

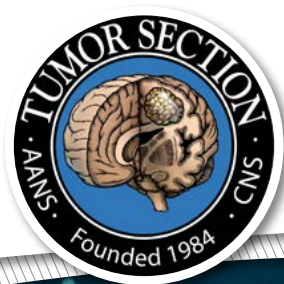
SEPTEMBER 8-9, 2023 • WASHINGTON, D.C.

2023 TUMOR SECTION

S Y M P O S I U M

**BRAIN AND SPINE RECURRENT TUMORS:
THE NEUROSURGEON'S ROLE**

PROGRAM GUIDE



Congress of
Neurological
Surgeons



American
Association of
Neurological
Surgeons

Jointly provided by the Congress of Neurological Surgeons
and the Joint Section on Tumors

WELCOME

DEAR COLLEAGUES,

Welcome to the 16th Biennial Tumor Section Symposium! We are thrilled to have you here for the next two days of engaging scientific sessions led by global experts in the field, four original science sessions, and a Friday night gala reception with awards. Recognizing the increasing role of Advanced Practice Providers (APPs) in the care of neurosurgical oncology patients, we inaugurate a special session each day focused on APPs. Explore novel treatments and controversies on recurrent low-grade gliomas, glioblastoma, meningiomas, brain and spine metastatic disease. Participate in case discussions and learn about immune- and viral-based therapies, molecular profiling, and non-invasive biomarkers for improved patient care during tumor recurrence.

We are also thrilled to present our world-renowned 2023 Keynote Speakers: Louis David and Evanitha Galanis who will review the implications of the new WHO classification at the time of recurrence and trials opportunities leading to breakthrough novel treatments for our patients. Thank you for being an integral part of this meeting as we collectively endeavor to enhance the lives of brain tumor patients through improved treatment and care.

Sincerely,
AANS/CNS Section on Tumors

REGISTRATION AND POSTER VIEWING *Ballroom Foyer, Level 3*

Friday	7:00 am-6:00 pm
Saturday	6:30 am-5:30 pm

SPEAKER READY ROOM *Room 204A, Level 2*

Thursday	4:00-6:00 pm
Friday	7:00 am-4:30 pm
Saturday	7:00 am-4:30 pm



*Chair, AANS/CNS
Section on Tumors*
**Isabelle M.
Germano, MD, MBA**
Icahn School of
Medicine at
Mount Sinai
New York, NY



*Scientific Meeting
Chair*
Gelareh Zadeh, MD
University of
Toronto
Toronto, Canada



*Scientific Meeting
Co-chair*
**Chetan
Bettegowda,
MD, PhD**
Johns Hopkins
University
Baltimore, MD



*Scientific Meeting
Co-chair*
Pablo Recinos, MD
Cleveland Clinic
Cleveland, OH

SCIENTIFIC PROGRAM

ALL PROGRAMMING WILL BE HELD IN
BALLROOM A, LEVEL 3 AT THE WALTER E. WASHINGTON
CONVENTION CENTER, UNLESS OTHERWISE NOTED.

Friday, September 8 • 8:00 am-5:37 pm

8:00-9:00 am

Neurosurgical Oncology Advanced Practice Providers Course Day 1: Perspectives on the Roles and Dynamics of APPs in Neurosurgical Oncology

- 8:00-8:03 am Introduction: The APP Role in Neurosurgical Oncology
Isabelle M. Germano
- 8:04-8:17 am The APP's Perspective
Natalie J. Hall
- 8:18-8:31 am The Neurosurgeon's Perspective
Walavan Sivakumar
- 8:32-8:45 am The Trainee's Perspective
Heather C. Grimaudo
- 8:46-9:00 am Question and Answer

9:00-9:05 am

Introduction to the Tumor Section Symposium

Isabelle M. Germano

9:06-9:12 am

Introduction to the Scientific Program Day 1

Gelareh Zadeh

9:13-10:16 am

General Session I: Prediction of Recurrence and Treatment Response in Gliomas

Moderators: *Ian Parney, Analiz Rodriguez*

- 9:13-9:28 am Targeted Therapeutics at Glioma Recurrence
Dan Cahill
- 9:29-9:44 am Intraoperative Innovations Guiding Cavitary
Therapeutics
Michael Vogelbaum
- 9:45-10:00 am Predictors of Response to Immunotherapy
Michael Lim
- 10:01-10:16 am Biomarker Determinants of Treatment Failure
Chetan Bettgowda

