23rd Annual Meeting and Education Day
Of the Society for Neuro-Oncology
November 15-18, 2018
Marriott Hotel
New Orleans, Louisiana

Preliminary Program and Registration Information
Soc-Neuro-OnC.org
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
AN INVITATION TO NEW ORLEANS!

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*
ACCREDITATION/CREDIT DESIGNATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of The University of Texas MD Anderson Cancer Center and the Society for Neuro-Oncology. The University of Texas MD Anderson Cancer Center is accredited by the ACCME to provide continuing medical education for physicians.

The University of Texas MD Anderson Cancer Center designates this live activity for a maximum of 25.5 AMA PRA Category 1 Credits™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

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.
# NEURO-ONCOLOGY REVIEW COURSE

**Neuro-Oncology Review Course Chair:** Maciej Mrugala

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
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<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>
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<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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<tr>
<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>
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<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>Manmeet Ahluwalia</td>
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<tr>
<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>Rimas Lukas</td>
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<td>4:30 - 5:10pm</td>
<td>Neuro-radiology for a practicing neuro-oncology provider</td>
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<td>James Fink</td>
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<tr>
<td>5:10 - 5:45pm</td>
<td>Neurofibromatoses deciphered</td>
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<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>Maciej Mrugala</td>
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<td>6:15pm</td>
<td>ADJOURN</td>
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<tr>
<td>6:30 - 8:30pm</td>
<td><strong>Allied Health Professionals Networking Reception:</strong> Balancing Research with Clinical Care</td>
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<td>Stacey D. Green, Lauren Kloepfinger</td>
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<td>Time</td>
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<tr>
<td>7:30 - 8:30am</td>
<td>REGISTRATION AND LIGHT CONTINENTAL BREAKFAST</td>
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<tr>
<td>8:30 - 8:35am</td>
<td>Welcome and Opening Remarks</td>
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<td></td>
<td>Victor Levin</td>
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<td></td>
<td><strong>Session 1: Drug Delivery, The Blood-brain Barrier, and Other Pharmacokinetic Considerations</strong></td>
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<tr>
<td>8:35 - 8:55am</td>
<td>The blood-brain barrier and its effect on drug delivery to brain and tumor</td>
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<td></td>
<td>Quentin Smith, Texas Tech University</td>
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<td>8:55 - 9:15am</td>
<td>Factors influencing the distribution of free drug to tumors in the CNS</td>
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<td>William Elmquist, University of Minnesota</td>
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<td>9:15 - 9:30am</td>
<td>Understanding brain penetrance of anticancer agents for infiltrative gliomas</td>
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<td>Victor Levin, Levin Consulting</td>
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<td>9:30 - 9:45am</td>
<td>Development of a translational PK model for characterizing and predicting protein therapeutics in the brain</td>
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<td>Dhaval K. Shah, University of Buffalo</td>
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<td>9:45 - 10:00am</td>
<td>Interplay of OATP1A2 and ABCB1 in drug penetration across human blood-brain barrier: Insights from in vitro, in silico, and patients</td>
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<td></td>
<td>Jing Li, Wayne State University</td>
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<td>10:00 - 10:20am</td>
<td>BREAK</td>
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<tr>
<td>10:20 - 10:30am</td>
<td>Mechanisms of enhanced drug delivery in brain tumors with focused ultrasound-induced transient blood-tumor barrier disruption</td>
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<td>Costas Arvanitis, Georgia Institute of Technology</td>
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<td>10:30 - 10:40am</td>
<td>A versatile and modular targeted nanoparticle platform for delivery of combination therapies to adult and pediatric CNS tumors</td>
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<td>Fred Lam, Massachusetts Institute of Technology</td>
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<td>10:40 - 10:50am</td>
<td>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</td>
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<td>Amy Lin, Tocagen, Inc.</td>
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<tr>
<td>10:50 - 11:00am</td>
<td>A treatment simulator for brain chemotherapy</td>
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<td>William Broaddus, Virginia Commonwealth University</td>
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<tr>
<td>11:00 - 11:10am</td>
<td>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</td>
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<td>Michael Canney, CarThera, Inc.</td>
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<td>11:10 - 11:40am</td>
<td>Session 1 Discussion</td>
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<td></td>
<td>James Gallo, moderator</td>
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<tr>
<td>11:40 - 12:40pm</td>
<td>LUNCH</td>
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<td><strong>Session 2: Approaches to Solve the Regulatory and Pharmaceutical / Biotech Drug Discovery / Development Conundrum</strong></td>
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<tr>
<td>12:40 - 1:00pm</td>
<td>Platform trials for glioblastoma - what they have to offer and what we can learn from them</td>
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<td></td>
<td>Brian Alexander, Dana-Farber Cancer Institute</td>
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</tbody>
</table>
## CNS Anticancer Drug Discovery and Development Conference Chair: Victor Levin

**1:00 - 1:15pm**  
**TBD**  
*Melissa Paoloni, Berry Consultants*

**1:15 - 1:35pm**  
Attracting industry to the platform approach in the setting of low patient numbers  
*Gary Gordon*

**1:35 - 1:50pm**  
The challenge of repurposing drugs for CNS neoplasms  
*Jeffrey Bacha, DelMar Pharmaceuticals*

**1:50 - 2:20pm**  
Session 2 Discussion  
*Victor Levin, Moderator*

**2:20 - 2:45pm**  
**BREAK**

### Session 3: Biophysical Modeling to Guide Drug Discovery and Development

**2:45 - 3:05pm**  
Nonequilibrium statistical mechanisms and protein actions  
*Ken A. Dill, Stony Brook University*

**3:05 - 3:25pm**  
Simulating cancer cell migration  
*David Odde, University of Minnesota*

**3:25 - 3:45pm**  
Cell mechanical targets for brain tumors  
*Steven Rosenfeld, Mayo Clinic*

**3:45 - 4:00pm**  
Extracting predictive biomarkers of cancer immunotherapy from tumor spatial heterogeneity using a multi-scale systems biology model  
*Chang Gong, Johns Hopkins University*

