NEW THIS YEAR!

The SNO meeting will provide some exciting new features this year including:

- VIEW POSTERS ON YOUR MOBILE DEVICE
- EXPANDED OPPORTUNITIES FOR Q&A
- MORE SUNRISE SESSION TOPICS
- ENHANCED FEATURES AND NEW NAVIGATION ON APP
- PRESENTATION UPLOAD PRIOR TO THE MEETING
- CAPTURE OF ALL CONTENT FOR POST-MEETING EDUCATION SITE

SPECIAL PRE-CONFERENCE SESSIONS START ON NOVEMBER 14!

Attendees have the option of registering for the following special pre-conference sessions prior to the SNO Annual Meeting:

NEURO-ONCOLOGY REVIEW COURSE  
Chair: Maciej Mrugala
Back for the 5th consecutive year, SNO is pleased to announce a full-day Neuro-Oncology Review Course as part of its educational programs for 2018. The course will take place on Wednesday, November 14.

CNS ANTICANCER DRUG DISCOVERY AND DEVELOPMENT CONFERENCE  
Chair: Victor Levin
The 3rd CNS Anticancer Drug Discovery and Development Conference will be held Wednesday and Thursday, November 14-15.

Program details are included further in this brochure.

TO REGISTER FOR EITHER OF THESE PRE-CONFERENCE SESSIONS, VISIT THE SNO WEBSITE

SOC-NEURO-ONC.ORG
Dear Colleagues,

We are delighted to invite you to attend the 23rd Annual Meeting of the Society for Neuro-Oncology which is scheduled to take place November 15-18, 2018. Held this year in the vibrant and eclectic city of New Orleans, the SNO Annual Meeting plays a vital role in bridging the gap between neuro-oncology research and clinical practice.

Following a pre-conference program on the critically important topic of drug discovery, and the ever-popular Neuro-Oncology Review Course, the 2018 SNO Education Day will focus on “Transforming Clinical Trials in the Modern-Day Era” with keynote lectures from Ronald DePinho and Gideon Blumenthal.

Continuing with the theme of clinical trials, the main scientific program will offer keynote and plenary addresses from Timothy Cloughesy, William Kaelin Jr., Maryam Fouladi and John Sampson. In addition, the Guha Award & Lecture will be delivered by Linda Liau, and the Victor Levin Award & Lecture will be delivered by Antonio Chiocca.

As is typical of the SNO meeting, conference participants will have the opportunity to attend early morning and lunchtime didactic sessions on a broad and varied range of neuro-oncology topics. Outstanding science will be presented in over 200 oral talks selected from the submitted abstracts. The two evening poster sessions are not to be missed, featuring 45 rapid-fire e-talks and over 300 traditional paper posters each night.

Nicknamed the “Big Easy”, New Orleans is known for its nightlife, exciting live-music scene and Cajun cuisine reflecting its history as a melting-pot of French, Caribbean and American cultures. The city’s wide array of attractions, activities, and personality-infused neighborhoods appeal to visitors of all ages. Against this backdrop, the SNO annual meeting will be an outstanding forum for networking and building lasting relationships with like-minded colleagues from around the world.

We hope to see you in New Orleans!

Sincerely,

Frank Furnari, Daphne Haas-Kogan, Vinay Puduvalli
MEETING OVERVIEW

The 23rd Annual Meeting and Education Day of the Society for Neuro-Oncology will take place at the Marriott Hotel in New Orleans, Louisiana. With a prime location in the heart of the world-famous French Quarter, this impressive hotel lets you experience everything New Orleans is renowned for! Bourbon Street, the Audubon Aquarium, Cafe du Monde, the WWII Museum, and other local attractions are all within easy walking distance.

Building on the success of past SNO meetings, sunrise sessions, plenary and concurrent sessions will be featured with oral abstract presentations, enhanced oral eTalk presentations, and poster presentations. Special lunch tutorials and industry-sponsored symposia will provide in-depth information on evolving technologies and therapeutics. Circulated for viewing throughout the meeting will be webcasts with “Meet the Expert” recordings of esteemed scientists and clinicians. The SNO Daily Highlights will again be recorded for viewing, with invited discussants reviewing the most cutting-edge science from that day’s basic science and clinical research presentations. Interactive ePoster touch screens will be available in a specially designated area of the meeting space.

EDUCATIONAL OBJECTIVES

After attending this conference, participants should be able to:

• Discuss new CNS cancer technologies in the areas of cell biology, cell signaling, genetics, epigenetics, immune-based therapies including CAR T therapy, stem cells, metabolomics, tumor microenvironment, lower grade gliomas, radiobiology and radiomics, synthetic lethal strategies, and viral therapy,
• Implement higher quality clinical trials based on an understanding of strategies for choosing which therapies to evaluate in specific patient populations,
• Apply novel trial designs beyond the traditional phase I, II and III studies for more efficient evaluation of target drugs
• Identify obstacles to clinical trial enrollment and discuss technologies to increase accessibility and data capture,
• Incorporate new endpoints in clinical trials that measures what is of most importance to patients,
• Describe new advances in the treatment of CNS metastases,
• Utilize patient reported outcomes to evaluate net clinical benefits for patients undergoing treatment, and
• Apply information on sexual differences in brain tumors and reproductive and women’s issues to efficiently address therapeutic implications.

TARGET AUDIENCE

The SNO annual meeting will be of value to neuro-oncologists, medical oncologists, adult and pediatric neurosurgeons, pediatric neuro-oncologists, neuroradiologists, neuropathologists, radiation oncologists, neuro-psychologists, epidemiologists, basic and translational scientists and allied health professionals.

EDUCATIONAL METHODS

Lectures, Question-and-Answer Sessions, Panel Discussions, Posters, etc.

EVALUATION

A course evaluation form will provide participants with the opportunity to comment on the value of the program content to their practice decisions, performance improvement activities, or possible impact on patient health status. Participants will also have the opportunity to comment on any perceived commercial bias in the presentations as well as to identify future educational topics.

REGISTER ONLINE AT SOC-NEURO-ONC.ORG
CME CERTIFICATES AND ATTENDANCE VERIFICATION CERTIFICATES

Certificates awarding AMA PRA Category 1 Credit™ will only be available online via the SNO app and/or website. These will be available from the start of the meeting through 4 weeks following the end of the meeting. Physicians will be directed to the evaluation questionnaire and a CME Verification Form which must be completed prior to the CME certificate being displayed. Once displayed the certificate may be printed or downloaded. An email address may also be entered to send the certificate. A record of the CME certificate will be saved for future access.

Certificates of attendance will also be available online via the app and/or website for other health care professionals and international faculty upon completion of the evaluation form. This certificate may be used in verifying attendance or for requesting credits with state nursing boards, specialty societies or other professional associations. A record of this certificate will be saved for future access.

The University of Texas MD Anderson Cancer Center has implemented a process whereby everyone who is in a position to control the content of an educational activity must disclose all relevant financial relationships with any commercial interest that could potentially influence the information presented. MD Anderson also requires that all faculty disclose any unlabeled use or investigational use (not yet approved for any purpose) of pharmaceutical and medical device products. Specific disclosure will be made to the participants prior to the educational activity. Agendas are subject to change because we are always striving to improve the quality of your educational experience. MD Anderson may substitute faculty with comparable expertise on rare occasions necessitated by illness, scheduling conflicts, and so forth.

GALA DINNER

Laissez les bons temps rouler! Join your colleagues from around the world for a special evening to experience a taste—literally and figuratively—of the fascinating culture and delicious cuisine of New Orleans. The evening begins as we gather for libations in front of the Marriott Hotel, and then proceed to parade through the streets of New Orleans, escorted by police, stilt walkers, costumed performers and a raucous brass band. The parade route will take us down Canal Street and through the Warehouse District, dancing and throwing beads to passers-by along the way! Our parade will terminate at the New Orleans Contemporary Arts Center, where we will be treated to delicious Cajun cuisine and lively music for the remainder of the evening! Tickets to the SNO Gala sell quickly and typically are on wait-list basis on-site, so those interested in attending are encouraged to reserve their tickets early!

REGISTRATION INFORMATION

Register Online: www.soc-neuro-onc.org. Online registration is the preferred method of registering for the meeting. Registrants can pay with a major credit card or, alternatively, can choose to pay by check, bank transfer, or money order. If you require a paper registration form, or have questions about registration, please contact Linda Greer, Tel. (346) 980-6935. Email: linda@soc-neuro-onc.org.

We prefer payment prior to arrival in San Francisco. Please note that a surcharge will be assessed for all on-site registrations and/or registration payments.

The online registration deadline is November 5, 2018. For registrations after this date, attendees must register on-site and on-site surcharges will apply.

REFUNDS/CANCELLATIONS

Cancellations must be received in writing no later than November 5, 2018; registration fees will be refunded less a $50 handling fee. Cancellations received after November 8th cannot be refunded, but the meeting registration can be transferred to another person with written authorization. E-mail all cancellation and transfer requests to Program Registrar Linda Greer, linda@soc-neuro-onc.org.

ACCOMMODATIONS

The New Orleans Marriott is the conference venue for this year’s meeting. The excitement and energy of the Crescent City is at your doorstep. Situated in the heart of the French Quarter, directly on Canal Street, this impressive hotel lets you experience everything New Orleans is renowned for. Walk to local attractions including Bourbon Street, the Audubon Aquarium of the Americas, coffee at Cafe du Monde, and the Garden District. The Sheraton Hotel is located directly across the street from the conference venue and will host both of the evening poster receptions. Its convenient location makes it an excellent choice for our attendees and provides easy access to the host hotel.

Special Assistance: Contact SNO at (346) 980-6935 if you have any special dietary or ADA accommodation needs.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 - 7:15am</td>
<td>REGISTRATION AND LIGHT CONTINENTAL BREAKFAST</td>
</tr>
<tr>
<td>7:15 - 7:20am</td>
<td>Welcome and Introduction</td>
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<tr>
<td></td>
<td>Maciej Mrugala</td>
</tr>
<tr>
<td>7:20 - 8:00am</td>
<td>Primary brain tumors - pathology, grading and prognosis - new WHO classification</td>
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<td></td>
<td>Peter Canoll</td>
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<tr>
<td>8:00 - 8:50am</td>
<td>Management of primary CNS tumors - PART I - gliomas</td>
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<td></td>
<td>Erin Dunbar</td>
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<tr>
<td>8:50 - 9:25am</td>
<td>Nonmetastatic cancer-related neurologic disorders</td>
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<td></td>
<td>Lisa Rogers</td>
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<tr>
<td>9:25 - 10:05am</td>
<td>Chemotherapy in neuro-oncology: principles and practice</td>
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<td></td>
<td>David Peereboom</td>
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<tr>
<td>10:05 - 10:25am</td>
<td>BREAK</td>
</tr>
<tr>
<td>10:25 - 11:05am</td>
<td>Neurosurgical management of brain tumors</td>
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<td></td>
<td>Michael Lim</td>
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<tr>
<td>11:05 - 11:45am</td>
<td>Principles of radiotherapy in neuro-oncology and its side effects</td>
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<td></td>
<td>Helen Shih</td>
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<tr>
<td>11:45 - 12:45pm</td>
<td>LUNCH</td>
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<tr>
<td>12:45 - 1:25pm</td>
<td>Palliative care for a neuro-oncology provider</td>
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<td></td>
<td>Lynne Taylor</td>
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<tr>
<td>1:25 - 2:05pm</td>
<td>Metastatic disease in the nervous system – brain/spine metastases</td>
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<td></td>
<td>Manmeet Ahluwalia</td>
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<td>2:05 - 2:50pm</td>
<td>Pediatric neuro-oncology highlights</td>
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<td></td>
<td>Sonia Partap</td>
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<tr>
<td>2:50 - 3:30pm</td>
<td>Medical complications in neuro-oncology patients</td>
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<td></td>
<td>Katherine Peters</td>
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<tr>
<td>3:30 - 3:45pm</td>
<td>BREAK</td>
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<tr>
<td>3:45 - 4:30pm</td>
<td>Management of primary brain tumors - PART II - non-glial tumors</td>
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<td></td>
<td>Rimas Lukas</td>
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<tr>
<td>4:30 - 5:10pm</td>
<td>Neuro-radiology for a practicing neuro-oncology provider</td>
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<tr>
<td></td>
<td>James Fink</td>
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<tr>
<td>5:10 - 5:45pm</td>
<td>Neurofibromatoses deciphered</td>
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<td></td>
<td>Scott Plotkin</td>
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<tr>
<td>5:45 - 6:15pm</td>
<td>Metastatic disease in the nervous system – neoplastic meningitis</td>
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<td></td>
<td>Maciej Mrugala</td>
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<tr>
<td>6:15pm</td>
<td>ADJOURN</td>
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<tr>
<td>6:30 - 8:30pm</td>
<td>Allied Health Professionals Networking Reception: Balancing Research with Clinical Care</td>
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<td>Stacey D. Green, Lauren Kloeppinger</td>
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</tbody>
</table>
CNS ANTICANCER DRUG DISCOVERY AND DEVELOPMENT

CNS Anticancer Drug Discovery and Development Conference Chair: Victor Levin

7:30 - 8:30am  REGISTRATION AND LIGHT CONTINENTAL BREAKFAST

8:30 - 8:35am  Welcome and Opening Remarks
Victor Levin

8:35 - 8:55am  Session 1: Drug Delivery, The Blood-brain Barrier, and Other Pharmacokinetic Considerations
The blood-brain barrier and its effect on drug delivery to brain and tumor
Quentin Smith, Texas Tech University

8:55 - 9:15am  Factors influencing the distribution of free drug to tumors in the CNS
William Elmquist, University of Minnesota

9:15 - 9:30am  Understanding brain penetrance of anticancer agents for infiltrative gliomas
Victor Levin, Levin Consulting

9:30 - 9:45am  Development of a translational PK model for characterizing and predicting protein therapeutics in the brain
Dhaval K. Shah, University of Buffalo

9:45 - 10:00am  Interplay of OATP1A2 and ABCB1 in drug penetration across human blood-brain barrier: Insights from in vitro, in silico, and patients
Jing Li, Wayne State University

10:00 - 10:20am BREAK

10:20 - 10:30am  Mechanisms of enhanced drug delivery in brain tumors with focused ultrasound-induced transient blood-tumor barrier disruption
Costas Arvanitis, Georgia Institute of Technology

10:30 - 10:40am  A versatile and modular targeted nanoparticle platform for delivery of combination therapies to adult and pediatric CNS tumors
Fred Lam, Massachusetts Institute of Technology

10:40 - 10:50am  PD-L1 checkpoint blockade using a single-chain variable fragment targeting PD-L1 delivered by retroviral replicating vector (Toca 521) enhances anti-tumor effect in cancer models
Amy Lin, Tocagen, Inc.

