**PROGRAM**

**Monday, April 11**

8:00~8:10  **Opening remarks**
Conference Chair:  Ryo Nishikawa (Japan)

8:10~9:07  **Session 1  Molecular Biology**
Moderator:  Erwin Van Meir (USA)

**O-1**  Genetically Engineered GBM Mouse Models: in vivo Expression of Mutated IDH1 (R132H) Gene Using the Sleeping Beauty Transposase System
Maria G. Castro (USA)

**O-2**  Pre-Clinical Efficacy of EZH2 Inhibition in the Genetically-Engineered IDH1 Wild-Type Proneural GBM Mice
Fumiharu Ohka (Japan)

**O-3**  Mutant IDH Expression Drives Htet Reactivation as Part of the Cellular Transformation Process
Russell Pieper (USA)

**O-4**  Therapeutic Vulnerability of IDH1 Mutant Gliomas to NAD+ Depletion
Daniel P. Cahill (USA)

**O-5**  Identifying Novel Vulnerabilities in Oxidative Stress Pathways in IDH1 Mutant Glioma
Simone P. Niclou (Luxembourg)

**O-6**  Mutant IDH1 Suppresses Local and Systemic Thrombosis in Glioma Patients
Craig Horbinski (USA)

**O-7**  ATRX Reduction Promotes Chemoresistance and Xenograft Growth in Glioblastoma
Charles Eberhart (USA)

**O-8**  ATRX Deficiency Promotes Invasive Behavior in Glioma Cells of Origin by Dysregulating Chromatin Accessibility and Modulating Gene Expression
Jason T Huse (USA)

**O-9**  Mitochondrial Metabolism Suppression by PGK1
Zhimin Lu (USA)

**O-10**  Alternate Activation of the Pentose Phosphate Pathway and Glycolysis Are Intrinsic to the Proliferative/Migratory Glioma Phenotype - Independent from Hypoxia
Katrin Lamszus (Germany)

**O-11**  Inhibition of Hexokinase 2 Through Tumor Glycolysis Inhibitors Identified Through a Drug Screen Inhibits Glioblastoma Growth in vitro and in vivo
Gelareh Zadeh (Canada)

**O-12**  Non-Metabolic Function of Phosphofructokinase-1 in Glioblastoma Maintenance
Petra Hamerlik (Danmark)

**O-13**  Control of Glucose Uptake in Glioblastoma Cells
Lorenzo Magrassi (Italy)

**O-14**  Glucose-Dependent Mechanism of Targeted Cancer Therapy Resistance
Kenta Masui (Japan)

**O-15**  Coexpression of Fatty Acid Synthase (FASN) and Carnitine Palmitoyltransferase 1C (CPT1C) in Human Gliomas and Glioma Stem Cell Xenografts
Tatsuya Abe (Japan)

**O-16**  SCAP Integrates Oncogenic Signaling and Metabolism for Glioblastoma Growth
Deliang Guo (USA)
9:10~9:52  Session 2  Molecular Biology-2
Moderator: Shi-Yuan Cheng (USA)

★ O-17  Redefining the Cellular Architecture of Human Gliomas Through Large-Scale Single-Cell Analyses
Mario L. Suva (USA)

O-18  Drosophila Brat and Human Ortholog TRIM3 Regulate Asymmetric Cell Division in Brain Tumor Stem Cells Through Notch Signaling
Daniel J. Brat (USA)

O-19  Targeting Notch Signaling and Autophagy Increases Cytotoxicity in Glioblastoma Neurospheres
Manabu Natsumeda (Japan)

O-20  Glioma Stemness as a Moving Therapeutic Target
Ichiro Nakano (USA)

O-21  Exploiting Exosomes from Human Bone Marrow Mesenchymal Stem Cells to Deliver Therapeutic microRNAs to Gliomas
Frederick F. Lang (USA)

O-22  Human Fat-Derived Mesenchymal Stem Cells Bioengineered to Secrete BMP4 Are Non-Oncoenic, Suppress Glioma, and Prolong Survival
Sara Ganaha (USA)

9:52~10:15  Coffee Break

10:15~11:30  Session 3  Molecular Biology-3
Moderator: Ichiro Nakano (USA)

O-23  N-Cadherin Upregulation Mediates Adaptive Radioresistance in Glioma Stem Cells
Satoru Osuka (USA)

O-24  Combined Targeted Inhibition of STAT3 and the Epigenetic Regulator LSD1 Sensitize Mesenchymal GBM Stem-Like Cells to Radiation
Howard Colman (USA)

