

List of Current Research Projects Funded by the National MS Society

Sorted by Topic

April 2013

Research Programs Department National Multiple Sclerosis Society 733 Third Avenue New York, NY 10017-3288 (212) 476-0417

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Introduction

The National MS Society is committed to a world free of MS, advancing a comprehensive strategy of promising research aimed at stopping the progression of the disease and restoring function for all those living with the disease; and ultimately ending MS forever. Since its founding in 1946, the Society has propelled research forward into many of the currently available therapies and treatments by allocating some \$820 million.

We support a unique, comprehensive approach that funds research activities spanning all types and stages of research ensuring that promising paths are not overlooked. Whether it's academic and early discovery research, translational research tests ideas for use in people, or the commercial development that results in therapeutic solutions for testing, and clinical trials, we drive promising research that can impact those living with multiple sclerosis.

The Society's Strategic Response to MS for 2011–2015 focuses on achieving these objectives:

- Better understanding the scientific mechanisms that lead to disease progression and accelerating the development of new therapies;
- Pursuing new avenues to discover how nerve cells are damaged and potentially repaired;
- Fostering new rehabilitation techniques and symptomatic treatments to restore neurological function and enhance quality of life;
- Identifying risk and triggering factors that cause MS, and understanding the biological interactions that lead to its development so that MS can be prevented; and
- Expanding and strengthening the quantity and quality of MS research worldwide to accelerate new discoveries and treatments for people with MS.

For more information about our research programs and directions, download this brochure: Research Directions in MS: Progress & Strategies (http://www.nationalmssociety.org/multimedia-library/brochures/general-information/download.aspx?id=34)

For more information about Fast Forward, visit our Website: www.FastForward.org

This document lists current MS research projects supported by the National MS Society as of April 1, 2013. They are sorted by strategic topic areas aimed at stopping MS, restoring function, and ending MS forever.

About Our Research Projects

The types of awards are indicated for each project:

Research Grant – full grants for basic, clinical and rehabilitation research; **Fast Forward Merck-Serono Fund** – Through FAST FORWARD, the Society has a 5-year strategic alliance with EMD Serono/Merck KGaA to speed drug development through the MS pipeline. This partnership releases requests for proposals on specific topics each year, and supports both commercially oriented academic programs and early stage biotechnology companies.

Fast Forward General Fund – The Society's FAST FORWARD General Fund supports proposals on strategic topics. For 2013, General Fund partnerships aim at strategies for addressing progressive MS and approaches to protecting the nervous system from damage (neuroprotection) and ways to repair the nervous system to restore function.

Strategic Initiative - special projects that focus on core resources or other important unmet research needs;

Collaborative MS Research Center Awards - five-year awards to help stimulate creativity and interaction among investigators working within and outside MS fields; Career Transition Fellowships – awards up to five years to facilitate the advancement of promising young investigators into full faculty positions; Postdoctoral fellowships – research projects by young investigators, working under the mentorship of senior scientists, to provide training and experience in MS research;

Sylvia Lawry Physician Fellowships - young doctors working under the mentorship of seasoned clinicians, to provide training and experience in conducting clinical trials in people with MS;

Harry Weaver Neuroscience Scholarships – special five-year projects by promising young investigators just starting their careers as independent researchers;

NMSS/American Brain Foundation Clinician Scientist Development Award — to train physicians in MS clinical research;

Mentor-based postdoctoral rehabilitation fellowships -- to enhance research into MS rehabilitation to improve quality of life;

Pilot Research Grants -- aimed at exploring new, untested ideas;

Health Care Delivery & Policy Contracts -- initiated by the Society and awarded on a competitive basis to investigators studying subjects identified as mission priorities.

You will find for selected projects an indication of restricted support that has been provided from individuals, groups, families, or chapters to underwrite the project. This is listed in italic typeface directly beneath the project title.

TABLE OF CONTENTS

The National MS Society funds research projects worldwide to stop MS, restore what's been lost, and to end MS forever. A list of all of our currently active projects follows, sorted according to these goals. Many projects fit into several goals, so you will find different projects focusing on therapy/management of MS, genetics, epidemiology, neuropathology, health care delivery and others in several categories.

STOP	6
Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS	6
Myelin/Glial Biology - Investigating how myelin is formed and the role played by oligodendroc and other nervous system support cells in MS.	yte: 11
Nervous System (CNS) Repair - Searching for ways to stop and reverse tissue damage in MS	13
Diagnostic Methods - Investigating ways to improve the diagnosis of MS	14
Epidemiology - Investigating who gets MS in search of the cause and risk/ protective factors	16
Health Care Delivery/Policy - Studying how people with MS utilize health-care services and how health-care delivery can be improved	w 17
Immunology - Exploring the role of the immune system in the development and progression of to find ways to stop the immune attack on nervous tissues	f MS 18
Infectious Triggers - Examining the possibility that viruses or bacteria could act as disease trigg in MS	ers 35
Measuring MS Disease Activity - Using sophisticated tools to track MS activity over time	35
Neuropathology - Exploring how nerve fibers and cells are damaged during the course of MS	39
Neuropharmacology/Neurophysiology - Exploring how nerve fibers and cells work normally a in the disease state, and responses to pharmacological agents	nd 42
STOP, RESTORE	43
Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS	43
Measuring MS Disease Activity - Using sophisticated tools to track MS activity over time	47
Psychosocial Aspects of MS - Understanding how MS effects cognitive functioning and other aspects of quality of life	48
Myelin/Glial Biology - Investigating how myelin is formed and the role played by oligodendroc and other nervous system support cells in MS.	yte: 49
Nervous System (CNS) Repair - Searching for ways to stop and reverse tissue damage in MS	53
Epidemiology - Investigating who gets MS in search of the cause and risk/ protective factors	56
Health Care Delivery/Policy - Studying how people with MS utilize health-care services and how health-care delivery can be improved	w 56
Genetics - Searching for genes that make people susceptible to MS or otherwise influence the disease, for clues to its cause and better treatment	57
Immunology - Exploring the role of the immune system in the development and progression of to find ways to stop the immune attack on nervous tissues	f MS 57
Neuropathology - Exploring how nerve fibers and cells are damaged during the course of MS	59
Neuropharmacology/Neurophysiology - Exploring how nerve fibers and cells work normally a in the disease state, and responses to pharmacological agents	nd 59

RESTORE	60
Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS	60
Psychosocial Aspects of MS - Understanding how MS effects cognitive functioning and other aspects of quality of life	61
Rehabilitation - Seeking ways to maximize physical and mental abilities and reduce symptoms	62
Myelin/Glial Biology - Investigating how myelin is formed and the role played by oligodendrocy and other nervous system support cells in MS.	tes 69
Nervous System (CNS) Repair - Searching for ways to stop and reverse tissue damage in MS	74
Health Care Delivery/Policy - Studying how people with MS utilize health-care services and how health-care delivery can be improved	v 80
Immunology - Exploring the role of the immune system in the development and progression of to find ways to stop the immune attack on nervous tissues	MS 81
Measuring MS Disease Activity - Using sophisticated tools to track MS activity over time	81
Neuropathology - Exploring how nerve fibers and cells are damaged during the course of MS	82
Physiology – Understanding how MS may impact functions of the body	83
END	83
Epidemiology - Investigating who gets MS in search of the cause and risk/ protective factors Genetics - Searching for genes that make people susceptible to MS or otherwise influence the	83
disease, for clues to its cause and better treatment	84
Infectious Triggers - Examining the possibility that viruses or bacteria could act as disease trigge in MS	ers 86
STOP, END	87
Epidemiology - Investigating who gets MS in search of the cause and risk/ protective factors Immunology - Exploring the role of the immune system in the development and progression of to find ways to stop the immune attack on nervous tissues	87 MS 87
STOP, RESTORE, END	89
Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS	89
Tissue/DNA Banks – Shared resource of tissues and DNA banks that accumulate and store specimens for use by MS investigators	89

STOP

Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS

Brandon Beaber, M.D. Award: Clinical Care Physician

Kaiser Foundation Hospitals Fellowship

Los Angeles, CA Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2013-6/30/2014 (Pending)

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Pavan Bhargava, M.B.B.S., M.D. Award: Sylvia Lawry Physician

Johns Hopkins University Fellowship

Springfield, IL Funding: \$130,000

Topic Area: Therapy/Management of Term: 7/1/2013-6/30/2015

MS/STOP

"Clinical research fellowship in Neuroimmunology: the application describes a training plan for a proposed fellowship at Johns Hopkins University under the mentorship of Dr.Peter Calabresi." Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

MS Society UK Award: Strategic Initiative

London, United Kingdom Funding: \$175,000

Topic Area: Therapy/Management of Term: 10/1/2012-9/30/2013

MS/STOP

"Secondary Progressive MS Clinical Trial Syndicate" Support for a clinical trial to test the ability of multiple compounds to slow or stop MS progression in people with secondary-progressive MS.

Robert Carruthers, M.D. Award: Clinical Care Physician

Brigham and Women's Hospital Fellowship

Brookline, MA Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2013

MS/STOP

"Multiple Sclerosis Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Melissa Cortez, D.O. Award: Clinical Care Physician

Mayo Clinic Scottsdale Fellowship

Salt Lake City, UT Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2013

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Helga de Vries, Ph.D. Award: Pilot Research Grant

VU University Medical Center Funding: \$39,953

Amsterdam, The Netherlands Term: 10/1/2012-9/30/2013

Topic Area: Therapy/Management of

MS/STOP

"MicroRNAs, novel tools for treatment ofmultiple sclerosis" Identifying regulators that should protect the brain but fail in MS, and their possible use in therapeutic strategies to stop the immune attack.

Sheila Donnelly, Ph.D. Award: Pilot Research Grant

University of Technology, Sydney Funding: \$39,000

Sydney, Australia Term: 6/1/2012-5/31/2013

Topic Area: Therapy/Management of

MS/STOP

"Treatment of Multiple Sclerosis with parasite immunomodulatory molecules"

The effect of several molecules secreted by a common parasite that may suppress the immune attack in MS.

Elizabeth Dragan, M.D. Award: Clinical Care Physician

Baylor College of Medicine Fellowship

Houston, TX Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2013

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Rebecca Farber, M.D. Award: Sylvia Lawry Physician

Mount Sinai School of Medicine Fellowship

New York, NY Funding: \$195,000

Topic Area: Therapy/Management of Term: 7/1/2013-6/30/2016 (Pending)

MS/STOP

"Fellowship Corinne Goldsmith Dickinson Center for Multiple Sclerosis at Mount Sinai School of Medicine" Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Carrie Hersh, D.O. Award: Sylvia Lawry Physician

The Cleveland Clinic Foundation Fellowship

Cleveland, OH Funding: \$195,000

Topic Area: Therapy/Management of Term: 7/1/2013-6/30/2016

MS/STOP

"Training in multiple sclerosis diagnosis, management, and clinical trials"

Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Annette Langer-Gould, M.D., Ph.D. Award: Research Grant Kaiser Foundation Hospitals Funding: \$509,149

Pasadena, CA Term: 10/1/2012-9/30/2015

Topic Area: Therapy/Management of

MS/STOP

"Modifiable Risk Factors of Postpartum MS Relapses" Exploring factors that may affect the risk of an MS relapse after delivery of a child.

Megan Langille, M.D. Award: Clinical Care Physician

Children's Hospital of Los Angeles Fellowship

Los Angeles, CA Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2013-6/30/2014

MS/STOP

"MS Clinical Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Erin Longbrake, M.D., Ph.D. Award: Sylvia Lawry Physician

Washington University School of Fellowship

Medicine Funding: \$195,000

St Louis, MO Term: 7/1/2013-6/30/2016

Topic Area: Therapy/Management of

MS/STOP

"Clinical and Translational Research Training in Multiple Sclerosis" Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Fred Lublin, M.D. Award: Strategic Initiative

Mount Sinai School of Medicine Funding: \$189,974

New York, NY Term: 6/1/2012-5/31/2013

Topic Area: Therapy/Management of

MS/STOP

"CombiRx Bridge Grant" Support to maintain a clinical trial cohort.

Owen McCarty, Ph.D.

Oregon Health & Science University

Portland, OR

Topic Area: Therapy/Management of

MS/STOP

"Development of WE-thrombin for the treatment of MS" Testing whether a novel compound can reduce MS-like disease in mice, for clues to developing it as a strategy to treat MS.

William Meador, M.D.

University of Alabama at Birmingham

Birmingham, AL

Topic Area: Therapy/Management of

MS/STOP

Award: Clinical Care Physician

Award: Pilot Research Grant

Term: 10/1/2012-9/30/2013

Funding: \$44,000

Fellowship

Funding: \$65,000

Term: 7/1/2013-6/30/2014 (Pending)

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Ellen Mowry, M.D.

Johns Hopkins University

Baltimore, MD

Topic Area: Therapy/Management of

MS/STOP

Award: Research Grant Funding: \$1,312,902

Term: 4/1/2011-3/31/2014

"A randomized controlled trial of vitamin D supplementation in multiple sclerosis" A clinical trial investigating whether vitamin D supplements can alter d

sclerosis" A clinical trial investigating whether vitamin D supplements can alter disease activity in people with MS who are taking a standard therapy.

Funded in part by a gift from the National MS Society Greater Delaware Valley Chapter

Sona Narula, M.D.

Children's Hospital of Philadelphia

Philadelphia, PA

Topic Area: Therapy/Management of

MS/STOP

Award: Clinical Care Physician

Fellowship

Funding: \$65,000

Term: 7/1/2013-6/30/2014 (Pending)

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Sara Qureshi, M.D. Award: Clinical Care Physician

The University of Texas Southwestern Fellowship

Medical Center Funding: \$65,000

New York, NY Term: 7/1/2013-6/30/2014 (Pending)

Topic Area: Therapy/Management of

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Jessica Robb, M.D. Award: Clinical Care Physician

University of Rochester Fellowship

Rochester, NY Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2013

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Alessandro Serra, M.D. Award: Clinical Care Physician

The Cleveland Clinic Foundation Fellowship

Cleveland, OH Funding: \$65,000

Topic Area: Therapy/Management of Term: 8/1/2012-7/30/2013

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Sana Syed, M.D. Award: Clinical Care Physician

Beth Israel Deaconess Medical Center Fellowship

Boston, MA Funding: \$65,000

Topic Area: Therapy/Management of Term: 8/1/2012-7/30/2013

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Nataliya Ternopolska, M.D. Award: Clinical Care Physician

Cornell University Medical College Fellowship

New York, NY Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2013-6/30/2014

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

Helen Tremlett, B.S.Pharm., Ph.D.

University of British Columbia

Vancouver, British Columbia, Canada

Topic Area: Therapy/Management of

MS/STOP

"Adherence to Immunomodulators in Multiple Sclerosis: Prevalence and Clinical Impact (The AIMS Study)" Examining how following the recommendations for taking MS drugs affects the course of the disease.

Award: Research Grant

Term: 7/1/2012-6/30/2015

Funding: \$300,362

Wendy Vargas, M.D. Award: Clinical Care Physician

Cornell University Medical College Fellowship

New York, NY Funding: \$65,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2013

MS/STOP

"Clinical Care Physician Fellowship" Post-residency training in specialized MS clinical care for neurologists or physiatrists.

E. Yeh, M.D. Award: Health Care Delivery & Policy

The Hospital for Sick Children Research Contract Toronto, Ontario, Canada Funding: \$565,925

Topic Area: Therapy/Management of Term: 10/1/2012-9/30/2015

MS/STOP

"Treatment adherence in pediatric multiple sclerosis" Finding ways to improve the rate at which children and adolescents with MS take their medications as prescribed.

Myelin/Glial Biology - Investigating how myelin is formed and the role played by oligodendrocytes and other nervous system support cells in MS.

Katerina Akassoglou, Ph.D. Award: Fast Forward - Merck Serono

The J. David Gladstone Institute Fund

San Francisco, CA Funding: \$375,975

Topic Area: Biology of Glia/STOP Term: 6/20/2011-5/31/2013 (Est.) **"Small-molecule inhibitors of microglial activation"** Develop and run a high

throughput screen to identify small molecule inhibitors of fibrin (CD11b) mediated

microglia activation

Jason Hinman, M.D., Ph.D. Award: Pilot Research Grant

University of California, Los Angeles Funding: \$44,000

Los Angeles, CA Term: 10/1/2012-9/30/2013

Topic Area: Biology of Glia/STOP

"Transcriptional profiling of regionally distinct oligodendrocyte populations"

Analyzing all the genes that are active in different regions of the brain and spinal cord to understand why certain regions are targeted in MS.

Chiara Liberati, Ph.D. Award: Fast Forward - Merck Serono

Axxam SpA Fund

Milan, Italy Funding: \$402,000

Topic Area: Biology of Glia/STOP Term: 1/12/2012-5/31/2013 (Est.) **"Chloride Channel Blockers' Discovery Program for Inflammatory Microglia Suppression"** Assay development/validation and high throughput screening to identify antagonists of CLIC1 chloride ion channel

Gordon Meares, Ph.D. Award: Career Transition Fellowship

University of Alabama at Birmingham Funding: \$581,647

Birmingham, AL Term: 7/1/2012-6/30/2017

Topic Area: Biology of Glia/STOP

"LKB1 and AMPK Siganling in Neuroinflammation" Studying how cells in the brain and spinal cord may influence the immune system in MS, for clues to stopping immune attacks.

Jae Kyu Ryu, Ph.D. Award: Postdoctoral Research

The J. David Gladstone Institutes Fellowship

San Francisco, CA Funding: \$169,083

Topic Area: Biology of Glia/STOP Term: 7/1/2011-6/30/2014

"Study of spontaneous autoimmune demyelination induced by the blood protein fibrinogen." Studying a molecule that may trigger immune attacks that cause nerve tissue damage in MS.

Paola Tarroni, M.Sc. Award: Fast Forward - Merck Serono

Axxam SpA Fund

Milan, Italy Funding: \$430,590

Topic Area: Biology of Glia/STOP Term: 5/1/2011-11/1/2013

"Antagonists to NCX1-RM" High throughput screening to identify small molecule inhibitors of NCX1-RM, a Na/Ca exchanger, in vitro POC biology and preliminary hitlead activities

Styliani (Stella) Tsirka, Ph.D. Award: Pilot Research Grant

Stony Brook University Funding: \$44,000

Stony Brook, NY Term: 6/1/2012-5/31/2013

Topic Area: Biology of Glia/STOP

"Modulation of T cell responses by microglia during experimental allergic encephalomyelitis (EAE)" How signaling molecules released by brain cells may influence the activity of immune cells in an MS model and by implication, in MS.

Nervous System (CNS) Repair - Searching for ways to stop and reverse tissue damage in MS

Dritan Agalliu, Ph.D.University of California, Irvine

Award: Research Grant
Funding: \$465,478

Irvine, CA Term: 4/1/2013-3/31/2016

Topic Area: CNS Repair/STOP

"Understanding the role of Wnt/beta-catenin signaling pathway in repairing blood-brain barrier breakdown during multiple sclerosis." Investigating whether closing the blood-brain barrier can help treat EAE, a disease model similar to MS, and its implications for developing new treatments for MS.

Gavin Giovannoni, M.D., Ph.D. Award: Research Grant
Queen Mary University of London Funding: \$779,538

London, United Kingdom Term: 10/1/2012-9/30/2015

Topic Area: CNS Repair/STOP

"CSF neurofilaments: a novel phase 2a neuroprotective trial in early SPMS" Can a protein in spinal fluid serve as a signal that shows whether a therapy tested for secondary-progressive MS can protect the nervous system?

Per Jansson, D.D.S. Award: Fast Forward - Merck Serono

Vicore Pharma Fund

Göteborg, Sweden Funding: \$531,300

Topic Area: CNS Repair/STOP Term: 9/30/2012-3/30/2014

"Design and synthesize novel, potent small molecule angiotensin AT2-receptor agonists" Developing compounds that may enter the brain to fight MS damage to the nervous system.