**4:00 - 4:10pm**  
Reaching the subarachnoid space: a role for intrathecal delivery of drug loaded nanoparticles  
*Rachael Sirianni, University of Texas Health Science Center*

**4:10 - 4:45pm**  
Session 3 Discussion  
*Peter Tonge, Moderator*

**5:00 - 8:00pm**  
**POSTER AND NETWORKING RECEPTION**
7:00 - 8:00am  LIGHT CONTINENTAL BREAKFAST

Session 4: Novel Targets, Approaches and Discovery Paradigms

8:00 - 8:20am  Correlating time-dependent target engagement and drug activity
Peter Tonge, Stony Brook University

8:20 - 8:30am  Nanoparticle delivery of miRNAs to inhibit GBM stem cells
Hernando Lopez, Kennedy Krieger Institute

8:30 - 8:40am  CD97 perturbation by novel fusion protein DAF-Fc inhibits GBM invasion and induces antibody dependent cellular cytotoxicity
Michael Safaee, University of California, San Francisco

8:40 - 9:00am  Therapeutic targets in primary and metastatic brain tumors: genomics as a tool
Priscilla K. Brastianos, Massachusetts General Hospital

9:00 - 9:10am  Translational discovery of therapeutic targets for glioblastoma
Maria-Magdalena Georgescu, Louisiana State University

9:10 - 9:25am  Protein target identification and target interaction from linear modeling of protein targets from rodent tumors
Forest White, Massachusetts Institute of Technology

9:25 - 9:35am  Targeting the CD200 checkpoint for the fight against central nervous system tumors
Michael Olin, University of Minnesota

9:35 - 9:50am  The PROTAC drug approach
Chris Nasveschuk, C4 Therapeutics

9:50 - 10:05am  Session 4A Discussion
Peter Tonge, Moderator

10:05 - 10:20am  BREAK

10:20 - 10:40am  Nativis Voyager(r): A disruptive approach to cancer treatment
Mike Butters, Nativis, Inc.

10:40 - 10:50am  Personalized pharmacogenomics using glioma patient-derived orthotopic xenografts (PDOXs)
Ann-Christin Hau, Luxembourg Institute of Health

10:50 - 11:10am  A key to tumor cell immortality: How it might inform new drug targets
Joseph F. Costello, University of California, San Francisco

11:10 - 11:20am  Developing Zika virus as a potential cancer stem cell therapy
Milan Gheda, Washington University

11:20 - 11:30am  Multi-modality analysis of heterogeneous EGFR inhibitor delivery and efficacy in GBM
Jann Sarkaria, Mayo Clinic

11:30 - 11:50am  Selective dependency and conceptual approaches to target identification
Jeremy Rich, Sanford Consortium for Regenerative Medicine

11:50 - 12:00pm  The development of personalized CAM Avatar model to predict chemotherapeutic drug sensitivity/resistance of gliomas
Martine Charbonneau, University of Sherbrooke
### CNS Anticancer Drug Discovery and Development Conference Chair: Victor Levin

#### Pre-Conference

**Thursday, November 15**

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<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Institution</th>
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<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>
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<tr>
<td>12:15 - 12:30pm</td>
<td>Session 4B Discussion</td>
<td>Jann Sarkaria, Moderator</td>
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<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>
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<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-Choon Moon, PTC Therapeutics</td>
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<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>
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<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>
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<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>
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<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>
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<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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**4:35pm** Adjourn
**TRANSFORMING CLINICAL TRIALS IN THE MODERN-DAY ERA**

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

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<td>6:00 - 7:00am</td>
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<td>8:00 - 8:10am</td>
<td>Welcome and Introduction</td>
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</tbody>
</table>
| 8:10 - 8:40am | **Keynote Presentation:** Global view of cancer  
Ronald DePinho |
| 8:40 - 10:15am | **Session 1 – Cancer Biology and Genomics**  
*Session Chair: Ingo Mellinghoff*  
Aberrant signaling in brain tumors  
Ingo Mellinghoff  
Molecular trajectories of glioma  
Roel Verhaak  
Modeling brain tumor development  
Suzanne Baker  
Harnessing large-scale genomic data for cancer gene discovery and therapy  
Nikolaus Schultz  
Panel Discussion  
All of Above |
| 10:15 - 10:30am | BREAK                                      |
| 10:30 - 12:05pm | **Session 2 – Clinical Trials Basics**  
*Session Chair: Joohee Sul*  
Clinical trials 101  
Jennifer Clarke  
Designs for small patient populations  
Karla Ballman  
Endpoints for clinical trials  
Joohee Sul  
Pitfalls in oncology drug development  
Patrick Wen  
Panel Discussion  
All of Above |
| 12:05 - 1:05pm | LUNCH                                      |
|         | Women in Neuro-Oncology (WiN) Kick-off Lunch |
| 1:05 - 1:35pm | **Keynote Presentation:** Novel precision medicine trial designs - Oncology Center of Excellence perspectives  
Gideon Blumenthal |
| 1:35 - 3:45pm | **Session 3 – Next-generation Trials and Biomarkers**  
*Session Chair: Brian Alexander*  
Methylation signatures  
Stefan Pfister |
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>1:55 - 2:15pm</td>
<td>Standardization and implementation of imaging biomarkers in glioma multicenter clinical trials</td>
<td>Ben Ellingson</td>
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<tr>
<td>2:15 - 2:35pm</td>
<td>Digital technology: Digital biomarkers, outcomes, and performance measures</td>
<td>Andy Coravos</td>
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<tr>
<td>2:35 - 2:50pm</td>
<td>BREAK</td>
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<tr>
<td>2:50 - 3:10pm</td>
<td>Novel clinical trial designs</td>
<td>Brian Alexander</td>
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<tr>
<td>3:10 - 3:30pm</td>
<td>Perspectives from pharma</td>
<td>Lauren Abrey</td>
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<tr>
<td>3:30 - 3:45pm</td>
<td>Panel Discussion</td>
<td>All of Above</td>
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<tr>
<td>3:45 - 5:00pm</td>
<td>Session 4 – Improving Patient Participation in Clinical Trials</td>
<td>Session Chair: Martin Taphoorn</td>
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<tr>
<td>3:45 - 4:05pm</td>
<td>Practitioners views on clinical trials - survey results</td>
<td>Terri Armstrong</td>
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<tr>
<td>4:05 - 4:25pm</td>
<td>Access to trials - the BTN experience</td>
<td>Frederick B. Sontag, Kay Verble</td>
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<tr>
<td>4:25 - 4:45pm</td>
<td>Clinical outcomes assessments / RANO COA</td>
<td>Martin Taphoorn</td>
</tr>
<tr>
<td>4:45 - 5:00pm</td>
<td>Panel Discussion</td>
<td>All of above plus Liz Salmi, David Jenkinson and David Arons</td>
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<tr>
<td>5:00pm</td>
<td>ADJOURN</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 |

