

List of Current Research Projects Funded by the National MS Society

Sorted by Topic/Pathways to Cures

November 2023

Research Department National Multiple Sclerosis Society New York, NY

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Introduction

The National MS Society invests in promising research to drive <u>Pathways to Cures</u> 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 and funders.

This document lists MS research projects being funded by the National Multiple Sclerosis Society (USA), sorted by state and country, as of November 1, 2023.

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 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

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: <u>RESTORE Pathway</u> -- 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:

- **Biostatistics/Informatics Junior Faculty Awards** supported by the Marilyn Hilton MS Research Fund, these awards create protected time to collaborate with an established MS research group to develop expertise in MS clinical trials and other data analysis
- Career Transition Fellowships awards up to 5 years to facilitate the advancement of promising young investigators into full faculty positions
- **Clinician Scientist Development Award** -- to train physicians in MS clinical research. Some of these are co-supported by the American Brain Foundation (ABF)
- **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 5-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
- **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 the general type of research a specific project entails.

- 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

Contents

STOPPING MS

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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.

Dimitrios Davalos, Ph.D.

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Research Grants Category: Biology of Glia Research Pathway: Stopping MS Estimated Funding: \$563,135 Term: 4/1/2019-3/31/2024

Research Pathway: Stopping MS

Estimated Funding: \$297,114

Term: 7/1/2022-6/30/2025

"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...

Sachin Gadani, M.D., Ph.D.

Johns Hopkins University Baltimore, Maryland

Award: NMSS-ABF MS Clinician Scientist Award

Category: Biology of Glia

"Defining the role of inflammatory oligodendrocyte precursor cells on chronic inflammation and impaired remyelination in CNS autoimmunity" A team at Johns Hopkins is investigating how myelin repair is blocked when myelin-making cells turn inflammatory, and how to reverse this process.

ABF Awardee

Erin Gibson, Ph.D.

Stanford University Stanford, California

Award: Research Grants Category: Biology of Glia Research Pathway: Stopping MS Estimated Funding: \$586,601 Term: 4/1/2023-3/31/2026

Research Pathway: Stopping MS Estimated Funding: \$293,307

Term: 7/1/2021-6/30/2024

"Targeting circadian mechanisms of degeneration in myelin disorder" Stanford scientists are exploring whether alterations in circadian rhythms in MS-like disease contributes to a failure in the natural capacity for myelin repair.

Alexander Gill, M.D., Ph.D.

Johns Hopkins University Baltimore, Maryland

Award: NMSS-ABF MS Clinician Scientist Award

Category: Biology of Glia

"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. *ABF Awardee*

Shane Liddelow, Ph.D.

New York University Langone Medical Center

New York, New York

Award: Harry Weaver Scholar Awards

Category: Biology of Glia

"Neurotoxic lipids drive death of oligodendrocytes" New York University researchers are investigating a toxin secreted by cells in the brain that affects myelin making cells and their functions in MS-like disease.

Jing-Ping Lin, Ph.D.

National Institutes of Health/National Institute of

Neurological Disorders and Stroke

Bethesda, Maryland

Award: Career Transition Fellowships

Category: Biology of Glia

"Identifying signaling modules that drive glial senescence in a model of multiple sclerosis"

NIH researchers are studying the involvement of specific brain cells in the destruction and restoration nervous system tissues during aging and in MS-like inflammation for clues to stopping

disease activities and enhancing repair.

Luca Peruzzotti-Jametti, M.D., Ph.D.

University of Cambridge Cambridge, United Kingdom

Award: Compartmentalized Inflammation RFA -

2022

Category: Biology of Glia

"METAbolic control of smoldering NEUROinflammation (META_NEURO)" A team at the University of Cambridge is investigating miscommunication between cells in the brain that may

occur during the course of progressive MS.

David Pitt, M.D.

Yale University New Haven, Connecticut

Award: Compartmentalized Inflammation RFA -

2022

Category: Biology of Glia

"Astrocyte network disruption in perilesional white matter is mediated by adenosine A2A **receptors and contributes to multiple sclerosis progression."** Yale University scientists are investigating a docking protein on brain support cells called astrocytes and whether it plays a role in MS progression.

Paid by the Marilyn Hilton MS Research Fund

Research Pathway: Stopping MS Estimated Funding: \$599,422 Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$606,065 Term: 7/1/2023-6/30/2028

Estimated Funding: \$404,917

Term: 7/1/2022-6/30/2027

Research Pathway: Stopping MS

Estimated Funding: \$634,841

Term: 10/1/2022-9/30/2025

Francisco Quintana, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: International Progressive MS Alliance -

Collaborative Network Center

Category: Biology of Glia

"Development of a drug discovery pipeline for progressive MS" Identifying candidates with neuroprotective and/or myelin repair activity to speed the search for treatments for progressive

MS.

Estimated joint commitment with other Progressive MS Alliance members; Funded in part by an Anonymous Donor

Carmen Sato-Bigbee, Ph.D.

Virginia Commonwealth University

Richmond, Virginia

Award: Research Grants Category: Biology of Glia

"Nociceptin role in the progression of multiple sclerosis" Researchers at Virginia

Commonwealth University are targeting a protein that may promote MS progression, for clues to

stopping MS in its tracks.

Sebastian Werneburg, Ph.D.

Regents of the University of Michigan

Ann Arbor, Michigan

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.

Funded in part by the Dave Tomlinson Research Fund

Jessica Williams, Ph.D.

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Compartmentalized Inflammation RFA -

2022

Category: Biology of Glia

"The role of astrocyte PD-L1 in dampening compartmentalized chronic inflammation" A

team at the Cleveland Clinic is investigating whether activating an immune mechanism will turn off

chronic inflammation in MS.

Research Pathway: Stopping MS Estimated Funding: \$600,000 Term: 4/1/2023-3/31/2026

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$660,000

Term: 10/1/2022-9/30/2025

Estimated Funding: \$432,082

Term: 9/1/2023-8/31/2026

Research Pathway: Stopping MS

Estimated Funding: \$7,551,836

Term: 1/1/2017-12/31/2025

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Cory Willis, Ph.D.

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.

Peter Calabresi, M.D.

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, M.D., Ph.D.

Loyola University - Chicago

Chicago, 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

Haritha Desu, Ph.D.

University of Montreal Hospital Montréal, Quebec, Canada

Award: Postdoctoral Fellowships

Category: CNS Repair

"Investigating T cell/oligodendrocyte interactions in multiple sclerosis: neuroprotective role

of ICAM-1 signaling" A team at the University of Montreal Hospital is working to understand how immune T cells injure the cells that build nerve-insulating myelin and how to protect them to

promote myelin repair.

Gregory Duncan, Ph.D.

Oregon Health & Science University

Portland, Oregon

Award: Career Transition Fellowships

Category: CNS Repair

"Mechanisms of neurodegeneration following remyelination failure" Researchers at Oregon Health and Science are investigating signals that cause nerve cells to die when myelin is lost in MS,

and whether blocking them could decrease disability.

Research Pathway: Stopping MS Estimated Funding: \$193,789 Term: 7/1/2021-6/30/2024

Research Pathway: Stopping MS Estimated Funding: \$840,246 Term: 6/1/2020-11/30/2024

Research Pathway: Stopping MS

Estimated Funding: \$412,500

Term: 1/1/2023-12/31/2025

Research Pathway: Stopping MS Estimated Funding: \$197,528

Research Pathway: Stopping MS

Estimated Funding: \$584,647

Term: 7/1/2022-6/30/2027

Term: 7/1/2023-6/30/2026

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

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.

Francesca Bovis, Ph.D.

University of Genoa

Genoa, Italy

Award: Biostatistics/Informatics Junior Faculty

Award

Category: Diagnostic Methods

"Personalizing treatment effect based on patient's baseline profile: A statistical modelling approach applied to observational study data" A team at the University of Genoa is using statistical methods to identify traits that support a personalized selection of treatment for MS.

Serhat Okar, M.D.

National Institutes of Health/National Institute of

Neurological Disorders and Stroke

Bethesda, Maryland

Award: Postdoctoral Fellowships Category: Diagnostic Methods

"Evaluation of Diagnostic and Disease-Monitoring Performance of Portable Ultra-low Field (64 mT) Magnetic Resonance Imaging in Patients with Multiple Sclerosis and Progressive Multifocal Leukoencephalopathy" NIH researchers are testing the ability of portable MRI scanners to lower costs and improve diagnosis and monitoring of people with MS.

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

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.

Pascal Sati. Ph.D.

Cedars-Sinai Medical Center

Los Angeles, California

Award: Research Grants

Category: Diagnostic Methods

Research Pathway: Stopping MS Estimated Funding: \$590,331 Term: 5/1/2022-4/30/2025

Research Pathway: Stopping MS

Estimated Funding: \$904,640

Term: 10/1/2019-9/30/2024

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Research Pathway: Stopping MS Estimated Funding: \$652,160

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

Estimated Funding: \$233,334

Term: 7/1/2023-6/30/2026

Estimated Funding: \$99,000

Term: 7/1/2022-6/30/2025

"Evaluation of Paramagnetic Rim Lesions for Early and Precise Detection of Multiple

Sclerosis" A team at Cedars-Sinai Medical Center is evaluating MRI methods to more accurately

diagnose MS. Paid by the Marilyn Hilton MS Research Fund

Teri Schreiner, M.D., M.P.H.