10:17-11:05 am

» BALLROOM B

Break with Exhibitors

SCIENTIFIC PROGRAM

11:06-11:30 am

Abstract Session I: Recurrent Gliomas/Glioma Translational Research

Moderators: *Stephanie Cheok, Shawn L. Hervey-Jumper*

11:06-11:10 am Targeted DNA Sequencing Reveals Molecular Factors Associated with Clinical Outcomes in Recurrent Glioblastoma

Mitchel Berger, David R. Raleigh, Joseph Costello, Nadeem Al-Adli, Kanish Mirchia, William Chen, Arie Perry, John de Groot, Steve Braunstein, Jacob Young, Zain Peeran, Harish Vasudevan

11:11-11:15 am Determining the Underlying Mechanisms of Glioma Progression and Recurrence

Gelareh Zadeh, Farshad Nassiri, Vikas Patil, Jeffrey Liu, Mathew Voisin, Shahbaz Khan, Thomas Kislinger, Julio Sosa

11:16-11:20 am Prognostic Evaluation of Surgical Re-Resection for Recurrent Glioblastoma Using The Novel RANO Classification for Extent of Resection by The RANO Resect Group

Susan M. Chang, Stefan J. Grau, Oliver Schnell, Tommaso Sciortino, Antonio Gabriel Dono Ostorga, Roberta Rudà, Annette Molinaro, Lorenzo Bello, Levin Häni, Philipp Karschnia, Yoshua Esquenazi, Jacob Young, Nico Teske, Stephanie T. Jünger, Juergen Beck, Joerg-Christian Tonn, Michael Weller, Nitin Tandon, Michael A. Vogelbaum, Luis C. Nunez, Mitchel S. Berger, Martin van den Bent, Francesco Bruno, Christine Y. Mau, Shawn L. Hervey-Jumper

11:21-11:25 am Comparative Analysis of Single Versus Dual Anti-Epileptic Drugs for Controlling Intra-Operative and Early Postoperative Seizure in Glioma Patients Undergoing an Awake Craniotomy; a Retrospective Study

Sara Zandpazandi, Ahmad Pour-Rashidi

11:26-11:30 am Repeat Resection for Recurrent Glioblastoma in The WHO 2021 Era: A Prospective Matched Case-Control Study

Okay Saydam, Aynur Azizova, Melike Mut Askun, Figen Soylemezoglu, Yagmur Zengin, Kader Karli-Oguz, Thomas Strobel

11:31 am-12:00 pm

Keynote Speaker: The Updated WHO Classification and its Implications at the Time of Tumor Recurrence

David Louis, Harvard School of Medicine
Introduced by Gelareh Zadeh



12:01-1:10 pm

» **BALLROOM B, LEVEL 3**

Lunch with Exhibitors

*Lunch Co-sponsored by: GammaTile®
& Medexus Pharma, Inc.*

» **ROOM 206, LEVEL 2**

Lunch Sponsored by: Integra LifeSciences

» **ROOM 207A, LEVEL 2**

1:11-1:35 pm

Abstract Session I: Recurrent Gliomas/Glioma Translational Research (Continued)

Moderators: *Stephanie Cheok, Shawn L. Hervey-Jumper*

1:11-1:15 pm **Circulating Biomarkers for Tumor Monitoring, Prognosis Predictions and Detection of Temozolomide Resistance Mutations in Glioma**

*Andrew Morokoff, Katherine Jann Drummond,
Jordan John Jones*

1:16-1:20 pm **Skull-derived Myeloid Cells Augment T Cell Responses and Suppress Glioblastoma Growth**

*Manish Kumar Aghi, Diana Salha, Meeki Lad, Austin Lui,
Jacob Young*

1:21-1:25 pm **Human Plasma-Like Medium Activates Immune Elements in Glioma**

*William Harrison Hicks, Milan Savani, Lauren Gattie,
Kalil G. Abdullah, Samuel McBrayer, Mohamad El Shami*

1:26-1:30 pm **Stereotactic Radiosurgery for WHO Grade 2 and 3 Oligodendroglioma: An International Multicenter Study**

