List of Current Research Projects Funded by the National MS Society

Sorted by Topic/Pathways to Cures

November 1, 2021

Research Department
National Multiple Sclerosis Society
New York, NY

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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, and foster global collaboration between MS researchers.

This document lists MS research projects being funded by the National Multiple Sclerosis Society (USA), sorted Topic, as of November 1, 2021.

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) 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.
TBD = to be determined

Research Priorities: Pathways to Multiple Sclerosis Cures
The National MS Society is focused on achieving breakthroughs to cures for multiple sclerosis. Our progress will be hastened with a roadmap that describes the knowledge gaps, milestones and research priorities that will lead to cures for everyone living with MS. The roadmap was developed in consultation with scientific experts, health care providers and people affected by MS. We believe the Pathways to Cures Roadmap will inspire the alignment of global resources on the most pressing questions in MS research and accelerate scientific breakthroughs that lead to cures for everyone living with MS.

The Roadmap includes three Pathways: STOPPING MS disease activity, RESTORING function by reversing damage and symptoms, and ENDING MS by preventing new cases. Research proposals should address critical knowledge gaps in our understanding of the roadmap. Many gaps apply to more than one pathway.

Goal 1: STOP pathway -- No more disease activity
Stopping MS is defined as achieving a state of no new disease activity, no worsening of daily living or quality of life, and no change in disease manifestations or clinical activity in people living with either relapsing or progressive forms of MS. Understanding disease heterogeneity across diverse populations of people with all forms of MS over time is important to stopping disease activity and protecting the central nervous system from further assault, and to create a permissive environment for myelin repair and other restoration efforts.

Target areas include Early Detection: Reduce or eliminate the impact of MS before neurological deficits accumulate in an individual with MS, and Precision Medicine: Achieve no worsening of daily living or quality of life, and no change in disease manifestations, for each individual with MS.

Goal 2: RESTORE Pathway -- reverse symptoms, and recover function to enable full participation in society
MS can result in many different symptoms, including vision loss, pain, fatigue, sensory loss, impaired coordination, mobility, and cognitive and mood changes. Symptom severity and duration varies from person to person. Historically, rehabilitation aims to improve symptoms, with medical management of the disease kept separate. There is data supporting the idea that restoration of function, not only symptom management, is possible in MS.
Target areas include **Regeneration**: Improve or enhance tissue repair/regeneration to reverse or slow MS progression and improve symptoms, and **Restoration of Activity**: Advance implementation of rehabilitation and symptom management strategies to restore function, reverse symptoms and enhance quality of life.

**Goal 3: END Pathway -- No new cases of MS (prevention)**

Ending MS is defined as no new cases of MS. Preventing new cases of MS will require population-based public health initiatives and individual-based interventions. While efforts will be made to advance both targets, a focus on Secondary Prevention could potentially lead to the development of approaches with benefits for people living with MS in the near term.

Target areas include **Primary prevention**: To prevent MS before it occurs by limiting exposure to MS risk factors in the general population, and **Secondary prevention**: To reduce or eliminate the impact of MS before onset of signs/symptoms by identifying pre-clinical MS in the high-risk population.

**About Our Research Projects**
The Society offers a spectrum of funding opportunities and resources to support MS investigators at virtually every stage of their careers. These include:

- **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 and academic partnerships aimed at specific strategies to drive the discovery of new therapies for people with MS
- **Harry Weaver Neuroscience Scholarships** – 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 and attracting new researchers to investigate MS (this program currently on hold)
- **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
- **RFA** – research projects targeted to specific Pathways to Cures priorities
- **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 Research “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

**Table of Contents – click on page numbers to jump to page**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOPPING MS</td>
<td>5</td>
</tr>
<tr>
<td>RESTORING FUNCTION</td>
<td>37</td>
</tr>
<tr>
<td>ENDING MS</td>
<td>54</td>
</tr>
</tbody>
</table>
STOPPING MS - Achieving a state of no new disease activity, no worsening of daily living or quality of life, and no change in disease manifestations or clinical activity in people living with either relapsing or progressive forms of MS.

Jeff Bulte, PhD
Johns Hopkins University
Baltimore, Maryland
Award: RFA
Category: Biochem./Biophysics
“MALDI identification of CEST MRI biomarkers that may precede and predict the onset of disease in Multiple sclerosis” Researchers at Johns Hopkins are using MRI to see if there are biochemical and other changes in the brain before MS symptoms start, to create an early detection tool for earlier treatment.

Dimitrios Davalos, PhD
Cleveland Clinic Foundation
Cleveland, Ohio
Award: Research Grants
Category: Biology of Glia
“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.

Gregory Duncan, PhD
Oregon Health & Science University
Portland, Oregon
Award: Postdoctoral Fellowships
Category: Biology of Glia
“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.

Erin Gibson, PhD
Stanford University
Stanford, California
Award: Pilot Research Grants
Category: Biology of Glia
“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
“Targeting Neurotoxic Inflammatory Glia and NLRX1 in MS/EAE” Scientists at Johns Hopkins are targeting a protein in MS-like disease with an eye toward developing therapies to stop MS.

“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.

“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.

“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.

“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
Sebastian Werneburg, MSc, PhD
University of Massachusetts Medical School
Worcester, Massachusetts
Award: Career Transition Fellowships
Category: Biology of Glia
“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.

Cory Willis, PhD
University of Cambridge
Cambridge, United Kingdom
Award: Postdoctoral Fellowships
Category: Biology of Glia
“Exploring the role of ASTROcytic succinate receptor in neuroinflammation (ASTRO_TOR)” Researchers at the University of Cambridge are exploring how certain brain cells may drive MS progression.

Dritan Agalliu, PhD
Columbia University
New York, New York
Award: Research Grants
Category: CNS Repair
“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.

Francesco Bifari, MD, PhD
University of Milan
Milan, Italy
Award: International Progressive MS Alliance
Category: CNS Repair
“ Branched chain amino acids-induced persistent metabolic shift towards oxidative phosphorylation in immune and neural cells: a potential new therapy for Progressive Multiple Sclerosis” Attempting to address the increased demands on cellular energy of nerve cells damaged by MS inflammation by providing nutrient supplements to the cells to increase their survival.

Peter Calabresi, MD
Johns Hopkins University
Baltimore, Maryland
Award: Research Grants
Category: CNS Repair
“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.
**Peter Calabresi, MD**  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Category: CNS Repair  
**“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.

**Yanan Chen, MD, PhD**  
Northwestern University  
Evanston, Illinois  
Award: Career Transition Fellowships  
Category: CNS Repair  
**“Enhancing the unfolded protein response as a protective therapy for multiple sclerosis”**  
Northwestern scientists are exploring a novel strategy for protecting myelin-making cells and promoting myelin preservation and repair in MS.  
*Funded with support from the Illinois Lottery*

**Ben Emery, PhD**  
Oregon Health & Science University  
Portland, Oregon  
Award: Research Grants  
Category: CNS Repair  
**“Mechanisms of neurodegeneration in demyelinating disease”**  
Using novel models, a team at Oregon Health and Science University is testing the roles of chronic myelin damage and inflammation in nerve cell degeneration in order to better understand what might drive MS progression.

**Claudia Lucchinetti, MD**  
Mayo Clinic Rochester  
Rochester, Minnesota  
Award: Collaborative Research Center Awards  
Category: CNS Repair  
**“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*
Claire McCoy, PhD  
Royal College of Surgeons in Ireland  
Dublin, Ireland  
Award: International Progressive MS Alliance  
Category: CNS Repair  
“Unraveling the role of miRNAs, in particular miR-448 in the demyelination process and its potential as a novel therapeutic in primary progressive MS.” Exploring the role of a microRNA that may be involved in the destruction of myelin, and developing ways to block it as a potential therapy to prevent progression of MS.  
Estimated joint commitment with other Progressive MS Alliance members

Weiquan Zhu, PhD  
University of Utah  
Salt Lake City, Utah  
Award: Research Grants  
Category: CNS Repair  
“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.

