



آغا خان یونیورسٹی  
THE AGA KHAN UNIVERSITY



# 2nd Pakistan Paediatric Neuro-Oncology Symposium

CAPACITY BUILDING OF PAEDIATRIC NEURO-ONCOLOGY IN LMIC



November 12-13, 2021  
8 am to 8 pm  
Auditorium  
Aga Khan University

Register by Nov 1, 2021

Abstract Submission  
Deadline: Oct 18, 2021

Virtual link will be  
provided after registration



Activity Code: AKU-DCPE-CD-0023

TOPIC: 2ND PAKISTAN PEDIATRIC NEURO-ONCOLOGY SYMPOSIUM (2PNOS)

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The ACCME designates this live educational activity for a maximum of **15.00** credit hours of AMA PRA category 1 credit™

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# 2nd Pakistan Paediatric Neuro-Oncology Symposium

**CAPACITY BUILDING OF PAEDIATRIC NEURO-ONCOLOGY IN LMIC**

## Contents

Contents	2
Conference Information	3
Welcome message from Chairs	4
Dr Eric Bouffet Message	5
Expert Messages	6
Organizing Committee	7
Scientific Committee	8
Speakers	9
Session Chairpersons	27
Pre-Conference Educational Half Day/ Meet the Experts Session	28
Main Program	31

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# 2<sup>nd</sup> Pakistan Paediatric Neuro-Oncology Symposium (2PNOS)

## Preconference Educational Half Day

Thursday, November 11, 2021, | 03:00pm – 08:00pm (Pakistan Time; GMT +5)

## Meet the Experts Session

Thursday, November 11, 2021, | 05:00pm – 06:00pm (Pakistan Time; GMT +5)

## Paediatric Neuro-Oncology Workshop for general Paediatricians and Practitioners

Thursday, November 11, 2021, | 06:00pm – 08:00pm (Pakistan Time; GMT +5)

## Paediatric CNS RT Planning Workshop

Thursday, November 11, 2021, | 03:00pm – 05:00pm (Pakistan Time; GMT +5)

## Friday to Saturday, November 12-13, 2021

Session One	Friday	Nov-12	07:50am - 09:45am PST
Session Two	Friday	Nov-12	10:00am - 11:30am PST
Session Three	Friday	Nov-12	11:45am - 12:45pm PST
Session Four	Saturday	Nov-13	02:30pm - 05:30pm PST
Inauguration	Friday	Nov-12	06:00pm - 07:50pm PST
Session Five	Saturday	Nov-13	08:00am - 09:55am PST
Session Six	Saturday	Nov-13	10:30am - 12:00pm PST
Session Seven	Saturday	Nov-13	12:15pm - 01:45pm PST
Session Eight	Saturday	Nov-13	03:30pm - 05:00pm PST
Session Nine	Saturday	Nov-13	05:30pm - 07:35pm PST

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## Welcome Message from the Chairs

Welcome to the 2<sup>nd</sup> Pakistan Paediatric Neuro-Oncology Conference (PNOS): Capacity Building of Paediatric Neuro-Oncology in LMIC (Low and Middle-Income Countries)

On behalf of the organizing and scientific committee, we are pleased to welcome you to the 2<sup>nd</sup> Pakistan Paediatric Neuro-Oncology Conference (PNOS) being held virtually from **12<sup>th</sup>-13<sup>th</sup> November 2021**.

The tremendous success of the first ever PNOS conference held in Pakistan in November 2020 encouraged us to convene a second conference which it is our privilege to be co-chairing this year.

The theme this year is not only a topic that needs to be urgently addressed but also, for us paediatric oncologists and neurosurgeons, close to our hearts: “Capacity Building of Paediatric Neuro-Oncology in LMICs”.

Over the past few years, we have worked hard to invest in building the capacity and infrastructure needed to improve Paediatric Neuro Oncology services in Pakistan. Progress remained slow until a recent boost provided by invaluable support from Sanofi-Esipoir Foundation through their ‘My Child Matters’ Grant. With their generous contribution and encouragement, we have been able to accelerate the pace of development. In particular, we have been able to organize regular didactic sessions, virtual and in-person training sessions as well as tumor board activities. These services are designed to provide clinicians in resource constrained areas with vitally important intellectual support for the management of children with complex neuro-oncological issues.

We have planned an exciting scientific program for our second symposium. We have also added a new “Meet the Experts” session during which care providers seeking guidance, mentorship and advice regarding their patients or their own scientific pursuits will be able to speak directly to luminaries in this field, albeit virtually. We have also organized a special session to address the very specific challenges of providing neuro-surgical treatment in LMICs.

We are extremely grateful for the forward thinking and generous support of the Aga Khan University Hospital senior leadership team and management; for their belief in our cause and for their faith in us. We would like to thank the members of the scientific and organizing committee who have worked tirelessly to put together an excellent program. Finally, and most importantly, we wish to thank our conference attendees who will be joining from around the globe and without whom this event would not be the successful endeavor we hope it will be.



A handwritten signature in black ink, appearing to read 'Naureen'.

**Dr. Naureen Mushtaq**  
MBBS, MCPS, FCPS,  
Chair Organizing  
Committee,  
Associate Professor,  
Consultant Pediatric  
Neuro-oncologist.  
Aga Khan University  
Hospital



A handwritten signature in black ink, appearing to read 'Sadaf Altaf'.

**Sadaf Altaf MD,**  
MSC  
FABP, FABPHO  
Assistant Professor  
Chair Scientific  
Committee

## Welcome Message from Dr Eric Bouffet

Dear friends and colleagues

I would like to wish you a warm welcome to this second Pakistan Paediatric Neuro-Oncology Symposium (PNOS2). For the second time, this meeting will be mostly virtual due the ongoing pandemic that has changed so many aspects of our daily life. As a result, many of you will join sessions during... unusual hours – virtual congresses being inherently challenging in terms of time differences. Thank you very much for accepting this limitation.

Another ‘virtual’ shortcoming would be the lack of face-to-face contact that used to colour our exchanges with a little more life and ebullience. I really hope that this will revert in a post-Covid world (and hopefully by PNOS3!), so that we may once again bring together those who share a passion for combating brain tumors in children, adolescents, and young adults. Personally, I have always felt a certain awe when watching delegates interact, exchange, connect, and above all, manifest themselves as part of a global family driven by the dream of a world where no child ever dies of cancer.

Once again, Dr. Mushtaq and her local organizing committee have worked tirelessly to make this year’s congress a memorable moment for each participant. The program is rich and particularly focused on the delivery of care in countries with limited resources. This provides us all with the special opportunity to reflect on differences in the delivery of care between high income and lower to middle income countries.

In this context, I would also like to take a step back and appreciate the massive changes that have occurred in the field of Paediatric Neuro-Oncology in Pakistan. Over the past five years, Pakistan has seen the emergence of several multidisciplinary programs, with physicians communicating together on a regular basis to optimize and harmonize the care of children with brain tumors. Together, Pakistani physicians have developed standards of care, protocols and training modules for the various disciplines involved in pediatric neuro-oncology. This would have not happened without the vision of Dr. Mushtaq and the amazing support of the Sanofi Espoir Foundation. Both should serve us as sources of inspiration when confronted with the seemingly impossible.

