

#### SCIENTIFIC DIALOG



## **DIGITAL DIALOG**

BRITISH NEURO-ONCOLOGY SOCIETY ANNUAL MEETING 2021 PRECISION MEDICINE AND THE FUTURE OF NEURO-ONCOLOGY PRACTICE

THURSDAY 8<sup>TH</sup> AND FRIDAY 9<sup>TH</sup> JULY 2021 VIRTUAL CONFERENCE





## WELCOME

It is with great pleasure to welcome you to the very first virtual BNOS meeting.

The meeting kicks off on Wednesday 7<sup>th</sup> July with the Early Careers Researcher satellite online event "A Roadmap to Research Independence".

To find out more about this satellite meeting and to register please visit: https://www.bnos.org.uk/research-workshop/

This will be followed by the main meeting on Thursday 8<sup>th</sup> and Friday 9<sup>th</sup> July focusing on "Precision Medicine and the Future of Neuro-Oncology".

Thursday will focus on education and research in the field of precision medicine, trials, patient avatars and functional profiling. The afternoon Clinical Nurse Specialist and Allied Health Practitioner session is focused on developing and delivering a Patient and Carer Survivorship programme.

On Friday we will hear about updates in precision medicine in TYA and paediatric neuro-oncology and learn about the latest update on WHO classification and DNA methylation of CNS tumours. In the controversies of the neuro-oncology MDT we will debate the management of some more complex and rarer tumours, to help us better understand different approaches to these challenges.

We have an outstanding group of invited speakers, and an exciting programme of oral and poster presentations for you to enjoy. Prizes will be awarded for the young investigator of the year, the best oral and poster presentations for both clinical and basic science. We invite you to explore our bespoke conference platform, where all the key elements can be found: the main stage, exhibition space, posters, chat function, and Q&A. The platform will remain open for a month following the conference for you to come back to.

A final word of thanks to colleagues of the BNOS council and support team, the local organising committee at the Queen Elizabeth Hospital Birmingham and the University of Birmingham, and to Aesculap Academia for their contribution and support in organising this event. A very special thanks must also go to all our sponsors especially to the platinum exhibitors Novocure and TAE. The support of our sponsors has been invaluable throughout, and they have worked hard to offer as much opportunity for direct interaction as possible. Please put aside time to attend the lunch time lectures and also to visit the companies exhibition areas and connect with their teams.

Welcome to BNOS 2021. We hope you enjoy the virtual meeting!

On behalf of Professor Colin Watts President of BNOS Chair of the Birmingham Brain Cancer Programme

#### Dr Victoria Wykes

Local Organising Committee Lead Consultant Academic Neurosurgery

## INFORMATION



#### ACCESSING THE EVENT

All registered delegates will be sent access details ahead of the conference. Please follow the link provided to set up your login details and attendee profile. A video 'how to guide' will be available on the welcome page to provide tips and tricks to navigate the platform, allowing optimal user experience during the conference.

#### **EXHIBITORS**

Please take the time during the conference to visit the exhibition area. Here you can access useful information about each organisation along with contact details. This event would not be possible without their support.

#### NETWORKING

Interact with fellow delegates and company representatives via the attendees tab. We hope that you will maximise this opportunity to catch up with colleagues during the event using chat or video call, all in one place!



#### ABSTRACTS

Download the full abstract book at: www.bnosconference.co.uk/bnos-conference/abstracts/



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#### POSTERS

Posters can be viewed and downloaded directly on the platform. If you have a question, please locate the author in the attendees area and contact directly using the chat function.

#### Q&A

QEtA is available throughout the conference alongside the main stage content. We have allocated ample time for questions, so please do get involved. 'Like' a question to push it to the top of the list!

#### SOCIAL MEDIA

Share your experience with us on Twitter <u>@academia\_uk</u> or <u>@BNOSofficial</u> using #BNOS2021

#### CERTIFICATES AND FEEDBACK

A link will be sent directly to you via email after the event. Only once this has been completed will you be sent a PDF certificate via email. Should you require a hard copy please email the events team at: <u>academia.bbmuk@bbraun.com</u>. Due to the high volume of attendees, please allow 2 – 3 weeks for receipt of your certificate.