University of Colorado Denver

Denver, Colorado

Award: Early Detection RFA - Spring 2021

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.

Research Pathway: Stopping MS

Estimated Funding: \$630,871

Term: 4/1/2023-3/31/2026

Estimated Funding: \$480,129

Term: 4/1/2023-3/31/2026

Estimated Funding: \$659,363

Term: 10/1/2022-9/30/2025

Estimated Funding: \$329,996

Term: 10/1/2021-9/30/2024

Paid by the Marilyn Hilton MS Research Fund

Olaf Stuve, M.D., Ph.D.

The University of Texas Southwestern Medical

Center

Dallas, Texas

Award: Compartmentalized Inflammation RFA -

2022

Category: Diagnostic Methods

"Deciphering choroid plexus volume changes in multiple sclerosis" University of Texas Southwestern Medical Center scientists are studying a structure in the brain called the choroid plexus to determine if it is an indicator of MS disease stage and a site of entry into the brain for

particular subsets of inflammatory cel

Lucinda Black, Ph.D.

Deakin University

Geelong, Victoria, Australia

Award: Research Grants Category: Epidemiology

"Elucidating the role of diet in multiple sclerosis to improve disease outcomes" Researchers at Deakin University in Australia is looking for evidence of a role for diet in slowing MS progression.

Jennifer Graves, M.D., Ph.D.

University of California San Diego

San Diego, California

Award: Research Grants

Category: Epidemiology

"Biological Age in the Pediatric MS Population" A team at the University of California, San Diego is studying aging in children with and without MS for clues to stopping the effects of aging on the

course of MS.

Elina Misicka, Ph.D.

Cleveland, Ohio

Award: Postdoctoral Fellowships

Category: Epidemiology

Case Western Reserve University Estimated Funding: \$132,101 Term: 7/1/2023-6/30/2025

"Metabolomic biomarkers of risk, severity, and progression of multiple sclerosis. Don Bell Memorial Fellowship, Sponsored by Rabbits Unlimited, Ltd." Researchers at Case Western are looking for biomarkers associated with MS risk, severity and progression to promote better treatment and prevention. Don Bell Memorial Fellowship, Sponsored by Rabbits Unlimited, Ltd.

Amber Salter, Ph.D., M.P.H.

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

Tyler Titcomb, Ph.D.

The University of Iowa

Iowa City, Iowa

Award: Career Transition Fellowships

Category: Epidemiology

"Registered Dietitians, Nutritional Risk, and Dietary Patterns in Multiple Sclerosis" A team at

the University of Iowa are seeking evidence for the idea that including a registered dietitian

nutritionist on MS care teams can improve the course of MS.

Helen Tremlett, Ph.D.

University of British Columbia

Vancouver, British Columbia, Canada

Award: Early Detection RFA - Spring 2021

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.

Lindsey Rechtman, Dr.P.H.

McKing Consulting Corporation

Fairfax, Virginia

Award: Research Contracts

Category: Health Care Delivery and Policy Research

"Landscape Analysis Contract" Gathering data on global investments in multiple sclerosis

research by non-profit and government organizations

Daniel Hartung, Pharm.D., M.P.H.

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.

Research Pathway: Stopping MS Estimated Funding: \$222,760 Term: 7/1/2021-6/30/2024

Research Pathway: Stopping MS Estimated Funding: \$603,625 Term: 7/1/2023-6/30/2028

Research Pathway: Stopping MS

Estimated Funding: \$144,500

Term: 10/1/2021-11/7/2024

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$36,000

Term: 2/1/2020-9/30/2024

Estimated Funding: \$225,733

Term: 3/6/2023-3/31/2024

Kathryn Fitzgerald, D.Sc.

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.

Estimated joint commitment with other Progressive MS Alliance members

Kathryn Fitzgerald, D.Sc.

Johns Hopkins University Baltimore, Maryland

Award: Compartmentalized Inflammation RFA -

2022

Category: Human Genetics

"Multiscale cell type mapping of gray and white matter pathology in multiple sclerosis

(Award 2 of 2)" Collaborators in Germany and the U.S. are identifying differences in genes turned on or off among various cell types and regions in the brains of people with MS for insight into why some areas are more vulnerable to inflammation than others.

Lucas Schirmer, M.D.

University of Heidelberg Heidelberg, Germany

Award: Compartmentalized Inflammation RFA -

2022

Category: Human Genetics

"Multiscale cell type mapping of gray and white matter pathology in multiple sclerosis

(Award 1 of 2)" Collaborators in Germany and the U.S. are identifying differences in genes turned on or off among various cell types and regions in the brains of people with MS for insight into why some areas are more vulnerable to inflammation than others.

Douglas Arnold, M.D.

McGill University

Montréal, 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.

Estimated joint commitment with other Progressive MS Alliance members

Research Pathway: Stopping MS Estimated Funding: \$3,947,220

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$192,556

Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS Estimated Funding: \$358,939

Term: 10/1/2022-9/30/2025

Estimated Funding: \$75,000

Term: 7/1/2021-6/30/2024

Term: 1/1/2017-12/31/2023

Theron Casper, Ph.D.

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, M.D.

University of South Florida

Tampa, Florida

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Sylvia Lawry Physician Fellowship" A promising doctor will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Karla Gray-Roncal, M.D.

Johns Hopkins University Baltimore, Maryland

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Sylvia Lawry Physician Fellowship for Dr. Karla Gray-Roncal" A promising doctor at Johns Hopkins University will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Kimystian Harrison, M.D.

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.

Ellen Mowry, M.D., M.C.R.

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.

Research Pathway: Stopping MS Estimated Funding: \$65,000 Term: 4/1/2022-3/31/2024

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$534,669

Term: 4/1/2019-3/31/2024

Estimated Funding: \$195,500

Term: 7/1/2021-6/30/2024

Estimated Funding: \$225.000

Term: 7/1/2023-6/30/2026

Research Pathway: Stopping MS

Estimated Funding: \$3,499,411

Term: 7/1/2022-6/30/2025

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Bardia Nourbakhsh, M.D.

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.

Daniel Ontaneda, M.D., Ph.D.

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Strategic Initiatives

Category: Human Therapy Trials/Management of MS

"Determining the Effectiveness of early Intensive Versus Escalation approaches for the treatment of Relapsing-Remitting Multiple Sclerosis (DELIVER-MS)" An international team is extending a clinical trial originally funded by PCORI to determine whether early, highly effective treatments are the better approach to preventing future disability in people with relapsing MS.

Christopher Orlando, M.D., M.P.H.

University of Southern California

Los Angeles, California

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Underserved Populations and Clinical Trials" A promising doctor at University of Southern California will develop the skills involved in the design, implementation, and analysis of clinical trials in MS.

Samantha Roman, M.D.

Johns Hopkins University Baltimore, Maryland

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

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

Klaus Schmierer, F.R.C.P., M.D., Ph.D.

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.

Estimated Funding: \$1,451,679 Term: 4/1/2019-6/30/2026

Research Pathway: Stopping MS

Estimated Funding: \$100.000

Term: 10/1/2020-9/30/2025

Estimated Funding: \$195,000

Term: 7/1/2022-6/30/2025

Estimated Funding: \$150,000

Term: 7/1/2023-6/30/2025

Estimated Funding: \$397,249

Term: 4/1/2019-3/31/2024

Alexandra Simpson, M.D.

Johns Hopkins University

Baltimore, Maryland

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Targeting Remyelination, Repair Mechanisms, and Symptom 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, M.D., M.S.P.H.

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.

Karlo Toljan, M.D.

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Training in clinical trials in multiple sclerosis" A promising doctor at the Cleveland Clinic will

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

Elizabeth Verter, M.D.

Icahn School of Medicine at Mount Sinai

New York, New York

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Sylvia Lawry Physician Fellowship" A promising doctor at the Icahn School of Medicine at Mt. Sinai will develop the skills involved in the design, implementation, and analysis of clinical trials in

MS.

MS Society UK,

MS Society UK

London, United Kingdom

Award: Strategic Initiatives

Category: Human Therapy Trials/Management of MS

"HTA-CET-15/57/143-Dr Jeremy Chataway - MS-STAT2 - Phase 3 trial simvastatin"

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.

Research Pathway: Stopping MS Estimated Funding: \$1,467,875 Term: 10/1/2017-9/30/2024

Research Pathway: Stopping MS

Estimated Funding: \$195,000

Term: 7/1/2021-6/30/2024

Research Pathway: Stopping MS Estimated Funding: \$225,000 Term: 7/1/2023-6/30/2026

Research Pathway: Stopping MS Estimated Funding: \$130,000 Term: 7/1/2022-6/30/2024

Research Pathway: Stopping MS Estimated Funding: \$1,333,573

Term: 4/1/2017-6/30/2026

Ana Anderson, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Research Grants Category: Immunology

Research Pathway: Stopping MS Estimated Funding: \$396,000 Term: 4/1/2023-3/31/2026

Research Pathway: Stopping MS Estimated Funding: \$375,000

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$273,341 Term: 9/1/2022-6/30/2024

Estimated Funding: \$630,502

Term: 7/1/2021-6/30/2026

"A TCF-1-Glucocorticoid regulatory axis underlies genetic susceptibility and steroid **responsiveness in CNS autoimmunity"** Brigham and Women's researchers are studying how immune molecules interact for clues to improving a standard treatment of MS relapses.