Once again, I look forward to virtually meeting you at this 2<sup>nd</sup> Pakistan Paediatric Neuro-Oncology Symposium. May you all have a wonderful meeting!

Sincerely,



**Dr Eric Bouffet**

Professor, Paediatric Neuro-Oncology  
Past President SIOPE/ Advocacy Chair  
Senior Neuroscientist  
Garron Chair in Childhood Cancer Research  
Director of Paediatric Neuro-Oncology  
Division at The Hospital of Sick Children, Toronto,



## Experts Messages

The pace of discovery for paediatric central nervous system tumors continues to quicken and management is rapidly evolving. The 2<sup>nd</sup> Pakistan Paediatric Neuro-Oncology Symposium brings together experts from around the globe to present the newest concepts in management, including the use of immunotherapy and molecular-targeted therapy for paediatric brain tumors; approaches and therapies that now can be made available to children across Pakistan and the world.



**Roger Packer,  
MD**

Senior Vice President,  
Center for Neuroscience  
and Behavioral  
Medicine  
Director, Gilbert  
Neurofibromatosis  
Institute Director, Brain  
Tumor Institute

The Sanofi Espoir Foundation plays a catalyzing role in the care of children with cancer in developing countries. Thanks to the permanent financial support and expertise provided through our My Child Matters program since 2006, 100,000 children have been in care and 30,000 health professionals have been trained. Actively engaged in Pakistan since 2009, we support two teams: one at the Indus Hospital builds capacity for doctors, nurses, pharmacists, infection control nurses and psychosocial staff in 10 units across the country. And we are also proud to support Dr Naureen Mushtaq team to develop capacity building of Paediatric Neuro-oncology (PNO) in 13 hospitals across Pakistan. At the Sanofi Espoir Foundation, we believe that we can play a key role in reducing health inequalities among populations that need it most and we are committed to helping health professional improving the care of children with cancer.



**Francois Desbrandes**  
Head of the “My Child  
Matters” Pediatric Oncology  
Program



## PNOS 2021 Organizing Committee

- **Naureen Mushtaq, Karachi, Chair**  
Associate Professor,  
Section of Paediatrics Oncology/Hematology, Department of Oncology  
Aga Khan University
- **Gohar Javed, Karachi, Member**  
Associate Professor  
Section of Neurosurgery, Department of Surgery  
Aga Khan University
- **Fatima Mubarak, Karachi, Member**  
Associate Professor  
Department of Radiology  
Aga Khan University
- **Bilal Mazhar Qureshi, Karachi, Member**  
Assistant Professor  
Section of Radiation Oncology, Department of Oncology  
Aga Khan University
- **Salman Kirmani, Karachi, Member**  
Associate Professor  
Department of Paediatrics  
Aga Khan University
- **Shahzadi Resham, Karachi, Member**  
Assistant Professor  
Department of Paediatrics and Child Health  
Aga Khan University
- **Khurram Minhas, Karachi, Member**  
Assistant Professor  
Department of Pathology  
Aga Khan University

## Scientific Committee

- **Sadaf Altaf, Karachi, Chair**  
Assistant Professor  
Section of Paediatrics Oncology/Hematology, Department of Oncology  
Aga Khan University
- **Ata Ur Rehman Maaz, Qatar, Co-Chair**  
Paediatric Oncologist  
Sidra Hospital Qatar,
- **Mohammad Saghir, Saudia Arabia, Member**  
Paediatric Oncologist  
King Faisal Specialist Hospital & Research Center,
- **Shahzad Shamim, Karachi, Member**  
Associate Professor  
Section of Neurosurgery, Department of Surgery
- **Afia Arif, Karachi, Karachi Member**  
Fellow Paediatric Neuro-Oncology  
Aga Khan University
- **Uzma Imam, Karachi, Member**  
Incharge Paediatric Oncology at National Institute of Child Health (NICH)
- **Syed Ahmer Hamid, Karachi, Member**  
Senior Consultant  
The Indus Hospital

### **Coordinator:**

Syed Emad Uddin  
Noman Muhammad Ikram

### **Contact us:**

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## International Speakers



**Dr Peter Dirks MD, PhD, FRCSC**, is Professor and Chair of Neurosurgery at the Hospital for Sick Children at the University of Toronto. He obtained an MD from Queen's University and did both PhD and neurosurgery residency training at the University of Toronto. He is a Senior Scientist in the Program in Developmental and Stem Cell Biology in the SickKids Research Institute and he holds a Graduate School appointment at the in the Department of Molecular Genetics. His team was the first to identify cancer stem cells in human primary brain tumors and his ongoing research is focused on understanding the origins and growth mechanisms of primary brain tumors of children and adults.



**Dr MD Taylor MD, PHD, FRSC(C)**. was born in Calgary, Alberta and was educated at The University of Western Ontario where he obtained his MD in 1994. He entered the University of Toronto Neurosurgery residency program in 1994. He then did a PhD in Molecular Pathology at the University of Toronto (1998-2002) and completed his residency training in 2003. In 2003 Michael was awarded a Detweiler Travelling Fellowship from the Royal College of Physicians and Surgeons of Canada for fellowship training in paediatric neurosurgery and paediatric neuro-oncology at St. Jude Children's Research Hospital in Memphis Tennessee. Dr. Taylor also did a post-doctoral fellowship in the Department of Developmental Neurobiology at SJCRH. Dr. Taylor joined The Hospital for Sick Children (SickKids), Division of Neurosurgery in 2004. He has an appointment in the Developmental & Stem Cell Biology Program at the SickKids Research Institute. He is a principal investigator at the Arthur and Sonia Labatt Brain Tumour Research Centre. He also has cross-appointments to the Departments of Surgery & Laboratory Medicine and Pathobiology at the University of Toronto. His research is supported by the Canadian Institutes of Health Research (CIHR), Genome Canada, National Cancer Institute of Canada, National Institutes of Health (USA), American Brain Tumour Association and SickKids Foundation. He has published close to 100 peer reviewed publications. Dr. Taylor's laboratory focuses on the genetics of paediatric medulloblastoma and ependymoma. Clinically, he has a special interest in paediatric neuro-oncology.



**Dr Michael Dewan, MD, MSCI** is an Assistant Professor in the Department of Neurological Surgery at Vanderbilt University Medical Center. He earned his MD from Yale University and completed his residency in Neurological Surgery at Vanderbilt University School of Medicine. He served as the 2016 Paul Farmer Global Neurosurgery Fellow at the Program in Global Surgery and Social Change at Harvard Medical School and as Paediatric Neurosurgery Chief Fellow at the Hospital for Sick Children at the University of Toronto. He is the Surgical Director of the Paediatric Neuro-Oncology, and Paediatric Neurovascular Programs, as well as the Academic Director of the Global Neurosurgery Program at Vanderbilt University Medical Center.



