



Maimonides  
Medical Center



SUNY  
DOWNSTATE  
Health Sciences University

NYC  
HEALTH+  
HOSPITALS

Kings County

Maimonides Neurosciences Institute Presents the 1<sup>st</sup> Annual

# BROOKLYN STROKE SYMPOSIUM

May 20, 2021

**A virtual symposium** featuring top stroke experts on advances in the care and management of acute ischemic and hemorrhagic stroke, insights on caring for populations at high risk of stroke, and the impact of COVID-19 on stroke and clinical care.

**8.0 AMA PRA Category 1 Credits™**

## SYMPOSIUM OBJECTIVES

- Provide an educational review of stroke along with current and future treatment options.
- Discuss strategies and advances for managing stroke care.
- Gain insights on clinical care for populations at high risk of stroke.
- Examine developments around COVID-19 and stroke.

## WHO SHOULD ATTEND

- Physicians, including neurologists, neurointerventionalists, radiologists, vascular specialists, emergency and critical care specialists, as well as primary care and other physicians.
- Other healthcare professionals, including first responders/EMTs, nurses, nurse practitioners, physician assistants, rehabilitation specialists, and others.

# PROGRAM

## **8:00 - 8:10am | Opening Remarks**

### **Q. Tony Wang, MD, PhD,**

Director, Jaffe Comprehensive Stroke Center at Maimonides; Associate Professor of Clinical Neurology and Director of NES/NIR Fellowship Programs, SUNY Downstate

## **8:10 - 8:15am | Welcome Remarks**

### **Daniel M. Rosenbaum, MD,**

Distinguished Service Professor & Chair of Neurology, SUNY Downstate; Regional Chair of Neurology, Maimonides Medical Center

## **8:15 - 8:45am | Thrombolytic Therapy of Acute Ischemic Stroke**

### **Steven R. Levine, MD,**

Executive Vice-Chair of Neurology, Chief of Neurology UHB; Associate Dean for Clinical Research & Faculty Development, SUNY Downstate

## **8:45 - 9:15am | Interventional Management of Acute Ischemic Stroke**

### **Razvan Buciu, MD,**

Director, Endovascular Surgical Neuroradiology, Maimonides

## **9:15 - 9:45am | Surgical Management of Hemorrhagic Stroke**

### **Daniel Zumofen, MD,**

Chief, Vascular Neurosurgery, Maimonides; Visiting Professor of Clinical Neurology, SUNY Downstate

## **9:45 - 10:00am | 15 Minute Break**

## **10:00 - 10:45am | Medical Management of Hemorrhagic Stroke**

### **Stanley Tuhim, MD,**

Director, Mount Sinai CSC, The Division of Vascular Neurology; System Vice Chair of Clinical Affairs, Department of Neurology, Mount Sinai Health System

## **10:45 - 11:30am | Mobile Stroke Unit & Acute Stroke Triage**

### **James C. Grotta, MD,**

Director of Stroke Research, Clinical Institute of Research & Innovation, Memorial Herman-Texas Medical Center; Director, Mobile Stroke Unit Consortium

## **11:30 - 12:00pm | Age Friendly Stroke Care: Meeting the Needs of Older Adults**

### **Shirley Girouard, PhD, RN,**

Co-Director, Brooklyn Initiative to Develop Geriatric Education; Associate Dean, Research & Community Partnerships, SUNY Downstate

## **12:00 - 12:30pm | 30 Minute Break**

## **12:30 - 1:00pm | Stroke in Women & Young Patients**

### **Sanskriti Mishra, MD,**

Associate Director, Jaffe Stroke Center and Director of Stroke Education & Research, Maimonides; Assistant Professor of Neurology, SUNY Downstate

## **1:00 - 1:30pm | Health Care Disparities in Stroke/ Kings County Hospital Experience**

### **Susan Law, MD,**

Director, Stroke Center, Department of Neurology, NYC Health and Hospitals/ Kings County; Clinical Associate Professor of Neurology, SUNY Downstate

## **1:30 - 2:15pm | Motor Recovery Post-Stroke - The BLAM/KATA Approach**

### **John W. Krakauer, MA, MD,**

Director, The Brain, Learning, Animation, and Movement Lab (BLAM), Johns Hopkins University School of Medicine; Co-founder of the KATA project

