



National  
Multiple Sclerosis  
Society

## **List of Current Research Projects Funded by the National MS Society**

Sorted by Topic/Research Priorities

March 2020

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**[www.nationalmssociety.org](http://www.nationalmssociety.org)**

## **Introduction**

The National MS Society invests in promising research to drive breakthroughs that will stop MS, restore function and end MS forever. We manage an international portfolio of academic and commercial research projects, train the next generation of scientists and MS specialists, foster global collaboration between MS researchers, and convene experts to identify strategic [research priorities](#). These priorities are critical to advancing solutions for people living with MS today, and ultimately to a prevention and cure.

This document lists MS research projects being funded by the National Multiple Sclerosis Society (USA), sorted by state and country, as of March 31, 2020.

### **Notes:**

- 1) Some listed projects have indications of restricted support that has been provided by donors and other friends of the Society. These are listed in italic typeface directly beneath the project title.
- 2) Some projects with start dates in 2020 may be delayed due to disruptions caused by the COVID-19 pandemic.
- 3) This list is not an official record and any errors do not reflect official changes to research award agreements. Some grants listed here have do not have final signed agreements.

## **Research Priorities**

This list is sorted by topic – specifically, by the Society’s strategic research priorities. Additional details are [available here](#).

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### **Risk Factors: “Why do some people get MS and others don’t?”**

Although tremendous progress has been made in identifying key biological pathways that contribute to MS risk, the cause is still unknown. Preventing MS for future generations requires a deep understanding of what triggers MS, how triggers lead to the development of the disease, and how to protect against it.

### **Pathology: “What is the cause of MS?”**

Much has been learned about immune system activity in the relapsing-remitting phase of MS and this knowledge has led to the development of effective disease-modifying therapies. Less understood is the relationship between initial immune activity and progressive neurodegeneration and how innate immunity participates in the progressive phase of MS. Identifying the causes of MS, and the underlying mechanisms and biological pathways involved in MS injury to the brain and spinal cord, will expose new targets for the development of treatments to stop the damage that causes disability.

### **Progression: “How do we stop MS progression?”**

MS progression often occurs early in the disease, even while the brain compensates for injury and even in people successfully treated for relapses. Progression is not easily measured and usually happens over long periods of time, making it hard to quickly detect whether a therapy is impacting the course of disease. This has made the development of therapies for progressive stages of MS a challenge. Diagnosing progressive disease based on biomarkers, in addition to clinical presentation would enable the testing of therapies earlier, promising better ways of protecting the nervous system from MS injury.

### **Neuroprotection/Nervous System Repair: “How do we repair the damage caused by MS?”**

The hopes of people living with MS today rest on finding a way to stop disease worsening by preventing neurodegeneration and reversing the damage to restore lost function. The brain can repair myelin and also rewire itself around damaged areas, but in order to significantly impact disease, this natural ability needs to be enhanced. In addition to developing treatment strategies, there is a crucial need for non-invasive ways to determine quickly whether neuroprotective and repair strategies are working.

### **Symptoms, Rehabilitation, Wellness: “How do we reverse symptoms and promote wellness?”**

Emerging evidence suggests that wellness behaviors and lifestyle factors can influence the risk for developing MS, disease course, severity of symptoms and quality of life. Finding ways to understand and address the variable and unpredictable symptoms caused by MS will have a profound impact on people’s quality of life. In addition, people with MS often live with other chronic medical conditions. Understanding how these other health conditions affect MS disease course and symptoms represents an important research opportunity. Focusing on opportunities to improve the design and conduct of clinical trials and providing strategies people can incorporate to enhance their wellbeing should be emphasized.

### **Research Awards**

The Society offers a spectrum of funding opportunities and resources to support MS investigators at virtually every stage of their careers. The type of award is indicated for each project in the list:

- **Career Transition Fellowships** – awards up to five years to facilitate the advancement of promising young investigators into full faculty positions
- **Collaborative MS Research Center Awards** – 5-year awards to help stimulate creativity and interaction among investigators working within and outside MS fields
- **Fast Forward Commercial/Drug Development** – Commercial or academic partnerships aimed at specific strategies to drive the discovery of new therapies for people with MS
- **Harry Weaver Scholar Awards** – special five-year projects by promising young investigators just starting their careers as independent researchers
- **Health Care Delivery & Policy Contracts** – initiated by the Society and awarded on a competitive basis to investigators studying subjects identified as mission priorities
- **International Progressive MS Alliance** – projects jointly funded by Alliance members; [Read more](#)
- **Mentor-based Postdoctoral Rehabilitation Fellowships** – to enhance research into MS rehabilitation to improve quality of life
- **NMSS/American Brain Foundation Clinician Scientist Development Award** -- to train physicians in MS clinical research
- **Pilot Research Grants** – aimed at exploring new, untested ideas
- **Postdoctoral Fellowships** – research projects by young investigators working under the mentorship of senior scientists, to provide training in MS research

- **Research Grants** – full grants for basic, clinical and rehabilitation research
- **Strategic Initiatives** – special projects that focus on core resources or other important unmet research needs
- **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

### About 'Categories'

This list includes the category, or research discipline, within which a specific project belongs.

- **Biochem./Biophysics** - Understanding basic cell processes to enhance knowledge of factors underlying MS
- **Biology of Glia/Myelin** - Investigating how myelin is formed and the role played by oligodendrocytes and other nervous system support cells in MS
- **CNS Repair** - Searching for ways to stop and reverse tissue damage in MS
- **Diagnostic Methods** - Investigating ways to improve the detection and diagnosis of MS
- **Epidemiology** - Investigating who gets MS in search of the cause and risk/ protective factors
- **Health Care Delivery/ Policy** - Studying how people with MS utilize health-care services and how health-care delivery can be improved
- **Human Genetics** - Searching for genes that make people susceptible to MS or otherwise influence the disease, for clues to its cause, prevention and better treatment
- **Human Therapy Trials/Management of MS** - Investigations into treatments for all forms of MS, and training physicians in MS clinical research and trials
- **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
- **Infectious Triggers** - Examining the possibility that viruses or bacteria could act as disease triggers in MS
- **Measuring MS Disease Activity** - Using sophisticated tools to track MS activity over time
- **Neuropathology** - Exploring how nerve fibers and cells are damaged during the course of MS
- **Neuropharmacology** - Studying how potential therapies impact the nervous system
- **Neurophysiology** - Exploring how nerve fibers and cells work normally and in the disease state
- **Physiology** - Understanding how MS may impact functions of the body
- **Preclinical Drug Development** - Laboratory research to collect data needed before an experimental therapy can be tested in people
- **Psychosocial Aspects of MS** - Understanding how MS effects cognitive functioning and other aspects of quality of life and wellness
- **Rehabilitation** - Seeking ways to maximize physical and mental abilities and reduce symptoms and increase wellbeing
- **Tissue/DNA Banks** - Shared resource of tissues and DNA banks that accumulate and store specimens for use by MS investigators

## RISK FACTORS: “Why do some people get MS and others don’t?”

**Brenda Banwell, M.D.**

Children's Hospital of Philadelphia

Philadelphia, Pennsylvania

Award: Research Grants

Research Priority: Risk Factors

Category: Measuring MS Disease Activity

Strategic Area: Stop

Funding: \$627,224

Term: 10/1/2019-9/30/2022

**“Does Recreational Marijuana Exposure Increase Cognitive Impairment and MRI Measures of Brain Injury in Youth and Young Adults with Multiple Sclerosis?”** A team at Children’s Hospital of Philadelphia is studying the effect of recreational marijuana use on the brain and cognition in teenagers with MS.

**Sergio Baranzini, Ph.D.**

University of California, San Francisco

San Francisco, California

Award: Collaborative Research Center Awards

Research Priority: Risk Factors

Category: Immunology

Strategic Area: End

Funding: \$800,898

Term: 4/1/2015-3/31/2020

**“The MS Microbiome Consortium (MSMC): an academic multi-disciplinary collaborative effort to elucidate the role of the gut microbiota in MS”** With this support to the MS Microbiome Consortium, a multi-center team is conducting a comprehensive analysis of gut bacteria in people with MS to determine factors that may drive progression and help to develop probiotic strategies for stopping progression.

*2014 Stephen C. Reingold Research Award for most outstanding research proposal*

**Lisa Barcellos, Ph.D., M.P.H.**

University of California, Berkeley

Berkeley, California

Award: Research Grants

Research Priority: Risk Factors

Category: Human Genetics

Strategic Area: End

Funding: \$636,118

Term: 4/1/2020-3/31/2023

**“Identification of Genetic Contributions to Pediatric-Onset MS Using a Multi-Omics Approach”** UC Berkeley scientists are studying pediatric MS for insights into the genes and other factors that determine a person's risk for developing MS.

**Stephen Buka, Sc.D.**

Brown University

Providence, Rhode Island

Award: Research Grants

Research Priority: Risk Factors

Category: Psychosocial Aspects of MS

Strategic Area: Stop

Funding: \$773,335

Term: 4/9/2016-12/31/2020

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

**Aaron Carlson, M.D.**

University of Florida

Gainesville, Florida

Award: Pilot Research Grants

Research Priority: Risk Factors

Category: Epidemiology

Strategic Area: Stop

Funding: \$54,313

Term: 2/1/2020-1/31/2021

**“Prevalence and Demographics of Multiple Sclerosis in the OneFlorida Data Trust”** A team at the University of Florida is using an extensive database to study people with MS and MS care in that state.

**Stephen Crocker, Ph.D.**  
University of Connecticut Health Center  
Farmington, Connecticut  
Award: Research Grants  
Research Priority: Risk Factors

Category: CNS Repair  
Strategic Area: Restore  
Funding: \$608,036  
Term: 10/1/2018-9/30/2021

**“Cellular Senescence in Neural Progenitor Cells Limits CNS Remyelination”** University of Connecticut investigators are exploring the reasons why repair of nerve-insulating myelin in MS can fail, and seeking ways to reverse the problem to restore function.

**Marika Falcone, M.D., Ph.D.**  
Fondazione Centro San Raffaele  
Milan, Italy  
Award: Research Grants  
Research Priority: Risk Factors

Category: Immunology  
Strategic Area: Stop  
Funding: \$335,544  
Term: 4/1/2019-3/31/2022

**“Assessing the immune regulatory role of gut microbiota in brain autoimmunity and disease activity in RRMS patients”** Researchers in Milan, Italy are analyzing how gut bacteria influence immune cell behavior in the brain, and how alterations in those bacteria may reduce or exacerbate MS disease activity.

**David Hafler, M.D.,M.S.**  
Yale University  
New Haven, Connecticut  
Award: Collaborative Research Center Awards  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: End  
Funding: \$825,000  
Term: 4/1/2015-3/31/2020

**“Collaborative MS Research Center Award: Systematic Genome Editing of the Risk Variants in Multiple Sclerosis”** Researchers at Yale, Harvard, and two University of California institutions have teamed up to apply highly advanced technology to manipulate MS risk genes to tease out the exact pathways by which MS develops.

**Adil Harroud, M.D.**  
University of California, San Francisco  
San Francisco, California  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: Stop  
Funding: \$201,697  
Term: 7/1/2019-6/30/2022

**“The genetic basis of progression in multiple sclerosis”** UCSF researchers are analyzing 10,000 DNA samples from people over age 55 who have had MS for at least 10 years to determining the role of genes connected to obesity may play a role in MS progression.

*Funded in part by a gift from the Kaufer Family*

**Dominique Kinnett-Hopkins, Ph.D.**  
Northwestern University  
Evanston, Illinois  
Award: Postdoctoral Fellowships  
Research Priority: Risk Factors

Category: Health Care Delivery/ Policy  
Strategic Area: Stop  
Funding: \$58,476  
Term: 7/1/2019-6/30/2020

**“Disease characteristics and healthcare utilization patterns in advantaged and disadvantaged patients with multiple sclerosis”** Researchers at Northwestern are examining how people with MS access healthcare and if residing in a disadvantaged area, racial identity, and distance to medical services impact their use of the healthcare system.

**Tanja Kuhlmann, M.D.**  
University Hospital Münster  
Münster, Germany  
Award: Research Grants  
Research Priority: Risk Factors

Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$337,352  
Term: 7/20/2018-9/30/2020

**“Effect of age on human oligodendroglial differentiation and (re-)myelination”** Researchers at University Hospital in Münster, Germany, are determining the factors that may limit the repair of myelin damaged during the course of MS.

**Netta Levin, M.D., Ph.D.**  
Medical Research Fund of Hadassah Medical  
Organization  
Jerusalem, Israel  
Award: Research Grants  
Research Priority: Risk Factors

Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$147,360  
Term: 7/25/2018-9/30/2020

**“Temporal reorganization to overcome monocular demyelination – unique plasticity mechanism in MS – A renewal application”** Researchers at Hadassah Hebrew University in Israel are investigating how eyesight is restored by natural repair and rewiring processes after optic neuritis in MS.

**Matthew Lincoln, M.D., Ph.D.**  
Yale University  
New Haven, Connecticut  
Award: Career Transition Fellowships  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: End  
Funding: \$412,500  
Term: 7/1/2019-6/30/2024

**“Genetic and molecular heterogeneity of MS”** A team at Yale is seeking to fine tune MS genetic studies using a novel framework that combines MS genetics data with similar data from related diseases, for insight into disease mechanisms and possible gene regulation.

*Paid by the Marilyn Hilton MS Research Fund*

**Averil Ma, M.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Research Priority: Risk Factors

Category: Immunology  
Strategic Area: End  
Funding: \$658,766  
Term: 4/1/2019-3/31/2022

**“Ubiquitin Mediated Prevention of Multiple Sclerosis”** A UCSF team is testing whether changes to a potent inflammation-reducing protein contribute to the onset of MS-like disease in mice, for clues to developing new therapies to stop MS.

**Amir-Hadi Maghzi, M.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Risk Factors

Category: Immunology  
Strategic Area: Stop  
Funding: \$206,246  
Term: 7/1/2018-6/30/2021

**“Investigation of the microbiome in multiple sclerosis and its relationship to immunologic and clinical features of disease”** Investigators are researching gut bacteria in MS and its relationship to immune activity and other features of the disease.

**Caterina Mainero, M.D., Ph.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Risk Factors

Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$916,046  
Term: 10/1/2018-9/30/2021

**“Multimodal imaging of neuroinflammation and its contribution to cortical demyelination and regeneration in multiple sclerosis”** Researchers at Massachusetts General Hospital are developing methods to monitor cells called microglia that likely play a role in myelin repair in people with MS.

**Rosella Mechelli, Ph.D.**  
Università Telematica San Raffaele Roma  
Rome, Italy  
Award: Research Grants  
Research Priority: Risk Factors

Category: Infectious Agents  
Strategic Area: End  
Funding: \$100,000  
Term: 4/1/2019-3/31/2021

**“EBV genotyping in MS”** Investigators in Rome, Italy are confirming an clarifying the possible role of specific strains of Epstein-Barr virus as a triggering factor in MS.

**Jorge Oksenberg, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: Stop  
Funding: \$830,156  
Term: 10/1/2019-9/30/2022

**“The role of Ataxin1 in autoimmune demyelination”** A team at UCSF is seeking to understand the contribution of a gene known as “ATXN1” to MS risk and clinical course.

**Jorge Oksenberg, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Strategic Initiatives  
Research Priority: Risk Factors

Category: Tissue/DNA Banks  
Strategic Area: End  
Funding: \$595,690  
Term: 4/1/2018-3/31/2020

**“Establishment of a core DNA repository for multiple sclerosis”** Researchers at the University of California, San Francisco are maintaining and enhancing a blood biospecimen bank as a shared resource to identify genetic variants and other factors that contribute to risk and genetic susceptibility in MS.

**Nikos Patsopoulos, M.D., Ph.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: End  
Funding: \$599,277  
Term: 4/1/2018-3/31/2021

**“Sex specific genetics of multiple sclerosis”** Researchers at Brigham and Women's Hospital are analyzing large sets of genetic data to identify genes that explain why women are more susceptible to MS than men.

*Funded in part by the CFMS Foundation and the Al Otaiba Family*



**Nikos Patsopoulos, M.D., Ph.D.**

Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Harry Weaver Scholar Award  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: End  
Funding: \$779,428  
Term: 7/1/2019-6/30/2024

**“Omic-based precision medicine strategies in multiple sclerosis”** MS genetics researchers at Brigham & Women’s Hospital are using data from more than 100,000 people with MS to determine whether they can refine “genetic risk scores” so that these can be used to truly predict who may develop MS.

**Anne-Louise Ponsonby, M.B.B.S., Ph.D.**

The Australian National University  
Canberra, Australian Capital Territory, Australia  
Award: Research Grants  
Research Priority: Risk Factors

Category: Human Genetics  
Strategic Area: End  
Funding: \$555,546  
Term: 10/1/2018-10/1/2021

**“Identifying epigenetic factors involved in MS onset : utilising population-based studies with genetic and environmental measures.”** Researchers at the Australian National University are studying a link between the environment and how genes are turned on and off to trigger the onset of MS.

**Mahmoud Pouladi, M.Sc., Ph.D.**

Agency for Science, Technology and Research  
(ASTAR)  
Singapore, Singapore  
Award: Research Grants  
Research Priority: Risk Factors

Category: Biology of Glia  
Strategic Area: End  
Funding: \$652,196  
Term: 4/1/2020-3/31/2023

**“Ermin in Multiple Sclerosis”** Researchers in Singapore are doing lab studies to understand how a rare gene mutation related to myelin may influence the risk of developing MS.

**Anne-Katrin Probstel, M.D.**

transferring to University Hospital Basel  
Basel, Switzerland  
Award: Postdoctoral Fellowships  
Research Priority: Risk Factors

Category: Immunology  
Strategic Area: Stop  
Funding: \$146,797  
Term: 7/1/2018-6/30/2021

**“Kathleen C. Moore Foundation Postdoctoral Fellowship: Gut-Brain-Axis: crosstalk between B cells and gut microbiota in MS”** Researchers are identifying harmful gut bacteria in people with MS and testing their role in disease triggering and progression.

*The Kathleen C Moore Foundation Postdoctoral Fellowship*

**Andrew Steelman, Ph.D.**

University of Illinois at Urbana-Champaign  
Champaign, Illinois  
Award: Research Grants  
Research Priority: Risk Factors

Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$566,732  
Term: 4/1/2019-3/31/2022

**“Upper-respiratory infection, glial activation and disease exacerbation”** Researchers at the University of Illinois are exploring how upper respiratory infections may trigger MS attacks, by studying immune reactions to infection in mice with an MS-like disease.

*Funded with support from the Illinois Lottery*

**Helen Tremlett, Ph.D.**  
University of British Columbia  
Vancouver, British Columbia, Canada  
Award: Pilot Research Grants  
Research Priority: Risk Factors  
Category: Human Genetics  
Strategic Area: Stop  
Funding: \$46,339  
Term: 10/1/2018-9/30/2020  
**“Genomic variants associated with DMF induced lymphopenia in MS [GenDMF-MS]”** Seeking to predict and ultimately prevent adverse drug reactions in people with MS.

**Emmanuelle Waubant, M.D., Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Research Priority: Risk Factors  
Category: Epidemiology  
Strategic Area: Stop  
Funding: \$1,192,799  
Term: 10/1/2017-9/30/2021  
**“Diet and relapse risk in pediatric multiple sclerosis (MS)”** Investigators at University of California, San Francisco are leading the Network of Pediatric MS Centers in a study of how kids’ diets impact MS relapses and progression.

