



1. **Griff Harsh** from University of New Mexico demonstrated accuracy of intraoperative label-free fluorescence lifetime imaging to predict genomic-based glioma histology and identification of the tumor margin.
2. **Costas Hadjipanayis** from University of Pittsburgh Medical Center presented thirty-five years' experience of stereotactic radiosurgery for unresected and WHO Grade I meningiomas from America's first gamma knife center.
3. **Jennifer Moliterno-Gunel** from Smilow Cancer Hospital at Yale discussed multiplicative impact of specific somatic copy number alterations on meningioma recurrence risk.
4. **Vikram Prabhu** from Loyola University Stritch School of Medicine showed how using combination therapy with calcium channel antagonists and chemotherapeutic agents can reduce *in vitro* viability of high-grade meningioma cells.
5. **Mahua Dey** from University of Wisconsin Madison demonstrated a novel precision personalized neoantigen tumor vaccine platform for glioblastoma
6. **Ian Parney** from Mayo Clinic outlined the outcome of the influence of bipolar versus monopolar stimulation motor mapping for brain tumors.
7. **Kushal Shah** from Goodman Campbell Brain & Spine, showed the utility of fluorescein in brain tumor surgery
8. **Peter Morone** from Vanderbilt University Medical Center unveiled novel genetic drivers of meningioma: using a transcriptome-wide association study across multi-ancestry cohorts.
9. **Jacob Ruzevick** from University of Washington showed that endoscopic endonasal biopsy of the posterior lobe of the pituitary gland is a safe surgical Target for Lesions of the Infundibulum and Hypothalamus.
10. **Kristin Huntoon** from University of Arizona showed adaptive design of mRNA-loaded Extracellular vesicles for targeted immunotherapy of GBM.
11. **Michael Ivan** from University of Miami demonstrated a mobile device to assess vestibular function in vestibular schwannoma patients.
12. **Debraj Mukherjee** from Johns Hopkins University School of Medicine showed drivers of neurosurgeon selection used by tumor patients for operative intracranial tumors.
13. **Jay McCracken** from Piedmont Atlanta Hospital discussed the role of Cesium-131 brachytherapy in the upfront treatment of glioblastoma

***Kristin Huntoon***

*University of Arizona*

Spiegel Shorts award winning abstract

Development of targeted immunotherapy for Malignant Gliomas