



## Overarching Educational Objectives

Following completion of the Congress, participants will be better able to:

- 1) Apply new scientific data and clinical guidelines to improve patient selection and treatment outcomes for neuromodulation.
- 2) Identify potential benefits, limitations and complications of neuromodulation therapies.
- 3) Interpret study results based on trial design and apply lessons learned for application in the design of future trials.
- 4) Analyze psychological/psychiatric factors affecting outcomes in the treatment of chronic pain, movement disorders, cognitive and other disorders.
- 5) Describe the bioengineering challenges and solutions at the neural interface, fundamentals and mechanisms of action of neuromodulation.
- 6) Discuss and analyze the anatomy and physiology of the central CNS, peripheral and autonomic nervous systems to assist in patient selection, target selection and likelihood of therapeutic success.
- 7) Discuss the uses of devices for functional electrical stimulation including rehabilitation of motor loss, loss of sensory function, and loss of cognitive function.
- 8) Describe emerging neuromodulation therapies, new paradigms of therapy target selection and associated research in the medical field of neuromodulation.
- 9) Distinguish mechanisms of disease states, such as complex regional pain syndrome, refractory angina and visceral pain syndromes and explain the current position of neuromodulation in these conditions.
- 10) Explain the many variations now available for electrical stimulation and how to select the appropriate technology.
- 11) Describe the increasing application of neuromodulation for chronic heart disease, as well as genitourinary and gastrointestinal disorders.
- 12) Explain the scientific merit and best practices for the use of intrathecal drug infusions including patient selection, drug selection and complication management.
- 13) Critically appraise research methodology in neuromodulation and recognize how evolving treatment guidelines and registries are important.
- 14) Apply the increasing knowledge base for neuromodulation in a wide variety of chronic illness management.
- 15) Explain how cancer pain management has evolved into managing the pain of cancer survivors and recognize the growing need for neuromodulation solutions.