10:50 - 11:00am  A treatment simulator for brain chemotherapy
William Broaddus, Virginia Commonwealth University

11:00 - 11:10am  Low intensity pulsed ultrasound using an implantable device to temporarily disrupt the blood-brain barrier: A new tool for enhancing delivery of drugs to the brain
Michael Canney, CarThera, Inc.

11:10 - 11:40am  Session 1 Discussion
James Gallo, moderator

11:40 - 12:40pm LUNCH

Session 2: Approaches to Solve the Regulatory and Pharmaceutical / Biotech Drug Discovery / Development Conundrum

12:40 - 1:00pm  Platform trials for glioblastoma - what they have to offer and what we can learn from them
Brian Alexander, Dana-Farber Cancer Institute
## CNS Anticancer Drug Discovery and Development

**Conference Chair:** Victor Levin

### Wednesday, November 14

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>1:00 - 1:15pm</td>
<td>TBD</td>
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<td>Melissa Paoloni, Berry Consultants</td>
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<td>1:15 - 1:35pm</td>
<td>Attracting industry to the platform approach in the setting of low patient numbers&lt;br&gt;Gary Gordon</td>
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<td>1:35 - 1:50pm</td>
<td>The challenge of repurposing drugs for CNS neoplasms&lt;br&gt;Jeffrey Bacha, DelMar Pharmaceuticals</td>
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<tr>
<td>1:50 - 2:20pm</td>
<td>Session 2 Discussion&lt;br&gt;Victor Levin, Moderator</td>
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<td>2:20 - 2:45pm</td>
<td>BREAK</td>
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<tr>
<td>2:45 - 3:05pm</td>
<td>Nonequilibrium statistical mechanisms and protein actions&lt;br&gt;Ken A. Dill, Stony Brook University</td>
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<tr>
<td>3:05 - 3:25pm</td>
<td>Simulating cancer cell migration&lt;br&gt;David Odde, University of Minnesota</td>
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<tr>
<td>3:25 - 3:45pm</td>
<td>Cell mechanical targets for brain tumors&lt;br&gt;Steven Rosenfeld, Mayo Clinic</td>
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<tr>
<td>3:45 - 4:00pm</td>
<td>Extracting predictive biomarkers of cancer immunotherapy from tumor spatial heterogeneity using a multi-scale systems biology model&lt;br&gt;Chang Gong, Johns Hopkins University</td>
</tr>
<tr>
<td>4:00 - 4:10pm</td>
<td>Reaching the subarachnoid space: a role for intrathecal delivery of drug loaded nanoparticles&lt;br&gt;Rachael Sirianni, University of Texas Health Science Center</td>
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<tr>
<td>4:10 - 4:45pm</td>
<td>Session 3 Discussion&lt;br&gt;Peter Tonge, Moderator</td>
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<tr>
<td>5:00 - 8:00pm</td>
<td>POSTER AND NETWORKING RECEPTION</td>
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<td>Time</td>
<td>Event</td>
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<tr>
<td>7:00 - 8:00am</td>
<td><strong>LIGHT CONTINENTAL BREAKFAST</strong></td>
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<tr>
<td>8:00 - 8:20am</td>
<td>Session 4: Novel Targets, Approaches and Discovery Paradigms</td>
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<td>Correlating time-dependent target engagement and drug activity</td>
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<td>8:20 - 8:30am</td>
<td>Nanoparticle delivery of miRNAs to inhibit GBM stem cells</td>
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<td>8:30 - 8:40am</td>
<td>CD97 perturbation by novel fusion protein DAF-Fc inhibits GBM invasion and induces antibody dependent cellular cytotoxicity</td>
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<tr>
<td>8:40 - 9:00am</td>
<td>Therapeutic targets in primary and metastatic brain tumors: genomics as a tool</td>
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<tr>
<td>9:00 - 9:10am</td>
<td>Translational discovery of therapeutic targets for glioblastoma</td>
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<td>9:10 - 9:25am</td>
<td>Protein target identification and target interaction from linear modeling of protein targets from rodent tumors</td>
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<td>9:25 - 9:35am</td>
<td>Targeting the CD200 checkpoint for the fight against central nervous system tumors</td>
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<td>9:35 - 9:50am</td>
<td>The PROTAC drug approach</td>
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<td>9:50 - 10:05am</td>
<td><strong>Session 4A Discussion</strong></td>
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<tr>
<td>10:05 - 10:20am</td>
<td><strong>BREAK</strong></td>
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<tr>
<td>10:20 - 10:40am</td>
<td>Nativis Voyager(r): A disruptive approach to cancer treatment</td>
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<tr>
<td>10:40 - 10:50am</td>
<td>Personalized pharmacogenomics using glioma patient-derived orthotopic xenografts (PDOXs)</td>
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<tr>
<td>10:50 - 11:10am</td>
<td>A key to tumor cell immortality: How it might inform new drug targets</td>
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<td>11:10 - 11:20am</td>
<td>Developing Zika virus as a potential cancer stem cell therapy</td>
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<td>11:20 - 11:30am</td>
<td>Multi-modality analysis of heterogeneous EGFR inhibitor delivery and efficacy in GBM</td>
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<td>11:30 - 11:50am</td>
<td>Selective dependency and conceptual approaches to target identification</td>
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<tr>
<td>11:50 - 12:00pm</td>
<td>The development of personalized CAM Avatar model to predict chemotherapeutic drug sensitivity/resistance of gliomas</td>
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</tbody>
</table>
**PRE-CONFERENCE THURSDAY, NOVEMBER 15**

**CNS ANTICANCER DRUG DISCOVERY AND DEVELOPMENT**

*CNS Anticancer Drug Discovery and Development Conference Chair: Victor Levin*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 - 12:15pm</td>
<td>Principles of epigenetics and chromatin in development and human disease</td>
<td>Ali Shilatifard, Northwestern University</td>
</tr>
<tr>
<td>12:15 - 12:30pm</td>
<td>Session 4B Discussion</td>
<td>Jann Sarkaria, Moderator</td>
</tr>
<tr>
<td>12:30 - 1:30pm</td>
<td>LUNCH</td>
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<tr>
<td>1:30 - 1:50pm</td>
<td>Building on the success of osimertinib: Achieving CNS exposure in oncology drug discovery</td>
<td>Nicola Colclough, AstraZeneca</td>
</tr>
<tr>
<td>1:50 - 2:10pm</td>
<td>Discovery of AZD1390, a potent, selective and brain penetrant inhibitor of ATM kinase</td>
<td>Kurt G. Pike, AstraZeneca</td>
</tr>
<tr>
<td>2:10 - 2:30pm</td>
<td>BMI-1 modulation by PTC596 as a new approach to the treatment of GBM</td>
<td>Young-Choong Moon, PTC Therapeutics</td>
</tr>
<tr>
<td>2:30 - 2:50pm</td>
<td>Therapeutic challenges and opportunities for pediatric high-grade glioma</td>
<td>Suzanne Baker, St. Jude Children's Research Hospital</td>
</tr>
<tr>
<td>2:50 - 3:00pm</td>
<td>2-hydroxyoleic acid, a novel membrane lipid regulator, demonstrates clinical activity in high-grade glioma</td>
<td>Derek Hanson, Hackensack University Medical Center</td>
</tr>
<tr>
<td>3:00 - 3:10pm</td>
<td>Small molecule epigenetic targeting of methyl-CpG binding protein 2 (MBD2) for medulloblastoma therapy</td>
<td>Erwin Van Meir, Emory University</td>
</tr>
<tr>
<td>3:10 - 3:20pm</td>
<td>CT-179: an inhibitor of the OLIG2 transcription factor with potent anti-tumour activity in brain cancer</td>
<td>Terrance Johns, Telethon Kids Institute</td>
</tr>
<tr>
<td>3:20 - 3:30pm</td>
<td>Re-programing chromatin with a bifunctional LSD1/HDAC inhibitor induces therapeutic differentiation in DIPG</td>
<td>Jamie Anastas, Boston Children's Hospital</td>
</tr>
<tr>
<td>3:30 - 3:40pm</td>
<td>Identification and validation of azoles as HK2 inhibitors in glioblastoma in vitro and in vivo</td>
<td>Alireza Mansouri, University of Toronto</td>
</tr>
<tr>
<td>3:40 - 3:50pm</td>
<td>The efficacy of therapy with ABT-414, an EGFR-targeting ADC, is potentially altered by heterozygous deletion of the endocytic trafficking regulator RBSN</td>
<td>Gaelle Muller-Greven, Cleveland Clinic</td>
</tr>
<tr>
<td>3:50 - 4:00pm</td>
<td>PAM-OBG: A MAOB-specific prodrug inhibitor of O6-methylguanine DNA methyltransferase (MGMT) that sensitizes GMB to BCNU/CCNU</td>
<td>Martyn Sharpe, Houston Methodist Hospital</td>
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<tr>
<td>4:00 - 4:30pm</td>
<td>Session 5 Discussion</td>
<td>Zoran Rankovic, Moderator</td>
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<tr>
<td>4:30 - 4:35pm</td>
<td>Closing Remarks</td>
<td>Victor Levin</td>
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<td>4:35pm</td>
<td>ADJOURN</td>
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# EDUCATION DAY

**THURSDAY, NOVEMBER 15**

## TRANSFORMING CLINICAL TRIALS IN THE MODERN-DAY ERA

*Education Day Chairs: Brian Alexander, Ingo Mellinghoff, Joohee Sul, Martin Taphoorn*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>6:00 - 7:00am</td>
<td>MORNING YOGA</td>
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<tr>
<td>8:00 - 8:10am</td>
<td>Welcome and Introduction</td>
</tr>
<tr>
<td>8:10 - 8:40am</td>
<td><strong>Keynote Presentation:</strong> Global view of cancer</td>
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<tr>
<td></td>
<td><em>Ronald DePinho</em></td>
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<tr>
<td>8:40 - 10:15am</td>
<td><strong>Session 1 – Cancer Biology and Genomics</strong></td>
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<td><em>Session Chair: Ingo Mellinghoff</em></td>
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<tr>
<td>8:40 - 9:00am</td>
<td>Aberrant signaling in brain tumors</td>
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<td><em>Ingo Mellinghoff</em></td>
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<tr>
<td>9:00 - 9:20am</td>
<td>Molecular trajectories of glioma</td>
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<td></td>
<td><em>Roel Verhaak</em></td>
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<tr>
<td>9:20 - 9:40am</td>
<td>Modeling brain tumor development</td>
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<td><em>Suzanne Baker</em></td>
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<tr>
<td>9:40 - 10:00am</td>
<td>Harnessing large-scale genomic data for cancer gene discovery and therapy</td>
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<td><em>Nikolaus Schultz</em></td>
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<tr>
<td>10:00 - 10:15am</td>
<td>Panel Discussion</td>
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<td><em>All of Above</em></td>
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<tr>
<td>10:15 - 10:30am</td>
<td>BREAK</td>
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<tr>
<td>10:30 - 12:05pm</td>
<td><strong>Session 2 – Clinical Trials Basics</strong></td>
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<td><em>Session Chair: Joohee Sul</em></td>
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<tr>
<td>10:30 - 10:50am</td>
<td>Clinical trials 101</td>
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<td><em>Jennifer Clarke</em></td>
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<td>10:50 - 11:10am</td>
<td>Designs for small patient populations</td>
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<td><em>Karla Ballman</em></td>
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<td>11:10 - 11:30am</td>
<td>Endpoints for clinical trials</td>
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<td><em>Joohee Sul</em></td>
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<td>11:30 - 11:50am</td>
<td>Pitfalls in oncology drug development</td>
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<td><em>Patrick Wen</em></td>
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<td>11:50 - 12:05pm</td>
<td>Panel Discussion</td>
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<tr>
<td>12:05 - 1:05pm</td>
<td>LUNCH</td>
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<td>Women in Neuro-Oncology (WiN) Kick-off Lunch</td>
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<tr>
<td>1:05 - 1:35pm</td>
<td><strong>Keynote Presentation:</strong> Novel precision medicine trial designs - Oncology Center of Excellence perspectives</td>
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<td><em>Gideon Blumenthal</em></td>
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<td>1:35 - 3:45pm</td>
<td><strong>Session 3 – Next-generation Trials and Biomarkers</strong></td>
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<td><em>Session Chair: Brian Alexander</em></td>
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<td>1:35 - 1:55pm</td>
<td>Methylation signatures</td>
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<td><em>Stefan Pfister</em></td>
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**EDUCATION DAY  THURSDAY, NOVEMBER 15**

