

# THE NEW YORK STEM CELL FOUNDATION INVESTIGATOR PROGRAM

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*Scientists leading their generation in  
cutting edge research*



## 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 neuroscience with 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 community of investigators is absolutely phenomenal. I have met many scientists who have great insight into my work, and I have actually established collaborations through this network of investigators.”

**Christopher Harvey, PhD**  
2012 NYSCF — Robertson  
Neuroscience Investigator

## 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 received her PhD from Harvard

University, and 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 received his MD and PhD from Hebrew University of Jerusalem in Israel, and 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 received his MD from Harvard Medical School, and completed his postdoctoral research at Harvard University.

## 2013 NYSCF – ROBERTSON NEUROSCIENCE INVESTIGATORS



**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 received his PhD from

the Max-Planck-Institute for Brain Research. 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. Dr. Huber studied Zoology in Zürich and received his PhD from the University of Lausanne. 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. Dr. Knight received his PhD from UCSF, and 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. Dr. Warden received her PhD from MIT, and completed her postdoctoral studies at Stanford.

## 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 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 Assistant 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.

## 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 MIT.



**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 School of Medicine, where he continues his research on 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 Benesse 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. Dr. Boyden received his PhD in neurosciences from Stanford University as a Hertz Fellow.



**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 studies 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. 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 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 currently Assistant 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 Assistant 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.



### **DARJA MAROLT, PhD**

#### **The NYSCF Research Institute**

Currently, Dr. Marolt is working 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.

“The NYSCF Investigator Program is a really remarkable program to encourage and allow young investigators like myself to tackle risky but important problems in science. I am very appreciative of the unique intellectual freedom that it allows.”

#### **Vanessa Ruta, PhD**

2012 NYSCF — Robertson  
Neuroscience Investigator

# NYSCF

The New York  
Stem Cell Foundation

## 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.