

*1st Annual Mayo Clinic
Advances & Innovations in
Complex Neuroscience Patient Care:
Brain & Spine
Program Schedule*

Thursday, November 2, 2017

6:45 a.m. **Registration**
 Continental Breakfast & Exhibits

7:30 a.m. **Welcome & Introductions**
 Bernard R. Bendok, M.D.

Session 1: Peripheral Nerves

MODERATOR: Shelley S. Noland, M.D.

7:45 a.m. **Peripheral Nerve Tumors**
 Robert J. Spinner, M.D.

7:55 a.m. **Pediatric Peripheral Nerve**
 P. David Adelson, M.D.

8:05 a.m. **Panel Discussion**
 P. David Adelson, M.D., Shelley S. Noland, M.D.;
 Robert J. Spinner, M.D.

Session 2: Minimally Invasive Spine Management

MODERATORS: John A. Freeman, D.O. and Chandan Krishna, M.D.

8:25 a.m. **Cervical and Lumbar Disk Disease Conservative**
 John A. Freeman, D.O.

8:35 a.m. **Behavioral Chronic Pain Management**
 Cynthia O. Townsend, Ph.D., L.P.

8:45 a.m. **MIS and Arthroplasty Cervical**
 Jamal McClendon, Jr., M.D.

8:55 a.m. **Role of Physiatry in Back Pain Management**
 Stefan G. Humphries, M.D.

Thursday, November 2, 2017 (continued)

- 9:15 a.m. **MIS Lumbar**
Chandan Krishna, M.D.
- 9:25 a.m. **Spine Care Simulation**
John A. Freeman, D.O.; Chandan Krishna, M.D.; Stefan G. Humphries, M.D.;
Jamal McClendon, Jr., M.D.; Cynthia O. Townsend, Ph.D., L.P.
- 9:45 a.m. **Refreshment Break and Exhibits**
- Session 3: Scoliosis and Spinal Deformity**
MODERATORS: Jeremy L. Fogelson, M.D.; Jamal McClendon, Jr., M.D.;
Mark A. Pichelmann, M.D.
- 10:15 a.m. **Pediatric Scoliosis: When to Treat Infantile Scoliosis**
Jamal McClendon, Jr., M.D.
- 10:25 a.m. **Pediatric Scoliosis: Early Onset Scoliosis**
Judson W. Karlen, M.D.
- 10:35 a.m. **Pediatric Scoliosis: Challenging AIS, Congenital,
Neuromuscular Presentation**
Gregory R. White, M.D.
- 10:45 a.m. **Techniques**
Mohan V. Belthur, M.D.
- 10:55 a.m. **Chiari and Tethered Cord**
P. David Adelson, M.D.
- 11:05 a.m. **Pediatric vs Adult Scoliosis**
Jeremy L. Fogelson, M.D.
- 11:15 a.m. **Challenges in Adult Deformity**
Mark A. Pichelmann, M.D.
- 11:25 a.m. **Panel Discussion**
P. David Adelson, M.D.; Mohan V. Belthur, M.D.; Jeremy L. Fogelson, M.D.;
Judson W. Karlen, M.D.; Jamal McClendon, Jr., M.D.;
Mark A. Pichelmann, M.D.; Gregory R. White, M.D.

Session 4: Spine Oncology

- MODERATORS:** Sameer R. Keole, M.D. and Jamal McClendon, Jr., M.D.
- 11:45 a.m. **Surgery and Embolization for Spine Oncology**
Jamal McClendon, Jr., M.D.
- 11:55 a.m. **Intradural Tumors**
Alfredo Quinones-Hinojosa, M.D.

Thursday, November 2, 2017 (continued)

12:05 p.m. **Radiosurgery and Proton Beam for Spine Oncology**
Sameer R. Keole, M.D.

12:15 p.m. **Panel Discussion**
Sameer R. Keole, M.D.; Jamal McClendon, Jr., M.D.;
Alfredo Quinones-Hinojosa, M.D.

Session 5: Deep Brain Stimulation

MODERATORS: Mark K. Lyons, M.D. and Shyamal H. Mehta, M.D., Ph.D.