Roger Olsson, Ph.D. Award: Fast Forward - Merck Serono

ACADIA Pharmacueticals Inc. Fund

San Diego, CA Funding: \$545,380

Topic Area: CNS Repair/STOP Term: 9/30/2012-9/30/2013

"Selective ERb Agonists for the Treatment of MS" Identifying a molecule that targets estrogen receptor beta as a potential treatment for MS.

David Selwood, Ph.D. Award: Fast Forward - General Fund

University College London Funding: \$284,354

London, United Kingdom Term: 8/20/2012-8/20/2013

Topic Area: CNS Repair/STOP

"Development of a selective cyclophilin D (CyP-D) blocker as a new MS drug" Synthesizing and testing chemicals similar to cyclosporin to optimize their nerve-protecting effects in MS.

Diagnostic Methods - Investigating ways to improve the diagnosis of MS

Hidehisa Asada, Ph.D. Award: Fast Forward - General Fund

Ezose Sciences Inc. Funding: \$390,000

Pinebrook, NJ Term: 9/28/2012-9/28/2014

Topic Area: Diagnostic Methods/STOP

"Discovery and Characterization of N-Glycan Changes Associated with Multiple Sclerosis: Using Glycomics to Identify and Develop New Biomarkers for Determining Disease Status and Evaluating Response to Therapy" Searching for novel biomarkers that might be useful as signposts for diagnosing MS and also for determining disease subtypes.

Julien Cohen-Adad, M.Sc., Ph.D. Award: Research Grant Ecole Polytechnique Funding: \$123,075

Montreal, Quebec, Canada Term: 4/1/2012-6/30/2014

Topic Area: Diagnostic Methods/STOP

"In vivo study of white and gray matter pathology in the spinal cord using 7T MRI" Using high-powered imaging technology to reveal details of spinal cord damage in people with primary-progressive MS.

Eric Eastman, Ph.D. Award: Fast Forward - General Fund

DioGenix, Inc. Funding: \$479,000

Rockville, MD Term: 9/7/2012-12/7/2013

Topic Area: Diagnostic Methods/STOP

"To develop a blood-based diagnostic test for MS" Using a novel approach to develop a blood-based MS diagnostic test.

Eric Klawiter, M.D. Award: Pilot Research Grant

Massachusetts General Hospital Funding: \$43,064

Boston, MA Term: 9/1/2012-8/31/2013

Topic Area: Diagnostic Methods/STOP

"Exploring the Human Connectome of Multiple Sclerosis" Examining the structure of nerve fibers, for clues to developing markers for cognitive dysfunction in MS.

Maria Liguori, M.D., Ph.D.

National Research Council, Institute of

Neurological Sciences

Mangone, Italy

Topic Area: Diagnostic Methods/STOP

"Proteomic profiling of Cerebrospinal Fluid in Clinically Isolated Syndrome: identification of biomarkers predictive of Multiple Sclerosis conversion."

Analyzing spinal fluid samples from people at high risk for MS to determine markers that indicate conversion to definite MS.

Award: Pilot Research Grant

Term: 10/1/2012-9/30/2013

Funding: \$40,000

Chunlei Liu, Ph.D.Duke University

Award: Research Grant
Funding: \$425,000

Durham, NC Term: 4/1/2013-3/31/2015

Topic Area: Diagnostic Methods/STOP

"Improving the Diagnosis of Multiple Sclerosis with In Vivo MR Imaging of Myelin and Iron" Developing better brain imaging techniques to improve early diagnosis and detect progression of MS.

Mark Lowe, Ph.D. Award: Pilot Research Grant

The Cleveland Clinic Foundation Funding: \$42,500

Cleveland, OH Term: 10/1/2012-9/30/2013

Topic Area: Diagnostic Methods/STOP

"Pilot study to assess hemodynamic factors affecting the BOLD fMRI response in Multiple Sclerosis" Assessing whether abnormalities in blood flow and metabolism in people with MS contribute to brain activity on MRI scans.

Nancy Monson, Ph.D.

Award: Research Grant

The University of Texas Southwestern Funding: \$328,641

Medical Center Term: 7/1/2012-6/30/2015

Dallas, TX

Topic Area: Diagnostic Methods/STOP

"Antibody gene signature in transverse myelitis" Looking for patterns of immune gene activity as a way to tell whether an initial attack of transverse myelitis will become MS, which could lead to faster diagnosis and treatment.

John Rose, M.D. Award: Fast Forward - General Fund

Lineagen, Inc. Funding: \$622,000

Salt Lake City, UT Term: 10/1/2011-10/1/2013

Topic Area: Diagnostic Methods/STOP

"MS Clinical Biomarker Validation" Developing gene and biomarker based clinical assays for MS.

Gregory Van Stavern, M.D. Award: Pilot Research Grant

Washington University School of Funding: \$44,000

Medicine Term: 10/1/2012-9/30/2013

St. Louis, MO

Topic Area: Diagnostic Methods/STOP

"Functional connectivity in patients with clinically isolated optic neuritis"

Studying how the visual pathways in the brain respond to damage in people at high risk for MS. for class to predicting disease progression

for MS, for clues to predicting disease progression.

Vasily Yarnykh, Ph.D. Award: Research Grant University of Washington Funding: \$334,479

Seattle, WA Term: 4/1/2013-3/31/2016

Topic Area: Diagnostic Methods/STOP

"Quantitative imaging of white and gray matter demyelination in multiple sclerosis using macromolecular proton fraction mapping" Investigating a new MRI technique to quantify and predict disease activity and damage in the nervous system in people with progressive or relapsing MS.

Epidemiology - Investigating who gets MS in search of the cause and risk/protective factors

Alberto Ascherio, M.D., M.P.H. Award: Research Grant Harvard School of Public Health Funding: \$221,675

Boston, MA Term: 10/1/2010-9/30/2013

Topic Area: Epidemiology/STOP

"MS risk and progression: role of vitamin D, EBV, and smoking" Identifying modifiable factors that affect conversion and progression from a first neurological episode (CIS) to MS.

Howard Weiner, M.D. Award: Strategic Initiative

Brigham and Women's Hospital Funding: \$927,400

Boston, MA Term: 10/1/2010-9/30/2013

Topic Area: Epidemiology/STOP

"Dr. John R. Richert Pilot Study on Risk Factors for MS Progression" Identifying factors that influence the course and progression of MS.

Funded by the National MS Society's Greater Delaware Valley Chapter.

Bianca Weinstock-Guttman, M.D. Award: Strategic Initiative

State University of New York at Buffalo Funding: \$646,012

Buffalo, NY Term: 10/1/2010-9/30/2013

Topic Area: Epidemiology/STOP

"Clinical, MRI, neuropsychological and gene-environmental risk factors for progression in MS" Identifying factors that influence the course and progression of MS.

Funded in part by the National MS Society's Greater Delaware Valley Chapter

Health Care Delivery/Policy - Studying how people with MS utilize health-care services and how health-care delivery can be improved

Jared Bruce, Ph.D. Award: Health Care Delivery & Policy

University of Missouri - Kansas City

Kansas City, MO

Research Contract
Funding: \$292,470

Topic Area: Health Care Delivery/ Term: 10/1/2012-9/30/2014

Policy/STOP

"Development of a Motivational Intervention to Improve Treatment Adherence in MS" A strategy to help people with MS re-start their MS medication if they have stopped

Eric Chamot, M.D., Ph.D. Award: Health Care Delivery & Policy

University of Alabama at Birmingham
Research Contract
Birmingham, AL
Funding: \$80,960

Topic Area: Health Care Delivery/ Term: 6/1/2011-6/30/2013

Policy/STOP

"Unifying interpretation of clinical outcome measures of MS progression via IRT calibration" Developing methods to evaluate the impact of therapies intended to slow or prevent progression of MS.

Eric Cheng, M.D. Award: Health Care Delivery & Policy

University of California, Los Angeles Research Contract Los Angeles, CA Funding: \$109,616

Topic Area: Health Care Delivery/ Term: 10/1/2011-9/30/2013

Policy/STOP

"The impact of cost-sharing among persons with multiple sclerosis" Calculating the amount of money paid out-of-pocket for health care by people with MS.

Sarah Minden, M.D. Award: Health Care Delivery & Policy

Brigham and Women's Hospital Research Contract Boston, MA Funding: \$329,613

Topic Area: Health Care Delivery/ Term: 10/1/2011-9/30/2014

Policy/STOP

"The impact of out of pocket health-related costs on people with MS and their families" A detailed analysis of what people with MS spend on out-of-pocket health care costs and how this affects care and quality of life.

Sarah Minden, M.D. Award: Health Care Delivery & Policy

Brigham and Women's Hospital Research Contract Boston, MA Funding: \$698,337

Topic Area: Health Care Delivery/ Term: 10/1/2012-9/30/2015

Policy/STOP

"Financial implications of informal (unpaid) caregiving" The economic impacts for family members who provide care to people with MS.

Immunology - Exploring the role of the immune system in the development and progression of MS to find ways to stop the immune attack on nervous tissues

Ana Anderson, Ph.D. Award: Research Grant Brigham and Women's Hospital Funding: \$455,399

Boston, MA Term: 11/1/2009-4/30/2013

Topic Area: Immunology/STOP

"Genetic control of effector and regulatory T cells in acute and progressive EAE" Investigating a new animal model that mimics MS more closely than other models.

Clare Baecher-Allan, Ph.D. Award: Research Grant Brigham and Women's Hospital Funding: \$518,466

Boston, MA Term: 4/1/2011-3/31/2014

Topic Area: Immunology/STOP

"Mechanisms of Treg resistance in patients with multiple sclerosis" Looking for ways to restore the normal balance of the immune system to prevent it from attacking the nervous system in MS.

Dirk Baumjohann, Ph.D. Award: Postdoctoral Research

University of California, San Francisco Fellowship

San Francisco, CA Funding: \$175,804

Topic Area: Immunology/STOP Term: 7/1/2013-6/30/2016

"MicroRNA regulation of T follicular helper cells in experimental autoimmune encephalomyelitis" Understanding the function of immune cells in MS-like disease for clues to developing new treatments to stop MS.

Gil Benedek, Ph.D. Award: Postdoctoral Research

Veterans Administration Medical Center Fellowship

Portland, OR Funding: \$175,804

Topic Area: Immunology/STOP Term: 7/1/2013-6/30/2016 **"A Novel CD74-Dependet Mechanism for Suppressing Experimental**

Autoimmune Encephalomyelitis." Preventing harmful immune cells from entering the brain as a possible new strategy to treat MS.

Etty (Tika) Benveniste, Ph.D. Award: Collaborative MS Research

University of Alabama at Birmingham Center

Birmingham, AL Funding: \$742,500

Topic Area: Immunology/STOP Term: 11/1/2009-10/31/2014

"Collaborative MS Center Award" Developing and evaluating novel immune systemmodulating therapies for MS that can turn off immune attacks and protect nerve tissues.

Etty (Tika) Benveniste, Ph.D.University of Alabama at Birmingham

Award: Research Grant
Funding: \$478,791

Birmingham, AL Term: 4/1/2013-3/31/2016

Topic Area: Immunology/STOP

"Therapeutic Intervention of the JAK/STAT Pathway for Neuroinflammation" Investigating how molecules in an immune system signaling pathway may be harnessed to treat MS.

Estelle Bettelli, Ph.D. Award: Research Grant Benaroya Research Institute Funding: \$590,517

Seattle, WA Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Identification of pathogenic T cells in EAE" Exploring aspects of how immune cells are controlled by natalizumab for clues to improving therapies for MS.

Jennifer Blanchfield, Ph.D. Award: Postdoctoral Research

Emory University Fellowship

Atlanta, GA Funding: \$169,946

Topic Area: Immunology/STOP Term: 7/1/2013-6/30/2016

"CD4+ T cell affinities to MOG and NFM self antigens determine the course of chronic, demyelinating autoimmune disease" Understanding how specific immune T cells drive progression of MS symptoms by studying an MS model.

Jeffrey Bluestone, Ph.D.

University of California, San Francisco

San Francisco, CA Term: 4/1/2011-3/31/2014

Topic Area: Immunology/STOP

"CD4+ FoxP3 lineage cells in CNS autoimmune disease and therapy" Looking for ways to use the immune system's regulatory mechanisms to stop immune attacks in MS.

Award: Research Grant

Award: Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$560,802

Funding: \$143,751

Stefan Brocke, M.D.

University of Connecticut Health Center Funding: \$612,252

Term: 10/1/2011-9/30/2014 Farmington, CT

Topic Area: Immunology/STOP

"The role of PDE8 in EAE" Investigating a new way to potentially prevent the immune system attack that damages the nervous system in a model of MS.

Melissa Brown, Ph.D.

Northwestern University

Term: 10/1/2012-9/30/2015 Chicago, IL

Topic Area: Immunology/STOP

"Meningeal mast cells as orchestrators of inflammation in EAE" Identifying new targets for MS therapy that prevent immune cells from gaining access to the central nervous system.

Joseph Cantor, Ph.D.

Award: Research Grants University of California San Diego Funding: \$36,129.00

Term: 4/1/2011-3/31/2014 La Jolla, CA

Topic Area: Immunology/STOP

"Targeting integrin signaling in multiple sclerosis" Studying mechanisms that control the ability of immune cells to penetrate the brain, for insights into ways to refine therapies that target those mechanisms.

Marina Cella, M.D.

Washington University School of Funding: \$330,000

Medicine Term: 10/1/2012-9/30/2014

St Louis, MO

Topic Area: Immunology/STOP

"The role of plasmacytoid dendritic cells in T-cell mediated autoimmunity in the **central nervous system**" Studying the role of a type of immune cell in MS, for clues to stopping MS in its tracks.

Youhai Chen, M.D., Ph.D. Award: Research Grant University of Pennsylvania Funding: \$576,675

Philadelphia, PA Term: 4/1/2011-3/31/2014

Topic Area: Immunology/STOP

"Regulation of autoimmune encephalomyelitis" Studying the action of a `master switch` that controls immune system activity in MS.

Hongbo Chi, Ph.D. Award: Research Grant St. Jude Children's Research Hospital Funding: \$660,000

Memphis, TN Term: 11/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Innate immune signaling in TH17 differentiation and function and autoimmune neuroinflammation" Uncovering messenger molecules that alter the behavior of immune system cells with the aim of stopping damage to the nervous system in MS.

Bogoljub Ciric, M.Sc., Ph.D. Award: Pilot Research Grant

Thomas Jefferson University Funding: \$44,000

Philadelphia, PA Term: 6/1/2012-5/31/2013

Topic Area: Immunology/STOP

"GM-CSF in CD8+ T cell-mediated EAE" Suppressing a specific immune-signaling molecule on a model of MS, for clues to targeting this molecule as a therapy in MS.

Bonnie Dittel, Ph.D.Award: Research Grant BloodCenter of Wisconsin

Funding: \$440,724

Milwaukee, WI Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Elucidating the role of cannabinoid receptor 2 in immune regulation during EAE" Looking at how cannabis-related molecules interact with and affect the immune system and their potential for turning off immune attacks.

Bonnie Dittel, Ph.D.Award: Research Grant
BloodCenter of Wisconsin

Funding: \$472,953

Milwaukee, WI Term: 7/1/2012-6/30/2015

Topic Area: Immunology/STOP

"Regulation of EAE by CD86 expressed within the CNS" Investigating how an immune-system signaling molecule suppresses MS-like disease for clues to new treatments to stop MS disease activity.

Scott Durum, Ph.D.

National Cancer Institute, National

Institutes of Health

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Frederick, MD

Topic Area: Immunology/STOP

"IL-7 receptor polymorphisms in MS: Mechanism and therapeutic implications"

Award: Pilot Research Grant

Term: 10/1/2012-9/30/2013

Funding: \$44,000

Testing whether inhibitors of the immune messenger protein interelukin-7 can stop the

immune attack in MS models.

Brian Evavold, Ph.D. Award: Research Grant Emory University Funding: \$442,897

Atlanta, GA Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"T cell affinity for myelin controls autoimmune disease severity and outcome"

Using high-tech screening to study how the cells that control immune system activity respond to myelin, the nerve-protecting sheath targeted by MS immune attacks.

Thomas Forsthuber, M.D., Ph.D. Award: Research Grant

University of Texas at San Antonio Funding: \$560,814

San Antonio, TX Term: 4/1/2006-3/31/2014

Topic Area: Immunology/STOP

"Superagonist peptide-mediated T cell tolerance in EAE" Exploring a novel

strategy for `turning off` the immune attack against myelin in MS.

Shailendra Giri, Ph.D. Award: Research Grant

Henry Ford Health Sciences Center Funding: \$571,109

Detroit, MI Term: 7/1/2012-6/30/2015

Topic Area: Immunology/STOP

"Preclinical evaluation of combination therapy using metformin with conventional

MS therapies" Investigating, through preclinical testing, whether metformin, an oral

treatment for diabetes, has potential for turning off immune attacks in MS.

Simon Glatigny, Ph.D. Award: Postdoctoral Research

Benaroya Research Institute Fellowship

Seattle, WA Funding: \$115,142

Topic Area: Immunology/STOP Term: 7/1/2013-6/30/2016

"Control of regulatory T cell functions by integrin alpha 4" Understanding how immune cells move into the brain in people with MS, to improve therapies aimed at

stopping MS attacks.

Joan Goverman, Ph.D. Award: Research Grant University of Washington Funding: \$595,993

Seattle, WA Term: 4/1/2013-3/31/2016 (Pending)

Topic Area: Immunology/STOP

"Defining mechanisms by which CD8+ and CD4+ T cells coordinately mediate CNS autoimmune disease" Studying an MS model to see how the cells that cause the disease interact, for clues to new avenues for stopping MS in its tracks.

Christopher Harp, Ph.D. Award: Postdoctoral Research

Northwestern University Fellowship

Chicago, IL Funding: \$143,223

Topic Area: Immunology/STOP Term: 7/1/2011-6/30/2014

"B cell depletion therapy in the treatment of relapsing EAE." Studying a mouse model of MS to improve the safety of a potential MS treatment.

Daniel Hawiger, M.D., Ph.D. Award: Career Transition Fellowship

St. Louis University Funding: \$412,500

Saint Louis, MO Term: 9/1/2010-8/31/2013

Topic Area: Immunology/STOP

"The novel RhoGAP/Hop/Net tolerance-inducing pathway in myelin specific T cells" Exploring factors that contribute to the repeated immune attacks in MS in search of opportunities for interfering with these attacks to stop MS.

Colleen Hayes, Ph.D.University of Wisconsin-Madison

Award: Research Grant
Funding: \$585,146

Madison, WI Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Vitamin D and estrogen synergy in the control of EAE" Exploring how vitamin D and the sex hormone estrogen may interact to control MS-like immune attacks and its implications for MS.

Jordan Jacobelli, Ph.D. Award: Pilot Research Grant

National Jewish Hospital and Research Funding: \$44,000

Center Term: 6/1/2012-5/31/2013

Denver, CO

Topic Area: Immunology/STOP

"Targeting the actin-myosin cytoskeleton to selectively inhibit lymphocyte trafficking to the central nervous system in multiple sclerosis." Testing a way to inhibit the infiltration of immune cells into the brain and spinal cord in MS.

Nitin Karandikar, M.D., Ph.D. Award: Research Grant The University of Iowa Funding: \$712,800

Dallas, TX Term: 4/1/2013-3/31/2017

Topic Area: Immunology/STOP

"Role of CNS-specific autoreactive CD8+ T cells in MS" Looking for ways to treat MS by improving the action of cells that control the immune system attack on myelin. The 2012 Stephen C. Reingold Award for most outstanding research proposal

Katarzyna Karwacz, Ph.D. Award: Postdoctoral Research

Brigham and Women's Hospital Fellowship

Boston, MA Funding: \$163,103

Topic Area: Immunology/STOP Term: 7/1/2012-6/30/2015

"Molecular mechanisms leading to generation of Tr1 cells and their function in **EAE**" Studying how interferon beta suppresses immune system activity for clues for more effective treatment of MS.

