



# Join Us

The Myelin Repair Foundation  
18809 Cox Avenue, Suite 190  
Saratoga, CA 95070  
408-871-2410

Email: [info@myelinrepair.org](mailto:info@myelinrepair.org)  
[www.myelinrepair.org](http://www.myelinrepair.org)

Join Us to Help Speed a Cure for MS

HOPE



# Connection

Making Connections for a Cure



Charles  
Waiting since 1994

Walking, talking, and going about our daily routine are things many of us take for granted. But that's something MS patients can't. Along with the inevitable and unceasing physical decline, the unpredictability of MS is one of its greatest challenges and hardships. Haven't they been waiting for a cure long enough?

## Waiting for a Cure

CONNEXION



Rachel  
Waiting since 1997



Kris  
Waiting since 2005



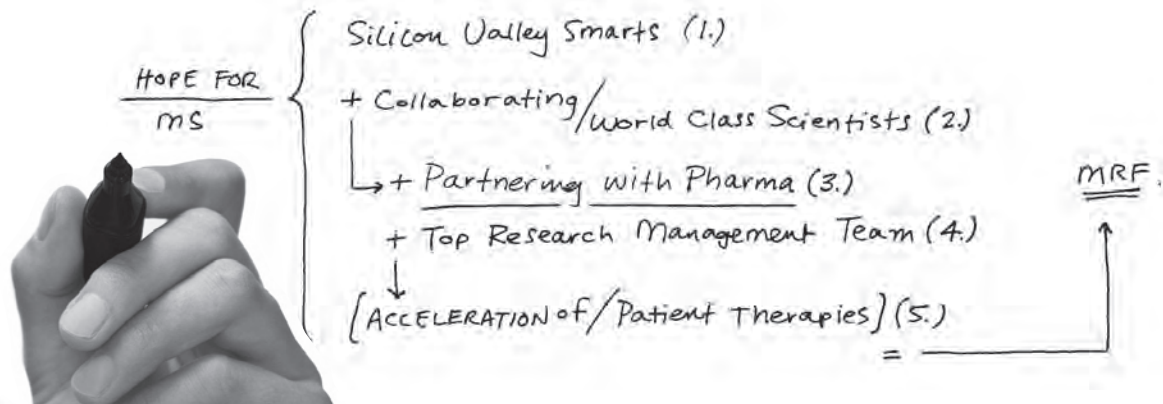
Gali  
Waiting since 2001



Marie  
Waiting since 2001



Charles  
Waiting since 2009



CTING

## Why hasn't this been done before?

That's what Scott Johnson wanted to know.  
His answer: The Myelin Repair Foundation.

The Myelin Repair Foundation, in order to find an effective treatment for MS patients as soon as possible, has brought together the top research scientists in myelin biology to collaborate and share their discoveries in real time – a revolutionary approach for academic scientific research. They have also identified all the steps necessary to reach their goal, and are partnering with the pharmaceutical companies who can best help deliver a new medicine to the marketplace. That's the way to get something done. And they are achieving amazing results.

The MRF needs your support to maintain its rapid momentum for finding a cure for MS.

The background is a grayscale micrograph of neural tissue, showing various cell bodies and fibers. Overlaid on this is a white paper cutout of a neuron, with its cell body and branching processes clearly visible. A blue horizontal bar is positioned at the top of the image, containing the title text. A green box at the bottom right contains a descriptive paragraph.

# MS at a Glance

CONNELLY

Nerve cells communicate by sending electrical signals down long fibers called axons, which are wrapped in a fatty insulating substance called myelin. In MS, the body's own immune system attacks and damages the myelin, causing scarring or "sclerosis." This scarring breaks up the connections between nerve cells in the central nervous system resulting in the unpredictable symptoms of MS.

“If I were asked to pick the most important person of the 20th century I’d pick Henry Ford because he made manufactured products affordable for the rest of us. If I look to the 21st century, history might be written that the most important person would be Scott Johnson because he figured out how to make medical discovery happen reliably and fast, and because of that, diseases that had remained unsolved for far too long were knocked off year after year.”

*Scott Cook*  
*Intuit, Co-Founder*



The goal of the scientific research supported by the Myelin Repair Foundation is to find out how to trigger myelin repair in an MS patient. This would halt the disease’s progression and could reverse damage already done. Therapies to date have only focused on immune system suppression. It is only in the last decade that scientists have proven that remyelination does happen and is possible where there is damage to the myelin sheath. So the question becomes, how does that happen? And what can we do to make it happen?

Nerve cells communicate by sending electrical signals down long fibers called axons, which are wrapped in an insulating substance called myelin. In MS, the body’s own immune system attacks and damages the myelin, causing scarring or “sclerosis.” This damage to the myelin causes the electrical signal to leak out so the nerves can no longer effectively conduct the signal resulting in cognitive and physical disability. It is an unpredictable disease and symptoms vary because the location and severity of each attack can be different. While MS was first described 150 years ago, its cause is unknown. There is no cure.