*Cheng-chia Lee, Ajay Niranjana, Georgios Mantziaris,
Justiss Kallos, Roman Liscak, Jason P. Sheehan, Gabriela Simonova, David J. Park, Stylianos Pikis, L. Dade Lunsford, Gregory N. Bowden, Gene H. Barnett, Yavuz Samanci, Selcuk Peker, Huai-Che Yang, Anne-Marie Langlois, David Mathieu, Christian Iorio-Morin*

1:31-1:35 pm **Influence of Surgical Resection on Survival in Glioblastoma with Multiple Localizations- a Multi-Center Retrospective Analysis**

Dragan Jankovic, Harald Krenzlin, Alice Dauth, Felipa Lange, Naureen Keric, Florian Ringel

SCIENTIFIC PROGRAM

1:36-2:40 pm

General Session II: Prediction and Treatment of Recurrent Meningiomas

Moderators: Jennifer Moliterno-Gunel, Gabriel Zada

- 1:36-1:48 pm **Predicting Disease Behavior and Recurrence**
Farshad Nassiri
- 1:49-2:01 pm **Predicting Response to Radiation**
Albert Kim
- 2:02-2:14 pm **Molecular Clinical Trials for Recurrent Meningiomas**
Fred Barker
- 2:15-2:27 pm **Surgical Considerations for Recurrent Meningiomas**
Pablo Recinos
- 2:28-2:40 pm **Complication Avoidance**
Daniel M. Prevedello

2:41-3:30 pm

» **BALLROOM B, LEVEL 3**

Break with Exhibitors Sponsored by: Stryker

What's New Sessions in the Exhibit Hall's Presentation Theater sponsored by Elekta Inc. and Neosoma Inc.

3:31-3:55 pm

Abstract Session II: Meningiomas/Skull Base

Moderators: Daniel M. Prevedello, Brad Zacharia

- 3:31-3:35 pm **Molecular Mechanism of Targeting Epithelial Membrane Protein-2 in Malignant Meningiomas**
Madhuri Wadehra, Brian Aguirre, Mahlet Mekonnen, Anubhav Chandra, Isaac Yang
- 3:36-3:40 pm **Increased Survival and Symptom Relief Following Palliative Cerebrospinal Fluid Diversion for Neoplastic Leptomeningeal Disease: A Case Series and Systematic Review**
Adela Wu, James Zhou, Stephen Skirboll
- 3:41-3:45 pm **Grade 3 Meningiomas Following 2021 WHO Guidelines A Dual Center Retrospective Study on Clinical Characteristics and Outcomes**
Akash J. Patel, Albert H. Kim, Will Leidig, Kyle McGeehan, Basit Khan, Collin English, Sangami Pugazenthi, Ron Gadot
- 3:46-3:50 pm **Heterozygous CDKN2A Loss is Associated with Recurrence and Survival in High, But Not Low Grade Meningiomas**
Murat Gunel, Joseph O'Brien, Katsuhito Yasuno, Alexandros Pappajohn, Zeynep Erson-Omay, Joanna Tabor, Declan McGuone, Saul F. Morales Valero, Jennifer Alissa Moliterno
- 3:51-3:55 pm **Characterization of Immune Cell Heterogeneity, Key B Cell Subtypes, and Macrophages Functions using Multiplex Immunofluorescence and Single-cell RNA Sequencing in Chordomas**
Craig Horbinski, Catalina Lee Chang, Joshua L. Katz, Meghan E. Cholak, Roger Stupp, Jason Miska, Yu Han, Junfei Zhao, Jean-Paul Wolinsky, Maciej S. Lesniak, Jasim K. Benotmane, David Hou, Silpol Dhantravan, Surya Pandey, Chetan Bettgowda, Victor Andrés Arrieta, Adam M. Sonabend, Henrik Heiland

SCIENTIFIC PROGRAM

3:56-4:46 pm

Case Discussion I: Recurrent Gliomas

Moderators: *Desmond Brown, Maryam Rahman*

- | | |
|--------------|--|
| 3:56-3:58 pm | Introduction to Case Discussion
<i>Maryam Rahman</i> |
| 3:59-4:14 pm | Molecular Profile of Recurrent Glioma
<i>Gavin Dunn</i> |
| 4:15-4:30 pm | Immunoviotherapy of Recurrent Glioma
<i>Manish Aghi</i> |
| 4:31-4:46 pm | Utility of Biomarker Driven Decision Making
<i>Brian V. Nahed</i> |