**Dr Owase Jeelani BMedSci, MBBS, MBA, MPhil (Medical Law), FRCS (NeuroSurg.)** completed his medical studies at the University of Nottingham in 1997. He was admitted as an Intercollegiate Fellow of the Royal College of Surgeons in 2007 and appointed as Consultant Paediatric Neurosurgeon and Craniofacial Surgeon at Great Ormond Street Hospital in 2009. Currently, Dr Owase is the Lead Clinician for the Department of Neurosurgery at Great Ormond Street Hospital, one of the largest paediatric neurosurgery services globally with an annual workload of around 1000 cases. Dr Owase is also employed on a full-time basis between the Neurosurgical and Craniofacial departments and his areas of specialization are craniofacial surgery, neuro-oncology, and hydrocephalus. In addition, Owase is the Co-Director of Face Value, GOSH & ICH. Face Value is an academic research programme that analyses 3D changes in the craniofacial skeleton and uses this data for designing novel distractor devices. Alongside these roles, Dr Owase is also a director of the London Craniofacial Unit, a private craniofacial practice based in London that caters to children with craniofacial and allied disorders.



**Dr Syed Ather Enam MS, PHD, FRCSI, FRSCSC, FRCSG, FACS** is a US Board certified Neurosurgeon and is Professor of Neurosurgery and Chair, Department of Surgery at the Aga Khan University, Karachi, Pakistan. He has Specialist Certification in Neurosurgery from Canada, an FRCS from Canada, an FRCS from Ireland, an FRCS from Glasgow, and a Fellowship of American College of Surgeons. He has been awarded several accolades and honors for his work both in USA and in Pakistan, including Physician of the year medallion, Master Surgeon Award, Excellence in Neurosurgery Award, and the presidential award, Sitara-e-Imtiaz. Dr. Enam has a strong interest in basic science research with a PhD in Neuroscience from Northwestern University, USA. He is a life member of Sigma Xi, a scientific research honor society, as well as Founding President of Pakistan Society of Basic and Applied Neuroscience (PASBAN), Founding President of Pakistan Society of Neuro-Oncology (PASNO), member of the Executive Committee of AANS-CNS Section of Brain Tumors (USA), and member of the Advisory Board of The Science Bridge. He has been editor of several scientific journals and has delivered numerous lectures across the world on Neurosurgery, Neuro-Oncology and Neuroscience topics. He is currently a PhD supervisor for the Higher Education Commission of Pakistan. He is actively involved in many clinical and basic science research projects and has authored more than 100 manuscripts and articles.



**Professor Dr Riaz Ahmed Raja FCPS** is a senior consultant Neurosurgeon & Spinal surgeon. He is the Chairman, Department of Neurosurgery, Liaquat University of Medical & Health Sciences, Jamshoro, Sindh. He has acquired his training under supervision of Professor Rasheed Jooma. He Has acquired his further training from INI, Hannover, Germany with Prof. Madjid Samii, and Prof Atul Goel. He has been practicing Brain & Spine surgery, endoscopic ventriculostomy, Endoscopic spine surgery and endoscopic transsphenoidal pituitary surgery. He is the supervisor for FCPS and MS training in Pakistan.



**Professor Dharmendra MBBS(Malaya) MS(Malaya) AM (Mal) FRCS(Edinburgh) FRCS(Ireland) FRCS (Neurosurgeon)** is a senior consultant paediatric neurosurgeon at the University of Malaya, Kuala Lumpur. He did his neurosurgical training in Addebroke's Hospital, Cambridge, UK. He had completed the European and Asian Australasian course in paediatric neurosurgery. He has been practicing paediatric neurosurgery at this facility since 2008. He has sufficient experience in paediatric neuro-oncology. The facility acquired an Intraoperative MRI in year 2015 and it has been used widely for the paediatric neuro-oncology cases.



**Dr Aliasgar Moiyadi MCH**, is Professor and presently heads the neurosurgery services at Tata Memorial Centre (TMC), Mumbai, India. Dr Moiyadi completed his neurosurgical training from the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore, a premier neuroscience training institute in India. He was instrumental in establishing the Neurosurgical Oncology services at TMC, one of the few neurosurgical departments in India catering to neuro-oncology exclusively. His areas of interest include novel strategies for improving visualization and resection of gliomas particularly navigated ultrasound and optical imaging (which he has pioneered in the country), intraoperative brain mapping including awake surgeries, minimally invasive neurosurgery, skull base surgery and biology of malignant brain tumors. He has over 150 peer reviewed publications and is on the editorial board of many neurosurgical journals, besides being the Tumor section Editor for World Neurosurgery, one of the leading neurosurgical journals. He is a member of the World Federation of Neurosurgical Societies (WFNS) – Technology committee and on the Executive committee of the Indian Society of Neuro-oncology. He is also involved in many clinical trials and translational research projects with collaborators within and outside of TMC. He is passionate about teaching and training especially in the field of neurosurgical oncology.



**Dr Awni Musharbash** is the first Paediatric Neurosurgeon in Jordan since 1999 after completing his Paediatric neurosurgical fellowship from The Hospital for Sick Children in Toronto-Canada working at King Hussein Cancer Center (KHCC) which is the only referral cancer center in Jordan. We started a paediatric Neuro- oncology program at KHCC that is affiliated with The Hospital for Sick Children since early 2000. Interested in the field of paediatric oncology and congenital anomalies using all the modern technology available as brain navigation, mapping, ultrasound, endoscopy, cranial nerves, and spinal monitoring. A previous associate professor in Neurosurgery at Jordan University- faculty of medicine with more than thirty peer reviewed publications and member of many local, regional, and international societies. Dr Musharbash is actively involved in teaching, and he is the chief of the Jordanian Neurosurgical board Committee for the last 2 years.



**Dr Wang Jingsheng** is a Paediatric Neurosurgeon at Shehzen University Health Science Center Beijeng, China.



**Dr Pavlo Plavskyi** is the Head, Division of Paediatric Neurosurgery OHMATDYT National Specialized Children's Hospital, Ukraine.



**Dr Zohreh Habibi** is an Associate Professor of Neurosurgery department of Paediatric Neurosurgery at Tehran University of Medical Sciences (TUMS), Children's Medical Center. She is a Coordinator of Research projects at TUMS. She is a member of Neurosurgical Society of Iran and Iranian Paediatric Neurosurgery Committee.



**Dr. Addisalem Belete MD**, is one of the first graduates of Neurosurgery at Addis Ababa University Medical Faculty, the largest and most advanced of neurosurgical training sites in Ethiopia. After completing the general neurosurgical training, he further got his subspecialty training in Paediatric Neurosurgery in Kenya. Doctor Addisalem has worked in the Eastern part of Ethiopia establishing a neurosurgical department. While serving there, he had the opportunity to present his experience at the International Society of Paediatric Neurosurgeons annual meeting of 2018 held in Telaviv, Israel. Dr. Addisalem has an interest in Neuro-oncology, especially Paediatric Neuro-oncology. He is currently actively working in developing a Paediatric Neurosurgery Center of Excellence that provide state of the art Paediatric Neurosurgical Care at Zewditu Memorial Hospital, in Addis Ababa. Dr. Addisalem is founding member of the Ethiopian Neurosurgical Society and has served as a secretary of the society in the past. He is also a member of the Surgical Society of Ethiopia.



