



**SACHIN PATEL, M.D., PH.D.**

ASSOCIATE PROFESSOR, PSYCHIATRY  
AND BEHAVIORAL SCIENCES, MOLECULAR  
PHYSIOLOGY, & BIOPHYSICS

DIRECTOR, DIVISION OF ADDICTION PSYCHIATRY

THE  
*Flexner*  
**DISCOVERY**  
LECTURE SERIES

**VANDERBILT CUTTING-EDGE DISCOVERY**

**TRANSLATIONAL NEUROSCIENCE RESEARCH AT VANDERBILT:  
MECHANISMS AND TARGETS FOR BRAIN DISORDERS**

**MARK T. WALLACE, PH.D.**

**LAURA L. DUGAN, M.D.**

**SACHIN PATEL, M.D., PH.D.**

Dr. Sachin Patel graduated with a B.S. in Biological Psychology from the University of California, Santa Barbara in 1998. In 2006, he graduated from a Medical Scientist Training Program at the Medical College of Wisconsin, and then began his adult clinical psychiatry residency training at Vanderbilt University, which he completed in 2010. Since completing residency, he has developed a translational neuroscience research laboratory aimed at elucidating the neurobiological mechanisms of central stress responses relevant to stress and trauma related psychiatric disorders.

Dr. Patel's research focuses on the role of endogenous cannabinoids as mediators of stress resiliency and has active research projects in areas of endocannabinoid synaptic biology, endocannabinoid-based therapeutics development, and investigation of circuit-level mechanisms by which endocannabinoids promote resiliency to stress. His laboratory is also interested in understanding how plant-derived cannabinoids regulate affective behavior and stress responses.

Dr. Patel has received numerous awards and national recognitions including the Outstanding Resident Award from the NIMH in 2009; the Young Investigator Award from the International Cannabinoid Research Society; Presidential Early Career Award for Scientists and Engineers, 2016; and the Vanderbilt Chancellor's Research Award in 2015. He was inducted into the American College of Neuropsychopharmacology in 2014 and serves on several NIH Scientific Review Groups. In 2015, he was also awarded an Independent Investigator Award by the Brain and Behavior Foundation. In 2015, the Neuroscience Graduate Program recognized Dr. Patel as the Outstanding Teacher of the Year.

Dr. Patel has published over 40 research articles and several book chapters and scientific editorials. His research program is funded by the NIMH, NIDA, and supported by NARSAD and collaborative industrial research partnerships.

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4:00 P.M.

208 LIGHT HALL

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## **MARK T. WALLACE, PH.D.**

**DEAN OF THE GRADUATE SCHOOL**

**LOUISE B. MCGAVOCK ENDOWED CHAIR IN  
NEUROSCIENCE**

**PROFESSOR OF HEARING & SPEECH SCIENCES,  
PSYCHOLOGY, PSYCHIATRY**

**ASSOCIATE DIRECTOR, VANDERBILT SILVIO O. CONTE  
CENTER FOR BASIC NEUROSCIENCE RESEARCH**

Dr. Wallace received his bachelor's degree in Biology from Temple University in 1985, and his doctoral degree in Neuroscience from Temple University in 1990, where he was the recipient of the Russell Conwell Presidential Fellowship. He did a postdoctoral fellowship with Dr. Barry Stein at the Medical College of Virginia, where he began his research looking at the neural mechanisms of multisensory integration. In 1995 Dr. Wallace began working at the Wake Forest University School of Medicine and remained until he began his tenure at Vanderbilt in 2006. Between 2008 and 2016, he was the director of the Vanderbilt Brain Institute. In 2016 he was named Dean of the Graduate School. He is a member of the Center for Integrative & Cognitive Neuroscience, the Vanderbilt Kennedy Center, and the Vanderbilt Vision Research Center. Dr. Wallace has received a number of awards for both his research and his teaching, including the Faculty Excellence Award at Wake Forest University, the Outstanding Young Investigator in the Basic Sciences, and he was recently named the Frijda Honorary Chair of Cognitive Science at the University of Amsterdam. Dr. Wallace has an established record of research funding from the National Institutes of Health and private foundations, and is the author of more than 200 research presentations and publications. He currently serves on a number of journal editorial boards, is an officer in three scientific societies, and is a standing member of an NIH study section. His work has employed a multidisciplinary approach to examining multisensory processing, and focuses upon the neural architecture of multisensory integration, its development, its role in guiding human perception and performance, and changes in sensory and multisensory function in the context of aging, autism, dyslexia, and schizophrenia.



## **LAURA L. DUGAN, M.D.**

**ABRAM C. SHMERLING PROFESSOR OF ALZHEIMER'S  
AND GERIATRIC MEDICINE**

**DIVISION DIRECTOR, GERIATRIC MEDICINE**

**FACULTY, VANDERBILT BRAIN INSTITUTE AND  
NEUROSCIENCE PROGRAM**

Dr. Laura Dugan received her undergraduate degree from the Massachusetts Institute of Technology, and completed her MD degree at the Ohio State University, where she was a Roessler Research Scholar supported by the NIH. She completed a Residency in Internal Medicine at the University of California, San Francisco, earning Chief Resident in her last year. She completed a Fellowship in Endocrinology, Gerontology and Metabolism at Stanford University, and was a Dana Foundation Fellow.

After time at Washington University, St. Louis, Dr. Dugan moved to the University of California, San Diego to become the inaugural holder of the Larry L. Hillblom Chair in Geriatric Medicine. At UCSD, she established a Division of Geriatric Medicine in 2007, which rose to national recognition, ranked 19th in the country in 2014 by *US News & World Report*. She now heads the Division of Geriatric Medicine at Vanderbilt.

A clinically active Geriatrician, she provides care for seniors in multiple venues. Her clinical specialty is in the assessment and care of patients with memory impairment, and she was involved in Alzheimer's Disease research in the Washington University Alzheimer's Disease Research Center (ADRC), and a member of the ADRC Executive Committee. More recently, she was involved in AD research with the UCSD ADRC.

Along with clinical and administrative duties, Dr. Dugan has established a robust research program studying the cellular mechanisms of neuronal injury in the brain, and the role of inflammation in brain aging and the progression to neurodegenerative diseases, such as Alzheimer's dementia. Her work integrates basic and translational aspects of inflammatory biology in the aging process, with a primary focus on inflammatory cytokines, oxidative metabolism, and autophagy in nervous system aging. Her group developed key insights into the contribution of inflammatory processes in aging brain, and published the original studies in *Science*, reporting that selective loss of key inhibitory neurons was due to activation of both inflammatory cytokine signaling and the innate immune system.

Her studies have been published in *Neuron*, *Nature Medicine*, *Science*, *PNAS*, *J. Neurosci*, and *J. Clin. Invest*, and have received over 5,000 citations.