

THE NEW YORK STEM CELL FOUNDATION INVESTIGATOR PROGRAM

*Scientists leading their generation in
cutting edge research*



NYSCF

**The New York
Stem Cell Foundation**

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THE NYSCF INVESTIGATOR PROGRAMS

The NYSCF Investigator Programs provide five years of critical seed funding to outstanding early career scientists, supporting them as they move beyond their postdoctoral training to establish their own, independent research.

The NYSCF Stem Cell Investigator Program supports scientists engaged in cutting-edge translational stem cell research with the potential to accelerate the path from bench to bedside.

The NYSCF Neuroscience Investigator Program supports truly innovative neuroscientists whose research holds the potential to transform our fundamental understanding of the brain and how it functions.

Through these unique programs, NYSCF supports the most promising and creative young scientists, focusing on high-risk/high-reward projects, and builds on the success of the NYSCF Postdoctoral Fellowship Program.

“ The NYSCF Investigator Program gives us support that is unrestricted, and it says, ‘We believe in you, and we have faith in you as a scientist. Now go do something big.’ And because of this, we can really go after the ideas that will have the greatest scientific impact. ”

Gaby Maimon, PhD

2011 NYSCF — Robertson
Neuroscience Investigator

2014 NYSCF – ROBERTSON STEM CELL INVESTIGATORS



VALENTINA GRECO, PhD

Yale University

Dr. Greco is an Associate Professor at Yale University where she is utilizing genetic, live imaging, and genomic approaches to capture the emergence of cancer by live imaging to transform current therapeutic strategies to cure and prevent cancer. She completed her postdoctoral training at The Rockefeller University.



**JENNIFER E. PHILLIPS-CREMINS,
PhD**

University of Pennsylvania

Dr. Phillips-Cremins is an Assistant Professor at the University of Pennsylvania where her lab focuses on understanding the mechanisms that govern producing healthy neurons from stem cells and how these mechanisms go awry during the onset of neurodegenerative diseases. She completed her postdoctoral training at Emory University and UMass Medical School.



FENG ZHANG, PhD

**Broad Institute of MIT and Harvard
and Massachusetts Institute
of Technology**

Dr. Zhang is a Core Member of the Broad Institute and the W. M. Keck Career Development Professor of Biomedical Engineering at MIT where he is developing and applying disruptive technologies including optogenetics and genome engineering (TALEs and CRISPR) to understand nervous system function and disease. He completed his postdoctoral training at Harvard.

2014 NYSCF – ROBERTSON NEUROSCIENCE INVESTIGATORS



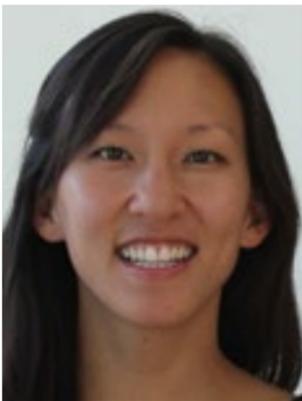
EDWARD CHANG, MD
**University of California,
San Francisco**

Dr. Chang is a neurosurgeon, Chief of Epilepsy and Pain Neurosurgery, and an Associate Professor at the University of California, San Francisco, where he specializes in advanced clinical brain mapping methods, including awake speech mapping, to safely perform neurosurgical procedures in eloquent areas of the brain. He completed his postdoctoral training at UC Berkeley.



LISA GIOCOMO, PhD
**Stanford University
School of Medicine**

Dr. Giocomo is an Assistant Professor at Stanford University, where her lab integrates a variety of disciplines and tools to study how single-cell biophysics and network dynamics interact to mediate spatial memory and navigation. She completed her postdoctoral studies at The Norwegian University of Science and Technology.



KAY M. TYE, PhD
**Massachusetts Institute
of Technology**

Dr. Tye is an Assistant Professor at Massachusetts Institute of Technology where her lab focuses on understanding how the brain processes the differences between positive and negative stimuli, and leveraging cutting-edge techniques to reprogram neural circuits to induce long lasting changes in behavior. She completed her postdoctoral training at Stanford University.

2013 NYSCF – ROBERTSON STEM CELL INVESTIGATORS



KRISTEN BRENNAND, PhD

Icahn School of Medicine at Mount Sinai

Dr. Brennand is an Assistant Professor of Psychiatry at the Icahn School of Medicine at Mount Sinai where her research focuses on schizophrenia, a debilitating psychiatric disorder with no cure. She completed her postdoctoral research at the Salk Institute for Biological Studies.