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**

- ACTR  Adult Clinical Trials – Non-immunologic
- ANGI  Angiogenesis and Invasion
- ATIM  Adult Clinical Trials – Immunologic
- CBMT  Cell Biology and Metabolism
- CMET  CNS Metastasis
- COMP  Computational Omics
- CSIG  Cell Signaling and Signaling Pathways
- DDSI  Drug Discovery
- DRES  Drug Resistance
- EPID  Epidemiology
- EXTH  Experimental Therapeutics
- GENE  Genetics and Epigenetics
- HOUT  Health Outcome Measures
- IMMU  Immunology
- INNV  Innovations in Patient Care
- LTBK  Late-Breaking
- MNGI  Meningioma
- NCMP  Neurological Complications of Cancer and Cancer Therapy
- NCOG  Neuro-Cognitive Outcomes
- NIMG  Neuro-Imaging
- PATH  Molecular Pathology and Classification – Adult and Pediatric
- PDCT  Pediatric Clinical Trials
- PDM  Pediatric Tumors
- QOLP  Quality of Life and Palliative Care
- RARE  Rare Tumors
- RBIT  Randomized Brain Tumor Trials in Development
- RDNA  Radiation Biology and DNA Repair
- RTHP  Radiation Therapy
- STEM  Stem Cells
- SURG  Surgical Therapy
- TMIC  Tumor Microenvironment
- TMOD  Tumor Models
SUNRISE SESSIONS  

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 clinica 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

11:40 - 12:00pm 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)

12:15 - 1:15pm 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

CONCURRENT SESSIONS  1:30 - 5:00 pm

1:30 - 3:00 pm  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 bevacizumab 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 lapaatinib

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
<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>2:30 - 2:35pm</td>
<td>Q &amp; A</td>
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<tr>
<td>2:55 - 3:00pm</td>
<td>Q &amp; A</td>
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<td>3:00 - 3:15pm</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>CONCURRENT SESSION 2B</td>
<td>Practical and Applied Neuro-Oncology I</td>
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<tr>
<td>1:50 - 2:00pm</td>
<td>HOUT-19</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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<tr>
<td>2:00 - 2:05pm</td>
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<td>DISCUSSION</td>
<td>All Presenters</td>
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<td>2:05 - 2:10pm</td>
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<td>Q &amp; A</td>
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2:15 - 2:20pm
QOLP-03
End of life phase in glioblastoma: prospective assessment of symptom burden and symptom interference in the end of life phase - final analysis
Walbert T, Schultz L

2:20 - 2:25pm
QOLP-29
Symptom clusters in newly diagnosed glioma patients: which clusters are associated with functioning and global health status?

2:25 - 2:30pm
QOLP-21
The relationship between caregiving burden and anxiety symptoms in caregivers of patients with malignant gliomas
Quain K, Nipp R, Greer J, El-Jawahri A, Batchelor T, Temel J, Forst D

2:30 - 2:35pm
Q & A

2:35 - 2:40pm
QOLP-19
Effect of intensive nutrition intervention on pediatric patients with central nervous system tumors with concurrent radiochemotherapy
Cai LB, Zhang Y

2:40 - 2:45pm
QOLP-09
Association between body image investment and alteration in patients with primary brain tumors

2:45 - 2:50pm
NCMP-09
Isocitrate dehydrogenase mutations and increased tissue 2-hydroxyglutarate concentration might be related with seizure onset in patients with gliomas
Ohno M, Hayashi M, Matsushita Y, Miyakita Y4, Takahashi M, Yamazawa E, Tsushita N, Ichimura K, Hamada A, Narita Y

2:50 - 2:55pm
NCOG-04
Effects of proton radiation on brain structure and function in low grade glioma

2:55 - 3:00pm
Q & A

3:00 - 3:15pm
BREAK

1:30 - 3:00pm
CONCURRENT SESSION 2C

Experimental Therapeutics

1:30 - 1:40pm
EXTH-36
Bifunctional RNA nanoparticles induce antitumor immune responses and allow MRI-based detection of dendritic cell migration as a biomarker of antitumor immune response

1:40 - 1:50pm
EXTH-27
Inflammatory reprogramming of gliomas using Delta-24-RGDOX and immunometabolic adjuvants

1:50 - 2:00pm
EXTH-25
Dianhydrogalactitol (VAL-083) reduces glioblastoma tumor growth in vivo, upon bevacizumab-induced hypoxia
Golebiewska A, Oudin A, Steina A, Nielou S, Brown D, Bacha J