**Howard Weiner, M.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Risk Factors  
Category: Immunology  
Strategic Area: Stop  
Funding: \$551,752  
Term: 4/1/2018-3/31/2021  
**“The role of fecal microRNAs in CNS autoimmune inflammatory disease”** Researchers at Harvard Medical School are investigating a type of molecule called microRNA that is found in the gut and that may someday be a treatment for MS.

**Teresa Wood, Ph.D.**  
Rutgers, The State University of New Jersey  
Piscataway, New Jersey  
Award: Research Grants  
Research Priority: Risk Factors  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$788,614  
Term: 10/1/2018-9/30/2021  
**“Cooperative Functions of mTOR and TrkB/Erk Signaling in Remyelination”** Researchers at Rutgers University are studying two molecular pathways that may work together to maintain and repair myelin following injury to myelin in mice.

**Yanjiao Zhou, M.D., Ph.D.**  
University of Connecticut Health Center  
Farmington, Connecticut  
Award: Pilot Research Grants  
Research Priority: Risk Factors  
Category: Infectious Agents  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020  
**“Investigating the intestinal virome in patients with multiple sclerosis”** UConn Health researchers are investigating intestinal viruses in MS and how they may interact with gut bacteria, to inform the development of microbiome-based therapeutics.  
*Funded in part by a gift from the Kaufer Family*

## **PATHOLOGY: “What is the cause of MS?”**

### **Onur Afacan, Ph.D.**

Boston Children's Hospital  
Boston, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$51,990  
Term: 10/1/2019-9/30/2020

**“Improved cortical lesion detection with high field MRI in Pediatric Onset Multiple Sclerosis patients”** Boston Children's Hospital researchers are testing novel MR scanning and analysis techniques to improve the ability to non-invasively diagnose and monitor MS in children.

### **Dritan Agalliu, Ph.D.**

Columbia University  
New York, New York  
Award: Research Grants  
Research Priority: Pathology

Category: CNS Repair  
Strategic Area: Stop  
Funding: \$635,264  
Term: 10/1/2019-9/30/2022

**“Endothelial Wnt signaling in CNS neo-angiogenesis and blood-brain barrier in EAE/MS”** Columbia University researchers are exploring blood vessel abnormalities in MS to develop therapies that can prevent the influx of immune cells and protect the nervous system in MS.

### **Omar Al-Louzi, M.D.**

National Institutes of Health/National Institute of  
Neurological Disorders and Stroke  
Bethesda, Maryland  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Pathology

Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$276,697  
Term: 7/1/2019-6/30/2023

**“Characterizing the central vein sign in multiple sclerosis using advanced magnetic resonance imaging techniques and pathology correlations”** NIH imaging specialists are using advanced MRI techniques to determine whether a central blood vessel in brain lesions (areas of damage) can distinguish MS from similar disorders, and thus expedite the process of diagnosing MS.

### **Douglas Arnold, M.D.**

McGill University  
Montreal, Quebec, Canada  
Award: International Progressive MS Alliance -  
Collaborative Network Center  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$3,815,026  
Term: 1/1/2017-12/31/2020

**“An MRI biomarker for disability progression for use in clinical trials”** Identifying a biomarker of disability progression for use in clinical trials.

*Estimated joint commitment with other Progressive MS Alliance members*

**Christina Azevedo, M.D., M.P.H.**

University of Southern California

Los Angeles, California

Award: Research Grants

Research Priority: Pathology

**“Disentangling MS-Specific Brain Atrophy from Normal Aging”** Researchers at the University of Southern California are identifying a reliable MRI marker that could be used to screen potential therapies for progressive forms of MS.

Category: Measuring MS Disease Activity

Strategic Area: Stop

Funding: \$465,937

Term: 10/1/2018-9/30/2021

**Clare Baecher-Allan, Ph.D.**

Brigham and Women's Hospital

Boston, Massachusetts

Award: Research Grants

Research Priority: Pathology

**“Are CD20+ T cells dysfunctional in Multiple Sclerosis?”** A team at Brigham and Women’s Hospital is studying blood samples from people with MS to determine whether a novel set of immune cells drives MS, for clues to developing a therapeutic strategy for stopping the disease.

Category: Immunology

Strategic Area: Stop

Funding: \$625,788

Term: 4/1/2019-3/31/2022

**Francesca Bagnato, M.D., Ph.D.**

Vanderbilt University Medical Center

Nashville, Tennessee

Award: Research Grants

Research Priority: Pathology

**“7T-rings as a biomarker of disease severity in multiple sclerosis: cross-sectional and longitudinal validation”** Vanderbilt University researchers are testing whether an indicator found using powerful imaging tools can – if found early – serve to predict and ultimately prevent a more severe course of MS.

Category: Diagnostic Methods

Strategic Area: Stop

Funding: \$840,183

Term: 10/1/2019-9/30/2023

**Ralph Benedict, Ph.D.**

The State University of New York at Buffalo

Buffalo, New York

Award: Research Grants

Research Priority: Pathology

**“The Role of Cognitive Dysfunction in Defining MS Relapses and Freedom from Disease Activity”** Researchers at the State University of New York at Buffalo are investigating the importance of cognitive problems in MS relapses to more precisely define disease activity during relapses and the absence of disease activity during periods of remission.

Category: Measuring MS Disease Activity

Strategic Area: Stop

Funding: \$1,063,919

Term: 4/1/2015-12/31/2020

**Estelle Bettelli, Ph.D.**

Benaroya Research Institute

Seattle, Washington

Award: Research Grants

Research Priority: Pathology

**“Cell type specific modulation of STAT1 signaling to prevent the development of CNS autoimmunity”** Researchers at the Benaroya Research Institute in Seattle are studying a signaling pathway with the goal of improving protecting the nervous system from MS damage.

Category: Immunology

Strategic Area: Stop

Funding: \$497,819

Term: 10/1/2017-9/30/2020

**Nozha Borjini, Ph.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Neuropathology  
Strategic Area: Stop  
Funding: \$189,883  
Term: 7/1/2020-6/30/2023  
**“Study of Blood Brain Barrier Disruption in Neuroinflammatory Disease”** A Cleveland Clinic team is exploring mechanisms at early stages of MS-like disease that enable immune cells to enter the brain and spinal cord, and possible ways to stop them.

**Claudia Cantoni, Ph.D.**  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Career Transition Fellowships  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$589,886  
Term: 7/1/2019-6/30/2024  
**“MiR-223: a new potential therapeutic target to modulate myeloid cells in multiple sclerosis”**  
Researchers at Washington University are exploring the possibility that a subset of immune cells in the blood may be impaired in MS, for clues to how these cells might be manipulated to suppress disease activity.

**Mary Catanese, Ph.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$196,309  
Term: 7/1/2020-6/30/2023  
**“In vivo neuroimaging of histone deacetylases in Multiple Sclerosis”** Researchers at Mass General are using imaging to explore the role of a protein in MS-related damage to the nervous system, for clues to developing better therapies.

**Myriam Chaumeil, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Research Priority: Pathology  
Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$566,618  
Term: 10/1/2017-9/30/2021  
**“MR metabolic imaging of Multiple Sclerosis”** Researchers at the University of California, San Francisco are developing an imaging method to assess inflammation in the brain to develop new approaches to stopping MS.

**John Chen, M.D., Ph.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Pathology  
Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$764,936  
Term: 10/1/2019-9/30/2022  
**“Targeting the ubiquitous oxidative aldehyde acrolein in MS”** Massachusetts General researchers are testing advanced imaging to track changes in MS disease activity, and test a novel treatment strategy targeting inflammation and oxidative stress.  
*Funded in part by a gift from the Kaufer Family*

**Hongbo Chi, Ph.D.**

St. Jude Children's Research Hospital  
Memphis, Tennessee  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$660,000  
Term: 4/1/2017-3/31/2020

**“Metabolic control of TH17 cell plasticity and pathogenicity in neuroinflammation”**

Researchers at St. Jude Children's Research Hospital in Memphis, TN, are studying a novel immune pathway that may help to protect mice from developing MS-like disease, for clues to stopping the attack in MS.

**Bogoljub Ciric, Ph.D.**

Thomas Jefferson University  
Philadelphia, Pennsylvania  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$584,056  
Term: 10/1/2018-9/30/2021

**“The role of CSF-1R and its ligands, CSF-1 and IL-34, in CNS autoimmunity.”**

Researchers at Thomas Jefferson University are investigating regulators of specific immune cells involved in nervous system tissue damage in MS.

**Ben Clarkson, Ph.D.**

Mayo Clinic Rochester  
Rochester, Minnesota  
Award: Postdoctoral Fellowships  
Research Priority: Pathology

Category: Neuropathology  
Strategic Area: Stop  
Funding: \$184,654  
Term: 7/1/2017-6/30/2020

**“Role of ISGylation in MS Synaptopathy”** Researchers at the Mayo Clinic are investigating a process called “ISGylation” that may play a role in the cognitive problems experienced by many people with MS.

**John Corboy, M.D.**

University of Colorado Denver  
Denver, Colorado  
Award: Strategic Initiatives  
Research Priority: Pathology

Category: Tissue/DNA Banks  
Strategic Area: Stop  
Funding: \$1,370,230  
Term: 10/1/2013-9/30/2020

**“Rocky Mountain MS Center Tissue Bank”** Developing and maintaining a tissue bank of specimens from people with MS for use in research.

**Ritobrato Datta, Ph.D.**

Children's Hospital of Philadelphia  
Philadelphia, Pennsylvania  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Neuropathology  
Strategic Area: Stop  
Funding: \$54,532  
Term: 6/1/2019-5/31/2020

**“Glutamate Toxicity as a Component of Progressive Thalamic Damage in Multiple Sclerosis.”**

Researchers at Children's Hospital of Philadelphia are developing imaging technology that may identify an early contributor to nerve cell damage in MS, for clues to developing therapies that protect the nervous system.

**Dimitrios Davalos, Ph.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Research Grants  
Research Priority: Pathology

Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$428,672  
Term: 4/1/2019-3/31/2022

**“Gliovascular Mechanisms of Blood-Brain Barrier Disruption in Multiple Sclerosis”** Cleveland Clinic researchers are using novel techniques to explore mechanisms involved in early immune cell infiltration into the central nervous system in MS-like disease, for clues to stopping immune attacks in MS..

**Jeff Dunn, Ph.D.**  
University of Calgary  
Calgary, Alberta, Canada  
Award: Research Grants  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$369,028  
Term: 4/1/2019-3/31/2022

**“Using light based technology to identify the extent of hypoxia in the cortex of patients with MS”** University of Calgary researchers are using new technology to detect and investigate whether and how reduced levels of oxygen in parts of the brain may impact people with MS.

**Thomas Forsthuber, M.D., Ph.D.**  
The University of Texas at San Antonio  
San Antonio, Texas  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$660,270  
Term: 10/1/2016-9/30/2020

**“NETs and lipid peroxidation as drivers of progressive EAE”** University of Texas at San Antonio researchers are exploring how to stop nervous system damage, for clues to developing treatments that stop MS progression.

**Elizabeth Frost, Ph.D.**  
University of Virginia  
Charlottesville, Virginia  
Award: Postdoctoral Fellowships  
Research Priority: Pathology

Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$181,754  
Term: 7/1/2018-6/30/2020

**“Spleen tyrosine kinase regulation of microglial functions in experimental autoimmune encephalomyelitis”** Researchers are investigating whether an enzyme plays helpful roles in regulating the function of a cell type called microglia in MS.

**Laura Ghezzi, M.D.**  
Washington University in St. Louis  
St. Louis, Missouri  
Award: Postdoctoral Fellowships  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$209,702  
Term: 7/1/2020-6/30/2023

**“Characterization and quantification of Mucosal Associated Invariant T cells in patients with Multiple Sclerosis at time of diagnosis and in response to different disease modifying therapies”** Researchers at Washington University in St. Louis are exploring how diet and the gut microbiota may regulate the number and function of a specific type of immune cell.

*Paid by the Marilyn Hilton MS Research Fund*

**Shailendra Giri, Ph.D.**  
Henry Ford Health System  
Detroit, Michigan  
Award: Research Grants  
Research Priority: Pathology

Category: Physiology  
Strategic Area: Stop  
Funding: \$577,673  
Term: 4/1/2019-3/31/2022

**“Impaired DHA metabolism in multiple sclerosis”** Researchers at Henry Ford Health System are looking at whether people with MS have abnormalities in their ability to process polyunsaturated fatty acids -- dietary components that may fight inflammation.

**Murugaiyan Gopal, Ph.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$590,743  
Term: 4/1/2020-3/31/2023

**“The pathogenic role of miR-92a in the regulation of T helper cell responses in MS”** A Brigham and Women's Hospital team is exploring the role of a molecule linked to harmful immune activity, and whether inhibiting it has promise for treating MS.

**Jennifer Graves, M.D., Ph.D.**  
University of California San Diego  
San Diego, California  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$55,000  
Term: 2/1/2020-1/31/2021

**“Association of Senescent Cells with MS progression”** Researchers in San Diego are exploring whether cells involved in aging are associated with disease severity in people with MS.  
*Funded through a collaboration with MS-LINK™, an EMD Serono Signature Initiative*

**Asaff Harel, M.D., M.Sc.**  
The Feinstein Institute for Medical Research  
Manhasset, New York  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$55,000  
Term: 3/1/2019-2/28/2021

**“Novel Neuroimaging Techniques for the Differentiation of Acute and Chronic MS Lesions Without Gadolinium: T1-Rho and Quantitative Susceptibility Mapping”** A New York team is exploring a possible alternative to using the tracing agent gadolinium in MRI scans, which can accumulate in the brain over time.

**Christopher Hemond, M.D.**  
University of Massachusetts Medical School  
Worcester, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$52,930  
Term: 3/1/2019-2/28/2021

**“The role of memory B-cells in multiple sclerosis pathology and disease monitoring”** A team at UMass is investigating a specific subset of immune cells that may characterize highly inflammatory disease activity in people with MS.



**Roland Henry, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$738,084  
Term: 4/1/2018-3/31/2021  
**“Enabling Multicenter MRI Studies of Neurodegeneration in Multiple Sclerosis”** Researchers at the University of California at San Francisco are gathering and standardizing existing MRI and genetic information from people with MS across the globe to accelerate research into progressive MS.

**Elena Herranz Muelas, Ph.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Career Transition Fellowships  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$604,628  
Term: 7/1/2020-6/30/2025  
**“Novel imaging tools for assessing spinal cord inflammatory activity in vivo in multiple sclerosis, its clinical relevance and correlation with brain pathology”** Researchers at Massachusetts General Hospital are applying novel imaging technology to study the spinal cord in people in the early stages of MS.

**Sam Horng, M.D., Ph.D.**  
Icahn School of Medicine at Mount Sinai  
New York, New York  
Award: Career Transition Fellowships  
Research Priority: Pathology  
Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$40,813  
Term: 7/1/2017-6/30/2022  
**“How Does the Astrocyte Barrier Protein, JAM-A, Regulate Immune Cell Entry and Activity in CNS Inflammatory Lesions?”** Researchers at Icahn School of Medicine are exploring a novel strategy that pinpoints the entry of immune cells into the brain, for clues to stopping damage caused by the immune attack in MS.

**Dan Hu, Ph.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 4/1/2020-3/31/2021  
**“Characterization of heat shock proteins in Multiple Sclerosis”** Researchers at Brigham and Women's Hospital are exploring the role of specific proteins in the immune activity that underlies MS, for clues to developing new therapies.

**Hong Jiang, M.D., Ph.D.**  
University of Miami  
Miami, Florida  
Award: Research Grants  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$540,835  
Term: 4/1/2016-3/31/2020  
**“The role of retinal microvascular impairment on neurodegeneration in Multiple Sclerosis”** University of Miami researchers are studying blood vessels at the back of the eye of people with MS to better understand nerve damage and MS progression.

**Christoph Juchem, Ph.D.**

Columbia University

New York, New York

Award: Research Grants

Research Priority: Pathology

**“In Vivo Metabolomics of Oxidative Stress with 7 Tesla Magnetic Resonance Spectroscopy”**

Researchers at Yale are using two imaging techniques to determine the distribution and importance of the antioxidant glutathione in the brains of people with MS.

Category: Measuring MS Disease Activity

Strategic Area: Stop

Funding: \$390,031

Term: 9/1/2016-4/30/2020

**Mihir Kakara, M.B.B.S.**

University of Pennsylvania

Philadelphia, Pennsylvania

Award: NMSS-ABF Clinician Scientist Awards

Research Priority: Pathology

**“Epstein-Barr virus salivary shedding and immune responses in multiple sclerosis following B-cell depletion”**

Scientists at the University of Pennsylvania are exploring the role of a virus specifically in people with MS who are undergoing treatment with B cell-depleting therapy.

Category: Infectious Agents

Strategic Area: Stop

Funding: \$209,702

Term: 7/1/2020-6/30/2023

**Joo-won Kim, Ph.D.**

Baylor College of Medicine

Houston, Texas

Award: Research Grants

Research Priority: Pathology

**“Assessing Microstructural Integrity of Cervical Spinal Cord Gray and White Matter with Ultra-High Field Diffusion MRI for Progressive MS”**

Researchers are using advanced imaging to evaluate damage to the spinal cord in people with progressive MS to allow better ways to predict and treat progression.

*Funded by the Kathleen C Moore Foundation*

Category: Measuring MS Disease Activity

Strategic Area: Stop

Funding: \$67,374

Term: 7/1/2017-6/30/2020

**Alexandr Klistorner, Ph.D.**

Macquarie University

North Ryde, New South Wales, Australia

Award: Research Grants

Research Priority: Pathology

**“Investigating mechanisms of axonal degeneration in multiple sclerosis”** What are the mechanisms that drive progressive nervous system damage in MS?

Category: Neurophysiology

Strategic Area: Stop

Funding: \$1,124,000

Term: 7/1/2014-10/1/2020

**Maarten Kole, Ph.D.**

Netherlands Institute for Neuroscience

Amsterdam, The Netherlands

Award: Research Grants

Research Priority: Pathology

**“Mechanisms and consequences of synapse elimination in secondary progressive MS and the cuprizone model”** Researchers at the Netherlands Institute for Neuroscience are exploring a strategy for improving learning and memory in secondary progressive MS by addressing damage in a specific area of the brain associated with these functions.

Category: Neurophysiology

Strategic Area: Stop

Funding: \$449,340

Term: 10/1/2016-9/30/2020

**Dimitry Kremmentsov, Ph.D.**  
University of Vermont and State Agricultural College  
Burlington, Vermont  
Award: Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$312,877  
Term: 10/1/2019-9/30/2022  
**“Next generation systems analysis of pathogenetic mechanisms underlying CNS autoimmunity using the Collaborative Cross”** A University of Vermont team is seeking to identify and validate genes that may underlie a person’s susceptibility to MS.

**Jianrong Li, Ph.D.**  
Texas A&M AgriLife Research  
College Station, Texas  
Award: Research Grants  
Research Priority: Pathology  
Category: CNS Repair  
Strategic Area: Stop  
Funding: \$521,327  
Term: 10/1/2017-9/30/2020  
**“Role of Galectin-9 in CNS Inflammation, Demyelination and Myelin Repair”** Researchers at Texas A&M University are investigating a target for developing biomarkers and treatment strategies for progressive MS.

