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Additional Speakers:

Hong Chen, PhD

Dr. Chen is a an associate professor of biomedical engineering at the McKelvey School of Engineering and an associate professor in the Department of Neurosurgery's Division of Neurotechnology at Washington University School of Medicine. Dr. Chen earned her PhD degree in Bioengineering from the University of Washington in 2011. After graduation, she worked as a senior fellow in the School of Medicine at the University of Washington. From 2012 to 2015, she was a postdoctoral research scientist in the Department of Biomedical Engineering at Columbia University.

Dr. Chen's research focuses on medical ultrasound. Her goal is to develop ultrasound-based image-guided drug delivery platforms for cancer therapy through combining the diagnostic and therapeutic functions of ultrasound, integrating physical acoustics with the development of medical ultrasound devices, and bridging basic and translational research.

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Benjamin Deneen, PhD

Benjamin Deneen trained as a postdoctoral fellow at the California Institute of Technology in the laboratory of Dr. David Anderson where he discovered the role of the transcription factor Nuclear factor IA (NFIA) in gliogenesis. In 2009, he joined the Neuroscience faculty at the Baylor College of Medicine where he is currently a Professor.

Dr. Deneen's laboratory continues to elucidate the biology of glial development and the role of key gliogenic factors in neurological disease. Among their most recent findings is the identification of the role of NFIA in glioma formation and subtype generation which may provide new avenues for the treatment of malignant gliomas.

Gavin Dunn, MD, PhD

Dr. Dunn is a board-certified neurosurgeon who specializes in neurosurgical oncology. At Massachusetts General Hospital, he is the Director of the Center for Brain Tumor Immunology and Immunotherapy. His practice centers on the management of patients with primary and metastatic brain cancers as well as general neurosurgical conditions.

He has a comprehensive background employing technological adjuncts such as awake surgery, cortical mapping, laser ablation, fluorescence-guided surgery, and stereotactic radiosurgery. r. Dunn is a fellow and member of the American Association of Neurological Surgeons (AANS), member of the Congress of Neurological Surgeons (CNS) and Society for Immunotherapy of Cancer (SITC), and member of the Board of Directors of the Society for Neuro-Oncology (SNO).

Born in London, Dr. Dunn grew up in central Missouri and graduated summa cum laude from Princeton University. He received his MD and PhD degrees in the Medical Scientist Training Program at the Washington University School of Medicine in St. Louis where his doctoral work in cancer immunology was performed with Dr. Robert Schreiber. He completed his neurosurgical training at the Massachusetts General Hospital, where he conducted postdoctoral research in functional cancer genomics with Dr. William Hahn at the Broad Institute and Dana-Farber Cancer Institute. Prior to joining MGH, Dr. Dunn was an Associate Professor of Neurological Surgery and a Bursky Scholar in the Andrew M. and Jane M. Bursky Center for Human Immunology and Immunotherapy Programs at Washington University where he was also the Director of the Neurological Surgery Residency Training Program.

Dr. Dunn's NIH-funded research program focuses on understanding the immune response to brain tumors and the fundamental basis of CNS immunobiology in order to improve the lives of patients with brain cancers. His work on the Brain Tumor Immunity cycle involves preclinical models as well as translational work and has resulted in the development of novel personalized cancer vaccine clinical studies. He is a co-chair of a clinical trial through the Alliance for Clinical Trials in Neuro-Oncology focused on recurrent glioblastoma. Dr. Dunn is also a Commander in the United States Navy Reserves Medical Corps.

Frank Furnari, PhD

Dr. Frank Furnari is a Member of Ludwig Cancer Research Institute, Professor of Pathology at the University of California, San Diego (UCSD) and head of the Laboratory of Tumor Biology. His lab has made significant contributions to the understanding of glioma biology and therapeutic resistance.

The primary focus of Dr. Furnari's research is to study fundamental pathways that drive initiation and progression of glioblastoma, as well as the malignant phenotypes of this aggressive brain cancer, ranging from tumor biology, biochemistry, cell biology, signal transduction and bioinformatic analyses, to orthotopic glioma models and preclinical investigations.