<table>
<thead>
<tr>
<th>Time</th>
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| 1:55 - 2:15pm  | Standardization and implementation of imaging biomarkers in glioma multicenter clinical trials  
Ben Ellingson  |
| 2:15 - 2:35pm  | Digital technology: Digital biomarkers, outcomes, and performance measures  
Andy Coravos  |
| 2:35 - 2:50pm  | BREAK  |
| 2:50 - 3:10pm  | Novel clinical trial designs  
Howard Colman  |
| 3:10 - 3:30pm  | Perspectives from pharma  
Lauren Abrey  |
| 3:30 - 3:45pm  | Panel Discussion  
All of Above  |
| 3:45 - 5:00pm  | Session 4 – Improving Patient Participation in Clinical Trials  
*Session Chair: Martin Taphoorn*  |
| 3:45 - 4:05pm  | Practitioners views on clinical trials - survey results  
Terri Armstrong  |
| 4:05 - 4:25pm  | Access to trials - the BTN experience  
Frederick B. Sontag, Kay Verbie  |
| 4:25 - 4:45pm  | Clinical outcomes assessments / RANO COA  
Martin Taphoorn  |
| 4:45 - 5:00pm  | Panel Discussion  
All of above plus Liz Salmi, David Jenkinson and David Arons  |
| 5:00pm         | ADJOURN  |
| 5:45 - 7:30pm  | TOWN HALL MEETING: Hot topics in neuro-oncology - *Light refreshments at 5:45pm*  |
| 7:30 - 10:00pm | WELCOME RECEPTION  |
| 7:30 - 8:30pm  | Young Investigator’s Career Development and Networking Session  
*(Pre-registration required. See SNO website for further details.)*  |

**ABSTRACT CODES**

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<tr>
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<th>Adult Clinical Trials – Non-immunologic</th>
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<tr>
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<td>Quality of Life and Palliative Care</td>
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*5:45 - 7:30pm  TOWN HALL MEETING: Hot topics in neuro-oncology - *Light refreshments at 5:45pm*  |

- Drug repurposing  
- Low grade glioma treatment  
- Right to try
SUNRISE SESSIONS
7:00 - 8:30am

Akitake Mukasa (Chair)
- WHO 2016 in Korea, Sung-Hye Park
- Implementation of molecular integrated diagnosis of adult gliomas in a resource-limited country, Takashi Komori
- Practical guidelines of implementing 2016 update in gliomas in the Asian context, Vani Santosh
- Integrated WHO 2016 diagnoses using immunohistochemistry, Arie Perry

Complexity of the Brain Tumor Microenvironment
Daniela Quail (Chair)
- Resistance to macrophage targeted therapies in glioblastoma, Daniela Quail
- Effect of cytotoxic therapies on the glioma microenvironment, Leila Akkari
- Central nervous system lymphatic vessels: Implications for CNS tumors and therapy, Priscilla Brastianos
- Lymphocytes in the glioma microenvironment, Amy Heimberger

Immune Based Therapies
Hideho Okada (Chair)
- Challenges for brain tumor immunotherapy, Hideho Okada
- Effects of systemic PD1 blockade therapy on the GBM tumor microenvironment, Robert Prins
- CAR therapy for GBM, Behnam Badie
- Bone marrow T cell sequestration in GBM patients, Peter Fecci

Synthetic Lethal Strategies in Glioma: The Quest for Targetable Vulnerabilities
Frank Furnari (Chair)
- Targeting cancer-specific vulnerabilities, Ronald DePinho
- Targeting a therapeutic vulnerability in PTEN-deficient brain tumor, Frank Furnari
- PARP inhibition: lessons learned from synthetic lethality, Clark Chen
- Targeting apoptotic pathway vulnerabilities in malignant glioma, David Nathanson

Update on Lower Grade Gliomas
David Schiff (Chair)
- Classification and utility of biomarkers in lower-grade gliomas, David Capper
- Imaging advances in lower-grade gliomas, Raymond Huang
- Lessons from recent clinical trials of lower-grade gliomas, David Schiff
- Update on IDH-targeting strategies, Patrick Wen

Sex Differences in Brain Tumors: Biology and Therapeutic Implications
Joshua Rubin (Chair)
- Sex specific differences in incidence, survival and risk factors for brain tumors, Jill Barnholtz-Sloan
- Sex differences in MR imaging of glioma, Kristin Swanson
- Sex differences in microglia and the glioma microenvironment, Justin Lathia
- Sex differences in glioma biology and therapeutic responses, Joshua Rubin

Brain Cancer Metabolism
Zhimin Lu (Chair)
- Co-dependency pathways in GBM: Identifying and targeting oncogene-induced metabolic vulnerabilities, Paul Mischel
- Monitoring metabolism in glioblastoma using hyperpolarized C-13 imaging and H-1 MRSI, Susan Chang
- Lipid metabolism alteration in GBM, from de novo synthesis to storage, Deliang Guo
- Metabolic and non-metabolic functions of metabolic enzymes in brain tumor development, Zhimin Lu

Clonal Evolution of Adult and Pediatric Glioma
Mario Suva (Chair)
- Single-cell regulatory programs of malignant and immune cells in adult and pediatric gliomas, Mario Suva
- Title TBD, Raul Robadan
- DNA Amplification in cancer: It’s all about location, Kristen Turner
- Harnessing exquisite vulnerabilities in H3K27M mutagenesis, Nada Jabado
MAIN MEETING PROGRAM

9:00 - 9:05am  Welcome and Introduction of Scientific Program
   Frank Furnari, Daphne Haas-Kogan, Vinay Puduvalli

9:05 - 9:35am  Keynote Presentation: Metabolic and oxygen regulation in malignancies
   William G. Kaelin Jr.

9:35 - 10:05am  Keynote Presentation: Pediatric clinical trials and translational research
   Maryam Fouladi

10:05 - 10:20am  BREAK

10:20 - 10:55am  Victor Levin Award Introduction: Victor Levin
   Victor Levin Award Lecture Recipient: E. Antonio Chiocca

10:55 - 11:20am  Presidential Address: Patrick Wen

11:20 - 11:25am  SNO Membership Survey: Gelareh Zadeh

11:25 - 11:30am  SNO Convention Center Transition: J. Charles Haynes

11:30 - 11:40am  Preservation of neurocognitive function (NCF) with hippocampal avoidance during whole-brain radiotherapy
   (WBRT) for brain metastases: preliminary results of phase III trial NRG Oncology CC001
   Chmura S, Shi W, Mehta M, Kachnic L

11:40 - 11:50am  Two-year results of the INTELLANCE 2/EORTC trial 1410 randomized phase II study on Depatux–M alone,
   Depatux-M combined with temozolomide (TMZ) and either TMZ or lomustine in recurrent EGFR amplified
   glioblastoma (NCT02343406)

11:50 - 12:00pm  The oncometabolite R-2-Hydroxyglutarate suppresses the innate immune micro-environment
   of IDH-1-mutated gliomas via aryl hydrocarbon receptor signaling

LUNCHTIME TUTORIALS AND EDUCATIONAL SESSIONS
   Not sponsored by The University of Texas MD Anderson Cancer Center

Palliative Care-Health Outcome Measures and Communication Strategies in Neuro-Oncology
   Zarnie Lwin (Chair)
   • Advance care planning and palliative care in neuro-oncology, Tobias Walbert
   • Prognostic understanding and communication challenges in patients with brain tumors, Deborah Forst
   • Negotiating palliative care in the context of cultural and linguistic diversity – the role of the interpreter,
     Zarnie Lwin

Emerging Functional and Genomic Single Cell Technologies
   Paul Northcott (Chair)
   • Application of single-cell sequencing to define the developmental origins of childhood brain tumors,
     Paul Northcott
   • Developmental programs in H3K27M gliomas dissected by single cell RNAseq, Mariella Filbin
   • Single-cell analysis of adult brain tumors, Aaron Diaz
12:15 - 1:15pm  LUNCH, continued

**Young Investigator Luncheon**
- Demystifying the grant process

**Epigenetics of CNS Malignancies**
*Anna Lasorella (Chair)*
- Epigenetics in tumors of the central nervous system: an overview, *Anna Lasorella*
- DNA methylation-based classification of CNS tumors, *Stefan Pfister*
- Epigenetic changes in IDH1 mutant tumors, *Houtan Noushmeher*

**Emerging Model Systems in Neuro-Oncology**
*David Raleigh (Chair)*
- Mouse genetic models of hedgehog-associated medulloblastoma, *David Raleigh*
- Canine models of brain cancer, *Amy LeBlanc*
- Mouse genetic models of medulloblastoma, *Robert Wechsler-Reya*

**Basic Science in Neuro-Oncology for the Clinician**
*Vinay Puduvalli (Chair)*
- Basic mechanisms involved in tumor heterogeneity and treatment resistance, *Vinay Puduvalli*
- Translational strategies in neuro-oncology - from bench to bedside, *Jann Sarkaria*
- Immunological approaches against brain tumors, *Duane Mitchell*

**Industry Supported Symposia**
Not sponsored by The University of Texas MD Anderson Cancer Center
- Implementing best practices to improve fragmented glioblastoma care across community and academic settings

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**CONCURRENT SESSIONS**  1:30 - 5:00 pm

### 1:30 - 3:00pm  **CONCURRENT SESSION 2A**

**Adult Clinical Trials I/Trials in Development**

1:30 - 1:40pm  
**ACTR-31**  
Phase 1 study of AG-881, an inhibitor of mutant IDH1 and IDH2: results from the recurrent/progressive glioma population  
**ADULT CLINICAL RESEARCH AWARD**

1:40 - 1:50pm  
**ACTR-45**  
Phase 0/2 study of ribociclib in patients with recurrent glioblastoma  

1:50 - 1:55pm  
**ACTR-13**  
A bayesian adaptive randomized phase II trial of bevacizumab versus bevacinumab plus vorinostat in adults with recurrent glioblastoma – final results  

1:55 - 2:00pm  
**RARE-24**  
Objective response and clinical benefit in recurrent ependymoma in adults: final report of CERN 08-02: A phase II study of dose-dense temozolomide and laptinib  

