Immunobiology of Primary and Metastatic CNS Cancer:
Multidisciplinary Science to Advance Cancer Immunotherapy
Presented in association with the Cancer Immunology Working Group of the AACR
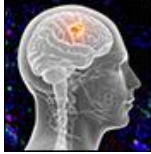February 12-15, 2018 | San Diego, CA

AACR
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POSTER SESSION A
Tuesday, February 13
12:30 – 3:15 p.m.
Legends V-VI

A01   The cancer-specific anti-podoplanin chimeric antigen receptor T cells (CAR-T) show specific cytotoxicity against glioma stem cells. Atsushi Natsume, Nagoya University, Nagoya, Aichi, Japan.

A02   Optimization of CNS locoregional delivery of IL13Rα2-specific CAR T cells for clinical development. Brenda Aguilar, City of Hope, Duarte, CA, USA.

A03   IL-15-mediated reduction of mTORC1 activity preserves the stem cell memory phenotype of CAR T cells and confers superior antitumor response. Darya Alizadeh, City of Hope, Duarte, CA.

A04   Selection of glioma T-cell therapy targets based on the analysis of tumor immunopeptidome and expression profiles. Diego Carrera, University of California San Francisco, San Francisco, CA.

A05   Chlorotoxin-redirected CAR-T cells effectively target heterogeneous glioblastomas. Dongrui Wang, City of Hope, Duarte, CA.

A06   Sequencing and cloning IDH1 R132H-targeted monoclonal T cell receptors from CD4$^+$ T cells facilitated by opto-electro-positioning technology. Duane Smith, Berkeley Lights Inc., Emeryville, CA.

A07   In vivo monitoring of intracellular pO$_2$ in response to CAR T cell immunotherapy against glioma. Fanny Chapelin, University of California San Diego, San Diego, CA.

A08   Optimizing EphA2-specific CAR T cells for the adoptive immunotherapy of glioma. Giedre Krenciute, St. Jude Children's Research Hospital, Memphis, TN.

A09   Discrimination of response to CAR T-cell therapy using a novel response metric incorporating tumor growth kinetics in recurrent GBM patients. Gustavo De Leon, Mayo Clinic, Phoenix, AZ.

A10   Adoptive cell therapy for high-grade gliomas using simultaneous temozolomide and intracranial MGMT-modified γδ T cells following standard post-resection chemo and radiotherapy. Lawrence Lamb, University of Alabama at Birmingham, Birmingham, AL.

A11   Heterogeneous antigen expression and multiantigen targeting potential for immunotherapy of high-grade glioma. Michael Barish, City of Hope, Duarte, CA.

A12   Cloning and characterization of T-cell receptors reactive to the mutant isocitrate dehydrogenase-1-derived neoepitope in low-grade gliomas. Payal Watchmaker, Department of Neurological Surgery, UCSF, San Francisco, CA.

A13   Co-stimulatory domain 41BB (CD137) improves specificity and proliferative potential of IL13Ra2-specific CAR T cells for the treatment of glioblastoma. Renate Starr, Beckman Research Institute, City of Hope National Medical Center, Duarte, CA.

A14   Intravital imaging of CAR-T cells directed against GD2 in a preclinical immunocompetent glioblastoma model. Surya Murty, Stanford University, Stanford, CA.

A15   Antitumor effects of minodronate, a third-generation nitrogen-containing bisphosphonate, in synergy with γδ T cells in human glioblastoma in vitro and in vivo. Tsutomu Nakazawa, Nara Medical University, Kashihara, Nara, Japan.

A16   New therapeutic approach for central nervous system lymphoma by CD19CAR T cells. Xiuli Wang, City of Hope National Medical Center, Duarte, CA.

A17   Adoptive immunotherapy using lymphokine-activated alpha beta T-cells improves temozolomide-induced lymphopenia in patients with glioma. Yonehirro Kanemura, Institute for Clinical Research, Osaka National Hospital, National Hospital Organization, Osaka, Japan.

A18   Novel and shared neoantigen derived from histone 3 variant H3.3K27M mutation for glioma T-cell therapy. Zinal Chheda, University of California, San Francisco, San Francisco, CA.

A19   Early fibrin stabilization with a fibrin-stabilizing polymer in breast cancer brain metastatic development aids in macrophage recruitment and propagates reactive gliosis enhancing metastatic outgrowth. Heather Gustafson, University of Washington, Seattle, WA.

A20   Ligand-independent EphA2 signaling drives an amoeboid melanoma phenotype that metastasizes to the brain. Inna Smalley, The Moffitt Cancer Center & Research Institute, Tampa, FL.

