

## **SYMPOSIUM I, June 7, 2016: Challenges in brain tumour treatment and drug discovery**

### ***Dr. Janusz Rak, Professor of Pediatrics, McGill University, Canada***



Janusz Rak completed his MD and PhD degrees in Wroclaw, Poland, at the L. Hirszfeld Institute of Immunology and Experimental Therapy. He subsequently trained and held research positions in the US and Canada, notably in Toronto until 1999, and as Professor of Medicine at McMaster University. He currently (since 2006) holds Jack Cole Chair in Pediatric Hematology/Oncology and is Professor of Pediatrics at McGill University. His earlier work uncovered the oncogene-driven deregulation of angiogenesis, coagulation pathways and vesiculation. This includes the impact of RAS, HER2 and EGFRvIII oncogenes on VEGF-dependent angiogenesis. His current interests include mechanisms of cellular communication in brain tumours, genetic regulation of vascular processes during malignant progression and the role of exosomes as biological mediators and molecular biomarkers for detection of driver events in cancer.

### ***Dr. Bernt Kaina, Director, Institut für Toxikologie, Mainz, Germany***



Dr. Kaina obtained his Ph.D. in Genetics in 1976 from the University of Halle, Germany. He completed his postdoctoral training at the Institute of Genetics in Gatersleben and continued his studies on DNA repair at the Department of Molecular Biology in Leiden, Netherlands, at the German Cancer Research Center in Heidelberg and, as a Heisenberg fellow, at the Department of Genetics of the Nuclear Research Center in Karlsruhe, Germany. In 1993 he obtained a full professorship at the Institute of Toxicology of the University of Mainz, and since 2003 he acts as a director of the Institute. His research program focuses on MGMT and the regulation of repair genes, DNA damage signaling, genotoxicity, cancer formation and death of cells exposed to radiation, chemical genotoxins and anticancer drugs. In a translational research program, his group studies the mechanisms of resistance of glioma, melanoma and other cancer cell types to alkylating anticancer drugs. He is also interested in Traditional Chinese medicine (TCM) and studied the response of cells to artesunate and other TCM drugs.

### ***Dr. Asha Das, Vice President Clinical Development, Tocagen, USA***



Asha Das, M.D. is Vice President of Clinical Development and Medical Affairs at Tocagen. She has more than 10 years of drug development experience in the pharmaceutical industry. Most recently she has been at Genentech in positions of increasing responsibility working on Avastin, leading to drug approvals in recurrent glioblastoma, platinum-resistant ovarian cancer and metastatic cervical cancer. Prior to joining Genentech, she worked at Eisai on Eribulin and Lenvatinib.

Dr. Das obtained both her BA and MD degrees from Cornell, completed her neurology residency at New York Hospital-Cornell Medical Center followed by a Clinical Fellowship in Neuro-Oncology at Massachusetts General Hospital. Subsequently, she was an Attending Neurologist at the National Neuroscience Institute in Singapore and head of the Neuro-Oncology Program at Cedars-Sinai Medical Center in Los Angeles. Dr. Das is a board-certified neurologist. She has held academic appointments at the National University of Singapore, UCLA and UCSF.

***Dr. Eric Bouffet, Head of Neuro-Oncology, Division of Haematology/Oncology, Hospital for Sick Children Toronto, Canada and President-Elect, International Society of Paediatric Oncology***



Dr. Eric Bouffet is a Professor of Paediatrics at the University of Toronto; Garron Family Chair in Childhood Cancer Research; and Head of the Neuro-Oncology Section in the Division of Haematology/Oncology at The Hospital for Sick Children in Toronto, Canada. He is the current President-Elect for the International Society of Paediatric Oncology (SIOP) with a term from 2016-2019. From 1998-2001 he was co-Chairman of the Brain Tumour Committee of SIOP, and he is currently Chair of the Canadian Paediatric Brain Tumour Consortium. Dr. Bouffet is the Chair of the Infant Brain Tumours Committee, and a member of the steering committee of the Brain Tumour Committee of the Children's Oncology Group (COG). He is a Senior Associate Scientist in the Research Institute at the Hospital for Sick Children.