Dr. Furnari's recognition in the field of glioma biology is highlighted by scholar awards from the V, Kimmel and Goldhirsh Foundations, Awards for Basic and Translational Research from the Society for Neuro-Oncology, and by his service on numerous scientific advisory boards. Dr. Furnari also serves on the editorial boards of Molecular Cancer Research and Neuro-Oncology and is co-scientific chair for the Society for Neuro-oncology annual meeting.

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Dolores Hambardzumyan, PhD, MBA

Dr. Hambardzumyan is a neuroscientist focusing on neuro-oncology. She is a tenured Professor in Oncological Sciences and Neurosurgery, and a member of the Tisch Cancer Center. She conducts research on the brain tumor microenvironment and its impact on tumor response to therapy. Dr. Hambardzumyan has developed methods for immune profiling of brain tumors, including the development of novel markers to distinguish and lineage-trace various populations of tumor-associated macrophages.

Dr. Hambardzumyan has demonstrated that genetic driver mutations can define the composition and function of the tumor microenvironment and can modify tumor response to therapy. She is particularly interested in developing novel therapeutic pathways for the treatment of glioblastoma in both children and adults.

Dr. Hambardzumyan received a Ph.D. in Biochemistry from the Buniatian Institute of Biochemistry at the National Academy of Sciences, Republic of Armenia, and an MBA from the Goizueta Business School at Emory University. She did postgraduate fellowships in cancer biology and radiation oncology at Memorial Sloan Kettering Cancer Center and in neuronal plasticity and transplantation at the French National Institute of Health and Research. She held previous academic appointments at Memorial Sloan Kettering Cancer Center, Cleveland Clinic, and Emory University.

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Melanie Hayden-Gephart, MD

Dr. Hayden-Gephart is a brain tumor neurosurgeon, treating patients with primary and metastatic brain tumors. She also treats patients with malignant and benign tumors, including glioma, brain metastases, meningioma, and vestibular schwannomas. Additionally, Dr. Hayden-Gephart directs the Stanford Brain Tumor Center and the Stanford Brain Metastasis Consortium, collaborative unions of physicians and scientists looking to improve their understanding and treatment of brain tumors.

Dr. Hayden-Gephart's lab seeks greater understanding of the mechanisms driving tumorigenesis and disease progression in malignant brain tumors. The lab studies how rare cancer cell populations survive and migrate in the brain, inadvertently supported by native brain cells. They develop novel cell free nucleic acid biomarkers to track brain cancer treatment response, relapse, and neurotoxicity. Their bedside-to-bench-to-bedside research model builds on a foundation of generously donated patient samples, where they test mechanisms of brain cancer growth, develop novel pre-clinical models that reliably recapitulate the human disease, and facilitate clinical trials of new treatments for patients with brain cancer.

Shawn Hervey-Jumper, MD

Dr. Shawn Hervey-Jumper is a neurosurgeon specializing in the treatment of patients with brain tumors, including low- and high-grade gliomas, meningiomas, brain metastases and neurocutaneous syndromes. Hervey-Jumper's research investigates how brain tumors violate important areas of the brain that affect how we move, speak and think. He also explores strategies to promote brain recovery and repair. In addition, he researches ways to map the human brain during surgery with the goal of limiting injury to key functional areas.

Hervey-Jumper received his medical degree from the Ohio State University College of Medicine. He completed both a residency in neurosurgery and a fellowship in neuro-oncology at the University of Michigan. He then completed a clinical fellowship in neuro-oncology at University of California, San Francisco.

Hervey-Jumper is a member of the Society for Neuro-Oncology, American Association for Cancer Research, North American Skull Base Society, American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS). He is also a member of the joint section on tumors for the latter organizations. He is an associate professor in residence of neurological surgery at UCSF.