4:47-5:37 pm

Case Discussion II: Recurrent Meningiomas

Moderators: *Wenya Linda Bi, Gabriel Zada*

- | | |
|--------------|---|
| 4:47-4:49 pm | Introduction to Case Discussion
<i>Wenya Linda Bi</i> |
| 4:50-5:05 pm | Utility of Methylation Predictor in Radiation
<i>Justin Wang</i> |
| 5:06-5:21 pm | Molecular Profiling at Recurrence
<i>Akash Patel</i> |
| 5:22-5:37 pm | Use of Radiosurgery
<i>Varun Kshetry</i> |

6:15-9:30 pm

Tumor Section Symposium Gala

Reception and Awards • Dress Code: Formal

- » RENAISSANCE WASHINGTON D.C. DOWNTOWN HOTEL
- » ROCK CREEK SALON A

The Renaissance Washington D.C. Downtown Hotel is across the street from the Walter E. Washington Convention Center and a convenient walk for attendees.

Saturday, September 9 • 7:00 am-6:00 pm

7:00-8:00 am

Neurosurgical Oncology Advanced Practice Providers Course Day 2: Managing Expectations in Neurosurgical Oncology

- | | |
|--------------|--|
| 7:00-7:03 am | The APPs Role Introduction: Managing Care Expectations
<i>Isabelle M. Germano</i> |
| 7:04-7:17 am | Managing Expectations Pre-operatively
<i>Leslie Schlachter</i> |
| 7:18-7:31 am | Managing Expectations Post-operatively
<i>Kenisha Blake</i> |
| 7:32-7:45 am | Managing the Inpatient to Outpatient Gap
<i>Amalia Eisenberg</i> |
| 7:46-8:00 am | Question and Answer |

SCIENTIFIC PROGRAM

8:01-8:03 am

Introduction to the Scientific Program Day 2

Gelareh Zadeh

8:04-8:33 am

Abstract Session III: Brain Mets and Spine Mets

Moderators: *John Lee, Gordon Li*

- 8:04-8:08 am **Matched Three-Dimensional Organoids and Two-Dimensional Cell Lines of Metastatic Melanoma to the Brain Mirrors Response to Targeted Molecular Therapy**
Emma Dimeo, Kalil G. Abdullah, Lauren Gattie, Mohamad El Shami, William Harrison Hicks
- 8:09-8:13 am **A Population-Based Analysis of Brain Metastasis Burden and Management in 8705 Small Cell Lung Cancer Patients**
Benjamin Lok, Kelvin Chan, Karolina Gaebe, Anders Erickson, Natasha Leighl, Sunit Das
- 8:14-8:18 am **Analysis of DNA and RNA Genomic Profiles from Phase-II Clinical Trial NCT03398694 Showed Distinct Transcriptomic Profile for Patients with Local Failure**
Mahua Dey, Christina Kendzierski, Jack Shireman
- 8:19-8:23 am **Combinatorial Checkpoint Blockade and Laser Interstitial Thermal Therapy: A Single Center Study**
Lucas Wachsmuth, Peter Edward Fecci, Emily Lerner, Joshua Jackson, Ethan Srinivasan, Saif Zaidi, Elle Reason, Ariel Tomas Gonzalez, Allison Schwalb, Aden Pepe Haskell-Mendoza
- 8:24-8:28 am **Treatment Plan Optimization Following Laser Interstitial Thermal Therapy (LITT) for Recurrent Metastasis Using Cleveland Clinic Scaling System (CCSS)**
Surabhi Ranjan, Raphael Bastianon Santiago, Badih Adada, Mihir Naik, Hamid Borghei-Razavi, Mohammadmahdi Sabahi
- 8:29-8:33 am **Tumor Treating Fields for Treatment of Spinal Metastasis**
Christopher Alvarez-Breckenridge, Claudio Esteves Tatsui, Romulo Andrade de Almeida, Daniel Ledbetter, Robert Y. North

8:34-9:37 am

General Session III: Brain Mets: Intersection of Science and Surgery at Recurrence

Moderators: *Tiffany Hodges, Pascal O. Zinn*

- 8:34-8:49 am **Endpoints of Clinical Trials**
Nader Sanai
- 8:50-9:05 am **Immunotherapy Profile**
Howard Colman
- 9:06-9:21 am **FUS and Brain Metastasis**
Alexandra Golby
- 9:22-9:37 am **AI: Recurrence or Pseudo-progression**
Joerg Christian Tonn

9:38-10:15 am

Keynote Speaker: Clinical Trials Options Consideration at the Time of Tumor Recurrence

Eva Galanis, Mayo Clinic

Introduced by Isabelle M. Germano



10:16-11:00 am

» **BALLROOM B, LEVEL 2**

Break with Exhibitors Sponsored by: Stryker

What's New Sessions in the Exhibit Hall's Presentation Theater sponsored by Carbo-fix Spine Inc., Omniscent Neurotechnology and Novocure Inc.

