

## Upstate Experiences Record Research Growth

**D**uring the last fiscal year, Upstate Medical University had record growth in research expenditures—a rate higher than any other campus in the entire SUNY system. Research expenditures grew 11 percent over the previous fiscal year, for a total of nearly \$39 million. Research expenditures at Upstate have grown 35 percent during the last five years, which is an especially impressive accomplishment given the ongoing Covid-19 pandemic,

says David C. Amberg, PhD, Upstate vice president for research.

In addition to an 11-percent increase in direct expenditures, there was a 10 percent increase in indirect expenditures, which amounts to an additional \$1 million in operational money Upstate receives to support research.

“Every year we’re seeing more grants being submitted,” he says. “We saw a record number of grant submissions during Covid. The

faculty took that time when they couldn’t come in and do experiments in the lab to write papers and to write grants.”

Upstate departments that expanded research in the last year include: biochemistry (40 percent increase); urology (38 percent); microbiology (35 percent); pharmacology (21 percent); ophthalmology (18 percent); medicine (18 percent). The top research investigator at Upstate is infectious disease physician-scientist Stephen J. Thomas, MD, credited with \$2.2 million in research expenditures. As director of Upstate’s Institute for Global Health & Translational Science, Thomas has significantly expanded the number of clinical trials Upstate offers, including 32 Covid-19-related clinical trials.

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## Upstate Awarded \$2M to Upgrade Telehealth Infrastructure

**UPSTATE MEDICAL UNIVERSITY HAS BEEN** awarded \$2 million from the Federal Communications Commission (FCC) to help upgrade and support its telehealth infrastructure with a focus on video consults and remote patient monitoring as part of its electronic medical record (EMR)

system. The upgraded telehealth platform will be deployed across the institution connecting dozens of Upstate clinics and physical sites.

“The pandemic has shown us firsthand the necessity of a sound telehealth program that features electronic access to medical records, test results, and real-time patient appointments through a video option,” said Mantosh Dewan, MD, president of Upstate Medical University. “This funding allows us to move our institution forward by leaps and bounds as we break down barriers to care and move to our goal as a smart hospital.”

The funding will help strengthen and streamline telehealth options for Upstate and patients many of whom come from miles away to access Upstate’s singular medical services. Upstate estimates that 97,500 patients in Central New York could be supported by this upgraded telehealth infrastructure with approximately 250 earmarked to receive broadband access through the project, who may not otherwise have this access.



## Upstate Researchers Land Federal Grants for New Method to Study the Brain and Disease

**JONATHAN HESS, PHD**, assistant professor of psychiatry and behavioral sciences, has been awarded a \$445,500 grant from the National Institute of Mental Health for a novel approach to studying how biological changes in the brain contribute to psychiatric disease.

Dr. Hess has spent three years developing BrainGENIE, which stands for Brain Gene Expression and Network Imputation Engine. The method uses existing data on gene markers from brain tissue samples from deceased donors and compares it to new data on those same gene markers in blood samples from patients living with psychiatric disorders. Those illnesses could include schizophrenia, bipolar disorder, and major depressive disorder, as well as autism spectrum disorders and Alzheimer's disease.

BrainGENIE could be influential in the field of psychiatric genomics because studying living brain tissue in human subjects is notoriously difficult. While brain tissue samples can help scientists understand psychiatric disorders, studying those samples must usually occur after death because a brain biopsy in a living person is complicated and impractical. And studying tissue samples from a cadaver has limitations since the person likely took

medications over the years to treat their mental illness, which can change the brain's biological makeup over time.