**Dr. Roger J. Packer, MD**, is a Senior Vice-President, Center for Neuroscience and Behavioral Medicine, the Gilbert Distinguished Professor of Neurofibromatosis, and Director of both the Gilbert Neurofibromatosis Institute and the Brain Tumor Institute of Children's National Hospital (CNH), Washington, DC. He is Professor of Neurology and Paediatrics at The George Washington University. Throughout his career, Dr. Packer has been heavily involved in clinical and applied basic science research. His clinical research has touched on various aspects of child neurology and neuro-oncology, including pediatric brain tumors, neurofibromatosis type 1, and the neurologic aspects of childhood neurogenetic diseases. His research has focused on the development and performance of clinical and translational trials for children with neurologic, neuro-oncologic, and neurogenetic disorders, and he has received peer-reviewed grant support for these efforts. Presently, Dr. Packer is Chair of the PBTC Low-Grade Glioma Committee; Principal Investigator (CNH) of the Neurofibromatosis Clinical Trials Consortium; Chair of the Medulloblastoma Committee of the Children's Oncology Group; and co-chair of the Brain Malignancy Steering Committee (NCI). The majority of the studies now being coordinated by Dr. Packer are evaluating innovative agents aimed at the molecular underpinnings and immunologic aspects of neurologic disease. He has published over 415 original articles and 380 reviews and chapters.



**Dr Eric Bouffet MD** is a Professor of Paediatrics in 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 (SickKids), Toronto. Dr Bouffet was co-Chairman of the Brain Tumour Committee of the International Society of Pediatric Oncology (SIOP) and served as a President of SIOP from 2016-2019. He is currently Chair of the Canadian Paediatric Brain Tumour Consortium. He is also a member of the steering committee of the brain tumour committee of the Children's Oncology Group. Dr Bouffet is a Senior Associate Scientist in the Research Institute at the Hospital for SickKids. His research interests are in the area of novel treatments and clinical trials in children with brain tumours. He is author or co-author of over 500 peer-reviewed manuscripts and author/co-author on numerous book chapters in the field of neuro-oncology. He was the recipient of several awards, including the Alvin Zipursky Teaching Award, the Claus Wirsig Humanitarian Award, and the Richard Rowe Award for Clinical Excellence in Paediatric Medical Care. In 2020, He was elected Member of the Board of Directors of the Union for International Cancer Control (UICC).



**Stefan M. Pfister, Prof. Dr. med.** serves as Director of the Preclinical Research Program of the new Hopp Children's Cancer Center Heidelberg, a joint venture between the German Cancer Research Center (DKFZ) and Heidelberg University Hospital. He is heading the Division Paediatric Neuro-oncology at the German Cancer Research Center (DKFZ) since 2012. Being a paediatrician by training, Pfister received his MD from Tübingen University, and his clinical education at Mannheim and Heidelberg University Hospitals. As a physician-scientist, he completed postdoctoral fellowships with Christopher Rudd at the Dana-Faber Cancer Institute/Harvard Medical School, and with Peter Lichter at the German Cancer Research Center, Division of Molecular Genetics. Pfister's research focuses on the genetic and epigenetic characterization of childhood brain tumors by applying next-generation profiling methods, the development of faithful models and functional validation of findings, and the preclinical testing of new treatment options using these models. In all his activities, translating novel findings into a clinical context is of highest priority. For his translational neuro-oncology projects, Pfister received amongst others the German Cancer Award in 2012.



**Dr Kenneth Cohen MBA, MD** is Professor of Oncology and Paediatrics, Director of Paediatric Neuro-Oncology and Clinical Director of the Division of Pediatric Oncology at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins. He received his undergraduate degree at Brown University and earned his MD at the Upstate Medical University, in Syracuse, NY. He has served on the faculty of Johns Hopkins since 1994. Dr. Cohen is co-chair of the High-Grade Glioma Committee for the Children's Oncology Group. He is the lead author for the PDQ® Cancer Information - National Cancer Institute brain tumor treatment summaries. He was recently appointed to the Scientific Advisory Committee for the St. Baldrick's Foundation. He also serves on the scientific advisory boards of the Childhood Brain Tumor Foundation and Curing Kids Cancer.





**Dr Uri Tabori MD, PHD** is a Staff Oncologist with the Division of Haematology/Oncology and a Senior Scientist within the Research Institute, holds the Garron Family Chair appointment in Childhood Cancer Research, and is a Professor in the Departments of Medical Biophysics, Institute of Medical Science and Paediatrics, University of Toronto. Dr. Tabori is a Principal Investigator within the Arthur and Sonia Labatt Brain Tumor research Centre at The Hospital for Sick Children. Dr Tabori focuses on the development of systems for early detection, intervention, and therapeutics in individuals highly predisposed to developing brain tumors. He is also studying mechanisms underlying brain tumor immortality and recurrence in the context of predisposition to cancer. Dr. Tabori has been the recipient of numerous awards, including the Canadian Cancer Society's Bernard and Francine Dorval Prize in 2016 and the Early Researcher Award from the Ontario Ministry of Development in Innovation in 2014.



**Dr Darren Hargrave MB.ChB (Hons), MD, MRCP, FRCPCH** joined Great Ormond Street Hospital (GOSH) in 2011 having previously worked at the Royal Marsden Hospital in London. He specializes in paediatric neuro-oncology (tumours of the brain and spine) and the development of new anti-cancer drugs for children and adolescents. He trained in the UK and Canada and is a member of both national and international groups in the fields of paediatric neuro-oncology and drug development. He has been the Chair of the European SIOPE High Grade Glioma working group. He is a Chief Investigator of several completed, on-going, and planned clinical trials in paediatric cancer. His research interests include: the biology of childhood brain tumours, the use of innovative imaging techniques in childhood cancer and drug development of targeted therapies in childhood and adolescent oncology. He has published over 60 papers in peer reviewed journals and book chapters.



**Dr Stefan Rutowski MD**, is a Professor for Paediatric Hematology and Oncology and Director of the Department of Paediatric Hematology and Oncology, University Medical Center Hamburg-Eppendorf (UKE) Germany. He was also Vice Chair of German Paediatric Haematology Oncology Society. Dr Rutowski is the recent chair of European Paediatric Brain Tumor Group of SIOP and a member of ethical committee / IRB of the Medical Association Hamburg.



**Dr. Ute Bartels MD, PhD, M.Sc** is a Staff Neuro-Oncologist at the Hospital for Sick Children, Toronto and Professor of Paediatrics at the University of Toronto. She graduated from medical school at Johannes Wolfgang von Goethe University in Frankfurt, Germany. Dr. Bartels completed her PhD thesis at the Children's Hospital of the University in Mainz, Germany. In 2002, she joined the Hospital for Sick Children for a fellowship in paediatric neuro-oncology and became a staff physician in 2005. Dr. Bartels received the Junior Faculty Award for Clinical Excellence in Paediatric Medical Care in 2009. She completed a Master of Science in Clinical Epidemiology at the University of Toronto in 2010. She is an active member of the Central Nervous System (CNS) Committee of the Children's Oncology Group (COG) in North America and is a Principal Investigator of the CNS Germ Cell Tumour study (ACNS1123). She was an invited member of the 2012 International Tuberous Sclerosis Complex (TSC) Consensus Group to finalize diagnostic, surveillance and management recommendations for patients with TSC. She is elected co-chairwoman of the European Society of Paediatric Oncology (SIOPe) craniopharyngioma working group representing the field of oncology/endocrinology from 2011 to 2020.



