



National Multiple Sclerosis Society
733 Third Avenue
New York, New York 10017-3288
Tel +1 212.986.3240
Fax +1 212.986.7981
E-mail nat@nmss.org
nationalmssociety.org

RESEARCH/CLINICAL UPDATE

Keyword:	ACTRIMS, CMSC
Section:	TREATMENTS, INVESTIGATIONAL

ACTRIMS and CMSC Meetings Focus On Emerging MS Therapies and Quality of Life Issues

The exciting world of “Emerging Therapies for Multiple Sclerosis” was the topic of the 12th annual meeting of ACTRIMS (Americas Committee for Treatment and Research in Multiple Sclerosis) on June 2 in Washington DC. For the first time, ACTRIMS was held in conjunction with the Consortium of MS Centers Annual Meeting. (For more on the CMSC meeting, see below.) Chaired by Jerry S. Wolinsky, MD (The University of Texas Health Sciences Center, Houston), ACTRIMS was jointly sponsored by the National MS Society and the University of Maryland School of Medicine, in collaboration with the MS Society of Canada. The complete program is posted online in PDF form at www.nationalmssociety.org/07ACTRIMSprogram.

The joint CMSC-ACTRIMS Donald Paty Memorial Lecture was delivered by Herman Waldmann, FRS (University of Oxford, England). Dr. Waldmann spoke about prospects for developing MS therapies that “**reprogram**” the immune system attack on the brain and spinal cord that occurs in people with MS. These strategies might include:

- Empowering the body’s own capacity to regulate the immune attack, for example, by increasing regulatory T cells. “This would allow minimization or even elimination of immunosuppressive drugs,” said Dr. Waldmann.
- Developing agents that inhibit signaling or migration of attacking T cells.
- Using immune system proteins known as antibodies to temporarily block attacking T cells. “These can create a ceasefire during which naïve T-cells [which are neither disease-causing nor regulatory] can get recruited into a policing role,” he added.

Three of the ACTRIMS featured speakers also focused on **monoclonal antibodies** (MABs), laboratory-produced antibodies that can be programmed to attach to and interfere with specific molecules to alter the immune response:

- Olaf Stüve, MD, PhD (University of Texas Southwestern Medical Center, Dallas) reported on a study in which the safety and effectiveness of FDA-approved natalizumab

(Tysabri®, Biogen Idec) was evaluated in 23 people for 14 months after they had undergone treatment in the course of clinical trials. In this small study, the majority of patients remained stable, no infectious complications occurred, and immune cell deficiencies caused by the drug returned to normal.

- Bibiana Bielekova, MD (University of Cincinnati) reported on immunologic studies of participants in two phase II studies of daclizumab (PDL BioPharma and Biogen Idec). They showed that daclizumab treatment expanded the population of natural killer cells -- immune cells that then reduced the numbers of attacking T cells. Another phase II study in 297 people with relapsing-remitting MS is planned for this fall in Europe.
- Emmanuelle Waubant, MD, PhD (University of California at San Francisco) reported on positive results from recent studies of rituximab (Rituxan®, Genentech and Biogen Idec) in relapsing-remitting MS. This drug depletes immune B cells, which may play a role in the immune attack in MS. Rituximab is a combination of mouse and human antibodies. Dr. Waubant noted that “the next generation” of this agent is under development, and is more humanized, which may help to reduce infusion reactions.

Peter Calabresi, MD (The Johns Hopkins University, Baltimore) – primary investigator of a team funded by the Society’s Promise:2010 campaign to investigate nervous system repair and protection – reviewed strategies under study for **protecting nerve fibers** in MS. Although the hallmark of MS is damage to nerve fiber-insulating myelin, recent research indicates that damage to nerve fibers may be the primary factor leading to progressive disability.

- Erythropoietin, a naturally occurring protein that has been used to treat anemia, has recently shown neuroprotective effects.
 - Sodium-channel blockers may help to correct abnormalities found in MS in the tiny pores along nerve fibers that are essential for proper nerve impulse conduction.
 - A component of the myelin sheath – the nerve fiber insulation damaged in MS – called myelin associated glycoprotein (MAG) may have neuroprotective effects that can be reproduced by administering myelin protein fragments.

Fred Lublin, MD (Mount Sinai School of Medicine, New York) spoke about the **design of clinical trials** as more drugs advance through the pipeline that are more aggressive and/or easier to administer. “The outcome measures currently in use, relapse rate reduction and time to disability, should be suitable for a newer generation of immunomodulatory agents, although increased attention to safety elements may be warranted,” he said. Dr. Lublin also noted that advanced MRI technologies may be of value in assessing underlying tissue damage and repair for neuroprotective agents, but that their success will depend on the ability to make them available at all sites of large, multicenter trials.

In addition to these featured talks, nearly 50 platform and poster presentations reported on laboratory and clinical MS research; at least 22 were funded by the National MS Society’s research programs.

Report from the CMSC

For the first time, ACTRIMS was held jointly with the 21st Annual Meeting of the Consortium of MS Centers. A poster session held on June 1 featured both ACTRIMS and CMSC papers, facilitating networking among the many professionals – basic and clinical researchers, neurologists, and allied health professionals – attending these meetings. The CMSC focuses on the clinical care of people with MS. Here is just a small sample of more than 100 reports on research to improve the care of people with MS from this meeting:

- Celeste Hunter, MS, CRC (University of Washington, Seattle) and colleagues are providing **motivational interviewing** (a brief counseling approach that enhances motivation to change by exploring and resolving ambivalence) sessions by telephone to explore whether people with MS might use this technique to resolve employment issues. They have preliminary data suggesting motivational interviewing may be useful in preserving employment and are now conducting a controlled clinical trial in 60 people with MS.
- Karen Turpin, MSc, BScN (University of Alberta, Edmonton) and colleagues interviewed 41 people with MS living in **long-term care facilities about pain** and pain treatments. They found that about half were in mild-to-moderate pain on a continual basis, although less than 25% remembered being asked to measure this pain. The patients rated most pain medications to be effective; their greatest concern was related to possible side effects such as drowsiness and weakness. These findings might be useful in guiding pain management in this population.
- Trudy Campbell, MN, RN, NP, MSCN (Dalhousie MS Research Unit, Halifax, Nova Scotia) asked 265 people with MS to report on their **social anxiety** using several scales. The investigators found that social anxiety was common in this group, and appeared to be unrelated to the severity of neurological disability. These results are important for managing the comprehensive care of people with MS.
- Lynn F. Bloom, MSW (The Rehabilitation Center, Ottawa, ON, Canada) and colleagues reported on the development of a 5-week **wellness series for people with progressive MS**. Individuals with MS were involved in the design of the sessions. Topics included spirituality and personal growth, nutrition and exercise, assertiveness and mindfulness, and leisure activity. The results so far indicate that the sessions were well received by the participants and facilitators, and a more in-depth evaluation is underway.
- Randolph Schiffer, MD (Texas Tech University, Lubbock) and colleagues presented the Goldman Algorithm, a six-step guideline for **identifying and treating depression** in people with MS – a common symptom. It is designed to be used by non-psychiatrists, with backup available from psychiatrists and psychologists. Clinical trials are planned to further develop these guidelines.

-- Research and Clinical Programs

Rituxan is a registered trademark of Genentech and Biogen Idec

Tysabri is a registered trademark of Biogen Idec and Elan