**Xiaoxia Li, Ph.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$732,861  
Term: 4/1/2018-3/31/2021  
**“Cellular and molecular mechanisms of the inflammasome in CNS inflammation”** Researchers at the Cleveland Clinic are investigating the importance of harmful immune system molecules in an animal model of MS.

**Jennifer Linden, Ph.D.**  
Weill Cornell Medical College  
New York, New York  
Award: Career Transition Fellowships  
Research Priority: Pathology  
Category: Neuropathology  
Strategic Area: Stop  
Funding: \$583,486  
Term: 7/1/2017-6/30/2022  
**“Using Endothelial Microparticles to Study Real-Time Blood Brain Barrier Permeability in Multiple Sclerosis Patients”** Investigators at Weill Cornell Medical College in New York are studying a molecular “signature” found in blood that may indicate the status of the blood-brain barrier, which normally protects the brain by keeping harmful cells and molecules out of the brain.

**Liliana Lucca, Ph.D.**  
Yale University  
New Haven, Connecticut  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$178,467  
Term: 7/1/2017-6/30/2020  
**“The role of the co-inhibitory receptor TIGIT in the immune deregulation of MS patients”** Investigators at Yale University are testing the idea that a molecule called TGIT, which is present on certain immune cells, turns down inflammation in healthy people but is unable to dampen inflammation in people with MS.

**Claudia Lucchinetti, M.D.**  
Mayo Clinic Rochester  
Rochester, Minnesota  
Award: Collaborative Research Center Awards  
Research Priority: Pathology  
Category: CNS Repair  
Strategic Area: Stop  
Funding: \$825,000  
Term: 4/1/2016-3/31/2021  
**“Metabolic Dysfunction in MS Pathogenesis and Disease Progression: The Donald C. McGraw Foundation Collaborative MS Research Center”** A multi-center team at Mayo Clinic is taking a novel approach to studying nerve cells and possible ways to protect them from injury in MS and stopping MS progression.  
*Funded by the Donald C. McGraw Foundation*

**Kedar Mahajan, M.D., Ph.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Pathology  
Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$194,394  
Term: 7/1/2016-6/30/2020  
**“Magnetic resonance fingerprinting and pathology correlations in multiple sclerosis”**  
Cleveland Clinic investigators are using novel imaging and tissue studies to understand how MS impacts an area deep in the brain, called the thalamus, and how its injury contributes to disability.  
*Funded in part by Daniel and Anita Schwab*

**Caterina Mainero, M.D., Ph.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$55,000  
Term: 6/1/2019-5/31/2020  
**“In vivo imaging of fibrin deposition in multiple sclerosis by 64Cu-FBP8 MR-PET”** A team at Massachusetts General Hospital is testing the ability of advanced technology to determine the role of a blood protein in causing damage to nerve tissue and inflammation in people with MS.

**Michael Matisse, Ph.D.**  
Rutgers, The State University of New Jersey  
Piscataway, New Jersey  
Award: Research Grants  
Research Priority: Pathology  
Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$523,635  
Term: 10/1/2018-9/30/2021  
**“Role of Shh-responsive astrocytes in blood-brain barrier integrity”** Researchers at Rutgers University are exploring the role of a molecule in maintaining and repairing the blood-brain barrier, which malfunctions in MS.

**Andrew Mendiola, Ph.D.**  
The J. David Gladstone Institutes  
San Francisco, California  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$177,243  
Term: 7/1/2018-6/30/2021  
**“In vivo imaging and profiling of mechanisms of T-cell recruitment and activation during neuroinflammatory disease”** Researchers at The Gladstone Institutes are investigating how a protein found in the blood called fibrinogen promotes a damaging immune response in MS.  
*Funded in part by the Dave Tomlinson Research Fund*

**Zahra Moinfar, M.D., Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$177,243  
Term: 7/1/2018-6/30/2021  
**“Pathogenic T cells that target NMO autoantigen aquaporin-4”** Researchers at the University of California at San Francisco are investigating similarities and differences between MS and a related but distinct disease called NMO.

**Ellen Mowry, M.D., M.C.R.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Strategic Initiatives  
Research Priority: Pathology  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$534,669  
Term: 4/1/2019-3/31/2022  
**“Traditional versus Early Aggressive Therapy for Multiple Sclerosis (TREAT-MS)”** The Society is leveraging PCORI-funded clinical trials to support an MS biobank as a shared resource for researchers searching for biomarkers that will help elucidate predictors of long-term disability and treatment response.

**Rashed Nagra, Ph.D.**  
Brentwood Biomedical Research Institute  
Los Angeles, California  
Award: Strategic Initiatives  
Research Priority: Pathology  
Category: Tissue/DNA Banks  
Strategic Area: Stop  
Funding: \$1,760,112  
Term: 11/1/2009-9/30/2020  
**“Human brain and spinal fluid resource center”** Developing and maintaining a tissue bank of specimens from people with MS for use in research.

**Ipek Oguz, Ph.D.**  
Vanderbilt University  
Nashville, Tennessee  
Award: Pilot Research Grants  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$53,689  
Term: 10/1/2019-9/30/2020  
**“Automated Segmentation of Cortical Lesions in Multiple Sclerosis”** Vanderbilt University researchers are developing an approach that would enable computerized recognition of types of MS brain lesions to improve accuracy for studying MS and monitoring people's conditions.

**Jiwon Oh, MD, PhD**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Pathology  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$500,000  
Term: 10/1/2016-9/30/2021  
**“Leptomeningeal Inflammation in Multiple Sclerosis: A Prospective MRI Study”** Johns Hopkins University researchers are exploring a novel imaging finding that may yield clues to understanding and stopping the progression of MS.

**Daniel Ontaneda, M.D., M.S.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Strategic Initiatives  
Research Priority: Pathology

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$378,797  
Term: 4/1/2019-3/31/2022

**“Determining the Effectiveness of early Intensive Versus Escalation approaches for the treatment of Relapsing-Remitting Multiple Sclerosis (DELIVER-MS)”** The Society is leveraging PCORI-funded clinical trials to support an MS biobank as a shared resource for researchers searching for biomarkers that will help elucidate predictors of long-term disability and treatment response.

**Mohamed Oukka, Ph.D.**  
Seattle Children's Hospital  
Seattle, Washington  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$724,876  
Term: 10/1/2018-9/30/2021

**“Effects of Fingolimod on T cells”** Researchers at Seattle Children’s Hospital are exploring immune regulators to refine attempts to stop MS disease activity.

**Gregory Owens, Ph.D.**  
University of Colorado Denver  
Denver, Colorado  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$705,938  
Term: 10/1/2017-9/30/2022

**“Mechanisms of CNS injury in MS antibody-mediated demyelination”** Researchers at the University of Colorado are investigating how antibodies found in the cerebrospinal fluid of people with MS cause MS-like damage in mice, and the implications for treating MS.

**Nikos Patsopoulos, M.D., Ph.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Human Genetics  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020

**“In-depth multi-omic characterization of lesion and lesion-free brain tissue”** Researchers at Brigham and Women's Hospital testing the use of cutting-edge technologies to study brain cell mechanisms to understand MS.

*Funded in part by a gift from the Kaufer Family*

**Dzung Pham, Ph.D.**  
Henry M. Jackson Foundation  
Bethesda, Maryland  
Award: Research Grants  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$626,875  
Term: 4/1/2020-3/31/2023

**“Harmonizing of Heterogeneous MRI Data in MS”** Henry M. Jackson scientists are developing tools that will enable the pooling of MRI images to enhance understanding of MS and to track changes in an individual's MS over time.

**David Pitt, M.D.**

Yale University  
New Haven, Connecticut  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Neuropathology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 6/1/2019-5/31/2020

**“Identifying macrophage/microglia and astroglial phenotypes and their interactions in MS lesions.”** Yale scientists are using cutting-edge imaging techniques to study the role of different cells in the immune attack on brain tissues in people with MS.

**Stefano Pluchino, M.D., Ph.D.**

University of Cambridge  
Cambridge, United Kingdom  
Award: Research Grants  
Research Priority: Pathology

Category: CNS Repair  
Strategic Area: Stop  
Funding: \$289,219  
Term: 10/1/2018-9/30/2021

**“Characterisation and manipulation of the metabolic pathways driving neuroinflammation”**

Researchers at the University of Cambridge are studying a type of immune cell and a molecule called succinate made by these cells, and their potential role in nervous system damage in progressive MS.

**Hongwei Qin, Ph.D.**

University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$583,800  
Term: 4/1/2017-3/31/2020

**“Function of Protein Kinase CK2 in CD4+ T Cells and Autoimmune Disease”** Researchers at the University of Alabama at Birmingham are investigating an immune molecule called CK2 that may be harmful in MS.

**Francisco Quintana, Ph.D.**

Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Pathology

Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$642,070  
Term: 10/1/2019-9/30/2022

**“Molecular control of astrocytes in CNS inflammation”** Brigham and Women’s researchers are seeking to identify a role for “astrocyte” brain cells in MS progression, for clues to stopping progression in its tracks.

**Alexander Rauscher, M.Sc., Ph.D.**

University of British Columbia  
Vancouver, British Columbia, Canada  
Award: Research Grants  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$309,320  
Term: 4/1/2016-9/30/2020

**“Imaging markers for tissue damage and repair in MS”** Researchers at the University of British Columbia in Vancouver are improving brain MRI to better detect disease activity, severity, and changes over time in people with MS.

**Richard Reynolds, Ph.D.**

Imperial College London  
London, United Kingdom

Award: Research Grants  
Research Priority: Pathology

Category: Neuropathology

Strategic Area: Stop

Funding: \$646,187

Term: 10/1/2016-9/30/2020

**“The role of meningeal inflammation induced cytokine signalling and mitochondrial dysfunction in neurodegeneration in progressive MS”** Researchers at Imperial College, London, have pinpointed a molecule that may signal nerve cell death, and are investigating how to alter these signals to stop MS progression.

**Joseph Sabatino, M.D., Ph.D.**

University of California, San Francisco  
San Francisco, California

Award: Research Grants  
Research Priority: Pathology

Category: Immunology

Strategic Area: Stop

Funding: \$61,875

Term: 7/1/2019-6/30/2022

**“Characterization of myelin-reactive CD8+ T cells in Multiple Sclerosis”** UCSF researchers are analyzing immune cell types in blood samples from people with MS and other neurologic diseases to determine if unique cell populations drive the immune response in MS.

**Shiv Saidha, M.B.B.S., M.D.**

Johns Hopkins University  
Baltimore, Maryland

Award: Research Grants  
Research Priority: Pathology

Category: Measuring MS Disease Activity

Strategic Area: Stop

Funding: \$494,401

Term: 4/1/2017-3/31/2020

**“In-vivo investigation of trans-synaptic neurodegeneration in multiple sclerosis”**

Researchers at Johns Hopkins University are testing new methods of assessing nerve cell damage, involving the visual system, to determine its value for predicting more severe MS.

**Naresha Saligrama, Ph.D.**

Washington University School of Medicine-M  
St. Louis, Missouri

Award: Career Transition Fellowships  
Research Priority: Pathology

Category: Immunology

Strategic Area: Stop

Funding: \$412,500

Term: 10/1/2019-9/30/2022

**“Understanding T cell receptor diversity and specificity in Multiple sclerosis and Experimental autoimmune encephalomyelitis”** A Stanford team is using advanced technologies to analyze a novel set of immune cells in people with MS during relapses, remissions and after treatment, for clues to what activates and sustains the immune response in MS.

**Frank Schildberg, Ph.D.**

Universitäts Klinikum Bonn  
Bonn, Germany

Award: Research Grants  
Research Priority: Pathology

Category: Immunology

Strategic Area: Stop

Funding: \$65,802

Term: 7/1/2017-12/17/2020

**“Cell type-specific functions of PD-L1 in controlling EAE”** Researchers are exploring the mechanisms by which a molecule seems to control the initiation and resolution of EAE of MS-like disease.



- Lucas Schirmer, M.D.**  
University of Heidelberg  
Heidelberg, Germany  
Award: Research Grants  
Research Priority: Pathology  
Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$129,666  
Term: 7/1/2017-6/30/2020  
**“Understanding and modulating astrocyte diversity in MS and experimental demyelination”**  
Researchers at the University of California at San Francisco are investigating characteristics of the various types of astrocytes, a cell type that forms scars and blocks repair in lesions found in the brain in MS.
- Liisa Selin, M.D., Ph.D.**  
University of Massachusetts Medical School  
Worcester, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: End  
Funding: \$55,000  
Term: 6/1/2019-5/31/2020  
**“EBV-specific CD8+T cell response in multiple sclerosis”** A team at the University of Massachusetts is studying the immune cell responses to the Epstein-Barr virus in people with MS to determine whether these responses contribute to the development of MS.
- Hengameh Shams, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$123,278  
Term: 7/1/2019-6/30/2022  
**“Characterization of the interplay between T and B lymphocytes in multiple sclerosis using functional proteomics”** A UCSF team is using advanced technology to study links between immune function and disease status in people with MS, for clues to the key molecular events that underlie disease initiation and response to treatment.  
*Funded in part by a gift from the Kaufer Family*
- Larry Sherman, Ph.D.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Research Grants  
Research Priority: Pathology  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$575,556  
Term: 10/1/2017-9/30/2020  
**“WE-thrombin for the treatment of inflammatory demyelination”** Researchers at Oregon Health & Science University are developing a novel agent that fights inflammation, which may protect the nervous system from damage in MS.
- Russell Shinohara, Ph.D.**  
University of Pennsylvania  
Philadelphia, Pennsylvania  
Award: Research Grants  
Research Priority: Pathology  
Category: Epidemiology  
Strategic Area: Stop  
Funding: \$585,061  
Term: 4/1/2018-3/31/2021  
**“A traveling subject study of replicability in conventional and advanced MRI MS biomarkers”**  
Researchers at the University of Pennsylvania are developing statistical methods to reduce differences in images obtained on different MRI scanners to improve the accuracy of MRI data from people with MS.

**Mari Shinohara, Ph.D.**

Duke University Medical Center  
Charlotte, North Carolina  
Award: Research Grants  
Research Priority: Pathology

Category: Immunology  
Strategic Area: Stop  
Funding: \$638,584  
Term: 10/1/2018-9/30/2021

**“Study on innate immune inflammation that enhances EAE”** Duke University researchers are exploring how immune system activity leads to nerve degeneration, for insights into ways to prevent nerve loss and MS progression.

**Afsaneh Shirani, M.D.**

University of Nebraska Medical Center  
St. Louis, Missouri  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Pathology

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$100,078  
Term: 7/1/2019-6/30/2020

**“Predicting clinical progression in multiple sclerosis patients using a novel imaging biomarker targeted at differentiating and quantifying the underlying pathologies”**

Researchers at Washington University School of Medicine are developing a new type of brain imaging to allow detection and prediction of different types of damage that occur in people with MS.

**Sheng-Kwei Song, Ph.D.**

Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Research Grants  
Research Priority: Pathology

Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$648,976  
Term: 10/1/2017-9/30/2020

**“How Does Optic Neuritis Impact Nerve Function and Its Assessment?”** Researchers at The Hope Center at Washington University in St. Louis are developing a method to specifically image damage to the optic nerve to better understand MS disease processes.

**Peter Stys, M.D., Ph.D.**

University of Calgary  
Calgary, Alberta, Canada  
Award: Pilot Research Grants  
Research Priority: Pathology

Category: Neurophysiology  
Strategic Area: Stop  
Funding: \$49,950  
Term: 2/1/2020-1/31/2021

**“Non-immune role of B cells in the pathogenesis of MS”** Calgary scientists are investigating a role for immune B cells in MS progression by looking at these cells in blood samples from people with MS.

**Paul Tesar, Ph.D.**

Case Western Reserve University  
Cleveland, Ohio  
Award: Research Grants  
Research Priority: Pathology

Category: Human Genetics  
Strategic Area: Restore  
Funding: \$654,443  
Term: 10/1/2017-9/30/2020

**“The impact of chemical and genetic dysregulation of transcriptional pausing on oligodendrocyte generation and myelination in MS”**

Investigators at Case Western Reserve University and the Whitehead Institute are investigating underlying factors that hinder stem cells in the brain from replacing myelin in people with MS.

**Rodolfo Thome, Ph.D.**  
Thomas Jefferson University  
Philadelphia, Pennsylvania  
Award: Postdoctoral Fellowships  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$184,654  
Term: 7/1/2017-6/30/2020  
**“The role of IL-7 in pathogenesis of Experimental Autoimmune Encephalomyelitis”**  
Researchers at Thomas Jefferson University are investigating the role of an immune molecule that may drive damaging inflammation in MS.

**Timothy Vartanian, M.D., Ph.D.**  
Weill Cornell Medical College  
New York, New York  
Award: Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$370,192  
Term: 4/1/2020-3/31/2022  
**“Defining ancestry associated B-cell inflammation in treatment naïve Multiple Sclerosis”**  
Weill Cornell researchers are investigating immune cell differences in racially and ethnically diverse individuals to better predict and treat MS in non-white populations.

**Ari Waisman, M.Sc., Ph.D.**  
University Medical Center of the Johannes  
Gutenberg-University Mainz  
Mainz, Germany  
Award: Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$484,464  
Term: 4/1/2018-3/31/2021  
**“The role and mode-of-action of IL-17 in the CNS”** Researchers in Mainz, Germany are identifying the destructive activities that are launched by an immune messenger called IL-17, for clues to stopping MS.

**Howard Weiner, M.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Pathology  
Category: Immunology  
Strategic Area: Stop  
Funding: \$778,164  
Term: 4/1/2020-3/31/2023  
**“The role of B cells in CNS autoimmunity”** A team at Brigham and Women's Hospital is exploring subsets of immune B cells and their contribution to MS onset and disease activity.

**Sebastian Werneburg, M.Sc., Ph.D.**  
University of Massachusetts Medical School  
Worcester, Massachusetts  
Award: Career Transition Fellowships  
Research Priority: Pathology  
Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$595,418  
Term: 7/1/2020-6/30/2025  
**“Molecular Dissection of Neural Circuit Disassembly by Reactive Glia in Demyelinating Disease”** A team at UMass is studying the fate of synapses -- the points of communication between two nerve cells -- throughout the course of MS.

**Chuan Wu, M.D., Ph.D.**

National Cancer Institute, National Institutes of Health

Bethesda, Maryland

Award: Research Grants

Research Priority: Pathology

**“High salt diet influences the development of autoimmunity via inducible salt sensing kinase SGK1”** How might dietary salt influence the behavior of immune cells in MS?

Category: Immunology

Strategic Area: Stop

Funding: \$375,000

Term: 7/1/2017-6/30/2020

**Gregory Wu, M.D., Ph.D.**

Washington University School of Medicine-M

St. Louis, Missouri

Award: Research Grants

Research Priority: Pathology

**“Formation of ectopic lymphoid tissue in autoimmune encephalomyelitis and MS”**

Washington University researchers are exploring a novel feature of the immune system that may prevent therapies that target immune B cells from being effective in some people with progressive MS, for clues to better management of MS progression.

Category: Immunology

Strategic Area: Stop

Funding: \$519,551

Term: 4/1/2019-3/31/2022

**Yuyi You, M.D., Ph.D.**

Macquarie University

Sydney, New South Wales, Australia

Award: Research Grants

Research Priority: Pathology

**“Investigating the role of demyelination in anterograde transsynaptic degeneration in MS”**

University of Sydney researchers are studying the contributions of myelin loss to nerve degeneration, which can lead to MS progression.