2:00 - 2:05pm  
**DISCUSSION**  
All Presenters

2:05 - 2:10pm  
**Q & A**

2:10 - 2:15pm  
**ACTR-02**  
NRG Oncology/RTOG 0424: Long-term results of a phase II study of temozolomide-based chemoradiotherapy regimen for high-risk low-grade gliomas  
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<tr>
<td>2:30 - 2:35pm</td>
<td>Q &amp; A</td>
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<td>2:55 - 3:00pm</td>
<td>Q &amp; A</td>
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<td>3:00 - 3:15pm</td>
<td>BREAK</td>
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<td>CONCURRENT SESSION 2B</td>
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<td>1:50 - 2:00pm</td>
<td>Treatment patterns, outcomes, and prognostic indicators in elderly patients with glioblastoma: a retrospective single institution analysis</td>
<td>Johnson M, Kirkpatrick J, Weant M, Vaslow Z, Lipp E, Herndon J, McSherry F, Desjardins A, Randazzo D, Friedman H, Ashley D, Peters K</td>
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<td>2:00 - 2:05pm</td>
<td>DISCUSSION</td>
<td>All Presenters</td>
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<td>Q &amp; A</td>
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<td>2:15 - 2:20pm</td>
<td>QOLP-03</td>
<td>End of life phase in glioblastoma: prospective assessment of symptom burden and symptom interference in the end of life phase - final analysis</td>
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<td>Walbert T, Schultz L</td>
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<td>QOLP-29</td>
<td>Symptom clusters in newly diagnosed glioma patients: which clusters are associated with functioning and global health status?</td>
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<td>2:25 - 2:30pm</td>
<td>QOLP-21</td>
<td>The relationship between caregiving burden and anxiety symptoms in caregivers of patients with malignant gliomas</td>
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<td>Quain K, Nipp R, Greer J, El-Jawahri A, Batchelor T, Temel J, Forst D</td>
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<td>2:35 - 2:40pm</td>
<td>QOLP-19</td>
<td>Effect of intensive nutrition intervention on pediatric patients with central nervous system tumors with concurrent radiochemotherapy</td>
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<td>Cai LB, Zhang Y</td>
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<td>2:40 - 2:45pm</td>
<td>QOLP-09</td>
<td>Association between body image investment and alteration in patients with primary brain tumors</td>
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<td>2:45 - 2:50pm</td>
<td>NCMP-09</td>
<td>Isocitrate dehydrogenase mutations and increased tissue 2-hydroxyglutarate concentration might be related with seizure onset in patients with gliomas</td>
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<td>Ohno M, Hayashi M, Matsushita Y, Miyakita Y4, Takahashi M, Yamazawa E, Tsushita N, Ichimura K, Hamada A, Narita Y</td>
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<td>2:50 - 2:55pm</td>
<td>NCOG-04</td>
<td>Effects of proton radiation on brain structure and function in low grade glioma</td>
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<td>1:30 - 3:00pm</td>
<td>CONCURRENT SESSION 2C</td>
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<td>1:30 - 1:40pm</td>
<td>EXTH-36</td>
<td>Bifunctional RNA nanoparticles induce antitumor immune responses and allow MRI-based detection of dendritic cell migration as a biomarker of antitumor immune response</td>
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<td>1:40 - 1:50pm</td>
<td>EXTH-27</td>
<td>Inflammatory reprogramming of gliomas using Delta-24-RGDOX and immunometabolic adjuvants</td>
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<td>EXTH-25</td>
<td>Dianhydrogalactitol (VAL-083) reduces glioblastoma tumor growth in vivo, upon bevacizumab-induced hypoxia</td>
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<td>Golebiewska A, Oudin A, Steina A, Niclou S, Brown D, Bacha J</td>
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<td>2:00 - 2:10pm</td>
<td>EXTH-03</td>
<td>Local oncolytic adenovirus treatment affects both the innate and adaptive arms of the immune system and provides an avenue for enhancing immunotherapies for GBM</td>
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<td>DISCUSSION</td>
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<td>Q &amp; A</td>
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<td>2:20 - 2:25pm</td>
<td>EXTH-70</td>
<td>Efficient delivery of siRNAs to glioma via functionalized extracellular vesicles primed by radiation</td>
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<td>Tannous B, Tian T, Obeid P</td>
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<td>2:25 - 2:30pm</td>
<td>EXTH-43</td>
<td>Effective treatment of canine spontaneous gliomas with a cytotoxic cocktail targeting IL-13RA2 and EphA2 receptors</td>
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<td>Rossmeisl J, Herpai D, Robertson J, Dickinson P, Tatter S, Debinski W</td>
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2:30 - 2:35pm Transgenic expression of IL15 improves the efficacy of CAR T cells in an immune competent glioblastoma model

2:35 - 2:40pm Q & A

2:40 - 2:45pm G-quadruplex DNA drives genomic instability and represents a targetable molecular abnormality in ATRX-deficient malignant glioma
Wang Y, Yang J, Danussi C, Riggins G, Sulman E, Chan T, Huse JT

2:45 - 2:50pm A novel nanotechnology-based platform improves laser interstitial thermal therapy for intracranial tumors

2:50 - 2:55pm Targeting CD97 by novel fusion protein DAF-Fc inhibits GBM invasion and induces antibody dependent cellular cytotoxicity
Nguyen A, Safaee M, Chandra A, Wycoff K, Aghi M

2:55 - 3:00pm Q & A

3:00 - 3:15pm BREAK

3:15 - 5:00pm CONCURRENT SESSION 3A

Immunology – Preclinical and Clinical I

3:15 - 3:25pm Optical barcoding to investigate clonal dynamics of GBM highlights the intrinsic capacity of GBM to re-activate developmental genes and escape immune surveil-lance

3:25 - 3:35pm Neoadjuvant anti-PD-1 immunotherapy promotes intratumoral and systemic immune responses in recurrent glioblastoma: An Ivy Consortium trial

3:35 - 3:45pm Results of the GLOBE study: a phase 3, randomized, controlled, double-arm, open-label, multi-center study of VB-111 combined with bevacizumab vs. bevacizumab monotherapy in patients with recurrent glioblastoma

3:45 - 3:55pm Phase II trial of a survivin vaccine (SurVaxM) for newly diagnosed glioblastoma

3:55 - 4:00pm DISCUSSION

4:00 - 4:05pm Q & A

4:05 - 4:10pm Dose modulation of temozolomide have distinct effects on host response to PD-1 blockade

4:10 - 4:15pm Retargeting immunoedited glioma escape variants with adoptive cellular therapy
Wildes T, Dyson K, Grippin A, DiVita B, Flores C, Mitchell D

4:15 - 4:20pm Absence of the amino acid stress-sensor GCN2 reduces suppressive effects of MDSCs in glioma

4:20 - 4:25pm Neoadjuvant PD-1 antibody blockade is associated with focal upregulation of PD-L1 and CD8 T cell infiltrate in recurrent glioblastoma

4:25 - 4:30pm Phase 2 trial of SL-701 + bevacizumab in patients with previously treated glioblastoma (GBM) meets primary endpoint of OS-12, with preliminary correlation between long-term survival and target-specific CD8+ T cell immune response

4:30 - 4:35pm Q & A
### MAIN MEETING
**FRIDAY, NOVEMBER 16**

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<th>Session</th>
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<td>4:40 - 4:45pm</td>
<td>IMMU-55</td>
<td>Immunomodulatory IL-7 and IL-12-expressing MSCs induce long-term survival and immunity in syngeneic intracerebral glioblastoma models</td>
<td>Mähme M, Maire C, Geumann U, Dürhens L, Schliffe F, Fita K, Binder M, Lamszus K, Guenther C, Westphal M, Hermann F, Ole Schmidt N</td>
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<td>4:55 - 5:00pm</td>
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<td>3:15 - 5:00pm</td>
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<td>4:15 - 4:20pm</td>
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<td>Q &amp; A</td>
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<td>4:20 - 4:25pm</td>
<td>GENE-06</td>
<td>The oncohistone H3.3K27M drives diffuse intrinsic pontine glioma independent of functional EZH2</td>
<td>Dhar S, Becher O</td>
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| 4:30 - 4:35pm | Molecular characterization of benign and malignant peripheral nerve sheath tumors that occur in sporadic and syndromic settings  
| 4:35 - 4:40pm | Q & A |
| 4:40 - 4:45pm | Functional genomic elements defined by DNA methylation can distinguish meningioma subgroups  
| 4:45 - 4:50pm | Tumor evolution directed graphs imply therapies against moving targets in pan-gliomas  
  (Wana J) |
| 4:50 - 4:55pm | Intron 1-mediated regulation of EGFR expression in EGFR-dependent malignancies  
  (Jameson N, Tang J, Parisian B, Benitez J, Funnari F) |
| 4:55 - 5:00pm | Q & A |

**Microenvironment/Angiogenesis and Invasion**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Title</th>
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</table>
| 3:15 - 3:25pm | Abscopal immune response in glioblastoma elicited by miR124-attenuated oncolytic herpes simplex virus 1 armed with U1L6 binding protein 3  
| 3:25 - 3:35pm | Core-like tumor cells promote malignance of glioblastoma via intercellular cross-talk with edge-like tumor cells in a HDAC1-CD109 dependent manner  
| 3:35 - 3:45pm | Reprogramming bone marrow of tumor-bearing hosts for glioma immunotherapy  
  (Wildes T, DiVita B, Grippin A, Dyson K, Flores C, Mitchell D) |
| 3:45 - 3:55pm | Epigenetic reactivation of BAI1 suppresses tumor invasion by preventing TGFβ1-induced mesenchymal switch in glioblastoma  
  (Osuka S, Yang L, Zhu D, Devi N, Van Meir E) |
| 3:55 - 4:00pm | DISCUSSION |
| 4:00 - 4:05pm | Q & A |
| 4:05 - 4:10pm | 5ALA fluorescence based sorting identifies SERPINE1 as a novel therapeutic target on invasive GBM cells  
  (Rowlinson J, de los Angeles Estevez Cerbrero M, Lourdesamy A, Rahman R, Smith S) |
| 4:10 - 4:15pm | Fibroblast-produced EDA fibronectin in the subventricular zone drives glioblastoma pathogenesis  
| 4:15 - 4:20pm | Glioblastoma exploits cell surface glycoylation-mediated immune regulatory circuits for immune escape  
  (Dusoswa S, Verhoej F, Abels E, Breakefield X, Noske D, Würdinger T, Broekman M, Van Kooyk Y, Garcia-Vallejo J) |
| 4:20 - 4:25pm | PDGF-mediated mesenchymal transformation renders endothelial resistance to anti-VEGF treatment in glioblastoma  
  (Ma W, Gong Y, Brem S, Fan Y) |
| 4:25 - 4:30pm | Activation of the Wnt/β-Catenin signaling pathway in glioma stem cells impacts endothelial cell-cell interaction  
  (Vezaa A, Gilbert M, Jackson S) |
| 4:30 - 4:35pm | Q & A |
| 4:35 - 4:40pm | Interleukin-6 in cerebrospinal fluid as a prognostic marker for glioblastoma patients  
  (Sasayama T, Tanaka K, Hori T, Nishihara M, Maeyama M, Nakamizo S, Tanaka H, Kohmura E) |
4:40 - 4:45pm  
**Na/H exchanger isoform 1 (NHE1) in immunosuppressive tumor microenvironment in mouse syngeneic glioma model**  
*Hasan N., Guan X, Kohanbash G, Sun D*

4:45 - 4:50pm  
**Computational characterization of suppressive immune microenvironments in glioblastoma**  
*Luoto S, Hermelo I, Vuorinen E, Hannus P, Kesseli J, Nykter M, Granberg K*

4:50 - 4:55pm  
**Genetic driver-mutations define composition and properties of tumor-associated myeloid cells in glioblastoma**  
*Chen Z, Murukuti J, Hambardzumyan D*

4:55 - 5:00pm  
**Q & A**

5:00 - 7:30pm  
**Industry Supported Symposia**  
*Not sponsored by The University of Texas MD Anderson Cancer Center*

- The role of the neuro-oncologist in EGFR-Mutant NSCLC: Treating leptomeningeal carcinomatosis with the multidisciplinary team

5:30 - 7:30pm  
**E-TALKS Interactive Electronic 4 Minute Presentations Followed By Group Discussions**

Group 1: Cell Signaling/Cell Biology/Metabolism/Genetics/Epigenetics

Group 2: Drug Resistance/Drug Discovery/Experimental Therapeutics/Tumor Microenvironment

Group 3: Imaging/Pediatric Tumor Models/Pediatric Clinical Trials/Molecular Pathology/Health Outcomes

7:30 - 8:30pm  
**POSTER SESSION** Traditional Poster Viewing

5:00 - 5:05pm  
**Refreshments**

5:05 - 5:07pm  
**Introduction**  
*Patrick Wen*

5:07 - 5:12pm  
**National Brain Tumor Society survey results**  
*David Arons*

5:12 - 5:19pm  
**SNO clinical trials survey**  
*Terri Armstrong*

5:20 - 5:29pm  
**Patient and community factors**  
*John DeGroot, David Arons*

5:29 - 5:36pm  
**Physician and provider factors**  
*Susan Chang*

5:36 - 5:45pm  
**Clinical trials factors**  
*David Reardon*

5:45 - 5:52pm  
**Site and organizational factors**  
*Michael Weller*

5:52 - 6:00pm  
**Disparities**  
*Ugonma Chukwueke, Shawn Hervey-Jumper*

6:00 - 6:08pm  
**Future directions**  
*Eudocia Quant Lee, Patrick Wen*

6:08 - 7:00pm  
**Discussion and wrap-up**
E-TALKS  7:30 - 8:30pm

GROUP 1: Cell Signaling/Cell Biology/Metabolism/Genetics/Epigenetics

7:30 - 7:34pm  GENE-04
Characteristics of patients with a primary brain tumor undergoing hereditary cancer multi-gene panel testing
Azam S, Qualmann K, Hashmi S, Ramdaney A, Rodriguez-Buritica D, Dunnington L, Jackson M

7:34 - 7:38pm  GENE-13
Genomic functional enhancers define potential tumorigenesis of G-CIMP-low (IDH-mutant Astrocytoma) tumors independent of promoter methylation
Sabedot T, deCarvalho A, Poisson L, Snyder J, Walbert T, Lee I, Kalkanis S, Berman B, Noushmehr H

7:38 - 7:42pm  GENE-28
Methylomes and transcriptomes vary across IDH1 mutant cancers
Scholtens D, Zewde M, Buss A, James D, Unruh D, Horbinski C