## ORGANISING COMMITTEE DEPARTMENT OF NEUROSURGERY, QUEEN ELIZABETH HOSPITAL, BIRMINGHAM AND THE UNIVERSITY OF BIRMINGHAM

#### LOCAL ORGANISING COMMITTEE LEAD

Dr Victoria Wykes Consultant Academic Neurosurgery

#### LOCAL ORGANISING COMMITTEE

Dr Helen Benghiat Consultant Clinical Oncologist

Mr Peter Buckle Patient and Public Involvement Volunteer Representative, Brain Tumour Advocate

Mr Will Garratt Brain Tumour Specialist Nurse

Ms Emma Hill Physiotherapist

Dr Ute Pohl Consultant Neuropathologist

Dr Shanika Samarasekera Consultant Oncologist

Professor Vijay Sawlani Consultant Neuroradiologist

Dr Daniel Tennant Reader in Metabolic Biochemistry

Mrs Anwen White Consultant Neurosurgeon

Mr Athanasios Zisakis Neurosurgical Oncology Fellow

## INVITED SPEAKERS

#### Mr Peter Buckle

Patient and Public Involvement Volunteer Representative, Brain Tumour Advocate Birmingham

Dr Helen Bulbeck Founder and Director of Services and Policy Brainstrust

Professor David Capper Professor for Molecular Neuropathology Charité – Universitätsmedizin Berlin

Professor Neil Carragher Professor of Drug Discovery and Director of Translation University of Edinburgh

Dr Susan Chang Professor of Neurological Surgery UCSF Weill Institute for Neurosciences, San Francisco

Mrs Stine Giles The Giles' Trust Brain Tumour Fund Birmingham

#### Professor Stuart Green

Director of Medical Physics and Honorary Professor of Physics University of Birmingham and University Hospitals Birmingham NHS Foundation Trust

#### Professor Darren Hargrave

Clinical Professor of Paediatric Neuro-Oncology UCL Great Ormond Street Institute of Child Health, London

#### Professor Michael Jenkinson

Professor of Neurosurgery and Honorary Consultant Neurosurgeon University of Liverpool and Walton Centre NHS Foundation Trust

Professor Pamela Kearns Professor of Clinical Paediatric Oncology and Honorary Consultant in Paediatric Oncology University of Birmingham and Birmingham Women's and Children's NHS Foundation Trust

Professor Gary Middleton Professor of Medical Oncology University of Birmingham

#### Professor Simone Niclou

Director of the Department of Oncology and Adjunct Professor Luxembourg Institute of Health and University of Bergen Ms Ingela Oberg Macmillan Lead Neuro-Oncology Nurse Cambridge University Hospitals NHS Foundation Trust

Mrs Kathy Oliver Chair and Co-Director The International Brain Tumour Alliance

Professor Andrew Peet Professor of Clinical Paediatric Oncology (NIHR) University of Birmingham and Birmingham Children's Hospital

Professor Puneet Plaha Associate Professor and Consultant Neuro-Oncology Surgeon John Radcliffe Hospital, Oxford University Hospitals NHS Foundation Trust

Professor Vijay Sawlani Consultant Neuroradiologist University Hospitals Birmingham NHS Foundation Trust

Dr Daniel Tennant Reader in Metabolic Biochemistry University of Birmingham

#### Dr Gerry Thompson

Senior Clinical Lecturer in Radiology and Honorary Consultant Neuroradiologist University of Edinburgh and NHS Lothian

#### Professor Colin Watts - BNOS President

Professor of Neurosurgery and Honorary Consultant Neurosurgeon University of Bimringham and University Hospitals Birmingham NHS Foundation Trust

#### Professor Wolfgang Wick

Professor of Neurology and Division Head for Neuro-oncology Heidelberg University and The German Cancer Research Centre, Heidelberg



#### **MR PETER BUCKLE**

My wife Wendy, at the age of 54, died from a glioblastoma after an illness of less than six months. Apart from hospital in-patient stays following the original debulking surgery, and later for pneumonia, I cared for her in our home until her death.

Since then I have campaigned for:

- Better brain tumour treatments
- Honesty in communication of prognosis for terminal diseases
- Informed choice of treatment for cancer patients
- Improved access to psychological support for terminally ill patients

I have been involved in many research projects, both clinical trials and qualitative studies, and also with various local and national bodies involved in improving delivery of neuro-oncology services.

I have also contributed to many media events, including live and recorded national and regional television, radio and newspaper interviews.

It is important to me to be involved on the organising committee of BNOS 2021.



#### **DR HELEN BULBECK**

Helen has experienced cancer from a carer's perspective and also as a cancer patient. This 360 degree view means that she is well placed to understand the perspectives of patients, carers and health care professionals.