JACOB HANNA, MD, PhD

Weizmann Institute of Science

Dr. Hanna is a Senior Scientist in the Department of Molecular Genetics at the Weizmann Institute of Science in Israel, where he explores topics in embryonic stem cell biology, early embryonic development and the modeling of human diseases. His research holds the promise of creating powerful research models for degenerative and autoimmune diseases such as type 1 diabetes. He completed his postdoctoral studies at the Whitehead Institute for Biomedical Research at MIT.



JAY RAJAGOPAL, MD

Harvard Medical School

Dr. Rajagopal is an Assistant Professor at the Harvard Stem Cell Institute and the Center for Regenerative Medicine at the Massachusetts General Hospital, where his laboratory focuses on the application of stem cells and regenerative biology to human lung disease. He completed his postdoctoral research at Harvard University.

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WINRICH FREIWALD, PhD

The Rockefeller University

Dr. Freiwald is an Assistant Professor at The Rockefeller University where he heads the Laboratory of Neural Systems. His work focuses on the neural circuit mechanisms of face recognition, attention, and social cognition. He completed his postdoctoral training at MIT and Harvard Medical School.



DANIEL HUBER, PhD

University of Geneva

Dr. Huber is an Assistant Professor in the Department of Basic Neurosciences at the University of Geneva, where his lab currently combines novel behavioral paradigms with electrophysiology and innovative optical imaging tools to study how different areas of the frontal cortex interact during decision-making and the control of goal-directed action. He completed his postdoctoral studies at the Cold Spring Harbor Laboratories and at the Janelia Farm Research Campus.



ZACHARY KNIGHT, PhD

University of California, San Francisco

Dr. Knight is an Assistant Professor in the Department of Physiology at University of California, San Francisco (UCSF), where his lab is developing new technologies for mapping neural circuits by sequencing RNA and using these tools to identify the cells that control innate behaviors such as feeding. He completed his postdoctoral research at The Rockefeller University.



MELISSA WARDEN, PhD

Cornell University

Dr. Warden is an Assistant Professor in the Department of Neurobiology and Behavior at Cornell University and a Miriam M. Salpeter Fellow. Her work integrates neurophysiological, imaging, and cellular and molecular approaches to the understanding of neural circuits mediating reward, motivation, and learning. She completed her postdoctoral studies at Stanford University.

2012 NYSCF – ROBERTSON STEM CELL INVESTIGATORS



DEEPTA BHATTACHARYA, PhD

**Washington University
School of Medicine**

Dr. Bhattacharya is an Assistant Professor in the Department of Pathology and Immunology at Washington University School of Medicine in St. Louis. His lab focuses on stem cell-based approaches for the treatment of immune deficiencies and on the molecular and cellular mechanisms of resistance to viral infections. He completed his postdoctoral studies at Stanford University.



DIETER EGLI, PhD

The NYSCF Research Institute

Dr. Egli is a Senior Research Fellow at The New York Stem Cell Foundation Research Institute. His research focuses on the generation of therapeutically relevant cells for the treatment of diabetes. His work has relevance for the use of stem cells to study disease, screen for new drugs, and cell replacement therapy. His research creating patient-specific stem cells using the DNA of patients with type 1 diabetes, first published in *Nature* in October 2011, was named the #1 Medical Breakthrough of 2011 by *TIME* magazine, which also named him one of 2011's People Who Mattered. He completed his postdoctoral studies at Harvard University. He received a NYSCF - Druckenmiller Fellowship in 2008.



ALEXANDER MEISSNER, PhD

**Harvard University
Broad Institute of MIT and Harvard**

Dr. Meissner is an Associate Professor at Harvard University and a senior associate member of the Broad Institute of MIT and Harvard. He is developing and applying next generation sequencing technologies to the human genome with the goal of better understanding normal and diseased cellular states and how to alter them. He completed his postdoctoral studies at the Whitehead Institute for Biomedical Research at MIT.