O-25  TIE2 Mediates DNA Repair in Brain Tumor Stem Cells Via Histone Phosphorylation and ABL1 Recruiting
Juan Fueyo (USA)

O-26  Targeting the Tumor Microenvironment in GBM
Karl H. Plate (Germany)

O-27  c-Met/β1 Integrin: A Receptor Complex Driving Invasive Resistance to Anti-Angiogenic Therapy
Manish K. Aghi (USA)

O-28  Cross-Talk of the Vascular Endothelial Growth Factor and Transforming Growth Factor-Beta Pathways in Glioblastoma
Michael Weller (Switzerland)

O-29  SHP-2-Upregulated ZEB1 Is Important for Pdgfralpha-Driven Glioma Epithelial-Mesenchymal Transition and Invasion
Haizhong Feng (China)

O-30  IL-33 Orchestrates the Brain Tumor Microenvironment to Promote Glioma Progression and Therapeutic Resistance
Donna L. Senger (Canada)

O-31  The Role of Stress Granules in Astrocytoma Cell Signaling
James T. Rutka (Canada)

O-32  Tenascin C Is Developmentally Regulated by the PAX6 and DLX2 Homeobox Genes During Forebrain Development – Implications for Glioma Invasion
David D. Eisenstat (Canada)
NKG2D-Dependent Immune Surveillance Contributes to Anti-Tumor Effects of Chemotherapy and Radiotherapy Against Glioblastoma  
Patrick Roth (Switzerland)  

EEF1A1-PLCG1 Axis Is a Novel Therapeutic Target Against Gliomas with Acquired Temozolomide Resistance or Adaptation  
Arata Tomiyama (Japan)  

EGFR Inhibitor Resistance Mechanisms in GBM  
Joanna J. Phillips (USA)  

Up-Regulation of MSK1/β-Catenin Signaling Leads to Adaptive Resistance to PI3K/mTOR Inhibition in Human Glioblastoma  
W.K. Alfred Yung (USA)  

ERK Inhibitors Show Efficacy Against BRAF-Mutant Gliomas  
Theodore Nicolaides (USA)  

PID1, a Brain Tumor Growth Inhibitor, Is a Novel Interacting Partner and Regulator of Critical Receptor Kinase Signaling  
Anat Erdreich-Epstein (USA)  

Tyrosine Phosphorylation of Nuclear PTEN Promotes Therapeutic Resistance Through Enhanced DNA Damage Repair  
Frank Furnari (USA)  

HuR Multimerization Is Oncogenic in Glioma  
Louis Nabors (USA)  

Ionizing Radiation Induces BRCA1-Nuclear Export and Glioma Synthetic Lethality of PARP1 Inhibition in a P53-Dependent Manner  
Fen Xia (USA)  

A Regulatory Circuit of miR-125b/miR-20b and Wnt Signaling Controls GBM Phenotypes Through FZD6-Mediated Pathways  
Shi-Yuan Cheng (USA)  

mRNA-Seq of Tumefaction-Educated Platelets (TEPs) as a Tool for Blood-Based Diagnosis and Monitoring of CNS Lesions  
Pieter Wesseling (Netherlands)  

A Glioblastoma Methylation Assay (GaMA) Developed from Genomic Analysis of Glioma Spheroid Cultures (GSCs) Predicts Response to Radiation Therapy  
Erik P. Sulman (USA)  

The Prognostic and Predictive Value of an Explant Assay of Gliomas in Response to Temozolomide  
David R. Macdonald (Canada)  

Gene-Drug Association Screening-Guided Precision Neuro-Oncology: Implication of Spatiotemporal Heterogeneity in Glioblastoma Genome  
Do-Hyun Nam (Korea)  

Precision Medicine in Recurrent Glioblastoma: A Feasibility Trial Conducted by the Ivy Foundation Early Phase Clinical Trials Consortium  
Michael D. Prados (USA)  

Personalizing the Treatment for Glioblastoma Patients  
Kerrie L. McDonald (Australia)  

Identification of Cytotoxic Chemical HUP1 Against the Temozolomide-Resistant Glioblastoma-Initiating Cells by a High-Throughput Drug Screening  
Toru Kondo (Japan)  

Biomarkers of Glioblastoma Identified by Quantitative Proteomics with Swath Mass Spectrometry  
Mitsutoshi Nakada (Japan)
O-51 Molecular-Guided Neoadjuvant Chemotherapy for Gliomas
Hikaru Sasaki (Japan)

O-52 Circulating Tumor Cells in Glioblastoma
Manfred Westphal (Germany)