Amit Bar-Or, M.D.

University of Pennsylvania Philadelphia, Pennsylvania

Term: 4/1/2021-3/31/2024 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, M.D.

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

Claudia Cantoni, Ph.D.

St. Joseph's Hospital and Medical Center, Barrow

Neurological Institute

Phoenix, Arizona

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.

Manuel Comabella, M.D., Ph.D.

Hospital Vall Hebron

Barcelona, Catalonia, Spain

Award: Research Grants Category: Immunology

Research Pathway: Stopping MS Estimated Funding: \$315,090 Term: 5/1/2022-4/30/2024

"Search of prognostic factors of conversion to multiple sclerosis in patients with radiologically isolated syndrome" Barcelona researchers are seeking ways to predict whether people with unexpected abnormalities on brain scans are most likely to develop MS. Paid by the Marilyn Hilton MS Research Fund

Bonnie Dittel, Ph.D.

Versiti Blood Research Institute

Milwaukee, Wisconsin

Award: Role of Viruses RFA - 2023

Category: Immunology

"Development of a mouse model to study the impact of Epstein Barr Virus on multiple

sclerosis" Scientists at the Versiti Blood Research Institute are developing a mouse model to study

the impact of the Epstein-Barr virus on MS.

Josiah Gerdts, M.D., Ph.D.

University of California, San Francisco

San Francisco, California

Award: Career Transition Fellowships

Category: Immunology

"An engineered immune synapse detection circuit for T cell antigen discovery in

autoimmune neurologic disorders" Researchers at UCSF are developing a technology to better

identify the triggers that cause immune cells to attack the nervous system in MS and other

disorders.

Marjan Gharagozloo, Ph.D.

Johns Hopkins University

Baltimore, Maryland

Award: Career Transition Fellowships

Category: Immunology

"Investigating the role of NLRX1 in glia-mediated inflammation and neurotoxicity using

experimental models of multiple sclerosis" Johns Hopkins researchers are investigating the role

of a molecule in brain inflammation in mice with an MS-like disease.

Paid by the Marilyn Hilton MS Research Fund

Jennifer Gommerman, Ph.D.

University of Toronto

Toronto, Ontario, Canada

Award: Compartmentalized Inflammation RFA -

2022

Category: Immunology

"Compartmentalized inflammation in MS – A Focus on Fibroblasts" A team at the University of Toronto and l'Université de Montréal is working to understand cell interactions in the meninges (a

protective cover of the brain) and to determine if blocking these interactions will stop MS.

Co-funded with the MS Society of Canada

Oksana Goroshchuk, M.D., Ph.D.

Yale University

New Haven. Connecticut

Award: Postdoctoral Fellowships

Category: Immunology

"Sex differences in multiple sclerosis" A Yale team is researching changes to immune cells related to male and female sex hormones and genetic differences to understand sex differences in

MS.

Research Pathway: Stopping MS Estimated Funding: \$451,281

Research Pathway: Stopping MS

Estimated Funding: \$110,000

Term: 10/1/2023-9/30/2024

Term: 7/1/2023-6/30/2028

Research Pathway: Stopping MS

Estimated Funding: \$550,000

Term: 7/1/2022-6/30/2027

Research Pathway: Stopping MS Estimated Funding: \$300,000

Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS

Estimated Funding: \$201,903

Term: 7/1/2022-6/30/2025

Kevan Herold, M.D.

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

Research Pathway: Stopping MS

Estimated Funding: \$215.095

Term: 7/1/2022-6/30/2025

Estimated Funding: \$193,789

Term: 7/1/2021-6/30/2024

Estimated Funding: \$201,903

Term: 7/1/2022-6/30/2025

Estimated Funding: \$599,999

Term: 5/1/2022-4/30/2025

Estimated Funding: \$356,224

Term: 2/1/2021-1/31/2024

markers to track disease development.

Dan Hu, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Research Grants Category: Immunology

"Heat shock protein-mediated regulation of T cell responses in Multiple Sclerosis" A team at

Brigham and Women's is investigating the role of a protein called Hsp70 in regulating the balance

between aggressive and calming immune responses linked to MS.

Paid by the Marilyn Hilton MS Research Fund

Mahsa Khayatkhoei, M.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Immunology

"The Role of Monocytes in Progressive Multiple Sclerosis" A team at Brigham and Women's is

testing the importance of immune cells called monocytes in progressive forms of MS.

The Kathleen C Moore Foundation Postdoctoral Fellowship

Yoon-Chul Kye, Ph.D.

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.

Qin Ma, Ph.D.

University of California, San Francisco

San Francisco, California

Award: Postdoctoral Fellowships

Category: Immunology

"Integrated B cells epigenetic and transcriptome analysis in multiple sclerosis" UCSF

researchers are investigating genetic changes in immune B cells from people with MS compared to

people without MS for clues to stopping MS.

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Roberta Magliozzi, Ph.D.

University of Verona

Verona, Italy

Award: Role of Viruses RFA - 2023

Category: Immunology

"Meningeal lymphoid-like structures as secret EBV hideout in multiple sclerosis."

Researchers at the University of Verona in Italy are working to identify molecules that may play a

role in the Epstein-Barr virus's connection to MS-specific inflammation.

Carson Moseley, M.D., Ph.D.

University of California, San Francisco

San Francisco, California

Award: Clinician Scientist Development Awards

Category: Immunology

"Mechanistic studies of MOG-specific CD4+ T cell differentiation in MOGAD" A team at the University of California, San Francisco is investigating the role of immune T cells and B cells and

their interaction in attacks on myelin.

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

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.

Novalia Pishesha, Ph.D.

Boston Children's Hospital

Boston, Massachusetts

Award: Career Transition Fellowships

Category: Immunology

"Engineering the modularity of a single domain antibody fragment that target Class II MHC

for inducing antigen-specific tolerance" Researchers at Boston Children's Hospital are modifying certain proteins that can affect the immune system as a strategy for turning off immune attacks in

MS.

Farinaz Safavi, M.D., Ph.D.

National Institutes of Health

Bethesda, Maryland

Award: NMSS-ABF MS Clinician Scientist Award

Category: Immunology

"Role of Bruton Tyrosine kinase in neuroinflammation and neurodegeneration" 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.

ABF Awardee

Research Pathway: Stopping MS Estimated Funding: \$100,000 Term: 10/1/2023-9/30/2024

Research Pathway: Stopping MS Estimated Funding: \$222,114

Research Pathway: Stopping MS Estimated Funding: \$925,866

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$289.351

Term: 7/1/2020-6/30/2024

Estimated Funding: \$610,812

Term: 7/1/2023-6/30/2028

Term: 4/1/2017-3/31/2024

Term: 7/1/2022-6/30/2025

Luke Schwerdtfeger, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Immunology

"Role of novel microbes and their metabolites identified in progressive MS in driving CNS autoimmunity" Researchers at Brigham and Women's Hospital are examining compounds made

Research Pathway: Stopping MS

Estimated Funding: \$274.113

Term: 3/1/2021-12/31/2023

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

Estimated Funding: \$624,378

Term: 7/1/2023-6/30/2028

Estimated Funding: \$205,470

Term: 7/1/2023-6/30/2026

Estimated Funding: \$205,470

Term: 7/1/2023-6/30/2026

by intestinal microbes to see if and how they may be involved in MS disease activity.

Syed Suhail, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Immunology

"Role of TIM-3 on myeloid cells in regulating neuroinflammation and neurodegeneration"

Researchers at Brigham and Women's Hospital/ Harvard Medical School are studying how an immune molecule called TIM-3 affects immune responses in the brain and spinal cord in

progressive MS.

Tomokazu Sumida, M.D., Ph.D.

Yale University

New Haven, Connecticut

Award: Harry Weaver Scholar Awards

Category: Immunology

"Pathogenic Programs Driving Regulatory T Cell Dysfunction in Multiple Sclerosis" Yale

researchers are working to find what causes immune cells to enter and attack the nervous system

in MS.

Liwei Wang, Ph.D.

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.

Chao Wang, Ph.D.

Sunnybrook Research Institute

Toronto, Ontario, Canada

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.

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Soumya Yandamuri, Ph.D.

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.

Dandan Yang, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Immunology

"Glucocorticoid biosynthesis and sensing of Th17 cells in CNS autoimmunity" Researchers at Brigham and Women's Hospital are investigating why steroids work better for some people with

MS than others and to make them more effective in quelling attacks on the nervous system.

Yevgeniy Yuzefpolskiy, Ph.D.

Benaroya Research Institute

Seattle, Washington

Award: Postdoctoral Fellowships

Category: Immunology

"Role of B cells in Modulating Metabolic Pathways of Pathogenic CD4 T cells in Murine Model of Multiple Sclerosis" Researchers at Benaroya are focusing on how disease-causing immune T

cells form and are affected by B cells with the aim of deleting them or preventing them from

forming in the first place.

American Brain Foundation,

American Brain Foundation

Minneapolis, Minnesota

Award: Research Contracts Category: Immunology

"American Brain Foundation Harnessing Neuroinflammation Initiative" A cross-disciplinary

research initiative that brings together nonprofit organizations, pharmaceutical and biotech investors, philanthropists, and researchers to provide funding for research on the role of

neuroinflammation in a wide range of brain disease

Marc Horwitz, Ph.D.

