



**National
Multiple Sclerosis
Society**

National Institutes of Health

Request: Provide at least \$34.5 billion for the National Institutes of Health (NIH) in FY 2017.

What is multiple sclerosis (MS)?

- MS is an unpredictable, often disabling disease of the central nervous system.
- MS interrupts the flow of information within the brain, and between the brain and body.
- Symptoms range from numbness and tingling to blindness and paralysis.
- The progress, severity and specific symptoms of MS in any one person cannot yet be predicted.

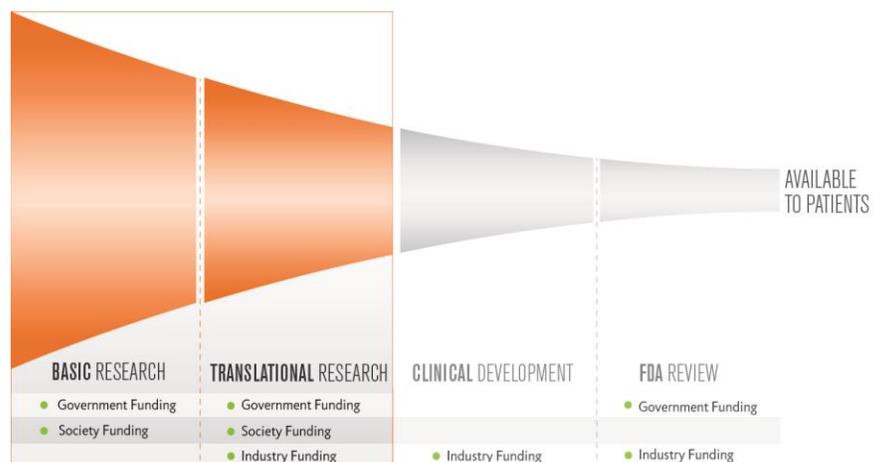
Background on NIH Funding

- NIH is the country's premier institution for medical research and the single largest source of biomedical research funding in the world.
- Fewer than 6 cents of every dollar spent on health is spent on research, while 31 cents per dollar is spent on hospital care. Investing in health research has the potential to help achieve the goals of increasing healthcare quality while decreasing costs.

NIH: A Vital Partner in MS Research

- In FY 2016, the NIH received \$32.1 billion. The President's FY 2017 Budget recommends \$33.1 billion, while \$34.5 billion would represent 5% real growth above the projected rate of biomedical inflation.
- Approximately \$94 million of FY 2015 NIH-appropriated funding was directed to MS-related research. Since FY 2012, NIH spending on MS-related research has decreased by more than \$20 million.
- The NIH has helped make significant progress in understanding MS lesions, analyzing how the immune system responds to different stimuli while providing the basic research to develop the MS therapies.
- The Society regards research as a public-private partnership and dedicates a sizable amount of money to MS research annually. In 2015, the Society invested approximately \$54 million—or more than half of the NIH's investment—in MS research projects. The Society also often partners with the NIH on MS research projects.

NIH in the MS Therapy Pipeline





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Promising Research Co-funded by the NIH and National MS Society

Re-Purposed Therapy to Prevent Nerve Damage



Robert J. Fox, MD, is a staff neurologist and medical director at the Cleveland Clinic's Mellen Center for MS and vice chair for research of the Neurological Institute there. He also serves as the medical director of the NARCOMS MS Patient Registry, which currently follows more than 37,000 people living with MS. Dr. Fox's current research focuses on clinical trials in MS, innovative MRI techniques to evaluate tissue recovery after injury and the effects of MS treatments, as well as MS patient decision-making and tolerance to risk.

Dr. Fox is the principal investigator of a Phase II "SPRINT-MS" trial of ibudilast, an anti-inflammatory agent that may protect the nervous system from damage and help people living with progressive MS. The 28-site trial is funded by NeuroNEXT Network, a clinical trials initiative of the NIH, with additional support by MediciNova, the company that supplies ibudilast, and the National MS Society. This clinical trial of ibudilast will provide important information on a potential way to stop MS damage, as well as how to measure treatment benefits. Dr. Fox says, "The results of this trial could lead to shorter, more effective trials and the potential for getting new therapies to people with MS faster."

Triggers for Pediatric MS



Emmanuelle Waubant, MD, PhD, of University of California San Francisco, is leading an effort to recruit nearly 2,000 children for a four-year study to determine environmental and genetic risk factors that make children susceptible to developing MS. Dr. Waubant's five-year, \$3.2-million grant from the NIH is based on pilot data collected by the Network of Pediatric MS Centers, which the Society launched in 2006. The pilot study of 180 children with MS confirmed the role of several viruses related to the risk of developing MS; including confirming that the Epstein-Barr virus was associated with higher risk of MS. The Society has just committed an additional \$3 million to support research data coordination and expansion of the 12-center Network. Dr. Waubant states, "This project will

advance dramatically the identification of risk factors for MS and our understanding of how these risk factors combine to ultimately result in disease onset. This is extremely important, as some risk factors may be modified to prevent the increase of MS worldwide."