O-53 Non-Invasive Assessment of Glioblastoma Biology Using Circulating Tumor DNA
Colin Watts (UK)

O-54 Ultra-Early Detection of Gliomas with Serum Autoantibodies for Specific Glioma Antigens
Yasuo Iwadate (Japan)

O-55 Detection of D-2-Hydroxyglutarate in the Cerebro-Spinal Fluid of Glioma Patients with Mutant IDH1 Genes
Erwin Van Meir (USA)

12:30~13:30 Lunchtime Seminar 1 (Sponsor: MSD K.K.)
Moderator: Kazuhiko Mishima (Japan)

LS-1 Receptor Tyrosine Kinase Signaling Underlies Tumor Growth Through Epigenome and Transcription Factor Network Remodeling
Webster Cavenee (USA)

13:45~15:12 Session 5 Immunology (Sponsor: Toray Industries, Inc.)
Moderator: Hideho Okada (USA) ★15min (Presentation 13min + QA 2min)

S1-1 Bone Marrow T Cell Sequestration with GBM
Peter E. Fecci (USA)

S1-2 Immunological Changes During Tumor Progression from Primary to Recurrent Glioblastoma
Christel C. Herold-Mende (Germany)

S1-3 Novel and Shared Neoantigen for Glioma T Cell Therapy Derived from Histone 3 Variant H3.3 K27M Mutation
Hideho Okada (USA)

S1-4 Third Generation CARs with Reduced IL-2 Signaling Overcome Treg Suppression and Mount a Therapeutic Response Against Established Solid Tumors
Gary Archer (USA)

S1-5 The CAR2Brain-Study: A Phase I Study of Local Therapy with ErbB2/Her2-Targeted NK Cells for Recurrent Glioblastoma
Joachim P. Steinbach (Germany)

S1-6 Vaccination with Dendritic Cells Loaded with Cytomegalovirus Antigen in Patients with GBM and Associations with Overall Survival
John H. Sampson (USA)

S1-7 Co-Stimulatory Molecules, OX40 and CD40, Augment the Efficacy of Tumor Lysate-Based Vaccines Against Malignant Gliomas
Ryuta Saito (Japan)

S1-8 Phase I Clinical Trial of IDH1 Vaccine in Recurrent Low Grade Gliomas
Gordana Vlahovic (USA)

S1-9 WT1 Peptide Vaccination for Glioblastomas; Survivals, Biomarkers and Response Assessments
Naoya Hashimoto (Japan)

S1-10 Novel WT1 Peptide Vaccination for Newly Diagnosed Malignant Gliomas
Tetsuya Ueba (Japan)

S1-11 Autologous Formalin Fixed Tumor Vaccine for Patients with Newly-Diagnosed Glioblastoma: From Concept to Double Blind Phase IIb/III trial
Yoshihiro Muragaki (Japan)
Synergistic Effects of Regulatory and Memory T Cell Modulation in Dendritic Cell-Based Immunotherapy: Impact of mTOR and NFκB Pathway  
Yohei Mineharu (Japan)

Therapeutical Doses of Temozolomide Inhibit IL-10 Production by Dendritic Cells and Enhance the CTL Response  
Akio Asai (Japan)

Engineering the Brain Immune System to Recognize and Eliminate Brain Tumors: Ad-Fit3L and Ad-TK Reconstitute Brain Immunity to Recognize Neo-Antigens – Initial Reports on a Phase I Clinical Trial  
Pedro R. Lowenstein (USA)

A Phase I Study of a Personalized Neoantigen Cancer Vaccine with Radiotherapy Among MGMT Unmethylated, Newly Diagnosed Glioblastoma Patients  
David Reardon (USA)

Glioma Microenvironment-Derived CCL2 Recruits Regulatory T Cells and Myeloid-Derived Suppressor Cells  
Maciej S. Lesniak (USA)

Phase I Study to Determine the MTD of a Recombinant Immunotoxin Targeting Wildtype EGFR and Mutant EGFRvIII in Recurrent Glioblastoma Patients  
Vidyalakshmi Chandramohan (USA)

The Effect of Ttfields on T Cells Immune Functionality  
Zvi Ram (Israel)

Germline Mutations Predict Response of Recurrent Glioblastoma to Immune Checkpoint Inhibition  
Uri Tabori (Canada)

Coffee Break

15:30~16:30  
Special Lecture  (Sponsor: Eisai Co., Ltd.)
Moderator: Motoo Nagane (Japan)

Targeting Essential Growth Drivers in Cancer  
Hiroyuki Mano (Japan)

