

Alan J. Thompson, FRCP  
Dhia Chandraratna, PhD

Correspondence to  
Dr. Thompson:  
alan.thompson@ucl.ac.uk

## MULTIPLE SCLEROSIS INTERNATIONAL FEDERATION: STIMULATING INTERNATIONAL COOPERATION IN RESEARCH

The Multiple Sclerosis International Federation (MSIF), established in 1967, links the activities of more than 85 national MS societies worldwide. Over those 45 years, and particularly in the last 20, it has seen dramatic changes in our understanding, treatment, and multidisciplinary management of people with MS. However, these advances are not universal and there are embarrassing discrepancies in the levels of treatment and care provided in different parts of the world. MSIF's research strategy is guided by an International Medical and Scientific Board composed of 70 experts in MS, nominated by our member organizations and incorporating an Executive Committee. Our strategy focuses on areas that might benefit from a global approach, those that are newly emerging, and those that are particularly challenging. We encourage young investigators to enter the field of MS research, and particularly support those from underdeveloped countries to facilitate transfer of knowledge and expertise from more "expert" areas. Our current portfolio focuses on progressive MS, pediatric MS, and stem cell therapy.

**Research priorities.** Progression is the major determinant of disability in MS and its underlying pathophysiology is poorly understood. Despite numerous treatments for relapsing-remitting MS, little therapeutic advance has occurred in progressive MS. In January 2012, MSIF and the MS societies of Canada, Italy, the Netherlands, the United Kingdom, and the United States met in Washington, DC, and established an International Progressive MS Collaborative to leverage financial and intellectual resources to meet the needs of people living with progressive forms of MS.<sup>1</sup> United by a mission to "expedite the development of effective disease modifying and symptom management therapies," this group has focused on the following critical research areas:

- Experimental models
- Target pathways and drug repurposing
- Proof-of-concept trials

- Phase III clinical outcome measures
- Symptom management and rehabilitation

Working groups, drawing on expertise from academia and industry, have been tasked with identifying gaps and suggesting innovative collaborative models to effectively address these needs. The working groups presented their recommendations at a meeting in London in November 2012 and this was followed by the first International Scientific Conference on Progressive MS in Milan in February 2013, chaired by Prof. Alan Thompson and Prof. Giancarlo Comi. A first call for proposals is being launched in 2013.

MSIF coordinates and facilitates the work of the International Pediatric MS Study Group (IPMSSG), a group of more than 150 health care professionals from 40 countries with the aim of optimizing clinical care, education, and research in pediatric MS. The study group has published several consensus papers on treatments and definitions of pediatric MS. In January 2012, the IPMSSG held a Summit Workshop in Washington, DC on emerging therapeutics in pediatric MS, attended by representatives from academia, the pharmaceutical industry, and regulatory agencies, to analyze the feasibility, methodology, and priorities for pediatric clinical trials. Consensus was reached on the importance of clinical trials in pediatric MS and the number and sequence that the population can sustain.<sup>2</sup> The IPMSSG Clinical Trials Task Force engages with pharmaceutical companies and regulatory agencies to encourage advances in the treatment of MS in children in the shortest possible time with the highest degree of safety.

The study group has finalized a major grant proposal on environmental risk factors in pediatric MS. This multinational study, led by Prof. Brenda Banwell, will follow 800 children with a first demyelinating event to examine the relationship between environmental risk factors (e.g., vitamin D insufficiency, host responses to microbial infection) and the risk of developing MS.

MSIF is supporting an international panel of MS neurology and stem cell experts and immunologists

From the Institute of Neurology (A.J.T.), Faculty of Brain Sciences, University College London; and the Multiple Sclerosis International Federation (D.C.), London, UK.

Go to [Neurology.org](http://Neurology.org) for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

who have formed the International Mesenchymal Stem Cells Transplantation Study Group. The group published a consensus paper outlining plans for a phase I/II clinical trial, to be adopted by the entire study group.<sup>3</sup> This will allow a series of independent national studies to adopt identical protocols, inclusion and exclusion criteria, and outcomes data collection. Pooling results for centralized analysis will address the limits of small phase I/II studies and provide sufficient statistical power to draw conclusions on safety and efficacy. Trials are planned in Spain, England, Sweden, Denmark, France, Germany, Switzerland, the United States, Austria, and Canada. MSIF has officially endorsed the collaboration and committed £50,000 funding over a 3-year period.

