

Endowment Update

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OCTOBER 2021

CELEBRATING 25 YEARS

E. Robert Heitzman, MD, Endowed Professorship in Radiology Research



E. Robert Heitzman, Jr., MD, was a dedicated teacher and inspiring mentor to those who knew him and learned from him during his 40-plus years on Upstate's medical faculty. He impressed upon students a commitment to the art of careful study, analysis and inquiry, leading them to form opinions based purely on

evidence. His lifetime of significant accomplishments was honored with the establishment of this endowed professorship.

Due to the pandemic, Dr. Ernest Scalzetti has refocused his research on a project that, while open-ended, takes advantage of equipment and technical expertise already in the Department of Radiology.

Existing equipment includes the advanced CT scanners now available in the department. All CT scans are acquired as a volume of data. The current generation of scanners can acquire most routine clinical scans with nearly isotropic volume elements (voxels). That is, the spatial resolution of images in the axial plane is now almost equaled by the spatial resolution in the perpendicular direction, whereas formerly the



Ernest Scalzetti, MD

through-plane resolution was much worse than the in-plane resolution. Having isotropic voxels makes it possible to examine the volume of CT data as a true volume. In other words, it can be examined in any direction without significant loss of resolution. Three-dimensional rendering provides a visible representation of the anatomic structure in the CT data.

Technologists already on staff, under the direction of Dr. Kent Ogden, are well-versed in 3D rendering methods that can be adapted for a variety of purposes.

Dr. Scalzetti is exploring an educational application of this technical advance, to be followed by research applications that could impact the clinical practice of radiology. The educational application is intended to teach residents in Radiology to visualize and understand the 3D organization of the lung in ways that were previously impossible. This builds on the pioneering work done by Dr. Heitzman to define the anatomic architecture of the lung.

EDITOR'S NOTE: *We were saddened to learn of Dr. Heitzman's passing last November at the age of 93. His impact on Upstate Medical University and the field of radiological research was truly remarkable.*

CELEBRATING 34 YEARS

David G. Murray, MD, Endowed Professorship in Orthopedic Surgery



Dr. David G. Murray pioneered the development of total knee replacement, the technique that revolutionized the course of treatment for arthritis victims. Now retired, Dr. Murray was named the first chairman of Orthopedic Surgery at Upstate Medical University in 1966. A gifted clinician, teacher and physician-

scientist, Dr. Murray's accomplishments included research on knee joints, prostheses and arthroplasty which attracted significant grant support. He earned the Distinguished Service Award from the Association for Academic Surgery, among numerous national honors.

The **David G. Murray, MD, Endowed Professorship in Orthopedic Surgery** supports research related to musculoskeletal cancer in the Musculoskeletal Science Research Center at the Institute for Human Performance as well as intra-institutional and multi-institutional collaboration. Research is focused on three primary areas: (1) effects of radiotherapy

on bone fragility in adult and pediatric patients with cancer; (2) fracture risk prediction and surgical treatment in cancer patients with spread to bone; and (3) treatment of pediatric bone sarcomas, including osteosarcoma and Ewing sarcoma.

Currently, four faculty members collaborate on active NIH grants from the National Cancer Institute or the National Institutes of Arthritis and Musculoskeletal and Skin Diseases (NIAMS). These include Timothy A. Damron, MD; Jason A. Horton, PhD; Kenneth A. Mann, PhD; and Megan E. Oest, PhD. In related work, grants obtained in part due to support from the Murray Endowment include those from the Carol Baldwin Breast Cancer Research Foundation, Jim and Juli Boeheim Foundation, Orthopaedic Research and Education Foundation, the Page Foundation, and the Musculoskeletal Tumor Society.

Also, through the endowment and related research, three research fellows have completed post-doctoral study, and one master's and four doctoral candidates have successfully defended their theses. Since the establishment of the Murray Endowment, laboratory members have produced 80 peer-reviewed publications and participated in over 120 presentations at national and international meetings.



Timothy A. Damron, MD

Michael E. Connolly Endowed Professorship in Lung Cancer Research



Michael E. Connolly

Binghamton native Michael Connolly was a husband and father, volunteer coach and a star Binghamton North High School football and baseball player. During his 22-month battle with lung cancer, Michael, a nonsmoker, was treated at Upstate University Hospital. He lost his battle in 2002.