Samia Khoury, M.D. Award: Pilot Research Grant

Brigham and Women's Hospital Funding: \$44,000

Boston, MA Term: 9/1/2012-8/31/2013

Topic Area: Immunology/STOP

"Application of IgG-derived Tregitopes as immunomodulating agents in EAE" Investigating a novel molecule that may control inflammatory immune cells, for its potential to suppress MS.

Robyn Klein, M.D., Ph.D.Washington University School of

Funding: \$460,638

Medicine Term: 10/1/2010-9/30/2013

Saint Louis, MO

Topic Area: Immunology/STOP

"Regulation of blood-brain barrier immune privilege during CNS autoimmunity" Looking for ways to prevent breakdown of the barrier that separates the brain and spinal cord from the bloodstream, for clues to stopping the development of MS.

Robyn Klein, M.D., Ph.D.Washington University School of

Funding: \$557,305

Medicine Term: 10/1/2011-9/30/2014

Saint Louis, MO

Topic Area: Immunology/STOP

"Cytokine control of homeostatic chemokines within during CNS autoimmunity" Exploring the roles of immune messengers that can rev up and attract immune activity to specific areas of the brain in MS-like disease.

Dimitry Krementsov, Ph.D. Award: Postdoctoral Research

University of Vermont Fellowship

Burlington, VT Funding: \$150,800

Topic Area: Immunology/STOP Term: 7/1/2011-6/30/2014

"p38 MAPK as a female-specific druggable target in autoimmune disease of the CNS." Studying the effects of a drug that halts a disease similar to MS in female mice.

Funded in part by the Greater New England Chapter in honor of Dr. Hill Panitch

Vijay Kuchroo, Ph.D., D.V.M.Brigham and Women's Hospital

Funding: \$430,650

Boston, MA Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Pathogenic and regulatory mechanisms in EAE" Finding ways to control the immune system attack on myelin, for clues to stopping nerve tissue damage in MS.

Stephen Lalor, Ph.D. Award: Postdoctoral Research

University of Michigan Fellowship

Ann Arbor, MI Funding: \$169,946

Topic Area: Immunology/STOP Term: 7/1/2012-6/30/2015

"Investigating the trafficking behavior of encephalitogenic Th17 cells prior to entering the CNS in experimental autoimmune encephalomyelitis and multiple sclerosis" Understanding how immune system cells acquire the ability to damage nerveinsulating myelin in MS.

Yasmina Laouar, Ph.D. Award: Research Grant University of Michigan Funding: \$435,049

Ann Arbor, MI Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Role of TGFbeta in the control of autoimmune encephalomyelitis" Studying a molecule used as a signal that can inhibit immune attacks, and its implications for finding ways to stop MS.

Robert Ledeen, Ph.D.UMDNJ-New Jersey Medical School

Award: Research Grant
Funding: \$431,054

Newark, NJ Term: 10/1/2009-9/30/2013

Topic Area: Immunology/STOP

"Role of GM1 ganglioside and its cross-linking ligands in autoimmune suppression" Trying to develop a way to reduce the damage that occurs to nerve-protecting myelin in MS.

Jason Lees, Ph.D.

University of Maryland at Baltimore

Baltimore, MD Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Molecular mechanisms of secondary T-cell recruitment to established CNS

lesions" Determining how the population of immune system attack cells changes from early to later stages of MS-like disease for clues to new treatment approaches.

Award: Research Grant

Funding: \$268,236

Bing Li, Ph.D. Award: Career Transition Fellowship

University of Minnesota Funding: \$395,523

Minneapolis, MN Term: 9/1/2011-6/30/2014

Topic Area: Immunology/STOP

"Regulation of T cell subset differentiation by E-FABP" Finding how a molecule that influences T cells to attack myelin works, for clues to suppressing the immune attack in MS.

Wensheng Lin, M.D., Ph.D. Award: Career Transition Fellowship

University of Minnesota Funding: \$13,547

Minneapolis, MN Term: 11/30/2012-11/30/2013

Topic Area: Immunology/STOP

"The role of the PERK-elFalpha pathway in MS/EAE" Investigating the possible protective role of an immune messenger protein in MS.

Stefan Lohmer, Ph.D. Award: Fast Forward - General Fund

Axxam SpA Funding: \$229,813

Milan, Italy Term: 12/19/2009-5/31/2013 (Est.)

Topic Area: Immunology/STOP

"Discovery research of Innovative immunosuppressant for Prevention of Multiple Sclerosis" Screening and chemical optimization of small molecule antagonists of Kv1.3, a potassium channel (with JDRF)

Scott Lovitch, M.D., Ph.D. Award: Postdoctoral Research

Brigham and Women's Hospital Fellowship

Boston, MA Funding: \$162,481

Topic Area: Immunology/STOP Term: 7/1/2011-6/30/2014

"The role of PD-1 in maintenance of peripheral tolerance and control of EAE."

Studying how to manipulate a molecule to turn off immune system attacks in MS.

Silva Markovic-Plese, M.D.

University of North Carolina at Chapel

Hill Term: 10/1/2012-9/30/2013

Chapel Hill, NC

Topic Area: Immunology/STOP

"The Role of IL-11+CD4+ T-cells in the Development of the Autoimmune Response in MS" Identifying immune cells and messenger chemicals that may help launch immune attacks in MS.

Award: Research Grant

Funding: \$100,000

faurich minune attacks in MS.

Emma Masteller, Ph.D. Award: Fast Forward - General Fund

Five Prime Therapeutics, Inc. Funding: \$1,000,000

South San Francisco, CA Term: 5/18/2010-5/18/2013

Topic Area: Immunology/STOP

"FPT069 for Treatment of Multiple Sclerosis: Targeting the Innate Immune System" Preclinical testing of an agent focused against innate immune activity in MS.

Lior Mayo, Ph.D. Award: Postdoctoral Research

Brigham and Women's Hospital Fellowship

Boston, MA Funding: \$175,804

Topic Area: Immunology/STOP Term: 7/1/2013-6/30/2016

"Interaction between innate and adaptive immunity in CNS inflammation" How different components of the immune system work together to drive progression of MS, for clues to stopping it.

M. Edward Medof, Ph.D. Award: Research Grant Case Western Reserve University Funding: \$540,201

Cleveland, OH Term: 9/30/2011-9/30/2014

Topic Area: Immunology/STOP

"Modifying effector and regulatory cells in EAE by controlling local complement" Exploring a newly discovered aspect of immune activity that may lead to development of new strategies to stop immune attacks in MS.

Stephen Miller, Ph.D. Award: Research Grant Northwestern University Funding: \$156,000

Chicago, IL Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Immunoregulation and Pathology of Chronic-Relapsing EAE" Improving MS therapies by more precisely targeting the parts of the immune system that are involved in MS attacks on the nervous system.

Stephen Miller, Ph.D. Award: Research Grant Northwestern University Funding: \$545,738

Chicago, IL Term: 7/1/2012-6/30/2015

Topic Area: Immunology/STOP

"Mechanisms of Th1/Th17 regulation by B7-H4 Ig for the treatment of EAE"

Understanding how immune system activity is regulated in MS, for clues to developing better treatments that specifically prevent damage to nerve-insulating myelin.

Sze-Ling Ng, Ph.D. Award: Postdoctoral Research

Harvard Medical School Fellowship

Cambridge, MA Funding: \$163,103

Topic Area: Immunology/STOP Term: 7/1/2012-6/30/2015

"A role for T cell receptors in the cytokine secretion profile of regulatory T cells" Studying how the activity of specific cells that prevent immune attacks can be enhanced as a potential therapy to stop MS.

Siobhan Ni Choileain, Ph.D. Award: Postdoctoral Research

Yale University Fellowship

New Haven, CT Funding: \$163,103

Topic Area: Immunology/STOP Term: 7/1/2013-6/30/2016

"Gene and protein expression signature of Th1-Tregs and their role in MS"

Looking at the role of immune T cells in MS inflammation and studying ways to modulate it to treat MS.

Joel Pachter, Ph.D. Award: Research Grant

University of Connecticut Health Center Funding: \$407,637

Farmington, CT Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Resolving the roles for astrocyte- and endothelial cell-derived CCL2 during evolution of experimental autoimmune encephalomyelitis" Understanding the functions of a molecule and its potential as a target for therapy in progressive MS.

Laura Piccio, M.D., Ph.D. Award: Harry Weaver Neuroscience

Washington University School of Scholarship

Medicine Funding: \$566,393

Saint Louis, MO Term: 7/1/2010-6/30/2015

Topic Area: Immunology/STOP

"Role of TREM-2 in multiple sclerosis and its animal model" Examining the role played by a molecule on immune cells and implications for developing a new therapy for MS.

Funded by the National MS Society's Gateway Area Chapter

Francisco Quintana, Ph.D. Award: Research Grant Brigham and Women's Hospital Funding: \$447,288

Boston, MA Term: 10/1/2009-9/30/2013

Topic Area: Immunology/STOP

"Role of the transcription factor AHR in controlling Foxp3/Treg induction &

EAE" Looking for ways to increase the activity of immune cells capable of turning off the immune attacks that underlie MS.

the infinute attacks that underne MS.

Gabriel Rabinovich, Ph.D. Award: Research Grant Instituto de Biologia y Medicina Funding: \$412,010

Experimental Term: 9/30/2011-9/30/2014

Buenos Aires, Argentina

Topic Area: Immunology/STOP

"Capitalizing on glycomics for the design of novel therapeutic strategies in MS"

Designing and testing a novel therapy aimed at turning off immune attacks such as those

involved in MS.

Michael Racke, M.D. Award: Research Grant Ohio State University Funding: \$372,779

Columbus, OH Term: 7/1/2012-6/30/2014

Topic Area: Immunology/STOP

"Interferon-beta modulation of microRNA in Multiple Sclerosis" Investigating whether interferons alter activity of small segments of RNA, in search of new ways to stop the immune-system attacks and nervous system damage in MS.

Michael Racke, M.D. Award: Research Grant Ohio State University Funding: \$468,954

Columbus, OH Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Regulation of oxidative stress in autoimmune demyelination" Investigating a molecule in clinical trials to understand its influence on immune factors and how it may provide protection to the nervous system in MS.

Anthony Reder, M.D. Award: Research Grant University of Chicago Funding: \$845,350

Chicago, IL Term: 9/30/2011-9/30/2015

Topic Area: Immunology/STOP

"Interferon resistance in MS" Evaluating how immune system signals may serve as biomarkers of future disease activity.

John Russell, Ph.D.

Award: Research Grant

Washington University School of Funding: \$489,697

Medicine Term: 10/1/2010-9/30/2013

Saint Louis, MO

Topic Area: Immunology/STOP

"Cytokine and chemokine regulation of regional CNS inflammation and

pathogenesis" Analyzing interactions between immune messenger chemicals in

directing the location of immune attacks in the nervous system, for clues to causes of MS

severity and symptoms.

William Schmalstieg, M.D. Award: Postdoctoral Research

Mayo Clinic College of Medicine Fellowship

Rochester, MN Funding: \$175,920

Topic Area: Immunology/STOP Term: 7/1/2011-6/30/2014

"Role of dysregulated ionic homeostasis in CD8+ T cell mediated axon injury."

Investigating a novel approach to preventing nerve fiber damage in MS.

Ulf Schulze-Topphoff, Ph.D. Award: Postdoctoral Research

University of California, San Francisco Fellowship

San Francisco, CA Funding: \$175,804

Topic Area: Immunology/STOP Term: 7/1/2012-6/30/2015

"Role of B cells in central nervous system autoimmune disease" Studying the extent that immune system cells known as B cells influence immune attacks that damage the nervous system in MS, for clues to improving therapy.

Mari Shinohara, Ph.D. Award: Research Grant Duke University Medical Center Funding: \$538,553

Durham, NC Term: 4/1/2011-3/31/2014

Topic Area: Immunology/STOP

"Study on innate immune inflammation that enhances EAE" Studying immune

inflammation in a model of MS for insights into stopping progression of MS.

Andrew Steelman, Ph.D. Award: Postdoctoral Research

Texas A&M University Fellowship

College Station, TX Funding: \$156,515

Topic Area: Immunology/STOP Term: 7/1/2011-6/30/2014

"The role of the Tim-3/galectin-9 pathway in microglia activation and

demyelination." Studying immune system signals for strategies to limit immune attacks

and damage in MS.

Lawrence Steinman, M.D.

Stanford University Funding: \$510,975

Stanford, CA Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Pre-Clinical Studies on Predictive Serum Biomarker for Response to betainterferon in Relapsing Remitting MS" Attempting to find a way to predict who will respond to treatment with interferon beta.

Award: Research Grant

William Stohl, M.D., Ph.D. Award: Research Grant University of Southern California Funding: \$547,896

Los Angeles, CA Term: 7/1/2012-6/30/2015

Topic Area: Immunology/STOP

"The role of the BAFF axis in experimental autoimmune encephalomyelitis" Studying the potential for a new treatment approach for MS by altering a molecule that influences immune system cells.

Jack Strominger, M.D.Award: Research GrantHarvard UniversityFunding: \$466,814

Cambridge, MA Term: 10/1/2011-9/30/2014

Topic Area: Immunology/STOP

"Targeting the J5 peptide 15mer to dendritic cells for therapy of demyelinating diseases" Investigating a substance related to Copaxone that may improve treatment of MS.

Leslie Summers deLuca, Ph.D. Award: Postdoctoral Research

New York University Fellowship

New York, NY Funding: \$163,503

Topic Area: Immunology/STOP Term: 7/1/2012-6/30/2015

"Regulation of central nervous system S1P production and the role of S1P signaling on Bergmann glia in an animal model of multiple sclerosis." Studying how an important signaling molecule contributes to immune system activity in MS, for clues to refining its therapeutic activity to better treat MS.

Yossan-Var Tan, Ph.D. Award: Career Transition Fellowship

University of California, Los Angeles Funding: \$554,317

Los Angeles, CA Term: 7/1/2009-6/30/2014

Topic Area: Immunology/STOP

"Identification and targeting of vip and pacap receptor subtypes in EAE" Finding ways to control the immune system attack in a model of MS.

Jenny Ting, Ph.D.

University of North Carolina at Chapel

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Hill Term: 9/30/2011-9/30/2014

Chapel Hill, NC

Topic Area: Immunology/STOP

"The roles of new innate immune mediators in neuroinflammation" Studying new ways to prevent the immune system from attacking myelin in animal models of MS.

Award: Research Grant

Funding: \$526,789

Anette van Boxel-Dezaire, Ph.D. Award: Career Transition Fellowship

The Cleveland Clinic Foundation Funding: \$562,312

Cleveland, OH Term: 7/1/2007-10/31/2013

Topic Area: Immunology/STOP

"Altered cytokine signaling in multiple sclerosis" Determining how interferons influence immune cell activity in MS, for clues to better treatments

Michel Varrin-Doyer, Ph.D. Award: Postdoctoral Research

University of California, San Francisco Fellowship

San Francisco, CA Funding: \$175,804

Topic Area: Immunology/STOP Term: 7/1/2012-6/30/2015

"AQP4-specific T cells in NMO" Investigating how immune system cells are activated in a disease with some features similar to MS.

H.-Christian von Büdingen, M.D. Award: Research Grant University of California, San Francisco Funding: \$485,808

San Francisco, CA Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Characteristics of disease-relevant B cell repertoires in MS" Examining the relationship between B cells in the blood and those in the brain to improve MS diagnosis and therapy.

Yisong Wan, Ph.D.University of North Carolina at Chapel

Award: Research Grant
Funding: \$557,255

Hill Term: 10/1/2012-9/30/2015

Chapel Hill, NC

Topic Area: Immunology/STOP

"Therapeutic effect of dihydro-artemisinin on MS through suppressing immune response" Determining the potential of an ancient herbal medicine for reducing immune attacks in a model of MS, as a prelude to testing it in people with MS.

Xiaohu Wang, Ph.D. Award: Postdoctoral Research

MD Anderson Cancer Center Fellowship

Houston, TX Funding: \$150,800

Topic Area: Immunology/STOP Term: 7/1/2010-6/30/2013

"Transcriptional regulation of IL-17/IL-17F expression in a mouse model of multiple sclerosis" Investigating genetic factors that regulate the development of specific immune cells in MS for clues to better treatments.

Award: Research Grant

Award: Research Grant

Award: Research Grant

E. Sally Ward, Ph.D.

The University of Texas Southwestern Funding: \$483,717

Medical Center Term: 4/1/2011-3/31/2014

Dallas, TX

Topic Area: Immunology/STOP

"Antigen targeting and tolerance in murine EAE" Looking at ways to stop the immune system attack against myelin in MS-like disease.

E. Sally Ward, Ph.D.

The University of Texas Southwestern Funding: \$495,577

Medical Center Term: 11/1/2009-10/31/2013

Dallas, TX

Topic Area: Immunology/STOP

"Targeting autoreactive antibodies for the therapy of murine EAE" Developing a method of eliminating destructive antibodies that play a role in MS.

James Waschek, Ph.D.

University of California, Los Angeles Funding: \$652,196

Los Angeles, CA Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Neuropeptide PACAP/VPAC2 Receptor Signaling in the Regulation of Natural Treg Expansion in EAE" Investigating a messenger molecule that may control damage to the nervous system and may have potential as a target for future therapies aimed at stopping MS.

Joshua Weiner, Ph.D. Award: Pilot Research Grant

The University of Iowa Funding: \$43,945

Iowa City, IA Term: 9/1/2012-8/31/2013

Topic Area: Immunology/STOP

"A role for the gamma-protocadherin gene family in neuro-immune interactions during experimental autoimmune encephalomyelitis" Studying newly identified proteins that may allow immune cells to enter the brain during the immune attack in MS, and possible ways to stop them.

Katharine Whartenby, Ph.D.

Award: Research Grant

Johns Hopkins University Funding: \$523,971

Baltimore, MD Term: 10/1/2010-9/30/2013

Topic Area: Immunology/STOP

"Inhibition of FLT3 signal trasduction in APCs as an approach to MS therapy."

Evaluating a way to stop MS attacks by blocking specialized cells that make nervous system tissues a target.

Funded by a gift from the National MS Society South Central Region

Katharine Whartenby, Ph.D. Award: Research Grant Johns Hopkins University Funding: \$654,729

Baltimore, MD Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"The role of KLF4 in transcriptional activation of IL-17 and induction of EAE"

Determining the molecular switches that convert beneficial immune responses into harmful ones such as those involved in MS.

Gregory Wu, M.D., Ph.D. Award: Pilot Research Grant

Washington University School of Funding: \$44,000

Medicine Term: 10/1/2012-9/30/2013

St. Louis, MO

Topic Area: Immunology/STOP

"Characterization of Dendritic Cell Precursors During Autoimmune

Encephalomyelitis" Studying cells that may amplify the immune attack in MS-like disease for clues to inhibiting them and stopping the attack in its tracks.

Sheng Xiao, Ph.D. Award: Pilot Research Grant

Brigham and Women's Hospital Funding: \$44,000

Boston, MA Term: 4/1/2013-3/30/2014

Topic Area: Immunology/STOP

"Characterization and chemical inhibition of RORgammat-dependent

transcriptional network in Th17 cells" Understanding how one protein regulates the development of a newly described immune cell population, for clues to identifying small molecule treatments for MS that disrupt the function of this protein.

Scott Zamvil, M.D., Ph.D. Award: Research Grant

University of California, San Francisco Funding: \$614,600

San Francisco, CA Term: 10/1/2012-9/30/2015

Topic Area: Immunology/STOP

"Aquaporin-4 (AQP4)-specific T cells in CNS autoimmunity" Distinguishing immune responses in MS and neuromyelitis optica.

Ye Zheng, Ph.D.