7:42 - 7:46pm  COMP-24
Utilizing machine learning methods for segmentation and classification of brain tumors based on conventional MRI
Artzi M, Bressler I, Bashat DB

7:46 - 7:50pm  CSIG-42
High throughput kinome and transcriptome analyses reveal novel therapeutic targets in NF2-deficient meningioma

7:50 - 7:54pm  CSIG-25
Epidermal Growth Factor Receptor extracellular domain missense mutation A289V as a driver of glioblastoma invasion and proliferation

7:54 - 7:58pm  CSIG-47
TRIM24 is an oncogenic transcriptional co-activator of STAT3 in glioblastoma
Feng H

7:58 - 8:02pm  CSIG-06
The molecular subtype of Primary Glioblastoma cells correlates with response to therapeutic agents that induce apoptosis or senescence.
Kumar R, Lorimer I

8:02 - 8:06pm  CSIG-43
The tyrosine phosphatase PTPN12/PTP-PEST regulates phosphorylation-dependent ubiquitination and stability of focal adhesion substrates in Invasive glioblastoma cells
McCarty J, Morales J, Guerrero P, Chen Z

8:06 - 8:10pm  CBMT-35
MicroRNA analysis of the invasive margin of glioblastoma reveals druggable therapeutic targets in lipid metabolism pathways

8:10 - 8:14pm  CBMT-40
A Sox2-expressing pericyte precursor constitutes a new and efficient target for anti-angiogenesis in gliomas

8:14 - 8:18pm  CBMT-10
Glutamine deprivation alters one-carbon metabolism to maintain glioma cell survival
Tanaka K, Sasayama T, Uno T, Maeyama M, Fujita Y, Irino Y, Kohmura E

8:18 - 8:22pm  CBMT-41
Glioblastoma clones derived from tumor core and edge display spatial metabolic heterogeneity

8:22 - 8:26pm  CBMT-39
Metabolic profiling of human gliomas assessed with NMR
Yang S-H, Eun Lee J

8:26 - 8:30pm  CBMT-23
Modulation of hypersynaptic microenvironment differentially promotes gliomagenesis across PIK3CA variants
GROUP 2: Drug Resistance/Drug Discovery/Experimental Therapeutics/Tumor Microenvironment

7:30 - 7:34pm
DRES-03
EGFR-targeted therapy-induced resistance mechanism in malignant gliomas

7:34 - 7:38pm
DDIS-24
Proteasome inhibition is a targeted therapy for PTEN-deficient glioblastomas
Benitez J, Finlay D, Ma J, Koga T, Vuori K, Furnari F

7:38 - 7:42pm
DDIS-19
CT-179: an inhibitor of the OLIG2 transcription factor with potent anti-tumour activity in brain cancer

7:42 - 7:46pm
DDIS-04
Compounds identified by structure based virtual screening decrease GBM BTIC growth and glucose uptake

7:46 - 7:50pm
DDIS-25
Targeting glioblastoma heterogeneity with miR-34a
Khan M, Ruggieri R, Tran N, Sarkaria J, MacDiarmid J, Brahmbhatt H, Boockvar J, Symons M

7:50 - 7:54pm
EXTH-52
Use of a phospholipid binding MARCKS mimetic for targeted killing of glioblastoma cells

7:54 - 7:58pm
EXTH-80
Impaired PARP1 DNA repair defines chemo-sensitivity in IDH1-mutated cell

7:58 - 8:02pm
EXTH-53
In vivo quantitative analysis of oncolytic virus-tumor kinetics
Ito H, Nakashima H, McLaughlin E, Chiocca EA

8:02 - 8:06pm
EXTH-17
Selective, non-competitive DRD2/3 antagonism by imipridone ONC206 is effective in tumors with dopamine receptor dysregulation

8:06 - 8:10pm
EXTH-64
Imipridones cause metabolic reprogramming and elicit unique vulnerabilities in preclinical model systems of glioblastoma

8:10 - 8:14pm
TMIC-14
Auto-/paracrine signaling of PI3K/AKT/YKL-40 in mesenchymal glioblastoma progression

8:14 - 8:18pm
TMIC-24
Tumor-suppressive and anti-inflammatory microRNA-93 is decreased in glioblastoma patients

8:18 - 8:22pm
TMIC-15
OMX is a tumor microenvironment modifier that restores anti-tumor immunity and improves anti-tumor efficacy by reducing tumor hypoxia in intracranial glioblastoma mouse model
Le Moon N, Davis T, Leung P, Ng S, Winger J, Cary S, Butowski N, Krtolica A

8:22 - 8:26pm
TMIC-25
Dissecting the role of host genetics in glioma evolution using genetically-engineered mouse models and the Collaborative Cross

8:26 - 8:30pm
TMIC-04
Nonfunctional pituitary adenomas demonstrate two subtypes based on macro-phage polarization status
Yagnik G, Rutkowski M, Aghi M
GROUP 3: Imaging/Pediatric Tumor Models/Pediatric Clinical Trials/Molecular Pathology/Health Outcomes

7:30 - 7:34pm
NIMG-22
High-grade glioma outcomes in the Phase 1 BXQ-350 trial of cancer-selective SapC-DOPS nanovesicles

7:34 - 7:38pm
NIMG-06
Kinetics-based response metric discriminate improved outcomes for patients receiving bevacizumab-based therapies

7:38 - 7:42pm
PDTM-24
Pilot study of circulating tumor cells in pediatric high grade brain tumors

7:42 - 7:46pm
PDTM-37
The role of exosome miRNA during the progression of medulloblastoma
Chang Q, Zhu L-Y, Wu X-U, Zhang J

7:46 - 7:50pm
PDTM-05
Radiation DNA damage repair inhibition by GSK-J4 induced chromatin compaction in DIPG

7:50 - 7:54pm
PDTM-29
CSF H3F3A K27M circulating tumor DNA copy number quantifies tumor growth and treatment response

7:54 - 7:58pm
PDTM-46
Poliovirus receptor (CD155) expression in pediatric brain tumors mediates oncolysis of medulloblastoma and pleomorphic xanthoastrocytoma

7:58 - 8:02pm
PDTM-47
Real time in vivo monitoring of 18F-labeled panobinostat pharmacokinetics for treatment of diffuse intrinsic pontine glioma (DIPG) via convection enhanced delivery (CED).

8:02 - 8:06pm
PATH-42
EGFR-amplified IDH-wildtype glioblastomas seldom transform into a hypermutated phenotype

8:06 - 8:10am
PATH-25
Survival stratification of IDH mutant glioma using methylation and mRNA analysis of Hox genes

8:10 - 8:14pm
PATH-31
Giant cell glioblastomas: analysis of mismatch-repair (MMR) proteins expression, Polymerase ε (POLE) mutations and their role in tumor immunoresponse

8:14 - 8:18pm
PATH-16
Molecular pathology and clinical characteristics of MMR deficiency (MMRd) in diffuse gliomas

8:18 - 8:22pm
NCOG-09
The level of reporting of neurocognitive outcomes in randomized controlled trials of brain tumor patients: a systematic review
Habets E, Taphoorn M, Klein M, Vissers T, Dirven L

8:22 - 8:26pm
PDCT-06
Phase 1 study of ONC201 in pediatric patients with H3 K27M-mutant high grade glioma or newly diagnosed DIPG

8:26 - 8:30pm
PDCT-08
Tracking the T cell repertoire after adoptive cell therapy in pediatric patients with recurrent medulloblastoma
Yegorov O, Yegorova Y, Dechkovskaya A, Cleaver B, Clement N, Slayton W, Kururangan S, Mitchell D

8:30 - 9:30pm
E-talk presenters move to their designated posters in the general poster session for further discussion
SUNRISE SESSIONS  7:00 - 8:30am

EANO/SNO: Status Update: What failed, what remains, what is new?
Martin van den Bent, Patrick Wen (Chairs)
- WHO classification interpreted by cIMPACT NOW, Kenneth Aldape
- IDH biology, Sevin Turcan
- Tackling heterogeneity, Monika Hégi
- Immunotherapy 2018, Amy Heimberger
- Precision concepts for daily practice and trials, Wolfgang Wick

Diffuse Intrinsic Pontine Glioma - New Insights and Emerging Therapeutic Strategies
Michelle Monje-Deisseroth (Chair)
- Targeting microenvironmental dependencies of DIPG, Michelle Monje-Deisseroth
- Harnessing exquisite vulnerabilities in H3K27M mutagenesis, Nada Jabado
- Developmental programs in H3K27M gliomas dissected by single cell RNAseq, Mariella Filbin
- Targeting histone-3 variant H3.3K27M mutation for immunotherapy of diffuse midline glioma, Hideho Okada

Brain Metastases Biology
Frank Winkler (Chair)
- Brain metastases biology: from seed to soil, Frank Winkler
- Genetic evolution in brain metastases, Priscilla Brastianos
- Microenvironmental dynamics in leptomeningeal metastasis, Adrienne Boire
- Immunotherapy for brain metastases, Mihaela Lorger

Neurotoxicity of CAR T Therapy (AAN/SNO)
Jorg Dietrich (Chair)
- Clinical patterns of neurotoxicity associated with immunotherapies, Jorg Dietrich
- Mechanisms of CAR-T cell mediated toxicities, Verena Staedtke
- EEG findings after CAR-T cell therapy, Aline Herlopian
- Clinical spectrum of CAR-T cell associated neurotoxicity, Bianca D. Santomasso

Targeted Therapies in Neurofibromatosis
Scott Plotkin (Chair)
- Clinical trials of MEK inhibitors for pediatric and adult NF1 patients with progressive plexiform neurofibroma, Jaishri Blakeley
- Activity and safety of cabozantinib for treatment of progressive plexiform neurofibroma in NF1 patients, Chie-Schin Shih
- Recent data from trials of targeted therapies to treat NF1-related low grade gliomas, TBD
- Activity and safety of bevacizumab for treatment of progressive vestibular in NF2 patients, Scott Plotkin

Molecular Life History of Glioma
Roel Verhaak (Chair)
- Molecular evolution of diffuse gliomas and the Glioma Longitudinal Analysis consortium, Roel Verhaak
- Single-cell strategies for defining clonal hierarchies in pediatric and adult brain tumors, Peter Dirks
- The nursery of childhood gliomas, Stefan Pfister
- Title TBD, Jinghui Zhang

Patient Centered Outcomes and Net Clinical Benefit in Brain Tumor Clinical Trials
Jeffrey Wefel (Chair)
- ESMO magnitude of Clinical Benefit Scale - is it applicable for glioma clinical trials? Leor Zach
- How does the 21st Century Cures Act influence the use of patient centered outcomes in the drug approval process? Joohee Sul
- Has adding PROs to clinical trials in patients with brain tumor had an impact on patient care? Terri Armstrong
- Has adding tests of NCF to clinical trials in patients with brain tumor had an impact on patient care? Jeffrey Wefel

Radiation Therapy of GBM in the Era of Personalized Medicine
Daphne Haas-Kogan (Chair)
- Title TBD, Ranjit Bindra
- Radiation therapy of GBM in the era of personalized medicine, Fen Xia
- Exploiting nuclear envelope fragility as a radiosensitizing strategy in gliomas, Alexander Spektor
- Overcoming radiation resistance in patients with glioblastoma: is more better? Erik Sulman
MAIN MEETING PROGRAM

9:00 - 9:05am Welcome/In Memoriam
Daphne Haas-Kogan

9:05 - 9:35am Keynote Presentation: Considerations for clinical development in glioma
Timothy Cloughesy

9:35 - 10:05am Keynote Presentation: Challenges for immunotherapy against brain tumors
John H Sampson

10:05 - 10:20am BREAK

10:20 - 10:50am Abhijit Guha Award Introduction

Abhijit Guha Lecture Award Recipient: Linda Liau

10:50 - 11:00am Lifetime Achievement Award Introduction

Lifetime Achievement Award Recipient: Gregory Cairncross

11:00 - 11:10am Neuro-Oncology Community Service Award Introduction: Patrick Wen

11:10 - 11:20am Jan Esenwein Public Service Award Introduction: Susan Chang

11:20 - 11:30am Single-cell level comparison of histopathology and single-cell RNA-seq databases between IDH-MUT and –WT glioblastomas reveals distinct innate immune microenvironments that can be exploited for therapeutic gain

11:30 - 11:40am Super elongation complex-mediated transcriptional dependency in H3K27M-mutant diffuse midline gliomas

11:40 - 11:50am Intratumoral administration of an Oncolytic Polio/Rhinovirus Recombinant (PVSRIPO) in malignant glioma patients: Assessment of mutational response correlates

11:50 - 12:00pm Development and validation of a DNA methylome-based predictor of meningioma recurrence and meningioma recurrence score

12:15 - 1:15pm LUNCH

LUNCHTIME TUTORIALS AND EDUCATIONAL SESSIONS

Not sponsored by The University of Texas MD Anderson Cancer Center

Computational Neuro-Oncology
Spyridon Bakas (Chair)