11:01-11:44 am

Case Discussion III: Brain Mets: Intersection of Science and Surgery at Recurrence

Moderators: *Wajd Al-Holou, Isaac Yang*

11:01-11:02 am **Introduction to Case Discussion**
Isaac Yang

11:03-11:16 am **Recurrence After Radiosurgery**
Kaisorn Chaichana

11:17-11:30 am **Recurrence After LITT**
Peter Fecci

11:31-11:44 am **Liquid Biopsy for Recurrent Diagnosis**
Frank Antenello

11:45-11:59 am

Abstract Session III: Brain Mets and Spine Mets (Continued)

Moderators: *Rohan Ramakrishna, Jeff Weinberg*

11:45-11:49 am **The Ribbon Sign as a Radiological Indicator of Intramedullary Spinal Cord Subependymomas**
Nir Shimony, Daniel M. Sciubba, George I. Jallo, Ann Liu, Jordina Rincon-Torroella, Daniel Lubelski, Sheng-fu Lo, Haris Sair, Chetan Bettegowda, Andrew Hersh

11:50-11:54 am **Reliability and Predictors of Intraoperative Neuromonitoring Changes During Intramedullary Tumor Resection: A Multicenter Experience**
Fredric B. Meyer, Oluwaseun Akinduro, Andrea Otamendi-Lopez, Gaetano De Biase, William E. Krauss, Abdul Karim Ghaith, Michelle J. Clarke, Alfredo Quinones-Hinojosa, Mohamad Bydon

11:55-11:59 am **Where Do Surgical Resection and Radiosurgery Fall Short for Large Metastatic Brain Lesions?**
Sirisha Devi Viswanatha, Anuj Goenka, Vikram Bajaj, Michael Schulder, Akash Mishra, Daniel Koffler, Emel Calugaru, Niara Rowe

SCIENTIFIC PROGRAM

12:01-1:10 pm

» **BALLROOM B, LEVEL 3**

Lunch with Exhibitors

Lunch Sponsored by: icotec Medical Inc.

» **ROOM 206, LEVEL 2**

Lunch Sponsored by: Brainlab, Inc.

» **ROOM 207A, LEVEL 2**

1:11-1:30 pm

Abstract Session IV: Emerging Treatments/Translational Research

Moderators: *Christian Bowers, Michael Galgano*

- 1:11-1:15 pm** **Safety and Feasibility of JAK Inhibitor Ruxolitinib in Newly-Diagnosed High-Grade Gliomas (CRUX): Final Trial Report**
John H. Suh, Erin Murphy, Glen Stevens, Samuel T. Chao, Manmeet Ahluwalia, Atulya Khosla, David M. Peereboom, Wei (Auston) Wei, Ahmad Ozair, Yasmeen Rauf
- 1:16-1:20 pm** **PCV Adjuvant Therapy as a Preferred Treatment Option for Oligodendroglioma Patients: A Comparative Study with Temozolomide and Concurrent Radiotherapy**
Sabrina Begley, Anuj Goenka, Adrian Chen, Michael Schulder
- 1:21-1:25 pm** **A Untethered Magnetic Micro-robot for Local Therapeutic Delivery for Neurosurgical Oncology**
Wang Tony, Kimberly Bojanowski Hoang, Azadeh Ansari
- 1:26-1:30 pm** **Blood-Brain Barrier Opening with Ultrasound Augments Doxorubicin and Anti-PD-1 Therapy Efficacy, Intracranial Immune Activation, and Prolongs Survival in Preclinical Glioma Models**
Bin Zhang, Li Chen, Carole Desseaux, Jason Miska, Ruth Saganty, Kathleen McCortney, Daniel Zhang, Guillaume Bouchoux, Victor Andrés Arrieta, Adam M. Sonabend, Brandyn Castro, Alexandre C. Carpentier, Kwang-Soo Kim, Meghan E. Cholak, Craig Horbinski, Cristal G. Gómez, Miguel Muzzio, Karl Habashy, Rimas Vincas Lukas, Surya Pandey, Matthew McCord, Christina Amidei, Catalina Lee Chang, Crismita Dmello, Roger Stupp, Rachel Ward, Andrew Gould