16:45~17:48  
Session 6  Viral and Genetherapies
Moderator: Tomoki Todo (Japan)

Intratumoral Administration of an Oncolytic Polio/Rhinovirus Recombinant (PVSRIPO) Against Recurrent WHO Grade IV Malignant Glioma (MG)  
Annick Desjardins (USA)

Oncolytic Poliovirus Immunotherapy of Malignant Glioma  
Matthias Gromeier (USA)

Clinical Development of Oncolytic HSV-1 G47delta for Glioblastoma  
Tomoki Todo (Japan)

Third Generation Oncolytic HSV-1 (G47delta) Is Efficacious Against Glioblastoma-Derived Cancer Initiating Cells  
Yasushi Ino (Japan)

Toxicity Study of Lentiviral HSV-Tk Mediated Suicide Gene Therapy in the Rat Brain  
Hrvoje Miletic (Norway)

Histone Deacetylase 6 Inhibition Enhances Oncolytic Viral Replication in Glioma  
E. Antonio Chiocca (USA)

Oncolytic Viral Therapy for Brain Tumors  
Balveen Kaur (USA)
21st International Conference on Brain Tumor Research and Therapy

O-63  Cell-Based Oncolytic Virotherapy of Experimental Gliomas  
       Ghazaleh Tabatabai (Germany)

O-64  Combination Viro-Immunotherapy with Checkpoint Inhibition to Treat Glioma, Based on Location-Specific Tumor Profiling  
       Brian Patrick O’Neill (USA)

O-65  Combination of Oncolytic Adenoviruses and Immune Checkpoint Targeting  
       Juan Fueyo (USA)

O-66  A Super Gene Expression System Enhances the Antitumor Effects of Adenovirus-Mediated REIC/Dkk-3 Gene Therapy  
       Kazuhiko Kurozumi (Japan)

O-67  Enhanced Efficacy of Prodrug Activator Gene Therapy with a Retroviral Replicating Vector (Toca 511) Combined with Radiation  
       Masamichi Takahashi (Japan)

O-68  Human iPSC for Cell-Based Gene Therapy of Gliomas  
       Isabelle M. Germano (USA)

O-69  Towards Clinical Development of an Autologous Stem-Cell Based Glioma Therapy Using iPSC-NSC Derivation Methods  
       Nils Ole Schmidt (Germany)

17:48~18:06  Session 7  
Moderator: Kazuhiko Mishima (Japan)

Pathology

O-70  Dual Color MGMT/CD45-HAM56 for Corrected Nuclear Counts in Glioblastoma  
       Roger E. McLendon (USA)

Other Clinical Issues

O-71  Multi-Centre Phase I Trial of the Proteasome Inhibitor Marizomib with Bevacizumab in Patients with Progressive Glioblastoma (GBM)  
       Warren P. Mason (Canada)

Pediatric-2

O-72  High Diagnostic Value of Placental Alkaline Phosphatase Levels (PLAP) : A New Marker for Intracranial Germ Cell Tumors  
       Yasuo Aihara (Japan)

Radiation Oncology/Imaging

O-73  Creation of a Dual-Labeled Cancer-Targeting Alkylphosphocholine Analog for Dual Modality Quantitative PET and Intraoperative Tumor Visualization  
       John S. Kuo (USA)

Surgery, etc.

O-74  Sonodynamic Therapy Combined with a Photosensitizer, 5-Aminolevulinic Acid for Malignant Gliomas  
       Takanori Ohnishi (Japan)
### Tuesday, April 12