2012 NYSCF – ROBERTSON NEUROSCIENCE INVESTIGATORS



CHRISTOPHER HARVEY, PhD

Harvard Medical School

Dr. Harvey is an Assistant Professor in the Department of Neurobiology at Harvard Medical School, where his lab focuses on understanding the neuronal circuit mechanisms underlying short-term memory and decision-making, using a range of imaging, electrophysiological, genetic, and behavioral approaches. He completed his postdoctoral studies at Princeton University.



MICHAEL A. LONG, PhD

New York University School of Medicine

Dr. Long is an Assistant Professor in the Departments of Physiology and Neuroscience and Otolaryngology at New York University School of Medicine. His work focuses on developing approaches that adapt modern imaging and electrophysiological tools to the study of neural circuits underlying the production of skilled motor behaviors. He completed his postdoctoral studies at Massachusetts Institute of Technology.



VANESSA RUTA, PhD

The Rockefeller University

Dr. Ruta is an Assistant Professor of Neurophysiology and Behavior at The Rockefeller University, where her lab is using novel methods to trace and probe neural circuits to gain insight into the neural basis for innate and adaptive behaviors. She completed her postdoctoral studies at Columbia University.

2011 NYSCF – ROBERTSON STEM CELL INVESTIGATORS



PAOLA ARLOTTA, PhD

Harvard University

Dr. Arlotta is an Associate Professor at Harvard University, where she investigates the mechanisms that control the development, regeneration and assembly of neurons in the cerebral cortex. Much of her work is aimed at identifying regenerative strategies for neurodegenerative and traumatic diseases of the corticospinal tract, including Amyotrophic Lateral Sclerosis (ALS) and spinal cord injury. She completed her postdoctoral research at Harvard Medical School.



GABSANG LEE, PhD

**Johns Hopkins University
School of Medicine**

Dr. Lee is currently Assistant Professor in the Department of Neurology and Neuroscience at Johns Hopkins University School of Medicine, where he studies Familial Dysautonomia. During his time as a 2009 NYSCF - Druckenmiller Fellow at Memorial Sloan Kettering Cancer Center, he established a novel methodology for direct derivation and prospective isolation of neural crest cells derived from human pluripotent stem cells.



RAVI MAJETI, MD, PhD

Stanford University

Dr. Majeti is an Assistant Professor in the Department of Medicine, Division of Hematology, and Institute for Stem Cell Biology and Regenerative Medicine at Stanford University, where he focuses on the molecular/genomic characterization and therapeutic targeting of leukemia stem cells in human hematologic malignancies. He completed his postdoctoral studies at Stanford University.

2011 NYSCF – ROBERTSON NEUROSCIENCE INVESTIGATORS



ED BOYDEN, PhD
**Massachusetts Institute
of Technology**

Dr. Boyden is the AT&T Career Development Professor and Associate Professor of Biological Engineering and Brain and Cognitive Sciences at the MIT Media Lab and the MIT McGovern Institute. He

leads the Synthetic Neurobiology Group, which develops tools for controlling and observing the dynamic circuits of the brain, and uses these neurotechnologies to enable systematic repair of intractable brain disorders such as epilepsy, Parkinson's disease, post-traumatic stress disorder, and chronic pain. He completed his postdoctoral research at Stanford University



CHRISTOPHER GREGG, PhD
University of Utah

Dr. Gregg is an Assistant Professor at the University of Utah, researching the function and regulation of imprinted genes expressed in circuits of the brain that modulate feeding and motivated behaviors. Dr. Gregg completed his postdoctoral research

at Harvard University.



GABY MAIMON, PhD
The Rockefeller University

Dr. Maimon is an Assistant Professor at The Rockefeller University, where his work focuses on the mechanisms of cognition and integrative brain function. He was the recipient of a Della Martin fellowship from The California Institute of Technology in

2006 and was named one of *Popular Science* magazine's "Brilliant 10" of 2011. He completed his postdoctoral research at the California Institute of Technology.



TAKAKI KOMIYAMA, PhD
University of California, San Diego

Dr. Komiyama is an Assistant Professor in the Neurobiology Section and the Department of Neurosciences at University of California, San Diego. During his postdoctoral training at Howard Hughes Medical Institute, he

pioneered the use of *in vivo* two-photon calcium imaging to study learned behavior.

2010 NYSCF – ROBERTSON STEM CELL INVESTIGATORS



SHUIBING CHEN, PhD

Weill Cornell Medical College

Dr. Chen is an Assistant Professor in the Department of Surgery at Weill Cornell Medical College where she uses stem cells to find new treatments and cures for diabetes. She conducted her postdoctoral studies at Harvard University to study the directed differentiation of human embryonic stem cells toward the pancreatic lineage.