**Supporting young researchers.** In its efforts to support and raise the standards of research worldwide, MSIF offers research fellowships to enable young researchers from emerging countries to travel to MS centers of excellence and work with the world's leaders in MS research. The ultimate aim is that the recipients can take back their knowledge and experience to advance MS research in their home countries. Named in honor of Prof. Ian McDonald, MSIF McDonald fellowships offer candidates £30,000 per year over 2 years. Since its launch in 2007, 18 fellowships have been awarded to researchers from Argentina, Brazil, Chile, China, Hungary, India, Iran, Mexico, Romania, Spain, and Thailand. Since 2000, 78 Du Pré grants of up to £5,000 have been awarded, enabling young researchers to carry out short-term projects in established MS research centers, thereby promoting international collaborative research. The MSIF Young Researchers Award was launched at the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) in 2009. The annual €1,500 award is given to the best oral presentation of a translational project at the ECTRIMS Young Researchers' session. The MSIF Research Alumni Programme was launched in April 2008 to foster a lifelong relationship between alumni and MSIF and promote the formation of a global MS research network.

**Other international initiatives.**

- The International Advisory Group for the Revision of the *ICD-10* advises the World Health Organization (WHO) on all steps leading to the revision for neurologic disorders. The classification will help in diagnosis, funding, and remuneration and potentially the targeting of treatments. This is particularly important in MS, where there have been recent improvements in understanding and treatment. Prof. Alan Thompson is leading for MS, which will now have its own section and include the concept of clinically isolated syndromes, including optic

neuritis. The new version will be more user-friendly and clinically relevant, and will be evaluated in field studies to test clinical utility, reliability, and cross-cultural applicability.

- The Atlas of MS online database was launched by MSIF in June 2006 with a limited dataset. Subsequently, the WHO and MSIF published the comprehensive Atlas of MS in September 2008, providing, for the first time, information and data on the epidemiology of MS and the availability of resources for people with MS at national and global levels. The Atlas of MS involves 112 countries, and has become an important resource for researchers and MS advocates worldwide. An update of the Atlas of MS database was launched at ECTRIMS 2013 ([www.atlasofms.org](http://www.atlasofms.org)).
- Launched in 2009, more than 60 countries participate in World MS Day on the last Wednesday of May each year. This public-facing campaign raises awareness of MS. World MS Day on May 29, 2013, focused on young people and MS. In 2014, the focus will be on barriers to access to treatment, care, and services.
- MS Research News is the most widely subscribed section of MSIF's free weekly e-newsletter "Making Connections" and contains a synopsis of the latest research articles selected by a team at the University College London Institute of Neurology. *MS in focus*, MSIF's flagship publication, is available in a range of languages, including Chinese, and more than 700,000 copies are downloaded annually. Topics include research, ataxia and tremor, spasticity, stem cells, pain, caregiving, and rehabilitation.

## STUDY FUNDING

No targeted funding reported.

## DISCLOSURE

A. Thompson chairs the Eisai Advisory Board (Clinical Neuroscience) (honorarium to UCL); is a member of the Imanova Advisory Board (no remuneration); is a trustee of the Brain Appeal, National Hospital for Neurology and Neurosurgery, Queen Square (no remuneration); receives a grant from the NIHR as a Senior Investigator; is a co-recipient of grants from the NIHR CBRC, Wolfson Foundation, MRC, Wellcome Trust, MS Society of GB, SRH Holding, and Eisai Inc.; has received honoraria and support for travel from Novartis and Sero Symposia International Foundation for invited lectures; and receives an honorarium as Editor-in-Chief for *Multiple Sclerosis Journal*, a free subscription as a member of the Editorial Board for *Lancet Neurology*, and publishing royalties from Cambridge University Press. D. Chandraratna reports no disclosures. Go to [Neurology.org](http://Neurology.org) for full disclosures.

## REFERENCES

1. Fox R, Thompson A, Baker D, Brown D, Brown P, et al. Setting a research agenda for progressive multiple sclerosis: The International Collaborative on Progressive MS. *Mult Scler J* 2012;18:1534–1540.

2. Chitnis T, Tenenbaum S, Banwell B, et al; for the International Paediatric Multiple Sclerosis Study Group. Consensus statement: evaluation of new and existing therapeutics for paediatric MS. *Mult Scler J* 2012;18:116–127.
3. Freedman MS, Bar-Or A, Atkins HL, et al; MSCT Study Group. The therapeutic potential of mesenchymal stem cell transplantation as a treatment for multiple sclerosis: consensus report of the International MSCT Study Group. *Mult Scler* 2010;16:503–510.