University of British Columbia

Vancouver, British Columbia, Canada

Award: Role of Viruses RFA - 2023

Category: Infectious Agents

"Fighting the Hidden Enemy: Therapeutic strategies targeting latent gammaherpesvirus infection in an autoimmune animal model of multiple sclerosis" A team at University of British

Columbia is testing known EBV-targeting treatments in MS models to determine if they can reduce

the severity or even prevent MS-like disease.

Co-funded with MS Canada

Research Pathway: Stopping MS Estimated Funding: \$193,789

Term: 7/1/2021-6/30/2024

Research Pathway: Stopping MS Estimated Funding: \$212,153 Term: 7/1/2023-6/30/2026

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$300,000

Term: 9/25/2023-6/30/2025

Research Pathway: Stopping MS

Estimated Funding: \$25,436

Term: 10/1/2023-9/30/2024

Estimated Funding: \$212,153

Term: 9/1/2023-8/31/2026

Laura Airas, M.D., Ph.D.

University of Turku Helsinki, Finland

Award: Compartmentalized Inflammation RFA -

2022

Category: Measuring MS Disease Activity

"Exploring microglia and astrocyte-driven pathology in MS using multimodal MRI and PET imaging" University of Turku (Finland) scientists are determining the best types of imaging for

detecting and tracking chronic inflammation in the nervous system of people with MS.

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

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

Erin Beck, M.D., Ph.D.

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" NIH researchers are using advanced imaging to look at specific areas of damage in the brains of people with MS that are linked with progression, for clues to developing treatments that

can stop the disease.

Mary Catanese, Ph.D.

Massachusetts General Hospital

Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Measuring MS Disease Activity

"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

Leigh Charvet, Ph.D.

New York University Langone Medical Center

New York. New York

Award: Early Detection RFA - Spring 2021 Category: Measuring MS Disease Activity

"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.

Research Pathway: Stopping MS Estimated Funding: \$600,000 Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS Estimated Funding: \$747,267

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$324,991

Term: 10/1/2021-9/30/2024

Estimated Funding: \$196,309

Term: 7/1/2020-1/31/2024

Estimated Funding: \$404,407 Term: 9/20/2021-6/30/2024

Term: 7/1/2021-6/30/2026

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Jeremy Chataway, F.R.C.P., Ph.D.

University College London London, United Kingdom

Award: Research Grants

Category: Measuring MS Disease Activity

"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.

Blake Dewey, Ph.D.

Johns Hopkins University Baltimore, Maryland

Award: Postdoctoral Fellowships

Category: Measuring MS Disease Activity

"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.

Robert Fox. M.D.

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Strategic Initiatives

Category: Measuring MS Disease Activity

"SPRINT-MS Follow-up Study" A team at Cleveland Clinic and a network of other centers is following up with participants from a previous clinical trial to identify a brain MRI marker that better predicts whether a therapy works in progressive MS.

Susan Gauthier, D.O.

Weill Cornell Medical College New York, New York

Award: Compartmentalized Inflammation RFA -

2022

Category: Measuring MS Disease Activity

"Establishing the clinical relevance of chronic active MS lesions and quantification of their **inflammatory trajectory for a new treatment target."** A team at Weill Cornell Medical College is using a type of MRI to understand the role of inflammation in chronic, long-term lesions in the brain of people with MS.

Daniel Harrison, M.D.

University of Maryland, Baltimore

Baltimore, Maryland

Award: Research Grants

Category: Measuring MS Disease Activity

"Development of a Convolutional Neural Network for MRI Prediction of Progression and Treatment Response in Progressive Forms of Multiple Sclerosis" University of Maryland researchers are testing a novel technology to predict MS progression and the effects treatment for progressive MS.

Research Pathway: Stopping MS Estimated Funding: \$448,550 Term: 10/1/2017-10/1/2025

Research Pathway: Stopping MS Estimated Funding: \$190,752

Term: 7/1/2021-6/30/2024

Research Pathway: Stopping MS

Estimated Funding: \$1,224,590

Research Pathway: Stopping MS

Estimated Funding: \$656,698

Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS

Estimated Funding: \$586,820

Term: 5/1/2022-4/30/2025

Term: 7/1/2023-6/30/2026

Robert McBurney, Ph.D.

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.

Shiv Saidha, M.D.

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, Ph.D., M.P.H.

The University of Texas Southwestern Medical

Center

Dallas, Texas

Award: Strategic Initiatives

Category: Measuring MS Disease Activity

"Understanding Post-COVID-19 Syndrome in Individuals with MS using the NARCOMS Registry" Researchers are investigating the impacts of long COVID and other infections in people

with MS to improve care.

Elias Sotirchos, M.D.

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.

Research Pathway: Stopping MS Estimated Funding: \$148,500

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$606,133

Term: 10/1/2020-3/31/2025

Research Pathway: Stopping MS

Estimated Funding: \$164,558 Term: 10/1/2022-3/31/2024

Estimated Funding: \$449,216

Term: 4/1/2021-3/31/2024

Term: 7/1/2020-6/30/2025

Elizabeth Sweeney, Ph.D.

University of Pennsylvania Philadelphia, Pennsylvania

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.

Paid by the Marilyn Hilton MS Research Fund

Charidimos Tsagkas, M.D., Ph.D.

National Institutes of Health

Bethesda, Maryland

Award: Postdoctoral Fellowships

Category: Measuring MS Disease Activity

"Molecular Imaging of CNS-Immune System Interactions in Multiple Sclerosis" NIH

researchers are developing an imaging method that may allow better visualization of inflammation

in the brain and spinal cord in MS.

Martina Absinta, M.D., PhD

Università Vita-Salute San Raffaele

Milano, Italy

Award: Compartmentalized Inflammation RFA -

2022

Category: Neuropathology

"MRI-single cell transcriptomic investigation of chronic active inflammation of the spinal

cord in patients with multiple sclerosis" A team in Italy is investigating chronic inflammation in the spinal cord by analyzing genes from spinal cord cells, combined with MRI scan analysis, to find

ways to target and stop inflammation in MS.

Wesley Brandão, Ph.D.

Brigham and Women's Hospital

Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Neuropathology

"The role of APOE-mediated neurodegenerative microglia subset on T cell response and

functions in EAE" A team at Brigham and Women's Hospital is studying the role of immune brain

cells called microglia in MS progression.

Alessandro Didonna, Ph.D.

East Carolina University

Greenville. North Carolina

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.

Estimated joint commitment with other Progressive MS Alliance members

Research Pathway: Stopping MS Estimated Funding: \$265,232 Term: 1/1/2022-6/30/2024

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Research Pathway: Stopping MS Estimated Funding: \$141,176

Research Pathway: Stopping MS

Estimated Funding: \$75,000 Term: 7/1/2021-11/30/2023

Term: 7/1/2022-6/30/2025

Estimated Funding: \$534,858 Term: 10/1/2022-9/30/2025

Estimated Funding: \$131,886

Term: 7/1/2022-6/30/2025

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Tanja Kuhlmann, M.D.

University Hospital Münster

Münster, Germany

Award: Compartmentalized Inflammation RFA -

2022

Category: Neuropathology

"Histological, transcriptomic and functional characterization of a new lesion type associated with fast disease progression" A team at the University Hospital Münster, Germany and the Netherlands Institute for Neuroscience in Amsterdam is investigating a type of lesion that is commonly present in the brains of people with rapidly progressing MS and therapies that may treat thes

Research Pathway: Stopping MS

Estimated Funding: \$574,838

Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS

Research Pathway: Stopping MS

Estimated Funding: \$660,000

Term: 10/1/2022-9/30/2025

Research Pathway: Stopping MS Estimated Funding: \$543,272

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

Estimated Funding: \$456,500

Term: 5/1/2022-4/30/2025

Seema Tiwari-Woodruff, Ph.D.

University of California, Riverside

Riverside, California

Award: Research Grants

Category: Neuropathology

"Purkinje Neuron Mitochondrial Dynamics in the Demyelinating Cerebellum" Researchers at the University of California, Riverside are studying how inflammation affects energy sources of nerve cells and testing drugs in mice to find possible solutions.

Funded in full by the Guston Fund

Bruce Trapp, Ph.D.

Cleveland Clinic Foundation

Cleveland, Ohio

Award: Compartmentalized Inflammation RFA -

2022

Category: Neuropathology

"Comprehensive analysis of compartmentalized inflammation in multiple sclerosis brain" A team at the Cleveland Clinic is investigating how brain cells called microglia may have different activities depending on where they are located, which may be related to lesion expansion and disability progression in MS.

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

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.

Myla Goldman, M.D.

Virginia Commonwealth University

Richmond, Virginia

Award: Research Grants Category: Neurophysiology

"Validation of 6MW Gait Speed Trajectory as a Clinical Outcome Measure of Demyelination"

Research Pathway: Stopping MS

Research Pathway: Stopping MS Estimated Funding: \$596,699

Research Pathway: Stopping MS

Research Pathway: Stopping MS Estimated Funding: \$301,086

Term: 7/1/2023-6/30/2026

Estimated Funding: \$584,879

Term: 5/1/2022-4/30/2025

Estimated Funding: \$259,921

Term: 4/1/2023-3/31/2026

Researchers at Virginia Commonwealth University are testing whether a new walking test can better identify myelin damage in people with MS, which may help to improve the success rate of

clinical trials of repair strategies.