1:31-2:34 pm

General Session IV: Recurrent Spine Mets

Moderators: *Ziya Gokasla, Randy Jensen*

- 1:31-1:46 pm** **Surgical Indications: The Frail Patient**
John Shin
- 1:47-2:02 pm** **The Role of Intra-operative Radiation**
Nick Szerlip
- 2:03-2:18 pm** **The Role of LITT**
Claudio Tatsui
- 2:19-2:34 pm** **Complication Avoidance at Re-operation**
Nam Tran

2:35-3:19 pm

Abstract Session IV: Emerging Treatments/Translational Research (Continued)

Moderators: *Christian Bowers, Michael Galgano*

2:35-2:39 pm **Real-time MRI Stereotaxis Aided SmartFlow Convection Delivery of DNX-2401**
Clark C. Chen, Isabela Pena Pino

2:40-2:44 pm **Demographic Variations and Time to Initiation of Adjunct Treatment following Surgical Resection of Anaplastic Astrocytoma in the United States - A National Cancer Database Analysis**
Jeremy Gaskins, Akshitkumar Mistry, Grant Mckenzie, Shiao Y. Woo, Brian Jeremy Williams, Mehran Yusuf, Mayur Sharma

2:45-2:49 pm **Extent of Resection Thresholds in Molecular Subgroups of IDH-wildtype Glioblastoma**
Ping Zhu, Antonio Gabriel Dono Ostorga, Octavio Arevalo, Takeshi Takayasu, Leomar Ballester, Yoshua Esquenazi, Nitin Tandon

2:50-2:54 pm **Molecular Profiling to Understand Treatment Resistance and Response in Glioblastoma**
Arjun Sahgal, Sten Myrehaug, Sorchia Kellett, Marina Nikolopoulos, Megan Wu, Jane Bayani, Alexander Bahcheli, Sunit Das, Melanie Spears

2:55-2:59 pm **Murine Models of Laser Interstitial Thermal Therapy for Immuno-oncology**
Lucas Wachsmuth, Peter Edward Fecci, Richard Tyc, Aden Pepe Haskell-Mendoza

3:00-3:04 pm **Next Generation Sequencing Mutational Profiles of Gliomas Reveal Clinical and Genetic Factors Predicting Refractory Postoperative Seizures**
Poojan Shukla, Jacob Young, Minh P. Nguyen, Anthony T. Lee, Edward Chang

3:05-3:09 pm **Establishing Genetic and Molecular Markers of Sensitivity to a Novel and Potent Tetracyclic Terpenoid Therapy Against High-Grade Gliomas**
Dominique Fontaine, Spiro Anthony Stathas, Carmen L. del Genio, Yujia Shentu, Sidney Nguyen, George Zanazzi, Amy M. Chan, Arti B. Gaur

3:10-3:14 pm **Transcranial Agonism of CD40 and ICOS Promotes Meningeal Immunity and Control of Glioblastoma**
Kelly Monaghan, Nagela Ghabdan-Zanluqui, John D. Heiss, Dorian McGavern, Lisa Walsh, Leonel Ampie

3:15-3:19 pm **Metabolomic Differentiation of Tumor Core vs. Edge in Glioma via Machine Learning**
Hunter Miller, Mary Baxter, Brian Jeremy Williams, Joseph Chen, Hermann Frieboes

SCIENTIFIC PROGRAM

3:20-4:00 pm

» **BALLROOM B, LEVEL 3**

Break with Exhibitors

4:01-4:51 pm

Case Discussion IV: Spine Mets

Moderators: *Ben Elder, Claudio Tatsui*

4:01-4:03 pm Introduction to Case Discussion
Claudio Tatsui

4:04-4:19 pm Recurrence in the Frail Patients
Camilo Molina

4:20-4:35 pm Recurrence After SRS/SBRT
Rory Goodwin

4:36-4:51 pm Recurrence at Multiple Sites
Larry Rhines

5:00-6:00 pm

Breakout Sessions for Residents, Fellows, Medical Students, and Young Neurosurgeon Attendings