Her roles in brainstrust, a national brain cancer charity which she founded, and as a consumer representative with various bodies are as a disseminator of information and the provision of a network and community, so that she can provide advice on achieving effective consumer involvement and creating a voice. Helen's key drivers are the patients, their carers and healthcare professionals, with whom she interacts daily. Her ethos of 'none of us is as smart as all of us' is a core value for her.

Elemental to Helen's work is high performance coaching. This sets brainstrust apart. When we are no longer to able to change a situation we are challenged to change ourselves. The coaching relationship enables people to face these challenges, so that they learn how to develop resilience and utilise resources to their full potential.

Helen stays up to date with relevant research, ensuring her reading is not brain centric. The skills she developed whilst studying for her PhD means that she is tenacious in spirit, but with a listening ear.



#### PROFESSOR DAVID CAPPER

David Capper (MD) is Professor for Molecular Neuropathology at the Charité Universitätsmedizin Berlin and Faculty member of the Berlin German Cancer consortium (DKTK) since April 2017.

Previously, he worked as senior physician of Neuropathology at the University Hospital Heidelberg and was member of the Clinical Cooperation Unit Neuropathology at the German Cancer Research Centre (DKFZ). His research focuses on the Pathology and genetics of tumours of the central nervous system with a special focus on the development of specific diagnostic markers ("mutation-specific monoclonal antibodies") and classification of brain tumours by genome-wide analysis of DNA methylation patterns.

In addition, he headed the central pathology for several national and international studies (especially LOGGIC registry study (ongoing), INFORM register study MNP2.0 study).



#### PROFESSOR NEIL CARRAGHER

Professor Neil Carragher graduated from the University of Aberdeen, Scotland UK in 1992 with a BSc Honours degree in the subject of "Cell and Immunobiology".

He then took up a position within industry at the Yamanouchi Research Institute, Oxford, England UK where he also gained his PhD.

He then held consecutive postdoctoral positions within the Department of Pathology, University of Washington, Seattle, USA and at the Beatson Institute for Cancer Research, Glasgow, Scotland UK.

In 2004 Neil returned to the pharmaceutical industry as Principal Scientist with the Advanced Science and Technology Laboratory at AstraZeneca where he pioneered early multiparametric high-content phenotypic screening approaches.

In 2010 he once again made the career switch from industry to academia and is currently Professor of Drug Discovery and Director of Translation at the University of Edinburgh. Primary research interests include advancing High-content phenotypic screening, Reverse Phase Protein Arrays, drug combinations and cancer drug discovery.



#### DR SUSAN CHANG

Dr Susan Chang has a major research focus on the development of novel therapies for patients, as well as the assessment of novel imaging markers of prognosis and response to therapy. She has served as the Pl on numerous clinical trials and is a leader on multi-programmatic grants that address the integration of physiologic and metabolic imaging with tissue biomarkers to optimise the management of glioma patients. She is the Director of the Glioblastoma Precision Medicine Program aimed at leveraging the molecular and cytogenetic characteristics of glioblastoma to develop new treatments. Dr Chang has also created novel clinical programs such as the Gordon Murray Neuro-Oncology Caregiver program and the Sheri Sobrato Brisson Brain Tumor Survivorship Program, both developed to enhance the care of patients and families.



#### MRS STINE GILES

Stine grew up on a small island on the west coast of Norway. She moved to the UK to study at the University of Birmingham. This is where she met her husband, Ashley, and together they had two children, Anders and Matilde.

In 2006, after a period of ill health, she was diagnosed with a brain tumour. The doctors at QE hospital Birmingham were able to operate on the tumour and successfully removed it. However, six years later a routine check-up found Stine had two new brain tumours. These were treated using radiotherapy. Thankfully the treatment was successful but generated new challenges such as hair loss.

After this, Stine felt she had to give back to those who had helped her and support other brain tumour patients. This led to the creation of the Giles' Trust.



#### PROFESSOR STUART GREEN

Stuart leads the Medical Physics team of approximately 140 staff at University Hospital Birmingham (UHB) NHS Trust, and is also Honorary Professor of Physics in the School of Physics and Astronomy, University of Birmingham. He has held national leadership roles including a period as President of the British Institute for Radiology. He is currently a member of the Board of Counsellors of the International Society for Neutron Capture Therapy and also a member of a working group on BNCT on behalf of the Particle Therapy Co-Operative Group (PTCOG). He is chair of the working group which is developing a dosimetry code of practice for scanned proton beams which should be published during 2021.