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<th>Time</th>
<th>Session 8 Pediatric</th>
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<td>8:00~9:09</td>
<td>Moderator: Nada Jabado (Canada)</td>
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<th>O-75</th>
<th>Metastatic Dissemination of Medulloblastoma Is Through the Blood, and Is Mediated by CCL2</th>
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<td>Michael D. Taylor (Canada)</td>
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<th>O-76</th>
<th>The Medulloblastoma Enhancer Landscape Reveals Subgroup-Specific Cellular Origins</th>
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<td>Paul A. Northcott (USA)</td>
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<th>O-77</th>
<th>Convergence of Bmi1 and Chd7 in the Pathogenesis of Medulloblastoma</th>
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<td>Silvia Marino (UK)</td>
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<th>O-78</th>
<th>Integrative Clustering Reveals Distinct Biological Subtypes Within Medulloblastoma Subgroups</th>
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<td>Vijay Ramaswamy (Canada)</td>
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<th>O-79</th>
<th>BAI1 Silencing Promotes Medulloblastoma Formation Through a P53 Dependent Mechanism</th>
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<td>Dan Zhu (USA)</td>
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<th>O-80</th>
<th>Clinical Significance of PD-L1 and CD8 Expression in Human Medulloblastoma</th>
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<td>Yoshiki Arakawa (Japan)</td>
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<th>O-81</th>
<th>A Phase I Trial of P28, a Non-HDM2 Mediated Peptide Inhibitor of P53 Ubiquitination for Pediatric Patients Recurrent CNS Tumors</th>
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<td>Stewart Goldman (USA)</td>
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<th>O-82</th>
<th>Disruption of GABA Metabolism in Medulloblastoma</th>
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<td>Josh Neman (USA)</td>
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<th>O-83</th>
<th>Pilot Study of a Surgery and Chemotherapy-Only Approach in the Upfront Therapy of Children with Wnt Positive Standard Risk Medulloblastoma</th>
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<td>Kenneth Cohen (USA)</td>
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<th>O-84</th>
<th>Four New Brain Tumor Entities Emerge From Molecular Classification of CNS PNETs</th>
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<td>Marcel Kool (Germany)</td>
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<th>O-85</th>
<th>C11orf95-RELA Fusion Alone is Sufficient to Form Human Supratentorial Ependymoma-Like Tumor in Mice</th>
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<td>Tatsuya Ozawa (USA)</td>
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<td>Jonathan L. Finlay (USA)</td>
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<th>O-87</th>
<th>Clinicopathological Features of Atypical Teratoid/Rhabdoid Tumor-Like Embryonal Tumors with Retained INI1 and BRG1 Expression</th>
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<td>Junko R. Hirato (Japan)</td>
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<th>O-88</th>
<th>Heterogeneity in SWI/SNF Complex Compenents in Atypical Teratoid Rhabdoid Tumors</th>
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<td>Alexander R. Judkins (USA)</td>
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<th>O-89</th>
<th>Atypical Teratoid/Rhabdoid Tumor (AT/RT) Arising from Ependymoma: A Type of Secondary AT/RT</th>
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<td>Sumihito Nobusawa (Japan)</td>
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<th>O-90</th>
<th>Establishment of a Nationwide Molecular Diagnostic Network for Pediatric Malignant Brain Tumors in Japan</th>
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<td>Yonehiro Kanemura (Japan)</td>
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### Session 9 Pediatric-2

**Moderator:** Torsten Pietsch (Germany)

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<th>Cellular Origin of Central Nervous System Germ Cell Tumors</th>
<th>Koichi Ichimura (Japan)</th>
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<td>O-92</td>
<td>Expression Profiling of Intracranial Germ Cell Tumors Reveals Upregulation of RAS Through mRNA-microRNA Signaling Pathway</td>
<td>Ching C. Lau (USA)</td>
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<td>O-93</td>
<td>Dose-Reduced Radiotherapy with Platinum-Based Chemotherapy Has Improved Quality of Life in the Long-Term Survivors with Germinoma</td>
<td>Kazuhiko Sugiyama (Japan)</td>
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<td>O-94</td>
<td>MicroRNA 372-373 in Cerebrospinal Fluid Is Potential Tumor-Derived Biomarkers for CNS Germ Cell Tumors</td>
<td>Keita Terashima (Japan)</td>
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<td>O-95</td>
<td>Long-Term Survival with Multimodal Therapy; Surgery, Carboplatin Based Chemotherapy Followed by Radiotherapy in Patients with Primary Intracranial Germ Cell Tumors</td>
<td>Kazuya Motomura (Japan)</td>
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<td>O-96</td>
<td>Management of Intracranial Germ Cell Tumors – International Consensus and Differences</td>
<td>Ute Bartels (Canada)</td>
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<td>O-97</td>
<td>Pediatric Low-Grade Glioma Molecular Stratification and Long Term Implications</td>
<td>Cynthia E. Hawkins (Canada)</td>
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<td>O-98</td>
<td>Type II Raf Inhibitors as Targeted Therapeutics for Pediatric Low-Grade Astrocytoma</td>
<td>Mark W. Kieran (USA)</td>
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<td>O-99</td>
<td>The Prognostic Factors of Pilocytic Astrocytoma in Children: A Retrospective Review of 16 Cases</td>
<td>Kentaro Chiba (Japan)</td>
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<td>O-100</td>
<td>Functional Diversity and Co-Operativity Between Subclonal Populations of Paediatric Glioblastoma and Diffuse Intrinsic Pontine Glioma Cells</td>
<td>Chris Jones (UK)</td>
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<td>O-101</td>
<td>Functional Dissection of the H3.3K27M Mutation</td>
<td>Oren Becher (USA)</td>
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<td>O-102</td>
<td>Histopathological WHO Grading and H3.3K27 Mutational Status Represent Independent Prognostic Markers in Pediatric High Grade Gliomas</td>
<td>Torsten Pietsch (Germany)</td>
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<td>O-103</td>
<td>Spatial and Temporal Homogeneity of Driver Mutations in Diffuse Intrinsic Pontine Glioma</td>
<td>Nada Jabado (Canada)</td>
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<td>O-104</td>
<td>Targeting Enzymatic Modifiers of Histone H3 K27 for Treating DIPG</td>
<td>Charles David James (USA)</td>
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<td>O-105</td>
<td>PNOC-003: Precision Medicine Trial for Children with Diffuse Intrinsic Pontine Glioma</td>
<td>Sabine Mueller (USA)</td>
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<td>O-106</td>
<td>Microenvironment and Tumor Cell Expansion in Diffuse Intrinsic Pontine Glioma</td>
<td>Javad Nazarian (USA)</td>
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<td>O-107</td>
<td>Home-Based Palliative Care for Children with Recurrent and/or Refractory Cen Tral Nervous System Tumor</td>
<td>Takaaki Yanagisawa (Japan)</td>
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**Coffee Break**
10:50~12:29  **Session 10  Molecular Genetics**  (Sponsor: Nobelpharma Co., Ltd.)

