PAST RECIPIENTS

2016  Bo Norrving
2015  Graeme Hankey
2014  Marc Fisher
2013  Robert J. Adams
2012  Wolf-Dieter Heiss
2011  Gregory W. Albers
2010  J. Donald Easton

Stroke Council

David G. Sherman Lecture

E. Clarke Haley, Jr., MD, FAHA
Charlottesville, Virginia
DAVID G. SHERMAN LECTURE

E. Clarke Haley, Jr., MD, FAHA is Emeritus Professor of Neurology and Neurosurgery at the University of Virginia (UVA) in Charlottesville, VA, where Dr. Haley served the entirety of his academic career. A native Virginian, Dr. Haley took his Bachelor’s Degree in Chemistry from the University of Virginia and his MD from Tulane University. He completed residency training in both Internal Medicine and Neurology at the University of Virginia, separated by a year in private practice in Richmond, VA. After 2 years of Fellowship in Cerebrovascular Disease, one at UVA and the second with Dr. Robert Ackerman at the Massachusetts General Hospital, Dr. Haley returned to Charlottesville in 1984 to join Drs. Neal Kassell and Jim Torner in building a new combined Neurology/Neurosurgery stroke program at UVA. In 1986, Dr. Haley was fortunate to be chosen by the National Institute for Neurological Diseases and Stroke (NINDS), along with Dr. Tom Brott from the University of Cincinnati and Dr. David Levy at Cornell in New York, to begin the initial dose ranging and safety studies of alteplase (TPA) in patients with acute ischemic stroke. Thus began a long and personally and professionally gratifying association with those two individuals as well as with Drs. John Marler and Mike Walker at NINDS. Under their guidance, systems were developed at the three sites to treat acute stroke as the emergency it really was, with the initial goal of transporting, evaluating, and treating stroke patients within 90 minutes of onset. This work led to the NINDS TPA Stroke Trial(s), which in 1996 resulted in the first US FDA approved treatment for acute ischemic stroke. With the expanded investigative group required to conduct those pivotal trials, Dr. Haley benefitted from the association with an even larger group of friends and colleagues. Building upon his experience with TPA, as well as nicardipine in subarachnoid hemorrhage for which he was the medical monitor, Dr. Haley designed (in collaboration with his statistical colleagues) and was the principle investigator for early, middle, and/or late phase clinical trials for tirilazad, gavestinel, and tenecteplase for ischemic stroke using novel design features, and has chaired NIH Data and Safety Monitoring Boards for danaparoid, magnesium, and extracranial-to-intracranial bypass surgery, as well as trials in industry and Parkinson’s Disease. His peer review activities include being a former Editorial Board member for Stroke as well as chairing numerous review committees for NINDS. Beginning in 2011, he also had the privilege of serving on the original Executive Committee for the NeuroNEXT network charged with incubating and conducting early and middle phase clinical trials in a variety of neurological diseases, including stroke, in adults and children.

Particularly gratifying for Dr. Haley was his opportunity to mentor the next generation(s) of stroke clinicians and investigators both as a fellowship director for 25 years, as well as Planning Committee member and faculty from 2007–2012 at the Neurology Clinical Trials Methodology Course where he met a whole new cadre of brilliant young investigators, statistical and clinical faculty, as well as NINDS staff including Dr. Claudia Moy. As a testament to its success, it should be noted that the new director for clinical trials at NINDS, Dr. Clinton Wright, is a graduate of this course. Dr. Haley’s former fellows have also gone on to distinguished careers in both academic medicine and clinical care. He is delighted to bask in their reflected glory.