The Salk Institute for Biological Studies

La Jolla, CA Term: 4/1/2013-3/31/2016

Topic Area: Immunology/STOP

"Protective Role of REV-ERBs in EAE" Investigating how to turn off the activity of immune system cells that participate in the immune attacks involved in MS.

Award: Research Grant

Funding: \$483,756

Steven Ziegler, Ph.D. Award: Pilot Research Grant

Benaroya Research Institute Funding: \$44,000

Seattle, WA Term: 4/1/2013-3/30/2014

Topic Area: Immunology/STOP

"Role of Foxp3+RORgt+ T cells in EAE" Determining the role of a specific population of regulatory cells that may help to suppress the attack in MS.

Infectious Triggers - Examining the possibility that viruses or bacteria could act as disease triggers in MS

Stanley Perlman, M.D., Ph.D.Award: Research Grant Funding: \$435,827

Iowa City, IA Term: 7/1/2009-12/31/2013

Topic Area: Infectious Triggers/STOP

"Pathogenesis of MHV-induced demyelination in wild type and RAG1-/- mice" Manipulating immune cells that may turn off immune attacks against brain tissues launched by a viral infection, for insights to new treatment approaches for MS.

Measuring MS Disease Activity - Using sophisticated tools to track MS activity over time

Rohit Bakshi, M.D.

Award: Research Grant

Prichage and Woman's Hamital

Evading: \$220,511

Brigham and Women's Hospital Funding: \$389,511
Brookline, MA Term: 4/1/2011-3/31/2014

Topic Area: Measuring MS Disease

Activity/STOP

"Magnetic resonance disease severity scale for MSs" Developing a scale of novel imaging technologies to more accurately measure damage to the nervous system in MS.

Laura Balcer, M.D.Award: Research GrantNew York UniversityFunding: \$1,100,000

New York, NY Term: 10/1/2012-9/30/2016

Topic Area: Measuring MS Disease

Activity/STOP

"Mechanisms of retinal neurodegeneration and visual pathway axonal loss in MS" Scanning the eye for clues to understanding nervous system damage and to track repair in MS.

Carla Brodley, Ph.D. Award: Pilot Research Grant

Tufts University Funding: \$36,301

Medford, MA Term: 4/1/2013-3/31/2014

Topic Area: Measuring MS Disease

Activity/STOP

"Applying Machine Learning and Data Mining to Understand the Heterogeneity of Disease Progression in MS Patients" Using novel techniques to mine data from an ongoing study of 1850 people with MS, for clues to understanding disease progression.

Salim Chahin, M.D. Award: NMSS-ABF Clinician Scientist

University of Pennsylvania Award

Philadelphia, PA Funding: \$244,568

Topic Area: Measuring MS Disease Term: 7/1/2011-6/30/2014

Activity/STOP

"Retinal gray matter in MS: Relation of ganglion cell loss to vision and neurologic impairment" Measuring changes and damage to the optic nerve to develop a method for evaluating neuroprotective treatments in MS.

Anne Cross, M.D.

Washington University School of

Award: Research Grant
Funding: \$529,560

Medicine Term: 7/1/2012-6/30/2015

St. Louis, MO

Topic Area: Measuring MS Disease

Activity/STOP

"Gradient Echo Plural Contrast Imaging to Better Understand MS" Evaluating the potential of a new MRI technique as a more sensitive measure of MS disease activity.

Ian Duncan, D.V.M., Ph.D.

University of Wisconsin

Funding: \$44,000 Term: 10/1/2012-9/30/2013 Madison, WI

Topic Area: Measuring MS Disease

Activity/STOP

"Does chronic loss of axons in the optic nerve result in thinning of the retinal nerve fiber layer?" Validating a measure of nerve damage in models of MS to determine its usefulness for measuring MS progression.

Award: Pilot Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$225,245

Yulin Ge, M.D.

Award: Research Grant New York University Medical Center Funding: \$470,246

Term: 10/1/2012-9/30/2015 New York, NY

Topic Area: Measuring MS Disease

Activity/STOP

"Brain Oxygen Metabolism and Vascular Reactivity in MS: Assessing Neurodegeneration using MRI" Using recently developed MRI techniques to investigate possible causes of nervous system damage in MS.

George Georges, M.D.

Fred Hutchinson Cancer Research Center Funding: \$168,752

Term: 1/1/2012-1/1/2015 Seattle, WA

Topic Area: Measuring MS Disease

Activity/STOP

"Allogeneic HSCT in MS patients: international registry" Establishing a system of tracking the status of people's MS after they undergo bone marrow transplants to treat other conditions.

Trevor Kilpatrick, M.B.B.S., Ph.D.

University of Melbourne

Term: 10/1/2010-9/30/2013 Parkville VIC, Australia

Topic Area: Measuring MS Disease

Activity/STOP

"Testing paraclinical outcome measures in optic neuritis" Designing a method to measure nerve fiber protection for use in future clinical trials of new treatments for MS. 2010 Stephen C. Reingold Award for highest ranked research proposal of the year

Caterina Mainero, M.D., Ph.D.

Massachusetts General Hospital

Charlestown, MA Term: 4/1/2013-3/31/2016

Topic Area: Measuring MS Disease

Activity/STOP

"Cortical Inflammation and Demyelination in Multiple Sclerosis by Combined

PET and MRI" Developing better ways to visualize nervous system damage in people

with secondary-progressive MS.

Caterina Mainero, M.D., Ph.D.

Massachusetts General Hospital

Charlestown, MA Term: 10/1/2009-9/30/2013

Topic Area: Measuring MS Disease

Activity/STOP

"Cortical pathology and its correlates in multiple sclerosis by ultra-high field

MRI" Using a powerful MRI machine to study damage in MS that is invisible to ordinary

MRI machines.

David Pitt, M.D.

Yale University School of Medicine

New Haven, CT

Topic Area: Measuring MS Disease

Activity/STOP

"Iron as biomarker for inflammatory activity in MS lesions" Investigating the use of

an advanced MRI technique to measure immune system activity in MS lesions.

Bart Rypma, Ph.D.

The University of Texas Southwestern

Medical Center

Dallas, TX

Topic Area: Measuring MS Disease

Activity/STOP

"Hemodynamic response function changes In Multiple Sclerosis" Developing ways

to measure changes in blood flow in the brain due to MS lesions.

ne system activity in l

Award: Research Grant

Term: 12/1/2012-11/30/2015

Funding: \$459,905

Award: Research Grant

Award: Research Grant

Funding: \$705,533

Funding: \$705,149

Award: Research Grant Funding: \$471,063

Term: 10/1/2011-9/30/2014

Nancy Sicotte, M.D.

Cedars-Sinai Medical Center

Los Angeles, CA Term: 7/1/2012-6/30/2014

Topic Area: Measuring MS Disease

Activity/STOP

"Tracking Hippocampal Subregional Atrophy in Multiple Sclerosis: Effect of Estriol Treatment" Using a novel MRI technique to evaluate the potential impacts of estriol treatment on the nervous system during a clinical trial in women with MS.

Award: Research Grant

Award: Research Grant

Funding: \$116,031

Funding: \$254,081

Heather Wishart, Ph.D.

Geisel School of Medicine at Dartmouth

Lebanon, NH Term: 11/1/2009-10/31/2013

Topic Area: Measuring MS Disease

Activity/STOP

"Imaging genetics in MS: A study of cognitive outcomes." Applying advanced research techniques to predict the course of MS.

Neuropathology - Exploring how nerve fibers and cells are damaged during the course of MS

Frank Baas, M.D., Ph.D. Award: Research Grant Academic Medical Center Funding: \$617,522

Amsterdam, The Netherlands Term: 4/1/2013-3/31/2016

Topic Area: Neuropathology/STOP

"Defining the roles of complement in secondary progressive MS and EAE"

Determining how an immune component, called complement, may worsen secondary-progressive MS.

Matthew Bellizzi, M.D., Ph.D. Award: NMSS-AAN Clinician Scientist

University of Rochester Award

Rochester, NY Funding: \$263,622

Topic Area: Neuropathology/STOP Term: 7/1/2012-6/30/2015

"Synaptic injury and neuroprotection in multiple sclerosis" Identifying processes that contribute to the loss of nerve function in MS, and seeking ways to protect the nervous system from damage.

Wei-Chun Chou, Ph.D.

University of North Carolina at Chapel

Fellowship Hill

Funding: \$169,946

Chapel Hill, NC Term: 7/1/2012-6/30/2015

Topic Area: Neuropathology/STOP

"Role of inflammasome in neuro-inflammation disease" Investigating a possible trigger for immune attacks on the brain and spinal cord, for clues to stopping MS activity.

Katherine Conant, M.D.

Funding: \$447,349 Georgetown University Medical Center

Term: 7/1/2009-6/30/2013 Washington, D.C.

Topic Area: Neuropathology/STOP

"MMP-7, IgCAMs, and synaptic injury in multiple sclerosis" Pinpointing the

mechanism whereby a natural enzyme could cause nerve damage in MS.

Funded in part by the National MS Society's South Central Region

Cheng Fang, Ph.D.

Oregon Health & Science University

Portland, OR

Topic Area: Neuropathology/STOP

Award: Postdoctoral Research

Award: Postdoctoral Research

Fellowship

Funding: \$156,515

Award: Research Grant

Term: 7/1/2010-6/30/2013

"Effects of inflammatory mediators on axonal transport in cultured neurons and in intact optic nerves" Exploring whether faulty transfer of proteins inside nerve cells contributes to their damage in MS.

Ari Green, M.D.

University of California, San Francisco

San Francisco, CA

Topic Area: Neuropathology/STOP

Award: Harry Weaver Neuroscience

Scholarship Funding: \$771,772

Term: 7/1/2012-6/30/2017

"In vivo neuronal imaging after demyelinating injury to the visual pathway"

Developing a technique to measure the health and injury of nerve cells, as a potential tool for quickly evaluating the potential of therapies to protect the nervous system in MS.

Claudia Lucchinetti, M.D.

Mayo Clinic College of Medicine Rochester, MN

Topic Area: Neuropathology/STOP

Award: Research Grant Funding: \$1,200,000

Term: 4/1/2005-6/30/2013

"Multiple Sclerosis Lesion Project" Studying damaged areas in the brains of individuals with MS for clues to different patterns of destructive immune factors, and correlating findings with clinical manifestations.

Steven LeVine, Ph.D.

University of Kansas Medical Center

Research Institute, Inc.

Kansas City, KS

Topic Area: Neuropathology/STOP

"Pathogenic implications of cerebrovascular changes in a cerebral model of multiple sclerosis" Investigating how changes in blood vessels may contribute to myelin damage in an MS model.

Award: Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$504,497

Term: 4/1/2013-3/31/2014

Funding: \$80,703

Sarah Lutz, Ph.D. Award: Postdoctoral Research

University of California, Irvine Fellowship

Funding: \$175,804 Irvine, CA

Topic Area: Neuropathology/STOP Term: 7/1/2013-6/30/2016

"Wnt Signaling in Experimental Autoimmune Encephalomyelitis" Exploring ways to reduce the entry of destructive immune cells into the brain as a possible approach to stopping MS attacks.

Joel Pachter, Ph.D.

University of Connecticut Health Center

Farmington, CT Term: 4/1/2011-3/31/2014

Topic Area: Neuropathology/STOP

"Choroid plexus and autoimmune demyelination" Investigating the earliest stages of the immune attack for clues to preventing them in MS.

Steven Petratos, Ph.D.

Monash University Funding: \$510,555

Melbourne, Australia Term: 4/1/2011-3/31/2014

Topic Area: Neuropathology/STOP

"Targeting the molecular mechanisms of axonal degeneration in multiple sclerosis" Exploring how alterations in myelin structure affect the behavior of nerve fibers.

David Pitt, M.D.

Award: Pilot Research Grant

Yale University School of Medicine Funding: \$43,982

New Haven, CT Term: 12/1/2012-11/30/2013

Topic Area: Neuropathology/STOP

"Cortical demyelination leads to toxic accumulation of myelin debris in neurons." Investigating whether debris from damage caused by the immune attack causes further damage to nerve cells during the course of MS.

David Pleasure, M.D.

University of California, Davis

Term: 10/1/2010-9/30/2013 Sacramento, CA

Topic Area: Neuropathology/STOP

"Corticospinal tract degeneration in EAE: role of endolysosomal TLRs" Exploring the role of specific immune reactions in nerve fiber damage and testing ways to block them to protect the nervous system in MS.

Award: Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$433,947

Brian Popko, Ph.D.

University of Chicago Funding: \$594,000

Chicago, IL Term: 4/1/2013-3/31/2016

Topic Area: Neuropathology/STOP

"The DTA oligodendrocyte ablation model in the study of inflammatory demyelination" Using a newly developed model to uncover clues to factors that trigger myelin damage in MS.

Nicole Schaeren-Wiemers, Ph.D.

University of Basel, Klingelbergstrasse Funding: \$404,238

Basel, Switzerland Term: 4/1/2011-3/31/2014

Topic Area: Neuropathology/STOP

"The role of innate immunity and glial metabolism in MS grey matter pathology" Investigating how immune system activity may contribute to long-term disability in MS and its models.

Rhonda Voskuhl, M.D.

Award: Research Grant University of California, Los Angeles Funding: \$505,994

Term: 4/1/2013-3/31/2016 Los Angeles, CA

Topic Area: Neuropathology/STOP

"Sex Chromosome Effects in the CNS during EAE" Looking at how genes on the chromosomes that determine gender may influence the severity of MS.

Neuropharmacology/Neurophysiology - Exploring how nerve fibers and cells work normally and in the disease state, and responses to pharmacological agents

Steven LeVine, Ph.D.

Award: Pilot Research Grant

University of Kansas Medical Center Funding: \$44,000

Research Institute, Inc. Term: 4/1/2013-3/31/2014

Kansas City, KS

Topic Area: Neuropharmacology/STOP

"Do proton pump inhibitors lessen the activity of CNS demyelinating diseases?" Investigating whether a common heartburn treatment that also promotes immune suppression can lessen disease activity or progression in mouse models of MS.

Arun Venkatesan, M.D., Ph.D. Award: Pilot Research Grant

Johns Hopkins University Funding: \$44,000

Baltimore, MD Term: 4/1/2013-3/30/2014

Topic Area: Neuropharmacology/STOP

"Microfluidics to identify novel axon protective therapies" Developing new strategies to protect axons from degeneration in MS, utilizing cutting edge bio-engineering techniques.

Murali Ramanathan, Ph.D. Award: Research Grant The Research Foundation of SUNY Funding: \$704,784

Buffalo, NY Term: 10/1/2012-9/30/2015

Topic Area: Neurophysiology/STOP

"Lipoprotein and Lipid Metabolism in Multiple Sclerosis Disease Progression" Understanding the role of cholesterol and related substances to guide diet and lifestyle choices that will improve disease outcomes in people with MS.

Riley Bove, M.D. Award: NMSS-ABF Clinician Scientist

Brigham and Women's Hospital Award

Boston, MA Funding: \$177,960

Topic Area: Neurophysiology/STOP Term: 7/1/2013-6/30/2015

"Investigation of the role of androgens in multiple sclerosis disease course" Do blood levels of the male sex hormone testosterone influence MS disease activity in men?

STOP, RESTORE

Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS

Enrique Alvarez, M.D., Ph.D. Award: Sylvia Lawry Physician

Washington University School of Fellowship

Medicine Funding: \$195,000

Saint Louis, MO Term: 7/1/2010-6/30/2013

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"Sylvia Lawry Physician Clinical Fellowship" Developing the skills involved in the design, implementation, and analysis of clinical trials in multiple sclerosis.

Funded by the National MS Society's Gateway Area Chapter

Christina Azevedo, M.D. Award: Sylvia Lawry Physician

Yale University School of Medicine Fellowship

New Haven, CT Funding: \$130,000

Topic Area: Therapy/Management of Term: 7/1/2011-6/30/2013

MS/STOP, RESTORE

"Sylvia Lawry Physician Fellowship" Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Alexandra Goodyear, M.D. Award: Sylvia Lawry Physician

Stanford University Fellowship

Palo Alto, CA Funding: \$130,000

Topic Area: Therapy/Management of Term: 8/1/2011-7/31/2013

MS/STOP, RESTORE

"Development of an MS expert specializing in clinical trial design, management and analysis." Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Jennifer Graves, M.D., Ph.D. Award: Sylvia Lawry Physician

University of California, San Francisco Fellowship

San Francisco, CA Funding: \$130,000

Topic Area: Therapy/Management of Term: 7/1/2011-6/30/2013

MS/STOP, RESTORE

"Fellowship in clinical trials and research in multiple sclerosis." Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Adam Kaplin, M.D., Ph.D.Johns Hopkins University

Award: Research Grant
Funding: \$615,298

Baltimore, MD Term: 10/1/2012-9/30/2015

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"Modulation of Glutamate CarboxyPeptidase II activity to treat cognitive impairment in Multiple Sclerosis" The potential of specific molecules as possible therapies for treating cognitive problems in MS.

Raju Kapoor, M.D. Award: Research Grant National Hospital Funding: \$800,515

London, United Kingdom Term: 4/1/2011-3/31/2014

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"A phase II trial of neuroprotection with phenytoin in acute optic neuritis" A clinical trial to determine whether a therapy for epilepsy can prevent nerve fiber damage in optic neuritis, often an early stage of MS.

Co-funded with the MS Society, United Kingdom

Ilana Katz Sand, M.D. Award: Sylvia Lawry Physician

Mount Sinai School of Medicine Fellowship

New York, NY Funding: \$130,000

Topic Area: Therapy/Management of Term: 7/1/2011-6/30/2013

MS/STOP, RESTORE

"Fellowship in multiple sclerosis." Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Sylvia Klineova, M.D. Award: Sylvia Lawry Physician

Mount Sinai School of Medicine Fellowship

New York, NY Funding: \$130,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2014

MS/STOP, RESTORE

"Sylvia Lawry MS Fellowship" Training in how to design and conduct clinical trials to find better treatments for people with MS.

Sabeen Lulu, M.B.B.S. Award: Sylvia Lawry Physician

University of California, San Francisco Fellowship

San Francisco, CA Funding: \$130,000

Topic Area: Therapy/Management of Term: 7/1/2012-6/30/2014

MS/STOP, RESTORE

"Sylvia Lawry Physician Clinical Fellowship" Training in how to design and conduct clinical trials to find better treatments for people with MS.

Jacqueline Nicholas, M.D. Award: Sylvia Lawry Physician

Ohio State University Fellowship

Columbus, OH Funding: \$195,000

Topic Area: Therapy/Management of Term: 7/1/2011-6/30/2014

MS/STOP, RESTORE

"Sylvia Lawry Physician Clinical Fellowship" Developing the skills involved in the design, implementation, and analysis of clinical trials in MS.

Daniel Ontaneda, M.D.

The Cleveland Clinic Foundation

Cleveland, OH

Topic Area: Therapy/Management of

MS/STOP, RESTORE

Award: Sylvia Lawry Physician

Fellowship

Funding: \$195,000

Funding: \$544,750

Award: Research Grant

Award: Research Grant

Term: 1/12/2007-1/11/2014

Funding: \$3,693,607

Term: 10/1/2012-9/30/2014

Funding: \$359,516

Term: 7/1/2010-6/30/2013

Term: 9/28/2012-9/28/2015

Award: Fast Forward - General Fund

"Sylvia Lawry Physician Clinical Fellowship" Developing the skills involved in the design, implementation, and analysis of clinical trials in multiple sclerosis.

Melissa Ortega, M.D.

University of Miami

Miami, FL

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"A Randomized Double-Blind Placebo-Controlled Trial of Axona for Cognitive Impairment in Patients with Multiple Sclerosis" Clinical trial to determine if Axona, a medical food, can protect cognitive function in people with MS.

Jesus Lovera, M.D., M.S.P.H.

Louisiana State University Health Sciences

Center - N.O.

New Orleans, LA

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"Safety and Neuroprotective Effects of Polyphenon E in MS" Investigating a novel complementary therapy to slow or stop progressive nerve damage in MS.