Omar Al-Louzi, MD  
Cedars-Sinai Medical Center  
Los Angeles, California  
Award: NMSS-ABF Clinician Scientist Award  
Category: Diagnostic Methods  
“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.

Francesca Bagnato, MD, PhD  
Vanderbilt University Medical Center  
Nashville, Tennessee  
Award: Research Grants  
Category: Diagnostic Methods  
“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.
John Chen, MD, PhD
Massachusetts General Hospital
Boston, Massachusetts
Award: Research Grants
Category: Diagnostic Methods
“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

Asaff Harel, MD
The Feinstein Institute for Medical Research
Manhasset, New York
Award: Pilot Research Grants
Category: Diagnostic Methods
“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.

Guanshu Liu, PhD
Hugo W. Moser Research Institute at Kennedy Krieger, Inc.
Baltimore, Maryland
Award: Pilot Research Grants
Category: Diagnostic Methods
“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

Joel Pachter, PhD
University of Connecticut Health Center
Farmington, Connecticut
Award: Research Grants
Category: Diagnostic Methods
“Extracellular vesicles and MSCs as novel tools to aid in the diagnosis and treatment of secondary progressive disease” Investigators are 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.
Laura Piccio, MD, PhD  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Research Grants  
Category: Diagnostic Methods  
“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.

Teri Schreiner, MD, MPH  
University of Colorado Denver  
Denver, Colorado  
Award: RFA  
Category: Diagnostic Methods  
“Detection and Risk in Earliest MS”  
University of Colorado researchers are examining close family members of people with MS in search of early evidence and risk factors that could be combined to predict the future onset of MS.

Biao Xiang, PhD  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Postdoctoral Fellowships  
Category: Diagnostic Methods  
“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.

Ruth Dobson, MD, PhD  
Queen Mary University of London  
London, United Kingdom  
Award: RFA  
Category: Epidemiology  
“Window of opportunity: examining modifiable risk factors and prodromes of Multiple Sclerosis in UK primary care datasets”  
Queen Mary University London researchers are using medical records from people of different backgrounds to identify symptoms occurring before an MS diagnosis, and potentially developing tools for identifying those at the highest risk of MS.

Amber Salter, PhD, MPH  
The University of Texas Southwestern Medical Center  
Dallas, Texas  
Award: Biostatistics/Informatics Junior Faculty Award  
Category: Epidemiology  
“Investigation of MS Disease Progression Using a Multifactorial Approach”  
Researchers at UT Southwestern and collaborators are examining MS worsening to uncover predictors of disease progression and improve preemptive care.

Paid by the Marilyn Hilton MS Research Fund
Helen Tremlett, PhD  
University of British Columbia  
Vancouver, British Columbia, Canada  
Award: RFA  
Category: Epidemiology  
“Heterogeneity in the MS prodrome and impact on disease progression (PrOMS-HD)”  
University of British Columbia researchers, along with collaborators across Canada and Sweden, are searching medical records for early, unrecognized warning signs of MS to enable pre-emptive treatment.  
*Plus co-funding from MS Society of Canada*

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**Prevalence Workgroup, National Multiple Sclerosis Society**  
New York, New York  
Award: Health Care Delivery and Policy Research Contracts  
Category: Epidemiology  
“Prevalence Workgroup” Devising a new approach to determining the number of people with MS in the U.S., as well as who they are and where they live

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Tanuja Chitnis, MD  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Health Care Delivery and Policy Research Contracts  
Category: Health Care Delivery/ Policy  
“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.

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Daniel Hartung, MPH, PharMD  
Oregon State University  
Corvalis, Oregon  
Award: Strategic Initiatives  
Category: Health Care Delivery/ Policy  
“Updating Cost of MS Medication” Researchers at Oregon State University are investigating reasons for the escalating costs of MS treatments.

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Dominique Kinnett-Hopkins, PhD  
Northwestern University  
Evanston, Illinois  
Award: Postdoctoral Fellowships  
Category: Health Care Delivery/ Policy  
“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.
Ruth Ann Marrie, MD, PhD  
University of Manitoba  
Winnipeg, Manitoba, Canada  
Award: Research Contracts  
Category: Health Care Delivery/ Policy  
“University of Manitoba Time and Materials Contract” A working group under the auspices of the International Advisory Committee on Clinical Trials in MS will identify gaps in knowledge on women's health issues specific to women with MS and relevant to clinical trials.

Gelareh Sadigh, MD  
Emory University  
Atlanta, Georgia  
Award: Pilot Research Grants  
Category: Health Care Delivery/ Policy  
“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.

Philip De Jager, MD, PhD  
Columbia University  
New York, New York  
Award: Research Grants  
Category: Human Genetics  
“Integrating risk factors and biomarkers for prediction in presymptomatic MS” Understanding risk factors of MS to develop a way to detect it at its earliest stages.

Kathryn Fitzgerald, DSc  
Johns Hopkins University  
Baltimore, Maryland  
Award: International Progressive MS Alliance  
Category: Human Genetics  
“Multi-omic predictors of chronic inflammation in multiple sclerosis” Exploring the biological and genetic bases for the chronic inflammation that occurs in people with progressive MS, for clues to stopping progression.

Adil Harroud, MD  
University of California, San Francisco  
San Francisco, California  
Award: Clinician Scientist Development Award  
Category: Human Genetics  
“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 the Kaufer Family*
Jorge Oksenberg, PhD
University of California, San Francisco
San Francisco, California
Award: Research Grants
Category: Human Genetics
“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.

Douglas Arnold, MD
McGill University
Montreal, Quebec, Canada
Award: International Progressive MS Alliance - Collaborative Network Center
Category: Human Therapy Trials/Management of MS
“An MRI biomarker for disability progression for use in clinical trials” Identifying a biomarker of disability progression for use in clinical trials.

Pavan Bhargava, MD
Johns Hopkins University
Baltimore, Maryland
Award: Research Grants
Category: Human Therapy Trials/Management of MS
“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.

Theron Casper, PhD
University of Utah
Salt Lake City, Utah
Award: Strategic Initiatives
Category: Human Therapy Trials/Management of MS
“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.

John Ciotti, MD
Washington University in St. Louis
St. Louis, Missouri
Award: Sylvia Lawry Physician Fellowships
Category: Human Therapy Trials/Management of MS
“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.
John Corboy, MD  
University of Colorado Denver  
Denver, Colorado  
Award: Strategic Initiatives  
Category: Human Therapy Trials/Management of MS  
“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.

Cristina Gaudioso, MD  
Washington University in St. Louis  
St. Louis, Missouri  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“Clinical and Translational Research Training in Adult and Pediatric Multiple Sclerosis” 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.

Carolyn Goldschmidt, DO  
Cleveland Clinic Foundation  
Cleveland, Ohio  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“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.

Kimystian Harrison, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“Clinical Trials Training in Multiple Sclerosis” A promising doctor at Johns Hopkins University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Victoria Levasseur, MD  
Washington University in St. Louis  
St. Louis, Missouri  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“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.
Jamie McDonald, MD  
Stanford University  
Stanford, California  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“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.

Ellen Mowry, MD, MCR  
Johns Hopkins University  
Baltimore, Maryland  
Award: Strategic Initiatives  
Category: Human Therapy Trials/Management of MS  
“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.

MS Society UK,  
MS Society UK  
London, United Kingdom  
Award: Strategic Initiatives  
Category: Human Therapy Trials/Management of MS  
“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, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Category: Human Therapy Trials/Management of MS  
“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.
"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.

"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.

"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.

"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.

"Neuroimmunology and Multiple Sclerosis Fellowship with Training in Epidemiology and Clinical Research" A promising doctor at Stanford University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.
Klaus Schmierer, MD, PhD  
Queen Mary University of London  
London, United Kingdom  
Award: Strategic Initiatives  
Category: Human Therapy Trials/Management of MS  
“Chariot MS - MRI Substudy” Researchers in the United Kingdom are testing whether a disease-modifying therapy can preserve upper limb function in people with advanced MS.  