Category: Neuropathology

Strategic Area: Stop

Funding: \$639,136

Term: 4/1/2020-3/31/2024

## **PROGRESSION: “How do we stop MS progression?”**

**Lilyana Amezcua, M.D., M.S.**

University of Southern California

Los Angeles, California

Award: Research Grants

Research Priority: Progression

**“Acculturation, genetic ancestry, and disability in Hispanic Americans with multiple sclerosis”** Researchers at University of Southern California are spearheading a study to understand socio-cultural factors that impact MS in Hispanics and to provide solutions to prevent disease worsening.

Category: Epidemiology

Strategic Area: Stop

Funding: \$685,703

Term: 4/1/2016-3/31/2020

**Annexon Biosciences**  
South San Francisco, California  
Award: Fast Forward  
Research Priority: Progression  
**“Identification of CSF Biomarkers to Establish Target Engagement and Dosing for a Novel MS Therapeutic”** Validating the applicability of a new neuroprotective compound to prevent or delay neurodegeneration in progressive MS.

Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$650,813  
Term: 1/1/2017-4/1/2020

**Erin Beck, M.D., Ph.D.**  
National Institutes of Health/National Institute of Neurological Disorders and Stroke  
Bethesda, Maryland  
Award: Career Transition Fellowships  
Research Priority: Progression  
**“Evolution of cortical pathology and its relation to meningeal inflammation in multiple sclerosis”** NIH researchers are using advanced imaging to look at specific areas of damage in the brains of people with MS that are linked with progression, for clues to developing treatments that can stop the disease.  
*Funded in part by Daniel and Anita Schwab*

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$601,176  
Term: 7/1/2019-6/30/2024

**Pavan Bhargava, M.B.B.S., M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Progression  
**“Bile acid supplementation for Multiple Sclerosis”** Johns Hopkins researchers are investigating whether a dietary supplement can be beneficial for the immune system, gut bacteria and MS disease activity.

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$355,455  
Term: 4/1/2018-3/31/2021

**Pavan Bhargava, M.B.B.S., M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Career Transition Fellowships  
Research Priority: Progression  
**“Targeting Leptomeningeal Inflammation for Progressive Multiple Sclerosis”** Researchers at Johns Hopkins University are working to establish a better model of progressive MS that will permit research into understanding and treating inflammation of the meninges, the tissue that covers the brain.

Category: Immunology  
Strategic Area: Stop  
Funding: \$457,540  
Term: 7/1/2016-6/30/2021

**Jeff Bulte, Ph.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Pilot Research Grants  
Research Priority: Progression  
**“OnVDMP CEST MRI Detection of Primary CNS Metabolites as a Novel Imaging Biomarker for EAE Disease Progression”** Johns Hopkins researchers are testing a novel method of imaging molecules in the spinal cord that may link to disease course in MS.

Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$55,000  
Term: 6/1/2019-5/31/2020

**Peter Calabresi, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Progression

Category: CNS Repair  
Strategic Area: Stop  
Funding: \$Pending  
Term: 4/1/2020-3/31/2023

**“Validation of Serum Neurofilament Light Chain as a Biomarker in Multiple Sclerosis:Subtypes and controls”** Johns Hopkins researchers are determining whether blood levels of a neurofilament, released when nerves are damaged, can be validated as a blood test to monitor MS and predict its course.

**Peter Calabresi, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Progression

Category: CNS Repair  
Strategic Area: Stop  
Funding: \$817,067  
Term: 4/1/2020-3/31/2023

**“Mechanisms of complement component 3 mediated neurodegeneration in MS and EAE”** Johns Hopkins researchers are exploring sex differences in specific immune activity and whether blocking it has potential for protecting the nervous system in MS.

**Theron Casper, Ph.D.**  
University of Utah  
Salt Lake City, Utah  
Award: Strategic Initiatives  
Research Priority: Progression

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$3,490,520  
Term: 7/1/2019-6/30/2022

**“Renewal of Pediatric MS Network”** The Society is supporting a one-of-a-kind network for research to advance knowledge and understanding of the triggers and impacts of MS in both children and adults.

**Jeremy Chataway, M.A., Ph.D.**  
University College London  
London, United Kingdom  
Award: Research Grants  
Research Priority: Progression

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$448,550  
Term: 10/1/2017-9/30/2022

**“MS-STAT2-MRI”** Researchers from University College London are leading a multicenter trial in the UK to test whether a repurposed cholesterol-lowering therapy can slow the course of secondary progressive MS.

**Mingnan Chen, Ph.D.**  
University of Utah  
Salt Lake City, Utah  
Award: Research Grants  
Research Priority: Progression

Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$463,892  
Term: 4/1/2019-3/31/2022

**“Understanding and utilizing the role of programmed death 1-positive (PD-1+) cells in multiple sclerosis”** A team at the University of Utah is developing a therapy that targets specific immune cells, and testing it in MS mouse models to see if it can stop MS-like attacks without affecting normal immune function.

**Tanuja Chitnis, M.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Health Care Delivery and Policy Research Contracts  
Research Priority: Progression  
Category: Health Care Delivery/ Policy  
Strategic Area: Stop  
Funding: \$492,718  
Term: 10/1/2015-3/31/2021  
**“Patient-family views on pediatric MS research needs, outcomes, and methods”** Researchers at Harvard Medical School are gathering opinions about research priorities related to pediatric MS from parents of children and teenagers with MS, and adults with pediatric-onset MS.

**John Ciotti, M.D.**  
Washington University in St. Louis  
St. Louis, Missouri  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2020-6/30/2022  
**“Sylvia Lawry Physician Fellowship”** A promising doctor at Washington University in St. Louis will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Bogoljub Ciric, Ph.D.**  
Thomas Jefferson University  
Philadelphia, Pennsylvania  
Award: Pilot Research Grants  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$55,000  
Term: 6/1/2019-5/31/2020  
**“The therapeutic effect of D-mannose in EAE”** Scientists at Thomas Jefferson University are testing whether D-mannose, a simple sugar, may stop the immune attack in lab models of MS.

**John Corboy, M.D.**  
University of Colorado Denver  
Denver, Colorado  
Award: Strategic Initiatives - 2016  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$326,464  
Term: 10/1/2016-9/30/2021  
**“Discontinuation of Disease Modifying Therapies (DMTs) in Multiple Sclerosis (MS) – co-funding with Patient Centered Outcome Research Institute (PCORI)”** A trial to determine if and when MS therapies should be discontinued.

**Aditi Das, Ph.D.**  
University of Illinois at Urbana-Champaign  
Champaign, Illinois  
Award: Pilot Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2018-3/31/2020  
**“Anti-inflammatory endocannabinoids as potential MS therapeutics”** Exploring a strategy for stopping the immune attack using a naturally occurring molecule similar to cannabis.

**Bonnie Dittel, Ph.D.**  
Versiti Wisconsin, Inc  
Milwaukee, Wisconsin  
Award: Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$723,642  
Term: 10/1/2019-9/30/2022  
**“B cell regulation in EAE/MS”** A Wisconsin team is exploring a newly identified subset of immune cells for clues to developing a cell-based therapy to stop the immune attack in MS.

**Carlos Duarte, Ph.D.**  
University of Coimbra  
Coimbra, Portugal  
Award: Research Grants  
Research Priority: Progression  
Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$175,000  
Term: 10/1/2016-6/30/2020  
**“Novel cerebrospinal fluid and serum biomarkers for Multiple Sclerosis”** Investigators at the University of Coimbra, Portugal, are exploring whether proteins they have identified in the spinal fluid may be used as biomarkers or flags to help diagnose and track MS.

**Jenny Feng, M.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$195,000  
Term: 7/1/2018-6/30/2021  
**“Training in multiple sclerosis diagnosis, management, and clinical trials”** A promising doctor at Cleveland Clinic Foundation will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Carolyn Goldschmidt, D.O.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$195,000  
Term: 7/1/2019-6/30/2022  
**“Training in multiple sclerosis diagnosis, management, and clinical trials”** Under the mentorship of Dr. Jeff Cohen, Dr. Carolyn Goldschmidt at the Cleveland Clinic will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Jennifer Graves, M.D., Ph.D.**  
University of California San Diego  
San Diego, California  
Award: Research Grants  
Research Priority: Progression  
Category: Human Genetics  
Strategic Area: Stop  
Funding: \$405,900  
Term: 7/1/2018-3/31/2020  
**“The role of biological aging on progression in MS”** Researchers at the University of California, San Francisco, are exploring an association between the biological process of aging and the progression of MS, for clues to stopping MS.



**Sasha Gupta, M.D.**  
University of California, San Francisco  
San Francisco, California  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$136,408  
Term: 7/1/2019-6/30/2022  
**“Use of anti-CD19 CAR-T cells in treatment of CNS autoimmune demyelinating disease in mouse model”** A UCSF team is testing a therapy used to target immune B cells in cancer for clues to whether this treatment can slow or prevent disease progression in MS lab models.

**David Hafler, M.D.**  
Yale University  
New Haven, Connecticut  
Award: Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$825,000  
Term: 10/1/2018-9/30/2021  
**“Longitudinal, single-cell assessment to define the mechanism of B cell depletion therapy in Multiple Sclerosis”** Yale University researchers are investigating the role of immune B cells in MS and what happens to the immune system in people with MS who are taking B cell-depleting therapies.

**Daniel Hartung, M.P.H., Pharm.D.**  
Oregon State University  
Corvallis, Oregon  
Award: Health Care Delivery and Policy Research  
Contracts  
Research Priority: Progression  
Category: Health Care Delivery/ Policy  
Strategic Area: Stop  
Funding: \$411,151  
Term: 10/1/2016-9/30/2020  
**“Costs, Access, and Value of Multiple Sclerosis Disease-Modifying Therapies”** Researchers at Oregon State University are investigating reasons for the escalating costs of MS treatments.

**Stephen Hauser, M.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Strategic Initiatives  
Research Priority: Progression  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$1,375,000  
Term: 10/1/2016-9/30/2021  
**“SUMMIT: An investigation of deeply phenotyped cohorts to understand disease outcomes and the biology of progression in MS”** SUMMIT (Serially Unified Multicenter Multiple Sclerosis Investigation) establishes an open research platform for identifying factors that influence the course of MS, with the goal of predicting and preventing progression.

**Daniel Hawiger, M.D., Ph.D.**  
Saint Louis University  
St. Louis, Missouri  
Award: Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$756,301  
Term: 10/1/2019-9/30/2022  
**“Dendritic cells-orchestrated and Hopx-mediated homeostasis of regulatory T cells blocking autoimmune neuroinflammation”** Scientists at Saint Louis University are exploring the mechanisms by which certain cells can regulate immune attacks in MS, for clues to developing targeted therapies to stop MS.

**Lynn Hudson, Ph.D.**  
Critical Path Institute  
Tucson, Arizona  
Award: Strategic Initiatives  
Research Priority: Progression  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$3,000,000  
Term: 10/1/2012-9/30/2020  
**“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.

**Daniel Kaufman, Ph.D.**  
University of California, Los Angeles  
Los Angeles, California  
Award: Research Grants  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$594,348  
Term: 4/1/2017-3/31/2020  
**“Preclinical studies aimed at repurposing a clinically safe drug to help treat MS”** Researchers at the University of California are testing a molecule for its ability to limit inflammation in MS, to stop the disease in its tracks and reduce damage.

**Robyn Klein, M.D., Ph.D.**  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$736,586  
Term: 10/1/2018-9/30/2021  
**“Interferon lambda as a biomarker and target for Diseases Progression in MS”** Researchers at Washington University School of Medicine are investigating the role of a molecule called interferon lambda in progressive forms of MS.

**Kristen Krysko, M.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$195,000  
Term: 7/1/2017-6/30/2020  
**“Application for MS Clinical Research Fellowship at UCSF”** A promising doctor at the University of California, San Francisco will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Vipin Kumar, Ph.D.**  
University of California San Diego  
San Diego, California  
Award: Research Grants  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$625,486  
Term: 10/1/2018-9/30/2021  
**“Targeting lysophospholipid-reactive type II NKT cells for potential oral therapeutic in multiple sclerosis”** Researchers at the University of California, San Diego are investigating the usefulness of an oral therapy already in use for another purpose for its ability to reduce MS-like disease in a mouse model.

**Christopher Langston, M.D.**  
Icahn School of Medicine at Mount Sinai  
New York, New York  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
**“Sylvia Lawry Physician Fellowship”** A promising doctor at Icahn School of Medicine at Mount Sinai Hospital will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2018-6/30/2020

**Guanshu Liu, Ph.D.**  
Hugo W. Moser Research Institute at Kennedy  
Krieger, Inc.  
Baltimore, Maryland  
Award: Pilot Research Grants  
Research Priority: Progression

Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$55,000  
Term: 2/1/2020-1/31/2021

**“Quantification of BBB Opening using Dextran-enhanced MRI as a Biomarker of EAE Progression”** Baltimore researchers are testing a novel imaging method to determine if it can evaluate the extent to which immune factors are permitted to enter the brain in an MS model.  
*Paid by the Marilyn Hilton MS Research Fund*

**Don Mahad, M.D., Ph.D.**  
University of Edinburgh  
Edinburgh EH1 1HT, United Kingdom  
Award: Research Grants  
Research Priority: Progression

Category: Neuropathology  
Strategic Area: Stop  
Funding: \$169,494  
Term: 4/1/2019-3/31/2021

**“Targeting mitochondria to protect axons in progressive MS”** A team in Scotland is attempting to enhance energy production in nerve cells, in hopes that making these cells more robust will protect them from damage in MS.

**Muhammad Taimur Malik, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2018-6/30/2020

**“MS Clinical Trials Fellowship”** A promising doctor at Johns Hopkins University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Farrah Mateen, M.D., Ph.D.**  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Progression

Category: Psychosocial Aspects of MS  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020

**“Electronic Pill Bottle Monitoring to Promote Medication Adherence for People with MS”** Researchers at Massachusetts General Hospital are testing if an electronic pill bottle cap can monitor and remind people with MS about taking their medications.

**Lior Mayo, Ph.D.**  
Tel Aviv University  
Tel Aviv, Israel  
Award: Pilot Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$50,000  
Term: 10/1/2018-3/31/2020  
**“The Role of CD157+ Cells in Acute and Progressive MS”** Studying immunological mechanisms that contribute to disease progression and to exploring their therapeutic potential for MS.

**Lior Mayo, Ph.D.**  
Tel Aviv University  
Tel Aviv, Israel  
Award: Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$375,000  
Term: 1/1/2017-12/31/2020  
**“Role of CD38 in the control of the innate and adaptive immune responses during CNS inflammation”** Researchers at Tel Aviv University are investigating an immune-system protein for its role in driving MS progression, for clues to stopping progression in its tracks.

**Jamie McDonald, M.D., M.S.**  
Stanford University  
Stanford, California  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2020-6/30/2022  
**“Clinical Research Fellowship at Stanford University Multiple Sclerosis Center”** A promising doctor at Stanford will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Sarah Minden, M.D.**  
Gryphon Scientific  
Boston, Massachusetts  
Award: Health Care Delivery and Policy Research  
Contracts  
Research Priority: Progression  
Category: Health Care Delivery/ Policy  
Strategic Area: Stop  
Funding: \$411,387  
Term: 5/1/2018-4/30/2020  
**“What is the extent to which people with MS utilize complementary and alternative medicine (CAM)?”** Investigators at Gryphon Scientific and collaborators are launching an extensive effort to understand complementary and alternative medicine use in MS.

**Sarah Minden, M.D.**  
Gryphon Scientific  
Boston, Massachusetts  
Award: Health Care Delivery and Policy Research  
Contracts  
Research Priority: Progression  
Category: Health Care Delivery/ Policy  
Strategic Area: Stop  
Funding: \$44,408  
Term: 10/1/2013-12/31/2020  
**“Sonya Slifka Longitudinal Multiple Sclerosis Study Phase III”** Analyzing and making available data from people with MS to answer a wide range questions about issues faced by people living with MS.

**MS Society UK,**  
MS Society UK  
London, United Kingdom  
Award: Strategic Initiatives  
Research Priority: Progression  
**“ChariotMS Trial: Cladribine to halt deterioration in people with advanced multiple sclerosis”**

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$313,000  
Term: 10/1/2019-9/30/2020

**MS Society UK**  
London, United Kingdom  
Award: Strategic Initiatives  
Research Priority: Progression

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$1,151,147  
Term: 4/1/2017-6/30/2026

**“Co-funding for MS-STAT Phase 3 clinical trial of simvastatin in secondary progressive MS by Dr. Jeremy Chataway”** Researchers from University College London are leading a multicenter trial in the UK to test whether a repurposed cholesterol-lowering therapy can slow the course of secondary progressive MS.

**Bardia Nourbakhsh, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Progression

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$397,249  
Term: 4/1/2019-3/31/2022

**“Evaluating the effects of short-term B-cell depletion on long-term disease activity and immune tolerance in relapsing multiple sclerosis”** Johns Hopkins researchers are exploring the longer-term impacts of short-term use of B-cell depleting therapy on the immune system and MS disease activity.

**Jorge Oksenberg, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Pilot Research Grants  
Research Priority: Progression

Category: Neuropathology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 2/1/2020-1/31/2021

**“Cellular senescence in autoimmune demyelination”** A team at UCSF is testing whether aging cells are related to progression of MS-like disease.

*Funded through a collaboration with MS-LINK™, an EMD Serono Signature Initiative*

**Joel Pachter, Ph.D.**  
University of Connecticut Health Center  
Farmington, Connecticut  
Award: Research Grants  
Research Priority: Progression

Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$671,350  
Term: 10/1/2017-9/30/2020

**“Extracellular vesicles and MSCs as novel tools to aid in the diagnosis and treatment of secondary progressive disease”** Investigators at the University of Connecticut Health Center are exploring the therapeutic potential of stem cells and a novel method of tracking the course of secondary progressive MS in mice.

**Darren Perkins, Ph.D.**  
University of Maryland, Baltimore  
Baltimore, Maryland  
Award: Pilot Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 2/1/2020-1/31/2021  
**“Enhancement of STING dependent type I interferon production in microglia during MS associated inflammation through inhibition of a novel STING negative regulatory pathway”**  
Maryland scientists are testing whether a therapy already in clinical trials can be applied to the immune attacks that occur in MS.

**Dzung Pham, Ph.D.**  
Henry M. Jackson Foundation  
Bethesda, Maryland  
Award: Research Grants  
Research Priority: Progression  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$576,675  
Term: 4/1/2016-3/31/2020  
**“Imaging Biomarker Discovery With Advanced Brain Segmentation Algorithms”** Researchers at the National Institutes of Health are developing software tools to automatically measure MRI-detected brain lesions in MS to improve diagnosis and clinical trials.

**Laura Piccio, M.D., Ph.D.**  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Research Grants  
Research Priority: Progression  
Category: Diagnostic Methods  
Strategic Area: Stop  
Funding: \$767,244  
Term: 4/1/2020-3/31/2023  
**“Cerebrospinal fluid-biomarkers-based diagnostic and prognostic models for Multiple Sclerosis”** Washington University researchers are using powerful technology to measure spinal fluid proteins to develop biomarker profiles to predict MS course and response to treatments.