## **2:15 - 2:30pm | 15 Minute Break**

## **2:30 - 3:15pm | Tigertriever and Future Approaches to LVO Stroke Intervention**

### **Jeffrey L. Saver, MD,**

Director, UCLA Comprehensive Stroke and Vascular Neurology Program; Vice Chair of Clinical Research, Dept. of Neurology, David Geffen School of Medicine at UCLA

## **3:15 - 3:45pm | The Impact of COVID-19 on Stroke**

### **Q. Tony Wang, MD, PhD,**

Director, Jaffe Comprehensive Stroke Center at Maimonides; Associate Professor of Clinical Neurology and Director of NES/NIR Fellowship Programs, SUNY Downstate

## **3:45 - 4:15pm | Telemedicine in the COVID Era**

### **Steven Rudolph MD,**

Director, Stroke Program & Chief of Neurology, Mount Sinai Brooklyn; Director, Tele-Stroke, Mount Sinai Health System, Foundation for Stroke Prevention

## **4:15 - 4:45pm | Q&A Session**

## **4:45 - 5:00pm | Closing Remarks**

### **Q. Tony Wang, MD, PhD**

## SPEAKERS



### DANIEL M. ROSENBAUM, MD

Distinguished Service Professor & Chair of  
Neurology, SUNY Downstate; Regional Chair of  
Neurology, Maimonides Medical Center

Prior to his appointments at SUNY Downstate Health Science University and Maimonides Medical Center, Dr. Rosenbaum was Vice-Chair of the Department of Neurology at Albert Einstein College of Medicine where he served as Professor of Ophthalmology and Neurology and Associate Professor of Neuroscience. He has also held the positions of Site Director of the Albert Einstein College of Medicine, and Director of the Stern Stroke Center at Montefiore Medical Center.

Dr. Rosenbaum earned his medical degree from Albert Einstein College of Medicine. He completed his internship at Brookdale Medical Center; his residency at Albert Einstein College of Medicine, where he was Chief Resident in the Department of Neurology; and a fellowship in cerebrovascular disease at University of Texas Medical School in Houston.

Recognized as one of the Best Doctors in America®, Dr. Rosenbaum is listed in Consumers' Research Council of America: "Guide to America's Top Physicians" as well as Castle Connolly's "Best Doctors in the New York Metro Area." He has been honored with the Clinical Investigator Developmental Award by the National Institute of Neurological Disorders and Stroke and has published over 80 articles in all the major peer-reviewed journals. Dr. Rosenbaum is a member of the American Academy of Neurology, American Neurological Association, Society for Neuroscience, Stroke Council of the American Stroke Association, Association for Research in Vision and Ophthalmology and the International Society of Cerebral Blood Flow and Metabolism.

## SPEAKERS



### QINGLIANG (TONY) WANG, MD, PHD

**Director, Jaffe Comprehensive Stroke Center at Maimonides; Associate Professor of Clinical Neurology and Director of NES/NIR Fellowship Programs, SUNY Downstate**

A highly knowledgeable and passionate Vascular and Interventional Neurology specialist with fellowship training in Stroke Neurology, Diagnostic and Interventional Neuroradiology/Endovascular Neurosurgery, Dr. Qingliang Tony Wang received his medical degree from Jiamusi University School of Medicine. He then completed a Ph.D. in Human Genetics and Molecular Biology and research fellowships at Johns Hopkins University, followed by an internship in Internal Medicine at the Albert Einstein College of Medicine of Yeshiva University, Jacobi Medical Center. Dr. Wang further completed a residency in Neurology and served as a chief resident of Neurology at the Albert Einstein College of Medicine of Yeshiva University before completing multiple fellowships in Stroke/Cerebrovascular Neurology, Diagnostic Neuroradiology, and Interventional Neuroradiology/Endovascular Neurosurgery at the Mount Sinai Hospital in Manhattan.

In addition to pursuing his clinical career, Dr. Wang has published multiple articles and book chapters that focus on various topics in Neurology and neuroscience. He also holds Board certifications in Neurology and Vascular Neurology from the American Board of Psychiatry and Neurology (ABPN) and Neuroimaging from United Council for Neurological Subspecialties (UCNS) and CAST-certified in NeuroEndovascular Surgery by The Society of Neurological Surgeons Committee on Advanced Subspecialty Training. Dr. Wang is an active member of the American Academy of Neurology, American Medical Association, and the American Heart Association, Society of Vascular and Interventional Neurology and Society of NeuroInterventional Surgery. Dr. Wang is an Associate Professor of Clinical Neurology at SUNY Downstate Medical Center and serves as a stroke & NIR attending and program director of the Comprehensive Stroke Program at Maimonides Medical Center.