A21   Outcomes of uveal melanoma patients with leptomeningeal disease (LMD). Isabella Glitza Oliva, The University of Texas MD Anderson Cancer Center, Houston, TX.

A22   Radiation in combination with trastuzumab-emtansine (T-DM1) in HER2+ brain metastasis induces brain edema through modulation of AQP4 in reactive astrocytes. Maria Contreras-Zarate, University of Colorado, Denver, CO.

A23   Remodeling the brain environment: The role of breast cancer exosomes in brain premetastatic niche formation. Megan R. Sayyad, Virginia Commonwealth University, Richmond, VA.

A24   Initial clinical and advanced imaging outcomes from a multi-institutional phase I dose-escalation trial of RRx-001 plus whole-brain radiation for patients with brain metastases. Michelle Kim, University of Michigan Medicine Radiation Oncology, Ann Arbor, MI.

A25   Detection, molecular profiling and culture of CSF-CTCs in leptomeningeal disease (LMDz) in melanoma. Peter A. Forsyth, Moffitt Cancer Center and Research Institute, Tampa, FL.

A26   Syndecan 1/IL-8 axis facilitates breast cancer brain metastasis through modulation of blood-brain barrier permeability. Sierra Mosticone Wangensteen, Virginia Commonwealth University, Richmond, Virginia.

A27   Heterogeneous etiologies of checkpoint inhibitors-induced weakness: A case series of six patients. Ahmad Daher, Hartford HealthCare Cancer Institute, Hartford, CT.

A28   Assessing the interplay between resident and infiltrating immune cells in brain tumors in response to chemotherapy. Courtney George, Telethon Kids Institute, Perth, Western Australia, Australia.

A29   A radiosensitivity gene signature and PD-L1 status predict clinical outcome of patients with glioblastoma in TCGA dataset: An integrative analysis of transcriptome and methylome. In Ah Kim, Seoul National University, Seoul, South Korea.

A30   Combinatorial advanced therapies for the treatment of DIPGs: Radiotherapy plus antibodies and aptamers. Marc Garcia-Moure, Clinica Universidad de Navarra, Pamplona, Navarra, Spain.

A31   Characterization of the cell surface proteome in recurrent glioblastoma initiating cells. Mathieu Seyfrid, McMaster University, Hamilton, ON, Canada.

A32   Increased lysophosphatidylcholine is associated with recruitment of reactive microglia and astrocytes in radiation brain necrosis mouse model. Natsuko Kondo, Research Reactor Institute, Kyoto University, Sennan-gun, Osaka, Japan.

A33   Multiparametric MR features and response assessment in tumor vaccine-treated low-grade gliomas. Robin Buerki, University of California, San Francisco, San Francisco, CA.

A35   Tetanus toxoid preconditioning in recurrent glioblastoma treated with dendritic cell immunotherapy is associated to CD8+ T-cell response. Gaetano Finocchiaro, Istituto Neurologico Besta, Milano, Italy.

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POSTER SESSION B
Wednesday, February 14
12:30 – 3:15 p.m.
Legends V-VI

B03   Nano immunotherapeutics crossing BBB for delivery of checkpoint inhibitors and activation of local brain tumor immune systems for glioma treatment. Julia Ljubimova, Nanomedicine Research Center, Department of Neurosurgery, Cedars-Sinai Medical Center, Los Angeles, CA.

B04   Glioblastoma elicits a greater degree of T-cell exhaustion than other intracranial tumors. Kristen Rhodin, Duke University School of Medicine, Durham, NC.

B05   Responsiveness to anti-PD1 and anti-CTLA-4 immune checkpoint blockade in SB28 and GL261 mouse glioma models. Vassilis Genoud, University of Geneva, Geneva, Switzerland.

B06   p53 regulates immunogenicity of medulloblastoma. Alexandra Garancher, Sanford Burnham Prebys Medical Discovery Institute, La Jolla, CA.

B07   Immunologic activation in recurrent high-grade glioma patients with durable complete response following treatment with Toca 511 and Toca FC. Clark Chen, University of Minnesota, Minneapolis, MN.

B08   Toca 511 and Toca FC: Durable complete responses observed in patients with IDH1 wild-type and mutant recurrent high-grade glioma (rHGG). Bob Carter, Massachusetts General Hospital, Boston, MA.

B09   Immunovirotherapy for gliomas: Clinical experience with DNX-2401 in combination with temozolomide for recurrent gliomas. Marc Garcia-Moure, University Hospital of Navarra, Pamplona, Navarra, Spain.