#### PROFESSOR DARREN HARGRAVE

Darren Hargrave is a full professor of Paediatric Neuro-oncology at University College London and Honorary Consultant Paediatric Oncologist at Great Ormond Street Hospital, London UK where he leads the Neuro-oncology and Experimental Therapeutics programme since 2011.

Prior to this following training in UK and Canada he was appointed in 2002 as Consultant Paediatric Oncologist where he developed the South Thames Paediatric Neuro-oncology and Drug Development programmes. He has been the Chief Investigator of over 15 Clinical Trials from "first in child" to large Randomised International Phase III studies.

He is the current Chair of the European SIOPe Paediatric Brain Tumour Group and previous Chair of the SIOPe High Grade Glioma working group. He has several positions within the UK NCRI and Chaired the Children's Novel Agents Group for 4 years. He serves on multiple National and European Childhood Cancer organisations including UK NCRI, CRUK and ITCC committees.

Darren has acted as an external scientific advisor/ reviewer for Pediatric Brain Tumor Consortium (PBTC), NIH and the French Cancer Agency. For this he is the Co-chair with Maryam Fouladi of the Collaborative Network of Neuro-Oncology Clinical Trials (CONNECT), an international consortium of 15 academic pediatric neuro-oncology centers. He has extensive experience in translational research, development and coordination of clinical trials and leadership of clinical research teams and networks.



#### PROFESSOR MICHAEL JENKINSON

Michael Jenkinson is Professor of Neurosurgery and Honorary consultant neurosurgeon at the University of Liverpool and Walton Centre NHS Foundation Trust.

He chairs the National Cancer Research Institute Brain Tumour Group, the Academic Committee of the Society of British Neurological Surgeons and is a member of Specialised Cancer Surgery CRG.

His research interests include meningioma and cerebral metastasis, and clinical studies on quality of life in brain tumours. He is the chief investigator for the international, multi-centre ROAM-1308 trial (Radiation versus Observation following surgical resection of Atypical Meningioma), the KEATING trial (Ketogenic Diet in Glioma) and STOP 'EM (Surgeons Trial of Prophylaxis for Epilepsy in Meningioma).



#### PROFESSOR PAMELA KEARNS

Professor Pam Kearns is Chair of Clinical Paediatric Oncology at the University of Birmingham, where she is Director of the Institute of Cancer and Genomic Sciences and Director of the Cancer Research UK Clinical Trials Unit (CRCTU). As Director of CRCTU, she leads the research strategy for UK's largest cancer trials unit, delivering a trials portfolio of over 100 multi-centre and international cancer trials for a wide-range of cancers, occurring in all children, young people and adults.

She is also an Honorary Consultant Paediatric Oncologist at Birmingham Women and Children's Hospital, Senior Clinical Advisor to Cancer Research UK and President of the European Society of Paediatric Oncology (SIOP-Europe).

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References: 1. Stupp R, Taillibert S, Kanner A, et al. Effect of tumor-treating fields plus maintenance temozolomide vs maintenance temozolomide alone on survival in patients with glioblastoma: a randomized clinical trial. JAMA. 2017;318(23):2306-2316. 2. Taphoorn MJB, Dirven L, Kanner AA, et al. Influence of treatment with tumor-treating fields on health-related quality of life of patients with newly diagnosed glioblastoma: a secondary analysis of a randomized clinical trial. JAMA Oncol. 2018;4(4):495-504.





#### PROFESSOR GARY MIDDLETON

Professor Gary Middleton is a Medical Oncologist who specialises in lung cancer and colorectal cancer. He has many years of experience in patient treatment, and also in development of novel clinical trials. Appointed to a chair of Medical Oncology at Birmingham in 2013, he has built up a strong clinical and translational research programme. Gary also serves as a Clinical Director for the CRUK Birmingham Centre, Director of the Birmingham ECMC and is Lead for the Birmingham CRUK Clinical Academic Training Programme.

A key interest is in stratified approaches to patient treatment, and Gary has a strong presence in UK stratified medicine clinical trials. He is Chief Investigator for the National Lung Matrix Trial, a multi-centre, multi-arm, molecularly stratified clinical trial programme for UK patients with lung cancer. Outcome data was published in Nature in 2020. He is also interested in stratification approaches for immunotherapy and leads on the ANICCA trial, a phase II study in high class II expressing microsatellite stable colorectal cancer, a study directly translating the clinic work from his laboratory programme exploring the determinants and dynamics of class II expression in cancer. Another research focus is in understanding the tumour microenvironment and how this impacts on new therapeutic approaches, including novel immunotherapy strategies. One particular area of active study is myeloid derived suppressor cells (MDSC), which are thought to suppress tumour-specific immune responses. The discovery of novel predictors of checkpoint blockade toxicity is a key area of current research.