- The role of computational biology in the current WHO classification of CNS tumors, Roel Verhaak
- Computational diagnostics of CNS tumors in the era of radiomics and radiogenomics, Christos Davatzikos
- Computational modeling of tumor growth, invasion and proliferation, Kristin Swanson

International Outreach Luncheon
Jason Huse, Mustafa Khasraw (Chairs)
12:15 - 1:15pm  LUNCH, continued

**Surgical Trials: From Design to Regulatory Approval**  
*Linda Liau (Chair)*
- Cellular immunotherapy approaches for brain tumors, *Linda Liau*
- Oncolytic virotherapy for brain tumors, *James Markert*
- Drug delivery approaches for brain tumors, *Russell Lonser*

**Current State of Glioma Epidemiology and Moving the Science into the Future**  
*Melissa Bondy (Chair)*
- Overview of the current state of epidemiology research, *Jill Barnholtz-Sloan*
- Future directions of epidemiology - where is the field moving, *Melissa Bondy*
- Novel approaches to patient recruitment and clinical intervention using social media and smart phone technology, *Elizabeth Claus*

**Novel Statistical Designs and Methods for Neuro-Oncology Clinical Trials**  
*Ying Yuan (Chair)*
- Designs for small patient populations, *Karla Ballman*
- Biomarker-based and basket trials in neuro-oncology, *Annette Molinaro*
- Novel designs for phase I neuro-oncology trials, *Ying Yuan*

**Meet the Editors**  
*Patrick Wen (Chair)*
- Introduction, *Patrick Wen*
- Neuro-Oncology Practice update, *Susan Chang*
- Neuro-Oncology update, *Kenneth Aldape*

**Neuro-Oncology Trainee Forum**
- From fellowship to leadership – navigating the early years in neuro-oncology

**Industry Supported Symposia**
*Not sponsored by The University of Texas MD Anderson Cancer Center*
- Transforming glioblastoma management - evaluating newer options & emerging strategies in the precision medicine & person-centered care era

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1:30 - 3:00pm  CONCURRENT SESSION 5A

**Metabolomics/Cell Biology/Cell Signaling**

1:30 - 1:40pm  
*CBMT-37*
FDA-approved HDAC inhibitors antagonize the Warburg effect and cause unique metabolic vulnerabilities  
*Zhang Y, Ishida C, Karpeai-Massler G, Siegelin M*

1:40 - 1:50pm  
*CBMT-15*
Metabolic and transcriptional profiles of GBM invasion: Comparison of patients and paired patient derived xenografts using $^1$H Magnetic Resonance Spectroscopy and Imaging (7T and 14T) and RNA-sequencing  

1:50 - 2:00pm  
*CBMT-22*
The PI3K/mTOR pathway contributes to sex differences in glioblastoma  
*Sponagle J, Yu K, Deneen B, Ippolito J, Rubin J*

2:00 - 2:10pm  
*CBMT-04*
Inducing mitochondrial oxidative stress and targeting cellular stress response by inhibition of NAMPT, the rate limiting enzyme in the NAD+ salvage pathway in glioma  
*Sharma P, Senepides W, Baloglu E, Puduvalli V*

2:10 - 2:15pm  DISCUSSION

2:15 - 2:20pm  Q & A

2:20 - 2:25pm  
*CSIG-40*
Heterozygous IDH1*R132H/WT* created by “single base editing” inhibits human astroglial cell growth and promotes cell migration  
*Wei S, Wang J, Oyinade O, Ma D, Wang S, Qian, J, Xia S*
2:25 - 2:30pm FOXR2 stabilizes MYC and activates FAK/SRC signaling in a dual mechanism to promote transformation in neural progenitor cells  
Beckmann P, Larson J, Larsson A, Ostergaard J, Largaespada D

2:30 - 2:35pm Imaging a hallmark of cancer: TERT expression leads to MRS-detectable metabolic reprogramming  
Viswanath P, Pieper R, Ronen S

2:35 - 2:40pm Q & A

2:40 - 2:45pm Integrative cross platform analyses identify enhanced heterotrophy as a metabolic hallmark in glioblastoma  

2:45 - 2:50pm Lower grade isocitrate dehydrogenase (IDH) mutant gliomas metabolically mimicking glioblastoma (GBM) express higher R:S 2-hydroxyglutarate ratios relative to non-GBM-mimicking IDH mutant gliomas  

2:50 - 2:55pm PI3 kinase pathway activation promotes malignant progression in oligodendrogial tumors  

2:55 - 3:00pm Q & A

3:00 - 3:15pm BREAK

1:30 - 3:00pm CONCURRENT SESSION 5B

Surgery/Radiation/Radiobiology and DNA Repair

1:30 - 1:40pm A novel risk model to define the relative benefit of maximal extent of resection within prognostic groups in newly diagnosed glioblastoma  

1:40 - 1:50pm Randomized prospective trial of stereotactic radiosurgery versus chemotherapy for recurrent malignant glioma after second-line chemotherapy  

1:50 - 2:00pm TPS, a peptide inhibitor of aberrant and hyperactive CDK5/p25: a novel therapeutic approach against glioblastoma  

2:00 - 2:10pm Synthetic sensitization of MGMT-deficient tumor cells to temozolomide using ATR inhibitors  
Jackson C, Noorbaksh S, Sundaram R, Kalathil A, Bindra R

2:10 - 2:15pm DISCUSSION

2:15 - 2:20pm Q & A

2:20 - 2:25pm Re-evaluating the sequencing of radiotherapy and chemotherapy in pediatric medulloblastoma  

2:25 - 2:30pm Impact of 18F-DOPA PET on radiotherapy target volumes for newly diagnosed MGMT unmethylated glioblastoma patients; preliminary results of a phase II dose-escalation trial  

2:30 - 2:35pm Non-operative treatment of non-germinomatous germ cell tumors of the pineal region  
Lee J, Cai LB, Lai M

2:35 - 2:40pm Q & A
2:40 - 2:45pm
RTHP-32
Reconsidering the prognostic impact of age, grade, and extent of resection on clinical outcomes of 1p/19q codeleted oligodendrogliomas after radiation therapy: a multi-institutional report
Lin A, Kane L, Molitoris J, Smith D, Badiyan S, Wang T, Kruser T, Huang J

2:45 - 2:50pm
SURG-13
Third harmonic generation (THG) imaging: A novel tool for intra-operative histologic analysis of fresh human glioma tissue

2:50 - 2:55pm
RTHP-04
Tumor recurrence or radiation necrosis following chemoradiation in patients with glioblastoma: Does pathology predict outcomes?

2:55 - 3:00pm
LTBK-04
Phase 1 trial of Wee1 kinase inhibitor Adavosertib (AZD1775) combined with radiation therapy for children with newly diagnosed diffuse intrinsic pontine glioma: A report from the Children’s Oncology Group Phase 1 Pilot Consortium (ADV1L1217)

3:00 - 3:05pm
Q & A

1:30 - 3:00pm
CONCURRENT SESSION 5C

Neuro-Imaging

1:30 - 1:40pm
NIMG-33
Multicenter, prospective validation of automated intraoperative neuropathology using stimulated Raman histology and convolutional neural networks

1:40 - 1:50pm
NIMG-40
WHO 2016 grade II glioma molecular subtypes have a distinct spatial distribution pattern

1:50 - 2:00pm
NIMG-75
Non-invasive in vivo signature of IDH1 mutational status in high grade glioma, from clinically-acquired multi-parametric magnetic resonance imaging, using multivariate machine learning
Bakas S, Rathore S, Nasrallah M, Akbari H, Binder Z, Min Ha S, Mamourian E, Morrisette J, O’Rourke D, Davatzikos C

2:00 - 2:05pm
DISCUSSION

2:05 - 2:10pm
Q & A

2:10 - 2:15pm
NIMG-79
Early treatment response assessment using O-(2-18F-fluoroethyl)-L-tyrosine (FET) PET compared to MRI in malignant gliomas treated with adjuvant temozolomide chemotherapy

2:15 - 2:20pm
NIMG-73
Radiomics of glioblastoma for predicting MGMT promoter methylation status and prognosis

2:20 - 2:25pm
NIMG-45
Multivariate pattern analysis of de novo glioblastoma patients offers in vivo evaluation of O6-methylguanine-DNA-methyltransferase (MGMT) promoter methylation status, compensating for insufficient specimen and assay failures

2:25 - 2:30pm
NIMG-26
Radiomic features of Glioblastoma on pre-treatment Gd-T1w MRI are predictive of response to chemo-radiation therapy and associated with AKT and apoptosis pathways

2:30 - 2:35pm
Q & A

2:35 - 2:40pm
NIMG-23
Deep learning for accurate, rapid, fully automatic measurement of brain tumor-associated abnormality seen on MRI
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>2:45 - 2:50pm</td>
<td>Radiogenomic analysis of Glioblastoma reveals textural features from MRI that correlate with genomic immune score and are also predictive of chemo-radiation treatment response</td>
<td><em>Beig N, Braman N, Prasanna P, Varadan V, Madabhushi A, Tiwari P</em></td>
</tr>
<tr>
<td>2:55-3:00pm</td>
<td>Q &amp; A</td>
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<tr>
<td>3:00-3:15pm</td>
<td>BREAK</td>
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<tr>
<td>3:15-5:00pm</td>
<td><strong>CONCURRENT SESSION 6A</strong></td>
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**Pediatrics: Clinical and Basic Science**

<table>
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<tr>
<th>Time</th>
<th>Session Description</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>3:25 - 3:35pm</td>
<td>Epigenetic loss of BAI1 expression in cerebellar granule neuron precursors inactivates the p53 tumor suppressor and facilitates medulloblastoma formation in the cerebellum</td>
<td><em>Zhu D, Osuka S, Zhang Z, Reichert Z, Kanemura Y, Nishikawa R, Nelson WG, Olson JJ, Von Meir EG</em></td>
</tr>
<tr>
<td>3:45 - 3:55pm</td>
<td>Targeting H3.3G34R/V re-wiring of the epigenome in pediatric glioblastoma of children and young adults</td>
<td><em>Bjerke L, Mackay A, Carvalho D, Pemberton H, Molinari V, Vinci M, Carceller F, Marshall L, Moore A, Montero Carcabosa A, Lord C, Hargrave D, Jones C</em></td>
</tr>
<tr>
<td>3:55 - 4:00pm</td>
<td>DISCUSSION</td>
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<td>4:00 - 4:05pm</td>
<td>Q &amp; A</td>
<td></td>
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<tr>
<td>4:05 - 4:10pm</td>
<td>Dual therapy with PI3K inhibitor ZSTK-474 and MEK inhibitor trametinib via convection-enhanced delivery in a genetically-engineered mouse model of diffuse intrinsic pontine glioma</td>
<td><em>Chang R, Tosi U, Bhanu Maachani U, Voronina I, Schweitzer M, Wu L, Souweidane M</em></td>
</tr>
</tbody>
</table>
4:25 - 4:30pm DLX2 transcriptional regulation of central nervous system cell fate relevance to pediatric diffuse midline gliomas with Histone 3 mutations
Nevin M, Song X, Becher O, Underhill DA, Godbout R, Eisenstat D

4:30 - 4:35pm Q & A

4:35 - 4:40pm ALK amplification and rearrangements are recurrent targetable events in glioblastoma

4:40 - 4:45pm The contribution of PAX genes as novel tumor suppressors in group 3 medulloblastoma
Zagogrwski J, Morrison L, Stromeri M, Palidwor G, Rasmosamy V, Werbowetski-Ogilvie T

4:45 - 4:50pm Activation of tumor-reactive T cells against brain stem gliomas using hematopoietic stem cells
Flores C, Woodworth D, Moore L, Moore G, Mitchell D

4:50 - 4:55pm A novel ex vivo model for human medulloblastoma: a new personalized medicine tool
Feiker JT, Dey A, Malhotra A, Liu J, Schniederjan M, Kenney A, MacDonald TJ

4:55 - 5:00pm Q & A

3:15 - 5:00pm CONCURRENT SESSION 6B

Meningioma

3:20 - 3:30pm Invited Speaker: Patrick Wen
Opportunities in Clinical Trials for Meningiomas

3:30 - 3:40pm Invited Speaker: Kenneth Aldape
Precision Diagnostics Guiding Meningioma Care

3:40 - 3:50pm Pediatric meningiomas are characterized by distinct methylation profiles different from adult meningiomas

3:50 - 3:55pm Brain invasion in meningiomas previously classified as WHO grade I has limited impact on outcome
Biczok A, Suchorska B, Egensperger R, Tonn J-C, Schichor C

3:55 - 4:00pm Correlation of methylation class and genetic alterations with progression free survival in meningioma

4:00 - 4:05pm Expression of Programmed cell death ligand-1 (PD-L1) in meningioma: Clinical utility for prediction of tumor recurrence and association with hypoxic response and NFKB2 activation