Three years later, his wife Penny and son Ryan established a research endowment to fight this deadly disease. In the ensuing years, additional funds were raised and with an infusion of funding from the Upstate Foundation and Upstate Medical University Department of Surgery, the endowment reached \$1.5 million in August 2020 to establish



Penny and Ryan Connolly

the prestigious **Michael E. Connolly Endowed Professorship in Lung Cancer Research**.

“Upstate has an outstanding multi-disciplinary clinical program in lung cancer that includes medical oncology, radiation oncology and thoracic surgical oncology,” said Robert Cooney, MD, professor and chair, Department of Surgery. “Multiple initiatives are

currently in progress to recruit a ‘top notch’ researcher to work with our clinicians doing translational lung cancer research, high impact research that will hopefully change and improve the way we care for these patients.”

The first grant from the original Michael E. Connolly Endowment for Lung Cancer Research was awarded in March 2008. Since then, the endowment has funded eight pilot research studies in the quest for a cure for lung cancer, the nation’s leading cause of cancer death.

CELEBRATING 24 YEARS

Vision 2000 Endowment

During the past year, the Department of Ophthalmology & Visual Sciences (OVS) has continued to press forward and blaze new trails in research and medicine.



Preethi Ganapathy, MD, PhD

In June 2021, Dr. Preethi Ganapathy was awarded a K08 grant from the National Eye Institute, a division of the National Institutes of Health (NIH). This

Mentored Clinical Scientist Research Career Development Award provides individuals who have a clinical doctoral degree with an intensive, supervised, research career development experience. The K08 provides support and “protected time” for Dr. Ganapathy to pursue her research on understanding the cellular mechanism of glaucoma, a blinding disease that results from increased pressure in the eyeball leading to the death of retinal ganglion cells. Dr. Ganapathy will study the role supporting cells called astrocytes play in glaucoma progression. Her idea is that the astrocytes, normally supportive cells, end-up contributing to ganglion cell death after chronic stress. She is studying the mechanism of that “pathologic” switch.

It is notable that this is the first K08 award in OVS history and the first new

K08 award to any Upstate clinician since 1999. Funds from the Vision 2000 Endowment provide additional institutional support to Dr. Ganapathy’s program.

In other funding successes, OVS was awarded an Empire Innovation Program (EIP) grant to provide support for the recruitment of two faculty members with strong track records of research accomplishments. The two hires will be recruited in the areas of advanced imaging and the use of artificial intelligence (machine learning) in understanding and diagnosing retinal disease. Combining these approaches, researchers may be able to uncover the earliest step in retinal and neurologic disease. The proposal will be funded by over \$2 million from the State of New York, Upstate Medical University and OVS funds, including the Vision 2000 Endowment. The original proposal was written by Professor William Brunken, vice chair for research (OVS) and director of the Center for Vision Research.

During 2021, Professor Peter Calvert secured both a new R01 grant from the NIH and renewal of his original R01 grant. With these two awards, along with a Stein Innovator Award from Research to Prevent Blindness, a private foundation, Dr. Calvert enters the very exclusive Million Dollar Club – an informal “club” of principal investigators who generate \$1 million or more of extramural support per year. The total award for these three grants is approximately \$4.5 million.

They provide the funding for Professor Calvert and his team to advance imaging technologies to study the movement and organization of single molecules in living cells, including photoreceptor cells. To aid in this research, Dr. Calvert has procured and assembled several new and innovative microscopes capable of super resolution. Funds from the Vision 2000 Endowment helped support this development.

Dr. Robert Fechtner, chair of OVS, has recruited Dr. Katharine Liegel, a pediatric and general ophthalmologist, to the department. She joins Dr. Stephen Merriam in treating



Katharine Liegel, MD

Upstate’s youngest patients in need of vision care. In July 2021, the residency program increased its complement of residents from nine to 12. First-year residents perform a “transitional” year on the Upstate campus in internal medicine and then move in their second year to Upstate Center for Vision Care, the clinical division of the Department of Ophthalmology & Visual Sciences, for their three-year training in ophthalmology.

The Department of Ophthalmology and Visual Sciences’ website (www.upstate.edu/eye) and the CVR website (www.upstate.edu/cvr) continue to be an expansive source of information.

Dr. Michael & Rissa Ratner Endowed Professorship in Pediatric Surgery



The **Dr. Michael & Rissa Ratner Endowed Professorship in Pediatric Surgery** honors the Ratners for their outstanding

service to Upstate Medical University and the Central New York community. Both devoted their careers to children, Michael as a distinguished Upstate pediatric surgeon, and Rissa as a teacher in the Fayetteville-Manlius School District. Dr. Ratner practiced in Syracuse for more than 40 years and served as chief of the Division of Pediatric Surgery at Upstate.