**Moderator:** Koichi Ichimura (Japan)  

*15min (Presentation 13min + QA 2min)*

**S2-1**  Novel Brain Tumor Subtypes Identified by Genome-Wide Methylome Profiling  
David T.W. Jones (Germany)

**S2-2**  Molecular Profiling Reveals Biologically Discrete Subsets and Pathways of Progression in Diffuse Glioma  
Roeland GW Verhaak (USA)

**S2-3**  Genome-Wide Methylation Analysis Identifies Genomic DNA Demethylation During Malignant Progression of Gliomas  
Akitake Mukasa (Japan)

**S2-4**  Genome and Epigenome Perspectives of Human Brain Tumor Evolution  
Joe Costello (USA)

**S2-5**  De Novo Transcriptome Assembly Finds Novel Glioblastoma Subtype-Specific Transcripts  
Bernhard Radlwimmer (Germany)

**S2-6**  High-Throughput Screening (HTS) of Glioma Stem-Like Cells (GSCs) Identifies Genomic Correlates of Therapeutic Response to Targeted Therapy  
John de Groot (USA)

**S2-7**  Genomic Tests Accurately Classify Gliomas into Five Molecular Groups and Provide Additional Information on Acquired Alterations and Clinical Outcome  
Robert B. Jenkins (USA)

**S2-8**  ATRX and TERT Assays Provide Complementary Information in Adults with IDH-Mutated Glioma  
Kyle M. Walsh (USA)

**S2-9**  Molecular Classification Based on IDH and TERT Identified Four Clinically Distinct Subclasses: A Study of Glioma Molecular Classification Consortium  
Hideyuki Arita (Japan)

**S2-10**  Mutations in IDH1, IDH2, and in the TERT Promoter Define Clinically Distinct Subgroups of Adult Malignant Gliomas  
Hai Yan (USA)

**S2-11**  Preliminary Results of Phase I Study of AG-120, an Inhibitor of the IDH1 Mutant Protein, in Patients with IDH1-Mutant Solid Tumors, Including Gliomas  
Patrick Y. Wen (USA)

**S2-12**  Detection of IDH1 Mutations in vivo by Magnetic Resonance Spectroscopy of Glutamate and 2-Hydroxyglutarate in Human Brain Gliomas  
Kazuhiro Tanaka (Japan)

**S2-13**  NGS-Based MSK-IMPACT Analysis Reveals Specific Genetic Alterations in Recurrent Glioblastoma  
Shinya Tanaka (Japan)

**S2-14**  Genetic Biomarkers to Predict Prognosis and Kinetics of Clonal Evolution by Mathematical Computational Modeling in Low-graAD Glioma  
Atsushi Natsume (Japan)

**S2-15**  Malignant Transformation in Oligodendroglialgia with 1p19q LOH  
Hideo Nakamura (Japan)

**S2-16**  Treatment Strategy for Grade II-III Gliomas Could Be Determined by IDH and TP53 Status  
Yuichi Hirose (Japan)