Rhonda Voskuhl, M.D.

University of California, Los Angeles

Los Angeles, CA

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"A combination trial of Copaxone and Estriol in relapsing remitting MS" Testing the ability of the sex hormone estriol to slow disease course and activity in women with MS.

Funded in part by the NMSS Southern California & Nevada Chapter, South Central Region, NIH and other generous chapters and donors

Emmanuelle Waubant, M.D., Ph.D.

University of California, San Francisco

San Francisco, CA

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"Neuroprotection with riluzole in patients with early MS" Clinical trial to determine if a drug approved for ALS can protect brain and spinal cord tissues in MS.

Award: Research Grant

Award: Research Grant

Award: Research Grant

Term: 10/1/2010-9/30/2013

Award: Strategic Initiative

Funding: \$333,609

Term: 4/1/2011-3/31/2014

Funding: \$491,950

Term: 4/1/2007-10/1/2013

Funding: \$1,064,639

Vijayshree Yadav, M.D.

Oregon Health & Science University

Portland, OR

Topic Area: Therapy/Management of

MS/STOP, RESTORE

"Lipoic acid as a treatment for acute optic neuritis: a pilot trial" A clinical trial to determine whether an oral antioxidant can prevent nerve damage in people with optic neuritis, often the first symptom of MS.

Funded by a gift from the National MS Society South Central Region

Measuring MS Disease Activity - Using sophisticated tools to track MS activity over time

Pallab Bhattacharyya, Ph.D.

The Cleveland Clinic Foundation Cleveland, OH

Topic Area: Measuring MS Disease

Activity/STOP, RESTORE

"Role of inhibitory neurotransmitter GABA in motor performance in MS" Studying how a molecule used by nerves to communicate with each other may contribute to physical disability in MS.

Lynn Hudson, Ph.D.

Funding: \$3,000,000 Critical Path Institute

Term: 10/1/2012-9/30/2016 Tucson, AZ

Topic Area: Measuring MS Disease

Activity/STOP, RESTORE

"Qualifying Clinical Outcome Assessments through a Multiple Sclerosis

Consortium (MSC)" Analyzing data from MS clinical trials to develop a more sensitive tool for evaluating the benefits of treatments on clinical symptoms and progression of MS.

Robert Naismith, M.D.

Washington University School of

Medicine Term: 7/1/2012-6/30/2014

Saint Louis, MO

Topic Area: Measuring MS Disease

Activity/STOP, RESTORE

"Quantitative imaging of tissue recovery, repair, and clinical outcomes in multiple sclerosis" Applying advanced imaging techniques to evaluate nerve tissue injury and repair for measure the ability of new therapies to restore function in MS.

Award: Research Grant

Award: Research Grant

Award: Pilot Research Grant

Funding: \$437,393

Sheng-Kwei Song, Ph.D.

Washington University School of Funding: \$485,100

Medicine Term: 10/1/2011-9/30/2014

Saint Louis, MO

Topic Area: Measuring MS Disease

Activity/STOP, RESTORE

"Noninvasive quantification of axon injury in EAE and MS" Testing a new imaging technique for its ability to provide a window to disease activity, damage and treatment in people with MS.

William Spees, Ph.D.

Washington University School of Funding: \$44,000

Medicine Term: 9/1/2012-8/31/2013

St. Louis, MO

Topic Area: Measuring MS Disease

Activity/STOP, RESTORE

"Detecting Optic Nerve Dysfunction in EAE Mice" Determining whether imaging techniques can be used to evaluate MS progression by assessing optic nerve function in mice with an MS-like disease.

Psychosocial Aspects of MS - Understanding how MS effects cognitive functioning and other aspects of quality of life

Jonathan Cook, Ph.D. Award: Pilot Research Grant

Columbia University Funding: \$44,000

New York, NY Term: 11/1/2012-10/31/2013

Topic Area: Psychosocial Aspects of

MS/STOP, RESTORE

"Social Psychological Factors Affecting the Progression of MS" Examining whether concealment of MS influences health-promoting behaviors and disease progression.

Helen Genova, Ph.D.

Kessler Foundation Research Center

West Orange, NJ

Topic Area: Psychosocial Aspects of

MS/STOP, RESTORE

"Examination of cognitive fatigue in multiple sclerosis using fmri" Applying a sophisticated brain imaging technique to measure mental fatigue in people with MS.

Deborah Miller, Ph.D.

The Cleveland Clinic Foundation Cleveland, OH

Topic Area: Psychosocial Aspects of

MS/STOP, RESTORE

Award: Health Care Delivery & Policy

Research Contract Funding: \$369,120

Award: Research Grant

Term: 11/1/2009-10/31/2013

Funding: \$344,180

Term: 10/1/2012-9/30/2014

"INFORMS: Improving Neuro-QOL's Functionality for Outcomes Research in Multiple Sclerosis" Developing a way to assess MS symptoms with a standardized patient-reported questionnaire.

Stephen Rao, Ph.D.

The Cleveland Clinic Foundation

Cleveland, OH

Topic Area: Psychosocial Aspects of

MS/STOP, RESTORE

Award: Pilot Research Grant

Funding: \$43,820 Term: 11/1/2012-10/31/2013

Award: Research Grant

Term: 10/1/2010-9/30/2013

Funding: \$557,137

"Validation of an iPad App for Assessing Cognition in MS" Evaluating a test for detecting cognitive dysfunction in MS, administered using an iPad, in people with MS.

Myelin/Glial Biology - Investigating how myelin is formed and the role played by oligodendrocytes and other nervous system support cells in MS.

Roumen Balabanov, M.D.

Rush University Medical Center

Chicago, IL

Topic Area: Biology of Glia/STOP,

RESTORE

"Role of IRF-1 in oligodendrocytes" Looking for ways to protect the cells that make nerve-protecting myelin from damage in MS.

Paid by special funds provided by the Illinois Lottery

Ben Barres, M.D., Ph.D.

Stanford University Medical Center

Stanford, CA

RESTORE

Term: 10/1/2010-9/30/2013 Topic Area: Biology of Glia/STOP,

"Signaling mechanisms that control the blood-brain barrier" Determining how the protective barrier between the bloodstream and the brain and spinal cord breaks down in MS.

Award: Research Grant

Award: Research Grant

Award: Research Grant

Term: 4/1/2011-3/31/2014

Funding: \$559,954

Funding: \$565,739

Funding: \$496,237

Holly Colognato, Ph.D.

State University of New York at Stony

Term: 4/1/2011-3/31/2014 Brook

Stony Brook, NY

Topic Area: Biology of Glia/STOP,

RESTORE

"Adhesion-regulated signaling mechanisms during myelination and remyelination" Studying how immature cells are stimulated to form cells capable of repairing nerve-insulating myelin in MS.

Tara DeSilva, Ph.D.

University of Alabama at Birmingham

Birmingham, AL

Topic Area: Biology of Glia/STOP,

RESTORE

"Glutamatergic signaling in demyelination and remyelination in multiple sclerosis" Exploring how MS immune activity alters a brain chemical active during myelin damage and repair, for clues to stopping MS progression.

Vittorio Gallo, Ph.D.

The Children's National Medical Center

Washington, D.C.

Topic Area: Biology of Glia/STOP,

RESTORE

"Role of Endothelin-1 in reactive gliosis and remyelination" Exploring a signaling molecule that may be key to improving myelin repair in MS.

Funding: \$537,577

Award: Research Grant

Term: 4/1/2011-3/31/2014

Alexander Gow, Ph.D.

Wayne State University Funding: \$635,358

Detroit, MI Term: 7/1/2009-6/30/2013

Topic Area: Biology of Glia/STOP,

RESTORE

"Non-Immune models of neurodegeneration" Investigating the cells that make nerve-insulating myelin and factors that may impede the normal repair of myelin during the course of MS.

Award: Research Grant

Award: Research Grant

Alexander Gow, Ph.D. Award: Research Grant

Wayne State University Funding: \$775,675

Detroit, MI Term: 4/1/2012-3/31/2015

Topic Area: Biology of Glia/STOP,

RESTORE

"Akt signaling in stressed oligodendrocytes" Investigating factors that lead to the destruction of myelin-making cells, for clues to inducing repair.

Judith Grinspan, Ph.D.

Children's Hospital of Philadelphia Funding: \$567,000

Philadelphia, PA Term: 7/1/2012-6/30/2015

Topic Area: Biology of Glia/STOP,

RESTORE

"A role for BMP in oxidative stress during demyelination" Investigating whether specific proteins that are released during nervous system damage may play a role in limiting natural myelin repair during the course of MS.

Danielle Harlow, Ph.D. Award: Postdoctoral Research

University of Colorado Denver - Anschutz Fellowship

Medical Campus Funding: \$150,800

Aurora, CO Term: 7/1/2011-6/30/2014

Topic Area: Biology of Glia/STOP,

RESTORE

"Chemotropic molecules in oligodendrocyte precursor migration." Looking for clues to enhancing myelin regeneration in MS by naturally occurring repair cells in the brain.

Trevor Kilpatrick, M.B.B.S., Ph.D.

University of Melbourne

Parkville VIC, Australia

Topic Area: Biology of Glia/STOP,

RESTORE

"BDNF signalling and its impact upon oligodendrocyte myelination in vivo"

Investigating a molecule that may stimulate the repair of myelin in MS.

Qing Lu, Ph.D.

UT Southwestern Medical Center at Dallas

Funding: \$231,073 Dallas, TX Term: 4/1/2011-3/31/2014

Topic Area: Biology of Glia/STOP,

RESTORE

"Chromatin remodeling in oligodendrocyte myelination and remyelination"

Investigating a novel strategy for enhancing myelin repair in MS. Funded by a gift from the National MS Society South Central Region

Jack Rosenbluth, M.D.

New York University Medical Center

New York, NY

Topic Area: Biology of Glia/STOP,

RESTORE

Award: Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$531,792

Term: 7/1/2012-6/30/2015

Funding: \$489,027

Award: Research Grant

Award: Research Grant

Term: 4/1/2011-3/31/2014

Funding: \$507,874

Funding: \$103,125

Term: 4/1/2011-3/31/2014

"Role of the paranodal junction in myelinated nerve fibers." Looking at how alterations in myelin structure affect the behavior of nerve fibers.

James Salzer, M.D., Ph.D.

New York University

New York, NY

Topic Area: Biology of Glia/STOP,

RESTORE

"Assembly of CNS Nodes of Ranvier" Determining how the specialized nerve fiber regions that carry nerve signals develop, with the goal of preserving or restoring proper nerve signaling and function in MS.

Steven Scherer, M.D., Ph.D.

University of Pennsylvania

Philadelphia, PA Term: 4/1/2011-3/31/2014

Topic Area: Biology of Glia/STOP,

RESTORE

"Essential roles of gap junction proteins in oligodendrocytes" Studying cell components that may be important for maintaining myelin in MS-like disease.

Nada Zecevic, M.D., Ph.D.

University of Connecticut Health Center

Term: 4/1/2011-3/31/2014 Farmington, CT

Topic Area: Biology of Glia/STOP,

RESTORE

"Development of oligodendrocytes in the human brain: relevance for MS"

Studying the growth processes of cells that make nerve-insulating myelin for clues to what goes wrong in MS.

Award: Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$460,282

Funding: \$335,723

Nervous System (CNS) Repair - Searching for ways to stop and reverse tissue damage in MS

David Baker, Ph.D.

Queen Mary University of London Funding: \$384,064

Term: 9/30/2011-9/30/2013 London, United Kingdom

Topic Area: CNS Repair/STOP, RESTORE

"Engineered precursors as a delivery mechanism for neuroprotective therapies"

Developing a new strategy to deliver a myelin-repair therapy to protect the nervous system from MS damage.

Joyce Benjamins, Ph.D.

Award: Pilot Research Grant Wayne State University Funding: \$44,000

Detroit, MI Term: 6/1/2012-5/31/2013

Topic Area: CNS Repair/STOP, RESTORE

"Ubiquitin D/FAT10: A New Signal for Neuronal Responses to

Neuroinflammation" Investigating a protein that plays a role in the development and survival of nerve cells, for clues to protecting these cells in MS.

Manzoor Bhat, Ph.D.

The University of Texas Health Science

Center at San Antonio Term: 8/1/2012-9/30/2014

San Antonio, TX

Topic Area: CNS Repair/STOP, RESTORE

"Disorganization and re-organization of axonal domains in myelinated axons"

Studying changes in nerve fiber structure that affect the function of nerves for clues to preventing disability in MS.

Bevyn Jarrott, Ph.D., B.Pharm. Award: Fast Forward - Merck Serono

Howard Florey Institute Fund

Parkville VIC, Australia Funding: \$275,000

Topic Area: CNS Repair/STOP, RESTORE Term: 5/16/2011-5/16/2013

"Novel compounds to protect glial functions in MS" Targeting tiny pores, called ion

channels, to find a therapy that can protect the nervous system from MS damage.

Gareth John, D.V.M., Ph.D. Award: Research Grant

Mount Sinai School of Medicine Funding: \$82,500

New York, NY Term: 10/1/2010-9/30/2013

Topic Area: CNS Repair/STOP, RESTORE

"Reactive astrogliosis regulates blood-brain barrier permeability" Tracing events leading to the breakdown of the barrier that restricts immune cells from entering the brain, to find ways to minimize lesion formation and relapses in MS.

Wensheng Lin, M.D., Ph.D. Award: Research Grant University of Minnesota Funding: \$572,022

Minneapolis, MN Term: 10/1/2012-9/30/2015

Topic Area: CNS Repair/STOP, RESTORE

"Endoplasmic reticulum stress in immune-mediated demyelinating diseases" Researching strategies to protect the nervous system and increase repair in MS to restore function.

Jia Liu, Ph.D. Award: Postdoctoral Research

Mount Sinai School of Medicine Fellowship

New York, NY Funding: \$150,800

Topic Area: CNS Repair/STOP, RESTORE Term: 7/1/2010-6/30/2013

"Role of histone methylation in oligodendrocyte differentiation in development and remyelination in MS" Manipulating proteins to stimulate nervous system repair in MS.

Gianvito Martino, M.D.Award: Research Grant Fondazione Centro San Raffaele
Funding: \$311,992

Milan, Italy Term: 10/1/2012-9/30/2014

Topic Area: CNS Repair/STOP, RESTORE

"Induced pluripotent stem cells as a potential source of autologous neural stem cells for multiple sclerosis therapy" Transforming normal adult cells into nervous system stem cells that may be used as cells that can help stimulate repair of damaged myelin in MS.

Carlos Parras, Ph.D.Award: Research Grant INSERM
Funding: \$274,423

Paris, France Term: 10/1/2010-9/30/2013

Topic Area: CNS Repair/STOP, RESTORE

"Promoting remyelination from endogenous oligodendrocyte precursors" Studying genes inside the body's spare cells that are capable of maturing into myelin-forming cells to find ways to stimulate nervous system repair in MS.

Funded by the National MS Society's South Central Region

Bridget Shafit-Zagardo, Ph.D. Award: Research Grant Albert Einstein College of Medicine Funding: \$587,268

Bronx, NY Term: 4/1/2011-3/31/2014

Topic Area: CNS Repair/STOP, RESTORE

"Strategies to enhance neuroprotection and repair in the inflamed CNS" Looking for ways to protect against nerve tissue damage in MS.

Bruce Trapp, Ph.D. Award: Research Grant The Cleveland Clinic Foundation Funding: \$226,044

Cleveland, OH Term: 11/1/2009-10/31/2013

Topic Area: CNS Repair/STOP, RESTORE

"Cellular and molecular mechanisms of cortical remyelination in MS"

Understanding why some sites of damage in the brain are repaired more readily than others during the course of MS.

2009 Stephen C. Reingold Award for highest ranked research proposal of the year

Jennifer Welser-Alves, Ph.D. Award: Postdoctoral Research

The Scripps Research Institute Fellowship

La Jolla, CA Funding: \$150,800

Topic Area: CNS Repair/STOP, RESTORE Term: 7/1/2010-6/30/2013

"Role of the alpha6 beta4 integrin in astrocyte activation" Testing whether a molecule on brain cells may contribute to a process that hampers tissue repair.

Funded in part by the Dave Tomlinson Research Fund through the NMSS Mid-America Chapter

Teresa Wood, Ph.D. Award: Research Grant

University of Medicine and Dentistry of Funding: \$872,517

New Jersey Term: 11/1/2009-10/31/2013

Newark, NJ

Topic Area: CNS Repair/STOP, RESTORE

"The mTOR Pathway: A master regulator of oligodendrocyte differentiation"

Investigating how to make immature myelin forming cells form mature cells that manufacture new myelin to repair MS damage.

Epidemiology - Investigating who gets MS in search of the cause and risk/protective factors

Albert Lo, M.D., Ph.D. Award: Research Grant Brown University Funding: \$713,735

Providence, RI Term: 9/30/2011-9/30/2013

Topic Area: Epidemiology/STOP,

RESTORE

"Multiple sclerosis:prevalence & social functioning by disease duration & subtype" A comprehensive study of the impact of MS on employment, interpersonal relations and daily living.

Health Care Delivery/Policy - Studying how people with MS utilize health-care services and how health-care delivery can be improved

Robert Buchanan, Ph.D. Award: Health Care Delivery & Policy

Mississippi State University Research Contract Mississippi State, MS Funding: \$117,259

Topic Area: Health Care Delivery/ Term: 8/16/2005-6/30/2013

Policy/STOP, RESTORE

"The long-term care needs of people with multiple sclerosis" Exploring the long-term care needs of people with MS and the services they receive in care facilities.

Michael Halpern, M.D., Ph.D. Award: Health Care Delivery & Policy

RTI International Research Contract Washington, D.C. Funding: \$376,772

Topic Area: Health Care Delivery/ Term: 10/1/2010-9/30/2013

Policy/STOP, RESTORE

"'Analysis of MS Physician Workforce'" Understanding issues that discourage doctors from becoming MS neurologists and identifying possible solutions.

Sarah Minden, M.D. Award: Health Care Delivery & Policy

Brigham and Women's Hospital Research Contract Boston, MA Funding: \$622,531

Topic Area: Health Care Delivery/ Term: 11/1/2009-10/31/2013

Policy/STOP, RESTORE

"A comprehensive analysis of the direct and indirect costs of multiple sclerosis" Documenting the complete costs of MS to individuals and society, providing much-needed statistics to aid advocacy for improved health care and quality of life.

Ellen Mowry, M.D. Award: Pilot Research Grant

Johns Hopkins University Funding: \$43,960

Baltimore, MD Term: 4/1/2013-3/30/2014

Topic Area: Health Care Delivery/

Policy/STOP, RESTORE

"The utility of screening for urinary tract infection at the time of presumed multiple sclerosis relapse" Investigating how often people with MS who present with possible relapses actually have urinary tract infections.

Katia Noyes, PhD, MPH Award: Health Care Delivery & Policy

University of Rochester Research Contract Rochester, NY Funding: \$444,991

Topic Area: Health Care Delivery/ Term: 7/1/2009-6/30/2013

Policy/STOP, RESTORE

"Evaluating nursing home and other long-term care in multiple sclerosis (ENHOLMS)" Nationwide analysis of long-term care services used by people with MS and the costs of these services for patients and providers.

Genetics - Searching for genes that make people susceptible to MS or otherwise influence the disease, for clues to its cause and better treatment

Philip De Jager, M.D., Ph.D. Award: Harry Weaver Neuroscience

Brigham and Women's Hospital Scholarship

Boston, MA Funding: \$783,807

Topic Area: Human Genetics/STOP, Term: 7/1/2008-6/30/2013

RESTORE

"Dissection of the CD58 pathway in multiple sclerosis" How does variation of a specific gene alter the immune system such to reduce the risk of developing MS, and can this lead to new therapies?