**Dr Nick Gottardo, PHD** is a clinician/scientist based in Perth, Western Australia. He is a paediatric oncologist/neuro-oncologist and Head of the Department of Paediatric Oncology and Haematology at Perth Children's Hospital. He is also the Co-leader of the Brain Tumour Research Programme at the Telethon Kids Institute. In June 2018, he was appointed the Stan Perron Chair in Paediatric Oncology and Haematology at Perth Children's Hospital. Nick Gottardo has established a national and international reputation as an expert in paediatric neuro-oncology and is a member of the International Medulloblastoma Working Group. He is the Chair of the Australian and New Zealand Children's Haematology/Oncology Group and Chair of the ANZCHOG's CNS Tumour Group. He leads several international clinical trials, including the AIM-BRAIN Project, SJ-ELiOT and the Children's Oncology Group's front-line clinical trial for WNT subgroup medulloblastoma patients, which investigates therapy reduction for this subgroup of patients who have excellent survival on current therapy.



**Marcel Kool, Ph.D.**, is a cancer biologist at the Hopp Children's Cancer Center Heidelberg (KiTZ), the German Cancer Research Center (DKFZ) in Heidelberg, Germany, and the Princess Máxima Center (PMC) for Paediatric Oncology in Utrecht, the Netherlands. He is deputy of the division of Paediatric Neurooncology headed by Prof. Dr. Stefan M. Pfister and group leader of the Preclinical Research Group in this division at the KiTZ / DKFZ. Since April 2011 he is working at the DKFZ in Heidelberg and since September 2019 he started his second research group on pediatric brain tumors at the PMC in Utrecht. Marcel Kool's expertise is the genomics of paediatric brain tumors. He and the teams in Heidelberg and Utrecht aim to (1) characterize each brain tumor entity in full detail at the genomic and epigenomic level in order to identify clinically relevant subgroups; (2) to find the oncogenic driving events in these tumors and the best therapeutic targets; (3) to find diagnostic, prognostic and/or predictive biomarkers for these tumors and their subgroups for use in clinical settings; (4) to build a large repertoire of molecularly characterized tumor models (PDX and organoid models) representing all the different molecular subtypes of pediatric brain tumors and use them for preclinical studies in order to translate the genomic findings into new therapeutic options. Overall, Marcel Kool has co-authored >300 publications of which >150 only in the last five years. Several of these recent papers are landmark papers in the field of paediatric neuro-oncology describing the identification of new molecular entities and/or molecular subtypes of known entities with their respective oncogenic drivers and mutational landscapes.



**Aziza T. Shad, MD** is the Ellen W.P. Wasserman Chair of Paediatrics and Chief of the Division of Paediatric Hematology Oncology at the Herman and Walter Samuelson Children's Hospital at Sinai Hospital, Baltimore, MD, USA. She also holds a faculty position as Professor of Paediatrics and Oncology at Georgetown University School of Medicine, Washington, DC.

Dr Shad is Co-Founder and Medical Director of The ASLAN Project, a non-profit organization devoted to improving capacity in pediatric oncology in developing countries. She is a member of the WHO Working Group, WHO Global Initiative for Childhood Cancer, and a member of the National Paediatric Oncology Strategic Initiative, Ministry of Health, Ethiopia. She is a Mentor for 'My Child Matters' projects in Pakistan.

Dr Shad is actively involved in the development of Paediatric Oncology Programs in Developing Countries, particularly in Africa, Asia, and the Middle East. Paediatric Oncology in Developing Countries and Late Effects in Cancer Survivors, a major area of her research. She has been honored with multiple teaching, academic, National, and international awards including the '2019 Top 100 Women in Maryland' and '2020 Physician of the Year for Maryland'.



**Dr Kris Ann P. Schultz, MD**, is a paediatric oncologist at Children's Minnesota. She graduated summa cum laude from Drake University (B.A.) and summa cum laude from Loyola University (M.D). She completed her paediatric residency and paediatric hematology/oncology fellowship at the University of Minnesota and received a Master of Science degree in clinical research during her fellowship. Dr. Schultz is the Principal Investigator for the International Pleuropulmonary Blastoma (PPB)/ DICER1 Registry and the Principal Investigator and founder of the International Ovarian and Testicular Stromal Tumor Registry. Her current research focuses on development of treatment strategies for DICER1-related tumors. She is a member of the Alpha Omega Alpha Honor Medical Society and serves as the Pine Tree Endowed Chair in Cancer and Blood Disorders Research and Scientific Director for Cancer and Blood Disorders at Children's Minnesota. Dr. Schultz joined the Hematology Oncology program at Children's of Minnesota in 2008 and has particular interest and expertise in the care of children with pleuropulmonary blastoma, ovarian tumors and other rare childhood cancers.



**Zoltan Patay MD, PhD** is the Chair, Department of Diagnostic Imaging Section Chief of Neuroimaging. Dr Patay is a board-certified neurologist and radiologist with subspecialty qualification in neuroradiology and special expertise in pediatric neuroradiology. He trained in Hungary, France and Belgium and worked for 10 years in the King Faisal Specialist Hospital and Research Center in Riyadh, Saudi Arabia before moving to the USA. His interests in neuroradiology span over MR imaging of neurovascular disorders, neurometabolic diseases and brain tumors in children. Currently, he focuses on a.) Imaging genomics in embryonal tumors of the central nervous system (including medulloblastoma and ATRT). b.) MRI radiomics of paediatric high-grade gliomas (diffuse midline gliomas, in particular), and c.) Early side effects of cancer treatment (including the phenomenon of diaschisis in the central nervous system and its clinical implications in cerebellar mutism syndrome). He has published more than 100 peer-reviewed papers and wrote or contributed to 20 book chapters published in major pediatric radiology textbooks.



**Dr Thomas Merchant DO, PhD** is Chairman of the Department of Radiation Oncology at St. Jude Children's Research Hospital in Memphis, Tennessee where he has practiced for more than 25 years. The subject of his research is the application of advanced radiotherapy methods in the treatment of children with brain tumors. Through his research, he has designed new treatments for children with brain tumors and modeled radiation-related CNS effects. He has advanced the treatment of children with medulloblastoma, ependymoma, low-grade glioma and craniopharyngioma and is responsible for introducing frontline radiation therapy for children under the age of 3 years. He designed and led the development of the world's first proton therapy center dedicated solely to the treatment of children.



**Dr Natia Esiashvili MD**, is Professor and Chief Quality Officer at Winship Cancer Institute of Emory University and Emory Proton Therapy Center and leads Paediatric Radiation Oncology programme. She currently serves as President of the International Paediatric Radiation Oncology Society (PROS). Dr. Esiashvili had been on executive committee of PROS as General Secretary and led programs for low and middle-income countries worldwide. Dr Esiashvili has more than seventy PubMed cited publications and has contributed to multiple book chapters. She has developed radiotherapy guidelines for several clinical trials for Children's Oncology Group. Dr. Esiashvili is a member of the Cancer Prevention and Control research program at Winship Cancer Institute of Emory University. Additionally, she holds memberships with the American Society of Therapeutic Radiation Oncology, American Society of Clinical Oncology, American College of Radiology, Children's Oncology Group, and Paediatric Radiation Oncology Society, among others. Dr. Esiashvili has received various awards for her work in radiation oncology as well as spoken at a number of national and international conferences. She was listed in Atlanta Magazine's "Top Doctors" issue in 2017, 2018 and 2020.



