45th Annual Course in Electrodiagnostic Medicine:  
Clinical and Electrical Evaluation of the Peripheral Nervous System  
January 31 - February 2, 2018

Course Objectives  
At the conclusion of this conference, participants should be able to:

- Identify normal muscle membrane physiology, physiology of normal, neuropathic and myopathic voluntary motor unit potentials as well as firing patterns between muscle fiber and motor unit potentials.
- Identify the indications and contraindications for the use of botulinum toxin.
- Differentiate normal from abnormal recruitment frequency and ratio.
- Identify technical and physiologic factors that affect latency, conduction velocity, temporal dispersion, and amplitude including phase cancellation.
- Describe neurapraxia, axonotmesis and intraneural neurotmesis based on the type, site and duration of nerve injury.
- Recognize the classification of nerve injuries as a dynamic process.
- Review the evidence for selecting appropriate localization modes and identify clinical scenarios that require multiple guidance techniques for chemodenervation.
- Describe how electrodiagnostic testing can be utilized to achieve optimal clinical outcomes and prevent untoward complications.
- Recognize how late responses contribute to differentiating between axonopathies and myelinopathies at a proximal level, and how they contribute to diagnosis.
- Differentiate axonotmesis from intraneural neurotmesis based on type, site and duration symptoms.
- Characterize median, ulnar, peroneal and tibial nerve lesions based on the type, site and duration of injury.
- Describe the clinical and histopathophysiology of neuromuscular junction disease.
- Identify a clinical and electrical approach to myopathies.
- Explain anomalous innervation based on factors that affect latency, conduction velocity, temporal dispersion, amplitude and initial deflection.
- Clinically and electrically differentiate anterior horn cell disease from its mimics.
- Identify the similarities and differences between diffuse and focal neurapraxias, axonotmesis and intraneural neurotmesis.
- Develop strategies with peers to continuously evaluate the use of symptoms, signs, electrodiagnosis and ultrasonography in the assessment and management of patients.
Assess their individual practice in light of the information and discussions during the conference, and identify specific strategies to implement as part of a continuing improvement process for their practices.