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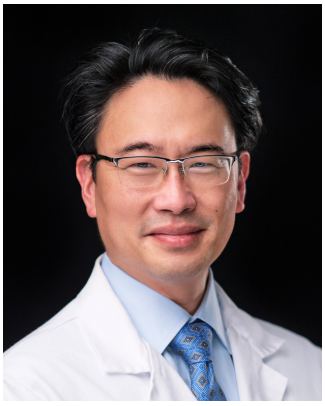

Albert H. Kim, MD, PhD

Dr. Kim is the Director of the Siteman Brain Tumor Center (BTC), the August A. Busch Jr. Professor of Neurological Surgery and Professor of Genetics, Neurology, and Developmental Biology at Washington University School of Medicine. Dr. Kim also serves as the Surgical Director of the Pituitary Center and is Co-Leader of the Neurorestorative Therapy Therapy Group at the Hope Center for Neurological Disorders.

After obtaining an A.B. in East Asian Studies at Harvard University, he received a M.S. in Biology and Biomedical Sciences at Washington University and then received his MD-PhD degrees at New York University School of Medicine. He completed a neurosurgical residency at the Boston Children's Hospital/Brigham & Women's Hospital program at Harvard Medical Center and further completed a fellowship in skull base and cerebrovascular surgery at the University of Miami.

Dr. Kim's clinical focus is the management of complex brain tumors, both malignant and benign. He has been continuously funded by the NIH since 2012. Dr. Kim's laboratory focuses on understanding brain tumor cell heterogeneity and identifying the mechanisms that drive tumor cell growth and treatment resistance using genomic, biochemical, and imaging approaches.

Dr. Kim has served in leadership positions in the AANS/CNS Section on Tumors, the Society for Neuro-Oncology, and the Southern Neurosurgical Society. He is an Associate Editor of Neuro-Oncology Advances and Neurosurgery.

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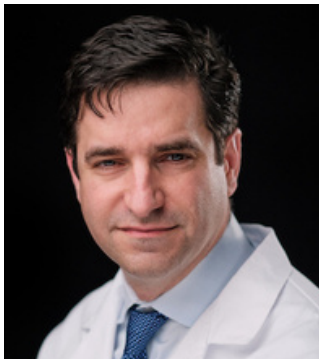
Betty Kim, MD, PhD, FRCSC, FAANS

Dr. Betty Kim is a practicing neurosurgeon specializing in brain tumor surgery at MD Anderson Cancer Center. Dr. Kim's laboratory takes a multidisciplinary approach to the research of solid tumors with a specific focus on malignant primary and metastatic brain tumors. Her work has been published in journals such as the New England Journal of Medicine, Nature, Nature Nanotechnology, Nature Biomedical Engineering, Nature Reviews Immunology and Nature Reviews Drug Discovery.

Dr. Kim's lab is interested in understanding the molecular cross-talk that occurs between tumor and stromal cells within the tumor immune-microenvironment, while also developing multiple patented therapeutic strategies to inhibit tumorigenesis. Her current research primarily focuses on finding new ways to promote immune recognition of glioma cells to boost the efficacies of cancer immunotherapies.



Eric C. Leuthardt, MD

Dr. Leuthardt is a neurosurgeon who is currently a professor in the Departments of Neurological Surgery, Neuroscience, Biomedical Engineering, Mechanical Engineering and Material Sciences at Washington University in St. Louis. He is also Vice Chair of Innovation and Chief of the Division of Neurotechnology. Leuthardt is an internationally renowned neurosurgeon, scientist, and innovator. He has created and translated numerous high-impact medical innovations.

These include the first FDA-approved brain-computer interface for stroke, the use of resting-state fMRI for advanced brain mapping, the neurosurgical application of laser ablation, and the use of ultrasound to non-invasively "sonobiopsy" the brain.

His work in the field of neuroprosthetics, neurotechnologies, advanced brain imaging, and neurosurgical devices has yielded him numerous accolades as a pioneer in applied neuroscience. In addition to 200 peer-reviewed publications, Leuthardt has over 1600 patents on file with the U.S. Patent and Trademark Office for a myriad of medical devices and neuro-technologies. He is also the founder of eight startup companies, a partner of the venture fund E15, an Emmy Award-winning playwright, and the author of two fiction novels, *Red Devil 4* and *Limbo*.