Breakout Session I: Navigating the FDA for IND/IDE

Moderator: *Gautam Mehta*

» **ROOM 206, LEVEL 2**

5:00-5:15 pm Panelist 1: Andrew Sloan

5:16-5:31 pm Panelist 2: Chris Cifarelli

5:32-5:47 pm Panelist 3: Isabelle M. Germano

5:48-6:00 pm Question and Answer

Breakout Session II: How to Establish a Translational Research Effort as an Early Career Neurosurgeon

Moderators: *Maryam Rahman, Gelerah Zadeh*

» **ROOM 207A, LEVEL 2**

5:00-5:15 pm Panelist 1: James Markert

5:16-5:31 pm Panelist 2: Dan Orringer

5:32-5:47 pm Panelist 3: Mahua Dey

5:48-6:00 pm Question and Answer

Breakout Session III: Collaboration Across Colleges/ Institutions

Moderator: *Susan Pannullo*

» **ROOM 207B, LEVEL 2**

5:00-5:15 pm Panelist 1: Steven N. Kalkanis

5:16-5:31 pm Panelist 2: Alexandra Golby

5:32-5:47 pm Panelist 3: Brian Williams

5:48-6:00 pm Question and Answer

CME & GENERAL INFORMATION

ACCREDITATION STATEMENT

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the Congress of Neurological Surgeons and the AANS/CNS Section on Tumors. The CNS is accredited by ACCME to provide continuing medical education for physicians.

AMA CREDIT DESIGNATION STATEMENT

The CNS designates this live activity for a maximum of 15.25 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

For full details visit, cns.org/tumor



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The Tumor Section ensures that no individual with a disability is excluded, denied services, segregated, or otherwise treated differently than other individuals because of the absence of auxiliary aids or services. If you require any of the auxiliary aids or services identified in the Americans with Disabilities Act in order to attend any program, please send your requirements directly to the CNS Meetings Department at meetings@cns.org, or by calling 847-240-2500.

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WI-FI SERVICE

For your convenience, complimentary Wi-Fi service is provided throughout the Walter E. Washington Convention Center wherever Tumor Section events are being held.

INDUSTRY INFORMATION

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- Monteris Medical
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- NICO Corporation
- ZAP Surgical

'What's New Sessions' Presentation Theater

Brainlab 318	Leica 316
BK Medical 219	icotec Medical 217

Novocure 218	Medtronic 216
Neosoma 119	Designs for Vision 117

122	120	118	NICO 116
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EXHIBIT HALL HOURS (NON CME)

FRIDAY

- 9:00 am-3:45 pm

SATURDAY

- 8:00 am-4:00 pm

Admittance to the Exhibit Hall is by Tumor Section name badge only. Children under the age of 18 are not allowed in the Exhibit Hall.

INDUSTRY INFORMATION

EXHIBIT HALL

Walter E. Washington Convention Center *Ballroom B*

Medtronic Visualase 315		Medexus Pharma 309			
				MERI 306	Carbofix 304
				Stryker 205	
				Elekta 206	Monteris Medical 204
				GammaTile 107	Varian 105
Zap Surgical 114	ENTRANCE from General Session	ClearPoint Neuro 108	Omniscient Neurotech 106	Nexstim 104	

ENTRANCE
from Foyer

BREAKS WITH EXHIBITORS (NON CME)

FRIDAY

■ 10:17-11:05 am

■ 2:41-3:30 pm

What's New Sessions in the Exhibit Hall's Presentation Theater *Sponsored by Elekta Inc., Neosoma Inc.*

SATURDAY

■ 10:16-11:00 am

What's New Sessions in the Exhibit Hall's Presentation Theater *Sponsored by Carbo-Fix Spine, Inc, Omniscient Neurotechnology, and Novocure Inc*

■ 3:20-4:00 pm

INDUSTRY SPONSORED LUNCH SESSIONS

FRIDAY

■ 12:01-1:10 pm

Co-Sponsored by:
GammaTile® and Gleolan
Sponsored by: Integra LifeSciences

SATURDAY

■ 12:00-1:10 pm

Sponsored by: Brainlab and icotec Medical Inc.

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Where products, services
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The only thing more connected than
our products is the relationship we
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Neurotechnology portfolio is built for
the future, **backed by a relentless
focus on innovation, education
and simplified experiences.**