## SPEAKERS



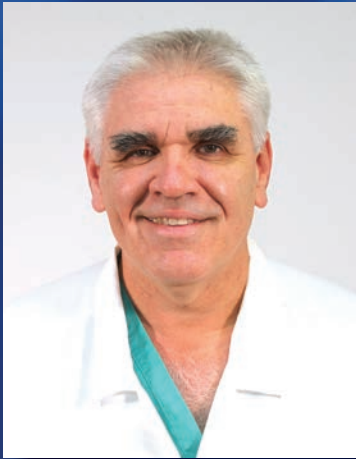
### STEVEN R. LEVINE, MD

**Executive Vice-Chair of Neurology, Chief of Neurology UHB; Associate Dean for Clinical Research & Faculty Development, SUNY Downstate**

Dr. Steven R. Levine, MD, FAHA, FAAN, FANA is a vascular neurologist in the Department of Neurology at Maimonides Medical Center and a SUNY Distinguished Professor of Neurology and Executive Vice Chairman of Neurology & Associate Dean for Clinical Research & Faculty Development in the SUNY Downstate College of Medicine. He grew up on Long Island, NY and went to college at the University of Michigan in Ann Arbor. He went to the Medical College of Wisconsin and trained in neurology at the University of Michigan. He did a two-year fellowship in stroke at the Henry Ford Health Sciences Center and NIH Center for Stroke Research in Detroit. He had been faculty previously at Henry Ford Health System and Wayne State University, where he directed their Comprehensive Stroke Centers, and then Mount Sinai School of Medicine and Medical Center in NY prior to coming to SUNY Downstate in 2010.

Dr. Levine is a vascular neurologist who is involved in new treatments through clinical trials, having established multiple clinical trials networks at SUNY including emergency neurology trials (NETT and SIREN), acute and preventive stroke trials (as site PI for the Columbia/Cornell StrokeNET Regional Coordinating Center), and other neurological diseases (through SUNY NeuroNEXT). He is a pioneer in the concept of Telestroke. He has investigated the epidemiology of putative stroke risk factors such as antiphospholipid antibodies and has 33 consecutive years of NIH funding. He has published over 220 peer-reviewed original papers, 3 books, 68 book chapters, 75 reviews/invited articles, and 38 editorials. He has mentored over 30 stroke fellows, 60 neurology residents, and numerous students. He received multiple awards for teaching, research, and clinical care. He has been listed as one of America's Top Doctors for 20 years. He is a Fellow of the American Academy of Neurology, American Heart Association, and The American Neurological Association.

## SPEAKERS



### **RAZVAN BUCIUC, MD**

**Director, Endovascular Surgical Neuroradiology,  
Maimonides**

Dr. Razvan Buciuc's medical focus is a new, hybrid specialty between neurology, radiology and neurosurgery. He completed his residency in Radiology at Long Island Jewish Medical Center. He completed a fellowship in Neurosurgery and Radiosurgery at Wayne State University, as well as a fellowship in Endovascular Surgery/Neuroradiology at Beth Israel Medical Center. Dr. Buciuc treats a wide variety of conditions including aneurysms in the brain, arteriovenous malformations in the brain or spinal cord, atherosclerotic disease, ischemic and hemorrhagic stroke. Dr. Buciuc offers a number of treatments and procedures including radiography, MRI, CT fluoroscopy, CT angiogram. Dr. Buciuc frequently conducts research in his chosen field, and his studies have been published extensively. He is interested in researching the various ways of delivering interventions in order to minimize the invasiveness of these procedures.

## SPEAKERS



### **DANIEL W. ZUMOFEN, MD**

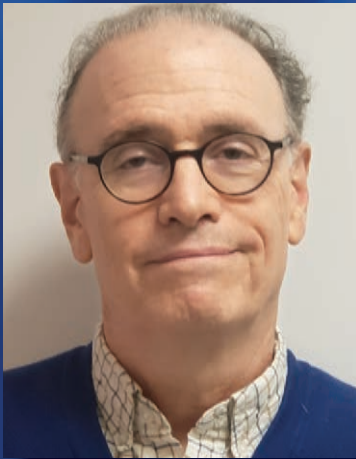
**Chief, Vascular Neurosurgery, Maimonides;  
Visiting Professor of Clinical Neurology, SUNY  
Downstate**

Daniel W. Zumofen, MD is a double-trained Cerebrovascular and Endovascular Neurosurgeon at Maimonides Neurosciences Institute, where he is Director of Vascular Neurosurgery. Dr. Zumofen is Board Certified in Neurosurgery by the Federal Department of Home Affairs and Swiss Office of Public Health and is fellowship-trained in Interventional Neuroradiology. He is an expert in minimally invasive techniques and keyhole approaches to treat complex cerebrovascular conditions of the brain and spinal cord, as well as benign and malignant tumors of the brain and spinal cord.