Alexandra Simpson, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“Targeting Remyelination, Repair Mechanisms, andSymptom Management in Multiple Sclerosis through Clinical Trials” A promising doctor at Johns Hopkins will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.  
Paid by the Kenrose Kitchen Table Foundation and J. David Power, III  

Rebecca Spain, MD, MSPH  
Oregon Health & Science University  
Portland, Oregon  
Award: Strategic Initiatives  
Category: Human Therapy Trials/Management of MS  
“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.  

Jorge Torres, MD  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Sylvia Lawry Physician Fellowships  
Category: Human Therapy Trials/Management of MS  
“Multiple Sclerosis Clinical Trial Training at MGH” A promising doctor at Massachusetts General will develop the skills involved in the design, implementation, and analysis of clinical trials in MS  

Clare Baecher-Allan, PhD  
Brigham and Women's Hospital  
Boston, Massachusetts  
Award: Research Grants  
Category: Immunology  
“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.
Amit Bar-Or, MD  
University of Pennsylvania  
Philadelphia, Pennsylvania  
Award: Strategic Initiatives  
Category: Immunology  
“Linking multiple disease compartments in T1D and Multiple Sclerosis” Exploring similarities and differences in the damaging immune attacks in MS and Type 1 diabetes for clues to better therapies.

Pavan Bhargava, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Career Transition Fellowships  
Category: Immunology  
“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.

Pavan Bhargava, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Harry Weaver Scholar Awards  
Category: Immunology  
“Understanding the contributions of metabolic dysfunction to MS pathophysiology” Researchers at Johns Hopkins University are exploring how byproducts of energy processes in immune and brain cells may contribute to MS development.

Paid by the Marilyn Hilton MS Research Fund

Massimiliano Calabrese, MD  
University of Verona  
Verona, Italy  
Award: International Progressive MS Alliance  
Category: Immunology  
“Detecting the immunological basis of neurodegeneration and microglial activation in early MS patients” Identifying biomarkers that may detect and enable prevention of early damage to parts of the brain that are associated with more rapid disease progression.

Estimated joint commitment with other Progressive MS Alliance members

Claudia Cantoni, PhD  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Career Transition Fellowships  
Category: Immunology  
“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.
**Bogoljub Ciric, PhD**
Thomas Jefferson University
Philadelphia, Pennsylvania
Award: Research Grants
Category: Immunology

“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.

**Bonnie Dittel, PhD**
Versiti Blood Research Institute
Milwaukee, Wisconsin
Award: Research Grants
Category: Immunology

“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.

**Marika Falcone, MD, PhD**
Fondazione Centro San Raffaele
Milan, Italy
Award: Research Grants
Category: Immunology

“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.

**Laura Ghezzi, MD**
Washington University in St. Louis
St. Louis, Missouri
Award: Postdoctoral Fellowships
Category: Immunology

“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

**Murugaiyan Gopal, PhD**
Brigham and Women’s Hospital
Boston, Massachusetts
Award: Research Grants
Category: Immunology

“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.
Daniel Hawiger, MD, PhD
Saint Louis University
St. Louis, Missouri
Award: Research Grants
Category: Immunology
“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.

Christopher Hemond, MD
University of Massachusetts Medical School
Worcester, Massachusetts
Award: Pilot Research Grants
Category: Immunology
“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.

Kevan Herold, MD
Yale University
New Haven, Connecticut
Award: Strategic Initiatives
Category: Immunology
“Analysis of antigen specific T cells in response to immune therapies in MS and T1D” Exploring how therapies for MS and Type 1 diabetes change immune cells and searching for blood markers to track disease development.

Dimitry Krementsov, PhD
University of Vermont and State Agricultural College
Burlington, Vermont
Award: Research Grants
Category: Immunology
“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.

Yoon-Chul Kye, PhD
Brigham and Women’s Hospital
Boston, Massachusetts
Award: Postdoctoral Fellowships
Category: Immunology
“The role of immune checkpoint molecules on B cell in CNS autoimmune diseases” Researchers at Brigham and Women’s Hospital are determining how to optimize and improve upon therapies that target immune B cells in people with MS.
Lior Mayo, PhD
Tel Aviv University
Tel Aviv, Israel
Award: Research Grants
Category: Immunology
“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.

Estimated Funding: $375,000
Term: 1/1/2017-12/31/2021

Booki Min, DVM, PhD
Northwestern University
Evanston, Illinois
Award: Research Grants
Category: Immunology
“The role of Foxp3+ regulatory T cells during glucocorticoid treatment of autoimmunity” Northwestern University 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.

Estimated Funding: $408,335
Term: 9/1/2020-3/31/2022

Funded with support from the Illinois Lottery

Laura Piccio, MD, PhD
Washington University School of Medicine-M St. Louis, Missouri
Award: Research Grants
Category: Immunology
“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.

Estimated Funding: $925,866
Term: 4/1/2017-3/31/2023

Anne-Katrin Probstel, MD
University of Basel
San Francisco, California
Award: Postdoctoral Fellowships
Category: Immunology
“Kathleen C. Moore Foundation Postdoctoral Fellowship: Gut-Brain-Axis: crosstalk between B cells and gut microbiota in MS” Researchers at the University of California, San Francisco are identifying harmful gut bacteria in people with MS and testing their role in disease triggering and progression.

Estimated Funding: $102,812
Term: 7/1/2020-6/30/2022

The Kathleen C Moore Foundation Postdoctoral Fellowship

A.M. Rostami, MD, PhD
Thomas Jefferson University
Philadelphia, Pennsylvania
Award: Research Grants
Category: Immunology
“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.

Estimated Funding: $650,000
Term: 4/1/2017-12/31/2021
**Joseph Sabatino, MD, PhD**  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Category: Immunology  
“**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.

**Farinaz Safavi, MD, PhD**  
National Institutes of Health  
Bethesda, Maryland  
Award: NMSS-ABF Clinician Scientist Award  
Category: Immunology  
“**Role of B cells in development of meningeal tertiary lymphoid structures**” NIH researchers are exploring the role that specific B cell subtypes play in the development of inflammation in MS, and how ocrelizumab affects these cells.

**Naresha Saligrama, PhD**  
Washington University School of Medicine-M  
St. Louis, Missouri  
Award: Career Transition Fellowships  
Category: Immunology  
“**Understanding T cell receptor diversity and specificity in Multiple sclerosis and Experimental autoimmune encephalomyelitis**” A 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.

**Naresha Saligrama, PhD**  
Stanford University  
Stanford, California  
Award: Career Transition Fellowships  
Category: Immunology  
“**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.

**David Scott, PhD**  
Henry M. Jackson Foundation  
Bethesda, Maryland  
Award: Research Grants  
Category: Immunology  
“**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.
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 the Kaufer Family

“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.

UCSF researchers are exploring a therapeutic strategy targeting fibrinogen, a protein associated with damage in MS. 

Paid by the Kenrose Kitchen Table Foundation and J. David Power, III

Weill Cornell researchers are investigating immune cell differences in racially and ethnically diverse individuals to better predict and treat MS in non-white populations.

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.
Chao Wang, PhD
Sunnybrook Research Institute
Toronto, Ontario
Award: Career Transition Fellowships
Category: Immunology
“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.

Estimated Funding: $274,113
Term: 3/1/2021-12/31/2023

Liwei Wang, PhD
New York University Langone Medical Center
New York, New York
Award: Postdoctoral Fellowships
Category: Immunology
“Investigation of novel ion channels as potential next-generation therapeutic targets for MS” A team at NYU is exploring the potential of a therapeutic strategy for MS based on proteins on cell surfaces and inside of cells known as ion channels.

Estimated Funding: $204,814
Term: 7/1/2021-6/30/2024

Howard Weiner, MD
Brigham and Women’s Hospital
Boston, Massachusetts
Award: Research Grants
Category: Immunology
“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.

Estimated Funding: $661,446
Term: 4/1/2020-3/31/2023

Gregory Wu, MD, PhD
Washington University School of Medicine-M
St. Louis, Missouri
Award: Research Grants
Category: Immunology
“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.