Shailendra Giri, Ph.D.

Henry Ford Health System/Henry Ford Health

Sciences Center

Detroit, Michigan

Award: Research Grants

Category: Preclinical Drug Development

"Specialized pro-resolving mediator, maresin 1, abrogates EAE disease progression" Henry Ford Health Sciences Center researchers are testing a molecule in mice with an MS-like disease for

its potential for decreasing MS-related brain inflammation.

Paid by the Marilyn Hilton MS Research Fund

Lachlan Rash, Ph.D.

The University of Queensland

Category: Preclinical Drug Development

Brisbane, Oueensland, Australia Term: 4/1/2023-3/31/2026 Award: Research Grants

"Target validation of acid-sensing ion channel inhibitors to stop disease progression and manage pain in MS" Researchers at The University of Queensland in Australia are developing an inhibitory molecule that may help to protect the nervous system and prevent symptoms such as pain in people with MS.

Danwei Wu, M.D.

Stanford University

Stanford, California

Award: NMSS-ABF MS Clinician Scientist Award

Category: Preclinical Drug Development

"Targeting CNS myeloid population through bone marrow transplantation in EAE mouse

model" Stanford researchers are investigating aspects of bone marrow transplant in mice to

enhance its ability to protect the nervous system and slow progression.

ABF Recipient, supported by the Kenrose Kitchen Table Foundation and J. David Power, III

Philip De Jager, M.D., Ph.D.

Columbia University New York, New York

Award: Strategic Initiatives Category: Tissue/DNA Banks Research Pathway: Stopping MS Estimated Funding: \$5,936,259 Term: 10/1/2020-9/30/2027

Research Pathway: Stopping MS

Estimated Funding: \$699,699

Term: 10/1/2020-9/30/2027

Research Pathway: Stopping MS

Research Pathway: Restoring Function

Estimated Funding: \$463,558

Term: 1/1/2023-6/30/2026

Estimated Funding: \$337.487

Term: 10/1/2020-9/30/2027

"National Multiple Sclerosis Tissue Repository Network (Award 1 of 3)" Researchers are building a state-of-the-art tissue bank of specimens from people with MS to support research on Pathways to Cures.

David Pitt, M.D.

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, M.D., Ph.D.

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.

Katrina Adams, Ph.D.

University of Notre Dame Notre Dame, Indiana

Award: Career Transition Fellowships

Category: Biology of Glia

"Elucidating molecular mechanisms of neural stem cell-derived gliogenesis in remyelination" Researchers at Notre Dame are exploring how myelin-making cells derived from stem cells might be used to repair myelin in MS models.

Funded in part by the Dave Tomlinson Research Fund

Manzoor Bhat, Ph.D.

The University of Texas Health Science Center at San

Antonio

San Antonio, Texas Award: Research Grants Category: Biology of Glia Research Pathway: Restoring Function

Estimated Funding: \$545,884 Term: 10/1/2020-9/30/2024

"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.

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

University of California, San Francisco

San Francisco, California

Award: Harry Weaver Scholar Awards

Category: Biology of Glia

 ${\bf ``Oligodendrog lial-vascular\ interactions\ control\ successful\ remyelination\ in\ Multiple}$

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

Hyun Kyoung Lee, Ph.D.

Baylor College of Medicine Houston, Texas

Award: Research Grants Category: Biology of Glia Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$776,123

Term: 7/1/2017-6/30/2024

Estimated Funding: \$821,063 Term: 4/1/2020-3/31/2024

"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

Jennifer Orthmann Murphy, M.D., Ph.D.

University of Pennsylvania Philadelphia, Pennsylvania

Award: Research Grants Category: Biology of Glia Research Pathway: Restoring Function

Estimated Funding: \$653,875 Term: 4/1/2023-3/31/2026

"The role of microglia in cortical remyelination" A team at the University of Pennsylvania is investigating features of brain cells called "microglia" that could be manipulated to enhance myelin repair.

Funded in full by the Kaufer Family

Jennifer Orthmann Murphy, M.D., Ph.D.

University of Pennsylvania Philadelphia, Pennsylvania

Award: Compartmentalized Inflammation RFA -

2022

Category: Biology of Glia

Research Pathway: Restoring Function

Estimated Funding: \$625,528 Term: 10/1/2022-9/30/2025

"Defining cortical reactive astrocyte heterogeneity and contribution to remyelination" A team at the University of Pennsylvania is investigating features of brain cells called "astrocytes" that could be manipulated to enhance myelin repair.

Vaibhav Patil, Ph.D.

Northwestern University Evanston, Illinois

Award: Postdoctoral Fellowships

Category: Biology of Glia

"Role of m6A mRNA methylation in CNS remyelination and inflammation" Northwestern University scientists are working to expand the possibilities for repairing myelin, the protective nerve coating that is damaged in MS.

Benjamin Clayton, Ph.D.

Case Western Reserve University Cleveland, Ohio

Award: Career Transition Fellowships

Category: CNS Repair

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$205,470

Term: 7/1/2025-6/30/2026

Estimated Funding: \$553,557 Term: 7/1/2022-6/30/2027

"Functional Genetic Screen Identifies a Novel Remyelination Target in MS" Case Western Reserve researchers are identifying new targets for treatments that could repair the damage that occurs to the nervous system in people with MS.

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

Richard Dortch, Ph.D.

St. Joseph's Hospital and Medical Center, Barrow

Neurological Institute

Phoenix, Arizona

Award: Research Grants Category: CNS Repair

Research Pathway: Restoring Function

Estimated Funding: \$600,000 Term: 5/1/2022-4/30/2025

"Turnkey MRI Biomarkers of Myelin Repair" Barrow Neurological Institute researchers are developing a more sensitive and specific method of measuring nerve-insulating myelin and its repair using MRI.

Lindsay Festa, Ph.D.

Philadelphia, Pennsylvania

Award: Career Transition Fellowships

Category: CNS Repair

Research Pathway: Restoring Function University of Pennsylvania Estimated Funding: \$610,065 Term: 7/1/2023-6/30/2028

"Regulation of the oligodendrocyte actin cytoskeleton by the lysosomal cation channel **TRPML1**" Researchers at UPenn are working on strategies that enhance repair and restoration of myelin, the nerve coating that is damaged in MS.

Jeffrey Huang, Ph.D.

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

mvelin repair.

Funded in part by the Al Otaiba Family

Research Pathway: Restoring Function Qing Lu, Ph.D.

Estimated Funding: \$599,999 Children's Hospital Medical Center - Cincinnati Cincinnati, Ohio Term: 5/1/2022-4/30/2025

Award: Research Grants Category: CNS Repair

"Small molecule modulators of chromatin remodeling for myelin repair" Researchers at Children's Hospital Medical Center in Cincinnati are exploring the role of the molecule HDAC3 in inhibiting myelin repair and testing ways to stop it to enhance repair in MS.

Wendy Macklin, Ph.D.

University of Colorado Denver

Denver. Colorado

Award: Research Grants Category: CNS Repair

"Impact of recombinant MS antibodies on remyelination" University of Colorado scientists are

investigating the role of antibodies that may block myelin repair in people with MS.

Alyssa Nylander, M.D., Ph.D.

University of California, San Francisco

San Francisco, California

Award: Clinician Scientist Development Awards

Category: CNS Repair

"Cognition as a meaningful, quantitative outcome for myelin repair: establishing a translational approach for advancing from preclinical assessments to clinical trials" UCSF researchers are exploring the relationship between myelin repair and cognitive ability in people

with MS and mouse models of the disease.

Lindsay Osso, Ph.D.

University of Colorado Denver

Denver, Colorado

Award: Postdoctoral Fellowships

Category: CNS Repair

"Determining the mechanisms underlying remyelination by surviving oligodendrocytes"

University of Colorado researchers are investigating how myelin-building cells that survive attacks

can contribute to the repair of myelin, the protective nerve coating that is damaged in MS.

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$599.999

Term: 5/1/2022-4/30/2025

Estimated Funding: \$150,445

Term: 7/1/2022-6/30/2024

Estimated Funding: \$68,588

Term: 8/1/2025-8/1/2026

Estimated Funding: \$758,839

Term: 7/1/2019-6/30/2024

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Larry Sherman, Ph.D.

Oregon Health & Science University

Portland, Oregon

Award: Research Grants Category: CNS Repair Research Pathway: Restoring Function

Estimated Funding: \$599,999 Term: 4/1/2023-3/31/2026

"Role of Hyaluronan in MS Cognitive Dysfunction" Researchers at Oregon Health & Science University are exploring whether a molecule called hyaluronan contributes to problems with cognition in MS, and whether blocking its activity can improve memory in lab models.

Seema Tiwari-Woodruff, Ph.D.

University of California, Riverside

Riverside, California

Award: Research Grants Category: CNS Repair Research Pathway: Restoring Function

Estimated Funding: \$589,500 Term: 4/1/2023-3/31/2026

"Functional recovery of Visual Pathway by modulating inflammation, inducing remyelination, and mitigating axon damage." Researchers at University of California, Riverside are exploring how one molecule may contribute to nerve damage in MS for clues to restoring function.