12:35 p.m. **DBS Innovations**
Shyamal H. Mehta, M.D., Ph.D.

12:45 p.m. **DBS Update**
Mark K. Lyons, M.D.

12:55 p.m. **Panel Discussion**
Mark K. Lyons, M.D. and Shyamal H. Mehta, M.D., Ph.D.

1:15 p.m. **Course adjourns for the day**

OPTIONAL WORKSHOP

1:15 p.m. **Registration / Lunch for Workshop Attendees**

1:45 p.m. **Workshop Introduction**
Chandan Krishna, M.D.

2:00 p.m. **Workshop Stations**

1. Electrical Stimulation for Brain Cancer
Alyx B. Porter, M.D.

2. Ommaya
Maciej M. Mrugala, M.D., Ph.D.

3. Stentriever and Stent Coil
Mithun Sattur, M.B.B.S.

4. Intracerebral Hemorrhage (ICH) Evaluation
Mithun Sattur, M.B.B.S.

5. Lateral/Posterior Lumbar and Cervical Spinal Fusion
Jamal McClendon, Jr., M.D.

Thursday, November 2, 2017 (continued)

- 2:00 p.m. **6. Fusion Navigation with S8 with AR**
Richard S. Zimmerman, M.D.
- 7. Simulation Laser Ablation**
Richard S. Zimmerman, M.D.
- 8. Endoscopic Sinus Access**
Bernard R. Bendok, M.D.
- 9. Microsurgery Basics**
Bernard R. Bendok, M.D.
- 10. SRS Radiosurgery Planning**
Sujay A. Vora, M.D.
- 11. Proton Planning**
Sameer R. Keole, M.D.
- 12. Carotid Stenting**
Chandan Krishna, M.D.
- 13. Robotic Surgery: Innovation in Spine and Cranial Surgery**
Jamal McClendon, Jr., M.D.
- 4:00 p.m. **Workshop Adjourns**
- 5:30 p.m. **Welcome Reception**

Friday, November 3, 2017

6:45 a.m. **Continental Breakfast and Exhibits**

7:30 a.m. **Announcements**
Bernard R. Bendok, M.D.

Session 6: Aneurysms

MODERATORS: Deborah A. Gorman, R.N.; Chandan Krishna, M.D.; Ayan Sen, M.D.;
Vanessa K. Vanderhye, B.S.N., R.N., C.C.R.N., N.V.R.N.-B.C.

7:45 a.m. **Subarachnoid Hemorrhage Management**
Ayan Sen, M.D.

7:55 a.m. **Management of Ruptured Aneurysms**
Bernard R. Bendok, M.D.

8:05 a.m. **Familial Aneurysms**
Rabih G. Tawk, M.D.

8:15 a.m. **Decision Making for Unruptured Aneurysms**
Chandan Krishna, M.D.

8:25 a.m. **Panel Discussions and Simulation on Aneurysms**
Bernard R. Bendok, M.D.; Deborah A. Gorman, R.N.;
Chandan Krishna, M.D.; Ayan Sen, M.D.; Rabih G. Tawk, M.D.;
Vanessa K. Vanderhye, B.S.N., R.N., C.C.R.N., N.V.R.N.-B.C.

Session 7: ICH

MODERATORS: Ayan Sen, M.D. and Vanessa K. Vanderhye, B.S.N., R.N., C.C.R.N.,
N.V.R.N.-B.C.

8:45 a.m. **ICH Medical Management and Reversal**
Maria I. Aguilar, M.D.

8:55 a.m. **ICH Innovations**
Issam A. Awad, M.D.

9:20 a.m. **AVM**
Bernard R. Bendok, M.D.

9:30 a.m. **Cavernoma**
Giuseppe Lanzino, M.D.