After completing his medical degree at the University of Geneva in Switzerland, Dr. Zumofen did his internship at McGill University in Montreal and Laval University in Quebec City, Canada. He did residency training at the Universities of Zurich, Basel and Lausanne, as well as the University of British Columbia in Vancouver. Dr. Zumofen did fellowship training in Radiology & Interventional Neuroradiology at NYU Langone Medical Center. Dr. Zumofen is an Associate Professor in Neurosurgery at the University of Basel, and a visiting Associate Professor at SUNY Downstate Health Sciences University. He has authored multiple peer-reviewed scientific papers and is active in numerous societies and academies. At Maimonides, Dr. Zumofen practices with a multidisciplinary team of neurologists, neurointerventional radiologists and neurointensivists in state-of-the-art endovascular suites and hybrid operating rooms for optimal patient outcomes.



## SPEAKERS



### **STANLEY TUHRIM, MD**

**Director, Mount Sinai CSC, The Division of Vascular Neurology; System Vice Chair of Clinical Affairs, Department of Neurology, Mount Sinai Health System**

Dr. Stanley Tuhrim is the Director of the Division of Vascular Neurology and Vice Chair for Clinical Affairs in the Department of Neurology. He is Professor of Neurology, and Geriatrics and Palliative Medicine in the Icahn School of Medicine at Mount Sinai.

Dr. Tuhrim received a BA from Haverford College and an MD from Mount Sinai School of Medicine. He completed an internship at the Hospital of the University of Pennsylvania, a neurology residency at Mount Sinai, and a fellowship in cerebrovascular disease at the University of Maryland, before joining the faculty at the University of Maryland in 1984, where he also pursued graduate studies in computer science. He returned to Mount Sinai in 1987 to organize the Gustave L. Levy Acute Stroke Unit and develop Mount Sinai's Stroke Program which now includes nine vascular neurologists and three fellows. Under his leadership, Mount Sinai was among the first to obtain ACGME approval for its Stroke Fellowship and New York State Department of Health designation as a Stroke Center, as well as the first in NYC to receive Joint Commission certification as a Comprehensive Stroke Center.

Dr. Tuhrim's research interests include the assessment and management of intracerebral hemorrhage, assessment of disparities in stroke care, development of efficient models of stroke care and assessment of stroke risk factors.

## SPEAKERS



### **JAMES C. GROTTA, MD**

**Director of Stroke Research, Clinical Institute of Research & Innovation, Memorial Herman-Texas Medical Center; Director, Mobile Stroke Unit Consortium**

Formerly Chairman of Neurology, and Director of the Stroke Program at UT Houston Medical School, Dr. James Grotta received his education at Dartmouth College, the Universities of Virginia and Colorado, and Massachusetts General Hospital. He edits the most authoritative textbook on Stroke, has published over 500 scientific manuscripts, and has received numerous awards for his research, clinical work and mentoring.

Dr Grotta has devoted his career to acute stroke treatment and research. He helped develop and test the “clot busting” drug TPA, the first and still the most frequent treatment to reduce disability from stroke. A consistent theme has been his insistence on the earliest and fastest treatment possible. To this end, in 2014 Dr Grotta launched, and personally staffs, the first Mobile Stroke Unit in the U.S—an ambulance equipped with a CT scanner that can deliver pre-hospital acute stroke treatment wherever it occurs. In 2021 he completed a prospective multicenter comparative effectiveness study of this novel approach to acute stroke treatment conclusively demonstrating improved outcomes and reduced post-stroke disability.

## SPEAKERS



### **SHIRLEY GIROUARD,** **PHD, RN**

**Co-Director, Brooklyn Initiative to Develop Geriatric Education**

Shirley Girouard is a health policy consultant to the Council of State Governments-East and co-director of the Brooklyn Initiative to Develop Geriatrics Education. During the preceding five years, she served as the Associate Dean for Research and Community Partnerships in the College of Nursing. Currently, Shirley serves on the State of Connecticut's Primary Care and Community Health Reforms Work. She is committed to improving quality, equitable, cost-effective health care and promoting health through her roles as analyst, researcher, nurse, educator, and advocate.