***Dr. Monika E Hegi, Director, Laboratory of Brain Tumour Biology and Genetics, University Hospital Lausanne, Lausanne Switzerland***



Monika E Hegi is Associate professor at the University of Lausanne, Switzerland. She has earned her Doctoral degree at the Federal Institute of Technology in Zurich, and pursued post-doctoral training in molecular toxicology and molecular carcinogenesis at the National Institute of Environmental Health Sciences (NIEHS), NIH, Research Triangle Park, NC, USA (1989-1993). Since 1998 she directs the laboratory of Brain Tumor Biology and Genetics in the Department of Clinical Neurosciences at the University Hospital Lausanne. Her research focus aims at identifying new molecular targets and predictive factors for response to therapy and outcome in brain tumor patients. These efforts are in close collaboration with international cooperative groups, in particular the Brain Tumor Group of the EORTC, where she coordinates translational research and is involved in the SPECTA project. Implementation of the first predictive factor in glioblastoma has led to a paradigm change in the field, and the is *MGMT* methylation status is now used as biomarker for stratification or patient selection in most clinical trials for glioma and for treatment decisions in glioblastoma patients.

***Dr. Nada Jabado, Professor, Department of Pediatrics, McGill University, Canada***



Dr. Nada Jabado obtained her PhD in Immunology at INSERM in Paris, her MD from Université de Paris VI and completed her Postdoctoral training in the Department of Biochemistry at McGill University in Montreal. She is presently a Professor of Pediatrics at McGill University and a staff physician in the Division of Hematology-Oncology at the Montreal Children's Hospital. She is also an associate member of the Department of Humans Genetics and the Department of Experimental Medicine. Dr. Jabado is a clinician-scientist who serves as a primary physician for children diagnosed with brain tumor and her main focus of research is pediatric and young adult high grade astrocytomas (HGA).

The group of Dr Jabado was among the first to identify a new molecular mechanism driving pediatric HGA, namely recurrent somatic driver mutations in the tail of histone 3 variants. Her team has been applying Next-Generation Sequencing techniques to better elucidate the genetic and epigenetic landscape of pediatric brain tumors, publishing over 100 scientific articles in this field alone in such prestigious journals as *Nature*, *Nature Genetics*, *Science* and *Cell*, among others. Her ground-breaking discoveries position her team as a leader in the field of HGA and at the forefront of significant breakthroughs for this deadly brain tumor.

***Dr. Andrew L. Kung, Professor of Pediatrics, Chief of the Division of Pediatric Hematology, Oncology and Stem Cell Transplantation, Columbia University Medical Center, USA***

Dr. Andrew L. Kung is the Robert and Ellen Kapito Professor of Pediatrics and Chief of the Division of Pediatric Hematology, Oncology and Stem Cell Transplantation at Columbia University Medical Center and NewYork-Presbyterian/Morgan Stanley Children's Hospital. Dr. Kung oversees the clinical and



research programs of the Division, with the dual goal of providing outstanding care for patients today while developing the next generation of therapies for future patients. Working with his colleagues, Dr. Kung takes a cross-disciplinary approach to translational research, integrating molecular biology, genomics, cell biology, laboratory models, and drug development. The research in his lab focuses on identifying new targets for anticancer drugs, the genomics of cancer, and the development of innovative therapies that target the determinants of cancer growth.

Dr. Kung has led the development of a comprehensive precision medicine program for children with cancer and blood disorders. Through the Precision in Pediatric Sequencing (PIPseq) program, every child treated in the Division is offered genomic sequencing of his or her cancer. Coupled with the Developmental Therapeutics Program and a robust selection of clinical trials, the Division endeavors to use the technologies and therapies of tomorrow to create personalized treatment plans for each patient being cared for today.

***TITLE: DNA Repair and Death Signaling in Brain Tumor Cells treated with Alkylating Drugs***

***TITLE: Development of Toca 511 (an investigational non-lytic, retroviral replicating vector) and Toca FC (extended-release 5-fluorocytosine)***

***TITLE: Implementation of biomarkers in glioblastoma trials***

***TITLE: Oncogenic regulation of exosomal communication pathways within the brain tumour microenvironment***

***TITLE: June 7: "Clinical and preclinical considerations for neuro-oncology drug development"***

***TITLE: June 8: "Use of genomics and patient-derived xenograft models to realize the promise of personalized cancer medicine"***