**Daniela Pimentel Maldonado, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$195,500  
Term: 7/1/2020-6/30/2023  
**“Fellowship Training in Multiple Sclerosis Clinical Trials”** A promising doctor at Johns Hopkins will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Francisco Quintana, Ph.D.**  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: International Progressive MS Alliance - Collaborative Network Center  
Research Priority: Progression  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$4,000,000  
Term: 1/1/2017-12/23/2020  
**“Development of a drug discovery pipeline for progressive MS”** Identifying candidates with neuroprotective and/or myelin repair activity to speed the search for treatments for progressive MS.  
*Estimated joint commitment with other Progressive MS Alliance members; Funded in full by an Anonymous Donor*

**Michael Robers, M.D.**  
University of Southern California  
Los Angeles, California  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
**"MS Fellowship"** A promising doctor at the University of Southern California, Los Angeles, will develop the skills involved in the conduct, design, implementation, and analysis of large epidemiological and clinical trials in MS.

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2018-6/30/2020

**Lindsay Ross, M.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
**"Training in Multiple Sclerosis diagnosis, management and clinical trials"** A promising doctor at the Cleveland Clinic will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$195,000  
Term: 7/1/2020-6/30/2023

**A.M. Rostami, M.D., Ph.D.**  
Thomas Jefferson University  
Philadelphia, Pennsylvania  
Award: Research Grants  
Research Priority: Progression  
**"IL-37, a novel therapeutic intervention for autoimmune neuroinflammation"** Researchers at Thomas Jefferson University in Philadelphia are exploring a novel strategy for stopping the immune attack in MS.

Category: Immunology  
Strategic Area: Stop  
Funding: \$650,000  
Term: 4/1/2017-3/31/2020

**Neha Safi, M.D.**  
Icahn School of Medicine at Mount Sinai  
New York, New York  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
**"Sylvia Lawry Physician Fellowship"** A promising doctor at Icahn School of Medicine at Mount Sinai in New York will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2020-6/30/2022

**Amber Salter, Ph.D., M.P.H.**  
Washington University in St. Louis  
St. Louis, Missouri  
Award: Strategic Initiatives  
Research Priority: Progression  
**"Metadata Catalogue Project"** A WashU team is aiming to establish a metadata catalogue and to increase the feasibility of harmonizing disability measures across registries.

Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$113,691  
Term: 9/1/2019-10/31/2020

**Ryan Schubert, M.D.**  
University of California, San Francisco  
San Francisco, California  
Award: NMSS-ABF Clinician Scientist Awards  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$269,394  
Term: 7/1/2017-6/30/2020  
**“Using comprehensive phage display coupled with next-generation sequencing to define the evolution of autoantibodies and viral antibodies in the two years after a first demyelinating event”** Researchers at the University of California at San Francisco are looking for antibody “signatures” in fluid samples that can predict which of those individuals with a first neurological event will go on to develop definite MS.

**David Scott, Ph.D.**  
Henry M. Jackson Foundation  
Bethesda, Maryland  
Award: Research Grants  
Research Priority: Progression  
Category: Immunology  
Strategic Area: Stop  
Funding: \$485,942  
Term: 10/1/2017-9/30/2020  
**“Engineering human CNS-specific T regulatory cells”** Researchers at the Uniformed Services University are investigating a way to specifically turn off components of the immune system that are harmful in people with MS.

**Elizabeth Silbermann, M.D.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Rehabilitation  
Strategic Area: Stop  
Funding: \$195,000  
Term: 7/1/2017-6/30/2020  
**“Sylvia Lawry Clinical Trials Physician Fellowship”** A promising doctor at Oregon Health & Science University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Milos Simic, Ph.D.**  
University of California, San Francisco  
San Francisco, California  
Award: Postdoctoral Fellowships  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$196,309  
Term: 7/1/2020-6/30/2023  
**“Development of cellular immunotherapies for multiple sclerosis”** A UCSF team engineering immune cells as a strategy to deliver a payload to the nervous system to decrease damaging immune activity and provide healing growth factors.

**Elias Sotirchos, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$195,000  
Term: 7/1/2017-6/30/2020  
**“Sylvia Lawry Physician Fellowship”** A promising doctor at Johns Hopkins University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.



**Elias Sotirchos, M.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Career Transition Fellowships  
Research Priority: Progression  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$550,000  
Term: 7/1/2020-6/30/2025  
**“Prediction of risk of disability worsening and inflammatory disease activity in MS utilizing multimodal predictive algorithms”** Johns Hopkins University researchers are studying multiple factors in large numbers of people with MS to provide insight into which factors are associated with a more severe disease course.  
*Paid by the Marilyn Hilton MS Research Fund*

**Rebecca Spain, M.D., M.S.P.H.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Strategic Initiatives  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$1,180,578  
Term: 10/1/2017-9/30/2021  
**“Lipoic acid for the treatment of progressive multiple sclerosis”** Investigators at Oregon Health & Science University are conducting a clinical trial to determine if the oral supplement, lipoic acid, is an effective treatment for progressive forms of multiple sclerosis.

**Elaine Su, M.D.**  
Stanford University  
Stanford, California  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2019-6/30/2021  
**“Neuroimmunology Fellowship with Training in Epidemiology and Clinical Research”** Under the mentorship of Drs. Jeffrey Dunn and Lorene Nelson, Dr. Elaine Su at Stanford will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Jenny Ting, Ph.D.**  
University of North Carolina at Chapel Hill  
Chapel Hill, North Carolina  
Award: Collaborative Research Center Awards  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$825,000  
Term: 4/1/2014-3/31/2020  
**“Preclinical Therapeutic Development for Multiple Sclerosis”** Testing therapies to stop the immune attack and protect the nervous system.

**Stephen Tomlinson, Ph.D.**  
Medical University of South Carolina  
Charleston, South Carolina  
Award: Pilot Research Grants  
Research Priority: Progression  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$55,000  
Term: 2/1/2020-1/31/2021  
**“A novel targeting approach for complement inhibition and Treg therapy”** South Carolina researchers are testing whether inhibiting immune system components affects progression of MS-like disease.

- Yisong Wan, Ph.D.**  
 University of North Carolina at Chapel Hill  
 Chapel Hill, North Carolina  
 Award: Research Grants  
 Research Priority: Progression  
**“Targeting T cell function to halt MS/EAE development”** Researchers at the University of North Carolina at Chapel Hill are studying a factor that appears to be important in abnormal activation of immune cells that are harmful in MS.
- Category: Immunology  
 Strategic Area: Stop  
 Funding: \$621,352  
 Term: 10/1/2018-9/30/2021
- Chao Wang, Ph.D.**  
 Brigham and Women's Hospital  
 Boston, Massachusetts  
 Award: Career Transition Fellowships  
 Research Priority: Progression  
**“Regulation of TH17 cell function by CD5Like”** Researchers at Brigham and Women’s Hospital in Boston are exploring how a recently discovered molecule may be used to develop a strategy for stopping the immune attack in MS in its tracks.
- Category: Immunology  
 Strategic Area: Stop  
 Funding: \$412,500  
 Term: 7/1/2017-6/30/2022
- Howard Weiner, M.D.**  
 Brigham and Women's Hospital  
 Boston, Massachusetts  
 Award: Strategic Initiatives  
 Research Priority: Progression  
**“SUMMIT: An investigation of deeply phenotyped cohorts to understand disease outcomes and the biology of progression in MS”** SUMMIT (Serially Unified Multicenter Multiple Sclerosis Investigation) establishes an open research platform for identifying factors that influence the course of MS, with the goal of predicting and preventing progression.
- Category: Measuring MS Disease Activity  
 Strategic Area: Stop  
 Funding: \$1,375,000  
 Term: 10/1/2016-9/30/2021
- Margot Woodroffe, Ph.D.**  
 Sheffield Hallam University  
 Sheffield, United Kingdom  
 Award: Research Grants  
 Research Priority: Progression  
**“Lipidomics in progressive MS”** Investigators at Sheffield Hallam University are mapping changes in the fatty composition of the brain for clues to finding ways to stop progressive MS.
- Category: Neuropathology  
 Strategic Area: Stop  
 Funding: \$134,514  
 Term: 4/1/2018-3/31/2020
- Biao Xiang, Ph.D.**  
 Washington University School of Medicine-M  
 St. Louis, Missouri  
 Award: Postdoctoral Fellowships  
 Research Priority: Progression  
**“Using a Novel MRI technique - Simultaneous Multi-Angular Relaxometry of Tissue - to Measure Evolution of tissue damage in Progressive Multiple Sclerosis”** Investigators at Washington U are testing the ability of an imaging technique to detect and track progressive MS.
- Category: Diagnostic Methods  
 Strategic Area: Stop  
 Funding: \$185,284  
 Term: 7/1/2020-6/30/2023

**E. Yeh, M.D.**  
The Hospital for Sick Children  
Toronto, Ontario, Canada  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Progression  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$352,950  
Term: 7/1/2015-6/30/2021  
**“Pediatric MS: Shaping the future of outcomes and disability”** This training program at the University of Toronto Hospital for Sick Children will equip researchers with experience and knowledge to design and conduct research aimed at improving wellness in children with MS.

**Yinan Zhang, M.D.**  
Icahn School of Medicine at Mount Sinai  
New York, New York  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Progression  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$130,000  
Term: 7/1/2019-6/30/2021  
**“Sylvia Lawry Fellowship”** Under the mentorship of Dr. Fred Lublin, Dr. Yinan Zhang at Mount Sinai will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Weiquan Zhu, Ph.D.**  
University of Utah  
Salt Lake City, Utah  
Award: Research Grants  
Research Priority: Progression  
Category: CNS Repair  
Strategic Area: Stop  
Funding: \$809,998  
Term: 4/1/2020-3/31/2023  
**“Stabilizing the Blood-Central Nervous System Barrier to Treat Multiple Sclerosis”** A University of Utah team is studying the role of a protein in the onset and progression of MS lab models, and whether blocking it has potential for treating MS.

## NEUROPROTECTION/REPAIR: “How do we repair the damage caused by MS?”

**Charles Abrams, M.D.**  
University of Illinois at Chicago  
Chicago, Illinois  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$136,115  
Term: 10/1/2019-9/30/2021  
**“Role of Connexin 47 in oligodendrocytes”** University of Illinois researchers are developing a new model for studying strategies for reducing MS severity.  
*Funded with support from the Illinois Lottery*

**Jonathan Baell, Ph.D.**  
Monash University  
Clayton, Victoria, Australia  
Award: Pilot Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$49,833  
Term: 10/1/2019-9/30/2020  
**“PEGylated Gas6 for treating progressive multiple sclerosis”** Monash University researchers are developing and testing a version of a natural brain protein for its ability to protect the nervous system from the damaging impacts of MS.  
*Funded in part by a gift from the Kaufer Family*

**Dennis Bourdette, M.D.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Immunology  
Strategic Area: Restore  
Funding: \$598,082  
Term: 4/1/2017-9/30/2021  
**“Promoting remyelination in animal models of multiple sclerosis with a selective thyromimetic prodrug”** Researchers at Oregon Health & Science University are exploring a novel strategy for repairing myelin and restoring function in laboratory models of MS.

**Riley Bove, M.D., M.Sc.**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$578,720  
Term: 4/1/2018-3/31/2021  
**“Functional validation of SERMs as remyelinating agents”** University of California, San Francisco researchers are determining the potential SERMs (selective estrogen receptor modulators) medications for stimulating repair of nerve-insulating myelin.

**Riley Bove, M.D., M.Sc.**  
University of California, San Francisco  
San Francisco, California  
Award: Harry Weaver Scholar Award  
Research Priority: Neuroprotection/Repair  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Restore  
Funding: \$708,972  
Term: 7/1/2020-6/30/2025  
**“Trials for remyelination in MS: from bench to bedside to home”** UCSF researchers are testing a novel molecule that may repair myelin in women with MS ages 45-60, using a home-based trial that employs digital tools to measure improvements during the study.  
*Paid by the Marilyn Hilton MS Research Fund*

**Brainstorm Cell Therapeutics**  
New York, New York  
Award: Fast Forward  
Research Priority: Neuroprotection/Repair  
Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$495,330  
Term: 11/6/2019-11/5/2021  
**“Biomarker and Pharmacodynamic Evaluation in a Phase 2 Open Label, Multicenter Study of NurOwn® in Participants with Progressive Multiple Sclerosis”** Brainstorm is supporting a phase 2 clinical trial to see if repeated spinal fluid infusions of individuals’ own transformed bone marrow-derived mesenchymal stem cells (NurOwn®) can protect the nervous system from damage and promote myelin repair in participants with progressive MS. Fast Forward funding will be applied to search for biomarkers in serum or spinal fluid that might serve as early indicators that this therapy has benefits.

**Carlos Camara Lemarroy, M.D.**  
University of Calgary  
Calgary, Alberta, Canada  
Award: Pilot Research Grants  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$48,840  
Term: 2/1/2020-1/31/2021  
**“Remote ischemic preconditioning to promote remyelination”** Researchers at the University of Calgary are exploring a novel strategy for promoting myelin repair.

**Cashel Neural Inc**  
Cleveland, Ohio  
Award: Fast Forward  
Research Priority: Neuroprotection/Repair  
**“Optimization of a remyelination candidate”** Cashel Neural scientists are conducting laboratory studies to advance a compound that may promote the development of cells that make nerve-insulating myelin, which is destroyed in MS.

Category: Preclinical Drug Development  
Strategic Area: Restore  
Funding: \$401,335  
Term: 1/1/2019-10/1/2020

**Clene Nanomedicine**  
Salt Lake City, Utah  
Award: Fast Forward  
Research Priority: Neuroprotection/Repair  
**“A Biomarker Analysis of Patients with Relapsing Remitting Multiple Sclerosis Treated with Biocatalytic Nanocrystalline Gold (CNM-Au8)”** Clene Nanomedicine scientists are leveraging an ongoing clinical trial to measure blood biomarkers that may help detect nervous system protection and myelin repair in MS.

Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$339,232  
Term: 9/30/2019-9/30/2021

**Holly Colognato, Ph.D.**  
State University of New York at Stony Brook  
Stony Brook, New York  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
**“Signaling pathways that regulate myelin repair”** Researchers at State University of New York at Stony Brook are exploring a strategy for stimulating signals that promote myelin repair in MS.

Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$582,278  
Term: 4/1/2017-3/31/2020

**Hod Dana, Ph.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Pilot Research Grants  
Research Priority: Neuroprotection/Repair  
**“Optical recording of neuronal activity during demyelination and remyelination processes with cellular resolution”** A Cleveland Clinic team is developing a novel method for determining the effects of MS and potential treatments on nerve cells.

Category: Neurophysiology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 6/1/2019-5/31/2020

**Gregory Duncan, Ph.D.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Postdoctoral Fellowships  
Research Priority: Neuroprotection/Repair  
**“Mechanisms of neuronal adaptation to chronic demyelination”** An Oregon team is determining whether nerve cells and fibers adapt to prevent themselves from being damaged in MS models, for clues to reducing damage and disease progression in people with MS.

Category: Biology of Glia  
Strategic Area: Stop  
Funding: \$177,243  
Term: 7/1/2019-6/30/2022

**Kirsten Evonuk, Ph.D.**

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Postdoctoral Fellowships

Research Priority: Neuroprotection/Repair

**“Selective deletion of AMPA-type glutamate receptors on oligodendrocytes is neuroprotective in autoimmune demyelination”** Cleveland Clinic researchers are seeking discover how dysfunction of the nerve signaling chemical glutamate may block myelin repair in mice, for clues to promoting myelin repair in MS.

*The Kathleen C. Moore Foundation Postdoctoral Fellowship*

Category: Neurophysiology

Strategic Area: Stop

Funding: \$188,067

Term: 7/1/2019-6/30/2022

**Stephen Fancy, D.V.M., Ph.D.**

University of California, San Francisco

San Francisco, California

Award: Harry Weaver Scholar Award

Research Priority: Neuroprotection/Repair

**“Oligodendroglial-vascular interactions control successful remyelination in Multiple Sclerosis”** Researchers from the University of California at San Francisco are exploring interactions between blood vessels and myelin-making cells for clues to promoting myelin repair in MS.

*Funded in part by the Dave Tomlinson Research Fund*

Category: Biology of Glia

Strategic Area: Restore

Funding: \$776,123

Term: 7/1/2017-6/30/2022

**Erin Gibson, Ph.D.**

Stanford University

Stanford, California

Award: Pilot Research Grants

Research Priority: Neuroprotection/Repair

**“Determining the effects of circadian rhythms in oligodendrocyte lineage cell dynamics with age in multiple sclerosis”** Stanford scientists are exploring whether alterations in circadian rhythms in MS-like disease contributes to a failure in the natural capacity for myelin repair.

*Funded through a collaboration with MS-LINK™, an EMD Serono Signature Initiative*

Category: Biology of Glia

Strategic Area: Restore

Funding: \$49,999

Term: 2/1/2020-1/31/2021

**Emily Harrington, M.D., Ph.D.**

Johns Hopkins University

Baltimore, Maryland

Award: NMSS-ABF Clinician Scientist Awards

Research Priority: Neuroprotection/Repair

**“The role of oligodendrocyte progenitors as immune cells in MS models”** Johns Hopkins researchers are observing interactions between the immune system and myelin making cells for clues to stopping myelin loss and promoting myelin repair.

Category: Biology of Glia

Strategic Area: Stop

Funding: \$276,697

Term: 7/1/2018-6/30/2021

**Kevin Hodgetts, Ph.D.** Category: Preclinical Drug Development  
 Brigham and Women's Hospital Strategic Area: Restore  
 Boston, Massachusetts Funding: \$318,170  
 Award: Fast Forward Term: 11/1/2018-11/1/2020  
 Research Priority: Neuroprotection/Repair  
**"Development of an Improved Etifoxine Analog for the Treatment of Multiple Sclerosis"**  
 Researchers at Brigham and Women's Hospital are creating and evaluating chemical cousins of an anti-anxiety drug to develop a therapy that can slow MS disease activity and promote repair.  
*Funded in part by Richard & Robin Kelly*

**Yang Hu, M.D., Ph.D.** Category: CNS Repair  
 Stanford University Strategic Area: Stop  
 Stanford, California Funding: \$77,773  
 Award: Research Grants Term: 4/1/2018-3/31/2021  
 Research Priority: Neuroprotection/Repair  
**"Combined Neuronal Soma and Axon Protection by Manipulation of Both ER Stress and NAD+ Metabolism in EAE/Optic Neuritis"** Researchers at Stanford University are using a strategy of combination therapy in a mouse model of MS to protect the nervous system from a type of damage that occurs in MS.

**Teng-Wei Huang, Ph.D.** Category: CNS Repair  
 Baylor College of Medicine Strategic Area: Restore  
 Houston, Texas Funding: \$172,507  
 Award: Postdoctoral Fellowships Term: 7/1/2017-6/30/2020  
 Research Priority: Neuroprotection/Repair  
**"The role of Sox9 in remyelination after white matter injury"** Researchers at Baylor College of Medicine are exploring a novel pathway to understand why myelin repair fails in people with MS, for clues to a possible repair strategy.

**Jeffrey Huang, Ph.D.** Category: CNS Repair  
 Georgetown University Strategic Area: Restore  
 Washington, District of Columbia Funding: \$758,839  
 Award: Harry Weaver Scholar Award Term: 7/1/2019-6/30/2024  
 Research Priority: Neuroprotection/Repair  
**"Amino acid induced microglia/macrophage-OPC crosstalk in CNS remyelination"** A Georgetown team is exploring the role of a specific molecule that appears to be very active when myelin damage occurs, for clues to developing a strategy that curtails its activity and promotes myelin repair.