Friday, November 3, 2017 (continued)

- 9:40 a.m. **Dural Fistulas**
Rabih G. Tawk, M.D.
- 9:50 a.m. **Panel Case Discussion and Simulation on ICH**
Maria I. Aguilar, M.D.; Issam A. Awad, M.D.; Bernard R. Bendok, M.D.;
Chandan Krishna, M.D.; Giuseppe Lanzino, M.D.; Ayan Sen, M.D.; Rabih G.
Tawk, M.D.; Vanesa K. Vanderhye, B.S.N., R.N., C.C.R.N., N.V.R.N.-B.C.
- 10:10 a.m. **Refreshment Break and Exhibits**
- Session 8: Stroke**
MODERATORS: Meghan M. Comer, A.P.R.N., M.S.N., C.N.P.;
Bart M. Demaerschalk, M.D.; Chandan Krishna, M.D.;
Vanesa K. Vanderhye, B.S.N., R.N., C.C.R.N., N.V.R.N.-B.C.
- 10:40 a.m. **Acute Stroke Triage and Telehealth**
Bart M. Demaerschalk, M.D.
- 10:50 a.m. **IV TPA**
Timothy Ingall, M.D., Ph.D.
- 11:00 a.m. **Stroke Thrombectomy**
Chandan Krishna, M.D.
- 11:10 a.m. **Moyamoya Disease**
Bernard R. Bendok, M.D.
- 11:20 a.m. **Carotid Disease Challenging Cases**
Samuel R. Money, M.D.
- 11:30 a.m. **Carotid Disease Future Directions**
Giuseppe Lanzino, M.D.
- 11:40 a.m. **Acute Stroke Simulation and Case Discussions**
Bernard R. Bendok, M.D.; Meghan M. Comer, A.P.R.N., M.S.N., C.N.P.;
Bart M. Demaerschalk, M.D.; Timothy Ingall, M.D., Ph.D.;
Chandan Krishna, M.D.; Cindy A. Landis, M.S.N., R.N.;
Giuseppe Lanzino, M.D.; Samuel R. Money, M.D.;
Vanesa K. Vanderhye, B.S.N., R.N., C.C.R.N., N.V.R.N.-B.C.
- Session 9: Epilepsy**
MODERATORS: Katherine H. Noe, M.D., Ph.D. and Joseph I. Sirven, M.D.
- 12:00 p.m. **Epilepsy Surgery: Pediatric Perspective**
P. David Adelson, M.D.

Friday, November 3, 2017 (continued)

- 12:10 p.m. **Epilepsy Surgery Neurology Perspective**
Katherine H. Noe, M.D., Ph.D.
- 12:30 p.m. **Panel Case Discussions, Simulation and Rosa**
P. David Adelson, M.D.; Katherine H. Noe, M.D., Ph.D.;
Joseph I. Sirven, M.D.; Richard S. Zimmerman, M.D.
- 12:50 p.m. **Course Adjourns**

OPTIONAL WORKSHOP

- 12:50 p.m. **Registration / Lunch for Workshop Attendees**
- 1:30 p.m. **Workshop Introduction**
Chandan Krishna, M.D.
- 1:45 p.m. **Workshop Stations**
1. **Electrical Stimulation for Brain Cancer**
Alyx B. Porter, M.D.
 2. **Ommaya**
Maciej M. Mrugala, M.D., Ph.D.
 3. **Stentriever and Stent Coil**
Mithun Sattur, M.B.B.S.
 4. **Intracerebral Hemorrhage (ICH) Evaluation**
Mithun Sattur, M.B.B.S.
 5. **Lateral/Posterior Lumbar and Cervical Spinal Fusion**
Jamal McClendon, Jr., M.D.
 6. **Fusion Navigation with S8 with AR**
Richard S. Zimmerman, M.D.
 7. **Simulation Laser Ablation**
Richard S. Zimmerman, M.D.
 8. **Endoscopic Sinus Access**
Bernard R. Bendok, M.D.

Friday, November 3, 2017 (*continued*)

1:45 p.m.

9. Microsurgery Basics

Bernard R. Bendok, M.D.

10. SRS Radiosurgery Planning

Sujay A. Vora, M.D.

11. Proton Planning

Sameer R. Keole, M.D.

12. Carotid Stenting

Chandan Krishna, M.D.

13. Robotic Surgery: Innovation in Spine and Cranial Surgery

3:45 p.m.