**S2-17**  Genetic and Histological Stability of 1p/19q Co-Deleted Gliomas at Recurrence  
Keisuke Ueki (Japan)

**S2-18**  Co-Polysomy of Chromosomes 1 and 19 Predict Early Recurrence Among Non-1p/19q-Deleted Low-Grade Gliomas  
Rachel Grossman (USA)

**S2-19**  HDAC7 as a Possible Therapeutic Target for Mesenchymal Glioblastoma  
Koji Yoshimoto (Japan)
21st International Conference on Brain Tumor Research and Therapy

**Session 11  Pathology**

**Moderator:** Takashi Komori (Japan)

**O-108** Detection of P53 Mutations in Proliferating Vascular Cells in Glioblastoma Multiforme
Hideo Takeshima (Japan)

**O-109** Practical Utility of Nestin and Olig2 as Immunohistochemical Markers for Gliomas
Hideaki Yokoo (Japan)

**O-110** Expression of Multidrug Resistant Genes in the Human Glioblastomas
Takashi Tamiya (Japan)

**O-111** Clinical and Pathological Characteristics of Adult Diffuse Brainstem Glioma
Shota Tanaka (Japan)

**O-112** Microtube Networks Constitute a Major Resistance Factor in Gliomas
Wolfgang Wick (Germany)

**O-113** Tumor-Associated Macrophages and Microvascular Proliferation in Glioblastoma
Atsushi Sasaki (Japan)

**O-114** M2a-type Macrophages in Glioblastoma Are Characterized by Up-Regulation of ALDH1A2
Waldemar Debinski (USA)

**Lunchtime Seminar 2** (Sponsor: Chugai Pharmaceutical Co., Ltd.)

**Moderator:** Keisuke Ueki (Japan)

**LS-2** The New WHO Classification of Brain Tumors
Arie Perry (USA)
Wednesday, April 13

8:00~8:27  **Session 12  Radiation Oncology/Imaging**
Moderator: Susan Chang (USA)

O-115  Magnetic Resonance Analysis of Malignant Transformation in Recurrent Glioma
Susan M. Chang (USA)

O-116  Magnetic Resonance Spectroscopy Detection of High Lipid Levels in Intraaxial Tumors Without Central Necrosis: A Characteristic of Malignant Lymphoma
Kaoru Kurisu (Japan)

O-117  Diagnostic Possibility of Positron Emission Tomography Using [18F]Fluciclovine to Diagnose and to Delineate Gliomas
Toshihiko Wakabayashi (Japan)

O-118  A Prospective Multicenter Single-Arm Clinical Trial of Bevacizumab for Patients with Surgically Untreatable Symptomatic Brain Radiation Necrosis
Shin-ichi Miyatake (Japan)

O-119  A Phase I Dose Escalation Study of Hypofractionated Stereotactic Radiotherapy with Bevacizumab in the Treatment of Recurrent Malignant Glioma
Jennifer L. Clarke (USA)

O-120  Hypo-Fractionated IMRT with TMZ for GBMs -Tailor-Made Setting of Treatment Doses Owing to MGMT-Methylation Status-
Toshihiko Iuchi (Japan)

O-121  Gamma Knife Radiosurgery for Brain Metastases from Pulmonary Large Cell Neuroendocrine Carcinoma (LCNEC) : Report of a Japanese Multi-Institutional Co-Operative Study (JLGK 1401 Study)
Takuya Kawabe (Japan)

8:30~9:30  **Special Seminar**  (Sponsor: Southern Tohoku General Hospital)
Moderator: Yoko Nakasu (Japan)

ES1-1  Proton Beam Radiotherapy for Intracranial Tumors
Yasuhiro Kikuchi (Japan)

ES1-2  BNCT for the Treatment of Malignant Brain Tumors in Comparison with Other Particle Radiation
Shin-ichi Miyatake (Japan)

9:40~10:00  **Coffee Break**

10:00~10:51  **Session 13  Other Tumors**
Moderator: Kazuhiko Mishima (Japan)

O-122  Genomic Characterization of Primary Central Nervous System Lymphoma
Motoo Nagane (Japan)

O-123  Reduced Neurotoxicity with Methotrexate-Based Multiagent Chemotherapy (M-CHOP) and Deferred Radiotherapy for Primary Central Nervous System Lymphoma
Tomotsugu Ichikawa (Japan)

O-124  Prognostic Impact of Completion of Initial High-Dose Methotrexate Therapy on Primary Central Nervous System Lymphoma: A Single Institution Experience
Keishi Makino (Japan)