4:05 - 4:10pm Q & A

4:10 - 4:15pm The ROAM / EORTC 1308 information study results: how qualitative research methods can optimize patient recruitment for meningioma trials
Jenkinson M, Sherratt F, Haylock B, Weber D, Young B

4:15 - 4:20pm Risk factors for pre- and postoperative seizures in meningioma patients identified by logistic regression analysis

4:20 - 4:25pm Predictors of early progression of surgically treated atypical meningiomas

4:25 - 4:30pm Loss of histone H3K27me3 identifies a subset of meningiomas with increased risk of recurrence
<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>4:30 - 4:35pm</td>
<td>Q &amp; A</td>
<td></td>
</tr>
<tr>
<td>4:35 - 4:40pm</td>
<td>Q &amp; A</td>
<td>Efficient ADCC-mediated killing of malignant meningioma cells using avelumab and an engineered high avidity natural killer cell line, haNK.</td>
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<td></td>
<td>E-TALKS</td>
<td>Group 1: Adult Therapeutics/Immunology</td>
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<td>Group 2: Angiogenesis and Invasion/Radiation Biology and DNA Repair/Tumor Models/ Stem Cells/Epidemiology</td>
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<td></td>
<td>Group 3: Health Outcomes/ Neurological Complications of Cancer and Cancer Therapy/Quality of Life/ Radiotherapy/Surgical Therapy/CNS Metastases</td>
</tr>
<tr>
<td>4:40 - 4:45pm</td>
<td>Session/Activity</td>
<td>DMD genomic deletions characterize a subset of progressive/higher-grade meningiomas with poor outcome.</td>
</tr>
<tr>
<td>4:45 - 4:50pm</td>
<td>Session/Activity</td>
<td>A prognostic index to predict the risk of active monitoring failure for incidentally-found asymptomatic meningiomas.</td>
</tr>
<tr>
<td>4:50 - 4:55pm</td>
<td>Session/Activity</td>
<td>The long-term disease burden of meningioma patients: results on health-related quality of life, cognitive function, anxiety and depression.</td>
</tr>
<tr>
<td>4:55 - 5:00pm</td>
<td>Session/Activity</td>
<td>The Anaplastic Meningioma International Consortium (AMICo) retrospective study of treatment and outcome of patients with anaplastic meningiomas.</td>
</tr>
<tr>
<td>5:00 - 5:05pm</td>
<td>Q &amp; A</td>
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<tr>
<td>3:15 - 5:00pm</td>
<td>CONCURRENT SESSION 6C</td>
<td>RANO Update</td>
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<tr>
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<td>Program forthcoming</td>
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<tr>
<td>5:00 - 6:30pm</td>
<td>Industry Supported Symposia</td>
<td>Not sponsored by The University of Texas MD Anderson Cancer Center</td>
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<tr>
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<td>• Next generation approaches for the molecular characterization of tumors</td>
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<tr>
<td>5:00 - 7:00pm</td>
<td>E-TALKS</td>
<td>Interactive Electronic 4 Minute Presentations Followed By Group Discussions</td>
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<td>Group 1: Adult Therapeutics/Immunology</td>
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<td>Group 3: Health Outcomes/ Neurological Complications of Cancer and Cancer Therapy/Quality of Life/ Radiotherapy/Surgical Therapy/CNS Metastases</td>
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<tr>
<td>5:00 - 7:00pm</td>
<td>POSTER SESSION</td>
<td>Traditional Poster Viewing</td>
</tr>
<tr>
<td>7:00 - 11:00pm</td>
<td>SNO GALA</td>
<td>Held at Contemporary Arts Center (Separate Ticket Required)</td>
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</table>
**E-TALKS**  
5:00 - 7:00pm

**GROUP 1: Adult Therapeutics/Immunology**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:04 - 5:08pm</td>
<td>ATIM-23</td>
<td>Anti-CD27 agonist antibody varililumab in combination with nivolumab for recurrent glioblastoma (rGBM): Phase 2 clinical trial results</td>
<td>Reardon D, Kaley T, Iwamoto F, Baehringer J, Subramaniam D, Rawls T, He Y, Keler T, Yellin M</td>
</tr>
<tr>
<td>5:12 - 5:16pm</td>
<td>ATIM-16</td>
<td>Phase 1 study results of M7824 (MS80011359C), a bifunctional fusion protein targeting TGF- and PD-L1, among patients with recurrent glioblastoma (rGBM)</td>
<td>Khasraw M, Weller M, Lorente Estelles D, Kolibab K4, Lee C, Gedye C, De La Fuente M, Vicente D, Reardon D, Ojalo I, Helwig C, Gourmelon C, Groves M</td>
</tr>
<tr>
<td>5:24 - 5:28pm</td>
<td>ACTR-17</td>
<td>Evophophamide (TH-302) for recurrent GBM following bevacizumab failure, final results of a multicenter phase II study</td>
<td>Brenner A, Reardon D, Wen P, Huang S, Fox P, Muzi M, Lee E</td>
</tr>
<tr>
<td>5:48 - 5:52pm</td>
<td>IMMU-16</td>
<td>Guadecitabine (SGI-110) enhances MHC class I and tumor antigen expression on murine C57BL/6-syngeneic glioma and DIPG models</td>
<td>Kohanbash G, McCarl L, Shager K, Bronisca A, Warren KE, Pollack I</td>
</tr>
<tr>
<td>5:56 - 6:00pm</td>
<td>IMMU-25</td>
<td>Programmed cell death-ligand 1 (PD-L1) is not expressed in diffuse intrinsic pontine glioma (DIPG) tumor cells</td>
<td>Walla P, D’Arcy C, Hawkins C, Warren, KE</td>
</tr>
</tbody>
</table>
5:00 - 5:04pm
ANGI-08
Targeting the RhoGEF Beta-Pix to enhance the activity of bevacizumab in glioblastoma: A nanoparticle mediated silencing approach

5:04 - 5:08pm
ANGI-06
The matrix protein Thrombospondin-1 is a downstream target of TGF-β induced microtube formation in glioblastoma

5:08 - 5:12pm
RDNA-01
microRNA degradation mediated genetic heterogeneity as a novel mechanism for temozolomide resistance in glioblastoma

5:12 - 5:16pm
TMOD-27
Humanized microbiome mouse models to enhance immunotherapy in glioblastoma

5:16 - 5:20pm
TMOD-33
Establishment and preliminary evaluation of bevacizumab-resistant glioma xenograft models
Keir S, Waitkus M, Roskoski M, Friedman H, Bigner D, Yan H, Ashley D

5:20 - 5:24pm
TMOD-09
Targeting the PI3K-mTOR pathway and elucidating mechanisms of resistance in a novel and relevant animal model of Glioblastoma.

5:24 - 5:28pm
TMOD-03
GliomaPDOX: A molecularly diverse library of direct-from-patient orthotopic glioma xenografts recapitulates intratumor heterogeneity

5:28 - 5:32pm
TMOD-23
Dynamic patterns of glioblastoma clonal evolution in response to chemoradiotherapy

5:32 - 5:36pm
TMOD-31
Novel heterogeneous glioblastoma models to optimize human tumoricidal neural stem cell therapy
Satterlee A, Dunn D, Hagler S, Lo D, Hingtgen S

5:36 - 5:40pm
STEM-07
Non-canonical regulation of SOX2 by the TRIM26 E3 ubiquitin ligase in glioblastoma stem-like cells
Mahlokozera T, Taiwo R, Mao D, Salehi A, Gujat A, Kim A

5:40 - 5:44pm
STEM-24
Identification of Serpin B3 as a junctional adhesion molecule a binding partner in glioblastoma cancer stem cells
Volovetz J, Turaga S, Naik U, Lathia J

5:44 - 5:48pm
STEM-01
Prospective analysis of cancer stem cell drug response assay for glioblastoma patients

5:48 - 5:52pm
STEM-13
Hypoxic induction of vasorin mediates glioma stem cell-endothelial cell interactions in the perivascular niche
Yu Y, Yu X, Burrows, A, Bao S

5:52 - 5:56pm
STEM-12
Downregulation of H-Ferritin expression using multivalent cationic liposomes results in increased radiation sensitivity in patient derived glioma initiating cells
Raji V, Madhankumar A, Slagle-Webb B, Connor J

5:56 - 6:00pm
EPID-01
Associations of timing of adjuvant therapies, radiation fractions and radiation doses with glioblastoma survival: A retrospective cohort analysis using the National Cancer Database and SEER-Medicare database.
### GROUP 3: Health Outcomes/Neurological Complications of Cancer and Cancer Therapy/Quality of Life/Radiotherapy/Surgical Therapy/CNS Metastases

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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</thead>
<tbody>
<tr>
<td>5:00 - 5:04pm</td>
<td>The cost effectiveness of Tumor Treating Fields treatment for patients with newly diagnosed glioblastoma based on the EF-14 trial</td>
<td>Guzuskas G, Wang BCM, Pollom E, Stieber VW, Garrison L</td>
</tr>
<tr>
<td>5:04 - 5:08pm</td>
<td>Retrospective analysis of outcomes in hospitalized malignant brain neoplasm patients with status epilepticus</td>
<td>Lobrous M, Gupta S, Warren P</td>
</tr>
<tr>
<td>5:08 - 5:12pm</td>
<td>Risk factors for surgical site infections after craniotomy for primary brain tumors</td>
<td>Kraft PR, Agoris C, Tran Q, Sahebjam S, Tran N</td>
</tr>
<tr>
<td>5:28 - 5:32pm</td>
<td>Transcription factor networks of oligodendrogliomas (IDH-mutant and 1p/19q codeleted) treated with adjuvant radiotherapy or observation informs prognosis</td>
<td>So J, Moraes F, Mamatajan Y, Aladpe K, Zadeh G</td>
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<tr>
<td>5:56 - 6:00pm</td>
<td>Clinical risk assessment score to estimate the likelihood of pseudoprogression versus tumor growth following stereotactic radiosurgery for brain metastases.</td>
<td>Skeie B, Øyvind Enger P, Pedersen P-H, Olve Skeie G</td>
</tr>
</tbody>
</table>

6:00 - 7:00pm **E-Talk presenters move to their designated posters in the general poster session for further discussion**
SUNRISE SESSIONS  7:00-8:30am

Brain Tumor Stem Cells as Drivers of Therapeutic Resistance
Petra Hamerlik (Chair)

- Genomic instability and replication stress in glioblastoma-derived cancer stem cells, Petra Hamerlik
- Glioma stem cell-derived pericytes and therapeutic resistance, Shideng Bao
- Title TBD, Ichiro Nakano
- How the genetic make-up of brain tumor stem cells mediates the response to therapeutics, Maria Castro

Viral Therapies in Brain Tumors
Juan Fueyo (Chair)

- Delta-24-RGD in combination with positive regulators of the immune synapsis for gliomas in adults and children, Juan Fueyo
- Oncolytic measles virus in GBM treatment: harnessing permissiveness and proinflammatory responses, Eva Galanis
- Treatment of pontine gliomas with oncolytic adenoviruses, Marta Alonso
- Oncolytic rhabdovirus vaccine therapy for GBM, David Stodil

The Use of Machine Learning Methods in Neuro-Oncology
Dafna Ben Bashat (Chair)

- Application of radiomics & deep-learning in brain tumor imaging, Philipp Kickingereder
- Radiomics for immune assessment, Arvind Rao
- Decoding tumour genotype and phenotype of brain tumours by noninvasive imaging using a quantitative radiomics approach, Philippe Lambin
- Improving therapy response assessment of high grade gliomas using machine learning classifications, Dafna Ben Bashat

Reproductive and Women’s Neuro-Oncology
NaTosha Gatson (Chair)

- Introduction and program overview of reproductive & women’s issues, NaTosha Gatson
- Epidemiological and biological basis of primary and metastatic brain tumors as they pertain to Women’s Neuro-Oncology, Priscilla Brastianos
- Clinical best practices, cancer ethics and preservation of fertility in women’s neuro-Oncology, Mitchell Rosen
- Genetically disparate cells that persist long-term and reach the brain: risks and benefits, J. Lee Nelson

Targeting Gliomas, Perspective from China
Shi-Yuan Cheng (Chair)

- Autophagy in glioblastoma: critical for tumorigenesis and viable target for combination therapy, Shi-Yuan Cheng
- Developing anti-vascular therapy for GBM through dissecting microcirculation pattern, Zhong-Ping Chen
- Mutational landscape reveals MET alteration as a drug target in secondary glioblastoma, Tao Jiang
- Are IDH wt diffuse astrocytomas just glioblastoma in disguise? Ho-Keung Ng

Circulating Biomarkers
Chetan Bettegowda (Chair)

- Liquid biopsy for GBM - the holy grail or a bridge too far, Amit Ray
- Blood based assays for diagnosis and stratification of glioma patients, Leonora Balaj
- Blood test for brain tumors, Brian Nahed
- CSF based liquid biopsies for brain tumors, Chetan Bettegowda

Meningiomas: Molecular Advances and Targeted Therapy
Gelareh Zadeh (Chair)