B10   An oncolytic measles virus sensitive group 3 medulloblastoma model in immune-competent mice. Sangeet Lal, University of California San Francisco, San Francisco, CA.

B11   Systemic immune response to CNS malignancy. Breanna Allen, University of California, San Francisco, San Francisco, CA.

B12   Estradiol modulates early immune-surveillance in the brain metastatic niche to promote brain metastasis. Diana Cittelly, University of Colorado AMC, Aurora, CO.

B13   Contraction of T-cell richness in brain metastases of non-small cell lung cancers. Aaron Mansfield, Mayo Clinic, Rochester, MN.

B14   Integrated omics analysis of temporal changes of neoantigen and tumor microenvironment in primary and recurrent gliomas. Takahide Nejo, Department of Neurosurgery, The University of Tokyo, Tokyo, Japan.

B15   Mass cytometry identification of myeloid-derived suppressor cells as a biomarker and therapeutic target in glioblastoma. Tyler Alban, Cleveland Clinic Lerner Research Institute, Cleveland, OH.

B16   A 3D hydrogel culture system facilitates study of primary pediatric low-grade glioma cells in vitro. Christopher Rota, Dana-Farber Cancer Institute, Boston, MA.

B17   Roles of neutrophils in c-Met mediated breast cancer brain metastasis. Fei Xing, Wake Forest School of Medicine, Winston-Salem, NC.

B18   Landscape of immune response components heterogeneity in Finnish diffuse glioma patients. Ismail Hermelo, University of Tampere, Tampere, Pirkanmaa, Finland.

B19   A strong MHC Class II epitope confers immune recognition and tumor rejection in a checkpoint blockade-refractory mouse model of glioma. Mats Hellstrom, University of California San Francisco, San Francisco, CA.

B20   Computational characterization of suppressive immune microenvironments in glioblastoma. Suvi Luoto, University of Tampere, Tampere, Pirkanmaa, Finland.

B21   Podoplanin-positive cells of the glioma microenvironment promote tumor progression. Tanja Eisemann, German Cancer Research Center (DKFZ), Heidelberg, Baden-Wuerttemberg, Germany.

B22   NEO214-induced ER stress results in glioblastoma DR5 neoantigen expression, resulting in suicide killing via astrocyte-secreted TRAIL ligands within the glioma microenvironment. Thomas Chen, University of Southern California, Los Angeles, CA.

B23   Vascular niche regulates alternative macrophage activation in glioblastoma immunity. Yi Fan, University of Pennsylvania, Philadelphia, PA.

B24   TGFβ inhibition improves response to radiotherapy in brain tumors and promotes the generation of myeloid-derived suppressive cells. Alba Gonzalez Junca, University of California San Francisco, San Francisco, CA.

B25   Meditope-enabled chimeric antigen receptor confers new functionality to the T cells. Cheng-Fu Kuo, City of Hope, Duarte, CA.

B26   IDO1 inhibition synergizes with radiation and PD-1 blockade to durably increase survival against advanced glioblastoma. Derek Wainwright, Northwestern University Feinberg School of Medicine, Chicago, IL.

B27   Antitumor efficacy of anti-PDL-1 In ACTH-secreting pituitary adenomas: An immunotherapeutic approach for Cushing's disease. Hanna Kemeny, Duke University, Durham, NC.

B28   Antitumor efficacy of anti-CTLA-4 in ACTH-secreting pituitary adenomas: A novel immunotherapeutic approach for Cushing's disease. Hanna Kemeny, Duke University, Durham, NC.

B29   SYMPHONY: A novel synergistic nanotechnology-based platform for the improvement of laser interstitial thermal therapy. Hanna Kemeny, Duke University, Durham, NC.

B30   Noninvasive monitoring of in situ immunotherapeutic responses in glioblastoma using novel PET and MRI techniques. Joseph Antonios, University of California Los Angeles, Los Angeles, CA.

B31   Improved survival and immunostimulatory reprogramming in a preclinical glioblastoma model by combining antiangiogenic with immune checkpoint therapy. Karl H. Plate, Goethe University Medical Center, Frankfurt, Hessen, Germany.

B33   Triple combination immunotherapy with vaccination, PD-1 blockade, and OX40 ligation is highly effective against murine intracranial glioma. William Curry, Massachusetts General Hospital, Boston, MA.

B34   Early results of a phase I and open-label, randomized phase II study testing the toxicities and efficacy of pembrolizumab in combination with MRI-guided laser interstitial thermal therapy (LITT) in recurrent malignant gliomas. Jian Campian, Washington University School of Medicine, St. Louis, MO.