**Dr Derek Tsang, MD MSc FRCPC** is a radiation oncologist at Princess Margaret Cancer Centre. He is an Assistant Professor in the Department of Radiation Oncology at the University of Toronto. He completed his medical training at Queen's University, followed by residency at the University of Toronto. He obtained fellowship training in paediatric radiation oncology at St. Jude Children's Research Hospital in Memphis, Tennessee, and has a Masters' degree in clinical epidemiology at the Harvard T.H. Chan School of Public Health. Dr. Tsang joined the Princess Margaret Cancer Centre in 2017, where he is a member of the paediatric and adult central nervous system (CNS) tumor site groups. His research interests include evaluating re-irradiation for paediatric tumors and reducing the late effects of radiotherapy. His clinical practice includes paediatric oncology, adult neuro-oncology, and stereotactic radiosurgery for benign neoplasms.



**Dr Stefan Friedrichsdorf MD**, is the medical director of the Centre of Pain Medicine, Palliative Care and Integrative Medicine at the UCSF Benioff Children’s Hospitals in Oakland and San Francisco – one of the most comprehensive programs of its kind in the country. In 2020 the Benioff Children’s Hospital San Francisco received the prestigious ChildKind International pain relief certification and the Joint Commission Palliative Care Certification. Dr. Friedrichsdorf received the 2016 “Elizabeth Narcessian Award for Outstanding Educational Achievements in the Field of Pain” by the American Pain Society and the 2011 “Hastings Centre Cunniff-Dixon Physician Award”. He was the medical director of the department of pain medicine, palliative care & integrative medicine at Children’s Minnesota from 2005-2020 and under his leadership the department grew into one of the largest and most comprehensive in the country. It received the “Circle of Life Award” by the American Hospital Association in 2008 and was the 2013 recipient of the “Clinical Centres of Excellence in Pain Management Award” by the American Pain Society. and in 2018 the Albert Bandura Influencer Award from VitalSmarts. He is associate editor of the Journal of Pain and Symptom Management, the principal investigator of a National Institutes of Health (NIH) / National Cancer Institute (NCI) multisite study on the creation, implementation, and evaluation of the Paediatric Palliative Care Curriculum “Education in Palliative and End-of-Life Care (EPEC)-Paediatrics”, which so far trained 990 clinicians from 66 countries. In 2008 he founded and since then directs the annual Paediatric Pain Master Class, a unique week-long intensive course for interdisciplinary health professionals, which trained more than 600 clinicians from 40 countries.



**Prof. Pieter Wesseling, M.D, PhD** is a clinical (neuro)pathologist & Professor in neuro-oncological pathology. He is affiliated with Department of Pathology, Amsterdam University Medical Centers/VUmc, Amsterdam, The Netherlands and Laboratory for Childhood Cancer Pathology, Princess Máxima Center for Pediatric Oncology, Utrecht, The Netherlands. He was trained as clinical (neuro) pathologist in the Radboud University Medical Center, Nijmegen, The Netherlands (supervised by Prof. Joop L. Slooff), and in Duke University Medical Center, Durham NC, USA (Prof. Peter C. Burger). He has over 30 years of experience in neuro-oncological pathology and is since about a decade or so ‘terminally differentiated’ in this area. He is specialized in translation of molecular findings in improved clinical diagnosis of CNS tumors. Prof Wesseling is a member of cIMPACT-NOW consortium (i.e., consortium to Improve Molecular and Practical Approaches to CNS tumor Taxonomy). He is an expert-editor for the 5th edition of the WHO CNS tumor classification for the WHO classification of Paediatric CNS tumors (both to be published in 2021). Prof Wesseling is a member of editorial board of 5 top-5% neuro-oncology/neuropathology journals. He is (Co-)Author of > 300 manuscripts in international peer-reviewed journals (see Wesseling-p in PubMed). Dr Wesseling is PI of multiple research projects, now of e.g. GLASS-NL study in the Netherlands (i.e. Dutch branch of international Glioma Longitudinal AnalySiS study).



**Dr Muhammad Shamvil Ashraf, MBBS, MCPS, FCPS, MRCP** Senior Consultant Paediatric Oncology & Executive Director Medical Services at Indus Hospital & Health Network (IHHN). He has done his M.B.B.S from Dow Medical College, Karachi, Pakistan. He specialized in paediatric oncology from Ireland and UK. Dr Shamvil has worked at Shaukat Khanum Cancer Hospital, Lahore, Ziauddin Cancer Hospital, Karachi, Children Cancer Hospital, Karachi and The Indus Hospital, Karachi, Pakistan since 2014. His vision and mission are to improve and enhance childhood cancer awareness, treatment, and survival and to establish replicable medical services framework across Indus Hospital Health Network. He is a founder member of Children Cancer Foundation Pakistan Trust, Founder and Chief Executive of Children Cancer Hospital. 2000-2014, Founder and past President of Pakistan Society of Paediatric Oncology (PSPO), Member of Society of International Paediatric Oncology (SIOP), member and past Board of Director POEM and Life Member Pakistan Pediatric Association (PPA).



# Meet the Expert Session

## Neuro- Oncology Experts:



**Dr Eric Bouffet**  
Professor of Paediatric Neuro-Oncology  
Senior Neuroscientist  
Garron Chair in Childhood Cancer Research  
Director of Paediatric Neuro Oncology  
Division at The Hospital of Sick Children, Toronto  
Former President of SIOP



**Dr Mark Kieran**  
Clinical Trial Lead, Paediatric  
Program, Oncology Clinical  
Development, Bristol-Myers  
Squibb, New Jersey, USA

## Neurosurgery Experts:



**Dr Peter Dirks**  
Co-Leader, Brain Cancer Translational  
Research Initiative  
Senior Scientist, The Hospital for Sick Children  
Professor of Surgery, University of Toronto



**Dr James Drake**  
Professor, Departments  
of Surgery and  
Biomedical Engineering,  
University of Toronto  
Head, Division of  
Neurosurgery, Hospital  
for Sick Children

## Neuropathology Experts:



**Dr Cynthia Hawkins**  
Neuropathologist and Professor,  
Department of Paediatric Laboratory Medicine,  
Division of Pathology, The Hospital for Sick Kids,  
Toronto, Ontario, Canada.