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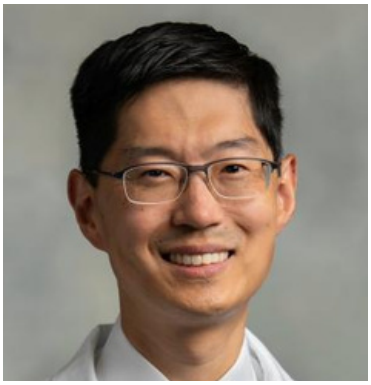

Michael Lim, MD

Dr. Lim is the Chair of the Department of Neurosurgery at Stanford University School of Medicine and is a board-certified neurosurgeon specializing in brain tumors and trigeminal neuralgia. Dr. Lim's clinical interests include the treatment of benign and malignant brain tumors, with special interest in gliomas, meningiomas, metastatic tumors, and skull base tumors.

Dr. Lim also specializes in surgical treatments for trigeminal neuralgia. During his time at Johns Hopkins, Dr. Lim built one of the largest brain tumor and trigeminal neuralgia practices and utilized the most advanced surgical technologies and techniques for his patients.

As a passionate voice for patient experience, he has been recognized by his peers and patients for his integrity and compassionate care, including a Service Excellence Award from HealthNetwork Foundation.

As a mentor, he has garnered numerous teaching awards, including being honored as an outstanding teacher by Johns Hopkins University School of Medicine. He is actively involved in shaping education for neurosurgery and oncology across the United States and around the world.

Dr. Lim's research interests focus on harnessing the immune system to fight cancer. His laboratory focuses on understanding mechanisms of immune evasion by cancer cells. He has successfully translated his findings from the laboratory to the clinics and has conducted and led several large national immunotherapy clinical trials for brain tumors.

Dr. Lim's bibliography contains well over 200 articles on topics such as immunotherapy for glioblastoma, long-term survival of glioma patients treated with stereotactic radiation, and treatment of neuropathic pain. His work has appeared in Science Translational Medicine, Clinical Cancer Research, Lancet Oncology, Nature Immunology, and many more publications. He also has written 20 book chapters and monographs.

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Hideho Okada, MD, PhD

Hideho Okada is a professor of Neurological Surgery at the University of California, San Francisco Helen Diller Family Comprehensive Cancer Center. He is a creative physician-scientist who has developed therapeutic modalities in the laboratory, translated them into clinical protocols, and used his expertise as both scientist and clinician to assess the clinical data from ongoing trials.

His work has consistently focused on immunotherapeutic strategies aimed at a daunting challenge in oncology – malignant brain tumors. Okada conducted one of the first immune gene therapy trials in patients with malignant glioma. His success in navigating the detailed regulatory processes that such trials require demonstrates his attention to detail and breadth of knowledge from basic science to clinical care. Okada's lab work was the first to identify and fully characterize cytotoxic T-lymphocyte (CTL) epitopes for gliomas.

Adam Sonabend, MD

Dr. Sonabend is a native from Mexico City. He obtained his medical degree from the Faculty of Medicine, Universidad Nacional Autónoma de México (UNAM), and graduated at the top of his class, for which he was awarded the Gabino Barreda Medal from UNAM. Following his graduation, Dr. Sonabend worked in translational brain tumor research at the University of Chicago.

He subsequently completed his neurosurgical training at New York Presbyterian Hospital Columbia University Medical Center. In addition to his general neurosurgical training, he gained extensive training in neurosurgical oncology.

Dr. Sonabend began his career at Columbia in 2015, when he first joined the department upon completion of his residency. His scholarly contributions have led to over 50 peer-reviewed articles, book chapters, and national and international presentations. He is recipient of the Society of Neurological Surgeons Research Award (2009), the Neurosurgery Research and Education Fellowship Award (2012), and the Diversity Recruitment Award by the Office of the Senior Provost at Columbia University (2015). In 2015, he was one of 16 scientists, and the only neurosurgeon in the United States, to receive the prestigious, 5-year NIH Director's Early Independence Award (DP5) valued at over $2 million dollars.