Estimated Funding: $621,616
Term: 4/1/2019-3/31/2023

Soumya Yandamuri, PhD
Yale University
New Haven, Connecticut
Award: Postdoctoral Fellowships
Category: Immunology
“Isolation and characterization of myelin oligodendrocyte glycoprotein monoclonal antibodies” Researchers at Yale are exploring a mechanism for the damage that occurs to nerve-insulating myelin in MS.

Estimated Funding: $193,789
Term: 7/1/2021-6/30/2024
Mihir Kakara, MD
University of Pennsylvania
Philadelphia, Pennsylvania
Award: Clinician Scientist Development Award
Category: Infectious Agents
“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.
"Funded with support from the Nerney Family Foundation"

Onur Afacan, PhD
Boston Children's Hospital
Boston, Massachusetts
Award: Pilot Research Grants
Category: Measuring MS Disease Activity
“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.

Christina Azevedo, MD, MPH
University of Southern California
Los Angeles, California
Award: Harry Weaver Scholar Awards
Category: Measuring MS Disease Activity
“Understanding Mechanisms of Deep Grey Matter Injury Using MRI in Patients with MS”  Researchers at the University of Southern California are using advanced imaging techniques to better understand the damage that occurs in MS for clues to stopping it.
"Paid by the Marilyn Hilton MS Research Fund"

Brenda Banwell, MD
Children’s Hospital of Philadelphia
Philadelphia, Pennsylvania
Award: Research Grants
Category: Measuring MS Disease Activity
“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.

Erin Beck, MD, PhD
Icahn School of Medicine at Mount Sinai
New York, New York
Award: Career Transition Fellowships
Category: Measuring MS Disease Activity
“Evolution of cortical pathology and its relation to meningeal inflammation in multiple sclerosis”  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.
<table>
<thead>
<tr>
<th>Name</th>
<th>Award</th>
<th>Institution</th>
<th>Research Pathway</th>
<th>Estimated Funding</th>
<th>Term</th>
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<td>Mary Catanese, PhD</td>
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<td>University of Calgary, Calgary, Alberta, Canada</td>
<td>Stopping MS</td>
<td>$336,966</td>
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</tr>
</tbody>
</table>

**“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. 
*Funded in full by a gift from the Kaufer Family*

**“Intra-Individual Variability in Cognitive Performance as a Marker of Prodromal Disability in MS”** Researchers at New York University are cataloging subtle variations in thinking speed to see if they can be an early predictor of future disability in MS and inform ways to stop progression.

**“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.

**“Validating spinal cord imaging outcomes for evaluating patient progression”** Researchers at Johns Hopkins University are exploring novel strategies for tracking the transition of people to progressive MS.

**“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.
An Goris, PhD
University of Leuven
Leuven, Belgium
Award: International Progressive MS Alliance
Category: Measuring MS Disease Activity
“Early microglial activation contributes to long-term progression in MS” Using “big data” to answer the question of why MS is so different between individuals who live with this disease.
Estimated joint commitment with other Progressive MS Alliance members

Jennifer Graves, MD, PhD
University of California San Diego
San Diego, California
Award: Pilot Research Grants
Category: Measuring MS Disease Activity
“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

Roland Henry, PhD
University of California, San Francisco
San Francisco, California
Award: Research Grants
Category: Measuring MS Disease Activity
“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, PhD
Massachusetts General Hospital
Boston, Massachusetts
Award: Career Transition Fellowships
Category: Measuring MS Disease Activity
“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.

David Leppert, MD
University Hospital Basel
Basel, Switzerland
Award: International Progressive MS Alliance
Category: Measuring MS Disease Activity
“Neurofilament light chain (NFL) turnover in blood circulation in physiological conditions and animal models of MS” Improving understanding of a biomarker, neurofilament light chain, to advance its use for predicting progression of MS and monitoring treatment responses.
Estimated joint commitment with other Progressive MS Alliance members
Robert McBurney, PhD  
Accelerated Cure Project for MS  
Waltham, Massachusetts  
Award: Strategic Initiatives  
Category: Measuring MS Disease Activity  
“COVID-19 Vaccine Response in MS Project (COVER-MS Project)” iConquerMS is gathering important information related to the COVID-19 vaccines and how they work in people affected by MS.

Darin Okuda, MD  
The University of Texas Southwestern Medical Center  
Dallas, Texas  
Award: RFA  
Category: Measuring MS Disease Activity  
“Improved risk stratification in radiologically isolated syndrome (RIS) through identified serum and CSF biomarkers” Researchers at UT Southwestern and collaborators are searching for a marker in the blood or spinal fluid that will help predict whether a person with incidental MRI brain lesions will go on to develop MS.

Dzung Pham, PhD  
Henry M. Jackson Foundation  
Bethesda, Maryland  
Award: Research Grants  
Category: Measuring MS Disease Activity  
“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.

Shiv Saidha, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Category: Measuring MS Disease Activity  
“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.

Shiv Saidha, MD  
Johns Hopkins University  
Baltimore, Maryland  
Award: Research Grants  
Category: Measuring MS Disease Activity  
“In-vivo investigation of retinal and cerebral vascular and metabolic dysfunction, and determination of their clinical significance in multiple sclerosis” Johns Hopkins researchers are assessing how efficiently nerve tissue is processing energy in people with MS, for clues to identifying people who may benefit from stronger therapies, and to find new strategies for treating MS.
Amber Salter, PhD, MPH
The University of Texas Southwestern Medical Center
Dallas, Texas
Award: Strategic Initiatives
Category: Measuring MS Disease Activity
"Metadata Catalogue Project"  A team is aiming to establish a metadata catalogue and to increase the feasibility of harmonizing disability measures across registries.

Elias Sotirchos, MD
Johns Hopkins University
Baltimore, Maryland
Award: Career Transition Fellowships
Category: Measuring MS Disease Activity
"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.

Elizabeth Sweeney, PhD
Weill Cornell Medical College
New York, New York
Award: Biostatistics/Informatics Junior Faculty Award
Category: Measuring MS Disease Activity
"Evaluation of and Automated Image Analysis Tools for a QSM Rim Positive Multiple Sclerosis Lesion Biomarker"  Developing new, automated ways to analyze brain scans to better detect the benefits of MS therapies against chronic inflammation.

Charlotte Teunissen, PhD
VU University Medical Center (VUmc)
Amsterdam, The Netherlands
Award: International Progressive MS Alliance
Category: Measuring MS Disease Activity
"Proposal for key elements of work to support the recommendations proposed in the manuscript titled – "Serum Neurofilament Light as a Biomarker in Progressive Multiple Sclerosis - Report of a Working Group of the Progressive MS Alliance""  Toward the development of standards for blood collection and processing to support the reliable analysis of a biomarker across different labs and studies.

Paid by the Marilyn Hilton MS Research Fund

Funded through a collaboration with MS-LINK™, an EMD Serono Signature Initiative
Ceren Tozlu, PhD
Weill Cornell Medical College
New York, New York
Award: Postdoctoral Fellowships
Category: Measuring MS Disease Activity
“Mapping multi-modal brain features to impairment severity in people with MS using machine learning” Researchers at Weill Cornell Medical College are using advanced technology to streamline the process of diagnosing and tracking MS.

Laura Airas, MD, PhD
Turku University Hospital
Turku, Finland
Award: International Progressive MS Alliance
Category: Neuropathology
“Exploring the role of A2A adenosine receptor in the pathogenesis of progressive MS” A team in Finland is testing a potential therapy for reducing nerve degeneration that leads to gradual disability progression, independent of relapses.

Nozha Borjini, PhD
Cleveland Clinic Foundation
Cleveland, Ohio
Award: Postdoctoral Fellowships
Category: Neuropathology
“Role of Complement in microglial activation and BBB disruption during the development of EAE and Multiple Sclerosis” 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.

Alessandro Didonna, PhD
University of California, San Francisco
San Francisco, California
Award: International Progressive MS Alliance
Category: Neuropathology
“Tau misfolding and progression in multiple sclerosis” Using a powerful, new tool to explore the possible role of a toxic protein in the progression of MS.