Dr. Andreas Meier, the first Ratner Endowed Professor, has been chief of the Pediatric Surgery division and the surgeon-in-chief of Upstate Golisano Children's Hospital since 2012. In addition, he serves as medical director of the Olivia Louise Pietrafesa Center for Children's Surgery, program director for the general surgery residency program and vice chair for education in the Department of Surgery. His academic interest focuses on surgical education and he is involved in a variety of multi-institutional educational research projects. Dr. Meier is co-principal

investigator of a national study to establish learning curves for surgical residents, a project that received a \$150,000 grant from the National Board of Medical Examiners Stemmler Fund. He is a member of the Academy of Upstate Educators and participates in the "Build Excellent Skills for Teaching" program, a campus-wide faculty development curriculum that is now mandatory for all incoming faculty members.

The Division of Pediatric Surgery provides tertiary care for children with surgical problems. The American College of Surgery accredited Pediatric Level 1 trauma center is currently the largest pediatric trauma center in the state of New York.

Pediatric surgeon Dr. Kim Wallenstein is medical director for the Pediatric Trauma program. Under her leadership the trauma program was recertified in July 2021. She is also engaged in the curriculum and admission committees of the College of Medicine.

Dr. Tamer Ahmed serves as the Upstate liaison surgeon for the Children's Oncology Group, the national organization overseeing cancer care for children. He is also engaged with committee work at the American Pediatric Surgical Association.

As director of pediatric surgical quality for the Children's Hospital, Dr. Jennifer Stanger oversees the Pediatric National Surgical Quality Improvement Program and leads the performance improvement

and patient safety committee. She plays a major role in the hospital's efforts to become an accredited Level I Center of Pediatric Surgery Excellence. The program focuses on optimizing the quality of care and safety for children requiring surgical interventions. Jamie Kapilla is program manager for pediatric surgery and, in collaboration with Dr. Stanger, is working on this accreditation in the upcoming years. The process was somewhat delayed due to the Covid pandemic and its unforeseen consequences for the hospital.

Dr. Michaela Kollisch-Singule joined the department in October 2020 as the fifth pediatric surgeon. Upstate now has the largest group of academic pediatric surgeons in Central New York. She graduated from Upstate's general surgery program and subsequently completed her fellowship at the Children's Hospital of Arkansas. She has already had significant impact on the basic science research portfolio within the division. Her projects involve the study of sepsis and neonatal diseases resulting in sepsis, as well as treatment strategies thereof. The lab has worldwide recognition for developing new protective ventilation strategies. Her specific interest lies with exploring the role of the microbiome and exosomal miRNA signaling in disease propagation.



Andreas H. Meier, MD, MEd

David B. Jones / Robert F. Rohner Endowed Professorship in Pathology

Dr. David B. Jones was a pioneer in electron microscopy, an international expert in kidney pathology and author of over 90 articles for professional journals. He founded the cytotechnology program in the College of Health Related Professions. In 1988 he was named New York State Distinguished Pathologist of the Year. Dr. Robert F. Rohner taught human pathology at Upstate Medical University for more than 40 years, and always did it with panache. He is remembered for his passion for the medical profession and his energetic and humorous teaching style.

As the first Jones-Rohner Endowed Professor, Dr. Jeffrey Ross has continued his work in pathology education and clinical cancer research. He recently gave the first "live" lectures for the Upstate Medical University medical student Class of 2024.



Jeffrey S. Ross, MD

These presentations in basic pathology and introduction to disease were the first live sessions for the class – their entire first year of medical school was virtual class time only due to the pandemic. Dr. Ross' research work focuses on matching the genomic alterations in the malignant tumors of cancer patients to the latest approved targeted therapies and immunotherapies as well as guiding them to potential mechanism-based clinical trials that have potential to improve their survival and overall clinical outcome. The recent development of new anti-cancer drugs has fueled this type of approach for cancer patients, especially for those patients with clinically advanced disease. A major advance in the genomic sequencing for cancer patients has been the growth and development of "liquid biopsies" enabling the testing to be done on a blood sample rather than an actual portion of the patient's tumor obtained by biopsy or surgical resection.

