



Overview

1. Our vision and funding philosophy
2. Types of research we fund and priorities
3. Recent advances in MS research and treatment

Mission: To mobilize people and resources to drive research for a cure and to address the challenges of everyone affected by MS



**MS
NOW**
An MS Research Revolution



STOP. RESTORE. END.

Our Vision: A World Free of MS

- The Society is a driving force of research
- We've invested over \$760 million in research since 1947
- Contributing to many of the seminal discoveries and FDA-approved therapies
- In 2012 alone we invested \$44 million in 350 new or ongoing research projects

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STOP. RESTORE. END.

Funding Philosophy

- Fund the most promising research regardless of geography
- Base funding decisions on confidential and anonymous review by top MS thought leaders
- Attract and train promising young investigators
- Require accountability from the investigators and their institutions



Funding Philosophy

- Identify gaps and opportunities and develop strategies for meeting them
- Incorporate Society priorities and financial considerations in funding decisions
- Leverage support from other agencies and industry
- Connect people and resources



Research Priorities

1. To better understand the biological basis for disease progression
2. To dissect the mechanisms of nerve damage and repair
3. To identify risk and triggering factors for MS
4. To enable development of new or improved rehabilitation techniques
5. To grow the global MS research enterprise



Research Portfolio



STOP – Recent Advances in Research and Treatment

- Approval of a new oral disease modifying therapy
 - Teriflunimide (Aubagio)
- Pending approval of 2 new disease modifying therapies
 - BG12 (fumaric acid) and Alemtuzimab (Lemtrada)
- **92** ongoing interventional trials for *relapsing* MS
 - CD20, IL-17, IL-2receptor, vitamin D, helminth therapy
- **43** ongoing interventional trials of *progressive* MS
 - S1P receptors, Tysabri, statins



STOP. RESTORE. END.



STOP – Recent Advances in Research and Treatment

- Potential new target of immune response identified
 - KIR 4.1
- Gut microbiome research
 - Bacteria and bacterial derived substances can promote immune regulation
- New imaging technology
 - Diffusion tensor imaging g (DTI), magnetic resonance spectroscopy (MRS), Magnetization transfer imaging (MTI), optical coherence tomography (OCT)



STOP. RESTORE. END.



RESTORE – Recent Advances in Research and Treatment

- **Advances in understanding myelin biology**
 - Removing barriers to myelin repair
 - Identifying strategies for promoting new myelin (LINGO)
- **Advances in nerve tissue protection and repair strategies**
 - Nervous system repair and protection initiative
 - Strategies include anti-oxidants, nerve growth factors



STOP. RESTORE. END.



RESTORE – Recent Advances in Research and Treatment

- **Sponsoring trials of cell therapies and other ways of rebuilding nervous system**
 - Drugs, cell-based therapies and other ways of protecting the nervous system
- **Promoting rehabilitation research**
 - Efforts to maximize physical and mental abilities, enhancing quality of life



STOP. RESTORE. END.



END – Recent Advances in Treatment and Research

- **Understanding epidemiology/risk factors**
 - Studying who gets MS for clues to lifestyle factors and infectious triggers, to find the cause
- **Studying genes**
 - What causes MS, how to prevent it, and determining response to treatment
- **Supporting pediatric MS Centers**
 - Studying patterns in children for insights into cause of MS



STOP. RESTORE. END.



Keeping up on MS Research

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- Visit **nationalmssociety.org/research** for full coverage on everything from research breakthroughs to clinical trials near you.



STOP. RESTORE. END.

