



## AO Spine NA Webinar—Technical Navigation & Robotics

 August 28, 2024 - August 28, 2024  
Online, N/A, USA

**Time:** 8pm Eastern Time

**Target Audience:** Orthopedic Spine Surgeons and Neurosurgeons

**Webinar Overview:**

This session will cover the integration of robotic systems and navigation tools, enhancing surgical precision, safety, and outcomes. Our expert speakers will discuss the practical applications of these technologies, share case studies, and provide guidance on implementing these innovations in clinical practice.



### Event Summary

**Tuition:**  
Level Name: Participant - Spine  
Pricing Tier: Attending  
Tuition: \$0.00

**Course Prerequisite(s):**  
No Prerequisites

**Venue:**  
No Venue

**Language(s):**  
English  
**Directly Provided by:**  


**Professional Level Prerequisite(s):**  
No Prerequisites

## CME

### Continuing Education Credit: 1.00



- AO North America is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

**Designation Statement** - AO North America designates this live educational activity for a maximum of 1.00 **AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The Continuing Medical Education (CME) mission of AO North America (AONA®) is to provide comprehensive multidisciplinary needs based education to surgeons, fellows, and residents in the specialties of orthopedic, hand, craniomaxillofacial, spine, neurosurgery, and veterinary surgery in the areas of trauma (i.e., operative reduction and fixation), degenerative disorders, deformities, tumors, and reconstruction.

Expected results of AONA's CME activities for surgeons, fellows, and residents are to:

- Increase their knowledge base and surgical skill level
- Improve competence by applying advances of knowledge in patient care in the areas of trauma, degenerative disorders, deformities, tumors, and reconstructive surgical techniques
- Address practice performance gaps by improving management of aspects of traumatic injuries and musculoskeletal disorders (i.e., pre-operative planning to post-operative care)

## Learning Objectives

Upon completion, participants should be able to:

- Describe the key components and functions of robotic-assisted systems in spine surgery
- Identify the navigation technologies and their specific applications
- Demonstrate how to integrate robotic and navigation tools into clinical workflows
- Evaluate case studies where robotic-assisted and navigation technologies can be implemented

## Faculty



### Bydon, Mohamad - Chairperson

MD  
Charles B. & Ann L. Johnson Professor of Neurosurgery  
Professor of Orthopedic Surgery  
Professor of Health Services Research  
Mayo Clinic  
Rochester, Minnesota

Mohamad Bydon, M.D. is a neurosurgeon at Mayo Clinic in Rochester, Minnesota, USA and the Charles B. & Ann L. Johnson Professor of Neurosurgery. Dr. Bydon earned his B.A. at Dartmouth College. He completed a post-baccalaureate program at Johns Hopkins School of Medicine prior to a research fellowship at a Howard Hughes Medical Institute laboratory. He earned his M.D. at Yale University School of Medicine. He continued his training at Johns Hopkins Hospital, completing residency and chief residency in neurosurgery, as well as a Fellowship in Complex Spinal Surgery and Spinal Oncology. Dr. Bydon has a busy surgical practice, with a focus on minimally invasive and robotic approaches to complex spinal conditions. He is Medical Director of the Mayo Clinic Enterprise Neurosurgical Registry and Principal Investigator of the Mayo Clinic Neuro-Informatics Laboratory.



### Lehman, Ronald - Lecturer

MD  
Professor of Orthopaedic Surgery, Tenure  
Chief, MIS and Robotic Spine Surgery  
Division Chief of Spine Surgery  
Director, Complex Pediatric and Adult Spine Fellowship  
Columbia University Medical Center  
New York, New York



### Theodore, Nicholas - Lecturer

MD, FACS, FAANS  
Professor  
Johns Hopkins University  
Baltimore, Maryland

Nicholas Theodore, MD is the Donlin M. Long Professor and Professor of Neurosurgery, Orthopaedic Surgery and Biomedical Engineering at Johns Hopkins University School of Medicine. He is the Director of the Neurological Spine Program, Co-Director of the Carnegie Center for Surgical Innovation and Director of the Complex Spine Fellowship. He graduated from Cornell University, where he was the recipient of a Cornell Tradition Academic Fellowship. He attended medical school at Georgetown University, where he graduated with honors and was inducted into AOA. He is a member of the American Academy of Neurological Surgery. He is the author of over 400 scientific publications and the recipient of many research awards, including the Tasker, Mayfield and NASS Awards. He has been the recipient of several grants awarded by the National Institutes of Health, National Science Foundation as well as a major award from the Department of Defense for a multi-center study examining the effects of cerebrospinal fluid drainage in acute spinal cord injury. In 2010 with Neil Crawford, PhD he founded Excelsius Surgical, a surgical robotics company which was sold to Globus Medical in 2013. The technology associated with this venture led to the first real-time image-guided surgical robot for spine surgery and was the most successful launch of a surgical robot in medical device history. He is active in injury prevention and advocacy and has been involved with ThinkFirst for many years, serving as both the Medical Director and National President of the Board of Directors. In 2018 he was appointed Chairman of the National Football League's Head Neck and Spine Committee, which advises the league on neuroscience, concussion and other health and safety issues. In 2020 he received a \$13.48M award from DARPA as principal investigator of a multi-center team which will develop cutting edge implantable imaging and neuromodulation technologies for spinal cord injury.

## Agenda

### Day 1

**Wednesday, August 28, 2024 - 20:00 - 21:00**

Schedule	Title	Moderator	Faculty	Room
20:00 - 20:05	Welcome and Introductions		Bydon, M	
20:05 - 20:25	Overview of Robotics		Theodore, N	
20:25 - 20:30	Audience Questions		Bydon, M Lehman, R Theodore, N	
20:30 - 20:50	Robotics		Lehman, R	
20:50 - 20:55	Audience Questions		Bydon, M Lehman, R Theodore, N	
20:55 - 21:00	Closing Remarks		Bydon, M	
21:00 - 21:00	Adjournment			

## AO NA Disclaimer Information

### Faculty Disclosure:

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All scientific research referred to, reported or used in this CME activity in support or justification of a patient care recommendation conforms to the generally accepted standards of experimental design, data collection and analysis.

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## Acknowledgment

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