Funded in part by the Kaufer Family

Kathryn Fitzgerald, D.Sc.

Johns Hopkins University Baltimore, Maryland

Award: Career Transition Fellowships

Category: Epidemiology

Research Pathway: Restoring Function

Estimated Funding: \$412,500 Term: 7/1/2019-6/30/2024

"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

Edward Gettings, D.O.

Temple University Philadelphia, Pennsylvania

Award: Strategic Initiatives

Category: Health Care Delivery/Policy

Research Pathway: Restoring Function Estimated Funding: \$202,811

Term: 3/1/2021-6/30/2024

"What are the barriers preventing access to rehabilitation services, particularly maintenance services among people with MS and what are some of the potential solutions to these barriers?" Researchers at Temple University in Philadelphia are examining how to improve access to rehabilitation services for people with MS.

Rilev Bove, M.D.

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

Myla Goldman, M.D.

Virginia Commonwealth University

Richmond, Virginia

Award: Research Grants

Category: Human Therapy Trials/Management of MS

"Assessment of the Clinical Importance of Insulin Resistance & Steroid-Associated

Hyperglycemia in Relapsing Multiple Sclerosis" 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.

Nara Michaelson, M.D.

Massachusetts General Hospital

Boston, Massachusetts

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Improving Physical and Cognitive Abilities in Multiple Sclerosis: A Clinical Trials Training

Plan" A promising doctor at Massachusetts General Hospital will develop the skills involved in the

design, implementation, and analysis of clinical trials in MS.

Bardia Nourbakhsh, M.D.

Johns Hopkins University Baltimore, Maryland

Award: Harry Weaver Scholar Awards

Category: Human Therapy Trials/Management of MS

"New measurement tools for assessing a novel targeted treatment of multiple sclerosis

fatigue" Johns Hopkins researchers are testing a potential treatment for fatigue in people with MS and evaluating new ways of measuring MS fatigue.

Paid by the Marilyn Hilton MS Research Fund

Anastasia Vishnevetsky, M.D., M.P.H.

Massachusetts General Hospital

Boston, Massachusetts

Award: Sylvia Lawry Physician Fellowships

Category: Human Therapy Trials/Management of MS

"Addressing Fatigue and Quality of Life in Multiple Sclerosis: A Clinical Trials Training Plan"

A promising doctor at Mass General will develop the skills involved in the design, implementation,

and analysis of clinical trials in MS.

Research Pathway: Restoring Function

Estimated Funding: \$708,972

Term: 7/1/2020-6/30/2025

Estimated Funding: \$329,238

Term: 10/1/2019-12/31/2023

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$130,000

Term: 7/1/2022-6/30/2024

Estimated Funding: \$75,000 Term: 7/1/2025-6/30/2026

Estimated Funding: \$763,720

Term: 7/1/2022-6/30/2027

Barbara Willekens, M.D., Ph.D.

Antwerp University Hospital

Antwerp, Belgium

Award: Research Grants

Category: Human Therapy Trials/Management of MS

"MACSIMISE-BRAIN: Metformin Add-on Clinical Study in Multiple Sclerosis to Evaluate Brain Remyelination And Neurodegeneration" A team at Antwerp University Hospital in Belgium testing the ability of metformin – a therapy approved for diabetes – to stop progression and restore function in people with progressive MS.

Kouichi Ito, Ph.D.

Rutgers, The State University of New Jersey

Piscataway, New Jersey

Award: Research Grants Category: Immunology

"Gut dysbiosis-mediated CNS autoimmunity" Rutgers University scientists are examining whether a specially designed high-fiber supplement can reduce changes in gut bacteria associated with MS.

Valerie Block, D.Sc., P.T.

University of California, San Francisco

San Francisco, California

Award: Career Transition Fellowships Category: Measuring MS Disease Activity

"Moving MS bladder dysfunction into the 21st Century: developing novel and accessible ways to treat, predict and prevent dysfunction in the home" A UCSF team is developing a solution for bladder problems in people with MS.

Paid by the Marilyn Hilton MS Research Fund

Korhan Buyukturkoglu, Ph.D.

Columbia University New York, New York

Award: Harry Weaver Scholar Awards Category: Measuring MS Disease Activity

"Thalamus Derived Radiomic Features to Explore Cognitive Impairment in People With Multiple Sclerosis and At-Risk Individuals" Researchers at Columbia are using advanced technology to find a way to leverage clinical MRIs in screening for cognitive problems in MS.

Karen Ho, Ph.D.

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.

Research Pathway: Restoring Function Estimated Funding: \$546,156

Term: 4/1/2023-3/31/2026

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$591,128

Term: 7/1/2021-6/30/2026

Estimated Funding: \$730,849

Term: 7/1/2023-6/30/2028

Estimated Funding: \$339,232

Term: 9/30/2019-12/31/2023

Estimated Funding: \$600,334 Term: 10/1/2019-6/30/2024 Robert McBurney, Ph.D.

Accelerated Cure Project for MS

Waltham, Massachusetts

Award: Strategic Initiatives

Category: Measuring MS Disease Activity

"Pathways to Cures Project Collaboration" Collaborating with iConquerMS patient powered

platform to gain input on research priorities and impacts.

Thanh Nguyen, Ph.D.

Weill Cornell Medical College

New York, New York

Award: Research Grants

Category: Measuring MS Disease Activity

"Quantitative MRI of lesion iron and myelin repair" Weill Cornell Medical College researchers are testing and validating a novel imaging technique for use in determining how iron in MS lesions

in the brain may affect myelin repair.

Ceren Tozlu, Ph.D.

Weill Cornell Medical College

New York, New York

Award: Career Transition Fellowships

Category: Neuropathology

"Multi-modal neuroimaging and cognitive assessment of females with multiple sclerosis across different stages of menopause" Researchers at Weill Cornell are exploring how

menopause affects thinking and memory in women with MS.

Gustavo Della Flora Nunes, Ph.D.

University of Colorado Denver

Denver, Colorado

Award: Postdoctoral Fellowships

Category: Neurophysiology

"The role of remyelination in restoration of neural function and motor behavior" University

of Colorado researchers are investigating whether the repair of nerve-insulating myelin leads to

recovery of physical functions.

Sumire Sato, Ph.D., P.T.

University of Florida

Gainesville, Florida

Award: Postdoctoral Fellowships

Category: Neurophysiology

"Identifying brain biomarkers in MS walking function to enhance rehabilitation outcomes: examining brain white matter after accounting for "free-water" fluid" Researchers at the

University of Florida are focusing on using MRI imaging to understand how mobility declines with

age and in people with MS.

Research Pathway: Restoring Function

Estimated Funding: \$2,186,187

Term: 10/1/2018-9/30/2024

Research Pathway: Restoring Function

Estimated Funding: \$884,012

Term: 10/1/2016-12/31/2023

Research Pathway: Restoring Function

Estimated Funding: \$607.777

Term: 7/1/2023-6/30/2028

Research Pathway: Restoring Function

Estimated Funding: \$194,116

Term: 7/1/2022-6/30/2025

Estimated Funding: \$200,689 Term: 7/1/2023-6/30/2026

Bo Fernhall, Ph.D.

University of Massachusetts Boston

Dorchester, Massachusetts

Award: Functional Recovery RFA - 2023

Category: Physiology

Research Pathway: Restoring Function Estimated Funding: \$719,399

Term: 10/1/2023-9/30/2026

"Targeting vascular mechanisms of functional outcomes via home-based exercise training among persons with multiple sclerosis who have hypertension" UMass Boston researchers are testing a home-based exercise program to see if it can improve blood pressure, cognition and mobility in people with MS who have high blood pressure.

Douglas Feinstein, Ph.D.

University of Illinois at Chicago

Chicago, Illinois

Award: Research Grants

Category: Preclinical Drug Development

"Accelerating remyelination with lanthionine ketimine" A team at the University of Illinois at Chicago is testing a compound in mice for its potential for increasing myelin repair in people with MS.

Funded with support from the Illinois Lottery

Yuta Fujimoto, M.B.A.

J-Pharma Co., Ltd. Yokohama, Japan

Award: Fast Forward

Category: Preclinical Drug Development

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$599,524

Term: 5/1/2022-4/30/2025

Estimated Funding: \$600,000 Term: 8/18/2023-8/17/2024

Estimated Funding: \$661,402

Term: 4/28/2023-4/28/2024

"IND enabling studies on a novel amino acid transport inhibitor to promote CNS repair in **MS**" This commercial funding opportunity supports studies that are necessary before a novel molecule that might promote nervous system repair can be tested in people with progressive MS.

Karen Ho, Ph.D.

Clene Nanomedicine Salt Lake City, Utah Award: Fast Forward

Category: Preclinical Drug Development

"A Phase 2, Open Label, Sequential Group, Investigator Blinded Study Using Magnetic Resonance Spectroscopy to Assess the Effects of CNM-Au8 for Bioenergetic Improvement of **Impaired Neuronal Redox State in Non-Active Progressive Multiple Sclerosis**" A team is studying whether an experimental therapy called Biocatalytic Nanocrystalline Gold can provide energy to brain cells and promote myelin repair and nerve protection.

Larissa Jank, M.D.