2:00 - 2:10pm
EXTH-03
Local oncolytic adenovirus treatment affects both the innate and adaptive arms of the immune system and provides an avenue for enhancing immunotherapies for GBM

2:10 - 2:15pm
DISCUSSION

2:15 - 2:20pm
Q & A

2:20 - 2:25pm
EXTH-70
Efficient delivery of siRNAs to glioma via functionalized extracellular vesicles primed by radiation
Tannous B, Tian T, Obeid P

2:25 - 2:30pm
EXTH-43
Effective treatment of canine spontaneous gliomas with a cytotoxic cocktail targeting IL-13RA2 and EphA2 receptors
Rossmeisl J, Herpai D, Robertson J, Dickinson P, Tatter S, Debinski W
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
### 4:35 - 4:40pm
**SESSION 1B**
**Pembrolizumab blocks PD-1 on CAR T cells administered intraventricularly to glioblastoma patients**


### 4:40 - 4:45pm
**SESSION 1B**
**Immunomodulatory IL-7 and IL-12-expressing MSCs induce long-term survival and immunity in syngeneic intracerebral glioblastoma models**


### 4:45 - 4:50pm
**SESSION 1B**
**Reduced neoantigen expression as a possible immune evasion mechanism during glioma progression**


### 4:50 - 4:55pm
**SESSION 1B**
**High-dimensional single cell characterization of the systemic influence of neoadjuvant PD-1 blockade in patients with recurrent glioblastoma**


### 4:55 - 5:00pm
**SESSION 1B**
**Q & A**

#### 3:15 - 5:00pm
**CONCURRENT SESSION 3B**

**Genetics/Epigenetics/Computational Omics**

### 3:15 - 3:25pm
**SESSION 3B**
**The genomic landscape of triple-negative glioblastoma**


### 3:25 - 3:35pm
**SESSION 3B**
**Comparative molecular life history of spontaneous canine and human glioma**


### 3:35 - 3:45pm
**SESSION 3B**
**Divergent clonal evolution of melanoma brain metastases during treatment with immunotherapy**


### 3:45 - 3:50pm
**SESSION 3B**
**DISCUSSION**

### 3:50 - 3:55pm
**SESSION 3B**
**Q & A**

### 3:55 - 4:00pm
**SESSION 3B**
**IDH1-R132H induces an epigenetic reprogramming in glioma impacting median survival, DNA-damage response and radio-sensitivity**


### 4:00 - 4:05pm
**SESSION 3B**
**Re-programing chromatin with a bifunctional LSD1/HDAC inhibitor induces therapeutic differentiation in DIPG**


### 4:05 - 4:10pm
**SESSION 3B**
**The non-invasive detection of glioblastoma-derived cell-free DNA in plasma using next-generation sequencing and an untargeted variant search**

*Underhill H, Hellwig S, Nix D, Bhetariya P, Fuertes C, Marth G, Colman H, Bronner M, Jensen R*

### 4:10 - 4:15pm
**SESSION 3B**
**Glioblastoma development mirrors the developing brain**


### 4:15 - 4:20pm
**SESSION 3B**
**Q & A**

### 4:20 - 4:25pm
**SESSION 3B**
**The oncohistone H3.3K27M drives diffuse intrinsic pontine glioma independent of functional EZH2**

*Dhar S, Becher O*

### 4:25 - 4:30pm
**SESSION 3B**
**Mouse model of diffuse intrinsic pontine glioma harboring Acrv1 G328V**

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 A, Benitez J, Furnari F**

4:55 - 5:00pm  Q & A

3:15 - 5:00pm  **CONCURRENT SESSION 3C**  
Microenvironment/Angiogenesis and Invasion

3:15 - 3:25pm  Abscopal immune response in glioblastoma elicited by miR124-attenuated oncolytic herpes simplex virus 1 armed with UL16 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 J, 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 Cerbro M, Lourdusamy 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 glycosylation-mediated immune regulatory circuits for immune escape  

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  
**Vezina 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  
**Sasyama 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 - 7:00pm **Factors Impacting Clinical Trial Accrual**
*Chairs: Patrick Wen, Eudocia Quant Lee, Terri Armstrong, David Arons, J. Charles Haynes*

5:00 - 5:30pm Refreshments

5:00 - 5:35pm Introduction
*Patrick Wen*

5:35 - 5:43pm National Brain Tumor Society survey results
*David Arons*

5:43 - 5:51pm SNO clinical trials survey
*Terri Armstrong*

5:51 - 6:01pm Patient and community factors
*John DeGroot, David Arons*

6:01 - 6:11pm Physician and provider factors
*Susan Chang*

6:11 - 6:21pm Clinical trials factors
*David Reardon*

6:21 - 6:31pm Site and organizational factors
*Michael Weller*

6:31 - 6:41pm Disparities
*Ugonma Chukwueke, Shawn Hervey-Jumper*

6:41 - 6:51pm Future directions
*Eudocia Quant Lee, Patrick Wen*

6:51 - 7:00pm Discussion and wrap-up

5:30 - 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

7:30 - 8:30pm **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 - 9:30pm **POSTER SESSION** Traditional Poster Viewing
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
Sobedot T, deCarvalho A, Poisson L, Snyder J, Walbert T, Lee I, Kalkanis S, Berman B, Noushmehr H

7:38 - 7:42pm
GENE-28
Methyomes 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 OLG2 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 MARCS 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  
Impiridones 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  
Hübner M, Effinger D, Hinske C, Möllhoff N, Kreth F-W, Kreth S

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 Moan 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 immunorespose

8:14 - 8:18am
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

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 Hegi  
• 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, Nathan Robison  
• 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
   Neuro-Oncology Community Service Award Recipient: David Arons

11:10-11:20am Jan Esenwein Public Service Award Introduction: Susan Chang
   Jan Esenwein Public Service Award Recipient: J. Charles Haynes