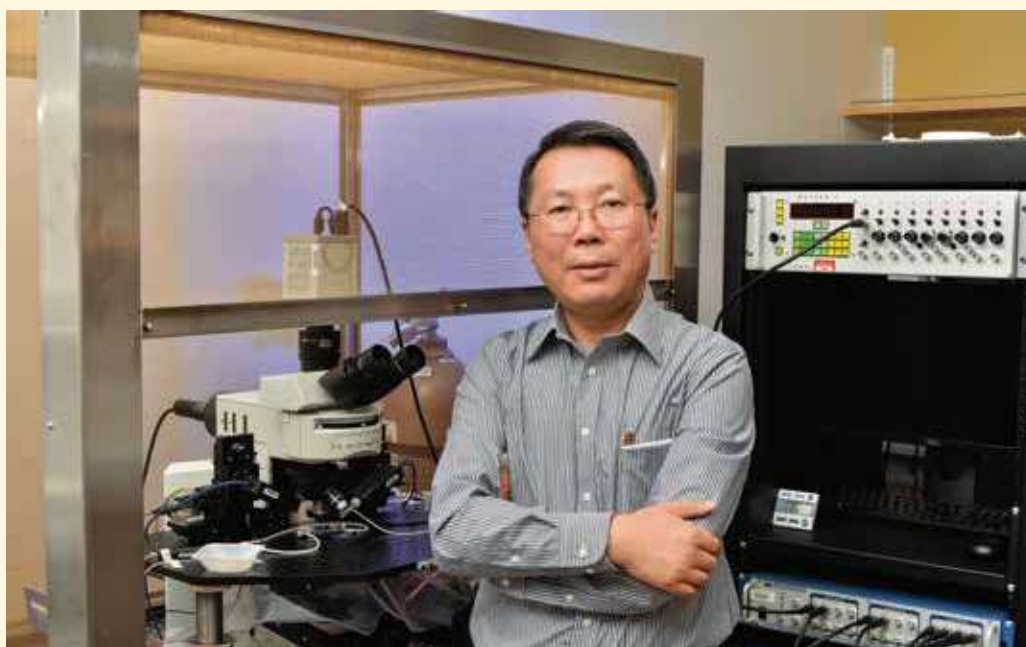
**WEI-DONG YAO, PHD**, professor of psychiatry and behavioral sciences and neuroscience and physiology, has been awarded \$682,211 from the National Institute of Neurological Disorders and Stroke to support research on frontotemporal dementia (FTD). FTD is the most prevalent dementia before age 65 and the most common form of dementia after Alzheimer's disease.

Dr. Yao's study represents the first attempt to investigate the role of a new disease gene in FTD pathogenesis and have the potential to uncover novel pathogenic mechanisms and treatment strategies for FTD and related neurodegenerative diseases.

Yao is a SUNY Empire Scholar who joined Upstate from Harvard University in 2014 through the SUNY's Empire Innovation Program. He is director of the Molecular Cellular Neuropsychiatry Laboratory at Upstate, which studies how psychiatric diseases damage brain cells and their proper wiring, and how these impairments cause mental illnesses.



Jonathan Hess, PhD



Wei-Dong Yao, PhD



Francesca Pignoni, PhD

## Francesca Pignoni, PhD, Named Chair of Neuroscience and Physiology

**F**rancesca Pignoni, PhD, has been named chair of the Department of Neuroscience and Physiology, effective July 1, 2021. She had served as interim department chair since December 2018.

"Dr. Pignoni is a distinguished scholar, researcher and academic leader and I am grateful for her continued leadership of this important department," says Lawrence Chin, MD, dean of the College of Medicine.

Neuroscience and Physiology includes 11 faculty and serves as the home department for the Neuroscience PhD Program. Faculty research focuses on diseases of the nervous system, including degenerative retinal diseases, Alzheimer's disease, amyotrophic lateral sclerosis, schizophrenia, autism, congenital muscular dystrophies, and the neurological manifestations of Covid-19. In addition, 25 neurosci-

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ence research faculty from clinical departments have joint appointments in the Department of Neuroscience and Physiology.

Pignoni joined Upstate in 2009 as an Empire Scholar in the Department of Ophthalmology. She has played leadership roles in the research and academic efforts of the department and the Center for Vision Research (CVR). In recognition of these contributions, she was awarded the President's Award

for Excellence and Leadership in Research in 2017 and the Chancellor's Award for Excellence in Scholarship and Creative Activities in 2018.

Her research is focused on eye development, studying the function of genes that are linked to ocular malformations and vision loss, and is currently funded by the National Eye Institute, the National Institute of Dental & Craniofacial Research, and the National Institute of Child Health & Human Development.



**DARYLL C. DYKES, PHD, MD '95, JD**, recorded an interview with his father, Rychard Dykes, who described growing up with a black father, a white mother and a sister with blue eyes. Their videotaped interview was part of a series connected to "Belong at Upstate," an initiative led by Dr. Dykes to promote increasing diversity, equity, and inclusion at Upstate Medical University. Dykes is an orthopedic surgeon and the chief diversity officer at Upstate. To view the video: <https://youtu.be/wrMtG8s1sws> or scan QR code.