**Dr Fausto Rodriguez**  
Director of the clinical  
Neuropathology service,  
Professor of Pathology,  
Oncology and Ophthalmology  
Johns Hopkins University School  
of Medicine, Baltimore,  
Maryland, USA

## **Session Chairpersons:**

- Dr Bilal Mazhar Qureshi
- Dr Revathi Rajagopal
- Dr Ata Ur Rehman Maaz
- Dr Aneela Darbar
- Dr Michael Dewan
- Dr Gohar Javed
- Dr Fatima Mubarak
- Dr Shahzadi Resham
- Dr Shazia Riaz
- Dr Asim Hafiz
- Dr Mithra Ghalibafian
- Dr Sadaf Altaf
- Dr Altaf Ali Laghari
- Dr Nisreen Amayiri
- Dr Muhammad Saghir
- Dr Shazia Kadri
- Dr Raja Khan
- Dr Zehra Fadoo
- Dr Shahzad Shamim
- Dr Khurram Minhas
- Dr Ata Ur Rehman Maaz

# Pre-Conference Educational Half Day

Thursday, November 11, 2021, | 05:00pm – 08:30pm (Pakistan Time; GMT +5)

## Meet the Experts Session

Thursday, November 11, 2021, | 05:00pm – 06:00pm (Pakistan Time; GMT +5)

### Parallel Session:

**Neuro-Oncology:**

Dr Mark Kieran  
Dr Eric Bouffet

**Moderator:**

Dr Ata Ur Rehman Maaz  
Sidra Hospital, Qatar

**Neurosurgery:**

Dr Peter Dirks  
Dr James Drake

**Moderator:**

Dr Shahzad Shamim  
AKUH

**Neuropathology:**

Dr Cynthia Hawkins  
Dr Fausto Rodriguez

**Moderator:**

Dr Khurram Minhas  
AKUH

## Paediatric Neuro-Oncology for general Pediatricians and Practitioners

Thursday, November 11, 2021, | 06:00pm – 08:00pm (Pakistan Time; GMT +5)

### Faculty:

- Dr Ata Ur Rehman Maaz
- Dr Nisreen Amayiri
- Dr Syed Ahmer Hamid
- Dr Sara Khan

### Moderator:

- Dr Afia Arif

### Topics:

- Emergencies in Paediatric Neuro-Oncology – **Dr Ata Ur Rehman Maaz** 30 mins
- Early diagnosis of Paediatric brain tumor - **Dr Nisreen Amayiri** 30 mins
- Breaking Bad News- the art and science of communication –  
**Dr Sara Khan** 30 mins
- Who to refer a patient if you suspect a CNS tumor (Referral pathway)  
**Dr Syed Ahmer Hamid** 30 mins

### Learning Objectives:

The participant should be able to:

- Identify the most prominent challenges in terms of access to care and quality of care facing Paediatric Brain Tumors in constrained resources settings.
- Recommend the most recent diagnostic, pathological and genetics advances in the evaluation of children with brain tumors.
- Explain the role of multidisciplinary in achieving quality diagnosis and care for children with brain tumors.

### Workshop Format

Interactive video linked workshop.

**Pediatric CNS RT Planning Workshop**

**Thursday, November 11, 2021**

**Interactive Hybrid Workshop**

**Learning Objectives:**

- ✚ How Pediatric Brain RT is different from adults
- ✚ Patient setup for Brain & Spine RT
- ✚ Peer Reviewed RT decision making, treatment planning & delivery
- ✚ Quality Assurance for Pediatric RT
- ✚ Sparing normal structures (OAR) in Pediatric RT Planning & Delivery
- ✚ Managing radiation therapy under general anesthesia
- ✚ Dealing with challenges in LMIC

**ZOOM LINK**

<https://aku-edu.zoom.us/j/95954935926>

**Meeting ID: 959 5493 5926**

**Password: 615055**

<b>Workshop Chairs:</b>	Dr Ahmed Nadeem Abbasi Dr Bilal Mazhar Qureshi
<b>Workshop Coordinator</b>	Dr Agha Muhammad Hammad Khan
<b>Workshop Faculty:</b>	Dr. Asim Hafiz (Assistant Professor, AKU) Mr. Asad Yousuf (Senior CMP, AKU) Mr. Zaka Ur Rehman Khan (Chief RTT, AKU)

**Program**

<b>1500 hrs</b>	TILAWAT E QURAN E KAREEM with Translation: Mr. Hamid Jamil, AKU
	National Anthem of Pakistan
	Welcome Address: Dr. Naureen Mushtaq
	Introduction of the Session: Dr. Sehrish Abrar
<b>1515 hrs</b>	<i>Importance of Pediatric Brain Radiotherapy Planning</i> <b>Dr Bilal Mazhar Qureshi</b> Assistant Professor Section Head Radiation Oncology, The Aga Khan University, Karachi, Pakistan.

1530 hrs	<p><i>Importance of Pediatric Brain Radiotherapy Planning</i></p> <p><b>Dr Asim Hafiz</b>  Assistant Professor  Radiation Oncology,  The Aga Khan University, Karachi, Pakistan.</p>								
1545 hrs	<p><i>Clinical Cases Discussion; Moderator: <b>Dr Maria Tariq</b></i>  Facilitator: <b>Dr. Asim Hafiz, Mr. Zaka Khan &amp; Mr. Asad Yusuf</b></p> <table border="1" data-bbox="497 542 1380 801"> <tr> <td>Case 1</td> <td>Medulloblastoma</td> </tr> <tr> <td>Case 3</td> <td>Ependymoma</td> </tr> <tr> <td>Case 4</td> <td>High Grade Glioma</td> </tr> <tr> <td>Case 5</td> <td>Intracranial Germ Cell Tumor</td> </tr> </table>	Case 1	Medulloblastoma	Case 3	Ependymoma	Case 4	High Grade Glioma	Case 5	Intracranial Germ Cell Tumor
Case 1	Medulloblastoma								
Case 3	Ependymoma								
Case 4	High Grade Glioma								
Case 5	Intracranial Germ Cell Tumor								
1645 hrs	<p><i>Panel Discussion: Global Challenges for Pediatric Brain RT</i></p> <p><b>Moderator: Dr. Bilal Qureshi &amp; Dr. Nadeem Abbasi</b></p> <p><b>Q &amp; A:</b> All participants</p>								
1700 hrs	<p>Vote of thanks &amp; concluding remarks.</p> <p><b>Dr. Nasir Ali</b></p>								

# Scientific Program

## Day 1

**Friday, November 12, 2021**

### Session One

Session Chairs: Dr Bilal Mazhar Qureshi and Dr Revathi Rajagopal

**Friday, November 12, 2021, | 07:50am – 09:45am (Pakistan Time; GMT +5)**

07:50am – 08:00am	10 mins	Naureen Mushtaq, Pakistan	Welcome and Introduction.
08:00am – 08:25am	25 mins	Ute Bartels, Canada	Multimodal treatment approach for intracranial germ cell Tumors
08:30am – 08:55am	25 mins	Natia Esiashvili, USA	Ideal radiotherapy option in Germ cell tumors
09:00am – 09:25am	25 mins	Aziza A Shad, USA	Improving care and quality of life of paediatric brain tumors survivors
09:30am - 09:45am	15 mins	Panel discussion	
09:45am-10:00am	15 mins	<b>Tea Break</b>	

### Session Two

Session Chairs: Dr Ata Ur Rehman Maaz and Dr Aneela Darbar

**Friday, November 12, 2021, | 10:00am –11:30am (Pakistan Time; GMT +5)**

10:00am – 10:25am	25 mins	Nick Gottardo, Australia	Assembling the brain trust: the multidisciplinary imperative in neuro-oncology.
10:25am – 10:50am	25 mins	Darren Hargrave, UK	DIPG – Biological insights and therapeutic challenges
10:50am – 11:15am	25 mins	Michael Taylor, Canada	Intertumor heterogeneity between medulloblastoma subgroups
11:15am – 11:30am	15 mins	Panel discussion	

### Session Three

Topic: Moderated Poster Session

Session Chairs: Dr Shazia Riaz and Dr Asim Hafiz

**Friday, November 12, 2021, | 11:45am – 12:45pm (Pakistan Time; GMT +5)**

**Lunch Break**

### Session Four

Topic: Global Paediatric Neuro-oncology Neurosurgery  
Session Chairs: Dr Michael Dewan and Dr Gohar Javed