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
   ADULT BASIC RESEARCH AWARD

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

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
   MNGI-05

12:00 - 12:15pm 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, Karpel-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
*Sponagel 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, Bologlu 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
CSIG-37
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
CBMT-32
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
CBMT-18
Integrative cross platform analyses identify enhanced heterotrophy as a metabolic hallmark in glioblastoma

2:45 - 2:50pm
CBMT-06
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
CSIG-34
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
SURG-02
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
RTHP-06
Randomized prospective trial of stereotactic radiosurgery versus chemotherapy for recurrent malignant glioma after second-line chemotherapy

1:50 - 2:00pm
RDNA-18
TPS5, a peptide inhibitor of aberrant and hyperactive CDK5/p25: a novel therapeutic approach against glioblastoma

2:00 - 2:10pm
RDNA-05
Synthetic sensitization of MGMT-deficient tumor cells to temozolomide using ATR inhibitors
Jackson C, Noorbakhsh S, Sundaram R, Kalathil A, Bindra R

2:10 - 2:15pm
DISCUSSION

2:15 - 2:20pm
Q & A

2:20 - 2:25pm
RTHP-08
Re-evaluating the sequencing of radiotherapy and chemotherapy in pediatric medulloblastoma

2:25 - 2:30pm
RTHP-02
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
RTHP-05
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?  
Patrizi A, Choi P, Yan Y, Zorofchian S, Ballister L, Esquenazi Y

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 (ADVL1217)  

3:00 - 3:05pm  
Q & A

3:05 - 3:15pm  
BREAK

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-75  WHO 2016 grade II glioma molecular subtypes have a distinct spatial distribution pattern  

1:50 - 2:00pm  
NIMG-40  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, Morrisssette 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  
Rathore S, Bakas S, Nasrallah M, Akbari H, Bagley S, Ha SM, Mamourian E, Watt C, Binder Z, O'Rourke D, Davatzikos C

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  
2:40 - 2:45pm MRI changes in newly diagnosed glioblastoma patients treated as part of a Phase II trial with bavituximab, radiation, and temozolomide

2:45 - 2:50pm Radiogenomic analysis of Glioblastoma reveals textural features from MRI that correlate with genomic immune score and are also predictive of chemo-radiation treatment response
Beig N, Braman N, Prasanna P, Varadan V, Madabhushi A, Tiwari P

2:50 - 2:55pm Preoperative predictors of malignancy in non-enhancing glioma in the era of molecular classification

2:55-3:00pm Q & A

3:00-3:15pm BREAK

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

Pediatrics: Clinical and Basic Science

3:15 - 3:25pm Phase 1/2 study of DSP-7888 in pediatric patients with malignant glioma

3:25 - 3:35pm Epigenetic loss of BAI1 expression in cerebellar granule neuron precursors inactivates the p53 tumor suppressor and facilitates medulloblastoma formation in the cerebellum.

3:35 - 3:45pm ATRX loss confers enhanced sensitivity to combined PARP inhibition and radiotherapy in paediatric glioblastoma models

3:45 - 3:55pm Targeting H3.3G34R/V re-wiring of the epigenome in pediatric glioblastoma of children and young adults

3:55 - 4:00pm DISCUSSION

4:00 - 4:05pm Q & A

4:05 - 4:10pm 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
Chang R, Tosi U, Bhanu Maachani U, Voronina I, Schweitzer M, Wu L, Soueidane M

4:10 - 4:15pm Matching of single cell transcriptomics from cerebellar development identifies putative subgroup specific cells of origin for medulloblastoma.

4:15 - 4:20pm Overexpression of MYC alone is sufficient to initiate group 3 medulloblastoma

4:20 - 4:25pm Drug screening linked to molecular profiling identifies novel dependencies in patient-derived primary cultures of pediatric high grade glioma and DIPG
<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>4:25 - 4:30</td>
<td>DLX2 transcriptional regulation of central nervous system cell fate  with Histone 3 mutations&lt;br&gt;<em>Nevin M, Song X, Becher O, Underhill DA, Godbout R, Eisenstat D</em></td>
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<td>4:30 - 4:35</td>
<td>Q &amp; A</td>
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<td>4:40 - 4:45</td>
<td>The contribution of PAX genes as novel tumor suppressors in group 3 medulloblastoma&lt;br&gt; <em>Zagzeewski J, Morrison L, Stromecki M, Paidwor G, Ramaswamy V, Werbowetski-Ogilvie T</em></td>
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<td>4:45 - 4:50</td>
<td>Activation of tumor-reactive T cells against brain stem glioma using hematopoietic stem cells&lt;br&gt; <em>Flores C, Woodworth D, Moorley C, Moore G, Mitchell D</em></td>
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<td>4:55 - 5:00</td>
<td>Q &amp; A</td>
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<td>3:15 - 5:00</td>
<td><strong>CONCURRENT SESSION 6B</strong></td>
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<td>3:20 - 3:30</td>
<td><strong>Invited Speaker:</strong> Patrick Wen&lt;br&gt;Opportunities in Clinical Trials for Meningiomas</td>
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<td>3:30 - 3:40</td>
<td><strong>Invited Speaker:</strong> Kenneth Aldape&lt;br&gt;Precision Diagnostics Guiding Meningioma Care</td>
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<td>3:50 - 3:55</td>
<td>Brain invasion in meningiomas previously classified as WHO grade I has limited impact on outcome&lt;br&gt; <em>Biczok A, Suchorska B, Egensperger R, Tonn J-C, Schichor C</em></td>
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<tr>
<td>3:55 - 4:00</td>
<td>Correlation of methylation class and genetic alterations with progression free survival in meningioma&lt;br&gt; <em>Bergoff A, Ricken G, Rajky U, Marosi C, Hainfellner J, von Deimling A, Sahm F, Preusser M</em></td>
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<td>4:05 - 4:10</td>
<td>Q &amp; A</td>
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<td>4:10 - 4:15</td>
<td>The ROAM / EORTC 1308 information study results: how qualitative research methods can optimize patient recruitment for meningioma trials&lt;br&gt; <em>Jenkinson M, Sherratt F, Haylock B, Weber D, Young B</em></td>
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<td>5:00 - 6:30</td>
<td><strong>Industry Supported Symposia</strong></td>
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<td>5:00 - 7:00</td>
<td><strong>E-TALKS</strong> <em>Interactive Electronic 4 Minute Presentations Followed By Group Discussions</em></td>
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<td><strong>POSTER SESSION</strong> Traditional Poster Viewing</td>
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<td>7:00 - 11:00</td>
<td><strong>SNO GALA</strong> Held at Contemporary Arts Center <em>(Separate Ticket Required)</em></td>
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E-TALKS  5:00 - 7:00pm