Johns Hopkins University Baltimore, Maryland

Award: Postdoctoral Fellowships

Category: Preclinical Drug Development

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$373,446

Estimated Funding: \$414.685 Term: 7/1/2018-6/30/2024

Estimated Funding: \$611,701

Term: 10/1/2020-9/30/2024

Term: 7/15/2020-12/31/2023

Estimated Funding: \$205,470 Term: 7/1/2023-6/30/2026

"Indole-3-lactate - a novel metabolic modulator of oligodendroglial function and a potential **remyelinating agent for multiple sclerosis**" Johns Hopkins researchers are exploring the effect of a molecule produced in the gut on the brain and whether taking related dietary supplements may help restore nerve-insulating myelin.

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

Seema Tiwari-Woodruff, Ph.D.

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.

Stefan Gold, Ph.D.

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, Ph.D.

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, Ph.D. Research Pathway: Restoring Function

Regents of the University of Michigan Estimated Funding: \$16,809

Ann Arbor, Michigan Term: 10/1/2023-9/30/2024

Award: Strategic Initiatives

Category: Psychosocial Aspects of MS

"A Nationwide Survey of Psychosocial Wellness in MS" University of Michigan researchers are leading an effort to survey people with MS with the purpose of gathering data to enhance psychosocial wellness.

Anna Kratz, Ph.D.

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.

Ivan Molton, Ph.D.

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.

Jared Bruce, Ph.D.

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

Michelle Cameron, M.D., P.T.

Oregon Health & Science University

Portland, Oregon

Award: Research Grants Category: Rehabilitation

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$756,059

Term: 10/1/2020-9/30/2024

Estimated Funding: \$1,189,303

Term: 4/1/2019-3/31/2024

Estimated Funding: \$421,202

Term: 7/1/2019-6/30/2024

Estimated Funding: \$624,956 Term: 10/1/2019-7/31/2024

"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.

Chung-Yi Chiu, Ph.D.

University of Illinois at Urbana-Champaign

Champaign, Illinois

Award: Research Grants Category: Rehabilitation

Research Pathway: Restoring Function

Estimated Funding: \$548,359 Term: 4/1/2018-3/31/2024

"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

John DeLuca, Ph.D.

Kessler Foundation Research Center

West Orange, New Jersey

Award: Mentor-Based Postdoctoral Fellowships

Category: Rehabilitation

"MS Fellowship in Neuropsychological Rehabilitation" Experienced mentors/researchers at the Kessler Foundation are training promising rehabilitation professionals to conduct MS rehabilitation

research.

Paid by the Marilyn Hilton MS Research Fund

Dawn Ehde, Ph.D.

University of Washington Seattle, Washington

Award: Functional Recovery RFA - 2023

Category: Rehabilitation

"Increasing Physical Activity via Provider Prescription and Engagement: Efficacy of Exercise Rx for Adults with Multiple Sclerosis" A team at the University of Washington is testing a novel electronic platform that bridges the communication gap between providers and people with MS to increase physical activity and restore function in people with MS.

Roger Enoka, Ph.D.

University of Colorado - Boulder

Boulder, Colorado

Award: Research Grants Category: Rehabilitation

"Reducing fatigue in people with MS by treatment with transcutaneous electrical nerve stimulation" A team at the University of Colorado is testing whether electrical nerve stimulation can reduce fatigue in a clinical trial involving people with MS.

Brett Fling, Ph.D.

Colorado State University Fort Collins, Colorado

Award: Mentor-Based Postdoctoral Fellowships

Category: Rehabilitation

"From bench to bedside - mobility control and neurorehabilitation in people with multiple sclerosis" Experienced mentors/researchers at Colorado State University are training promising professionals to conduct MS rehabilitation research.

Brett Fling, Ph.D.

Colorado State University Fort Collins, Colorado

Award: Harry Weaver Scholar Awards

Category: Rehabilitation
"Split-holt troadmill training

Research Pathway: Restoring Function

Estimated Funding: \$589,208

Term: 4/1/2023-3/31/2026

Estimated Funding: \$497,901

Term: 7/1/2023-6/30/2028

Estimated Funding: \$725,451

Term: 10/1/2023-9/30/2026

Estimated Funding: \$468,019

Term: 7/1/2022-6/30/2027

Estimated Funding: \$752,710 Term: 7/1/2020-6/30/2025

"Split-belt treadmill training in the lab and sensory cueing in the real world to reduce limb asymmetries and improve gait" Colorado State specialists are studying whether a rehabilitation program that specifically addresses asymmetries that may exist between legs can improve walking in people with MS.

Nora Fritz, Ph.D., P.T., D.P.T., N.C.S.

Wayne State University Detroit, Michigan

Award: Research Grants Category: Rehabilitation Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$599,679 Term: 7/1/2022-4/30/2025

Estimated Funding: \$467,505

Term: 7/1/2022-6/30/2027

"TRAIN-BW: Feasibilty, Acceptability and Impact of Backward Walking Training in Persons with MS" Researchers at Wayne State are testing the feasibility of backward walking training to prevent falls and improve mobility in people with MS.

Nora Fritz, Ph.D., P.T., D.P.T., N.C.S.

Wavne State University Detroit, Michigan

Award: Mentor-Based Postdoctoral Fellowships

Category: Rehabilitation

"Advancing Rehabilitation Research for Persons with Multiple Sclerosis" Rehabilitation researchers at Wayne State University are training postdoctoral scientists in how to conduct MS research aimed at reversing symptoms and restoring function.

Paid by the Marilyn Hilton MS Research Fund

Elizabeth Gromisch, Ph.D.

Mount Sinai Rehabilitation Hospital

Hartford, Connecticut

Award: Harry Weaver Scholar Awards

Category: Rehabilitation

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$489,489

Estimated Funding: \$700,736 Term: 7/1/2021-6/30/2026

Estimated Funding: \$447,216 Term: 7/1/2020-6/30/2025

"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.

Abbey Hughes, Ph.D.

Johns Hopkins University Baltimore, Maryland

Award: Mentor-Based Postdoctoral Fellowships

Category: Rehabilitation

"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. Paid by the Marilyn Hilton MS Research Fund

Victoria Leavitt, Ph.D.

Columbia University New York, New York

Category: Rehabilitation

Term: 7/1/2022-6/30/2027 Award: Mentor-Based Postdoctoral Fellowships

"Cognitive Rehabilitation in MS: Translating Neuroscience from Laboratory to Life"

Experienced mentors/researchers at Columbia University are training promising rehabilitation professionals to conduct MS rehabilitation research.

Paid by the Marilyn Hilton MS Research Fund

Robert Motl, Ph.D.

University of Illinois at Chicago

Chicago, Illinois

Award: Mentor-Based Postdoctoral Fellowships

Category: Rehabilitation

"Training in Physical Activity Promotion for Multiple Sclerosis" Rehabilitation researchers have received funding to train promising rehabilitation professionals to conduct MS rehabilitation research.

Paid by the Marilyn Hilton MS Research Fund

Robert Motl, Ph.D.

University of Illinois at Chicago

Chicago. Illinois

Award: Collaborative Research Center Awards

Category: Rehabilitation

"Healthy Aging through LifesTyle in Multiple Sclerosis: The HALT MS Research Center"

Researchers have joined together to stimulate interdisciplinary research on lifestyle and wellness

for healthy aging in MS.

Funded with support from the Illinois Lottery

Matthew Plow, Ph.D.

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.

Prudence Plummer, Ph.D., P.T.

MGH Institute of Health Professions

Boston, Massachusetts

Award: Functional Recovery RFA - 2023

Category: Rehabilitation

"Dalfampridine combined with physical therapy for mobility impairment in people with

multiple sclerosis" Mass General researchers are testing whether walking can be improved by

combining rehabilitation with a pharmacological treatment for walking.

Jacob Sosnoff, Ph.D.

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.

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Research Pathway: Restoring Function

Estimated Funding: \$395,037

Term: 11/1/2021-3/31/2026

Research Pathway: Restoring Function Estimated Funding: \$518,566

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$725,913

Term: 10/1/2023-9/30/2026

Estimated Funding: \$353,585

Term: 2/15/2021-6/30/2024

Estimated Funding: \$451.374 Term: 7/1/2021-6/30/2026

Term: 5/1/2022-4/30/2025

Aaron Turner, Ph.D.

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.

Carly Wender, Ph.D.

Kessler Foundation Research Center

West Orange, New Jersey

Award: Functional Recovery RFA - 2023

Category: Rehabilitation

"A Novel Combinatory Approach to Maximize Functional Recovery of Learning and Memory in Multiple Sclerosis" Kessler Foundation researchers are testing a combined approach to improving cognitive function in people with MS, involving cognitive rehabilitation and exercise.

E. Yeh, M.D.

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 equips researchers with experience and knowledge to design and conduct research aimed at improving wellness in children with MS.

E. Yeh, M.D.

The Hospital for Sick Children Toronto, Ontario, Canada

Award: Functional Recovery RFA - 2023

Category: Rehabilitation

"An Exercise Training Intervention for Depressive Symptoms in Youth with MS: A Randomized Controlled Feasibility Trial" University of Toronto researchers are testing an exercise program that uses coaching to increase physical activity and possibly reduce depression and fatigue in children with MS.