Friday, November 12, 2021, | 02:30pm – 05:30pm (Pakistan Time; GMT +5)

02:30pm – 02:45pm	15 mins	Ather Enam, Pakistan	Neuro-oncological societies for capacity building in LMIC
02:45pm – 03:05pm	20 mins	Awni Musharbash, Jordan	Paediatric brain tumors surgery in Jordan, past, present, and the future
03:05pm – 3:20pm	15 mins	Wang Jingsheng, China	Capacity building of Paediatric neurosurgery in China
03:20pm – 3:35pm	15 mins	Aliasgar Moiyadi, India	Landscape of Paediatric neurosurgery for brain tumors in India
03:35pm – 3:50pm	15 mins	Zohreh Habibi, Iran	Paediatric neurosurgery for brain tumors updates from Iran
03:50pm – 4:05pm	15 mins	Addisalem Belete, Ethiopia	Paediatric neurosurgery for brain tumors updates from Ethiopia
04:05pm – 4:20pm	15 mins	Pavlo Plavskyi, Ukraine	Capacity building of Paediatric neurosurgery in Ukraine
4:20pm – 04:35pm	15 mins	Dharmendra Ganesan, Malaysia	Landscape of Pediatric neurosurgery for brain tumors in Malaysia
4:35pm – 4:50pm	15 mins	Riaz Ahmed Raja Memon, Pakistan	Capacity building of Paediatric Neuro-Oncology/Neurosurgery Pakistan
4:50pm – 05:10pm	20 mins	Michael Dewan, USA	Global Neurosurgery: The current capacity and deficit in the provision of surgical care.
05:10pm – 5:30pm	20 mins	Panel discussion panelists: Naqib Ullah Achakzai, Salman Sharif, Irfan Yousuf, Lal Rehman, Ehsan Bari, Laeeq Ur Rehman	
05:30pm -05:45pm	15 mins	<b>Tea Break</b>	

06:00pm – 07:50pm

Inaugural Session Chair: Dr Eric Bouffet

06:00pm – 06:30pm	30 mins	<b>Keynote Lecture:</b> Stefan Pfister, Germany	Precision medicine in Paediatric brain tumors - Implications in LMIC
06:30pm – 06:40pm	10 mins	Video Messages by Adil Haider, Dean Medical College, AKU Carl Amrhein, Provost and Vice President, Academic, AKU	
06:40pm – 06:50pm	10 mins	Address by Zulfiqar Ahmed Bhutta, Chair in Global Child Health at Hospital for Sick Children, Toronto/Distinguished University Professor at AKUH	
06:50pm – 07:00pm	10 mins	Address by Gelareh Zadeh, President Society for Neuro-Oncology (SNO)	
07:00pm – 07:10pm	10 mins	Address by Michael Sullivan, President SIOP Oceania	
07:10pm – 07:20pm	10 mins	Address by Naqib Ullah Achakzai, President Pakistan Society of Neurosurgery	
07:20pm – 07:30pm	10 mins	Address by Rakesh Jalali, Past President Indian Society of Neuro-Oncology (ISNO)	
07:30pm – 07:50pm	20 mins	Muhammad Shamvil Ashraf, Executive Director, Medical Services, Indus Health Network	Paediatric Oncology - The Past, Present, and Future in Pakistan



**Day 2**  
**Saturday, November 13, 2021**

**Session Five**  
**Session Chairs: Dr Fatima Mubarak and Dr Shahzadi Resham**

<b>Saturday, November 13, 2021,   08:00 am – 09:55 am (Pakistan Time; GMT +5)</b>			
08:00am – 08:25am	25 mins	Roger Packer, USA	Establishing Clinical Trial consortium for brain tumors in LMIC.
08:25am – 08:50am	25 mins	Zoltan Patay, USA	Imaging characteristics of Paediatric pontine gliomas
08:50am – 09:15am	25 mins	Kris Ann Schultz, USA	Central nervous system manifestations of DICER1 variation
09:15am – 09:40am	25 mins	Stefan Friedrichsdorf, USA	Pain management in children with brain tumors
09:40am – 09:55am	15 mins	Panel discussion	
10:00am – 10:15am	15 mins	<b>Tea Break</b>	

**Session Six**  
**Session Chairs: Dr Mithra Ghalibafian and Dr Sadaf Altaf**

<b>Saturday, November 13, 2021,   10:30am – 12:00pm (Pakistan Time; GMT +5)</b>			
10:30am - 12:00pm	90 mins	<b>Free Paper Discussion</b>	

**Session Seven**  
**Session Chairs: Dr Altaf Ali Laghari and Dr Nisreen Amayiri**

<b>Saturday, November 13, 2021,   12:15pm – 01:45pm (Pakistan Time; GMT +5)</b>			
12:15pm – 12:40pm	25 mins	Stefan Rutkowski, Germany	Medulloblastoma: The European experience
12:40pm – 01:05pm	25 mins	Owase Jeelani, UK	Surgical access and aims in Neuro-oncology for the 21 <sup>st</sup> century
01:05pm – 01:30pm	25 mins	Marcel Kool, Germany	Classification, characterization, and clinical annotation of rare Paediatric brain tumor types
01:30pm – 01:45pm	15 mins	Panel discussion	
<b>Lunch Break</b>			

**Session Eight**  
**Session Chairs: Dr Muhammad Saghir and Dr Shazia Kadri**

<b>Saturday, November 13, 2021,   03:30pm – 05:00pm (Pakistan Time; GMT +5)</b>			
03:30pm – 03:55pm	25 mins	Pieter Wesseling, Netherlands	Molecular characteristics of Paediatric high-grade gliomas
03:55pm – 04:20pm	25 mins	Derek Tsang, Canada	Modern radiotherapy for Paediatric Craniopharyngioma
04:20pm – 04:45pm	25 mins	Uri Tabori, Canada	The consequences and opportunities in the management of replication repair deficient brain tumors.
04:45pm – 05:00pm	15 mins	Panel discussion	
05:00pm - 05:15pm	15 mins	<b>Tea Break</b>	

**Session Nine**  
**Session Chairs: Dr Raja Khan and Dr Zehra Fadoo**

<b>Saturday, November 13, 2021,   05:30pm – 07:35pm (Pakistan Time; GMT +5)</b>			
05:30pm – 05:55pm	25 mins	Thomas Merchant, USA	Role of Re-Radiation therapy for recurrent Paediatric brain tumors
05:55pm – 06:20pm	25 mins	Eric Bouffet, Canada	Immune checkpoint inhibitors in high grade gliomas
06:20pm – 06:45pm	25 mins	Kenneth Cohen, USA	Pineoblastoma molecular classification and management
06:45pm – 07:10pm	25 mins	<b>Closing Keynote Lecture:</b> Peter Dirks, Canada	Road map for the emerging field of cancer neurosciences.
07:10pm – 07:25pm	15 mins	Panel discussion	
07:25pm – 07:30 pm	5 mins	Vote of thanks Sadaf Altaf	
07:30pm – 07:35pm	5 mins	Closing remarks Naureen Mushtaq	

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