Immunology - Exploring the role of the immune system in the development and progression of MS to find ways to stop the immune attack on nervous tissues

Christopher Bever, M.D. Award: Research Grant University of Maryland Funding: \$495,000

Baltimore, MD Term: 9/30/2011-9/30/2014

Topic Area: Immunology/STOP,

RESTORE

"Combination therapy with interferon beta and brain derived neurotropic factor in experimental allergic encephalomyelitis" Studying an experimental combination therapy for its ability to slow or halt long-term nerve damage in an animal model of MS.

Gabriela Constantin, M.D., Ph.D.

University of Verona

Funding: \$138,000 Term: 10/1/2012-9/30/2014 Verona, Italy

Topic Area: Immunology/STOP,

RESTORE

"Effect of metabolic intervention with pantethine on experimental autoimmune encephalomyelitis" How a substance related to vitamin B5 can treat EAE, an animal model of MS.

Shen-Yi Howng, Ph.D.

University of California, San Francisco

San Francisco, CA

Topic Area: Immunology/STOP,

RESTORE

Award: Postdoctoral Research Fellowship

Award: Research Grant

Funding: \$150,800

Term: 7/1/2011-6/30/2014

Award: Research Grant

Award: Research Grant

Term: 10/1/2012-9/30/2015

Funding: \$573,177

Term: 10/1/2011-9/30/2014

Funding: \$434,167

"Understanding miRNA regulation of astrocyte function in myelination, demyelination, and remyelination." Studying brain cells that contribute to myelin formation and destruction in MS, for clues to reducing nervous system damage.

Richard Ransohoff, M.D.

Cleveland Clinic Foundation

Cleveland, OH

Topic Area: Immunology/STOP,

RESTORE

"Monocytes and microglia in EAE" Differentiating the role of specific brain cells that contribute to both nervous system damage and repair, for clues to stopping MS and restoring function.

Stephen Stohlman, Ph.D.

The Cleveland Clinic Foundation

Cleveland, OH

Topic Area: Immunology/STOP,

RESTORE

"IFN-g dependent astrocyte regulation of CNS autoimmunity" The role of cells known as astrocytes in regulating immune activity and potential for nervous system repair in chronic progressive MS.

Linda Watkins, Ph.D.

University of Colorado at Boulder

Boulder, CO

Topic Area: Immunology/STOP,

RESTORE

"XT-101 for Treatment of MS-Related Symptoms" Investigating a new delivery method for an immune system molecule that could slow or stop MS attacks.

Neuropathology - Exploring how nerve fibers and cells are damaged during the course of MS

Ralph Benedict, Ph.D.

Buffalo General Hospital Buffalo, NY

Topic Area: Neuropathology/STOP,

RESTORE

"Longitudinal Analysis of Regional Brain Atrophy and Personality Change in MS" Investigating changes in the brain that may lead to personality and behavior disorders in MS, and the impact of those disorders on disease course and quality of life.

Helen Genova, Ph.D.

Kessler Foundation Research Center

West Orange, NJ

Topic Area: Neuropathology/STOP,

RESTORE

"A longitudinal analysis of cognitive impairment and white matter damage in MS" Using a sensitive imaging technique to see how damage to nerve-insulating myelin affects learning and memory in people with MS.

Neuropharmacology/Neurophysiology - Exploring how nerve fibers and cells work normally and in the disease state, and responses to pharmacological agents

Fang Liu, M.D., Ph.D.

Centre for Addiction and Mental Health

Toronto, Ontario, Canada

Topic Area: Neuropharmacology/STOP,

RESTORE

"Development of novel therapeutics for the treatment of Multiple Sclerosis"

Studying whether an experimental therapy can limit damage to nerve cells as a first step to develop a new treatment for MS.

59

Award: Research Grant Funding: \$379,353

Term: 10/1/2012-9/30/2015

Award: Research Grant

Funding: \$506,412

Term: 7/1/2009-6/30/2013

Award: Pilot Research Grant

Term: 9/30/2011-10/1/2013

Award: Research Grant

Term: 10/1/2012-9/30/2015

Funding: \$450,000

Funding: \$43,539

Dimitry Ofengeim, Ph.D. Award: Postdoctoral Research

Harvard Medical School Fellowship

Boston, MA Funding: \$175,804

Topic Area: Neuropharmacology /STOP, Term: 7/1/2013-6/30/2016

RESTORE

"Targeting RIP1 kinase as a therapeutic target in MS to both reduce inflammation and attenuate oligodendrocyte degeneration." Early testing of a strategy to reduce inflammation and protect cells that make nerve-insulating myelin as a possible new therapeutic approach to treating MS.

Diana Shineman, Ph.D. Award: Strategic Initiative

Alzheimer's Drug Discovery Foundation Funding: \$40,000

New York, NY Term: 10/1/2012-9/30/2013

Topic Area: Neuropharmacology/STOP,

RESTORE

"Collaborative CNS Screening Initiative" Joining forces with the Alzheimer's Drug Discovery Foundation and Beyond Batten Disease Foundation to support a shared resource for discovering drugs active against nerve degeneration

RESTORE

Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS

Michelle Cameron, M.D., P.T. Award: Pilot Research Grant

Veterans Administration Medical Center Funding: \$42,000

Portland, OR Term: 6/1/2012-6/30/2013

Topic Area: Therapy/Management of

MS/RESTORE

"Methylphenidate to Improve Balance and Walking in Multiple Sclerosis"

Examining the effects of an inexpensive stimulant medication on balance and walking in people with MS.

Jeffrey Cohen, M.D. Award: Pilot Research Grant

The Cleveland Clinic Foundation Funding: \$32,696

Cleveland, OH Term: 6/1/2012-5/31/2013

Topic Area: Therapy/Management of

MS/RESTORE

"Characterization of mesenchymal stem cells from healthy control donors"

Looking at how adult stem cells survive and function, as part of a larger study investigating their potential for treating MS.

Brian Popko, Ph.D.

University of Chicago

Chicago, IL

Topic Area: Therapy/Management of

MS/RESTORE

"Development and characterization of fluorinated 4-aminopyridine analogs for therapy and PET imaging in multiple sclerosis" Developing new drugs to improve walking in people with MS and for use in imaging studies.

Award: Illinois Lottery Pilot

Term: 10/1/2012-9/30/2013

Funding: \$110,000

Award: Research Grant

Term: 10/1/2006-9/30/2013

Award: Pilot Research Grant

Funding: \$42,835

Award: Research Grant

Term: 4/1/2013-3/31/2018

Funding: \$619,618

Funding: \$549,520

Paid by special funds provided by the Illinois Lottery

Dean Wingerchuk, M.D.

Mayo Clinic Scottsdale

Scottsdale, AZ

Topic Area: Therapy/Management of

MS/RESTORE

"Aspirin for treatment of multiple sclerosis-related fatigue" Conducting a clinical trial of aspirin to improve fatigue in people with MS.

Psychosocial Aspects of MS - Understanding how MS effects cognitive functioning and other aspects of quality of life

Peter Arnett, Ph.D.

Pennsylvania State University

University Park, PA Term: 11/1/2012-10/31/2013

Topic Area: Psychosocial Aspects of

MS/RESTORE

"Functional Brain Mechanisms Underlying Depression in MS" Investigating whether people with MS are more prone to depression because of structural damage to the brain.

Victoria Leavitt, Ph.D.

Kessler Foundation Research Center

West Orange, NJ

Topic Area: Psychosocial Aspects of

MS/RESTORE

"Resting State Functional Connectivity as a Predictor of Memory Decline in Multiple Sclerosis" Looking for a way to predict who will experience memory decline due to MS so that treatments to slow or prevent it can be started early.

Aaron Turner, Ph.D. Award: Mentor-Based Postdoctoral

University of Washington Fellowship

Seattle, WA Funding: \$382,459

Topic Area: Psychosocial Aspects of Term: 7/1/2013-6/30/2018

MS/RESTORE

"The Seattle collaborative post-doctoral fellowship in MS rehabilitation research"

A training program to provide fellows research skills that will enable them to conduct studies aimed at improving quality of life for people with MS.

Rehabilitation - Seeking ways to maximize physical and mental abilities and reduce symptoms

Abiodun Akinwuntan, P.T., Ph.D. Award: Research Grant Georgia Health Sciences University Funding: \$359,569

Augusta, GA Term: 10/1/2012-9/30/2015

Topic Area: Rehabilitation/RESTORE

"Assessment and rehabilitaion of fitness-to-drive in individual with Multiple Sclerosis (MS)" Evaluating ways to measure and improve the driving ability of people with MS.

Alexander Aruin, D.Sc., Ph.D. Award: Mentor-Based Postdoctoral

University of Illinois at Chicago Fellowship

Chicago, IL Funding: \$405,990

Topic Area: Rehabilitation/RESTORE Term: 7/1/2012-6/30/2017

"Rehabilitation research training to enhance functional performance in MS"

Training young scientists to conduct research in rehabilitation approaches to help people with MS achieve higher quality of life and maximal function.

Alexander Aruin, D.Sc., Ph.D. Award: Pilot Research Grant

University of Illinois at Chicago Funding: \$44,001

Chicago, IL Term: 4/1/2013-3/30/2014

Topic Area: Rehabilitation/RESTORE

"Anticipatory postural control in individuals with multiple sclerosis" Investigating a method for improving balance control in people with MS.

Michael Basso, Ph.D. Award: Pilot Research Grant

University of Tulsa Funding: \$39,873

Tulsa, OK Term: 2/1/2012-3/31/2014

Topic Area: Rehabilitation/RESTORE

"A manualized cognitive rehabiliation program for Multiple Sclerosis" Developing a standardized program to improve memory in people with MS.

Francois Bethoux, M.D.Award: Research Grant The Cleveland Clinic Foundation
Funding: \$274,868

Cleveland, OH Term: 10/1/2010-9/30/2013

Topic Area: Rehabilitation/RESTORE

"Impact of a hip flexion assist device on gait performance in multiple sclerosis

patients" Evaluating a new device designed to aid walking in people with MS.

Paid in part by a grant from the Conrad N. Hilton Foundation

Nancy Chiaravalloti, Ph.D. Award: Pilot Research Grant

Kessler Foundation Research Center Funding: \$43,494

West Orange, NJ Term: 4/1/2013-3/30/2014

Topic Area: Rehabilitation/RESTORE

"Stylistic memory enhancement" Investigating a new treatment protocol for learning and memory deficits in people with MS.

Nancy Chiaravalloti, Ph.D. Award: Research Grant

Kessler Foundation Research Center Funding: \$62,519

West Orange, NJ Term: 10/1/2011-9/30/2013

Topic Area: Rehabilitation/RESTORE

"Applying speed of processing training (SPT) to individuals with MS" Testing the ability of a technique for improving cognition in people with MS.

John DeLuca, Ph.D. Award: Mentor-Based Postdoctoral

Kessler Foundation Research Center Fellowship

West Orange, NJ Funding: \$382,865

Topic Area: Rehabilitation/RESTORE Term: 7/1/2012-6/30/2017

"MS Fellowship in Neuropsychological Rehabilitation" Training postdoctoral fellows for success in careers dedicated to research in cognitive rehabilitation to improve the lives of people with MS.

Lee Dibble, Ph.D. Award: Pilot Research Grant

University of Utah Funding: \$43,745

Salt Lake City, UT Term: 11/1/2012-10/31/2013

Topic Area: Rehabilitation/RESTORE

"Postural and gaze stability function in persons with MS at risk for falls: Characterizing deficits and response to treatment" Determining the source of balance problems and falls in people with MS. **Dawn Ehde, Ph.D.** Award: Mentor-Based Postdoctoral

University of Washington Fellowship

Seattle, WA Funding: \$385,876

Topic Area: Rehabilitation/RESTORE Term: 7/1/2008-6/30/2013

"MS rehabilitation research fellowship program" Providing training to postdoctoral

fellows in a wide variety of MS rehabilitation research areas.

Bo Fernhall, Ph.D.University of Illinois

Award: Research Grant
Funding: \$685,183

Chicago, IL Term: 10/1/2012-9/30/2015

Topic Area: Rehabilitation/RESTORE

"C - Exercise, Subclinical Atherosclerosis and Walking Mobility in Multiple Sclerosis" Evaluating a home-based exercise program with the potential to improve mobility and cardiovascular health in people with MS.

Marcia Finlayson, Ph.D. Award: Mentor-Based Postdoctoral

Queen's University Fellowship

Kingston, Ontario, Canada Funding: \$173,465

Topic Area: Rehabilitation/RESTORE Term: 9/17/2012-9/16/2014

"Building capacity to develop, implement and evaluate MS self-management research" Training postdoctoral fellows to conduct MS rehabilitation research that focuses on examining ways that people can enhance their ability to effectively manage their daily lives and improve their quality of life.

Brett Fling, Ph.D. Award: Postdoctoral Research

Oregon Health & Science University Fellowship

Beaverton, OR Funding: \$170,196

Topic Area: Rehabilitation/RESTORE

Term: 7/1/2013-6/30/2016

"The neural characteristics of proprioceptive-related balance deficits in Multiple Sclerosis" Understanding factors that influence balance control in people with MS for clues to improving function.

Susan Forwell, Ph.D. Award: Mentor-Based Postdoctoral

University of British Columbia Fellowship

Vancouver, British Columbia, Canada Funding: \$215,078

Topic Area: Rehabilitation/RESTORE Term: 7/1/2010-6/30/2013

"UBC MS Rehabilitation Fellowship" Serving as a mentor to train promising

clinician-scientists in rehabilitation research specific to MS.

Barbara Giesser, M.D.

University of California, Los Angeles

Term: 11/1/2009-10/31/2013 Los Angeles, CA

Topic Area: Rehabilitation/RESTORE

"Exercise as a strategy to treat cognitive dysfunction in persons with MS" Looking

Award: Research Grant

Funding: \$560,819

at how aerobic exercise may improve mental ability in people with MS.

Jeffrey Hebert, P.T., Ph.D.

Award: Research Grant University of Colorado Denver - Anschutz Funding: \$536,295

Term: 10/1/2012-9/30/2015 Medical Campus

Aurora, CO

Topic Area: Rehabilitation/RESTORE

"C - Vestibular rehabilitation for persons with multiple sclerosis: who benefits the most?" The potential of balance and eye movement training for improving mobility in people with MS.

Christoph Heesen, M.D.

Award: Mentor-Based Postdoctoral

University Medical Center Hamburg-Fellowship

Funding: \$396,392 **Eppendorf**

Hamburg, Germany Term: 7/1/2013-6/30/2018

Topic Area: Rehabilitation/RESTORE

"Development and validation of behavioural interventions to enhance selfmanagement in MS" Training in research aimed at developing ways to help people with MS enhance their knowledge and ability for managing their disease.

Fay Horak, P.T., Ph.D.

Award: Mentor-Based Postdoctoral

Fellowship Oregon Health & Science University

Funding: \$407,466 Beaverton, OR

Term: 7/1/2009-6/30/2014 Topic Area: Rehabilitation/RESTORE

"Rehabilitation research training in postural control of multiple sclerosis"

Developing a training program to enhance research into ways to use rehabilitation to improve balance and gait in people with MS.

Lauren Krupp, M.D.

Award: Research Grant State University of New York at Stony Funding: \$628,313

Term: 4/1/2013-3/31/2016 Brook

Stony Brook, NY

Topic Area: Rehabilitation/RESTORE

"Plasticity-based, adaptive, computerized cognitive remediation treatment (PACR) for adults with Multiple Sclerosis (MS)" Evaluating a web-based program to help improve memory and learning in people with MS.

Victoria Leavitt, Ph.D.

Kessler Foundation Research Center

Funding: \$44,000 Term: 11/1/2012-10/31/2013 West Orange, NJ

Topic Area: Rehabilitation/RESTORE

"A Randomized Controlled Trial of Intellectual Enrichment to Build Cognitive Reserve in Multiple Sclerosis" Testing whether intellectually enriching activities delivered via an iPad can improve cognitive function and alter brain activity in people with MS.

Award: Pilot Research Grant

Award: Research Grant

Award: Illinois Lottery Pilot

Award: Pilot Research Grant

Funding: \$90,427

Victor Mark, M.D.

University of Alabama at Birmingham Funding: \$701,261

Birmingham, AL Term: 10/1/2009-9/30/2013

Topic Area: Rehabilitation/RESTORE

"Rehabilitating extremity use after multiple sclerosis" Testing a new therapy to improve function in daily activities of people with progressive MS.

Robert Motl, Ph.D.

University of Illinois at Urbana-

Term: 10/1/2012-9/30/2013 Champaign

Urbana, IL

Topic Area: Rehabilitation/RESTORE

"Development and Evaluation of Cardiorespiratory and Muscular Fitness Testing Protocols in Persons with Multiple Sclerosis with Severe Disability" Developing ways to evaluate fitness in people with advanced disability from MS. Paid by special funds provided by the Illinois Lottery

Robert Motl, Ph.D.

University of Illinois at Urbana-Funding: \$41,643

Champaign Term: 1/1/2012-12/31/2013

Urbana, IL

Topic Area: Rehabilitation/RESTORE

"Internet intervention for increasing physical activity in MS" Examining an intervention delivered through the internet for increasing physical activity, mobility and quality of life in people with MS.

Robert Motl, Ph.D.

University of Illinois at Urbana-

Champaign

Urbana, IL

Topic Area: Rehabilitation/RESTORE

"Project METS in MS: Multimodal exercise training stimulus in multiple

sclerosis" Comparing the effectiveness of a comprehensive exercise regimen on mobility

Award: Research Grant

Award: Research Grant

Award: Research Grant

Funding: \$589,585

Funding: \$655,670

Term: 4/1/2011-9/30/2014

Funding: \$625,025

and other functions in people with advanced MS.

Robert Motl, Ph.D.

University of Illinois at Urbana-

Champaign Term: 10/1/2007-9/30/2013

Urbana, IL

Topic Area: Rehabilitation/RESTORE

"Do symptoms predict reduction of physical activity across time in MS?"

Understanding factors that may lead to reduced physical activity in persons with MS.

Matthew Plow, Ph.D.

Cleveland Clinic Foundation

Cleveland, OH Term: 10/1/2011-9/30/2014

Topic Area: Rehabilitation/RESTORE

"Evaluating the effects of physical activity and fatigue management strategies"

Developing methods for teleconferencing based

support to help people with MS manage fatigue and improve physical activity.

Funded by a gift from the National MS Society South Central Region

Ian Rice, O.T.R., Ph.D.

Award: Illinois Lottery Pilot

University of Illinois at Urbana- Funding: \$109,680

Champaign Term: 10/1/2012-9/30/2013

Champaign, IL

Topic Area: Rehabilitation/RESTORE

"Promoting Physical Activity through a Manual Wheelchair Propulsion Activity Intervention in Persons with Multiple Sclerosis" Promoting physical activity in

people with MS who use powered wheelchairs by adding the use of manual wheelchairs.

Paid by special funds provided by the Illinois Lottery

Maria Schultheis, Ph.D. Award: Research Grant

Drexel University Funding: \$461,690

Philadelphia, PA Term: 10/1/2009-9/30/2013

Topic Area: Rehabilitation/RESTORE

"Examining the relationship between MS progression and driving" Evaluating

driving ability in various stages of MS to improve safety and independence.

Jacob Sosnoff, Ph.D. Award: Illinois Lottery Pilot

University of Illinois at Urbana- Funding: \$109,981

Champaign Term: 10/1/2012-9/30/2013

Urbana, IL

Topic Area: Rehabilitation/RESTORE

"Fall Risk Reduction in Multiple Sclerosis: Exercise versus Behavior

Modification" Testing strategies to reduce falling in people with MS.

Paid by special funds provided by the Illinois Lottery

Jacob Sosnoff, Ph.D. Award: Research Grant University of Illinois at Urbana- Funding: \$295,673

Champaign Term: 4/1/2011-3/31/2014

Urbana, IL

Topic Area: Rehabilitation/RESTORE

"Acute exercise, spasticity and functional outcomes in MS: differential effects of duration and intensity" Evaluating the effectiveness of various cycling regimens for reducing spasticity in people with MS.