#### PROFESSOR SIMONE NICLOU

Since 2005, Dr Niclou runs the NORLUX Neuro-Oncology Laboratory at the Luxembourg Institute of Health (www.lih.lu), with the aim to develop novel treatment options for malignant brain tumor patients (https://norlux.lih. lu/). Her research focus is glioma invasion, tumour plasticity and metabolism. Her group established relevant preclinical glioma models, including patient-based 3D tumor organoids and orthotopic xenografts (PDOX).

In May 2019, Dr Niclou was appointed director of the department of oncology at the Luxembourg Institute of Health, overseeing 11 research teams in fundamental and translational cancer research. Since 2014, Dr Niclou is adjunct professor at the University of Bergen in Norway. She serves on the executive board of the European Association for Neuro-Oncology (EANO) and on the scientific advisory board of the CNS section of ESMO. She also serves on the editorial board of Neuro-Oncology, the main journal of the neuro-oncology community and is associate editor of the sister journal Neuro-Oncology Advances.



#### MS INGELA OBERG

Ingela, originally from Sweden, is lead neurosurgical clinical nurse specialist at Addenbrooke's Hospital, Cambridge and has been in her current role since 2009. She is an active member of the neuro oncology forums both nationally and internationally, and has been previous lead nurse for both BNOS and EANO with several joint publications to her name. She has recently edited a book aimed at the novice neuro oncology nurse entitled "Management of Adult Glioma in Nursing Practice" by Springer. Ingela is very keen on ensuring continued professional development of neuro oncology nurses and raising the profile of this specialised nursing niche, in turn, to better the outcomes for neuro oncology patients and their carers.

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#### MRS KATHY OLIVER

Kathy Oliver is Chair and a founding Co-Director of the International Brain Tumour Alliance (IBTA), a global network established in 2005 as a dynamic worldwide community for brain tumour patient organisations and others involved in neuro-oncology (see https://theibta.org/kathy-oliver/ and www.theibta.org). Kathy campaigns for equitable access to therapies; encourages the establishment of brain tumour patient/caregiver support groups in countries where they don't yet exist; and raises awareness of the challenges of this devastating disease. She is involved in a broad spectrum of high-level, multi-stakeholder initiatives on patient reported outcomes; rare cancers; quality of life; cancer patient rights-based advocacy; brain tumour treatment guidelines; regulatory matters and palliative care. She is the current Co-Chair of the European Cancer Organisation's Patient Advisory Committee and on the Steering Committee of EURACAN, the European Reference Network for Rare Adult Solid Tumours. Kathy has authored/co-authored a wide range of journal papers, book chapters and magazine articles.



#### PROFESSOR ANDREW PEET

Andrew Peet is a Professor of Clinical Paediatric Oncology at the University of Birmingham and Birmingham Children's Hospital. His research interests are in advanced MRI and tumour metabolism and he is the Research Director of the NIHR 3T MR Research facility. Peet leads the Children's Brain Tumour Research Team which is broadly multidisciplinary across both academia and the NHS and has led research studies at national and international level with more than 100 publications. Peet is a member of the Children's Cancer and Leukaemia Group's Executive and is the chair of its Research Advisory Group as well as being the Paediatric representative on the BNOS Council. He has also been the co-chair of the International Society of Pediatric Oncology Brain Imaging Group and the chair of the Pediatric Study Group of the International Society of Magnetic Resonance in Medicine. The current focus of his work is to bring advances in functional imaging to the clinic through developing and deploying clinical decision support systems based on machine learning.



#### PROFESSOR PUNEET PLAHA

Professor Puneet Plaha is Consultant NeuroOncology Surgeon and Associate Professor at Nuffield Department of Surgery, University of Oxford and Oxford University Hospitals NHS Foundation Trust.

His area of interest is setting up Novel clinical trials for brain tumours (Glioma), advanced brain imaging for brain tumours, novel intra operative technology to minimise morbidity during brain tumour surgery, endoscopic minimally invasive brain tumour surgery, awake surgery, Immunotherapy for glioblastoma. He is Chief Investigator of the multicentre NIHR FUTURE-GB trial. He is Chair of the Neuro oncology Section of the SBNS and Co-chair of the Neuro oncology Subsection of the SBNS Academic Committee. He is member of the NCRI Brain Tumour group.