**FAMILY MEDICINE DOCTOR** Joseph Wetterhahn '87 (back center) hosted a healthy cooking class for Upstate students enrolled in the Food as Medicine elective in October at the teaching kitchen at his practice in Adams, New York.

## Faraone Named Top Scholar on Mental Disorders

An Upstate Medical University professor has been named a "world expert" for being one of the world's top scholars writing about mental disorders.

Distinguished Professor and Vice Chair of Research of Psychiatry and Behavioral Sciences Stephen Faraone, PhD, received the honor from ExpertScape, which places him in the top 0.1 percentage of scholars writing about mental disorders in the last decade.

Faraone is the author of more than 1,000 journal articles, editorials, chapters, and books. From 1990 to 1999, he was the eighth highest producer of High Impact Papers in Psychiatry as determined by the Institute for Scientific Information (ISI). In 2005, ISI named him as the second

highest cited author for Attention Deficit Hyperactivity Disorder. From 2014 to 2019 he was listed as a highly cited researcher by Thomson/Reuters/Clarivate Analytics. In 2013, he was cited as being the third most-cited psychologist or psychiatrist in the world and the top-cited psychologist or psychiatrist scholar in the United States, according to Microsoft Academic Search, a free academic search engine. In 2019, his citation metrics placed him in the top 0.01 percent of scientists across all fields. ExpertScape has previously cited him for being the top-rated expert in ADHD, worldwide.

"Dr. Faraone is a superstar among our many distinguished and prominent research faculty," says David C. Amberg, PhD, Upstate vice presi-

dent for research. "He publishes prolifically on the genetics of mental disorders, is one of the most heavily cited scientists in the world and has been continually very well-funded by government and private funding agencies. He is particularly known for his work elucidating genetic risk factors for attention deficit disorder and has received many accolades over his amazing career."



Stephen Faraone, PhD



Leslie Kohman, MD

## Upstate Cited for Commitment to Medical Staff Wellbeing

**UPSTATE MEDICAL UNIVERSITY** is one of only 44 institutions in the country to be a recipient of the 2021 Joy in Medicine Health System Recognition Program. The accolade from the American Medical Association recognizes Upstate for its “demonstrated commitment to preserving the well-being of health care team members by engaging in proven efforts to combat work-related stress and burnout.”

“The Covid-19 pandemic has placed extraordinary stress on physicians and other health care professionals,” said AMA President Gerald E. Harmon, MD. “The health systems we recognize today are true leaders in promoting an organizational response that makes a difference in the lives of the health care workforce.”

Upstate’s efforts at preserving medical staff wellbeing are led by Chief Wellness Officer (CWO) Leslie Kohman, MD, SUNY Distinguished Professor of Surgery.

The post of CWO was created, in part, out of concern for wellness among Upstate’s staff. One of the first tasks was to create a wellbeing task force to advise the CWO on issues and develop wellbeing goals for the campus.

One of the first efforts was to help staff deal with adverse clinical events. Upstate is now a member of a regional 5-hospital peer support network, The Clinician Peer Support Program of Central New York, funded by a grant from the New York Health Foundation. As part of this program, 85 clinical staff have been trained in peer support and are available to all staff, with a special emphasis on those dealing with recent adverse events.

Another initiative identified by the task force and developed is the Clinical Collaboration Center, or CUBE, a dedicated space where providers can meet and interact for collaboration, support, relaxation and a sense of community.

“Positive wellbeing is no longer a personal issue, it’s very much an institutional one, and we have had a great start here at Upstate for providing support to our staff,” says Kohman. “Practitioner wellbeing improves the quality of patient care, efficiency of practice, and patient satisfaction. This recognition from the AMA is significant and we look forward to making further progress and supporting more wellbeing initiatives in the coming year.”

**KATIE FARKOUH '25** was one of four lucky winners of gift baskets from the Medical Alumni Foundation. First and second-year students filled out raffle tickets when they picked up their copies of textbooks provided by the Medical Alumni Foundation and the gift basket of Upstate Medical University memorabilia was an extra bonus.







**THE UPSTATE COLLEGE OF MEDICINE** officially welcomed 170 incoming medical students at a White Coat Ceremony held on August 21. A separate White Coat Ceremony for the Class of 2024 was also held that day, as Covid-19 prevented holding the event last year.