GROUP 1: Adult Therapeutics/Immunology

5:00 - 5:04pm  ATIM-07  
**Window-of-opportunity clinical trial of pembrolizumab in recurrent glioblastoma patients**

5:04 - 5:08pm  ATIM-23  
**Anti-CD27 agonist antibody varilumab in combination with nivolumab for recurrent glioblastoma (rGBM): Phase 2 clinical trial results**
Reardon D, Kaley T, Iwamoto F, Baehring J, Subramaniam D, Rawls T, He Y, Keler T, Yellin M

5:08 - 5:12pm  ATIM-32  
**Personalized neoantigen-targeting vaccine generates robust systemic and intratumoral T cell responses in glioblastoma (GBM) patients**

5:12 - 5:16pm  ATIM-16  
**Phase 1 study results of M7824 (MS80011359C), a bifunctional fusion protein targeting TGF- and PD-L1, among patients with recurrent glioblastoma (rGBM)**

5:16 - 5:20pm  ATIM-37  
**Safety run-in results of a phase I/II study to evaluate the safety and clinical efficacy of atezolizumab (atezo; aPDL1) in combination with temozolomide (TMZ) and radiation in patients with newly diagnosed glioblastoma (GBM)**

5:20 - 5:24pm  ACTR-14  
**Phase I study of AZD1775 with radiation therapy (RT) and temozolomide (TMZ) in patients with newly diagnosed glioblastoma (GBM) and evaluation of intratumoral drug distribution (IDD) in patients with recurrent GBM**

5:24 - 5:28pm  ACTR-17  
**Evophophamide (TH-302) for recurrent GBM following bevacizumab failure, final results of a multicenter phase II study**

5:28 - 5:32pm  ACTR-64  
**Objective responses to chemotherapy in recurrent glioma do not predict better survival: A prospective analysis from the German Glioma Network.**

5:32 - 5:36pm  ACTR-46  
**Higher doses of TTFields in the tumor are associated with improved patient outcome.**
Ballo M, Bomzon Z, Urman N, Lavy-Shahaf G, Toms S

5:36 - 5:40pm  ACTR-15  
**Safety and preliminary activity of PT2385, a first-in-class HIF2-alpha inhibitor, planned interim analysis of an open label, single-arm phase II study in patients with recurrent glioblastoma**

5:40 - 5:44pm  IMMU-70  
**Global immune fingerprinting in glioblastoma reveals immune-suppression signatures associated with prognosis**

5:44 - 5:48pm  IMMU-38  
**Targeting hypoxia downstream signaling protein, CAIX for CAR-T cell therapy against glioblastoma (GBM)**

5:48 - 5:52pm  IMMU-16  
**Guaedecitabine (SGI-110) enhances MHC class I and tumor antigen expression on murine C57BL/6-syngeneic glioma and DIPG models**

5:52 - 5:56pm  IMMU-34  
**A Balanced Tryptophan Diet Leads to Maximal Immunotherapeutic Efficacy in Glioblastoma Models**

5:56 - 6:00pm  IMMU-25  
**Programmed cell death-ligand 1 (PD-L1) is not expressed in diffuse intrinsic pontine glioma (DIPG) tumor cells**
GROUP 2: Angiogenesis and Invasion/Radiation Biology and DNA Repair/Tumor Models/ Stem Cells/Epidemiology

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
Mahlokmozer T, Taiwo R, Mao D, Salehi A, Gujrat 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 J, 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
Ravi 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

5:00 - 5:04pm  
**HOUT-16**  
The cost effectiveness of Tumor Treating Fields treatment for patients with newly diagnosed glioblastoma based on the EF-14 trial

**Guzauskas G**, Wang BCM, Pollem E, Stieber VW, Garrison L

5:04 - 5:08pm  
**HOUT-35**  
Retrospective analysis of outcomes in hospitalized malignant brain neoplasm patients with status epilepticus

**Lobbous M**, Gupta S, Warren P

5:08 - 5:12pm  
**NCMP-03**  
Risk factors for surgical site infections after craniotomy for primary brain tumors

**Kraft PR**, Agoris C, Tran Q, Sahebjam S, Tran N

5:12 - 5:16pm  
**NCMP-22**  
Treatment-related adverse effects in patients with malignant glioma: establishment of key features for pseudoprogression and treatment-induced necrosis.