Jordon Dunham, PhD
Cleveland Clinic Foundation
Cleveland, Ohio
Award: Postdoctoral Fellowships
Category: Neuropathology
“Neuronal morphology and expression profiles in a novel sub-variant of MS” Scientists at the Cleveland Clinic are studying how nerve cells are damaged in some people with MS in whom there seems to be damage to nerve cells but not to nerve-insulating myelin typically seen in MS.
Jordan Dworkin, PhD  
Research Foundation for Mental Hygiene, Inc.  
New York, New York  
Award: Biostatistics/Informatics Junior Faculty Award  
Category: Neuropathology  
“Mapping multi-modal relationships among lesions and clinical outcomes in MS” Researchers at Columbia are using advanced methods to understand and predict how the locations of MS brain lesions link to symptoms and outcomes.  
*Paid by the Marilyn Hilton MS Research Fund*

Jeroen Geurts, PhD  
VU University Medical Center (VUmc)  
Amsterdam, The Netherlands  
Award: International Progressive MS Alliance  
Category: Neuropathology  
“Blistering of the axon-myelin unit as prodromal stage of axonal degeneration in progressive MS: the role of calpain-cathepsin axis.” Exploring whether the interaction between myelin and the nerve fibers it coats might be altered in MS, leading to progression, for clues to new strategies that stop MS.  
*Estimated joint commitment with other Progressive MS Alliance members*

Jennifer Gommerman, PhD  
University of Toronto  
Toronto, Ontario, Canada  
Award: International Progressive MS Alliance  
Category: Neuropathology  
“Innate immune – Glial cell crosstalk in progressive MS.” Studying a region of the brain to determine how damage may occur that affects cognitive function in people with progressive MS.  
*Estimated joint commitment with other Progressive MS Alliance members*

Simon Hametner, MD, PhD  
Medical University of Vienna  
Vienna, Austria  
Award: International Progressive MS Alliance  
Category: Neuropathology  
“Multimodal decoding of CD163 immune cell function in progressive MS” Uncovering the role of an immune-related protein that may be linked to MS disease severity, for clues to developing better treatments for progressive disease.  
*Estimated joint commitment with other Progressive MS Alliance members*

Jeannette Lechner-Scott, MD, PhD  
University of Newcastle - Australia  
Callaghan, Australia  
Award: International Progressive MS Alliance  
Category: Neuropathology  
“Epigenetics of MS progression” Uncovering factors that may alter cell functions and may lead to progressive MS.  
*Estimated joint commitment with other Progressive MS Alliance members*
Jennifer Linden, PhD
Weill Cornell Medical College
New York, New York
Award: Career Transition Fellowships
Category: Neuropathology
“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.

Kenneth Smith, PhD
University College London
London, United Kingdom
Award: International Progressive MS Alliance
Category: Neuropathology
“Understanding the molecular pathways involved in protection from secondary progressive disease” Exploring mechanisms responsible for the loss of nerve cells in progressive MS and potential ways to protect against it.

Yuyi You, MD, PhD
Macquarie University
North Ryde, New South Wales, Australia
Award: Research Grants
Category: Neuropathology
“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.

Tara DeSilva, PhD
Cleveland Clinic Foundation
Cleveland, Ohio
Award: Postdoctoral Fellowship TBD
Category: Neurophysiology
“Selective deletion of AMPA-type glutamate receptors on oligodendrocytes is neuroprotective in autoimmune demyelination” Cleveland Clinic researchers are seeking to discover how dysfunction of the nerve signaling chemical glutamate may block myelin repair in mice, for clues to promoting myelin repair in MS.

Alexandr Klistorner, PhD
Macquarie University
North Ryde, New South Wales, Australia
Award: Research Grants
Category: Neurophysiology
“Investigating mechanisms of axonal degeneration in multiple sclerosis” What are the mechanisms that drive progressive nervous system damage in MS?
Frederike Oertel, MD  
University of California, San Francisco  
San Francisco, California  
Award: Postdoctoral Fellowships  
Category: Neurophysiology  
“Dissecting selective vulnerability of neurons and axons using the afferent visual system in animal models of demyelination and inflammation” UCSF Researchers are exploring why some nerve cells are more susceptible to damage in MS, for clues to preventing MS progression.

Shailendra Giri, PhD  
Henry Ford Health System  
Detroit, Michigan  
Award: Research Grants  
Category: Physiology  
“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.

James Waschek, PhD  
University of California, Los Angeles  
Los Angeles, California  
Award: Research Grants  
Category: Physiology  
“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.

Mingnan Chen, MSc, PhD  
University of Utah  
Salt Lake City, Utah  
Award: Research Grants  
Category: Preclinical Drug Development  
“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.

Sasha Gupta, MD  
University of California, San Francisco  
San Francisco, California  
Award: Clinician Scientist Development Award  
Category: Preclinical Drug Development  
“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.
Eve Kelland, PhD
University of Southern California
Los Angeles, California
Award: Research Grants
Category: Preclinical Drug Development
“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.

Fang Liu, MD, PhD
Centre for Addiction and Mental Health
Toronto, Ontario, Canada
Award: Fast Forward
Category: Preclinical Drug Development
“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. 

Milos Simic, PhD
University of California, San Francisco
San Francisco, California
Award: Postdoctoral Fellowships
Category: Preclinical Drug Development
“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.

Heather Wishart, PhD
Dartmouth-Hitchcock Clinic
Lebanon, New Hampshire
Award: Research Grants
Category: Psychosocial Aspects of MS
“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.

Jared Bruce, PhD
University of Missouri - Kansas City
Kansas, Missouri
Award: Research Grants
Category: Rehabilitation
“Development of a telehealth obesity intervention for patients with MS” 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.

Paid by the Marilyn Hilton MS Research Fund
Phillip Rumrill, PhD, CRC
University of Kentucky
Lexington, Kentucky
Award: Strategic Initiatives
Category: Rehabilitation
“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.

Joshua Sandry, PhD
Montclair State University
Montclair, New Jersey
Award: Research Grants
Category: Rehabilitation
“Neuroimaging of Hippocampally Mediated Memory Dysfunction in Multiple Sclerosis” A team at Montclair State is exploring changes in brain structure that underlie memory and cognitive problems in people with MS.

Philip De Jager, MD, PhD
Columbia University
New York, New York
Award: Strategic Initiatives
Category: Tissue/DNA Banks
“National Multiple Sclerosis Tissue Repository Network (Award 1 of 3)” Developing and maintaining a tissue bank of specimens from people with MS for use in research.

David Pitt, MD
Yale University
New Haven, Connecticut
Award: Strategic Initiatives
Category: Tissue/DNA Banks
“National Multiple Sclerosis Tissue Repository Network (Award 2 of 3)” Developing and maintaining a tissue bank of specimens from people with MS for use in research.

Daniel Reich, MD, PhD
National Institutes of Health/National Institute of Neurological Disorders and Stroke
Bethesda, Maryland
Award: Strategic Initiatives
Category: Tissue/DNA Banks
“National Multiple Sclerosis Tissue Repository Network (Award 3 of 3)” Developing and maintaining a tissue bank of specimens from people with MS for use in research.
RESTORING FUNCTION -- Reversing symptoms and improving or enhancing tissue repair/regeneration to reverse or slow MS progression and improve symptoms and enhance quality of life.

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<tr>
<th>Name</th>
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<th>Research Pathway: Restoring Function</th>
<th>Estimated Funding:</th>
<th>Term:</th>
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<td>Charles Abrams, MD</td>
<td>University of Illinois at Chicago, Illinois</td>
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<td>Katrina Adams, PhD</td>
<td>The Children's National Medical Center, Washington, District of Columbia</td>
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<td>Manzoor Bhat, PhD</td>
<td>The University of Texas Health Science Center at San Antonio, Texas</td>
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<td>$545,884</td>
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<td>Stephen Fancy, DVM, PhD</td>
<td>University of California, San Francisco, California</td>
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<td>$776,123</td>
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“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.

