

***5th Annual Mayo Clinic Neurosurgery and
Neurology Advances Update:
Brain, Spine, and Peripheral Nerves
April 4-6, 2024***

Thursday, April 4, 2024

7:00 a.m. **Registration, Continental Breakfast, and Exhibits**

8:00 a.m. **Welcome and Introductions**
Bernard R. Bendok, M.D.

8:05 a.m. **Course Overview, Daily Goals, and Objectives**
Bernard R. Bendok, M.D.

SESSION I: **Artificial Intelligence in Neurosurgery and Neurology**

MODERATOR(S): Ramiro Del Valle, M.D.; Alejandro Zavala, M.D.;
Chandan Krishna, M.D.; and Bernard R. Bendok, M.D.

8:15 a.m. **Artificial Intelligence in Medicine**
Bhavik N. Patel, M.D., M.B.A.

8:30 a.m. **Artificial Intelligence for the Diagnosis and
Management of Aneurysms**
Bernard R. Bendok, M.D.

8:45 a.m. **Artificial Intelligence Applications in Neurosurgery**
Devi P. Patra, M.B.B.S.

9:00 a.m. **Artificial Intelligence Round Table Panel Discussion**
Speakers and Moderators

SESSION II: **Spine and Peripheral Nerve Oncology**

MODERATOR(S): Shannon P. Fortin Ensign, M.D., Ph.D. and Shelley S. Noland, M.D.

9:20 a.m. **Spine Oncology Recent Surgical Innovations**
Maziyar A. Kalani, M.D.

Thursday, April 4, 2024 *(continued)*

9:35 a.m.	Peripheral Nerve Tumors Robert J. Spinner, M.D.
9:45 a.m.	Radiotherapy and Proton Beam for Spine and Peripheral Nerve Oncology Sujay A. Vora, M.D.
10:00 a.m.	Round Table Panel Discussion Speakers and Moderators
10:20 a.m.	Refreshment Break and Exhibits
SESSION III:	Innovations in Spine Care Management
MODERATOR(S):	Naresh P. Patel, M.D. and Arthur J. De Luigi, D.O., M.H.A.
10:35 a.m.	Innovations in Neuromonitoring in Spinal Surgery Jaime Lopez, M.D.
10:45 a.m.	Pediatric and Adult Deformity Jamal McClendon Jr., M.D.
10:55 a.m.	Robotics in Spine Surgery Chandan Krishna, M.D.
11:05 a.m.	Advances in Neuromodulation for Back Pain Naresh P. Patel, M.D.
11:15 a.m.	Innovations in Pain Management Christopher S. Wie, M.D.
11:25 a.m.	Case-Based Panel Discussion and Q&A Speakers and Moderators
11:55 a.m.	Spine Hands-On Workshop #1 Spine Hands-On Workshop #2 Bernard R. Bendok, M.D., Chandan Krishna, M.D., Jamal McClendon Jr., M.D., Maziyar A. Kalani, M.D.; Nora J. Schaefer, R.N., CNRN
12:55 p.m.	Lunch and Exhibits (Product Theater)

Thursday, April 4, 2024 *(continued)*

- 1:55 p.m. **APP Session Opening Remarks**
JoDee A. Winter, P.A.-C.
- 2:00 p.m. **Examination of Neck and Shoulder Complaints**
Susan M. Lemens, P.A.-C.
- 2:20 p.m. **Epilepsy Surgery**
Taylor A. Phelps, P.A.-C.
- 2:40 p.m. **TBD**
Lexi Adamski, P.A.-C.
- 3:00 p.m. **Shunts**
JoDee A. Winter, P.A.-C.
- 3:20 p.m. **Trigeminal Neuralgia Diagnosis and Treatment Options**
Maggie A. Weeks, P.A.-C., M.S.
- 3:40 p.m. **APP Hands-On Stations:**
Lexi Adamski, P.A.-C.; Miles A. Hudson, M.D.; Susan M. Lemens, P.A.-C.;
Devi P. Patra, M.B.B.S.; Taylor A. Phelps, P.A.-C.; Nora J. Schaefer, R.N.,
CNRN; Maggie A. Weeks, P.A.-C., M.S.; JoDee A. Winter, P.A.-C.
- 1) Headframe Application**
 2) Cranial Plating
 3) Virtual Reality Walkthrough
- 5:00 p.m. **Adjourn**

Friday, April 5, 2024

Neurology Sessions

7:00 a.m. **Continental Breakfast and Exhibits**

8:00 a.m. **Daily Overview of Goals and Objectives**
Bernard R. Bendok, M.D.

SESSION IV: Innovations in Neurophysiological Monitoring and Epilepsy Surgery

MODERATOR(S): Joseph I. Sirven, M.D.; Richard S. Zimmerman, M.D.;
Jaime Lopez, M.D.; and Alejandro Zavala, M.D.

