The Myelin Repair Foundation: Accelerating New Treatments for Multiple Sclerosis and All Diseases

Scott Johnson
CEO, President and Founder
Introduction

• “Broken” system of medical research
• No fault, system just evolved
• Problem for pharma
• Problem for patients
• There is a solution
Important Statistics

- $139,000,000,000
- 800,000
- 30
- 1 in 3 Americans
- $1.3 trillion
The Culture of Academic Science Labs
Drug R&D spending fell in 2010, and heading lower

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* R&D spending $68 bln in 2010 vs $70 bln in 2009
* First ever decline follows poor returns
* Trend set to continue as Pfizer, others cut more

By Ben Hirschler
The Valley of Death
Defining the Problem

• Discoveries in academic labs lack industry rigor
• Results in rodents may not translate to the human system
• Complex pathology-relevant models and assays remain in academia
• No biomarkers
• Two cultures that are vastly different
An Outsider’s Perspective

- Background
- Business career
- No pharma or academic research experience
- Multiple Sclerosis
Multiple Sclerosis and Myelin
The MRF Mission

• To accelerate the discovery of myelin repair treatments to improve the lives of people suffering from Multiple Sclerosis (MS), and

• To establish the MRF Accelerated Research Collaboration™ (ARC™) model as a new paradigm for all medical research.
Our Solution

The MRF Accelerated Collaboration Research (ARC) Model

“Manage” the entire therapeutic discovery continuum
Basic Consortium Results

• Truly collaborative team with all necessary expertise – academics, advisors, staff, boards

• New targets identified

• 100+ scientific studies published

• 7 U.S. patents

• Two clinical trials

• Commercial interest
Our Pipeline of MS Therapies
Strategies for Translating MRF Discoveries

- **Support existing biotech/pharma company pipelines**
  - Offer access to MRF Target Validation toolkit
  - Provide data for repurposing existing clinical candidates

- **Contracting**
  - Promote research collaborations
  - Fund target validation/drug discovery studies at CROs

- **Partnering**
  - Offer licensing options to MRF targets/tools
  - Create IP with biotech/pharma partners

- **Spinoffs**
  - Create new corporate entities to develop innovative MRF programs
The Ultimate Benefit for Pharma

- Access to MRF’s collaborative team of experts
- Access to assays and models
- Validated targets
- Freedom to operate
- Precompetitive collaborations / consortiums
Non-profits are in an Ideal Position

• The best entity to coordinate and be involved in the entire continuum – from discovery biology to FDA approval

• Why?
  • We are not risk averse
  • The luxury of a laser focus on one problem
  • Bridge between academic and business cultures
  • The only incentive is patient need
  • No quarterly earnings calls
What Makes Us Unique!

• We strategically coordinate and manage the entire process that turns basic science into drugs for patients
• We utilize the best “for-profit” business practices for operational success in medical research:
  • We have well-defined, measurable and attainable goals
  • We cultivate a flexible, focused and efficient culture
  • We coordinate all functions to achieve effective interrelationships and the accomplishment of a common goal
• We are the only medical research non-profit whose mission is to develop, demonstrate and expand a replicable model
• In addition to MS, we intend to proliferate our ARC model via license revenues for all disease indications
Validation & Support

Awards

- *Fast Company* magazine’s Top 10 Innovative Biotechs, Fast 50
- Research!America’s 2012 Gordon and Llura Gund Leadership Award
- *Scientific American*’s Top 50 worldwide for leadership in science, business and policy innovations
- Ernst & Young Entrepreneur of the Year, Social Entrepreneurship Award (Northern California)
- >70 other organizations have contacted MRF about the ARC™ model
The Myelin Repair Foundation is ‘Creating a Healthier Future for Patients’ – The Atlantic
Broad Impact for All Diseases

- ALS
- Arthritis
- Meningitis
- Multiple Sclerosis
- Neimann-Pick
- Autism
- Alzheimer's
- Stroke
- Celiac
- Parkinson's
- Allergies
- Diabetes
- Asthma
- HIV
- Cancer
Next Steps

In order to achieve our goal to develop the next generation of MS drugs:

$80 M

www.myelinrepair.org