“Elucidating molecular mechanisms of neural stem cell-derived gliogenesis in remyelination” Researchers at Children’s National Hospital are exploring how myelin-making cells derived from stem cells might be used to repair myelin in MS models.

“Restoration of Axonal Domains in Myelinated Axons and Prevention of Motor Disability” Scientists at the University of Texas Health Science Center at San Antonio are developing models to determine how damage to nerve cells and fibers occurs in MS and how it can be reversed to restore function.

“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.
Ethan Hughes, PhD
University of Colorado Denver
Denver, Colorado
Award: Research Grants
Category: Biology of Glia
“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

Monica Langley, PhD
Mayo Clinic Rochester
Rochester, Minnesota
Award: Postdoctoral Fellowships
Category: Biology of Glia
“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.
Funded in part by the Pearlman Geller Family Foundation

Hyun Kyoung Lee, PhD
Baylor College of Medicine
Houston, Texas
Award: Research Grants
Category: Biology of Glia
“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.
Funded in part by the Donald C. McGraw Foundation

Kelly Monk, PhD
Oregon Health & Science University
Portland, Oregon
Award: Harry Weaver Scholar Awards
Category: Biology of Glia
“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.
Funded in part by the Donald C. McGraw Foundation
Hiroko Nobuta, PhD
Rutgers, The State University of New Jersey
Piscataway, New Jersey
Award: Career Transition Fellowships
Category: Biology of Glia
“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.

Pablo Paez, PhD
The State University of New York at Buffalo
Buffalo, New York
Award: Research Grants
Category: Biology of Glia
“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.

Brian Popko, PhD
Northwestern University
Chicago, Illinois
Award: Research Grants
Category: Biology of Glia
“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.

Mariapaola Sidoli, PhD
Stanford University
Stanford, California
Award: Postdoctoral Fellowships
Category: Biology of Glia
“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.

Teresa Wood, PhD
Rutgers, The State University of New Jersey
Piscataway, New Jersey
Award: Research Grants
Category: Biology of Glia
“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.
J. Bradley Zuchero, PhD  
Stanford University  
Stanford, California  
Award: Harry Weaver Scholar Awards  
Category: Biology of Glia  
“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.

Riley Bove, MD, MSc  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Category: CNS Repair  
“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.

Ludovico Cantuti-Castelvetri, PhD  
Technical University of Munich  
Munich, Germany  
Award: International Progressive MS Alliance  
Category: CNS Repair  
“Targeting cell stress to enhance remyelination in a mouse model of multiple sclerosis”  
Exploring a mechanism that may prevent normal repair of nerve-insulating myelin in MS, and testing a potential strategy in mouse models to promote myelin repair.  
Estimated joint commitment with other Progressive MS Alliance members

Stephen Crocker, PhD  
University of Connecticut Health Center  
Farmington, Connecticut  
Award: Research Grants  
Category: CNS Repair  
“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.

Jessica Fletcher, PhD  
University of Tasmania  
Tasmania, Australia  
Award: International Progressive MS Alliance  
Category: CNS Repair  
“Identifying novel phosphorylation events to drive myelin repair”  
Studying the factors that promote cells to make new nerve-insulating myelin, for clues to activating its repair to restore function in people with MS.  
Estimated joint commitment with other Progressive MS Alliance members
Jeffrey Huang, PhD
Georgetown University
Washington, District of Columbia
Award: Harry Weaver Scholar Awards
Category: CNS 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.
Funded in part by the Al Otaiba Family

Trevor Kilpatrick, MD, PhD
Florey Institute of Neuroscience and Mental Health
Melbourne, Victoria, Australia
Award: Research Grants
Category: CNS 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.
Funded in part by the Donald C. McGraw Foundation

Leandro Marziali, PhD
The State University of New York at Buffalo
Buffalo, New York
Award: Postdoctoral Fellowships
Category: CNS Repair
“p38MAPKγ 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 the Kaufer Family

Satish Medicetty, DVM, MBA, PhD
Cashel Neural Inc
Cleveland, Ohio
Award: Fast Forward
Category: CNS 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.

Mathilde Pruvost, PhD
Research Foundation of CUNY-ASRC
New York, New York
Award: Postdoctoral Fellowships
Category: CNS Repair
“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.
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<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Description</th>
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</table>
| **Saud Sadiq, MD**          | Research Pathway: Restoring Function | Tisch MS Research Center of New York, NEW YORK, New York  
Award: Strategic Initiatives  
Category: CNS Repair  
“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.  
Estimated Funding: $1,000,000  
Term: 4/1/2019-3/30/2023 |
| **Isobel Scarisbrick, PhD** | Research Pathway: Restoring Function | Mayo Clinic Rochester, Rochester, Minnesota  
Award: Research Grants  
Category: CNS 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.  
Estimated Funding: $656,747  
Term: 10/1/2019-9/30/2022 |
| **Fraser Sim, PhD**         | Research Pathway: Restoring Function | The State University of New York at Buffalo, Buffalo, New York  
Award: Research Grants  
Category: CNS Repair  
“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.  
Estimated Funding: $565,403  
Term: 10/1/2017-3/31/2022 |
| **Seema Tiwari-Woodruff, PhD** | Research Pathway: Restoring Function | University of California, Riverside, Riverside, California  
Award: Research Grants  
Category: CNS Repair  
“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.  
Estimated Funding: $561,180  
Term: 10/1/2019-9/30/2023 |
| **Bernard Zalc, MD, PhD**   | Research Pathway: Restoring Function | Institut du Cerveau et de la Moelle epiniere - ICM, Paris, France  
Award: International Progressive MS Alliance  
Category: CNS Repair  
“Microglia and remyelination”  
Using novel models and advanced technologies to explore how microglia, which are immune cells in the brain, may play a role in the repair of myelin in MS.  
Estimated joint commitment with other Progressive MS Alliance members  
Estimated Funding: $75,000  
Term: 7/1/2021-6/30/2022 |
Kathryn Fitzgerald, DSc  
Johns Hopkins University  
Baltimore, Maryland  
Award: Career Transition Fellowships  
Category: Epidemiology  
“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*

Mitchell Wallin, MD, MPH  
Institute for Clinical Research, Inc.  
Washington, District of Columbia  
Award: Health Care Delivery and Policy Research Contracts  
Category: Health Care Delivery/ Policy  
“Multiple Sclerosis Telehealth Utilization Project”  
Researchers at the VA Multiple Sclerosis Center of Excellence-East (Baltimore & Washington, DC) along with collaborators in Boston, MA and Palo Alto, CA are investigating the use of technology to deliver specialty care remotely to people with MS, with the

Riley Bove, MD, MSc  
University of California, San Francisco  
San Francisco, California  
Award: Harry Weaver Scholar Awards  
Category: Human Therapy Trials/Management of MS  
“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*