**Ethan Hughes, Ph.D.** Category: Biology of Glia  
 University of Colorado Denver Strategic Area: Restore  
 Denver, Colorado Funding: \$586,687  
 Award: Research Grants Term: 10/1/2017-9/30/2020  
 Research Priority: Neuroprotection/Repair  
**"Mechanisms and Dynamics of Cortical Remyelination"** Researchers at the University of Colorado are investigating methods to improve and visualize repair of nerve-insulating myelin, ultimately to restore function for people with MS.  
*Funded in part by a private foundation*

**Igal Ifergan, M.Sc., Ph.D.**

Northwestern University

Evanston, Illinois

Award: Pilot Research Grants

Research Priority: Neuroprotection/Repair

**“Induction of immunoregulatory microglia by the Wnt pathway during neuroinflammation”**

Northwestern University scientists are exploring cell interactions in the brain in search of molecular triggers for promoting natural myelin repair.

*Funded in part by a gift from the Kaufer Family*

Category: Immunology

Strategic Area: Restore

Funding: \$55,000

Term: 10/1/2019-9/30/2020

**Eve Kelland, Ph.D.**

University of Southern California

Los Angeles, California

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Assessment of the neuroprotective activity of angiotensin 1-7 and its potential role in demyelinating disease”**

Researchers at the University of Southern California are exploring whether a drug can be repurposed to protect myelin-making cells (oligodendrocytes) from death in MS models.

Category: Preclinical Drug Development

Strategic Area: Stop

Funding: \$645,623

Term: 4/1/2017-3/31/2021

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

Florey Institute of Neuroscience and Mental Health

Melbourne, Victoria, Australia

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Modulating microglial activity for treatment of demyelinating diseases of the CNS”**

Australian researchers are testing whether the transplant of modified microglia – immune cells of the brain – can improve repair of nerve-insulating myelin in a model of MS.

Category: CNS Repair

Strategic Area: Restore

Funding: \$403,830

Term: 10/1/2019-9/30/2022

**Monica Langley, Ph.D.**

Mayo Clinic Rochester

Rochester, Minnesota

Award: Postdoctoral Fellowships

Research Priority: Neuroprotection/Repair

**“Targeting CD38 to Enhance Myelin Regeneration Following Diet-induced Mitochondrial Deficits”**

Mayo Clinic scientists are looking at the consumption of high fat diet as a risk factor and/or modifier of disease progression in an MS model.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$196,309

Term: 7/1/2020-6/30/2023

**Hyun Kyong Lee, Ph.D.**

Baylor College of Medicine

Houston, Texas

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Deciphering the Daam2-VHL signaling axis in oligodendrocyte remyelination in multiple sclerosis”**

Baylor researchers are focusing on understanding interactions of molecules to find a way to promote the repair of myelin that has been damaged by MS.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$656,739

Term: 4/1/2020-3/31/2023



**Jiaying Li, Ph.D.**

Oregon Health & Science University  
Portland, Oregon

Award: Postdoctoral Fellowships

Research Priority: Neuroprotection/Repair

**“Investigating synapse assembly and disassembly in oligodendrocyte precursor cells”** OHSU scientists are focusing on how myelin-making cells and nerve cells communicate, and how this knowledge may be used to promote myelin repair in MS.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$196,309

Term: 7/1/2020-6/30/2023

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

Centre for Addiction and Mental Health  
Toronto, Ontario, Canada

Award: Fast Forward

Research Priority: Neuroprotection/Repair

**“Preclinical characterization and modification of small molecule drugs for the treatment for multiple sclerosis”** Researchers at the Centre for Addiction and Mental Health in Toronto are refining a novel approach to stopping MS damage to the nervous system and progression.  
*Funded in Collaboration with the MS Society of Canada*

Category: Preclinical Drug Development

Strategic Area: Stop

Funding: \$609,450

Term: 3/23/2017-1/1/2021

**Longevity Biotech, Inc**

Philadelphia, Pennsylvania

Award: Fast Forward

Research Priority: Neuroprotection/Repair

**“Evaluation of a Parkinson’s Disease Drug Candidate in Myelination Events Associated with Multiple Sclerosis”** Pre-clinical testing of the ability of a drug being tested in Parkinson's to protect and repair damaged nerve cells while also restoring balance to the immune system.  
*Funded in Collaboration with the MS Society of Canada*

Category: Preclinical Drug Development

Strategic Area: Restore

Funding: \$332,559

Term: 9/27/2017-9/1/2020

**Qing Lu, Ph.D.**

Children's Hospital Medical Center - Cincinnati  
Cincinnati, Ohio

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Long non-coding RNA control of CNS myelination and remyelination”** Researchers at the Cincinnati Children’s Hospital Medical Center are investigating the possible role of a type of molecule called long noncoding RNA that may regulate repair of myelin, which is destroyed in MS.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$698,640

Term: 4/1/2016-3/31/2020

**Gianvito Martino, M.D.**

Fondazione Centro San Raffaele  
Milan, Italy  
Award: International Progressive MS Alliance -  
Collaborative Network Center

Research Priority: Neuroprotection/Repair

**“Bioinformatics and cell reprogramming to develop an in vitro platform to discover new drugs for progressive multiple sclerosis (BRAVEinMS)”** Identifying therapy candidates with neuroprotective and/or myelin repair activity to speed the search for treatments for progressive MS.

*Estimated joint commitment with other Progressive MS Alliance members; Funded in full by an Anonymous Investor*

Category: Preclinical Drug Development  
Strategic Area: Restore  
Funding: \$3,998,585  
Term: 10/1/2017-9/30/2021

**Leandro Marziali, Ph.D.**

The State University of New York at Buffalo  
Buffalo, New York  
Award: Postdoctoral Fellowships

Research Priority: Neuroprotection/Repair

**“p38MAPK signaling in myelin biology: a novel molecular target to promote myelination and remyelination”** A team at SUNY Buffalo is studying a protein that may inhibit myelin repair in people with MS, for clues to promoting myelin repair and recovery.

*Funded in part by a gift from the Kaufer Family*

Category: CNS Repair  
Strategic Area: Restore  
Funding: \$188,067  
Term: 7/1/2019-6/30/2022

**Glenn Matsushima, Ph.D.**

University of North Carolina at Chapel Hill  
Chapel Hill, North Carolina  
Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Function of microglia during remyelination”** Researchers at University of North Carolina at Chapel Hill are exploring a novel strategy for promoting the natural capacity of the brain to repair the damage that occurs in MS.

Category: CNS Repair  
Strategic Area: Restore  
Funding: \$500,259  
Term: 4/1/2017-3/31/2020

**Medared**

Menlo Park, California  
Award: Fast Forward  
Research Priority: Neuroprotection/Repair

**“Humanization of Monoclonal Antibody 5B8 for Neuroprotection in MS”** Developing an antibody that has shown promise in preclinical studies as a potential treatment to protect the nervous system from MS damage.

Category: Preclinical Drug Development  
Strategic Area: Stop  
Funding: \$330,000  
Term: 9/4/2018-6/3/2020

**Booki Min, D.V.M., Ph.D.**  
Cleveland Clinic Foundation  
Cleveland, Ohio

Award: Research Grants  
Research Priority: Neuroprotection/Repair

Category: Immunology  
Strategic Area: Stop  
Funding: \$667,710  
Term: 4/1/2019-3/31/2022

**“The role of Foxp3+ regulatory T cells during glucocorticoid treatment of autoimmunity”**

Cleveland Clinic researchers are exploring how high-dose steroids to treat acute MS attacks influence the activity of immune cells and how this approach to reducing inflammation may be improved.

*Funded in part by a gift from the Kaufer Family*

**Yevgeniya Mironova, Ph.D.**

Johns Hopkins University  
Baltimore, Maryland  
Award: Postdoctoral Fellowships

Research Priority: Neuroprotection/Repair

Category: CNS Repair  
Strategic Area: Restore  
Funding: \$181,754  
Term: 7/1/2018-6/30/2021

**“Non-progenitor functions of oligodendrocyte precursor cells in the brain”** Researchers at Johns Hopkins University are studying how oligodendrocyte precursor cells in the adult brain play multiple roles in repair of myelin damage.

**Kelly Monk, Ph.D.**

Oregon Health & Science University  
Portland, Oregon  
Award: Harry Weaver Scholar Award

Research Priority: Neuroprotection/Repair

Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$379,895  
Term: 12/1/2017-11/30/2021

**“Molecular mechanisms that govern oligodendrocyte biology”** Researchers at Washington University School of Medicine are investigating how certain genes control the formation of nerve-insulating myelin, for clues to developing myelin repair strategies.

**Kelly Monk, Ph.D.**

Oregon Health & Science University  
Portland, Oregon  
Award: Research Grants

Research Priority: Neuroprotection/Repair

Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$738,271  
Term: 10/1/2019-9/30/2022

**“Molecular and Genetic Regulation of Myelin Capacity in the CNS”** Researchers at Oregon Health & Science University are studying how two genes function so that they may be targeted to promote myelin repair in MS.

**Thanh Nguyen, Ph.D.**

Weill Cornell Medical College  
New York, New York  
Award: Research Grants

Research Priority: Neuroprotection/Repair

Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$897,375  
Term: 10/1/2016-9/30/2020

**“Quantitative MRI of lesion iron and myelin repair”** Weill Cornell Medical College researchers are testing and validating a novel imaging technique for use in determining how iron in MS lesions in the brain may affect myelin repair.

**Akiko Nishiyama, M.D., Ph.D.**

University of Connecticut

Storrs, Connecticut

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Neuronal activity-dependent regulation of remyelination and chromatin remodeling”**

Researchers from the University of Connecticut and University of Paris are using cutting-edge technology to explore a novel possibility for restoring damaged nerve-insulating myelin.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$610,077

Term: 10/1/2017-9/30/2020

**Hiroko Nobuta, Ph.D.**

Albert Einstein College of Medicine

Bronx, New York

Award: Career Transition Fellowships

Research Priority: Neuroprotection/Repair

**“Development of a Human Compatible Platform to Study Oligodendrocyte Biology”**

Researchers at the Albert Einstein College of Medicine, New York, are optimizing ways of producing human myelin-making cells to speed efforts to find strategies to repair nerve-insulating myelin and restore function in MS.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$562,908

Term: 7/1/2018-6/30/2023

**Ryan O’Connell, Ph.D.**

University of Utah

Salt Lake City, Utah

Award: Collaborative Research Center Awards

Research Priority: Neuroprotection/Repair

**“Novel approaches towards understanding disease progression and repair using viral models of multiple sclerosis”** University of Utah researchers from a variety of fields are trying different experimental approaches including adult stem cells to stop progression of MS-like disease in mice and promote repair of the nervous system.

Category: Neuropathology

Strategic Area: Restore

Funding: \$509,153

Term: 1/1/2020-6/30/2022

**Sterling Ortega, Ph.D.**

The University of Iowa

Iowa City, Iowa

Award: Pilot Research Grants

Research Priority: Neuroprotection/Repair

**“The neuro-reparative role of myelin-specific CD8 T-cells in EAE recovery”** A team at the University of Iowa is studying a unique population of immune cells that may help reverse nervous system damage in MS.

Category: Immunology

Strategic Area: Restore

Funding: \$55,000

Term: 2/1/2020-1/31/2021

**Pablo Paez, Ph.D.**

The State University of New York at Buffalo

Buffalo, New York

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Voltage-gated calcium channels in reactive astrocytes, a possible therapeutic target to reduce brain inflammation and promote remyelination in MS.”** SUNY Buffalo scientists are studying whether deleting tiny molecules that monitor calcium regulation in brain cells can reduce inflammation and possibly promote myelin repair.

Category: Biology of Glia

Strategic Area: Restore

Funding: \$492,314

Term: 4/1/2019-3/31/2022

**Brian Popko, Ph.D.**  
University of Chicago  
Chicago, Illinois  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$718,842  
Term: 4/1/2019-3/31/2022  
**“ZFP24 Control of the myelination program of oligodendrocytes”** University of Chicago scientists are exploring molecules that may play a key role in the development and function of myelin-making cells, for clues to promoting myelin repair in MS.  
*Funded in part by a gift from the Kaufer Family*

**Ruchika Prakash, Ph.D.**  
Ohio State University  
Columbus, Ohio  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$631,261  
Term: 10/1/2016-9/30/2020  
**“A physical activity-based tracking intervention to enhance cognitive and neural plasticity”** Researchers from The Ohio State University are testing whether increasing physical activity through the use of simple accelerometers can improve cognitive functioning in MS.

**Mathilde Pruvost, Ph.D.**  
Research Foundation of CUNY-ASRC  
New York, New York  
Award: Postdoctoral Fellowships  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$196,309  
Term: 7/1/2020-6/30/2023  
**“Promoting remyelination by investigating the nuclear mechanisms induced by neuronal stimulation in adult oligodendrocyte progenitors.”** Researchers at CUNY-ASRC are exploring how nerve signals stimulate myelin-making cells for clues to promoting myelin repair in MS.

**Steven Roth, M.D.**  
University of Illinois at Chicago  
Chicago, Illinois  
Award: Pilot Research Grants  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020  
**“Stopping Multiple Sclerosis with Functionally Engineered Exosomes (FEEs)”** University of Illinois researchers are engineering a novel approach to reducing damaging inflammation in the brain to prevent damage to nerve tissues in a model of MS.

**Saud Sadiq, M.D.**  
Tisch MS Research Center of New York  
NEW YORK, New York  
Award: Strategic Initiatives  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$1,000,000  
Term: 4/1/2019-3/30/2023  
**“Phase 2, Randomized, Double Blind, Placebo Controlled Study of Intrathecal autologous MSC-NP Cells in Patients With MS”** The Tisch MS Research Center of New York is conducting a phase II clinical trial to see whether stem cells derived from individuals' own bone marrow can inhibit immune mechanisms and augment tissue repair in progressive MS.

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

New York University School of Medicine  
New York, New York  
Award: Fast Forward

Research Priority: Neuroprotection/Repair

**“Enhancing Remyelination by Targeting Gli1”** Developing a potential therapy that promotes myelin repair by stimulating the body's repair mechanisms.

*Funded in Collaboration with the MS Society of Canada*

Category: Preclinical Drug Development

Strategic Area: Restore

Funding: \$598,950

Term: 9/23/2015-7/1/2020

**Isobel Scarisbrick, Ph.D.**

Mayo Clinic Rochester  
Rochester, Minnesota

Award: Pilot Research Grants

Research Priority: Neuroprotection/Repair

**“Regulatory Role of Kallikrein 6 in Myelin Integrity and Regeneration in the Adult CNS”** Mayo Clinic scientists are investigating the role of a protein in the repair of nerve-insulating myelin, and how to promote repair to speed recovery for people with MS.

Category: CNS Repair

Strategic Area: Restore

Funding: \$55,000

Term: 10/1/2019-9/30/2020

**Isobel Scarisbrick, Ph.D.**

Mayo Clinic Rochester  
Rochester, Minnesota

Award: Research Grants

Research Priority: Neuroprotection/Repair

**“Protease Activated Receptor Targets for Myelin Regeneration”** A Mayo Clinic team is exploring whether specific molecules can be “switched off” to promote nervous system repair in MS.

Category: CNS Repair

Strategic Area: Restore

Funding: \$740,036

Term: 10/1/2019-9/30/2022

**David Selwood, Ph.D.**

University College London  
London, United Kingdom

Award: Fast Forward

Research Priority: Neuroprotection/Repair

**“Lead optimisation of a novel MS drug for nerve loss.”** Developing novel approaches to stopping nerve tissue damage in people with MS.

Category: Preclinical Drug Development

Strategic Area: Stop

Funding: \$804,767

Term: 11/23/2015-5/31/2020

**David Selwood, Ph.D.**

University College London  
London, United Kingdom

Award: Fast Forward

Research Priority: Neuroprotection/Repair

**“The development of selective ion channel activators for neuroprotection”** Developing novel approaches to stopping nerve tissue damage in people with MS.

Category: Preclinical Drug Development

Strategic Area: Stop

Funding: \$551,726

Term: 9/1/2016-5/31/2020

**Nisarg Shah, Ph.D.**  
University of California San Diego  
San Diego, California  
Award: Pilot Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Immunology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020  
**“Promoting T-cell reconstitution after bone marrow transplantation for MS therapy”** UC San Diego scientists are testing a way to speed the regeneration of immune system cells after bone marrow transplantation in MS, to improve the ability to fight infection after this procedure.

**Mariapaola Sidoli, Ph.D.**  
Stanford University  
Stanford, California  
Award: Postdoctoral Fellowships  
Research Priority: Neuroprotection/Repair  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$188,067  
Term: 7/1/2019-6/30/2022  
**“A new approach to analyze cAMP in oligodendrocyte development and myelination”** Stanford University researchers are analyzing a specific signal in the brain that induces the formation of myelin, for clues to harnessing the signal as therapeutic target to promote myelin repair in MS.

**Fraser Sim, Ph.D.**  
The State University of New York at Buffalo  
Buffalo, New York  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$579,899  
Term: 10/1/2017-9/30/2020  
**“Targeting extracellular sulfatases to accelerate oligodendrocyte progenitor-based myelin repair and regeneration”** Researchers at The State University of New York at Buffalo are attempting a new strategy to improve the ability of cells to repair of nerve-insulating myelin.

**Athena Soulika, Ph.D.**  
University of California, Davis  
W. Sacramento, California  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$652,581  
Term: 10/1/2017-9/30/2020  
**“Novel lipid-mediated mechanism controls oligodendrocyte maturation”** Investigators at the University of California, Davis, are exploring a new strategy for repairing nerve-insulating myelin and restoring function in MS.

**William Talbot, Ph.D.**  
Stanford University  
Stanford, California  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$333,654  
Term: 4/1/2018-3/31/2021  
**“Role of RagA in Lysosome Function and Myelination in Oligodendrocytes”** Researchers at Stanford University are investigating two genes that affect the growth of nerve-insulating myelin, for clues to finding ways to repair myelin in people with MS.

**Alessia Tassoni, Ph.D.**  
University of California, Los Angeles  
Los Angeles, California  
Award: Postdoctoral Fellowships  
Research Priority: Neuroprotection/Repair  
Category: Preclinical Drug Development  
Strategic Area: Restore  
Funding: \$127,386  
Term: 7/1/2019-6/30/2021  
**“Disability specific drug discovery for MS: Focus on Vision”** Novel technology is allowing a team from UCLA to analyze changes in the optic nerve of MS models, for clues to developing neuroprotective strategies in people with MS.  
*Funded in part by Richard & Robin Kelly*

**Seema Tiwari-Woodruff, Ph.D.**  
University of California, Riverside  
Riverside, California  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$482,270  
Term: 10/1/2019-9/30/2022  
**“Reprogramming proinflammatory responses to increase CXCL1 levels and axon remyelination in EAE”** University of California researchers are determining how compounds that connect with estrogen docking sites work to promote repair of nerve-insulating myelin.

**James Waschek, Ph.D.**  
University of California, Los Angeles  
Los Angeles, California  
Award: Research Grants  
Research Priority: Neuroprotection/Repair  
Category: Physiology  
Strategic Area: Stop  
Funding: \$646,510  
Term: 10/1/2019-9/30/2022  
**“Preservation of axon integrity by neural PACAP/PAC1 signaling in a chronic EAE model”** A team at UCLA is testing a novel approach for protecting the nervous system from damage in MS.

