MRI Evidence for Neuroprotection in Multiple Sclerosis: Can Imaging Techniques Measure Remyelination and Regeneration?

**Course Overview**

Conventional MRI can improve the accuracy of MS diagnosis and monitoring, detect therapy effectiveness and refine clinical assessments. However, non-conventional MRI—by capturing a broader range of tissue alterations due to inflammation, demyelination, neurodegeneration and axonal loss—can clarify mechanisms of the underlying pathophysiology as well as the natural history of MS. Detailed discussion of the effects of disease-modifying treatments on these MRI measures will provide the attendees with current, advanced data on which to base their clinical decisions and enhance patient care.

**Course Objectives**

- Describe the role of conventional and non-conventional MRI techniques in monitoring disease progression in MS
- Evaluate cross-sectional and longitudinal outcome studies which used Gd-enhancing, T2-hyperintense and T1-hypointense lesions, brain atrophy, magnetization transfer and spectroscopy metrics
- Assess the effect of disease-modifying treatments on these MRI measures
- Discuss immunological-MRI correlations
- Discuss short- and long-term clinical studies and their relation to conventional MRI techniques
- Discuss emerging MRI techniques to better monitor demyelination, remyelination and regeneration, including optic and regional imaging outcomes
- Discuss the role of quantified imaging in routine clinical practice

**Agenda**

7:30 Registration / Continental Breakfast
8:30 Welcome and Introduction
Robert Zivadinov, MD PhD
8:45 Inflammation and Neurodegeneration in MS as Evidenced by MRI: Current Knowledge and Future Perspectives
Robert Zivadinov, MD PhD
9:30 Role of New MRI Techniques in Monitoring Inflammation and Neurodegeneration in MS: Implications for New Trial Designs and Better Understanding of MS Pathogenesis
Matilde Inglese, MD, PhD
10:15 Discussion on MRI Measures
10:30 Break
10:45 Immunology and MRI: Implications for Better Interpretation of Clinical Trials in MS
Amit Bar-Or, MD, FRCP(C), MSc
11:15 Clinical Status and MRI: Natural History Studies and Long-Term Data from Clinical Trials
Thomas Leist, MD, PhD
11:45 Cognitive Status & MRI: Current Knowledge & Future Directions
Ralph Benedict, Ph, ABPP-CN
12:15 Discussion on Immunological Clinical Topics
1:00 Luncheon

**Registration Information**

Early Registration Deadline: March 26, 2007
Registration Fee: Prior to Deadline $35.00
On or After Deadline $45.00

Included in Registration Fee:
- syllabus
- program binder
- meals/refreshments

Registrations cancelled prior to March 26, 2007 will be refunded, less a $10.00 processing fee. No refunds issued after March 26, 2007.

**Target Audience**

Neurologists, multiple sclerosis specialists, neuroradiologists, physicians, residents, medical students, research scholars and pharmaceutical industry representatives.

**Accreditation**

The State University of New York at Buffalo (SB) School of Medicine and Biomedical Sciences is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The UB School of Medicine & Biomedical Sciences designates this educational activity for a maximum of 4.0 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

**Affiliations**

State University of New York (SUNY) at Buffalo.
School of Biomedical Sciences, Continuing Medical Education Office

The Jacobs Neurological Institute: Department of Neurology SUNY at Buffalo, School of Biomedical Sciences
Event Planning/Organization by Meeting Excellence, Inc.
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