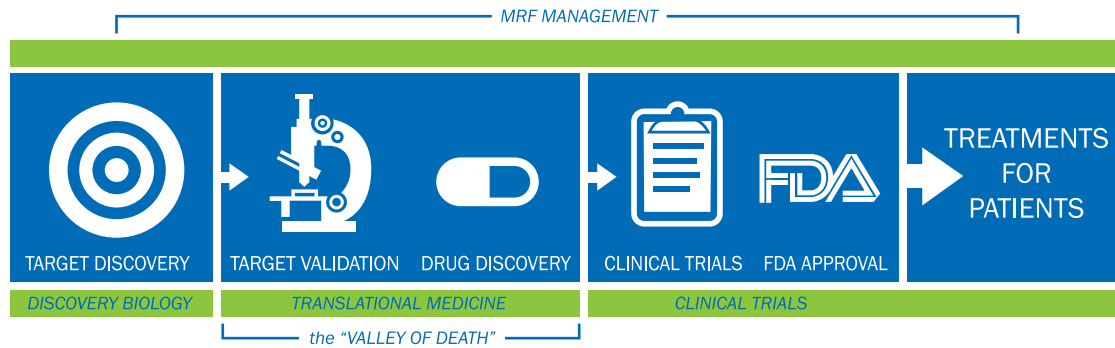
MRF believes myelin repair is the best possible avenue for the next generation of multiple sclerosis treatment because damage to the myelin sheath is the common element among all types of MS. And they’ve put together the best team with a well-designed plan that is revolutionizing how scientific research is conducted.

# The MRF Approach vs. Traditional Research

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The goal of the Myelin Repair Foundation's research is to get a treatment to patients as fast as humanly possible. The primary goal of traditional scientific research is to make discoveries that are then published in scientific journals. But it's impossible for the pharmaceutical industry to sift through the 800,000 papers that are published every year to find a discovery that will enable them to make a drug to help a patient with a disease.

And there are many more steps that must be taken between a basic scientific discovery and a patient treatment that have not been the responsibility of either the academic research scientists or the pharmaceutical industry. The [MRF's Accelerated Research Collaboration™](#) model fills these gaps and makes the necessary connections to cross over this "Valley of Death", the gap between basic discovery and patient treatment.



*The MRF is dedicated to successfully demonstrating a new and comprehensive model for medical research and drug development that significantly shortens the time to market for new medicines for all diseases.*

“With the Myelin Repair Foundation collaboration model, every time the team gets together, sparks fly. There’s no question that better teamwork in science can significantly accelerate results.”

*Ben Barres, M.D., Ph.D.  
Principal Investigator, Myelin Repair Foundation and Chair, Stanford University, School Of Medicine Neurobiology*



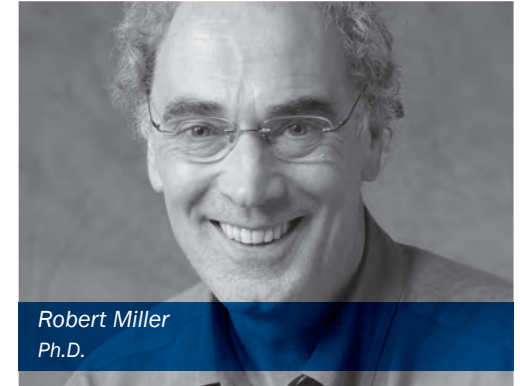
These are the Principal Investigators that lead 40+ graduate and post-doctoral students in their labs to answer the most therapeutically relevant questions about myelin.

By connecting these investigators with equally accomplished scientific and pharmaceutical industry advisors, the MRF management team is successfully promoting the rapid discovery of myelin science and driving these discoveries into the commercial drug development pipeline.



**Ben Barres**  
M.D., Ph.D.

*Stanford University, Chair, School of Medicine Neurobiology Department and Professor of Neurobiology, Developmental Biology and Neurology*



**Robert Miller**  
Ph.D.

*Case Western Reserve University, Vice Dean for Research, School of Medicine, Director of the Center for Translational Neuroscience and the Allen C. Holmes Professor of Neurological Diseases in the Department of Neurosciences*



**Stephen Miller**  
Ph.D.

*Northwestern University, Judy Guggenheim Research Professor of Biomedical Sciences, Professor of Microbiology-Immunology and Director of the Interdepartmental Immunobiology Center*



**Brian Popko**  
Ph.D.

*University of Chicago, Jack Miller Professor of Neurological Diseases, Director of the Jack Miller Center for Peripheral Neuropathy and Associate Chair for Research in the Department of Neurology*

# The MRF Team

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Scott Johnson,  
MRF Founder & President

Silicon Valley entrepreneur, previous President and CEO of three start-ups, Scott has spent more than twenty years in business making things happen. He is now focused on demonstrating a new model for medical research that will shorten the time to market for new patient treatments.