**J. Bradley Zuchero, Ph.D.**  
Stanford University  
Stanford, California  
Award: Harry Weaver Scholar Award  
Research Priority: Neuroprotection/Repair  
Category: Biology of Glia  
Strategic Area: Restore  
Funding: \$772,639  
Term: 7/1/2018-6/30/2023  
**“How does the actin cytoskeleton control myelination and remyelination?”** Stanford University researchers are investigating how scaffold-like structures inside cells change during the formation of myelin, for clues to stimulating myelin repair in MS.

## **SYMPTOMS, REHAB, WELLNESS: “How do we reverse symptoms and promote wellness?”**

**Brynn Adamson, M.S., Ph.D.**  
University of Illinois at Urbana-Champaign  
Champaign, Illinois  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$36,974  
Term: 10/1/2019-9/30/2020  
**“MOVE MS: Group Exercise Program”** Researchers at the University of Illinois-Urbana Champaign are testing a novel community-based exercise program that may help to increase physical activity in people who have MS.



**Dagmar Amtmann, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$55,000  
Term: 10/1/2018-9/30/2020  
**“Developing measures of sexual function and satisfaction with sex life for persons with Multiple Sclerosis”** Improving questionnaires about sexual function so that they include relevant aspects of sexual function for people with MS.

**Deborah Backus, P.T., Ph.D.**  
Shepherd Center  
Atlanta, Georgia  
Award: Strategic Initiatives  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$137,500  
Term: 7/1/2019-1/31/2022  
**“Comparative Effectiveness of an Exercise Intervention Delivered via Telerehabilitation and Conventional Mode of Delivery”** The Society is supporting an extension to measure results of a clinical trial at seven centers, funded by PCORI, to compare the effectiveness of a supervised exercise program done at home or in person in people with MS.

**Meghan Beier, Ph.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$242,512  
Term: 4/1/2017-12/31/2020  
**“Advancing multiple sclerosis research through neuroscience”** This training program will equip two fellows with crucial clinical and research skills necessary to conduct rehabilitation research aimed at improving wellness for people with MS.

**Valerie Block, D.Sc., P.T.**  
University of California, San Francisco  
San Francisco, California  
Award: Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$177,243  
Term: 7/1/2018-6/30/2021  
**“Incorporating Continuous Daily Assessment of Remote Step Count Monitoring with Quantitative Spinal Cord and Brain MRI to Improve Characterization of MS-related Disability”** Researchers at the University of California San Francisco are determining whether a person’s average daily step count can be used to measure and track progression of MS disability.

**Charles Bombardier, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$1,466,730  
Term: 10/1/2013-9/30/2020  
**“The effect of aerobic exercise on cognition in multiple sclerosis”** Can aerobic exercise improve cognitive impairment in people with MS?

**Dennis Bourdette, M.D.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Collaborative Research Center Awards  
Research Priority: Symptoms, Rehab, Wellness  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Restore  
Funding: \$825,000  
Term: 4/1/2015-3/31/2020  
**“Developing patient-centered and evidence-based wellness programs for people with MS”**  
Researchers at Oregon Health & Science University are collaborating to develop patient-centered and evidenced-based wellness programs to improve the daily life of people with MS.

**Nina Bozinov, M.D.**  
Stanford University  
Stanford, California  
Award: Sylvia Lawry Physician Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$130,000  
Term: 7/1/2018-6/30/2020  
**“Training fellowship in clinical MS/Neuroimmunology and Master's Degree in Epidemiology & Clinical Research. Project in imaging and immunopathologic biomarkers of cognitive impairment in Multiple Sclerosis.”** A promising doctor at Stanford University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

**Tiffany Braley, M.D.**  
Regents of the University of Michigan  
Ann Arbor, Michigan  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$827,967  
Term: 4/1/2015-3/31/2021  
**“A randomized trial of positive airway pressure therapy to treat cognitive dysfunction in MS patients with obstructive sleep apnea”** University of Michigan researchers will determine whether a commonly used treatment for sleep apnea could improve cognitive performance in people with MS who also have sleep apnea.

**Jared Bruce, Ph.D.**  
University of Missouri - Kansas City  
Kansas City, Missouri  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$203,382  
Term: 10/1/2019-9/30/2020  
**“Development of a telehealth obesity intervention for patients with MS”** A team at the University of Missouri is taking initial steps to develop a phone-delivered weight loss program for people with MS, to see if weight loss improves MS symptoms.

**Jared Bruce, Ph.D.**  
University of Missouri - Kansas City  
Kansas City, Missouri  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Stop  
Funding: \$756,059  
Term: 10/1/2020-9/30/2024  
**“Development of a telehealth obesity intervention for patients with MS (continued)”** A University of Missouri team is testing the effectiveness of an MS-specific weigh loss/healthy living program delivered by phone, since obesity can profoundly worsen MS severity.

**Korhan Buyukturkoglu, Ph.D.**  
Columbia University  
New York, New York  
Award: Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$194,456  
Term: 7/1/2019-6/30/2022  
**“Building a Pattern Classifier to Distinguish Cognitive Phenotypes in MS”** Columbia University researchers are bringing several different MRI methods together to see the ‘big picture’ of cognitive impairment in MS, to better evaluate and overcome this problem.

**Michelle Cameron, M.D., P.T.**  
Oregon Health & Science University  
Portland, Oregon  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$534,358  
Term: 10/1/2019-9/30/2022  
**“A Randomized Controlled Trial of a Multicomponent Walking Aid Program for People with MS”** Oregon Health & Science University researchers are testing whether a standardized program provided by physical therapists, that helps to select, fit, and train in using walking aids, can prevent falls in people with MS.

**Leigh Charvet, Ph.D.**  
New York University Langone Medical Center  
New York, New York  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$54,403  
Term: 3/1/2019-8/29/2020  
**“Virtual Reality Pain Management: A Nonpharmacological Tool to Manage Pain in MS”** NYU researchers are testing whether virtual reality techniques can reduce pain in people with MS.

**Leigh Charvet, Ph.D.**  
New York University Langone Medical Center  
New York, New York  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$532,862  
Term: 10/1/2018-9/30/2021  
**“A randomized controlled trial of remotely-supervised transcranial direct current stimulation (RS-tDCS) for the treatment of fatigue in multiple sclerosis”** New York University researchers are conducting a small clinical trial of transcranial direct current stimulation to assess its effectiveness for treating MS-related fatigue.

**Nancy Chiaravalloti, Ph.D.**  
Kessler Foundation Research Center  
West Orange, New Jersey  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$748,576  
Term: 4/1/2014-3/31/2020  
**“Speed of Processing Training to Improve Cognition in MS: A Randomized Clinical Trial”** Can a training program to improve the speed of processing information help people with MS?

**Chung-Yi Chiu, C.R.C., Ph.D.**  
University of Illinois at Urbana-Champaign  
Champaign, Illinois  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$548,359  
Term: 4/1/2018-3/31/2021  
**“Developing A Person-centered Internet-based Health Action Process Approach to Promoting Physical Activity in People with Multiple Sclerosis”** Researchers at the University of Illinois are testing a program aimed at increasing physical activity among people with MS to promote healthier lifestyles.  
*Funded with support from the Illinois Lottery*

**Evan Cohen, P.T., Ph.D.**  
Rutgers, The State University of New Jersey  
Piscataway, New Jersey  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$52,100  
Term: 3/1/2019-2/28/2021  
**“Interval vs. continuous walking training for people with multiple sclerosis: a comparison of effectiveness”** Rutgers researchers are testing whether providing rest intervals throughout walking rehabilitation efforts improves their effectiveness.

**Silvana Costa, Ph.D.**  
Kessler Foundation Research Center  
West Orange, New Jersey  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$476,610  
Term: 10/1/2018-9/30/2022  
**“Keep an eye on the Symbol Digit Modalities Test”** Kessler Foundation investigators are analyzing aspects of a cognitive test commonly used in MS, to develop more comprehensive and specific rehabilitation strategies.

**Stephen Crocker, Ph.D.**  
University of Connecticut Health Center  
Farmington, Connecticut  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: CNS Repair  
Strategic Area: Restore  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020  
**“Does Central Nervous System Myelination Impact Bladder Function?”** UConn Health researchers are investigating the link between bladder problems in MS and the loss of myelin in the brain, for clues to better addressing both issues.

**Hala Darwish, Ph.D.**  
American University of Beirut  
Beirut, Lebanon  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$49,900  
Term: 6/1/2019-5/31/2020  
**“Interacting with Nature using virtual reality: A pilot intervention to restore cognitive fatigue in patients with Multiple Sclerosis (MS)”** A team in Beirut is testing whether interacting with nature via virtual reality can decrease cognitive fatigue in people with MS.

**John DeLuca, Ph.D.**

Kessler Foundation Research Center  
West Orange, New Jersey  
Award: Collaborative Research Center Awards  
Research Priority: Symptoms, Rehab, Wellness

Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$821,585  
Term: 4/1/2014-3/31/2020

**“MS Collaborative Network of New Jersey”** What is the connection between cognitive and motor functions in people with MS?

**John DeLuca, Ph.D.**

Kessler Foundation Research Center  
West Orange, New Jersey  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness

Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$404,698  
Term: 7/1/2017-6/30/2022

**“MS Fellowship in Neuropsychological Rehabilitation”** Rehabilitation researchers at Kessler Foundation have received funding to train promising rehabilitation professionals to conduct MS rehabilitation research.

**Lee Dibble, P.T., Ph.D.**

University of Utah  
Salt Lake City, Utah  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness

Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$436,220  
Term: 10/1/2017-9/30/2020

**“Gaze and postural stability in persons with MS at risk for falls: Characterizing deficits and response to treatment”** Researchers at the University of Utah are investigating whether exercises specifically designed to improve inner ear function can improve balance and vision stability in people with MS.

**Frank Dinunno, Ph.D.**

Colorado State University  
Fort Collins, Colorado  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness

Category: Physiology  
Strategic Area: Restore  
Funding: \$54,844  
Term: 10/1/2018-9/30/2020

**“Impaired regulation of skeletal muscle blood flow during exercise in people with multiple sclerosis exhibiting autonomic cardiovascular dysfunction”** To determine whether reduced muscle blood flow is a potential cause of lower exercise capacity in people with MS.

**Ekaterina Dobryakova, Ph.D.**

Kessler Foundation Research Center  
West Orange, New Jersey  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness

Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$48,880  
Term: 10/1/2018-9/30/2020

**“Outcome Processing in Social Interactions in Individuals with Multiple Sclerosis: An Investigation using Pupillometry”** Examining cognitive impediments that might prevent some individuals with MS from selecting the optimal behavior and from adapting to social environments.

**Dawn Ehde, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$879,991  
Term: 4/1/2018-3/31/2022  
**“Mindfulness based Cognitive Therapy and Cognitive Behavioral Therapy for Chronic Pain in Multiple Sclerosis”** University of Washington researchers are conducting a clinical trial testing two non-pharmacological approaches to managing pain in people with MS.

**Dawn Ehde, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Strategic Initiatives  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$83,450  
Term: 4/1/2018-3/31/2021  
**“A Randomized Controlled Trial of Telephone-Delivered Cognitive Behavioral Therapy, Modafinil, and Combination Therapy of Both Interventions for Fatigue in Multiple Sclerosis”**  
The National MS Society is providing supplemental funding to a PCORI-funded trial to enhance results.

**Marcia Finlayson, Ph.D.**  
Queen's University  
Kingston, Ontario, Canada  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$382,724  
Term: 7/1/2014-6/30/2020  
**“Building capacity for MS self-management research and knowledge translation”** Mentor-Based Postdoctoral Fellowship in MS Rehabilitation Research to provide training in research into self-management programs for people with MS.

**Kathryn Fitzgerald, D.Sc., M.Sc.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Career Transition Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Epidemiology  
Strategic Area: Restore  
Funding: \$412,500  
Term: 7/1/2019-6/30/2022  
**“The Melanopsin Pathway, Changes to Brain Structure and Depression in People with Multiple Sclerosis”** Because depression is common in MS, Johns Hopkins researchers are looking for early signs of brain and eye changes that may signal depression, for clues to identifying and preventing this symptom.  
*Paid by the Marilyn Hilton MS Research Fund*

**Brett Fling, Ph.D.**  
Colorado State University  
Fort Collins, Colorado  
Award: Harry Weaver Scholar Award  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$752,710  
Term: 7/1/2020-6/30/2025  
**“Split-belt treadmill training in the lab and sensory cueing in the real world to reduce limb asymmetries and improve gait”** Colorado State specialists are studying whether a rehabilitation program that specifically addresses asymmetries that may exist between legs can improve walking in people with MS.

- Stefan Gold, Ph.D.**  
 Charité - Universitätsmedizin Berlin  
 Berlin, Germany  
 Award: Mentor-Based Postdoctoral Fellowships  
 Research Priority: Symptoms, Rehab, Wellness  
**“Neurobiological Mechanisms of Rehabilitation in MS”** Researchers at the Charité University Medical Center Berlin, Germany are training promising professionals to advance MS rehabilitation research by applying molecular biology techniques.
- Category: Psychosocial Aspects of MS  
 Strategic Area: Restore  
 Funding: \$414,685  
 Term: 7/1/2018-6/30/2023
- Stefan Gold, Ph.D.**  
 Charité - Universitätsmedizin Berlin  
 Berlin, Germany  
 Award: Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“Online program to reduce depression in MS – a phase III international multicenter randomized controlled trial”** Researchers at Berlin, Germany’s Charité University Medical Center are testing the effectiveness of a computer program for overcoming MS-related depression.
- Category: Rehabilitation  
 Strategic Area: Restore  
 Funding: \$1,397,712  
 Term: 4/1/2016-3/31/2021
- Myla Goldman, M.D., M.Sc.**  
 Virginia Commonwealth University  
 Richmond, Virginia  
 Award: Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“Assessment of the Clinical Importance of Insulin Resistance & Steroid-Associated Hyperglycemia in Relapsing Multiple Sclerosis”** A team from the University of Virginia School of Medicine is exploring whether controlling blood sugar can decrease the severity and/or improve recovery from an acute MS relapse.
- Category: Human Therapy  
 Trials/Management of MS  
 Strategic Area: Stop  
 Funding: \$329,238  
 Term: 10/1/2019-12:00:00 AM
- Elizabeth Gromisch, Ph.D.**  
 Mount Sinai Rehabilitation Hospital  
 Hartford, Connecticut  
 Award: Pilot Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“Development of a Risk Factor Model for Self-Management Skills among Persons with Multiple Sclerosis”** Mount Sinai researchers are looking at factors that may impede self management to improve quality of life for people with MS.
- Category: Psychosocial Aspects of MS  
 Strategic Area: Restore  
 Funding: \$54,470  
 Term: 6/1/2019-5/31/2020
- Jeffrey Hausdorff, Ph.D.**  
 Tel Aviv Sourasky Medical Center  
 Tel Aviv, Israel  
 Award: Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“Virtual Reality-treadmill combined intervention for enhancing mobility and cognitive function in patients with Relapsing-Remitting Multiple Sclerosis”** Researchers at the Tel Aviv Sourasky Medical Center, Israel and the University of Illinois at Urbana-Champaign are conducting a trial to test a rehabilitation strategy that addresses walking and thinking issues in a single, integrated approach.
- Category: Rehabilitation  
 Strategic Area: Restore  
 Funding: \$938,522  
 Term: 4/1/2016-3/31/2021

<p><b>Fay Horak, P.T., Ph.D.</b>  Oregon Health &amp; Science University  Portland, Oregon  Award: Mentor-Based Postdoctoral Fellowships  Research Priority: Symptoms, Rehab, Wellness  <b>“Rehabilitation Research Training in Postural Control of Multiple Sclerosis”</b> Mentor-Based Postdoctoral Fellowship in MS Rehabilitation Research to enhance research into ways to use rehabilitation to improve balance and gait in people with MS.</p>	<p>Category: Rehabilitation  Strategic Area: Restore  Funding: \$432,457  Term: 7/1/2014-6/30/2020</p>
<p><b>Wan-Yu Hsu, O.T.R., Ph.D.</b>  University of California, San Francisco  San Francisco, California  Award: Postdoctoral Fellowships  Research Priority: Symptoms, Rehab, Wellness  <b>“Effects of non-invasive brain stimulation on cognitive function in patients with multiple sclerosis”</b> UCSF researchers are investigating the potential benefits of non-invasive brain stimulation, called transcranial alternating current stimulation, to treat cognitive deficits in people with MS.</p>	<p>Category: Rehabilitation  Strategic Area: Restore  Funding: \$209,702  Term: 7/1/2020-6/30/2023</p>
<p><b>Elizabeth Hubbard, Ph.D.</b>  BERRY COLLEGE  Mount Berry, Georgia  Award: Pilot Research Grants  Research Priority: Symptoms, Rehab, Wellness  <b>“Feasibility and efficacy of a high-intensity interval training program in persons with multiple sclerosis who have walking impairment”</b> Researchers at Berry College are looking at the impact of individualized arm and leg exercise regimens on movement, fatigue, depression and other symptoms in people with mobility impairments.</p>	<p>Category: Rehabilitation  Strategic Area: Restore  Funding: \$54,996  Term: 10/1/2019-9/30/2020</p>
<p><b>Abbey Hughes, Ph.D.</b>  Johns Hopkins University  Baltimore, Maryland  Award: Pilot Research Grants  Research Priority: Symptoms, Rehab, Wellness  <b>“Reducing depression and anxiety in individuals with MS and their caregivers: An emotion regulation skills training intervention”</b> Testing the efficacy of a unique group-based therapy for improving emotion regulation in people with MS and their carepartners.</p>	<p>Category: Psychosocial Aspects of MS  Strategic Area: Restore  Funding: \$54,973  Term: 10/1/2018-9/30/2020</p>
<p><b>Abbey Hughes, Ph.D.</b>  Johns Hopkins University  Baltimore, Maryland  Award: Mentor-Based Postdoctoral Fellowships  Research Priority: Symptoms, Rehab, Wellness  <b>“Advancing Psychosocial Wellness in Multiple Sclerosis Through Mentored Training in Rehabilitation Research”</b> Rehabilitation researchers at Johns Hopkins have received funding to train promising rehabilitation professionals to conduct MS rehabilitation research.</p>	<p>Category: Rehabilitation  Strategic Area: Restore  Funding: \$447,216  Term: 7/1/2020-6/30/2025</p>



- Kouichi Ito, Ph.D.**  
 Rutgers, The State University of New Jersey  
 Piscataway, New Jersey  
 Award: Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“Gut dysbiosis-mediated CNS autoimmunity”** Rutgers University scientists are examining whether a specially designed high-fiber supplement can reduce changes in gut bacteria associated with MS.
- Category: Immunology  
 Strategic Area: Restore  
 Funding: \$673,908  
 Term: 10/1/2019-9/30/2022
- Ilana Katz Sand, M.D.**  
 Icahn School of Medicine at Mount Sinai  
 New York, New York  
 Award: Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“The Effect of Dietary Factors on Disease Outcomes in Multiple Sclerosis”** Researchers at Icahn School of Medicine at Mount Sinai in New York are following up on a previous study of diet in people with MS, to validate their findings and determine whether additional dietary factors are important.
- Category: Human Therapy  
 Trials/Management of MS  
 Strategic Area: Restore  
 Funding: \$299,680  
 Term: 10/1/2019-9/30/2021
- Eric Klawiter, M.D.**  
 Massachusetts General Hospital  
 Boston, Massachusetts  
 Award: Pilot Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“Neurologic Music Therapy to Improve Gait Dysfunction in Multiple Sclerosis”** Massachusetts General researchers are testing a method of walking to a beat or music to see if it improves walking in people with MS.  
*Paid by the Marilyn Hilton MS Research Fund*
- Category: Rehabilitation  
 Strategic Area: Restore  
 Funding: \$55,000  
 Term: 2/1/2020-1/31/2021
- Anna Kratz, Ph.D.**  
 Regents of the University of Michigan  
 Ann Arbor, Michigan  
 Award: Mentor-Based Postdoctoral Fellowships  
 Research Priority: Symptoms, Rehab, Wellness  
**“Training to Advance Rehabilitation Research in Multiple Sclerosis”** Experienced mentors/researchers at the University of Michigan are training promising rehabilitation professionals to conduct MS rehabilitation research.
- Category: Psychosocial Aspects of MS  
 Strategic Area: Restore  
 Funding: \$421,202  
 Term: 7/1/2019-6/30/2024
- Lauren Krupp, M.D.**  
 New York University Langone Medical Center  
 New York, New York  
 Award: Research Grants  
 Research Priority: Symptoms, Rehab, Wellness  
**“The neurodevelopmental influence of pediatric versus adult onset MS on cognition”**  
 Researchers at New York University are studying how MS affects cognitive abilities in children and adolescents, to help guide interventions.
- Category: Psychosocial Aspects of MS  
 Strategic Area: Restore  
 Funding: \$1,046,676  
 Term: 4/1/2016-3/31/2021

**Victoria Leavitt, Ph.D.**  
Columbia University  
New York, New York  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Diagnostic Methods  
Strategic Area: Restore  
Funding: \$572,755  
Term: 8/1/2014-3/31/2020  
**“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.