Dr. Girouard's current research and policy interests include health and health care of older adults, food insecurity, social determinants of health, and strategies to enhance the organization, delivery and financing of health and health care. She has held positions in philanthropy, public service (elected & appointed), management and administration in professional organizations, healthcare and education, and serving on national, state and local committees. Her research has focused on the nursing workforce, evaluation, public policy and nursing education through publications, grantsmanship, service on several editorial boards and professional speaking. She holds a PhD in health & social policy from the Heller School, Brandeis University, Waltham, MA, a master of science in nursing from Yale University, New Haven, CT, a master of arts in medical sociology from the University of Connecticut, Storrs, CT, a bachelor of arts with a major in sociology from Eastern Connecticut State University, Willimantic, CT and a diploma in nursing from Hartford Hospital School of Nursing, Hartford, CT.

## SPEAKERS



### **SANSKRITI MISHRA, MD**

**Associate Director, Jaffe Stroke Center and  
Director of Stroke Education & Research,  
Maimonides; Assistant Professor of Neurology,  
SUNY Downstate**

Dr. Sanskriti Mishra is the the Associate Stroke Director and Director of Stroke Education and Research in the Department of Neurology. She is an Assistant Professor of Neurology at SUNY Downstate Health Sciences University. She completed her residency in Neurology at Memorial University of Newfoundland in Canada and fellowship in Vascular Neurology at North Shore University Hospital/Northwell Health in Manhasset, NY. Dr. Mishra's interests include hospital quality improvement, stroke in the young, and medical education. She is the site Principal Investigator of NIH-funded stroke trials such as ARCADIA, ASPIRE and SLEEP SMART. She is a member of American Heart Association/American Stroke Association, American Academy of Neurology and a fellow of the Royal College of Physicians & Surgeons of Canada.

## SPEAKERS



### **SUSAN LAW, MD**

**Director, Stroke Center, Department of Neurology, NYC Health and Hospitals/Kings County; Clinical Associate Professor of Neurology, SUNY Downstate**

As the Director of Stroke Services at Kings County Hospital Center (KCHC) and Clinical Associate Professor of Neurology at SUNY Downstate Medical Center, Dr. Susan Law is a stroke neurologist at one of the New York City's public city hospital. She is involved in multiple research projects and clinical trials including NIH and NINDS funded Phase III multicenter randomized control trials (ARCADIA). She continues to be active in the East Flatbush community by providing lectures on secondary stroke prevention.

Dr. Law received her BS from New York Institute of Technology and a DO from New York College of Osteopathic Medicine. She also holds an MPH in Epidemiology from SUNY Downstate School of Public Health. She completed her internship and neurology residency at SUNY Downstate Medical Center, along with a fellowship program in vascular neurology.

## SPEAKERS



### **JOHN K. KRAKAUER, MA, MD**

**Director, The Brain, Learning, Animation,  
and Movement Lab (BLAM), Johns Hopkins  
University School of Medicine; Co-founder of  
the KATA project**

Dr. Krakauer is currently John C. Malone Professor of Neurology, Neuroscience, and Physical Medicine and Rehabilitation, and Director of the Brain, Learning, Animation, and Movement Lab ([www.BLAM-lab.org](http://www.BLAM-lab.org)) at the John Hopkins University School of Medicine.

His areas of research interest are :

- (1) Experimental and computational studies of motor control and motor learning in humans
- (2) Tracking long-term motor skill learning and its relation to higher cognitive processes such as decision-making.
- (3) Prediction of motor recovery after stroke
- (4) Mechanisms of motor recovery after stroke in mouse and non-human primate models, as well as in humans.
- (5) New technology-based neuro-restorative behavioral training for neurological conditions and aging.

## SPEAKERS



### **JEFFREY L. SAVER MD**

**Director, UCLA Comprehensive Stroke and Vascular Neurology Program; Vice Chair of Clinical Research, Dept. of Neurology, David Geffen School of Medicine at UCLA**

Dr. Saver is SA Vice-Chair and Professor of Neurology at UCLA, and Director of the UCLA Comprehensive Stroke and Vascular Neurology Program. He trained at Harvard Medical School, the Harvard-Longwood Neurology Training Program (neurology), the University of Iowa (neurobehavior), and Brown (vascular neurology).

