe) syndrome. Dr. Cummings has been a member of this thriving small group of academic pathologists since 2002.

Rajesh C. Dash, MD, was honored at the annual College of American Pathologists (CAP) meeting. CAP President Richard C. Friedberg honored Dr. Dash for his “infectious, almost evangelistic passion for normalizing and mainstreaming IT.”

Jiaoti Huang, MD, PhD, received the Joyce and Larry Stupski Prostate Cancer Precision Oncology Special Challenge Award at the most recent Prostate Cancer Foundation Annual Scientific Retreat. This award supports research in pathologic and genomic analysis of heavily treated metastatic prostate cancer.

M. Angelica Selim, MD, gave a presentation as invited faculty on “Pigmented Lesion on Vulva” at the XXXI International Congress of the International Academy of Pathology and the 28th Congress of the European Society of Pathology in Germany. She also spoke about Pump-Probe imaging as a diagnostic tool in these difficult melanocytic lesions.

Herman Staats, PhD, was recently awarded an NIH contract to study liposome adjuvant formulations for use with West Nile Virus vaccines. The Staats lab will serve as a subcontractor to Molecular Express, Inc., a biotechnology company from Rancho Dominguez, California. The contract title is “Vaccines Against Pathogens with Small Market Potential.”

**Graduate Students in the News**

Bill Diplas, Casey Moure, and Francisco Cordero recently received Ruth L. Kirschstein National Research Service Awards (F30/31), which are fellowships for individual pre-doctoral training from the National Cancer Institute (NCI) and National Institute of Neurological Disorders and Stroke (NINDS). They are PhD candidates in the pathology graduate program working in the field of brain tumor genomics and biology with Hai Yan and Oren Becher.

www.pathology.duke.edu
I am delighted to introduce myself as the new Duke Health Development liaison for the Department of Pathology. In my role, I am very fortunate to work with donors, trainees, faculty, and grateful community members who wish to support the important work of the department. In partnership with Dr. Huang, I have a terrific opportunity to grow the department’s development efforts and secure significant philanthropic resources for education, research, patient care, and transformative initiatives. It is a true honor to be a part of the team, and I look forward to connecting with each of you soon.

I am especially pleased to share an exciting announcement regarding a monumental commitment the Department recently documented that is currently valued in excess of $6 million:

An anonymous couple has committed their entire combined estates to the Department of Pathology. Upon their passing, this extraordinary gift will establish an endowed professorship and an endowed fellowship for the department, both of which are top priorities for Dr. Huang and Chancellor Washington. A gift of this magnitude is an incredible point of pride for the department and a testament to the high regard this couple has for Duke.

I hope you will join me in celebrating this tremendous gift! Please feel free to contact me via e-mail or phone if you would like to support any aspects of the department’s missions in research, patient care and education.

With gratitude,
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