- Molecular landscape of meningiomas
- Imaging and diagnostics advances in meningiomas
- Meningioma as a chronic disease: a quality of life viewpoint
- Translational models in meningioma
- Advances in multidisciplinary therapies for meningioma
<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>8:30 - 10:00</td>
<td><strong>CONCURRENT SESSION 7A</strong></td>
<td>Adult Clinical Trials II</td>
<td>Portnow J, Synold T, Badie B, Blanchard S, Kilpatrick J, Tirugrana R, Metz M, Tran V, Abody K</td>
</tr>
<tr>
<td>8:30 - 8:40</td>
<td>ACTR-22</td>
<td>A phase I study of cytosine deaminase-expressing neural stem cells (CD-NSCs) administered intracranially and in combination with oral 5-fluorouracil (5-FC) and leucovorin in patients with recurrent high grade glioma</td>
<td>Portnow J, Synold T, Badie B, Blanchard S, Kilpatrick J, Tirugrana R, Metz M, Tran V, Abody K</td>
</tr>
<tr>
<td>9:00 - 9:05</td>
<td>DISCUSSION</td>
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<tr>
<td>9:05 - 9:10</td>
<td>Q &amp; A</td>
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<tr>
<td>9:10 - 9:15</td>
<td>ACTR-08</td>
<td>A phase II study of apatinib plus temozolomide in adults with refractory recurrent high-grade gliomas</td>
<td>Zhang J, Ge J, Li C</td>
</tr>
<tr>
<td>9:30 - 9:35</td>
<td>Q &amp; A</td>
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<tr>
<td>9:45 - 9:50</td>
<td>ACTR-36</td>
<td>A single arm phase 2 study of the dual mTORC1/mTORC2 inhibitor vistusertib provided on an intermittent schedule for neurofibromatosis 2 patients with progressive or symptomatic meningiomas</td>
<td>Plotkin S, Jordan J, Beauchamp R, Muzikansky A, Stemmer-Rachaminov A, Ramesh V</td>
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<tr>
<td>9:50 - 9:55</td>
<td>ACTR-37</td>
<td>Short-term bevacizumab for recurrent glioblastomas</td>
<td>Matsutani T, Hirono S, Iwadate Y</td>
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<tr>
<td>9:55 - 10:00</td>
<td>Q &amp; A</td>
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<tr>
<td>10:00 - 10:15</td>
<td>BREAK</td>
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</tbody>
</table>
8:30 - 10:00am **CONCURRENT SESSION 7B**

**Molecular Pathology/Stem Cells**

8:30 - 8:40am

**Genomic attributes of tumor evolution and treatment response in diffuse glioma**


8:40-8:50am

**A draft single-cell atlas of human glioblastoma reveals spatial and differentiation gradients of stem-like cells**


8:50 - 9:00am

**Unsaturated fatty acid (UFA) metabolism regulates membrane-endolysosome-nuclear inter-organelle communication in glioma stem cells**

*Hu J*

9:00 - 9:05am **DISCUSSION**

9:05 - 9:10am **Q & A**

9:10 - 9:15am

**Clinical significance of temozolomide-induced somatic hypermutation in initially low-grade IDH-mutant diffuse gliomas**


9:15 - 9:20am

**Brain tumor classification updates from cIMPACT-NOW, the Consortium to Inform Molecular and Practical Approaches to CNS Tumor Classification**

*Louis D, Brat D, Ellison D*

9:20 - 9:25am

**The origin of human glioblastoma (IDH wildtype) is not the location of the tumor but the subventricular zone**


9:25 - 9:30am

**Liquid biopsy for identification of newly diagnosed glioma**


9:30 - 9:35am **Q & A**

9:35 - 9:40am

**Single-cell signatures uncover glial progenitor heterogeneity and molecular determinants for glioma growth**

*Lu R, Wang J, Wang J*

9:40 - 9:45am

**Directed neuronal differentiation as a therapeutic strategy for malignant gliomas**

*Audia A, Ravikumar V, Deng Z, Murali V, Balasubramaniyan V, de Groot J, Rao A, Bhat K*

9:45 - 9:50am

**Tissue factor promotes the glioma stem cell phenotype, and is suppressed by mutant IDH1**

*Horbinski C, Unruh D, Mirkov S, Wray B, Lamano J, Scholtens D, Sarkaria J, James D*

9:50 - 9:55am

**miR-486-5p regulates tumor suppressor networks and its inhibition reduces tumor volume and sensitizes to radiation treatment in a PDX mouse model of GBM**


9:55 - 10:00am **Q & A**

8:30 - 10:00am **CONCURRENT SESSION 7C**

**CNS Metastases**

8:30 - 8:40am

**Evidence of CNS response of pembrolizumab for leptomeningeal carcinomatosis at a single cell resolution**

8:40 - 8:50am  Checkpoint blockade immunotherapies for melanoma brain metastases: improved survival outcomes in a national cohort.
*Iorgulescu J, Harary M, Zogg C, Ligon K, Hodi S, Aizer A, Reardon D, Smith T*

8:50 - 9:00am  Intra-CSF liposomal cytarabine plus systemic therapy as initial treatment of breast cancer leptomeningeal metastasis: a randomized, open-label trial

9:00 - 9:10am  Brain metastases from EGFR-mutated NSCLC which had acquired resistance to EGFR-TKI. “Less-frequent T790M and preserved response to other TKIs”
*Iuchi T, Sakaida T, Hasegawa Y, Yoshida Y, Ashinuma H, Mizuno S, Setoguchi T, Shingoji M*

9:10 - 9:15am  DISCUSSION

9:15 - 9:20am  Q & A

9:20 - 9:25am  Risk factors for cerebral edema after stereotactic radiosurgery for brain metastases
*Alattar A, Hirshman B, Joshi R, Chen C*

9:25 - 9:30am  Initial clinical and advanced imaging outcomes from a multi-institutional phase I dose-escalation trial of RRx-001 plus whole brain radiation for patients with brain metastases

9:30 - 9:35am  Outcomes of Lung cancer patients with leptomeningeal metastases in the targeted therapy era
*Nevel K, Cowan A, Reiner A, Ogilvie S, Skakodub A, Distefano N, Pentsova E, Boire A*

9:35 - 9:40pm  Q & A

9:40 - 9:45pm  Novel metastatic brain tumor targets isolated through phage display biopanning against brain metastasis-initiating cells
*Kim J, Bao S, Rich JN, Liu J*

9:45 - 9:50pm  The role of brain metastasis free interval in patients with brain metastases of breast carcinoma
*Hulsbergen A, Lamba N, Claes A, Kavouridis V, Smith T, Verhoef J, Broekman M*

9:50 - 9:55pm  Intrathecal (IT) Traztuzumab (T) for the treatment of leptomeningeal metastases (LM) in patients (pts) with human epidermal growth factor receptor 2-positive (HER2+) cancer: A multicenter Phase 1/2 study

9:55 - 10:00am  Q & A

10:15 - 12:00pm  CONCURRENT SESSION 8A

**Drug Discovery/Drug Resistance/Tumor Models**

**10:15 - 10:25am**  Precise investigation of cancer stem cells in a mouse glioblastoma model

**10:25 - 10:35am**  Activation of FGF signaling pathway confers resistance to EGFR inhibition in GBM
*Guo G, Gong K, Sarkaria J, Habib A*

**10:35 - 10:45am**  Ciliary protein ARL13B promotes chemoresistance by modulate glioblastoma purine biosynthesis

**10:45 - 10:55am**  Can rare SOX9-positive cells incite MYC-driven medulloblastoma recurrence?

**10:55 - 11:00am**  DISCUSSION

**11:00 - 11:05am**  Q & A
11:05 - 11:10am Preventing the emergence of temozolomide resistance in glioblastoma by PARP-1 inhibition
Yuan A, Bering E, Cairncross J, Blough M

11:10 - 11:15am Novel bispecific activator of macrophages for the treatment of glioblastoma
Salgado M, Schaller T, Gedeon P, Snyder D, Archer G, Sanchez-Perez L, Sampson J

11:15 - 11:20am Molecular evolution of diffuse gliomas and the Glioma Longitudinal Analysis Consortium

11:20 - 11:25am Patient-derived brain tumour iPSCs: models for investigating glioma stemness and drug discovery

11:25 - 11:30am DRD5 is a modulator of glioma susceptibility to DRD2 antagonism by ONC201

11:30 - 11:35am Q & A

11:35 - 11:40am Dynamic kinome profiling of genetically-defined, EGFRvIII-driven murine astrocyte models of glioblastoma reveals targets for dual kinase inhibitor therapy

11:40 - 11:45am In Vivo Functional Genomics Identifies Drivers of Chemoresistance in Medulloblastoma

11:45 - 11:50am ZEB1-mediated invasive mesenchymal transition at the single cell level promotes anti-angiogenic therapy resistance in glioblastoma

11:50 - 11:55am Mutant IDH1 promotes glioma formation in vivo
Yu D, Boekholder R, VanBracklin M, Sonnen J, Colman H, Holmen S

11:55 - 12:00pm Q & A

10:15 - 12:00pm CONCURRENT SESSION 8B

10:15 - 10:25am Cost effectiveness of treating glioblastoma patients age 65 years or older with Tumor Treating Fields plus temozolomide versus temozolomide alone
Guzauskas G, Wang BCM, Pollom E, Stieber VW, Garrison L

10:25 - 10:35am Using germline variants to predict glioma risk and identify glioma subtype pre-operatively

10:35 - 10:45am Effect of health disparities on overall survival of patients with glioblastoma

10:45 - 10:50am DISCUSSION

10:50 - 10:55am Q & A

10:55 - 11:00am Incidence patterns of primary brain and other central nervous system tumors in Appalachia
Ostrom Q, Gittleman H, Kruchko C, Barnholtz-Sloan J
11:00 - 11:05am Leveraging genomic data to identify risk factors for childhood ependymoma
Zhang C, Hansen H, Gonzalez-Mayor J, Smirnov I, Wiemels J, Walsh K

11:05 - 11:10am Association between treatment facility volume and mortality in patients with glioblastoma (GBM): A large national analysis

11:10 - 11:15am Real-word evaluation of the impact of radiotherapy and chemotherapy in elderly patients with glioblastoma based on age and performance status: A National Cancer Database analysis
Al Feghali K, Buszek SM, ElHalawani H, Chevli N, Allen PK, Chung C

11:15 - 11:20am Q & A


11:25 - 11:30am Characterization of symptom burden in minority patients with CNS tumors: a report from the neuro-oncology branch (NOB) national study (NHS)

11:30 - 11:35am Progression of IDH mutant glioma after first recurrence: development of a feasible clinical trial endpoint in the recurrent setting
Miller J, Loebel F, Arrillaga-Romany I, Mordes D, Lelic N, Batchelor T, Iofrate AI, Chi A, Cahill D

11:35 - 11:40am Q & A

11:40 - 11:45am Effects of treatment and social demographics on adult medulloblastoma survival
Pradhan N, Piccioni D

11:45 - 11:50am Patient Reported Outcomes Measurement Information System (PROMIS) screening for anxiety & depression in central nervous system (CNS) cancer: large cohort report from the Neuro-Oncology Branch Natural History Study (NOB-NHS).

11:50 - 11:55am A neuro-oncology caregiver support group, an effective way to provide emotional support for caregivers.
Page M, Rossi R, Woodall M, Chang S

10:15 - 12:00pm **CONCURRENT SESSION 8C**

**Immunology – Preclinical and Clinical II**

10:15 - 10:25am Multidimensional characterization of immune cell populations in the glioma tumor microenvironment reveals a dominant proportion of cells derived from the myelo-monocytic lineage


10:35 - 10:45am High rate of objective anti-tumor response in 9 patients with glioblastoma after viro-immunotherapy with oncolytic parvovirus H-1 in combination with bevacinumab and PD-1 checkpoint blockade
Geletneky K, Bartsch A, Weiss C, Bernhard H, Marchini A, Rommelere J

10:45 - 10:50am DISCUSSION

10:50 - 10:55am Q & A
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00</td>
<td>Single cell cytomics</td>
<td>of peripheral blood mononuclear cells reveals new avenues for glioma</td>
<td>Dusoswa S, Verhoeff J, Crommentuijn M, Würdinger T, Noske D, Van Kooyk Y, Garcia-Vallejo J</td>
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<td>Phase 2 study of</td>
<td>ERC1671 plus bevacizumab vs bevacizumab plus placebo in recurrent GBM interim results and correlations with CD4+ T lymphocyte counts</td>
<td>Bota DA, Chung J, Danekar M, Carrillo JA, Kong X, Fu DB, Hsu FPK, Schönhthal AH, Hofman FM, Chen TC, Zidovetzki R, Pretto C, Strik A, Schijns VEJC, Stathopoulos A</td>
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<td>12:00</td>
<td>Highlights of SNO</td>
<td>2018</td>
<td>Frank Furnari, Daphne Haas-Kogan, Vinay Puduvalli</td>
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<td>Q &amp; A</td>
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