Nadim Srour, M.D., M.Sc. Award: Pilot Research Grant

Ottawa Hospital Funding: \$34,620

Ottawa, Ontario, Canada Term: 4/1/2013-3/30/2014

Topic Area: Rehabilitation/RESTORE

"Lung volume recruitment for lung function and cough impairment in multiple sclerosis" Determining the frequency of lung function and cough abnormalities in people with MS, and testing a possible treatment.

Joanne Wagner, P.T., Ph.D. Award: Pilot Research Grant

St. Louis University Funding: \$43,687

St. Louis, MO Term: 4/1/2013-3/30/2014

Topic Area: Rehabilitation/RESTORE

"Neuropathogenesis of impairments in bilateral coordination of gait in persons with multiple sclerosis" Examining how injury in specific parts of the spinal cord contributes to mobility problems in people with MS.

Kathleen Zackowski, Ph.D. Award: Research Grant The Johns Hopkins Hospital Funding: \$619,577

Baltimore, MD Term: 9/30/2011-9/29/2015

Topic Area: Rehabilitation/RESTORE

"Predicting intervention responsiveness to improve rehabilitation in people with multiple sclerosis" Determining whether it is possible to predict the usefulness of exercise interventions in people with MS.

Funded by a gift from the National MS Society South Central Region

Myelin/Glial Biology - Investigating how myelin is formed and the role played by oligodendrocytes and other nervous system support cells in MS.

Linnea Asp, Ph.D. Award: Postdoctoral Research

Mount Sinai School of Medicine Fellowship

New York, NY Funding: \$175,804

Topic Area: Biology of Glia/RESTORE Term: 7/1/2013-6/30/2016 "Requirement of Krüppel-like factor-6 for myelin formation and repair."

Understanding a gene that may be a new target to induce myelin repair in people with MS.

Ben Barres, M.D., Ph.D.Stanford University

Award: Research Grant
Funding: \$505,936

Stanford, CA Term: 1/1/2013-12/31/2015

Topic Area: Biology of Glia/RESTORE

"How does the actin cytoskeleton control CNS myelination?" Basic exploration of how myelin is made, with the goal of finding ways to repair damaged myelin in people with MS.

Yoko Bekku, Ph.D. Award: Postdoctoral Research

New York University Fellowship

New York, NY Funding: \$175,804

Topic Area: Biology of Glia/RESTORE Term: 7/1/2012-6/30/2015

"Mechanisms of node of Ranvier assembly" Looking at how the structure of nerve fibers is affected by myelin, with the goal of finding ways to enhance nerve signaling to restore nerve function in MS.

Ernesto Bongarzone, Ph.D. Award: Pilot Research Grant

University of Illinois at Chicago Funding: \$44,000

Chicago, IL Term: 6/1/2012-5/31/2013

Topic Area: Biology of Glia/RESTORE

"Role of molecular chaperones in multiple sclerosis" Investigating whether certain proteins are abnormal in myelin-making cells in people with MS, for clues to developing myelin repair strategies.

Jonah Chan, Ph.D.

Award: Research Grant

University of California, San Francisco Funding: \$680,625

San Francisco, CA Term: 9/30/2011-9/30/2014

Topic Area: Biology of Glia/RESTORE

"Initiating myelination: a matter of membrane curvature" Using advanced technology to understand how myelin forms, for clues to its repair.

Li-Jin Chew, Ph.D.

The Children's National Medical Center

Term: 11/1/2009-10/31/2013 Washington, D.C.

Topic Area: Biology of Glia/RESTORE

"Mechanisms of inhibition of oligodendrocyte differentiation by interferon

gamma" Exploring signals that may inhibit tissue repair in MS and ways to overcome

Award: Research Grant

Funding: \$384,918

them.

Benjamin Deneen, Ph.D. Award: Research Grant Funding: \$504,636 Baylor College of Medicine

Term: 10/1/2012-9/30/2015 Houston, TX

Topic Area: Biology of Glia/RESTORE

"The role of NFIA in developmental and regenerative oligodendrocyte

differentiation" Looking for a way to enhance the development of cells that could repair damaged myelin in MS.

Sharyl Fyffe-Maricich, Ph.D. Award: Career Transition Fellowship

University of Pittsburgh Funding: \$412,500

Term: 7/1/2012-12/31/2015 Pittsburgh, PA

Topic Area: Biology of Glia/RESTORE

"ERK MAP kinase regulation of oligodendrocyte differentiation and remyelination in the CNS" Investigating how protein signals influence the repair of nerve-insulating myelin in the brain and spinal cord.

Fred Gage, Ph.D.

Award: Pilot Research Grant

The Salk Institute for Biological Studies Funding: \$44,000

La Jolla, CA Term: 10/1/2012-9/30/2013

Topic Area: Biology of Glia/RESTORE

"Development of a stem cell-based myelination assay" Developing a model for studying the capabilities of stem cells in the laboratory, to understand their use in repair strategies in MS.

Vittorio Gallo, Ph.D.

Award: Research Grant

The Children's National Medical Center Funding: \$672,838

Term: 4/1/2013-3/31/2016 Washington, D.C.

Topic Area: Biology of Glia/RESTORE

"Role of Sox17 in developmental myelination and remyelination" Investigating a protein that helps regulate the activity of myelin forming cells and its role in nervous system repair.

Marie Givogri, Ph.D.

Award: Research Grant University of Illinois at Chicago Funding: \$375,507

Term: 10/1/2010-9/30/2013 Chicago, IL

Topic Area: Biology of Glia/RESTORE

"Regulation of neurogliogenesis in health and multiple sclerosis by sulfatides"

Studying molecules that limit myelin repair and looking for ways to improve myelin repair

in MS.

Paid by special funds provided by the Illinois Lottery

Jacob Hines, Ph.D. Award: Postdoctoral Research

University of Colorado Denver Fellowship

Funding: \$169,946 Aurora, CO

Topic Area: Biology of Glia/RESTORE Term: 7/1/2013-6/30/2016

"Activity-dependent regulation of oligodendrocyte gene expression and

myelination" Studying signals that control the growth of nerve-insulating myelin, for

clues to finding a way to repair myelin to restore function in MS.

Jianrong Li, Ph.D. Award: Research Grant

Texas A&M University Funding: \$402,478

Term: 10/1/2011-9/30/2014 College Station, TX

Topic Area: Biology of Glia/RESTORE

"Role of astroglial galectin-9 in CNS demyelination and remyelination"

Investigating a molecule that may contribute to myelin damage, for clues to repair strategies in MS.

Qing Lu, Ph.D.

UT Southwestern Medical Center at Dallas Funding: \$542,445

Dallas, TX Term: 7/1/2012-6/30/2015

Topic Area: Biology of Glia/RESTORE

"microRNA Control of Myelination and Remyelination in the Central Nervous

System" Investigating ways to encourage brain cells to mature and initiate the repair of nerve-insulating myelin to restore function in people with MS.

Award: Research Grant

Award: Collaborative MS Research Wendy Macklin, Ph.D.

University of Colorado Denver Center

Funding: \$742,500 Aurora, CO

Topic Area: Biology of Glia/RESTORE Term: 4/1/2013-3/30/2017

"Mechanisms of glial injury in demyelinating disorders" Exploring brain cell interactions to shed new light on how damage occurs in MS and how to reverse the process to restore function to people with MS.

Wendy Macklin, Ph.D.

University of Colorado Denver

Aurora, CO Term: 7/1/2012-6/30/2015

Topic Area: Biology of Glia/RESTORE

"Role of integrin linked kinase in CNS myelination" Investigating a protein that may help steer myelin repair cells to areas of damage, which may have important implications for efforts to repair the nervous system in MS.

Award: Research Grant

Award: Research Grant

Funding: \$617,036

Pablo Paez, Ph.D.

University of California, Los Angeles

Funding: \$471,291 TRANSFER PENDING Term: 9/30/2011-9/30/2014

Los Angeles, CA

Topic Area: Biology of Glia/RESTORE

"Modulation of oligodendrocyte function and myelination by the golli proteins" Studying ways to enhance the manufacture and repair of myelin in an animal model of MS.

Matthew Rasband, Ph.D.

Baylor College of Medicine Funding: \$659,781

Houston, TX Term: 10/1/2012-9/30/2015

Topic Area: Biology of Glia/RESTORE

"Spectrins as regulators of CNS myelination and axon integrity" Examining a molecule that may need to be protected from damage in MS.

Sara Szuchet, Ph.D.

Award: Illinois Lottery Pilot

Award: Research Grant

University of Chicago Funding: \$110,000

Chicago, IL Term: 10/1/2012-9/30/2013

Topic Area: Biology of Glia/RESTORE

"CNS myelin membranes are preformed as tubular structures that transition into multilayer vesicles and/or planar membranes within oligodendrocyte processes to be deposited on axons in a seemingly stochastic mode" Understanding how myelin, which is attacked by the immune system in MS, is normally made to lead to new ways to repair myelin and restore function in people with MS.

Paid by special funds provided by the Illinois Lottery

William Talbot, Ph.D.

Award: Research Grant

Stanford University Funding: \$468,555

Term: 7/1/2012-6/30/2015

Stanford, CA Topic Area: Biology of Glia/RESTORE

"Genetic mechanisms of CNS myelination" Identifying genes involved in the production of myelin to find new ways to repair damaged myelin in MS.

Wen-Hsuan Way, Ph.D. Award: Postdoctoral Research

University of Chicago Fellowship

Chicago, IL Funding: \$163,103

Topic Area: Biology of Glia/RESTORE Term: 7/1/2012-6/30/2015

"The protective role of the integrated stress response (ISR) on oligodendrocytes during inflammatory demyelination" Studying a natural tissue response to damage and how it might be improved to stimulate repair of nerve-insulating myelin in MS.

Patricia Wight, Ph.D. Award: Research Grant

University of Arkansas for Medical Funding: \$207,060

Sciences Term: 10/1/2012-9/30/2013

Little Rock, AR

Topic Area: Biology of Glia/RESTORE

"Control of Human Myelin Proteolipid Protein Gene Expression during
Development and Remyelination" Understanding how amounts of a protein present

in myelin are regulated, for clues to stimulating myelin repair in MS.

Lai Man Wu, Ph.D. Award: Postdoctoral Research

The University of Texas Southwestern Fellowship

Medical Center Funding: \$163,103

Dallas, TX Term: 7/1/2013-6/30/2016

Topic Area: Biology of Glia/RESTORE

"Functional study of transcriptional regulator Sip1 in CNS myelination and remyelination" Exploring the role of a protein for clues to stimulating myelin repair to restore function in MS.

Tracy Yuen, Ph.D. Award: Postdoctoral Research

University of California, San Francisco Fellowship

San Francisco, CA Funding: \$163,103

Topic Area: Biology of Glia/RESTORE Term: 7/1/2012-6/30/2015

"The regulation of oligodendrocyte precursor remyelination by glucocorticoids and the Wnt pathway" Studying how glucocorticoids, steroid-like drugs often used to treat acute MS attacks, may influence the repair of myelin.

Nervous System (CNS) Repair - Searching for ways to stop and reverse tissue damage in MS

Regina Armstrong, Ph.D.Henry M. Jackson Foundation

Award: Research Grant
Funding: \$577,597

Bethesda, MD Term: 10/1/2012-9/30/2015

Topic Area: CNS Repair/RESTORE

"Enhancing neural stem cell activation to improve remyelination capacity and axon integrityfollowing chronic demyelination" Testing a strategy to repair damage that occurs in the nervous system of people with MS to possibly restore function.

Peter Calabresi, M.D. Award: Collaborative MS Research

Johns Hopkins University Center

Baltimore, MD Funding: \$825,000

Topic Area: CNS Repair/RESTORE Term: 7/1/2012-6/30/2017

"Factors Regulating Oligodendrogliogenesis and Myelination in Multiple Sclerosis and Animal Models" Collaborators from different fields identifying factors that help to increase myelin-making cells, and using this knowledge to develop myelin repair strategies.

2011 Stephen C. Reingold Research Award for most outstanding research proposal

Jonah Chan, Ph.D. Award: Harry Weaver Neuroscience

University of California, San Francisco Scholarship

San Francisco, CA Funding: \$379,167

Topic Area: CNS Repair/RESTORE Term: 6/1/2010-6/30/2014

"Reconstructing microenvironments to control oligodendrocyte differentiation" Looking for ways to encourage the growth of new myelin-forming cells to repair damage in MS.

Wenbin Deng, Ph.D. Award: Research Grant University of California, Davis Funding: \$310,019

Sacramento, CA Term: 7/1/2012-6/30/2014

Topic Area: CNS Repair/RESTORE

"Application of the Modified-RNA Technology and iPS Cells for Remyelination" Investigating the therapeutic potential of using cells derived from adult skin to repair nerve-insulating myelin damaged during the course of MS.

Paula Dore-Duffy, Ph.D. Award: Pilot Research Grant

Wayne State University Funding: \$43,683

Detroit, MI Term: 10/1/2012-9/30/2013

Topic Area: CNS Repair/RESTORE

"Human fat stem cell population in cell replacement therapy in MS." Testing stem cells derived from adult fat cells in a model of MS to determine their potential use in repair strategies.

Award: Research Grant

Award: Research Grant

Cheryl Dreyfus, Ph.D.

University of Medicine and Dentistry of Funding: \$448,215

New Jersey Term: 10/1/2010-9/30/2013

Piscataway, NJ

Topic Area: CNS Repair/RESTORE

"The role of glial cell-derived factors in a cuprizone model of MS" Investigating factors that enhance the repair activity of myelin-making cells, for clues to restoring function in people with MS.

Funded by the National MS Society's South Central Region

Jeffrey Dupree, Ph.D.

Award: Pilot Research Grant

Virginia Commonwealth University Funding: \$44,000

Richmond, VA Term: 10/1/2012-9/30/2013

Topic Area: CNS Repair/RESTORE

"Maintaining axonal initial segment integrity" Investigating the deterioration of a specific region of the nerve cell, for clues to restoring function to people with progressive MS.

Ranjan Dutta, Ph.D.

The Cleveland Clinic Foundation Funding: \$319,317

Term: 7/1/2012-6/30/2015 Cleveland, OH

Topic Area: CNS Repair/RESTORE

"Identification of critical regulators of remyelination in MS brains" Looking for ways to stimulate brain cells that have potential to repair nerve-insulating myelin that has been damaged by MS.

Douglas Feinstein, Ph.D. Award: Illinois Lottery Pilot

University of Illinois Funding: \$110,000

Chicago, IL Term: 10/1/2012-9/30/2013

Topic Area: CNS Repair/RESTORE

"Targeting CRMP2 for treatment of MS" Investigating a possible new therapy to slow nerve damage and enhance nerve growth and myelin repair, to help restore function in people MS.

Paid by special funds provided by the Illinois Lottery

Douglas Feinstein, Ph.D.

University of Illinois at Chicago

Chicago, IL Term: 4/1/2011-3/31/2014

Topic Area: CNS Repair/RESTORE

"Locus Coeruleus Damage in EAE and MS" Studying a new approach to treating MS by inhibiting damage to a region in the brain.

Award: Research Grant

Funding: \$450,582

Marie Filbin, Ph.D. Award: Research Grant Funding: \$607,270 Hunter College

Term: 10/15/2008-9/30/2013 New York, NY

Topic Area: CNS Repair/RESTORE

"MAG inhibits migration and induces death of Schwann cells" Investigating factors that may limit the ability of cells to repair MS damage to myelin, and ways to overcome those limits.

Half of funding provided by MS Hope for a Cure to the NMSS New York City-Southern New York Chapter

Robin Franklin, Ph.D., D.V.M. Award: Fast Forward - General Fund

University of Cambridge Funding: \$200,000

Cambridge, United Kingdom Term: 7/13/2012-7/13/2013

Topic Area: CNS Repair/RESTORE

"Identification of Retinoic acid gamma agonist 'hit like' molecules" Identifying molecules for future testing that may promote myelin repair and restore function in people with MS.

Babette Fuss, Ph.D.

Award: Research Grant Virginia Commonwealth University Funding: \$496,697

Richmond, VA Term: 10/1/2009-9/30/2013

Topic Area: CNS Repair/RESTORE

"The role of focal adhesion kinase (FAK) in CNS myelination" Investigating how to enhance the capacity for myelin repair to restore function in MS.

Steven Goldman, M.D., Ph.D. Award: Research Grant University of Rochester Medical Center Funding: \$580,285

Term: 7/1/2009-6/30/2013 Rochester, NY

Topic Area: CNS Repair/RESTORE

"Progenitor cell-based myelination of the dysmyelinated central nervous system"

Testing the ability of transplanted cells to grow or repair nerve-insulating myelin in animal models as a prelude to cell transplantation in people with MS.

Funded in part by the National MS Society's South Central Region

Steven Goldman, M.D., Ph.D.

University of Rochester Medical Center

Rochester, NY Term: 9/30/2011-9/30/2015

Topic Area: CNS Repair/RESTORE

"Molecular determinants of human glial progenitor cell-based remyelination"

Studying human myelin repair cells in action for clues to stimulating nervous system repair in MS.

Award: Research Grant

Funding: \$851,630

Malabendu Jana, Ph.D. Award: Research Grant Rush University Medical Center Funding: \$226,875

Chicago, IL Term: 7/1/2009-6/30/2013

Topic Area: CNS Repair/RESTORE

"Regulation of Lingo-1 by PPAR-beta" Exploring whether a cholesterol-lowering drug can stimulate mechanisms that lead to the repair of myelin, the nerve insulation that is damaged by MS.

Paid in part by special funds provided by the Illinois Lottery

Jeffery Kocsis, Ph.D.

Award: Research Grant

Yale University Funding: \$614,593

West Haven, CT Term: 7/1/2012-6/30/2016

Topic Area: CNS Repair/RESTORE

"Transplantation of OPCs into the demyelinated spinal cord" Evaluating the transplantation of myelin-producing cells to repair damaged myelin in an animal model, for clues to the possible safety and benefit in people with MS.

Thomas Lane, Ph.D. Award: Collaborative MS Research

University of California, Irvine Center

Irvine, CA Funding: \$742,500

Topic Area: CNS Repair/RESTORE Term: 11/1/2009-10/31/2014

"Collaborative MS Center Award" A multifaceted effort to explore cell replacement

strategies for repairing damage in MS.

Thomas Lane, Ph.D. Award: Research Grant University of California, Irvine Funding: \$592,266

Irvine, CA Term: 4/1/2013-3/31/2016

Topic Area: CNS Repair/RESTORE

"Human Neural Progenitor Cell-Mediated Therapy in a Viral Model of

Demyelination" Investigating how transplanted adult stem cells may stimulate repair of myelin in a mouse of MS.

Glenn Matsushima, Ph.D.

University of North Carolina at Chapel

Hill Term: 4/1/2011-3/31/2014

Chapel Hill, NC

Topic Area: CNS Repair/RESTORE

"Enhancing oligodendrocyte survival" Exploring a therapeutic strategy for improving survival of cells that are needed to repair nerve-insulating myelin in MS.

Award: Research Grant

Funding: \$527,262

Robert Mays, Ph.D. Award: Fast Forward - General Fund

Athersys, Inc. Funding: \$640,000

Cleveland, OH Term: 10/1/2011-4/1/2014

Topic Area: CNS Repair/RESTORE

"Investigation on the Safety and Utility of Human MultiStem® in Mouse Models of Multiple" Developing an adult stem cell platform for the treatment of MS, including progressive forms of the disease.

Angeliki Nikolakopoulou, Ph.D. Award: Pilot Research Grant

University of California, Riverside Funding: \$44,000

Riverside, CA Term: 10/1/2012-9/30/2013

Topic Area: CNS Repair/RESTORE

"EphrinB/EphB interactions in Multiple Sclerosis" Exploring a molecule that may enhance the regeneration of damaged nerve cells in tissue samples from people with MS and an MS model.