8:15 a.m. **Technological Advancements in Epilepsy Neuromodulation: Focal, Regional, & Global Approaches**
Jonathon J. Parker, M.D., Ph.D.

8:30 a.m. **Intersections of Neurophysiology and Neurosurgery**
Joseph I. Sirven, M.D.

8:45 a.m. **Innovations in Neurophysiological Monitoring for Neurosurgery**
Jaime Lopez, M.D.

9:00 a.m. **Round Table Panel Discussion**
Speakers and Moderators

SESSION V: Neurovascular: Acute Stroke Intervention

MODERATOR(S): Robert J. Spinner, M.D. and Ayan Sen, M.D.

9:15 a.m. **Telehealth in Stroke Management**
Bart Demaerschalk, M.D.

9:30 a.m. **The Impact of Dr. Thor Sundt on Neurosurgery and Vascular Neurosurgery**
Robert J. Spinner, M.D.

9:45 a.m. **Carotid Disease Management**
Chandan Krishna, M.D.

10:00 a.m. **IA Stroke Therapy**
Ali Turkmani, M.D.

10:15 a.m. **Vagus Nerve Stimulation for Stroke**
Jonathon J. Parker, M.D., Ph.D.

Friday, April 5, 2024 *(continued)*

10:30 a.m.	Case-Based Panel Discussion and Q&A Speakers and Moderators
10:45 a.m.	Refreshment Break and Exhibits
SESSION VI:	Neurovascular: Aneurysm and AVM Innovations
MODERATOR(S):	Robert J. Spinner, M.D. and Ayan Sen, M.D.
11:00 a.m.	Subarachnoid Hemorrhage Management Ayan Sen, M.D.
11:15 a.m.	Familial Aneurysms and Arteriovenous Malformations Devi P. Patra, M.D.
11:30 a.m.	Innovations in Aneurysm Management Bernard R. Bendok, M.D.
12:00 p.m.	Advances in Arteriovenous Malformations Management Bernard R. Bendok, M.D.
12:15 p.m.	Case-Based Panel Discussion and Q&A Speakers and Moderators
12:30 p.m.	Lunch and Exhibits (Product Theater)
1:30 p.m.	Cranial Hands-On Workshops: Bypass, Endovascular, Epilepsy Stations Chandan Krishna, M.D.; Joseph I. Sirven, M.D.; Devi P. Patra, M.B.B.S.; Benard R. Bendok, M.D.; and Jonathon J. Parker, M.D.; Nora J. Schaefer, R.N., CNRN
3:00 p.m.	Adjourn
6:00 p.m.	Dinner Invited Guest Speaker: Robert J. Spinner, M.D.

Saturday, April 6, 2024

7:00 a.m.	Continental Breakfast and Exhibits
8:00 a.m.	Daily Overview of Goals and Objectives Bernard R. Bendok, M.D.
SESSION VII:	Tumor and Skull Base Session
MODERATOR(S):	Robert J. Spinner, M.D.
8:15 a.m.	Medical Management of Pituitary Adenomas Aditi Kumar, M.B.B.S.
8:30 a.m.	Neuro-ophthalmology of Pituitary Tumors Marie A Di Nome, M.D.
8:45 a.m.	Advances in Endoscopic Approaches to the Sella Amar Miglani, M.D.
9:00 a.m.	Innovations in Pituitary Surgery Bernard R. Bendok, M.D.
9:15 a.m.	When a Headache is Not Just a Headache Rashmi B. Halker Singh, M.D.
9:25 a.m.	Case-Based Panel Discussion and Q&A Speakers and Moderators
SESSION VIII:	Chordomas
MODERATOR(S):	Maciej M. Mrugala, M.D., Ph.D.
9:35 a.m.	Medical Options and Clinical Trials for Chordomas Maciej M. Mrugala, M.D., Ph.D.
9:50 a.m.	Surgical Management for Chordomas Bernard R. Bendok, M.D.
10:05 a.m.	Radiotherapy for Chordomas Sameer R. Keole, M.D.

Saturday, April 6, 2024 *(continued)*

10:20 a.m.	Case-Based Panel Discussion and Q&A Speakers and Moderators
10:35 a.m.	Refreshment Break and Exhibits
SESSION IX:	Acoustic Neuromas
MODERATOR(S):	Shannon P. Fortin Ensign, M.D., Ph.D.
10:50 a.m.	Radiosurgery for Acoustic Neuromas Ramiro Del Valle, M.D.
11:05 a.m.	Translabyrinthine Approaches Nicholas L. Deep, M.D.
11:20 a.m.	Retrosigmoid Approach Bernard R. Bendok, M.D.
11:35 a.m.	Medical Options and Clinical Trials for Acoustic Neuromas Shannon P. Fortin Ensign, M.D., Ph.D.
11:50 a.m.	Tumor Board Speakers and Moderators
12:35 p.m.	Closing Remarks
12:40 p.m.	Adjourn