WITH A LITTLE HELP FROM MY FRIENDS: SEEKING CONSISTENT AND PERSUASIVE EVIDENCE

The last 30 years have seen remarkable advances in all areas of medicine, but perhaps none more so than stroke. Stroke has sagged from third to fifth on the list of causes of mortality in Americans, and there are now new proven treatments available to reduce the terrible toll of disability wrought by stroke. Building on this momentum, Congress recently passed, and the President has signed into law, the 21st Century Cures Act. This legislation promises to bring vital additional funding to the National Institutes of Health (including the National Institute for Neurological Diseases and Stroke) for research and new directions to the Food and Drug Administration (FDA) in order to expedite the development and implementation of potentially life-saving new treatments. Yet some of the provisions of the new Act have become controversial with some arguing that FDA reforms are needed to clear away “red tape” in the approval process, while others argue that “haste makes waste.” Might the stroke experience inform this debate?
PAST RECIPIENTS

2016 Ulrich Dirnagl
2015 Michael Chopp
2014 Patricia D. Hurn
2013 Eng H. Lo
2012 Gregory J. del Zoppo
2011 John Mansfield Hallenbeck
2010 Donna M. Ferriero
2009 Costantino Iadecola
2008 Pak H. Chan
2007 Antoine Hakim
2006 Michael A. Moskowitz
2005 Vladimir C. Hachinski
2004 Richard J. Traystman
2003 Charles P. Warlow
2002 Myron D. Ginsberg
2001 Hermes A. Kontos
2000 Louis R. Caplan
1999 Barbro Johansson
1998 James T. Robertson
1997 Jack P. Whisnant
1996 Jesse E. Thompson
1995 Fumio Gotoh
1994 Lindsay Symon
1993 Mark L. Dyken Jr.
1992 John “Sean” F. Mullan
1991 Marcus E. Raichle
1990 James F. Toole
1989 Thoralf M. Sundt Jr.
1988 Henry J. M. Barnett
1987 Niels A. Lassen
1986 William Oldendorf
Dr. Jaroslaw (Jarek) Aronowski, PhD, FAHA is Professor and Vice Chair and the Roy M. and Phyllis Gough Huffington Chair in Neurology at McGovern Medical School at The University of Texas Health Science Center in Houston (UTHealth), where he has spent most of his professional career. He received degrees from Warsaw Medical School and Polish Academy of Sciences and was a postdoctoral fellow in the Departments of Neurology and Neurobiology & Anatomy at UTHealth.

Dr. Aronowski’s research has been sponsored continuously for two decades with grants from the National Institutes of Health (NIH) and the American Heart Association (AHA). Discoveries in his laboratory have results in clinical trials for stroke, including ischemic stroke and intracerebral hemorrhage.

He is an international research leader in understanding the cellular and molecular mechanisms underlying the pathology of acute cerebral ischemia, reperfusion injury, and secondary injury after intracerebral hemorrhage with emphasis on the role of transcription factors (e.g. NF-κB, Nrf2 and PPAR), neuroinflammation (including role of microglia, neutrophil, and oligodendroglia), stem cell therapy, and the use of ultrasound in tPA-mediated thrombolysis.

Dr. Aronowski has published more than 100 papers and given more than 100 plenary lectures and invited presentations. He has served on more than 100 NIH and AHA study sections and acted as a Member of the Planning Group to Establish NIH Future Goals/Priorities in Stroke Research — National Institute of Neurological Disorders and Stroke (NINDS).

He is the Associate Editor for Basic Science for Stroke, a journal of the AHA/ American Stroke Association. He currently serves as a Treasurer Elect for the International Society for Cerebral Blood Flow and Metabolism.

In the field of experimental research, Dr. Aronowski has trained dozens of clinical stroke fellows and research fellows, scientists who today play instrumental roles in leading clinical stroke research around the world.

### BRAIN DAMAGE AND REPAIR AFTER INTRACEREBRAL HEMORRHAGE

Intracerebral hemorrhage (ICH), the most devastating type of stroke, involves a unique and multifactorial pathobiology separate from cerebral ischemia. In addition to the initial injury that is due to the physical consequences of intraparenchymal bleeding (mass effect), there are early and delayed biochemical processes imposed onto the perihematoma tissue, that lead to secondary brain injury. Various components of extravasated blood and the associated immune responses contribute to cytotoxicity. Using various translational approaches, genetic manipulation, multi-laboratory collaboration, in vitro and in vivo models, we and others have made substantial advancements in identifying important therapeutic targets that could serve to mitigate this ICH-propagated secondary damage, facilitate brain repair, and improve recovery. By working with various transcription factors, as therapeutic targets, we have learned how to normalize pro-inflammatory responses, metabolic processes, and oxidative stress; in addition, we have learned how to amplify processes that help detoxify blood products. By studying phagocytic cells, such as brain microglia and blood macrophages, our research has identified biochemical pathways that enhance macrophage-mediated hematoma resolution, a key component of the repair process that is instrumental to eliminating sources of brain inflammation and preparing the micro-environment to establish a new homeostasis after ICH.