John K., MD, and Mitzi Wolf Endowment for Neurological Education



"This fund can provide both science and humanity to a busy learning world," said Dr. John K. Wolf upon the creation of this endowment. Established in honor of Dr. Wolf and his wife Mitzi, the endowment continues Dr. Wolf's legacy of more than 30 years at Upstate as an enthusiastic medical educator and

compassionate physician. Dr. Wolf was recognized for his high quality, innovative and effective patient care with a particular interest and expertise in multiple sclerosis diagnosis and treatment.

The **John K., MD, and Mitzi Wolf Endowment for Neurological Education** provides financial support for interdepartmental Neuroscience Grand Rounds at Upstate Medical University. Physicians, resident physicians, advanced practice providers (nurse practitioners and physician assistants), medical students and staff in the departments of Neurology and Neurosurgery gather weekly, September through June, to hear lectures on current topics affecting their practices. Many talks are home-grown, given by Upstate's own trainees and faculty. However, the Wolf Endowment funds talks by experts from around the country, keeping the Upstate community up to date with scientific progress.

The Covid-19 pandemic transformed our world in many ways, Grand Rounds included. Beginning in the spring of 2020, Grand Rounds migrated to Zoom. Presenters found that attendance was better in the virtual format than for in-person talks, because of its ready accessibility from any location.

There were few to no disadvantages with the virtual format and as the world returns to normal life, a virtual option will continue to be offered. The virtual format also allows Upstate to access speakers in Europe who Upstate providers and students might otherwise not hear from.

All Neurology residents collaborated to present their quality improvement projects proposals at the season opener as "QI Blast-off." They closed the year with "QI Touchdown" to reveal the improvements in patient care and physician well-being that resulted from their work. Notable extramural speakers included Fred D. Lublin, MD, director of the Corinne Goldsmith Dickinson Center for Multiple Sclerosis at Mt. Sinai Medical Center. He spoke about primary progressive multiple sclerosis, a rare and devastating variant of MS, for which the first effective treatment was identified recently. Hugues Duffau, MD, PhD, professor and chairman of Neurosurgery, Gui de Chauliac Hospital, Montpellier University Medical Center, Montpellier, France, gave a very exciting talk on methods to preserve cognitive function when removing low grade malignant brain tumors. Dr. Jennifer Bickel, MD, professor of Pediatrics, medical director, Center for Professional Well-being, Children's Mercy Hospital, Kansas City, spoke for the Leadership Series on "Transformational Leadership" and its implications for physician well-being.

"We are grateful for the support offered by the Wolf Endowment, a fitting tribute to one of the Department of Neurology's most beloved faculty members," said Deborah Young Bradshaw, MD, associate chair for education and residency program director.

Robert B. and Molly G. King Endowed Professorship in Neurosurgery



Dr. Robert B. King was an internationally recognized leader in American neurosurgery and neurosurgical graduate education. He served as chair of the Neurosurgery Department from 1966 to 1988. He was also the first medical director of Upstate University Hospital. He was president of several

national medical associations. Dr. King died in 2008 with his wife of 57 years, Molly, by his side. Mrs. King continues to support the work of the Upstate Foundation.

The Robert B. and Molly G. King Endowed Professorship in Neurosurgery

supports the work of Dr. Lawrence S. Chin in a variety of areas in support of the College of Medicine. During the 2021 academic year, Dr. Chin published eight papers on a variety of topics including brain injury and brain tumors. A laboratory study was published by Dr. Chin and his colleague Dr. Li-Ru Zhao on the effect of growth factors leading to brain reorganization that improves recovery after traumatic brain injury in mice. This has been a longstanding interest of Dr. Chin and the King Professorship has provided significant support for these studies. Additional studies in traumatic brain injury focused on patient outcomes and the potential benefit of brain pressure monitoring. In addition to his work as a neurosurgeon, Dr. Chin leads the College of Medicine as dean, a position he has held since September 2019. In this role he advocates for increased diversity in the medical school student population and the faculty. During the Covid-19 pandemic, he has also supported the development of medical student education that provides effective teaching in a safe environment for students and faculty. Research support in the College of Medicine has also resulted in an 11 percent increase in research spending compared to the year before. As a result of these efforts, Upstate Medical University is now ranked by U.S. News & World Report as #39 for diversity and #88 for research.



Lawrence S. Chin, MD, FACS

Support the important work of these endowments!

This publication is the Upstate Foundation's annual report to donors who have given to endowment campaigns. Endowments are vital to the work and mission of Upstate Medical University, providing permanent, ongoing funding for important work in research, education and patient care.

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