**Victoria Leavitt, Ph.D.**  
Columbia University  
New York, New York  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$389,211  
Term: 7/1/2017-6/30/2022  
**“Cognitive Rehabilitation in MS: From Neuroscience to Clinical Practice”** An award supporting the training of promising young candidates in cognitive rehabilitation for people with multiple sclerosis.

**Robert McBurney, Ph.D.**  
Accelerated Cure Project for MS  
Waltham, Massachusetts  
Award: Strategic Initiatives  
Research Priority: Symptoms, Rehab, Wellness  
Category: Measuring MS Disease Activity  
Strategic Area: Restore  
Funding: \$1,014,881  
Term: 10/1/2018-9/30/2021  
**“Pathways to Cures Project Collaboration”** Collaborating with iConquerMS patient powered platform to gain input on research priorities and impacts.

**Tapan Mehta, Ph.D.**  
University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$54,954  
Term: 6/1/2019-5/31/2021  
**“Open-Label Placebos to Treat Fatigue in Multiple Sclerosis”** Researchers at the University of Alabama at Birmingham are testing the ability of the placebo effect to reduce MS-related fatigue.

**Maria Mendoza, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$54,998  
Term: 10/1/2019-9/30/2020  
**“Waking hypnosis in the treatment of MS-related fatigue: pilot and feasibility study”** University of Washington are testing two hypnosis techniques for their ability to reduce fatigue in people with MS, including Spanish speakers.

**Mia Minen, M.D., M.P.H.**

New York University Langone Medical Center  
New York, New York

Award: Pilot Research Grants

Research Priority: Symptoms, Rehab, Wellness

**“Multiple Sclerosis and Migraine: Can smartphone based progressive muscle relaxation therapy help MS patients' headaches, sleep, mood/anxiety and stress levels?”** Testing a method of reducing pain from migraine and MS.

Category: Health Care Delivery/ Policy

Strategic Area: Restore

Funding: \$44,000

Term: 9/1/2017-4/1/2020

**Ivan Molton, Ph.D.**

University of Washington

Seattle, Washington

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

**“Efficacy of a psychological intervention to improve ability to cope with uncertainty in MS.”**

University of Washington researchers are comparing traditional behavioral therapy with briefer counseling to determine how to better help people newly diagnosed with MS to cope with the uncertainty of the disease.

Category: Psychosocial Aspects of MS

Strategic Area: Restore

Funding: \$1,147,728

Term: 4/1/2019-3/31/2023

**Robert Motl, Ph.D.**

University of Alabama at Birmingham

Birmingham, Alabama

Award: Health Care Delivery and Policy Research  
Contracts

Research Priority: Symptoms, Rehab, Wellness

**“Project COMPLETE: Coordinated Multiple Sclerosis Exercise Toolkit”** Researchers are developing a set of tools to promote physical activity in people with MS, which is expected to reduce disability and improve quality of life.

Category: Health Care Delivery/ Policy

Strategic Area: Restore

Funding: \$363,811

Term: 1/1/2017-6/30/2020

**Robert Motl, Ph.D.**

University of Alabama at Birmingham

Birmingham, Alabama

Award: Strategic Initiatives

Research Priority: Symptoms, Rehab, Wellness

**“Supplemental Funding for MSSC Feinstein Study: Improving Cognition In People With Progressive Multiple Sclerosis: A Multi-Arm, Randomized, Blinded, Sham-Controlled Trial Of Cognitive Rehabilitation And Aerobic Exercise”** Supplemental funding to support additional imaging to detect brain plasticity for an international trial comparing the benefits of exercise and cognitive rehabilitation in people with MS and cognitive impairment.

Category: Human Therapy

Trials/Management of MS

Strategic Area: Restore

Funding: \$157,644

Term: 7/1/2019-6/30/2022

**Robert Motl, Ph.D.**

University of Alabama at Birmingham

Birmingham, Alabama

Award: Mentor-Based Postdoctoral Fellowships

Research Priority: Symptoms, Rehab, Wellness

**“Training in Physical Activity Promotion for Multiple Sclerosis”** Mentor-Based Postdoctoral Fellowship in MS Rehabilitation Research to provide training in physical activity promotion for MS.

Category: Rehabilitation

Strategic Area: Restore

Funding: \$235,424

Term: 1/1/2017-4/30/2020

**Robert Motl, Ph.D.**  
University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$813,305  
Term: 10/1/2014-7/31/2020  
**“Project BIPAMS: Behavioral Intervention for increasing Physical Activity in MS”** University of Alabama, Birmingham researchers are testing an internet-based behavioral intervention with people with MS to increase their physical activity and alleviate symptoms.

**Robert Motl, Ph.D.**  
University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Collaborative Research Center Awards  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$816,557  
Term: 4/1/2018-3/31/2023  
**“Healthy Aging through LifeStyle in Multiple Sclerosis: The HALT MS Research Center”**  
University of Alabama at Birmingham researchers have joined together to stimulate interdisciplinary research on lifestyle and wellness for healthy aging in MS.

**Robert Motl, Ph.D.**  
University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$485,553  
Term: 7/1/2020-6/30/2025  
**“Training in Physical Activity Promotion for Multiple Sclerosis”** Rehabilitation researchers at the University of Alabama at Birmingham have received funding to train promising rehabilitation professionals to conduct MS rehabilitation research.

**Ellen Mowry, M.D., M.C.R.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$1,728,703  
Term: 4/1/2011-3/31/2021  
**“A randomized controlled trial of vitamin D supplementation in multiple sclerosis”** A clinical trial investigating whether vitamin D supplements can alter disease activity in people with MS who are taking a standard therapy.  
*Funded by a gift from the National MS Society Greater Delaware Valley Chapter*

**Ellen Mowry, M.D., M.C.R.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Harry Weaver Scholar Award  
Research Priority: Symptoms, Rehab, Wellness  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Stop  
Funding: \$781,377  
Term: 7/1/2015-6/30/2020  
**“A pilot study of intermittent calorie restriction in multiple sclerosis”** Researchers at Johns Hopkins University in Baltimore are doing a pilot trial testing the safety and tolerability of a diet that intermittently restricts calorie intake as a treatment for disease activity in people with MS.

**Laura Piccio, M.D., Ph.D.**

Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

**“Randomized controlled trial of intermittent fasting in multiple sclerosis”** Investigators at Washington University in St. Louis are conducting a clinical trial comparing intermittent fasting with a normal western diet in people with MS.

Category: Immunology

Strategic Area: Stop

Funding: \$777,853

Term: 4/1/2017-3/31/2021

**Lara Pilutti, Ph.D.**

University of Ottawa  
Ottawa, Ontario, Canada

Award: Pilot Research Grants

Research Priority: Symptoms, Rehab, Wellness

**“Characterizing the Acute Response to Adapted Exercise in Non-ambulatory People with Multiple Sclerosis”** University of Ottawa researchers are studying the impacts and enjoyment of adapted exercise in people with MS who use wheelchairs.

Category: Rehabilitation

Strategic Area: Restore

Funding: \$44,821

Term: 10/1/2019-9/30/2020

**Lara Pilutti, Ph.D.**

University of Ottawa  
Ottawa, Ontario, Canada

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

**“Lifestyle physical activity intervention for improving cardiorespiratory fitness and vascular comorbidity risk in multiple sclerosis”** University of Ottawa researchers are testing an intervention to increase physical activity to determine if it can improve fitness and reduce vascular disease risk in people with MS.

Category: Rehabilitation

Strategic Area: Restore

Funding: \$351,620

Term: 10/1/2016-11/30/2020

**Laura Rice, Ph.D., P.T.**

University of Illinois at Urbana-Champaign  
Champaign, Illinois

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

**“Validation of a Fall Prevention Program Among Non-Ambulatory Wheeled Mobility Device Users with Multiple Sclerosis”** Researchers at the University of Illinois at Urbana-Champaign are developing a program designed to help prevent falling for people with MS who are wheelchair users.

*Funded with support from the Illinois Lottery*

Category: Rehabilitation

Strategic Area: Restore

Funding: \$570,217

Term: 10/1/2017-9/30/2020

**Phillip Rumrill, Ph.D., C.R.C.**

Kent State University  
Kent, Ohio

Award: Strategic Initiatives

Research Priority: Symptoms, Rehab, Wellness

**“A Two-Phase Examination of Labor Force Participation, Employment Concerns, and Workplace Discrimination among Latinas/os and African Americans with Multiple Sclerosis”** Researchers at Kent State are investigating the employment experiences of the growing numbers of Hispanic/Latinos and African Americans with MS.

Category: Rehabilitation

Strategic Area: Stop

Funding: \$594,000

Term: 10/1/2019-4/1/2022

**Bart Rypma, Ph.D.**  
The University of Texas at Dallas  
Dallas, Texas  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Neurophysiology  
Strategic Area: Restore  
Funding: \$522,792  
Term: 4/1/2016-3/31/2020  
**“The Effect of Neural-Vascular Coupling Changes on Cognitive Performance in Multiple Sclerosis”** University of Texas, Dallas researchers are seeking to understand biological mechanisms that underlie MS “brain fog” as a path toward finding solutions to cognitive problems in MS.

**Gelareh Sadigh, M.D.**  
Emory University  
Atlanta, Georgia  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Health Care Delivery/ Policy  
Strategic Area: Stop  
Funding: \$55,000  
Term: 2/1/2020-1/31/2021  
**“Pilot Feasibility Study of Out-of-Pocket Cost Communication and Supportive Financial Services for Reducing Financial Toxicity Among Multiple Sclerosis Patients”** Emory investigators are exploring whether a cost information program can decrease financial burden and increase compliance with care in people with MS.

**Joshua Sandry, Ph.D.**  
Montclair State University  
Montclair, New Jersey  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Stop  
Funding: \$200,783  
Term: 10/1/2019-9/30/2020  
**“Neuroimaging of Hippocampally Mediated Memory Dysfunction in Multiple Sclerosis”** Montclair State University researchers are measuring memory-related abilities in individuals with and without MS for clues to how such cognitive processes change in MS.

**Joshua Sandry, Ph.D.**  
Montclair State University  
Montclair, New Jersey  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Stop  
Funding: \$530,836  
Term: 10/1/2020-9/30/2023  
**“Neuroimaging of Hippocampally Mediated Memory Dysfunction in Multiple Sclerosis (continued)”** A team at Montclair State is exploring changes in brain structure that underlie memory and cognitive problems in people with MS.

**David Schulz, Ph.D.**  
University of Missouri-Columbia  
Columbia, Missouri  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Neuropathology  
Strategic Area: Restore  
Funding: \$55,000  
Term: 10/1/2018-9/30/2020  
**“Effects of central demyelination on properties of bladder innervating neurons and bladder function”** Understanding the underlying changes in the bladder and bladder circuitry that can cause bladder symptoms in people with MS.

**Russell Shinohara, Ph.D.**  
University of Pennsylvania  
Philadelphia, Pennsylvania  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Measuring MS Disease Activity  
Strategic Area: Stop  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020  
**“Impact of insurance status on MRI phenotypes in MS”** Researchers at the University of Pennsylvania are exploring whether having public or private insurance impacts MS progression or disease activity.

**Janet Shucard, Ph.D.**  
The State University of New York at Buffalo  
Buffalo, New York  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$608,859  
Term: 4/1/2017-3/31/2020  
**“The Effects of Working Memory Training on Brain Function, Structure, and Cognition in MS”** Investigators at The State University of New York at Buffalo, Jacobs School of Medicine and Biomedical Sciences, are testing two training programs for improving cognitive function in people with MS.

**Jacob Sloane, M.D., Ph.D.**  
Beth Israel Deaconess Medical Center  
Boston, Massachusetts  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Human Therapy  
Trials/Management of MS  
Strategic Area: Restore  
Funding: \$218,605  
Term: 4/1/2019-3/31/2022  
**“Role of sleep apnea in MS fatigue and disability”** Researchers at Beth Israel Deaconess Medical Center are exploring the prevalence of sleep apnea in people with MS and whether treating apnea can reduce MS-related fatigue.

**Barbara Slusher, Ph.D.**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Preclinical Drug Development  
Strategic Area: Restore  
Funding: \$654,166  
Term: 4/1/2016-3/31/2020  
**“Development of 2-PMPA prodrugs for the treatment of cognitive impairment in multiple sclerosis”** Researchers at Johns Hopkins University are developing versions of a promising compound for possible use in improving cognitive function in MS.

**Jacob Sosnoff, Ph.D.**  
University of Illinois at Urbana-Champaign  
Champaign, Illinois  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$424,446  
Term: 7/1/2019-6/30/2024  
**“Cognitive Motor Interference Rehabilitation in Multiple Sclerosis”** Experienced mentors/researchers at the University of Illinois Urbana-Champaign are training promising rehabilitation professionals to conduct MS rehabilitation research.  
*Funded with support from the Illinois Lottery*

**Rebecca Straus Farber, M.D.**  
Columbia University  
New York, New York  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Immunology  
Strategic Area: Stop  
Funding: \$55,000  
Term: 3/1/2019-8/31/2020  
**“Immunologic Effects of Prebiotics (Fermentable Dietary Fiber) as Compared to Probiotics in Multiple Sclerosis”** New York researchers are testing two strategies for altering the gut microbiome in people with MS, in an effort to stop MS in its tracks.

**Aaron Turner, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$382,459  
Term: 7/1/2013-6/30/2020  
**“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.

**Aaron Turner, Ph.D.**  
Seattle Institute for Biomedical and Clinical Research  
Seattle, Washington  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Psychosocial Aspects of MS  
Strategic Area: Restore  
Funding: \$55,000  
Term: 10/1/2019-9/30/2020  
**“Chronic Opioid Use in MS”** A Seattle team is examining opioid use in veterans with MS for clues to determining the risks involved in administering opioids for MS-related pain.

**Aaron Turner, Ph.D.**  
University of Washington  
Seattle, Washington  
Award: Mentor-Based Postdoctoral Fellowships  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$401,426  
Term: 7/1/2018-6/30/2023  
**“The Seattle Collaborative Fellowship”** Researchers at the University of Washington and VA Puget Sound are training a series of promising professionals in how to conduct MS rehabilitation research.

**Richard Van Emmerik, Ph.D.**  
University of Massachusetts  
Amherst, Massachusetts  
Award: Pilot Research Grants  
Research Priority: Symptoms, Rehab, Wellness  
Category: Rehabilitation  
Strategic Area: Restore  
Funding: \$54,973  
Term: 3/1/2019-2/28/2021  
**“Tai Chi and Mindfulness Training to Improve Postural Control and Quality of Life in People with Multiple Sclerosis: A Community-Based Intervention Study”** UMass researchers are testing Tai Chi and Mindfulness Meditation training for their ability to improve balance in people with MS.



**Caila Vaughn, Ph.D., M.P.H.**

The State University of New York at Buffalo  
Buffalo, New York

Award: Pilot Research Grants

Research Priority: Symptoms, Rehab, Wellness

Category: Human Therapy  
Trials/Management of MS

Strategic Area: Restore

Funding: \$43,725

Term: 11/1/2017-10/31/2020

**“The Usefulness of the Talkitt Speech Recognition Technology in Improving Quality of Life for Individuals with Multiple Sclerosis and Dysarthria”** Researchers at the State University of New York at Buffalo are conducting a trial to determine whether an application for smart devices improves communication-related quality of life in people with MS and speech disorders.

**Terry Wahls, M.D.**

The University of Iowa

Iowa City, Iowa

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

Category: Human Therapy  
Trials/Management of MS

Strategic Area: Restore

Funding: \$1,098,981

Term: 7/1/2016-6/30/2020

**“Dietary Approaches to Treating Multiple Sclerosis Related Fatigue”** A team at the University of Iowa is comparing two dietary approaches to determine their effectiveness for treating MS-related fatigue.

**Heather Wishart, Ph.D.**

Dartmouth-Hitchcock Clinic

Lebanon, New Hampshire

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

Category: Psychosocial Aspects of MS

Strategic Area: Stop

Funding: \$255,008

Term: 10/1/2018-3/31/2021

**“Cognitive evaluation in MS: Expanding clinical research potential through the validation of an online testing battery”** Researchers at the Geisel Medical School at Dartmouth are testing the feasibility of administering cognitive testing online, to improve the process of evaluating cognitive changes in large-scale studies in MS.

**Feng Yang, Ph.D.**

Georgia State University

Atlanta, Georgia

Award: Pilot Research Grants

Research Priority: Symptoms, Rehab, Wellness

Category: Rehabilitation

Strategic Area: Restore

Funding: \$54,483

Term: 10/1/2019-9/30/2020

**“Adaptive motor learning of fall resistance skills through slip exposure in multiple sclerosis”** Georgia State researchers are testing whether training people with MS with controlled falling experiences can build skills around how to react against fall situations to prevent them.

**Bing Yao, Ph.D.**

Kessler Foundation Research Center

West Orange, New Jersey

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

Category: Diagnostic Methods

Strategic Area: Restore

Funding: \$558,314

Term: 10/1/2017-9/30/2020

**“Investigating the Correlation between Cognitive Fatigue and Brain Iron Deposition in Basal Ganglia in Multiple Sclerosis”** Investigators at Kessler Foundation Research Center In West Orange, NJ, are exploring whether iron in certain areas of the brain contributes to cognitive fatigue in people with MS.

**E. Yeh, M.D.**

The Hospital for Sick Children

Toronto, Ontario, Canada

Award: Research Grants

Research Priority: Symptoms, Rehab, Wellness

Category: Rehabilitation

Strategic Area: Restore

Funding: \$665,470

Term: 10/1/2019-9/30/2022

**“Physical Activity, Quality of Life and Disease Outcomes in Youth with Multiple Sclerosis: the ATOMIC (Active Teens Multiple Sclerosis) Physical Activity Research Program”** A team at the Hospital for Sick Children in Toronto is testing if a smartphone app that provides tailored physical activity info/coaching can increase physical activity in pediatric MS.