Changing Project Leader,  
University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Strategic Initiatives  
Category: Human Therapy Trials/Management of MS  
“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.
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<th>Name</th>
<th>Institution</th>
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<td>Myla Goldman, MD, MSc</td>
<td>Virginia Commonwealth University</td>
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<td>Richmond, Virginia</td>
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<td>Category: Human Therapy Trials/Management of MS</td>
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<td>“Assessment of the Clinical Importance of Insulin Resistance &amp; Steroid-Associated Hyperglycemia in Relapsing Multiple Sclerosis”</td>
<td>A team from Virginia Commonwealth University is exploring whether controlling blood sugar can decrease the severity and/or improve recovery from an acute MS relapse.</td>
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<td>Jacob Sloane, MD, PhD</td>
<td>Beth Israel Deaconess Medical Center</td>
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<td>Estimated Funding: $200,569</td>
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<td>Boston, Massachusetts</td>
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<td>Category: Human Therapy Trials/Management of MS</td>
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<td>“Role of sleep apnea in MS fatigue and disability”</td>
<td>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.</td>
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<td>Kouichi Ito, PhD</td>
<td>Rutgers, The State University of New Jersey</td>
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<td>Estimated Funding: $600,334</td>
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<td>Category: Immunology</td>
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<td>“Gut dysbiosis-mediated CNS autoimmunity”</td>
<td>Rutgers University scientists are examining whether a specially designed high-fiber supplement can reduce changes in gut bacteria associated with MS.</td>
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<td>Valerie Block, DSc, PT</td>
<td>University of California, San Francisco</td>
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<td>Estimated Funding: $591,128</td>
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<td></td>
<td>Category: Measuring MS Disease Activity</td>
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<td>“Moving MS bladder dysfunction into the 21st Century: developing novel and accessible ways to treat, predict and prevent dysfunction in the home”</td>
<td>A UCSF team is developing a solution for bladder problems in people with MS.</td>
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<td>Paid by the Marilyn Hilton MS Research Fund</td>
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<td>Korhan Buyukturkoglu, PhD</td>
<td>Columbia University</td>
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<td>Award: Postdoctoral Fellowships</td>
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<td>“Building a Pattern Classifier to Distinguish Cognitive Phenotypes in MS”</td>
<td>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.</td>
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Thomas Covey, MSc, PhD
The State University of New York at Buffalo
Buffalo, New York
Award: Pilot Research Grants
Category: Measuring MS Disease Activity
“A novel method for the investigation of the neural underpinnings of performance on the Symbol Digit Modalities Test in Multiple Sclerosis” Researchers at The State University of New York at Buffalo are determining how a standard test of cognitive impairment in MS reflects actual brain function.

Karen Ho, MSc, PhD
Clene Nanomedicine
Salt Lake City, Utah
Award: Fast Forward
Category: Measuring MS Disease Activity
“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.

Ilana Katz Sand, MD
Icahn School of Medicine at Mount Sinai
New York, New York
Award: Research Grants
Category: Measuring MS Disease Activity
“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.

Ralph Kern, MD, MSc
Brainstorm Cell Therapeutics
New York, New York
Award: Fast Forward
Category: Measuring MS Disease Activity
“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 partic

Partially funded in memory of Shirely M. Schiffer
Caterina Mainero, MD, PhD  
Massachusetts General Hospital  
Boston, Massachusetts  
Award: Research Grants  
Category: Measuring MS Disease Activity  
“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.

Ryan O’Connell, PhD  
University of Utah  
Salt Lake City, Utah  
Award: Collaborative Research Center Awards  
Category: Neuropathology  
“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.

Gianvito Martino, MD  
Fondazione Centro San Raffaele  
Milan, Italy  
Award: International Progressive MS Alliance - Collaborative Network Center  
Category: Preclinical Drug Development  
“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

James Salzer, MD, PhD  
New York University School of Medicine  
New York, New York  
Award: Fast Forward  
Category: Preclinical Drug Development  
“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
Seema Tiwari-Woodruff, PhD  
University of California, Riverside  
Riverside, California  
Award: Fast Forward  
Category: Preclinical Drug Development  
“**Remyelination and Immunomodulation with analogues of Chloroindazole**” Research performed at the University of California, Riverside is focused on the role of Estrogen Receptor beta (ERβ) selective compounds on promoting remyelination in MS.

Dawn Ehde, PhD  
University of Washington  
Seattle, Washington  
Award: Research Grants  
Category: Psychosocial Aspects of MS  
“**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.

Stefan Gold, PhD  
Charité - Universitätsmedizin Berlin  
Berlin, Germany  
Award: Mentor-Based Postdoctoral Fellowships  
Category: Psychosocial Aspects of MS  
“**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.

Mark Jensen, PhD  
University of Washington  
Seattle, Washington  
Award: Research Grants  
Category: Psychosocial Aspects of MS  
“**Hypnosis and Mindfulness Meditation for Fatigue Management in MS**” A University of Washington team is evaluating the effects of two highly accessible ways for individuals with MS to learn either self-hypnosis or mindfulness strategies for fatigue management on their own, without needing to work with a trained clinician.

Anna Kratz, PhD  
Regents of the University of Michigan  
Ann Arbor, Michigan  
Award: Mentor-Based Postdoctoral Fellowships  
Category: Psychosocial Aspects of MS  
“**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.
Lauren Krupp, MD  
New York University Langone Medical Center  
New York, New York  
Award: Research Grants  
Category: Psychosocial Aspects of MS  
“**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.

Victoria Leavitt, PhD  
eSupport Health, PBC  
New York, New York  
Award: Fast Forward  
Category: Psychosocial Aspects of MS  
“**eSupport: Telehealth platform for the delivery of online support groups for persons with MS**” This commercial funding supports company infrastructure and a clinical trial to establish the benefit of eSupport online support groups for Black and Latinx people with MS, a group historically underrepresented in MS research studies.

Tapan Mehta, PhD  
University of Alabama at Birmingham  
Birmingham, Alabama  
Award: Pilot Research Grants  
Category: Psychosocial Aspects of MS  
“**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.

Ivan Molton, PhD  
University of Washington  
Seattle, Washington  
Award: Research Grants  
Category: Psychosocial Aspects of MS  
“**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.

Deborah Backus, PT, PhD  
Shepherd Center  
Atlanta, Georgia  
Award: Strategic Initiatives  
Category: Rehabilitation  
“**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.
Michelle Cameron, MD, PT
Oregon Health & Science University
Portland, Oregon
Award: Research Grants
Category: Rehabilitation
“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.

Estimated Funding: $624,956
Term: 10/1/2019-7/31/2023

Changing Project Leader,
University of Alabama at Birmingham
Birmingham, Alabama
Award: Research Grants
Category: Rehabilitation
“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.

Estimated Funding: $813,305
Term: 10/1/2014-4/30/2022

Chung-Yi Chiu, CRC, PhD
University of Illinois at Urbana-Champaign
Champaign, Illinois
Award: Research Grants
Category: Rehabilitation
“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

Estimated Funding: $548,359
Term: 4/1/2018-3/31/2022

Evan Cohen, PT, PhD
Rutgers, The State University of New Jersey
Piscataway, New Jersey
Award: Pilot Research Grants
Category: Rehabilitation
“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.

Estimated Funding: $52,100
Term: 3/1/2019-2/28/2022

Silvana Costa, PhD
Kessler Foundation Research Center
West Orange, New Jersey
Award: Research Grants
Category: Rehabilitation
“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.

Estimated Funding: $436,096
Term: 10/1/2018-9/30/2022
**Hala Darwish, PhD**  
American University of Beirut  
Beirut, Lebanon  
Award: Pilot Research Grants  
Category: Rehabilitation  

"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.

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**John DeLuca, PhD**  
Kessler Foundation Research Center  
West Orange, New Jersey  
Award: Mentor-Based Postdoctoral Fellowships  
Category: Rehabilitation  

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

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**Brett Fling, PhD**  
Colorado State University  
Fort Collins, Colorado  
Award: Harry Weaver Scholar Awards  
Category: Rehabilitation  

"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.

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**Nora Fritz, PT, PhD**  
Wayne State University  
Detroit, Michigan  
Award: Pilot Research Grants  
Category: Rehabilitation  

"Ambulatory Measurement of Perceived and Performance Fatigability"  
Wayne State researchers are exploring how to measure "fatiguability" in people with MS where it matters most, in the home environment.

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**Elizabeth Gromisch, PhD**  
Mount Sinai Rehabilitation Hospital  
Hartford, Connecticut  
Award: Harry Weaver Scholar Awards  
Category: Rehabilitation  

"Development and Feasibility of a Fatigue Self-Management mHealth Program for Persons with Multiple Sclerosis"  
Researchers at Mount Sinai Rehabilitation Hospital are testing a program that may reduce the devastating effects of MS-related fatigue.
“Effects of non-invasive brain stimulation on cognitive function in patients with multiple sclerosis” 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.

“Feasibility and efficacy of a high-intensity interval training program in persons with multiple sclerosis who have walking impairment” 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.