William M. Feinberg Award for Excellence in Clinical Stroke

Steven M. Greenberg, MD, PhD, FAHA
Harvard Medical School, Massachusetts General Hospital
Boston, Massachusetts
WILLIAM M. FEINBERG AWARD FOR EXCELLENCE IN CLINICAL STROKE

Steven M. Greenberg, MD, PhD, FAHA

is Professor of Neurology at Harvard Medical School, Vice Chair of Neurology for Faculty Development and Promotions, and holds the John J Conway Endowed Chair in Neurology at Massachusetts General Hospital. He has served in many national and international leadership roles in the fields of stroke and neurology including principle investigator for the NINDS VCID biomarkers consortium coordinating center, president of the International CAA Association, chair of the NIH Acute Neurologic Injury and Epilepsy study section, co-chair of the NINDS Alzheimer’s Disease-Related Dementias Summit subcommittee on vascular cognitive impairment, and chair of the American Heart Association International Stroke Conference. Dr. Greenberg has authored over 200 peer-reviewed research articles and over 70 chapters, reviews, and editorials in the areas of hemorrhagic stroke and small vessel brain disease. He received his undergraduate degree in Biochemistry from Harvard University and MD and PhD degrees from Columbia University under the graduate research training of Dr. James Schwartz. He performed internship at Pennsylvania Hospital, neurology residency at MGH, and post-doctoral fellowship at Brigham and Women’s Hospital under the training of Dr. Kenneth Kosik.

BIG PICTURES AND SMALL VESSELS

Although the stroke field devotes much of its energy (deservedly) to big vessels and big strokes, there is good reason to think small. Submillimeter infarcts and cerebral small vessel disease are extraordinarily common and, by impairing cognitive function, produce arguably more disability than any other stroke type. Improvements in vascular risk are likely a major factor in recent slowdowns in the dementia epidemic, which nonetheless remains the looming public health threat of our time. Identifying disease-modifying therapies for the Vascular Contributions to Cognitive Impairment and Dementia (VCID) will depend on two pillars of knowledge: better biological understanding of the underlying small vessel diseases (primarily arteriolosclerosis and cerebral amyloid angiopathy) and better in vivo biomarkers. Together, these pillars will form the foundation for trials aimed at shrinking small vessel disease down to size.
Outstanding Stroke Research Mentor Award

Louise D. McCullough, MD, PhD, FAHA
McGovern Medical School at UTHealth
Houston, Texas

Dr. Louise McCullough is a physician-scientist who is examining the differences of sex and age in stroke and recovery. She received her PhD in Neuroscience from the University of Connecticut and her Medical Degree from the University of Connecticut School of Medicine. After graduating from medical school, Dr. McCullough continued her training at Johns Hopkins in Baltimore, Maryland for a Neurology Residency followed by a Fellowship in Cerebrovascular Disease.

After completing her training, she joined the faculty at Johns Hopkins Hospital and began her translational research career. Dr. McCullough relocated to Connecticut in 2004. She was a Professor in the Departments of Neurology and Neuroscience at The University of Connecticut Health Center and John Dempsey Hospital in Farmington, Connecticut, as well as the Director of Stroke Research and Education at Hartford Hospital, one of the largest stroke centers in New England. She relocated in 2015 to the University of Texas Health Science Center at Houston and is currently Professor and Chair of the Department of Neurology and Chief of the Neurology Service at Memorial Hermann Hospital-TMC in Houston.

