

Paula Grisanti 502-379-8544 paula@nationalstemcellfoundation.org



Maurie Perl 212-365-7443 mperl@nyscf.org

NATIONAL STEM CELL FOUNDATION FUNDS RESEARCH AT NEW YORK STEM CELL FOUNDATION RESEARCH INSTITUTE TO ADVANCE UNDERSTANDING OF CELL CROSS-TALK IN NEURODEGENERATION

Louisville, KY and New York, NY (July 18, 2016) – The National Stem Cell Foundation (NSCF) and the New York Stem Cell Foundation (NYSCF) Research Institute announced today that a grant from NSCF will be used to fund NYSCF research being conducted by Dr. Valentina Fossati, a NYSCF Senior Investigator, and her team. The researchers are studying how astrocytes, the "power convertors" of cells in the central nervous system (CNS), can be manipulated to halt or prevent neurodegeneration. Understanding cross-talk between cells in the central nervous system is the next frontier for the development of new therapies to treat MS (multiple sclerosis), Parkinson's disease, ALS (Lou Gehrig's disease) and other disorders.

NYSCF's MS research focuses on the role astrocytes play in the loss or destruction of myelin, the insulation around nerve fibers that allows messages to be transmitted from the brain to other parts of the body. Reprogramming cells to halt myelin loss would prevent the loss of function caused by myelin damage in multiple sclerosis.

Dr. Paula Grisanti, CEO and Chair of the National Stem Cell Foundation said, "The National Stem Cell Foundation is delighted to be funding Dr. Fossati's very promising research at the New York Stem Cell Foundation Research Institute. It is our goal to fund collaborations that will accelerate the development and availability of cell therapies with the greatest potential for immediate impact. This research has the potential to fundamentally alter our understanding of how and why neurodegeneration occurs."

NYSCF's development of novel protocols for re-engineering a patient's own cells to generate functional astrocytes and oligodendrocytes (myelin-producing cells) significantly advances an understanding of how cells communicate in the CNS. The ability to create a healthy, ongoing source of the patient's own myelin-producing cells would represent an important step forward in the development of cell-based therapies to halt and reverse MS damage. This grant will advance prior work in this area conducted by NYSCF.

"Every day, we are working to find new treatments - and even cures - for multiple sclerosis and neurodegenerative diseases," said NYSCF CEO Susan L. Solomon. "This support from the National Stem Cell Foundation is important as we pursue all avenues of investigation to create a better understanding of the biology behind MS and many other diseases. Our hope is that this research will allow people to live longer with a better quality of life."

Multiple sclerosis (MS) is a chronic, inflammatory, demyelinating disease of the central nervous system that affects more than 400,000 people in the U.S. and 2.5 million people worldwide. Approximately 200 new cases are diagnosed in the U.S. each week. It is the most common disabling neurological disease of young adults, most often diagnosed between the ages of 20 and 40, but increasingly diagnosed in children and adolescents. An estimated 8,000–10,000 children in the U.S. have multiple sclerosis and another 10,000-15,000 have experienced at least one symptom suggestive of the disease.

About the National Stem Cell Foundation

The National Stem Cell Foundation is a 501(c)3 non-profit organization funding stem cell and regenerative medicine research and clinical trials in four primary focus areas: Neurodegenerative Disease, Autoimmune Disease, Rare Childhood Disorders and Regenerative Repair. NSCF funds promising developments in the field of regenerative medicine, supports research collaboration wherever possible and works to accelerate access to scientific breakthroughs for people in need. For more information, visit <u>www.nationalstemcellfoundation.org</u>

About The New York Stem Cell Foundation Research Institute

The New York Stem Cell Foundation (NYSCF) Research Institute is an independent organization accelerating cures and better treatments for patients through stem cell research. The NYSCF Research Institute employs over 45 researchers in New York, and is an acknowledged world leader in stem cell research and in developing pioneering stem cell technologies, including the NYSCF Global Stem Cell ArrayTM. Additionally, NYSCF supports over 85 researchers at other leading institutions worldwide through its Innovator Programs, including the NYSCF – Druckenmiller Fellowships and the NYSCF – Robertson Investigator Awards. NYSCF focuses on translational research in a model designed to overcome the barriers that slow discovery and replace silos with collaboration. For more information, visit www.nyscf.org

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