Author of over 600 research articles, 2 books, and 40 book chapters, Dr. Saver's research interests are in acute stroke treatment, stroke prevention, neuroimaging, clinical trial design, and neurocognitive consequences of stroke. He served as PI of the NIH-NINDS FAST-MAG trial, Global Co-PI of the SWIFT PRIME trial, and Chair of the American Heart Association Stroke Council. He is currently Associate Editor at JAMA, the Journal of the American Medical Association, and Consulting Editor at the journal Stroke.

## SPEAKERS



### **STEVEN RUDOLPH, MD**

**Director, Stroke Program & Chief of Neurology, Mount Sinai Brooklyn; Director, Tele-Stroke, Mount Sinai Health System, Foundation for Stroke Prevention**

Steven Rudolph, MD is a board-certified neurologist and Senior Faculty in the Department of Neurology at the Icahn School of Medicine at Mount Sinai with specialties in vascular neurology and tele-stroke. He serves as the Chief of Neurology at Mount Sinai Brooklyn, Director of Stroke for Mount Sinai Brooklyn as well as the Director of Tele-stroke for the Mount Sinai Health System. Director of Tele-stroke for the Mount Sinai Health System, as well as the Director of The Foundation for Stroke Prevention, a foundation he created that supports activities to improve the care of stroke patients.

Previously, Dr. Rudolph served as the Director of the Comprehensive Stroke Center and Tele-Stroke Services at Maimonides Medical Center in Brooklyn, New York.



## ABOUT

### **Jaffe Comprehensive Stroke Center & Maimonides Neurosciences Institute**

The Jaffe Comprehensive Stroke Center at Maimonides has been ranked among the top 1% of hospitals in the U.S. for outstanding stroke survival rates for 3 years running by the federal government (CMS) and is designated as a Comprehensive Stroke Center by The Joint Commission.

Maimonides has been on the American Heart Association Gold Plus Honor Roll for 12 consecutive years, and earned the Target Stroke Elite Plus award recognizing that at least 50% of patients are treated within 30 minutes of arrival.

Our team of neurologists, neurointerventionalists, neurosurgeons and neuroradiologists take an adaptive multidisciplinary approach 24 hours a day, 7 days a week, performing minimally invasive procedures and managing patients in state-of-the-art facilities.

Maimonides Neurosciences Institute is recognized for clinical excellence and is a leading center for neurosciences research and medical education. The Institute is comprised of the Divisions of Neurology, Neurosurgery, Neuroradiology, Neurocritical Care, and the Jaffe Comprehensive Stroke Center.

### **SUNY Downstate Health Sciences University**

Designated as a Primary Stroke Center by the NYS Department of Health, SUNY Downstate is recognized for providing high standards of care for the diagnosis and management of

stroke patients in Brooklyn. Using advanced multi-modal diagnostic imaging studies, it offers cutting-edge medical therapy for ischemic stroke.

SUNY Downstate is the first and leading university hospital and clinical research center in Brooklyn and one of the leading cerebrovascular research centers in the country. It offers stroke prevention education and screening through community outreach programs to the population it serves.

Maimonides and SUNY Downstate formed a partnership in 2017 to expand delivery of and access to high quality neurosciences care in Brooklyn. Together we have a joint Department of Neurology, led by Regional Chair, Dr. Daniel Rosenbaum.

### **NYC Health & Hospitals / Kings County**

NYC Health & Hospitals /Kings County is a safety net, community-based hospital with a rich legacy for its pioneering role in medicine. The hospital remains on the cutting edge of technology and provides the most modern procedures with state-of-the-art equipment. Since 2008, it has been a NYS-designated stroke center. NYC Health & Hospitals/Kings County has earned the American Heart Association's Gold Plus 10 years in a row and in 2018 attained advanced primary stroke certification by The Joint Commission. NYC Health & Hospitals/Kings County participates in the elite NYS Coverdell Stroke Quality Improvement and Registry Program. The hospital is dedicated to providing the highest standards in stroke care to the Brooklyn community.

## CONTINUING EDUCATION ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the accreditation requirements and Policies of the Medical Society of the State of New York (MSSNY) through the joint providership of Maimonides Medical Center and SUNY Downstate Health Sciences University. Maimonides Medical Center is accredited by The Medical Society of the State of New York (MSSNY) to provide continuing medical education for physicians.

Maimonides Medical Center designates this Live Activity for a maximum of **8.0 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The planners of this activity have no relevant financial relationships to disclose. This activity has been funded in part by unrestricted educational grants from iSchemiaView, Microvention, Penumbra and Stryker.