Mike Gresser, Ph.D.,  
MRF Chief Scientific Officer

Mike has worked for some of the biggest biotech and pharmaceutical companies in the world including as Head of Neuroscience and Inflammation Research at Amgen. His passion for making new medicines—he has brought three drugs to market—makes him ideally suited to oversee the MRF's strategic research and drug development program.



Jay Tung, Ph.D.,  
MRF Vice President of Drug Discovery

Jay has more than 20 years of experience in drug discovery in the biotech and the pharmaceutical industries. He has led drug discovery teams in Alzheimer's disease, neuropathic pain, and Parkinson's disease. His leadership in these areas has led to multiple clinical drug candidates.



Steve Wong, MRF Target Validation  
Program Manager

Steve has 25 years combined experience in basic science and BioPharma research and development and manages the validation of potential targets into the larger scale necessary for commercial drug development. He is passionate about finding treatments for unmet medical needs.



Kumar Hari, Ph.D.,  
MRF Director of Discovery Biology

Kumar brings more than 10 years of experience in target validation, program management and business development. With a family member with MS, he understands too well the urgency of finding a cure.



Tassie Collins, Ph.D., MRF Director  
of Translational Medicine

Tassie has more than 14 years of experience as a leader of drug discovery and development teams in the fields of inflammatory diseases and immune disorders including MS and has previously served as Scientific Director at Amgen.

“The Kauffman Foundation is supporting the MRF’s model for accelerating research because we believe it promises a kind of fundamental change in medical research that is long overdue. We are delighted to help draw attention to Scott Johnson’s work in this way and hope others will take our lead in supporting the MRF and helping them to accomplish their mission.”

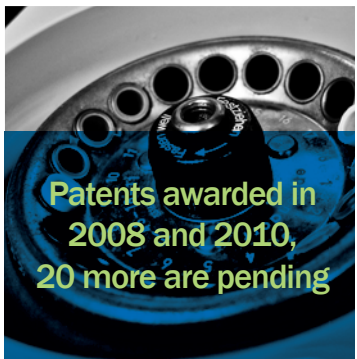
*Carl Schramm  
President and CEO, Ewing Marion  
Kauffman Foundation*





Raised more than  
**\$42,000,000**  
since 2004 to fund research  
in myelin repair

Developed more than 150  
potential therapeutic targets



Patents awarded in  
2008 and 2010,  
20 more are pending



Developed 24 new  
research tools with  
applications to all  
neurological disease  
research



Established first  
partnership with  
pharmaceutical  
company

Since 2004 80% of the funds spent  
have gone to research and development

Articles  
Published  
**81**  
in peer reviewed  
scientific journals

# The Need. The Plan.

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In order to continue the breakthrough research and reach the goal of a Phase 1 clinical trial in 2014, raising money to continue to fund the research and development of a treatment is an ongoing process at MRF.

## The Five Year Plan:

Raise \$75 million

Double the number of potential therapeutic targets in MRF portfolio (300)

Evaluate 10 potential therapeutic targets

Establish partnerships with at least four commercial entities

Invest in the development of tools to speed clinical trials

Maintain 80% spending on research

Bring at least one therapeutic target to Phase 1 clinical trial

“We view the Myelin Repair Foundation’s accelerated research collaborative model as just that, a transformative idea with the potential to pioneer a new approach to medical research that can speed the discovery process and lead to the development of new treatments.”

*Nancy Barrand  
Special Advisor for  
Program Development*



Robert Wood Johnson Foundation

## How you can help us get there:

Unrestricted gifts can be made to the Myelin Repair Foundation General Fund. These gifts will be used in the areas of greatest need to maintain our momentum.

Restricted gifts can be made to the MRF Center for Myelin Discovery Biology where these funds will be specifically earmarked toward our effort to double the number of potential therapeutic targets in our portfolio.

Restricted gifts can be made to the MRF Center for Myelin Translational Medicine. These funds will be dedicated to performing the necessary validation and early-stage drug discovery activities that may lead to commercial drug development partnerships.

## SUPPORTERS

*Scott Cook and Signe Ostby, Woodside, CA • William K. Bowes, Jr., San Francisco, CA • Wayne and Gladys Valley Foundation, Oakland, CA*  
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*This is a partial list of supporters who have made total gifts and /or pledges of more than \$50,000 since 2004.*

## AWARDS

*Fast Company Fast 50 • Scientific American 50 • Ernst & Young Social Entrepreneur of the Year 2010*

## MEDIA

SCIENTIFIC  
AMERICAN

**Newsweek**

BusinessWeek

WALL STREET JOURNAL



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*Foundation*

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