5:16 - 5:20pm  
**QOLP-02**  
Insurance status impacts the economic burden and survival of glioblastoma patients with health insurance


5:20 - 5:24pm  
**QOLP-25**  
Quality of life following re-irradiation for recurrent high grade glioma


5:24 - 5:28pm  
**RTHP-21**  
Characterization of radiation therapy effects on cerebral vasculature in pediatric brain tumor survivors


5:28 - 5:32pm  
**RTHP-07**  
Transcription factor networks of oligodendrogliomas (IDH-mutant and 1p/19q codeleted) treated with adjuvant radiotherapy or observation informs prognosis

**So J**, Moraes F, Mamajtan Y, Aladpe K, Zadeh G

5:32 - 5:36pm  
**RTHP-10**  
Less is more or bigger is better? Radiation treatment volume for glioblastoma patients does not impact survival


5:36 - 5:40pm  
**SURG-06**  
Laser ablation for brain metastases: Safety and preliminary outcomes from the Laser Ablation of Abnormal Neurological Tissue using Robotic NeuroBlate System (LAANTEGR) registry


5:40 - 5:44pm  
**SURG-07**  
Between-hospital variation in mortality and survival after glioblastoma surgery


5:44 - 5:48pm  
**SURG-05**  
Navigated intra-operative 2-D ultrasound vs standard neuronavigation in high grade glioma surgery


5:48 - 5:52pm  
**IMMU-26**  
Visualizing tumor cell - lymphocyte interactions in the brain metastatic cascade using in vivo two photon microscopy


5:52 - 5:56pm  
**CMET-28**  
Impact of disease site, size and surgical resection on survival from metastatic CNS neuroblastoma


5:56 - 6:00pm  
**CMET-19**  
Clinical risk assessment score to estimate the likelihood of pseudoprogression versus tumor growth following stereotactic radiosurgery for brain metastases.

**Skeie B**, Øyvind Enger P, Pedersen P-H, Olve Skeie G

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
## MAIN MEETING PROGRAM

### 8:30 - 10:00am  
**CONCURRENT SESSION 7A**

**Adult Clinical Trials II**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 - 8:40am</td>
<td>A phase I study of cytosine deaminase-expressing neural stem cells (CD-NSCs) administered intracranially and in combination with oral 5-fluorocytosine (5-FC) and leucovorin in patients with recurrent high grade glioma</td>
<td>Portnow J, Synold T, Badie B, Blanchard S, Kilpatrick J, Tirughan J, Metz M, Tran V, Aboody K</td>
</tr>
<tr>
<td>9:00 - 9:05am</td>
<td>DISCUSSION</td>
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<td>9:05 - 9:10am</td>
<td>Q &amp; A</td>
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<tr>
<td>9:10 - 9:15am</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>
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<td>9:30 - 9:35am</td>
<td>Q &amp; A</td>
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<td>9:35 - 9:40am</td>
<td>A phase 1, multicenter, open-label study of marizomib (MRZ) with temozolomide (TMZ) and radiotherapy (RT) in newly diagnosed WHO grade IV malignant glioma (glioblastoma, ndGBM): Full enrollment results</td>
<td>Bota D, Kesari S, Piccioni D, Aregawi D, Roth P, Stupp R, Desjardins A, Reich SD, Elias I, Li M, Levin N, Winograd B, Mason W</td>
</tr>
<tr>
<td>9:45 - 9:50am</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-Rachamimov A, Ramesh V</td>
</tr>
<tr>
<td>9:50 - 9:55am</td>
<td>Short-term bevacizumab for recurrent glioblastomas</td>
<td>Matsutani T, Hirono S, Iwashita Y</td>
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<tr>
<td>9:55 - 10:00am</td>
<td>Q &amp; A</td>
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<tr>
<td>10:00 - 10:15am</td>
<td>BREAK</td>
<td></td>
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</tbody>
</table>
8:30 - 10:00am **CONCURRENT SESSION 7B**

**Molecular Pathology/Stem Cells**

8:30 - 8:40am

**PATH-49**

Genomic attributes of tumor evolution and treatment response in diffuse glioma


8:40-8:50am

**STEM-06**

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

Mueller S, Bhaduri A, DiLullo E, Yagnik G, Lim D, Agha M, Kriegstein A, Diaz A

8:50 - 9:00am

**STEM-29**

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

**PATH-29**

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


9:15 - 9:20am

**PATH-32**

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

**PATH-13**

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


9:25 - 9:30am

**PATH-37**

Liquid biopsy for identification of newly diagnosed glioma


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

9:35 - 9:40am

**STEM-25**

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


9:40 - 9:45am

**STEM-11**

Directed neuronal differentiation as a therapeutic strategy for malignant gliomas