DERRICK ROSSI, PhD

Harvard University

Dr. Rossi is an Assistant Professor at Harvard University, where he works on programming cells into clinically useful cell types including liver cells, blood cells, and induced pluripotent stem cells. *TIME* magazine cited Dr. Rossi's discovery of modified-mRNA reprogramming as one of the top ten medical breakthroughs of 2010. *TIME* magazine also named Dr. Rossi as one of "People Who Mattered" in 2010, and as one of the 100 Most Influential People (Time 100) in 2011. He completed his postdoctoral studies at Stanford University.



PAUL TESAR, PhD

**Case Western Reserve University
School of Medicine**

Dr. Tesar is an Associate Professor and Director of the Pluripotent Stem Cell Facility at Case Western Reserve School of Medicine, where he works on directed differentiation of stem cells into oligodendrocytes to study diseases such as multiple sclerosis. As a postdoctoral fellow at the National Institute of Neurological Disorders and Stroke at the National Institutes of Health, he discovered epiblast stem cells.



MARIUS WERNIG, MD, PhD

Stanford University

Dr. Wernig is an Associate Professor at the Institute for Stem Cell Biology and Regenerative Medicine and the Department of Pathology at Stanford University, where his lab investigates the mechanisms that determine cell fate identity. He completed his postdoctoral research at Whitehead Institute for Biomedical Research at MIT.

2010 NYSCF – HELMSLEY STEM CELL INVESTIGATORS



VALENTINA FOSSATI, PhD

The NYSCF Research Institute

Dr. Fossati is using skin samples from patients with multiple sclerosis to create the oligodendrocytes affected by the disease. She previously worked on the development of the immune system, initially focusing on B lymphocytes, and as a postdoctoral fellow, on the generation of thymic epithelial cells from embryonic stem cells. Dr. Fossati received a NYSCF–Druckenmiller Fellowship in 2009 and conducted her postdoctoral studies at the Icahn School of Medicine at Mount Sinai.



DARJA MAROLT, PhD

The NYSCF Research Institute

Dr. Marolt works to develop tissue engineering approaches to repair and generate bone using stem cells. She has also spent time working at the Blood Transfusion Center of Slovenia and the MIT-Harvard Division of Health Science and Technology. She received a NYSCF–Druckenmiller Fellowship in 2007 and conducted her postdoctoral studies at Columbia University.

“The collaborations with NYSCF Investigators have enabled me to expand my research scope and directions in ways that I had not previously imagined.”

Kristen Brennand, PhD

2013 NYSCF — Robertson
Stem Cell Investigator

IMPACT

Since its inception, **The New York Stem Cell Foundation Investigator Program** has supported **32** investigators from **20** different institutions throughout the world.

As a group, these investigators have published over **830** publications throughout their careers including:

35 papers in *Cell*

40 papers in *Cell Stem Cell*

83 papers in *Nature*

30 papers in *Nature Biotechnology*

22 papers in *Neuron*

30 papers in *Science*





1. Dr. Alex Meissner; 2. Drs. Marius Wernig and Valentina Fossati; 3. Dr. Deepta Bhattacharya; 4. Dr. Paola Arlotta; 5. Drs. Ed Boyden and Bjarki Johannesson; 6. NYSCF Investigators; 7. Dr. Michael Long; 8. Drs. Dieter Egli and Shuibing Chen



THE NEW YORK STEM CELL FOUNDATION

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ABOUT THE NEW YORK STEM CELL FOUNDATION

The mission of The New York Stem Cell Foundation is to accelerate cures for the major diseases of our time through stem cell research.

Our programs:

The NYSCF Research Institute: Conducting the most advanced stem cell research in our laboratory and through collaborations with leading scientists at major medical research institutions.

NYSCF Fellowship and Investigator Programs: Supporting the next generation of scientists both at the postdoctoral level as fellows and as early career investigators, pursuing innovative work that translates research into cures.

NYSCF Conference and Symposia: Convening the preeminent annual translational stem cell research conference and an ongoing series of programs to engage scientists, policymakers and the public.

NYSCF – Robertson Prize: Honoring the most significant achievements from an outstanding young scientist in stem cell research each year.