

***29<sup>th</sup> Annual Pan Philadelphia Neurosurgery Conference:  
The Future of Neurosurgery Is Now***

Friday, December 1, 2017  
The Union League of Philadelphia  
Philadelphia, Pennsylvania

*Learning Objectives*

At the conclusion of this course, participants should be able to:

- Recognize the contributions of space medicine to astronaut health and performance and explore how these principles and programs can be translated to terrestrial applications.
- Review and assess the increasing role of brain-machine interfaces in neurologic recovery.
- Discuss the current role of laser interstitial thermal therapy (LITT) for epilepsy and evaluate the role of focused ultrasound in the treatment of functional movement disorders.
- Examine the increasing role of neuromodulatory procedures in the treatment of chronic, refractory spinal pain.
- Discuss the clinical outcomes and future directions of immunotherapy for CNS malignancies.
- Evaluate new technologies allowing for fluorescence-based resection of brain tumors.
- Review and assess the increasing applications of radiosurgery in the treatment of brain tumors and the expanded role of connectomics and functional pathways in brain tumor surgery.
- Discuss emerging paradigms in academic neurosurgery departmental organization and residency training.
- Describe the emerging applications of flow diversion for CNS vascular pathologies and evaluate the role of skull base approaches for complex aneurysms including the use of vascular bypass.
- Identify and survey the future role of coil embolization for complex, challenging aneurysms.
- Examine the future in health care policy and identify strategies to maximize value in spinal surgeries.

- Analyze the emerging applications of robotics in spinal surgery and evaluate the role of minimally invasive spinal surgery including the importance of motion preservation technologies.
- Assess their individual practice in light of the information and discussions during the course, and identify specific strategies to implement as part of a continuing improvement process for their practices.