An energetic investigator, she is well recognized for her work in cerebral vascular disease and is known for her research identifying sex differences in cell death pathways during stroke, which are now recognized as major factors in the response to an ischemic insult. Her laboratory also studies aging and inflammation, and how these factors influence recovery after stroke. She has been funded by the National Institute of Health and The American Heart Association for her research and has published over 150 papers. She is certified by the American Board of Psychiatry and Neurology and has subspecialty board certification in vascular neurology as well as vascular ultrasound.

Dr. McCullough is a well-respected educator who is passionate about mentoring students and nurturing junior scientists. She is a member of eight professional societies, including the Society for Neuroscience and the American Academy of Neurology. Dr. McCullough is the recipient of many honors and awards, and has given numerous presentations both nationally and internationally. Dr. McCullough is also an active clinician, and she has been recognized as one of America’s Top Doctors for the past eight years.
Yejie Shi, MD, PhD
University of Pittsburgh
Pittsburgh, PA

Yejie Shi is a Postdoctoral Associate in the Department of Neurology at the University of Pittsburgh, Pennsylvania. Dr. Shi’s research interests include understanding the cellular and molecular mechanisms underlying neurovascular dysfunction in stroke, with the hope of developing strategies by which molecular therapeutics can be delivered into the brain to ameliorate neurovascular injury and improve long-term functional outcome in stroke patients. Using experimental stroke models, Dr. Shi and colleagues identified molecular targets in cerebral endothelial cells to protect the blood-brain barrier against ischemic injury. Dr. Shi received her MD from Peking University, Beijing, China, and a PhD in Neuroscience from the University of Wisconsin-Madison. She then trained in Neurology at the University of Pittsburgh. Dr. Shi has been a member of the AHA since 2013 and is currently supported by an AHA Postdoctoral Fellowship.
Robert G. Siekert New Investigator Award in Stroke

Alessandro Biffi, MD
Massachusetts General Hospital, Harvard Medical School
Boston, MA

Dr. Alessandro Biffi received his medical degree from the University of Milan-Bicocca (Milan, Italy), and was subsequently awarded an American Heart Association / Bugher Foundation fellowship within the stroke research program at Massachusetts General Hospital (Boston, MA). Dr. Biffi pursued residency training in Neurology within the Massachusetts General Hospital / Brigham and Women’s Hospital / Harvard Medical School training program. He subsequently completed a Behavioral Neurology and Neuropsychiatry Fellowship at Massachusetts General Hospital. In 2016 Dr. Biffi established the Aging & Brain Health Research Group at Massachusetts General Hospital and Harvard Medical School. This new research platform is tasked with advancing prevention and treatment of cognitive and neuropsychiatric disorders of aging, with specific emphasis on cerebrovascular disorders. Dr. Biffi is the recipient of numerous awards recognizing his research accomplishments, including the Princeton Conference Early Career Investigator Award and the American Neuropsychiatric Association Young Investigator Award.
Stroke Basic Science Award

Yao Yao, PhD
University of Minnesota

Dr. Yao received his PhD degree in Molecular and Cellular Pharmacology at Stony Brook University, after which he joined the Rockefeller University for a postdoctoral training in Neurobiology and Genetics. Dr. Yao is currently an Assistant Professor at the University of Minnesota.

His research interest lies in understanding how laminin, an extracellular matrix protein, regulates blood-brain barrier (BBB) integrity in both physiological and pathological conditions. His research goals are to: (1) develop methods/reagents that can “open” BBB temporarily for efficient drug delivery and/or “close” BBB during CNS injury to maintain the homeostasis of brain, and (2) develop innovative and effective treatments for neurological disorders.