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Alexander Stegh, PhD

Dr. Stegh is the Research Director of the Brain Tumor Center (BTC) and Professor of Neurosurgery at Washington University School of Medicine. Stegh earned his undergraduate degrees in biochemistry, immunology and biophysics from Leibniz University in Hanover, Germany. He received his PhD training in cell biology, biochemistry and cancer biology at the German Cancer Research Center in Heidelberg, Germany, and the University of Chicago. He completed his postdoctoral fellowship at Dana-Farber Cancer Institute and Harvard Medical School.

Stegh was an associate professor of neurology and a researcher at Northwestern University, before joining Washington University. He is a member of the National Cancer Institute (NCI) Glioblastoma Working Group, charged with stimulating translational research and assisting in the development of clinical trial ideas for patients with glioblastoma. As the inaugural research director of the BTC, Stegh is expanding the basic, translational and clinical research programs within the BTC while partnering with clinical and basic science departments at the School of Medicine.

Research from the Stegh Lab aims to understand and therapeutically target the genetic program that underlies the pathogenesis of glioblastoma. They do so by applying a combination of cell/molecular biology, oncogenomic, and mouse engineering approaches, to understand fundamental mechanisms of metabolic adaptation and tumor-mediated immune suppression. Stegh's lab is known for its bench-to-beside efforts to drive nanotechnologies toward clinical opportunity. These efforts have resulted in the first in-human clinical trial of gene-regulatory spherical nucleic acids (SNAs) for the treatment of recurrent glioblastoma.

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Humsa Venkatesh, PhD

Dr. Venkatesh received her undergraduate degree in Chemical Biology from the University of California, Berkeley and her PhD in Cancer Biology from Stanford University. After completing her postdoctoral work, Dr. Venkatesh joined the Stanford faculty in 2019 and is now starting her Cancer Neuroscience research program as Assistant Professor at the Brigham and Women's Hospital and Harvard Medical School.

The Venkatesh Lab studies the reciprocal interactions between the nervous system and cancer. The lab's work emphasizes the electrical components of tumor pathophysiology and highlights the extent to which the brain and its neurons can control and facilitate disease progression. The understanding of these co-opting mechanisms has led to novel strategies to broadly treat cancers, by disabling their ability to electrically integrate into neural circuitry. Their pioneering efforts in this emerging field of cancer neuroscience aims to harness the systems level microenvironmental dependencies of tumor growth to develop innovative therapeutic treatments. Dr. Venkatesh has been recognized by the MIT Technology Review as a Pioneer Under 35 'TR35' (2018), by Genetic Engineering News as a 'Top 10 innovator to watch under 40' (2019), and won the Science & SciLife Prize for Young Scientists (2019).

Roel Verhaak, PhD

Dr. Verhaak is a Professor in the Department of Neurosurgery at the Yale School of Medicine. Following graduation with a Ph.D. in medicine from the Erasmus University Medical Center in Rotterdam, the Netherlands, Dr. Verhaak joined the Broad Institute/Dana-Farber Cancer Institute as a postdoctoral associate, supported by a fellowship from the Dutch Cancer Society.

During his time at the Broad, he was part of the team analyzing data from The Cancer Genome Atlas. He led the identification and characterization of gene expression subtypes in glioblastoma, work that resulted in a seminal Cancer Cell 2010 publication.

Dr. Verhaak moved to MD Anderson Cancer Center in Houston, TX, in 2010 to start his own lab. Since then, the Verhaak lab has studied tumor evolution and mechanisms of therapy resistance in low- and high-grade gliomas. The group was foundational in establishing the Glioma Longitudinal Analysis Consortium, which has established a resource of molecular profiles over time on a large cohort of patients with a glioma.

They identified and described genetic ‘scars’ and cellular phenotypes associated with glioma progression and disease recurrence. Extrachromosomal DNA amplifications were discovered as critical drivers and are now a major part of the team's research. After being affiliated with the Jackson Laboratory for Genomic Medicine from 2016, the Verhaak lab joined the School of Medicine, Department of Neurosurgery, in 2023. Dr. Verhaak is a recipient of the AAAS Wachtel Award, the Agilent Early Career Professor Award, and the Peter Steck Memorial Award, and is a co-founder of Boundless Bio.

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