Workshop Adjourns

COURSE DINNER AND SPECIAL PRESENTATION

5:30 p.m.

Reception

6:30 p.m.

Dinner and Special Presentation:

Innovations in Neuroscience

Issam A. Awad, M.D.

Saturday, November 4, 2017

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

7:45 a.m. **Announcements**
Bernard R. Bendok, M.D.

Session 10: Skull Base Tumors

MODERATORS: Issam A. Awad, M.D.; and Bernard R. Bendok, M.D.;
Maciej M. Mrugala, M.D., Ph.D.; Alyx B. Porter, M.D.

8:00 a.m. **Pituitary Tumors Endocrinology Medical Work-up**
Michael D. Whitaker, M.D.

8:10 a.m. **Pituitary Tumors Surgery**
Bernard R. Bendok, M.D.

8:20 a.m. **Meningioma Surgery**
Michael J. Link, M.D.

8:30 a.m. **Acoustic Neuromas Otology Perspective**
Peter A. Weisskopf, M.D.

8:40 a.m. **Neurofibromatosis Type 2 (NF2) Genetics**
Radhika Dhamija, M.B.B.S.

8:50 a.m. **Acoustic Neuromas Surgery**
Bernard R. Bendok, M.D.

9:00 a.m. **Radiosurgery for Acoustic Neuroma**
Sujay A. Vora, M.D.

9:10 a.m. **Clival Chordomas**
Michael J. Link, M.D.

9:20 a.m. **Endovascular Care of Brain and Skull Base**
Mithun Sattur, M.B.B.S.

9:30 a.m. **Proton Beam for Skull Base Tumors**
Sameer R. Keole, M.D.

10:00 a.m. **Refreshment Break and Exhibits**

Session 11: Brain Gliomas

MODERATORS: Bernard R. Bendok, M.D.; Maciej M. Mrugala, M.D.,
Alyx B. Porter, M.D.

10:30 a.m. **Innovations Medical Management of Gliomas**
Joon H. Uhm, M.D.

Saturday, November 4, 2017 (continued)

- 10:40 a.m. **Surgery and Immune Therapy for Glioma**
Ian F. Parney, M.D., Ph.D.
- 10:50 a.m. **Awake Surgery for Glioma**
Bernard R. Bendok, M.D.
- 11:00 a.m. **Radiotherapy and Proton Beam for Gliomas**
Sujay A. Vora, M.D.
- 11:10 a.m. **Scientific Advances for Glioma**
Kristin R. Swanson, Ph.D.
- 11:20 a.m. **Panel Discussion**
Bernard R. Bendok, M.D.; Maciej M. Mrugala, M.D.;
Alyx B. Porter, M.D.
- Session 12: Brain Metastasis**
MODERATORS: Alan H. Bryce, M.D.; Maciej M. Mrugala, M.D., Ph.D.;
Alyx B. Porter, M.D.
- 11:40 a.m. **Screening for Brain Mets**
Alan H. Bryce, M.D.
- 11:50 a.m. **Brain Mets Medical Management**
Alyx B. Porter, M.D.
- 12:00 p.m. **Brain Mets Radiosurgery**
Sujay A. Vora, M.D.
- 12:10 p.m. **Brain Mets Laser Ablation**
Richard S. Zimmerman, M.D.
- 12:20 p.m. **Brain Mets Microsurgery**
Ian F. Parney, M.D., Ph.D.
- 12:30 p.m. **Leptomeningeal Disease**
Maciej M. Mrugala, M.D., Ph.D.
- 12:40 p.m. **CNS Lymphoma**
Allison C. Rosenthal, D.O.
- 12:50 p.m. **Panel Discussion**
Bernard R. Bendok, M.D.; Alan H. Bryce, M.D.;
Maciej M. Mrugala, M.D., Ph.D.; Ian F. Parney, M.D., Ph.D.;
Alyx B. Porter, M.D.; Allison C. Rosenthal, D.O.;
Sujay A. Vora, M.D.; Richard S. Zimmerman, M.D.
- 1:10 p.m. **Closing Comments and Reflection / Course Adjourns**