9:45 - 9:50am

**STEM-28**

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


9:50 - 9:55am

**STEM-23**

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

**CMET-20**

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speakers</th>
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<tbody>
<tr>
<td>9:00 - 9:10am</td>
<td>CMET-30</td>
<td>Brain metastases from EGFR-mutated NSCLC which had acquired resistance to EGFR-TKI. “Less-frequent T790M and preserved response to other TKIs”</td>
<td>Iuchi T, Sakaida T, Hasegawa Y, Yoshida Y, Ashinuma H, Mizuno S, Setoguchi T, Shingoji M</td>
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<tr>
<td>9:10 - 9:15am</td>
<td>DISCUSSION</td>
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<td>9:15 - 9:20am</td>
<td>Q &amp; A</td>
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<tr>
<td>9:30 - 9:35am</td>
<td>CMET-27</td>
<td>Outcomes of Lung cancer patients with leptomeningeal metastases in the targeted therapy era</td>
<td>Nevel K, Cowan A, Reiner A, Ogilvie S, Skakodub A, Distefano N, Pentsova E, Boire A</td>
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<tr>
<td>9:35 - 9:40pm</td>
<td>Q &amp; A</td>
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<tr>
<td>9:40 - 9:45pm</td>
<td>STEM-03</td>
<td>Novel metastatic brain tumor targets isolated through phage display biopanning against brain metastasis-initiating cells</td>
<td>Kim J, Bao S, Rich JN, Liu J</td>
</tr>
<tr>
<td>9:45 - 9:50pm</td>
<td>CMET-21</td>
<td>The role of brain metastasis free interval in patients with brain metastases of breast carcinoma</td>
<td>Hulsbergen A, Lamba N, Claes A, Kavouridis V, Smith T, Verhoef J, Broekman M</td>
</tr>
<tr>
<td>9:50 - 9:55pm</td>
<td>CMET-22</td>
<td>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</td>
<td>Kumthekar P, Gradishar W, Lin N, Pentsova E, Groves M, Jeyapolan S, Melisko M, Grimm S, Lassman AB, Raizer J</td>
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<tr>
<td>9:55 - 10:00am</td>
<td>Q &amp; A</td>
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<td>10:15 - 12:00pm</td>
<td>CONCURRENT SESSION 8A</td>
<td>Drug Discovery/Drug Resistance/Tumor Models</td>
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<tr>
<td>10:25 - 10:35am</td>
<td>DRES-17</td>
<td>Activation of FGF signaling pathway confers resistance to EGFR inhibition in GBM</td>
<td>Guo G, Gong K, Sarkaria J, Habib A</td>
</tr>
<tr>
<td>10:35 - 10:45am</td>
<td>DRES-02</td>
<td>Ciliary protein ARL13B promotes chemoresistance by modulate glioblastoma purine biosynthesis</td>
<td>Shireman J, Atoshi F, Park C, Warnke L, Miska J, Ahmed A</td>
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<tr>
<td>10:55 - 11:00am</td>
<td>DISCUSSION</td>
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<tr>
<td>11:00 - 11:05am</td>
<td>Q &amp; A</td>
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</tbody>
</table>
11:05 - 11:10am Preventing the emergence of temozolomide resistance in glioblastoma by PARP-1 inhibition
DRES-06
Yuan A, Bering E, Cairncross J, Blough M

11:10 - 11:15am Novel bispecific activator of macrophages for the treatment of glioblastoma
DDIS-02
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
DRES-05
Kouwenhoven M, McDonald K, Miletic H, Nam D-H, Ng HK, Niclou S, Nosh-mehr H, Ormond D, Poisson L, Reifenberger G,

11:20 - 11:25am Patient-derived brain tumour iPSCs: models for investigating glioma stemness and drug discovery
TMOD-24
Markowetz F, Wurdak H

11:25 - 11:30am DRD5 is a modulator of glioma susceptibility to DRD2 antagonism by ONC201
DRES-10
Elemento O, Allen J

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
DRES-08

11:40 - 11:45am In Vivo Functional Genomics Identifies Drivers of Chemoresistance in Medulloblastoma
DRES-09

11:45 - 11:50am ZEB1-mediated invasive mesenchymal transition at the single cell level promotes anti-angiogenic therapy resistance
in glioblastoma
DRES-01
Kumar S, Aghi M

11:50 - 11:55am Mutant IDH1 promotes glioma formation in vivo
TMOD-19
Yu D, Boekholder R, VanBrockerlin M, Sonnen J, Colman H, Holmen S

11:55 - 12:00pm Q & A

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

Practical & Applied Neuro-Oncology II

10:15 - 10:25am Cost effectiveness of treating glioblastoma patients age 65 years or older with Tumor Treating Fields plus
temozolomide versus temozolomide alone
HOUT-18
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
EPID-12

10:35 - 10:45am Effect of health disparities on overall survival of patients with glioblastoma
EPID-08

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
EPID-15
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-Maya 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) natural history 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, Iafrate 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 bevacucimab and PD-1 checkpoint blockade  
*Geletneky K, Bartsch A, Weiss C, Bernhard H, Marchini A, Rommelene J*

10:45 - 10:50am DISCUSSION

10:50 - 10:55am Q & A
10:55 - 11:00am IMMU-56
CXCR1/2 modified CARs co-opt radiation-induced IL-8 for enhanced chemotaxis of the CAR T cells and maximal anti-tumor efficacy

11:00 - 11:05am IMMU-20
Single cell cytomics of peripheral blood mononuclear cells reveals new avenues for glioma immunotherapy

11:05 - 11:10am IMMU-02
Oncolytic HSV therapy enhances glioblastoma control via the expansion of functional tumor-specific T cells and modulation of myeloid cell population

11:10 - 11:15am ATIM-10
A phase I/II clinical trial of autologous CMV-specific cytotoxic T cells (CMV-TC) for glioblastoma: dose escalation and correlative results

11:15 - 11:20am Q & A

11:20 - 11:25am IMMU-50
The immune landscape of blood dendritic cells in glioblastoma multiforme: implications for DC vaccination combined with checkpoint inhibition

11:25 - 11:30am IMMU-46
Glioblastoma patient diagnoses and immunosuppression are maximal during old age: a random coincidence, or cause and effect?

11:30 - 11:35am IMMU-27
Preventing T-cell S1P1 internalization obviates bone marrow T cell sequestration and improves immunotherapeutic efficacy in GBM

11:35 - 11:40am Q & A

11:40 - 11:45am ATIM-39
Improved survival noted in glioblastoma patients treated with adjuvant TLR-3 agonist in setting of autologous lysate-pulsed DC vaccination

11:45 - 11:50am ATIM-28
Phase 2 study of ERC1671 plus bevacizumab vs bevacizumab plus placebo in recurrent GBM interim results and correlations with CD4+ T lymphocyte counts
Bota DA, Chung J, Danekar M, Carrillo JA, Kong X, Fu DB, Hsu FPK, Schönthal AH, Hofman FM, Chen TC, Zidovetzki R, Pretto C, Strik A, Schijns VEJC, Stathopoulos A

11:50 - 11:55am IMMU-71
Evaluating the compatibility of tumor treating electric fields with key anti-tumoral T cell functions

11:55 - 12:00pm Q & A

12:00 - 12:30pm Highlights of SNO 2018
Frank Furnari, Daphne Haas-Kogan, Vinay Puduvalli

12:30pm ADJOURN
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