Akiko Nishiyama, M.D., Ph.D. Award: Research Grant University of Connecticut Funding: \$103,125

Storrs Mansfield, CT Term: 10/1/2011-9/30/2014

Topic Area: CNS Repair/RESTORE

"Promoting remyelination from endogenous NG2 cells" Looking for ways to enhance repair of damaged myelin in an animal model of MS.

Javier Palazuelos, Ph.D. Award: Postdoctoral Research

Stony Brook University Fellowship

Stony Brook, NY Funding: \$169,946

Topic Area: CNS Repair/RESTORE Term: 7/1/2013-6/30/2016

"The role of TGF-beta signaling in oligodendrocyte development, myelination andremyelination" Exploring how a signaling molecule may influence repair of nerveinsulating myelin, for clues to restoring function in people with MS.

Barbara Ranscht, Ph.D.Award: Research Grant Funding: \$754,279

La Jolla, CA Term: 9/1/2011-9/30/2015

Topic Area: CNS Repair/RESTORE

"Contactin functions in oligodendrocyte-mediated myelination and

remyelination" Exploring a key molecule that influences the formation and repair of nerve-insulating myelin, for clues to restoring myelin in MS.

Moses Rodriguez, M.D. Award: Collaborative MS Research

Mayo Clinic College of Medicine Center

Rochester, MN Funding: \$742,500

Topic Area: CNS Repair/RESTORE Term: 11/1/2009-10/31/2014 **"Collaborative MS Center Award"** Exploring the molecular signals that might

stimulate or inhibit repair processes in MS, for clues to developing therapeutic strategies to promote repair.

David Rowitch, M.D., Ph.D.University of California, San Francisco

Award: Research Grant
Funding: \$359,868

San Francisco, CA Term: 4/1/2011-3/31/2014

Topic Area: CNS Repair/RESTORE

"APC gene function in oligodendrocyte development and myelin regeneration" Studying the role of a gene that may be important for myelin repair in MS.

Larry Sherman, Ph.D. Award: Research Grant

Oregon Health & Science University Funding: \$439,568

Beaverton, OR Term: 4/1/2013-3/31/2016

Topic Area: CNS Repair/RESTORE

"Novel hyaluronidase inhibitors for the promotion of remyelination" Investigating a new avenue with potential to promote repair of myelin in MS.

Krystyn Van Vliet, Ph.D. Award: Research Grant Massachusetts Institute of Technology Funding: \$562,773

Cambridge, MA Term: 4/1/2013-3/31/2016

Topic Area: CNS Repair/RESTORE

"Do the mechanical properties of MS lesions influence the extent of remyelination?" Investigating how the stiffness of areas of tissue damage may impede the repair of nerve-insulating myelin repair.

Jason Weinger, Ph.D. Award: Postdoctoral Research

University of California, Irvine Fellowship

Irvine, CA Funding: \$150,800

Topic Area: CNS Repair/RESTORE Term: 7/1/2011-6/30/2014

"Mechanisms of allograft rejection of neural stem cells." Studying a unique method

aimed at stimulating myelin repair in MS-like disease.

Health Care Delivery/Policy - Studying how people with MS utilize health-care services and how health-care delivery can be improved

Ellen Bassuk, M.D. Award: Health Care Delivery & Policy

Center for Social Innovation Research Contract Newton, MA Funding: \$297,016

Topic Area: Health Care Delivery/ Term: 7/1/2009-7/31/2013

Policy/RESTORE

"Qualitative research in care giver abuse" Developing instruments for people with MS and their caregivers that will detect abuse by caregivers with the aim of better detecting and preventing this problem in people with MS.

Robert Buchanan, Ph.D. Award: Health Care Delivery & Policy

Mississippi State University Research Contract Mississippi State, MS Funding: \$437,479

Topic Area: Health Care Delivery/ Term: 11/1/2009-12/31/2014

Policy/RESTORE

"Study of children and teens whose parents have multiple sclerosis" Evaluating factors that affect the quality of life of children of parents who have MS.

Sarah Minden, M.D. Award: Pilot Research Grant

Brigham and Women's Hospital Funding: \$44,000

Boston, MA Term: 8/1/2005-7/31/2013

Topic Area: Health Care Delivery/

Policy/RESTORE

"Analysis of mental health data from the Sonya Slifka Longitudinal Multiple Sclerosis study" Evaluating the prevalence of mood disorders in MS and factors that influence mental health and access to mental health care.

Sarah Minden, M.D. Award: Pilot Research Grant

Brigham and Women's Hospital Funding: \$44,000

Boston, MA Term: 11/1/2012-10/31/2013

Topic Area: Health Care Delivery/

Policy/RESTORE

"Analysis of data from an adult day program for people with MS" Evaluating an outpatient wellness program to determine whether it improves mental and physical function in people with MS.

Immunology - Exploring the role of the immune system in the development and progression of MS to find ways to stop the immune attack on nervous tissues

Deyu Fang, Ph.D. Award: Illinois Lottery Pilot

Northwestern University Funding: \$99,999

Chicago, IL Term: 10/1/2012-9/30/2013

Topic Area: Immunology/RESTORE

"USP47 is a novel therapeutic target of multiple sclerosis" Studying a new target to reduce disease development and allow natural repair systems to work in MS.

Paid by special funds provided by the Illinois Lottery

Samia Khoury, M.D.Brigham and Women's Hospital

Award: Research Grant
Funding: \$472,771

Boston, MA Term: 10/1/2010-9/30/2013

Topic Area: Immunology/RESTORE

"Regulation of EAE through the PDL1/PDL2 pathway" Studying signals in immune system cells that control the attack on nerve-insulating myelin, seeking ways to turn off the attack in MS.

Measuring MS Disease Activity - Using sophisticated tools to track MS activity over time

Aaron Field, M.D., Ph.D. Award: Strategic Initiative

University of Wisconsin-Madison Funding: \$586,436

Madison, WI Term: 7/1/2010-6/30/2013

Topic Area: Measuring MS Disease

Activity/RESTORE

"Study of CCSVI in MS using quantitative time-resolved 3D MRV" Understanding the role of CCSVI (vein blockage) in MS and identifying optimal methods for screening for the condition.

Susan Gauthier, D.O.

Cornell University Medical College

Funding: \$623,985 Term: 9/30/2011-9/30/2015 New York, NY

Topic Area: Measuring MS Disease

Activity/RESTORE

"Developing a quantitative imaging biomarker for remyelination in Multiple Sclerosis" Investigating a method of measuring myelin repair in people with MS, which may be useful for tracking repair during clinical trials.

Award: Research Grant

Heather Wishart, Ph.D. Award: Research Grant Trustees of Dartmouth College Funding: \$315,248

Term: 7/1/2012-6/30/2014 Lebanon, NH

Topic Area: Measuring MS Disease

Activity/RESTORE

"Imaging the neural basis of pain in patients with MS" Using advanced MRI analysis to determine how the brain regions associated with pain are affected by MS.

Neuropathology - Exploring how nerve fibers and cells are damaged during the course of MS

Award: Postdoctoral Research Amit Agarwal, Ph.D.

Johns Hopkins University Fellowship

Baltimore, MD Funding: \$156,515

Term: 7/1/2011-6/30/2014 Topic Area: Neuropathology/RESTORE

"Glutamatergic signaling between axons and glial progenitors in health and disease." Deciphering biological interactions and signals that may stimulate myelin repair in MS.

Nancy Sicotte, M.D. Award: Research Grant Funding: \$506,341 Cedars-Sinai Medical Center

Los Angeles, CA Term: 10/1/2011-9/30/2014

Topic Area: Neuropathology/RESTORE

"Differential hippocampal vulnerability as a mechanism for major depression in **MS**" Looking for the underlying cause of MS-related depression.

Bruce Trapp, Ph.D. Award: Pilot Research Grant

The Cleveland Clinic Foundation Funding: \$44,000

Cleveland, OH Term: 9/1/2012-8/31/2013

Topic Area: Neuropathology/RESTORE

"Cognition assessment and cortical MR imaging in a model of multiple sclerosis"

Combining a new type of imaging with behavioral analysis to investigate a tool to evaluate

cognitive impairments in MS.

Physiology - Understanding how MS may impact functions of the body

Scott Davis, Ph.D. Award: Research Grant

Southern Methodist University Funding: Pending

Dallas, TX Term: 4/1/2013-3/31/2016 (Est.)

Topic Area: Physiology/RESTORE

Title Pending Studying how MS affects the regulation of blood pressure in response to

exercise for clues to potential strategies to improve function.

Thorsten Rudroff, Ph.D. Award: Pilot Research Grant

Colorado State University Funding: \$44,000

Fort Collins, CO Term: 4/1/2013-3/30/2014

Topic Area: Physiology/RESTORE

"Glucose uptake in response to walking in patients with multiple sclerosis"

Identifying what leg muscles are not functioning well during walking in people with MS.

END

Epidemiology - Investigating who gets MS in search of the cause and risk/protective factors

Farren Briggs, Ph.D. Award: Postdoctoral Research

University of California, Berkeley Fellowship

Berkeley, CA Funding: \$135,448

Topic Area: Epidemiology/END Term: 7/1/2010-6/30/2013

"Detecting complex genetic environment interactions in multiple sclerosis"

Exploring how exposure to specific factors may interact with a person's genes to trigger MS.

Harvey Checkoway, M.P.H., Ph.D. Award: Research Grant University of Washington Funding: \$360,907

Seattle, WA Term: 4/1/2013-3/31/2015 (Pending)

Topic Area: Epidemiology/END

"Lifetime UVB Exposure, Vitamin D, and Multiple Sclerosis in a Cohort of U.S. Radiologic Technologists" Using a questionnaire to explore the role of exposure to sunlight with the risk of developing MS.

Emmanuelle Waubant, M.D., Ph.D. Award: Research Grant University of California, San Francisco Funding: \$542,554

San Francisco, CA Term: 4/1/2013-3/31/2016

Topic Area: Epidemiology/END

"Microbiomes in pediatric multiple sclerosis" Understanding the association between microbes in the digestive tract and the risk of developing MS in childhood.

Christina Wolfson, Ph.D. Award: Research Grant McGill University Funding: \$131,144

Montreal, Quebec, Canada Term: 4/1/2013-3/31/2016

Topic Area: Epidemiology/END

"Developing a Tool-Kit of epidemiological resources for etiological research in pediatric MS" Identifying high-quality questionnaires and other resources to allow researchers to search for factors that trigger MS in children and adults.

Genetics - Searching for genes that make people susceptible to MS or otherwise influence the disease, for clues to its cause and better treatment

Thomas Aune, Ph.D. Award: Research Grant Vanderbilt University Medical Center Funding: \$300,000

Nashville, TN Term: 9/30/2011-9/30/2014

Topic Area: Human Genetics/END

"Genome copy number variants in multiple clerosis" Understanding how alterations in DNA may contribute to a person's susceptibility to MS and their role in spurring immune attacks.

Sergio Baranzini, Ph.D. Award: Harry Weaver Neuroscience

University of California, San Francisco Scholarship

San Francisco, CA Funding: \$699,836

Topic Area: Human Genetics/END Term: 7/1/2009-6/30/2014

"A systems approach to address biological heterogeneity and complexity in MS" Evaluating the complex factors that cause MS to find new ways to treat it.

Lidia Gardner, Ph.D. Award: Pilot Research Grant

The University of Tennessee Funding: \$44,000

Memphis, TN Term: 10/1/2012-9/30/2013

Topic Area: Human Genetics/END

"Role of apolipoprotein A1 in MS pathogenesis" Examining genes in the spinal fluid of people who have MS, which may reveal a virus possibly connected to the onset of MS.

David Hafler, M.D. Award: Collaborative MS Research

Yale University School of Medicine Center

New Haven, CT Funding: \$742,500

Topic Area: Human Genetics/END Term: 11/1/2009-10/31/2014 "Collaborative MS Research Center Award" Applying novel technologies to understand how newly identified MS risk genes alter biological mechanisms that lead to

susceptibility to the disease.

Jacob McCauley, Ph.D. Award: Research Grant University of Miami Funding: \$641,141

Miami, FL Term: 10/1/2012-9/30/2015

Topic Area: Human Genetics/END

"Exploring Multiple Sclerosis Genetics in Hispanics" Looking for genes that make people susceptible to developing MS in individuals of the U.S. Hispanic population.

Nikolaos Patsopoulos, M.D., Ph.D. Award: Postdoctoral Research

Brigham and Women's Hospital Fellowship

Boston, CA Funding: \$102,324

Topic Area: Human Genetics/END Term: 7/1/2011-6/30/2013

"The role of common, low-frequency and rare variation in the etiology of MS." Identifying variations in genes that may be important in the risk of developing MS.

James Weisfeld-Adams, M.D. Award: Pilot Research Grant

Mount Sinai School of Medicine Funding: \$44,000

New York, NY Term: 10/1/2012-9/30/2013

Topic Area: Human Genetics/END

"Sequencing for mutations in genes associated with Mendelian neurometabolic disorders and non-autoimmune phenotypes in patients with primary progressive multiple sclerosis" Using targeted gene sequencing technologies to understand how individual genes are related to progressive forms of MS.

Zongqi Xia, M.D., Ph.D. Award: Research Grant

Brigham and Women's Hospital Funding: \$54,473

Boston, MA Term: 7/1/2012-6/30/2013

Topic Area: Human Genetics/END

"Exploring the function of the TNFRSF1A allele associated with multiple

sclerosis" Studying how variations of a gene linked to susceptibility to MS may alter the immune system to increase risk of developing MS.

Infectious Triggers - Examining the possibility that viruses or bacteria could act as disease triggers in MS

Byung Kim, Ph.D. Award: Research Grant Northwestern University Funding: \$485,904

Chicago, IL Term: 10/1/2010-9/30/2013

Topic Area: Infectious Triggers/END

"Pathogenic mechanisms of virus-induced demyelinating disease" Studying how viruses can trigger immune attacks against nerve tissue to understand how a virus might trigger MS.

J. William Lindsey, M.D. Award: Research Grant

University of Texas Health Science Center, Funding: \$457,938

Houston Term: 4/1/2011-3/31/2014

Houston, TX

Topic Area: Infectious Triggers/END

"Epstein-Barr virus and multiple sclerosis: correlation of activity" Comparing the activity of several viruses in people with MS that may be involved in triggering immune attacks.

Funded by a gift from the National MS Society South Central Region

Stanley Perlman, M.D., Ph.D. Award: Research Grant

The University of Iowa Funding: \$108,281

Iowa City, IA Term: 7/1/2012-6/30/2015

Topic Area: Infectious Triggers/END

"Pathogenesis of Demyelination in Mice Infected with a Neurotropic

Coronavirus" Looking for a way to specifically control immune system attacks against myelin in a viral disease similar to MS, for clues to stopping MS and ending it forever.

STOP, END

Epidemiology - Investigating who gets MS in search of the cause and risk/protective factors

Tanuja Chitnis, M.D. Award: Research Grant Brigham and Women's Hospital Funding: \$430,234

Brookline, MA Term: 10/1/2010-9/30/2013

Topic Area: Epidemiology/STOP, END

"Biomarkers and risk factors for disease progression in MS" Determining factors that may influence whether, and how rapidly, MS may develop and progress.

Immunology - Exploring the role of the immune system in the development and progression of MS to find ways to stop the immune attack on nervous tissues

Elizabeth Blankenhorn, Ph.D. Award: Research Grant Drexel University Funding: \$540,528

Philadelphia, PA Term: 7/1/2012-6/30/2015

Topic Area: Immunology/STOP, END

"Refining the genetic basis of EAE in B6 mice to establish a model for MS-GWAS testing" Studies to clarify how specific MS susceptibility genes and gender influence MS.

Robert Clark, M.D.University of Connecticut Health Center

Award: Research Grant
Funding: \$650,846

Farmington, CT Term: 10/1/2011-9/30/2014

Topic Area: Immunology/STOP, END

"Novel bactertial lipids of commensal organisms promote EAE" Looking at how lipids from bacteria that live in humans might trigger the immune system to attack myelin in MS.

Lloyd Kasper, M.D. Award: Research Grant Trustees of Dartmouth College Funding: \$719,852

Hanover, NH Term: 7/1/2012-6/30/2016

Topic Area: Immunology/STOP, END

"Regulation of immunity by gut commensal bacteria in multiple sclerosis"

Looking at whether a molecule produced by common bacteria in the intestines may hold promise for treating MS or provide clues to how MS is triggered.

Paid by a grant from the Conrad N. Hilton Foundation

Chang Kim, Ph.D. Award: Research Grant Purdue University Funding: \$483,437

West Lafayette, IN Term: 7/1/2012-6/30/2015

Topic Area: Immunology/STOP, END

"Impact of short chain fatty acids produced by gut commensal bacteria on pathogenesis of CNS inflammation" Looking at how molecules produced by bacteria in the intestines may influence immune system activity in the brain for clues to turning off immune attacks in MS.

Koichi Kobayashi, M.D., Ph.D. Award: Pilot Research Grant

Texas A&M University Funding: \$28,270

Boston, MA Term: 6/1/2012-5/31/2013

Topic Area: Immunology/STOP, END

"The role of NLR-mediated microbiota regulation in the pathogenesis of multiple sclerosis" Looking at how immune system responses to bacteria in the intestines may influence EAE, an animal model of MS.

Walter Royal, III, M.D. Award: Pilot Research Grant

Maryland Center for Multiple Sclerosis Funding: \$44,000

Treatment and Research Term: 4/1/2013-3/30/2014

Baltimore, MD

Topic Area: Immunology/STOP, END

"A Model of Cigarette Smoking in EAE" Studying whether MS-like disease in mice can be made worse by exposing the mice to cigarette smoke.

Chuan Wu, M.D., Ph.D. Award: Postdoctoral Research

Brigham and Women's Hospital Fellowship

Boston, MA Funding: \$175,804

Topic Area: Immunology/STOP, END Term: 7/1/2013-6/30/2016

"Role of SGK1 in differentiation and maintenance of Th17 cells" Studying immune cells that attack the brain in MS and the potential role of dietary salt intake in their function.

STOP, RESTORE, END

Therapy/Management of MS - Investigations into treatments of possible value in fighting or improving symptoms in all forms of MS

Theron Casper, Ph.D.

Award: Strategic Initiative

University of Utah Medical Center Funding: \$1,270,447

Salt Lake City, UT Term: 12/1/2010-6/30/2013

Topic Area: Therapy/Management of

MS/STOP, RESTORE, END

"Pediatric Data Coordinating and Analysis Center" Infrastructure support for

pediatric centers network

Tissue/DNA Banks - Shared resource of tissues and DNA banks that accumulate and store specimens for use by MS investigators

John Corboy, M.D.

Award: Research Grant University of Colorado Health Science Funding: \$825,973

Term: 11/1/2009-3/31/2014 Center

Aurora, CO

Topic Area: Tissue/DNA Banks/STOP,

RESTORE, END

"Rocky Mountain MS Center Tissue Bank" Developing and maintaining a tissue bank of specimens from people with MS for use in research.

Rashed Nagra, Ph.D.

Brentwood Biomedical Research Institute Funding: \$1,268,602

Los Angeles, CA Term: 11/1/2009-9/30/2014

Topic Area: Tissue/DNA Banks/STOP,

RESTORE, END

"Human brain and spinal fluid resource center" Developing and maintaining a tissue bank of specimens from people with MS for use in research.

Award: Research Grant

Award: Research Grant

Jorge Oksenberg, Ph.D.

Universtiy of California, San Francisco Funding: \$1,560,377

San Francisco, CA Term: 7/1/2012-6/30/2017

Topic Area: Tissue/DNA Banks/STOP,

RESTORE, END

"Establishment of a Core DNA Repository for Multiple Sclerosis" Banking genetic material from individuals and families with MS as a shared resource for studies searching for genes that confer susceptibility to MS.