O-125  PCNSL: A Single-Centre Experience of Unselected Cases Treated with MTX Monotherapy and High-Dose Chemotherapy with Autologous Stem-Cell Transplant
Yoko Nakasu (Japan)
Genomic Characterization of Brain Metastases Reveals Branched Evolution and Potential Therapeutic Targets
Priscilla K. Brastianos (USA)

CD15 Is a Key Player in Non-Small Cell Lung Cancer Brain Metastasis and Is Regulated by Fut-7/4 Enzymes and Cell Cycle
Geoffrey J. Pilkington (UK)

Beta-Sitosterol Causes a Broad Spectrum Suppression of Melanoma Brain Metastasis
Rolf Bjerkvig (Norway)

NEO212: A New Drug for Triple Negative Breast Cancer Metastasis to Brain
Thomas C. Chen (USA)

CpG Methylation Profiling of Meningioma
Kenneth D. Aldape (USA)

Meningioma Tumor Volume Correlation with MIB-1 Index, Microvascular Density and Patient Outcome
Randy L. Jensen (USA)

177Lu-DOTATATE/90Y-DOTATOC Peptide Receptor Radionuclide Therapy in Treatment Refractory Progressive Meningioma
Joerg C. Tonn (Germany)

The Somatic Landscape of Schwannoma
Sameer Agnihotri (USA)

Web-Based Efforts to Study Brain Tumors
Elizabeth B. Claus (USA)

The Use of Clinical fMRI in Brain Tumor Surgery Planning
Joseph Megyesi (Canada)

A Prospective Phase II Clinical Trial of 5-Aminolevulinic Acid to Correlate Intraoperative Fluorescence Intensity with Histologic Cellularity
Mitchel S. Berger (USA)

Early Postoperative Expansion of Parenchymal High-Intensity Areas on T2-Weighted Imaging and Delayed Cerebral Edema After Carmustine Wafer Implantation for High-Grade Glioma
Eiichi Ishikawa (Japan)

Safety and Efficacy of BCNU Wafers in the Treatment of Japanese Glioma Patients
Yukihiko Sonoda (Japan)

Efficacy and Adverse Events of Carmustine Wafers Implantation for the Treatments of High Grade Gliomas in a Single Institute
Toshihiro Kumabe (Japan)

Initial Experience in a Pilot Study of Blood-Brain Barrier Opening for Chemo-Drug Delivery to Brain Tumors by MR-Guided Focused Ultrasound
James Perry (Canada)
11:15~11:39  **Session 15   Other Clinical Issues**  
Moderator: Joachim Steinbach (Germany)

**O-141**  
A Complete National-Based Registration of Primary Tumours Support a Fair and Optimal Management of High International Standard  
Roger Henriksson (Sweden)

**O-142**  
Sex-Specific Transcriptional Networks Underlie Sex Differences in GBM Biology  
Joshua B. Rubin (USA)

**O-143**  
Health-Related Quality of Life in Long-Term Survivors with Grade II Gliomas: The Contribution of Disease Recurrence and Karnofsky Performance Status  
Yoshiko Okita (Japan)

**O-144**  
Clinicopathological Study of Long Survivors of Glioblastoma (GBM) – Multiinstitutional Retrospective Survey  
Takamitsu Fujimaki (Japan)

**O-145**  
Favorable Outcome of 1p/19q Co-Deleted Anaplastic Oligodendrogial Tumors Treated with PAV Chemotherapy Without Radiation Therapy  
Tomoo Matsutani (Japan)

**O-146**  
Phase I/II Study of a Combination of Temozolomide with ACNU for Patients with Recurrent Malignant Gliomas  
Tomokazu Aoki (Japan)

**O-147**  
The Importance of Early Diagnosis and Treatment in Glioblastomas  
Yoshitaka Narita (Japan)

**O-148**  
Molecular Subgroup Analysis of EORTC 26082 (Phase 2) Temsirolimus and RT Versus TMZ/RT->TMZ in Patients with MGMT Unmethylated Newly Diagnosed GBM  
Monika E. Hegi (Switzerland)

11:45~12:45  **Lunchtime Seminar 3**  (Sponsor: Novocure Ltd.)  
Moderator: Ryo Nishikawa (Japan)

**LS-3**  
Tumor Treating Fields – How to Integrate This Novel Modality in Clinical Trials for Glioblastoma  
Roger Stupp (Switzerland)

12:50~  **Closing remarks**  
Conference Chair: Ryo Nishikawa (Japan), Next Conference Chair: Rolf Bjerkvig (Norway)