“Advancing Psychosocial Wellness in Multiple Sclerosis Through Mentored Training in Rehabilitation Research” Rehabilitation researchers at Johns Hopkins have received funding to train promising rehabilitation professionals to conduct MS rehabilitation research.

“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.

“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 Motl, PhD
University of Alabama at Birmingham - Transfer in Progress
Birmingham, Alabama
Award: Collaborative Research Center Awards
Category: Rehabilitation
“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, PhD
University of Alabama at Birmingham - Transfer in Progress
Birmingham, Alabama
Award: Mentor-Based Postdoctoral Fellowships
Category: Rehabilitation
“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.

Lara Pilutti, PhD
University of Ottawa
Ottawa, Canada
Award: Research Grants
Category: Rehabilitation
“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.

Matthew Plow, PhD
Case Western Reserve University
Cleveland, Ohio
Award: Mentor-Based Postdoctoral Fellowships
Category: Rehabilitation
“Training Nurse Scientists to Improve the Outcomes of Rehabilitation Interventions in People with Multiple Sclerosis” Rehabilitation researchers at Case Western Reserve University are training scientist nurses how to conduct MS research aimed at reversing symptoms and restoring function.
Laura Rice, PhD, PT  
University of Illinois at Urbana-Champaign  
Champaign, Illinois  
Award: Research Grants  
Category: Rehabilitation  
“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.  
Estimated Funding: $570,217  
Term: 10/1/2017-3/30/2022

Jacob Sosnoff, PhD  
University of Kansas Medical Center  
Kansas City, Kansas  
Award: Mentor-Based Postdoctoral Fellowships  
Category: Rehabilitation  
“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.  
Estimated Funding: $353,585  
Term: 2/15/2021-6/30/2024

Elizabeth Tricomi, PhD  
Rutgers, The State University of New Jersey  
Piscataway, New Jersey  
Award: Pilot Research Grants  
Category: Rehabilitation  
“Examining the value of feedback on cognitive performance in Multiple Sclerosis” Rutgers researchers are examining how much people with MS value getting feedback about their performance, and how the amount they seek or avoid feedback influences how much they learn.  
Estimated Funding: $54,750  
Term: 7/1/2020-9/30/2022

Aaron Turner, PhD  
University of Washington  
Seattle, Washington  
Award: Mentor-Based Postdoctoral Fellowships  
Category: Rehabilitation  
“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.  
Estimated Funding: $401,426  
Term: 7/1/2018-6/30/2023

Feng Yang, PhD  
Georgia State University  
Atlanta, Georgia  
Award: Pilot Research Grants  
Category: Rehabilitation  
“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.  
Estimated Funding: $54,483  
Term: 10/1/2019-9/30/2022
E. Yeh, MD
The Hospital for Sick Children
Toronto, Ontario, Canada
Award: Mentor-Based Postdoctoral Fellowships
Category: Rehabilitation
“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.

E. Yeh, MD
The Hospital for Sick Children
Toronto, Ontario, Canada
Award: Research Grants
Category: Rehabilitation
“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.

ENDING MS -- Preventing new cases of MS before it occurs in the general population and in individuals at high risk for developing MS.

Mahmoud Pouladi, MSc, PhD
National University of Singapore - Transfer in Progress
Singapore, Singapore
Award: Research Grants
Category: Biology of Glia
“Ermin in Multiple Sclerosis” Researchers are doing lab studies to understand how a rare gene mutation related to myelin may influence the risk of developing MS.

Daniel Hawiger, MD, PhD
Saint Louis University
St. Louis, Missouri
Award: RFA
Category: Diagnostic Methods
“Detecting autoimmune potential of CD4+ T cells in the early MS disease process” Saint Louis University investigators are search for novel immune cell fingerprints that would indicate presymptom MS to speed diagnosis earlier in the disease.
Marwa Kaisey, MD
Cedars-Sinai Medical Center
Los Angeles, California
Award: RFA
Category: Diagnostic Methods
“Blood Biomarkers for Early Detection of Multiple Sclerosis” Cedars-Sinai researchers are searching for a marker in the blood that could help diagnose MS earlier, which may enable better treatment outcomes.

Kassandra Munger, DSc
Harvard School of Public Health
Boston, Massachusetts
Award: RFA
Category: Epidemiology
“Expanding our understanding of the MS prodrome phenotype—a prospective study in two large cohorts of women” Harvard researchers are using long-range health data to detect early signs of MS up to 15 years before symptoms appear.

Tomas Olsson, MD, FRCP(C), PhD
Karolinska Institutet
Stockholm, Sweden
Award: RFA
Category: Epidemiology
“Early detection of multiple sclerosis: a life-course epidemiological and biomarker approach” Researchers at Sweden’s Karolinska Institute are taking advantage of a depth of national medical and other data to detect MS risk factors and windows of exposure to explain how combinations of factors lead to MS.

Deanna Saylor, MD
Johns Hopkins University
Baltimore, Maryland
Award: Pilot Research Grants
Category: Epidemiology
“Describing Demyelinating Disease in Zambia” Researchers at Johns Hopkins are working with healthcare providers in sub-Saharan Africa to improve diagnosis and tracking of MS, for clues to factors that lead to development of this disease worldwide.

Lisa Barcellos, PhD, MPH
University of California, Berkeley
Berkeley, California
Award: Research Grants
Category: Human Genetics
“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.
Ashley Beecham, PhD  
University of Miami  
Miami, Florida  
Award: Postdoctoral Fellowships  
Category: Human Genetics  
“Utilizing a multi-omics approach to identify genetic contributors to multiple sclerosis in a multi-ethnic population of Hispanics and African Americans” Researchers at the University of Miami are identifying genes that contribute to making Black Americans and Hispanic/Latinx people susceptible to MS.

Matthew Lincoln, MD, PhD  
Yale University  
New Haven, Connecticut  
Award: Career Transition Fellowships  
Category: Human Genetics  
“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*

Jorge Oksenberg, PhD  
University of California, San Francisco  
San Francisco, California  
Award: RFA  
Category: Human Genetics  
“Integration of polygenic risk scores with non-genetic risk factors to improve risk prediction in MS” UCSF scientists are combining genetic profiles with demographic and environmental variables to identify people with elevated risk for developing MS.

Nikos Patsopoulos, MD, PhD  
Brigham and Women’s Hospital  
Boston, Massachusetts  
Award: Harry Weaver Scholar Awards  
Category: Human Genetics  
“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.

Lisa Ann Gerdes, MD  
University Hospital LMU Munich Germany  
Munich, Germany  
Award: RFA  
Category: Immunology  
“Disease-triggering potential of microbiota in prodromal MS” Researchers in Munich are studying gut bacteria in twins with and without MS to identify possible risk factors that trigger MS.
Averil Ma, MD  
University of California, San Francisco  
San Francisco, California  
Award: Research Grants  
Category: Immunology  
“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.

Michael Wilson, MD  
University of California, San Francisco  
San Francisco, California  
Award: RFA  
Category: Immunology  
“Risk Factors for Preclinical MS: The ENGEMS Cohort (Environmental and Genetic Risks for MS)” UCSF researchers are developing profiles of early exposures to infectious agents such as viruses to understand whether they play a role in triggering MS later.

Chuan Wu, MD, PhD  
National Cancer Institute, National Institutes of Health  
Bethesda, Maryland  
Award: Research Grants  
Category: Immunology  
“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?

Rosella Mechelli, PhD  
Università Telematica San Raffaele Roma  
Rome, Italy  
Award: Research Grants  
Category: Infectious Agents  
“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.

John Corboy, MD  
University of Colorado Denver  
Denver, Colorado  
Award: Strategic Initiatives  
Category: Tissue/DNA Banks  
“Rocky Mountain MS Center Tissue Bank” Maintaining a tissue bank of specimens from people with MS for use in research.
Jorge Oksenberg, PhD  
University of California, San Francisco  
San Francisco, California  
Award: Strategic Initiatives  
Category: Tissue/DNA Banks

“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

Research Pathway: Ending MS  
Estimated Funding: $600,000  
Term: 10/1/2020-9/30/2023