Dr. Yao’s research has led to 18 first-author and/or corresponding-author publications in high-impact journals, including Nature Communications, Scientific Reports, Journal of Biological Chemistry, Cellular and Molecular Life Sciences, and Journal of Cell Science. In addition, Dr. Yao has been awarded research grants/fellowships from the American Heart Association (AHA), Myotonic Dystrophy Foundation (MDF), Merck & Co. Inc., and BD Biosciences. Dr. Yao has also received numerous honors and awards, including the Gordon Research Conference Poster Award, Annual BBB Consortium Meeting Award, and many travel awards.
Kevin N. Sheth, MD, FAHA, FCCM, FNCS, FAAN, FANA
Yale School of Medicine, Yale New Haven Hospital
New Haven, CT

Dr. Sheth graduated from Johns Hopkins University and the University of Pennsylvania School of Medicine. He was an intern at Brigham and Women's Hospital and a neurology resident and chief resident at Partners Neurology (Massachusetts General and Brigham & Women's Hospitals). After a fellowship in vascular neurology and neuro-critical care at Harvard, he was appointed the first neurology trained neuro-intensivist at the University of Maryland and R Adams Cowley Shock Trauma Center. He was recruited to Yale as the founding chief of the Division of Neurocritical Care and Emergency Neurology and Chief of Clinical Research for the Department of Neurology.

His interests are in the advancement of therapies and care of patients with devastating acute neurological syndromes, especially those complicated by brain swelling and hemorrhage. He is a recognized clinical and translational scientist and has directed a number of multicenter studies testing potential therapies against brain swelling, stroke, and hemorrhage. His research group also develops novel imaging and serum based biomarkers for the neuro-ICU and furthers understanding of prognosis. He is the winner of the prestigious Robert Siekert Award from the American Heart Association, and his research has been funded by the NIH, American Academy of Neurology, American Heart Association (AHA), US Army, and the Passano Foundation. He has also led several innovative academic-industry partnerships. He has led the initial American
Heart Association working group for large stroke and swelling. Dr. Sheth is the author of over 100 publications in critical care neurology and stroke. He serves on six editorial boards including *Stroke, Neurocritical Care, Neurology* and *Neurosurgery* and has served on study sections for the NIH, AHA, FDA and NASA. His highly collaborative work is dedicated to the improved understanding of neurological disease in the critically ill, and Dr. Sheth is committed to the care of his patients with acute brain injury.
Stroke Rehabilitation Award

Steven C. Cramer, MD
University of California, Irvine
Orange, CA

Dr. Steven C. Cramer is a Professor of Neurology, Anatomy & Neurobiology, and Physical Medicine & Rehabilitation at the University of California, Irvine. He is also the Clinical Director of the Sue & Bill Gross Stem Cell Research Center and Associate Director of the UC Irvine Institute for Clinical & Translational Science at UC Irvine, and co-PI of the NIH StrokeNet. Dr. Cramer graduated with Highest Honors from University of California, Berkeley; received his medical degree from University of Southern California; did a residency in internal medicine at UCLA; and did a residency in neurology plus and a fellowship in cerebrovascular disease at Massachusetts General Hospital. He also earned a Masters Degree in Clinical Investigation from Harvard Medical School.

His research focuses on neural repair after central nervous system injury in humans, with an emphasis on stroke and recovery of movement. Treatments examined include robotic, stem cell, brain stimulation, biologic, drug, and telehealth methods. A major emphasis is on translating new drugs and devices to reduce disability after stroke, and on individualizing therapy for each person’s needs. Dr. Cramer co-edited the book “Brain Repair after Stroke” and is the author of over 250 manuscripts.
Vascular Cognitive Impairment Award

Jennifer Dearborn-Tomazos, MD, MPH
Yale School of Medicine
New Haven, CT

Dr. Dearborn-Tomazos is a vascular neurologist who specializes in the care of patients with cerebrovascular disorders of the brain including ischemic and hemorrhagic stroke. She graduated from the University of Connecticut School of Medicine where she completed her internship in Internal Medicine. She completed her residency in Neurology at the Johns Hopkins School of Medicine, where she went on to complete her fellowship in Vascular Neurology. She now works at the Yale School of Medicine as an Assistant Professor of Neurology in the Division of Vascular Neurology. Her primary research interests broadly include the secondary prevention of stroke and progressive brain ischemic injury, including vascular cognitive impairment. She is particularly interested in nutritional approaches and obesity management as a tool for improvement of brain health after stroke.