Co-funded with MS Canada

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Research Pathway: Restoring Function

Estimated Funding: \$401,426

Term: 7/1/2018-6/30/2024

Estimated Funding: \$725,499 Term: 10/1/2023-9/30/2026

Estimated Funding: \$352,950

Term: 7/1/2015-6/30/2024

Estimated Funding: \$134,789

Term: 10/1/2023-9/30/2026

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, Ph.D.

University of British Columbia

Vancouver, British Columbia, Canada

Award: Research Grants Category: Biology of Glia

"Ermin in Multiple Sclerosis" Researchers in Singapore are doing lab studies to understand how a

rare gene mutation related to myelin may influence the risk of developing MS.

Daniel Hawiger, M.D., Ph.D.

Saint Louis University St. Louis, Missouri

Award: Early Detection RFA - Spring 2021

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 pre-

symptom MS to speed diagnosis earlier in the disease.

Paid by the Marilyn Hilton MS Research Fund

Kjetil Bjornevik, M.D., Ph.D.

Harvard School of Public Health

Boston, Massachusetts

Award: Early Detection RFA - Spring 2021

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.

Paid by the Marilyn Hilton MS Research Fund

Naila Makhani, M.D., M.P.H.

Yale University

New Haven, Connecticut

Award: Harry Weaver Scholar Awards

Category: Epidemiology

"Biomarkers Associated with Multiple Sclerosis in Children with Radiologically Isolated

Syndrome" A team at Yale University is investigating which children with unexpected

abnormalities on brain scans to better predict who are most likely to develop MS.

Paid by the Marilyn Hilton MS Research Fund

Dalia Rotstein, M.D.

St. Michael's Hospital-Unity Health Toronto

Toronto, Ontario, Canada

Award: Research Grants

Category: Epidemiology

"When does MS begin after infectious mononucleosis?" A team in Toronto is using a novel dataset to map out the earliest steps of MS in people who had mononucleosis, for clues to

developing strategies that can end MS by prevention.

Research Pathway: Ending MS Estimated Funding: \$298.546

Research Pathway: Ending MS

Estimated Funding: \$395,200

Term: 1/1/2022-3/31/2024

Term: 10/1/2021-9/30/2024

Research Pathway: Ending MS

Estimated Funding: \$168,563

Term: 11/1/2022-10/31/2024

Research Pathway: Ending MS

Estimated Funding: \$604,695

Term: 7/1/2023-6/30/2027

Research Pathway: Ending MS

Estimated Funding: \$151,000

Term: 4/1/2023-3/31/2026

Matthew Lincoln, M.D., Ph.D.

Unity Health Toronto Toronto, Ontario, Canada

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.

Research Pathway: Ending MS

Estimated Funding: \$375,000

Term: 7/1/2022-6/30/2025

Research Pathway: Ending MS Estimated Funding: \$110,000

Term: 10/1/2023-9/30/2024

Research Pathway: Ending MS

Estimated Funding: \$197,528

Term: 7/1/2023-6/30/2026

Research Pathway: Ending MS

Estimated Funding: \$297,000

Term: 10/1/2021-12/31/2024

Alexander Boyden, Ph.D.

The University of Iowa Iowa City, Iowa

Award: Role of Viruses RFA - 2023

Category: Immunology

"Impact of gamma herpesvirus infection on required B cell:CD4 T cell interactions in a novel B cell-dependent, antibody-independent EAE model" Researchers at the University of Iowa are working to discover how a virus infection affects certain immune cell interactions in a mouse model of MS.

Natalia Drosu, Ph.D.

Massachusetts General Hospital Boston, Massachusetts

Award: Postdoctoral Fellowships

Category: Immunology

"CD4+ T cell responses to immunodominant HLA-DRB1*15:01-restricted Epstein-Barr virus antigens in patients with multiple sclerosis with potential cross-reactivity to myelin"

Researchers at Mass General Hospital are examining how environmental and genetic sensitivity to the Epstein-Barr virus may work together to trigger MS.

Brian Edelson, M.D., Ph.D.

Award: Research Grants Category: Immunology

Research Pathway: Ending MS Washington University School of Medicine-M Estimated Funding: \$595,050 St. Louis. Missouri Term: 5/1/2022-4/30/2025

"T cell-intrinsic roles for the ZFP36 family proteins in MS and EAE" A team at Washington University in St. Louis is investigating how specific MS risk genes influence the activity of immune T cells in MS.

Lisa Ann Gerdes, M.D.

University Hospital LMU Munich Germany

Munich, Germany

Award: Early Detection RFA - Spring 2021

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. Paid by the Marilyn Hilton MS Research Fund

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Judith Greer, Ph.D.

The University of Queensland Brisbane, Queensland, Australia Award: Role of Viruses RFA - 2023

Category: Immunology

"Using a novel humanized mouse model to investigate how EBV infection at different ages potentiates development of CNS demvelinating disease" Researchers at the University of Queensland in Australia are trying to find the link between the age a person is infected with Epstein-Barr virus and the likelihood of developing MS.

Research Pathway: Ending MS

Estimated Funding: \$100,000

Term: 10/1/2023-9/30/2024

Research Pathway: Ending MS

Term: 10/1/2023-9/30/2024

Research Pathway: Ending MS

Estimated Funding: \$577,992

Term: 10/1/2022-9/30/2025

Research Pathway: Ending MS

Estimated Funding: \$110,000

Term: 10/1/2023-9/30/2024

Research Pathway: Ending MS

Estimated Funding: \$25,594

Marc Horwitz, Ph.D.

University of British Columbia Vancouver, British Columbia, Canada Award: Role of Viruses RFA - 2023

Category: Immunology

"Novel preclinical humanized mouse models of MS to investigate the in's and out's of EBV's **role in disease initiation**" University of British Columbia researchers are developing MS models for studying how EBV may trigger MS and how to prevent it.

Co-funded with MS Canada

Allan Kermode, M.D.

University of Western Australia Crawley, Western Australia, Australia

Award: Compartmentalized Inflammation RFA -

2022

Category: Immunology

"White matter lesion single nuclei transcriptomics and epitope discovery to identify immune targets in multiple sclerosis" University of Western Australia researchers are determining if components of the brain that are mistakenly targeted by the immune system in MS are similar to components of the Epstein-Barr virus.

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

University of California, San Francisco San Francisco, California

Award: Role of Viruses RFA - 2023

Category: Immunology

"Identification of viral-specific lymphocytes associated with novel autoantibody signature in **multiple sclerosis**" A team at UCSF is exploring a possible mechanism by which EBV may trigger the immune response that damages the nervous system in people with MS.

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

Award: Research Grants Category: Immunology

University of California, San Francisco Estimated Funding: \$584,536 San Francisco, California Term: 5/1/2022-4/30/2025

"Antigen specificity and cross-reactivity of clonally expanded CD8+ T cells in multiple **sclerosis**" A team at the University of California, San Francisco is determining the targets recognized by immune cells in the spinal fluid of people with MS for clues to what triggers MS. Theodore Jardetzky, Ph.D.

Stanford University Stanford, California

Award: Role of Viruses RFA - 2023

Category: Infectious Agents

"Isolation of antibodies to prefusion EBV gB using humanized mice" Stanford University

researchers are attempting to find antibodies that can block virus infection.

Theodore Jardetzky, Ph.D.

Stanford University Stanford, California

Award: Research Grants Category: Infectious Agents

"Targeting EBV entry glycoproteins for vaccine and therapeutic development" Stanford

scientists are exploring novel technology with an eye toward developing a vaccine that may prevent

the Epstein-Barr virus from triggering MS.

Erin Longbrake, M.D., Ph.D.

Yale University

New Haven, Connecticut

Award: Role of Viruses RFA - 2023

Category: Infectious Agents

"Epstein-Barr Virus in Patients with New Onset Multiple Sclerosis" Yale University scientists

are exploring tissue obtained from people newly diagnosed with MS to determine what role EBV

plays in activating the immune response in MS.

Timothy Vartanian, M.D., Ph.D.

Weill Cornell Medical College

New York, New York

Award: Research Grants Category: Infectious Agents

"Harboring the Initial Trigger of Multiple Sclerosis" A team at Weill Cornell Medical College are determining whether bacteria that have been associated with MS are related to changes in disease activity, for clues to developing a therapy that targets these bacteria and possibly prevent MS

activity.

Michelle Pleet, Ph.D.

National Institutes of Health/National Institute of

Neurological Disorders and Stroke

Bethesda, Maryland

Award: Postdoctoral Fellowships

Category: Neuropathology

"Origin and Cargo of CSF EVs from MS patients as Signatures of Disease" A team at NIH is investigating the importance of extracellular vesicles, which are packets of information released

from cells into the blood, in MS.

Research Pathway: Ending MS

Research Pathway: Ending MS

Term: 10/1/2023-9/30/2024

Research Pathway: Ending MS

Estimated Funding: \$571,058

Term: 4/1/2023-3/31/2026

Research Pathway: Ending MS

Estimated Funding: \$110.000

Term: 10/1/2023-9/30/2024

Research Pathway: Ending MS

Estimated Funding: \$616,672

Term: 4/1/2023-3/31/2026

Estimated Funding: \$78,753

Estimated Funding: \$136,786 Term: 7/1/2022-6/30/2024

John Corboy, M.D.

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, Ph.D.

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: \$1,407,349 Term: 10/1/2020-9/30/2027

Research Pathway: Ending MS

Estimated Funding: \$1,552,809

Term: 10/1/2020-9/30/2026