#### PROFESSOR VIJAY SAWLANI

Professor Vijay Sawlani is a Consultant Neuroradiologist at University Hospitals, Birmingham NHS Foundation Trust. He is also Honorary Professor Neuroimaging at the University of Birmingham and has more than 50 publications and 100 scientific presentations.

- Lead radiologist, PI and Co-I in many brain tumour, epilepsy and artificial intelligence projects. Supervising clinical PhDs on A.I.

Imaging lead sports concussion imaging service for professional players (SRMRC).

- Lead radiologist for critical care neuroimaging during Covid-19, audited and published one of the largest cohort in the UK.

- Lead for multiparametric and functional MRI services in brain tumours and complex epilepsy surgery programme.





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#### **DR DANIEL TENNANT**

Dr Daniel Tennant graduated with a BA (Hons) and MSci from the University of Cambridge in 2002.

He went on to Manchester University to undertake a PhD studying diabetic neuropathy under the supervision of Professors Caroline Dive and David Tomlinson.

In 2005, Dan moved to the Cancer Research UK Beatson Institute of Cancer Research in Glasgow under the supervision of Professor Eyal Gottlieb, investigating tumour hypoxia and metabolism, and in particular a family of enzymes that sense cellular oxygen levels, known as Prolyl Hydroxylases (PHDs).

In 2011, Dan started his own group at the University of Birmingham to investigate the ways in which cells alter their metabolism in order to survive hostile environments. He is currently funded by a Cancer Research UK Programme Foundation Award and project grants from multiple funders to study the role of hypoxia in glioma as well as metabolic drivers of tumourigenesis.



#### DR GERRY THOMPSON

Gerry Thompson is a Senior Clinical Lecturer in Radiology at the University of Edinburgh and an Honorary Consultant Neuroradiologist in the NHS Lothian Department of Clinical Neurosciences providing specialist neuro-oncology imaging diagnostics for South East Scotland. He trained in Radiology and Neuroradiology in the North West of England, completing a PhD in guantitative imaging biomarkers in glioma at the University of Manchester in 2012, before taking up an academic consultant post in Edinburgh in 2016. Gerry is Co-Director (Neuro) for the University of Edinburgh/NHS Lothian Clinical Research Facility Image Analysis Core which provides imaging support for academic studies and clinical trials. His main research interests cover quantitative neuroimaging with MRI and PET, and studies into optimising timing of studies in brain tumour follow-up. He is the imaging co-lead for the multicentre Tessa Jowell Brain MATRIX clinical trial platform, and imaging lead for the multicentre NIHR-funded SPRING (seizure prophylaxis in glioma) clinical trial. He is the Edinburgh PI for the multicentre DIG (Diffusion in Glioma) study and provides local Radiological expert assessments for several international neuro-oncology clinical trials. His multicentre projects include streamlining image-based response assessments through RANO, and development of machine learning and artificial intelligence tools to quantitatively assess radiomics and response in multicentre imaging data and integrating this with non-imaging data, particularly those coming through heterogeneous standard of care pathways. Gerry is a current member of the NCRI Brain Glioma Subgroup, and sits on the Scientific Advisory Board of the Brain Tumour Charity. He engages directly with patients and carers to provide insights and education into the role of imaging in brain tumour management through seminars organised and delivered through Brainstrust.

Gerry's quantitative biomarker discovery research involves combining multimodality cross sectional imaging including novel contrast agents and tracers with histology and spatially-resolved phenomics. This includes extensive translational work having recently co-founded ENTIRe (Edinburgh Neuro-oncology Translational Imaging Research) in the Centre for Clinical Brain Sciences and ALLMoND (Academic Led Large animal Models of Neurological Disorders) in the Roslin Institute. He is the neuroimaging member on the Large Animal Steering Group at the Roslin Institute and is the Clinical Imaging Adviser for the recently completed £25M Large Animal Research and Imaging Facility (LARIF).

Gerry aims to provide more useful, actionable, individualised insights into brain tumour diagnosis and response through making best use of available imaging tools, and developing novel techniques to address unmet needs such as bespoke treatment selection and robustly differentiating tumour treatment response from progression.

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#### PROFESSOR COLIN WATTS

Professor Watts qualified from the University of Newcastle upon Tyne and trained in neurosurgery in Cambridge and London where he completed his specialist training in 2004. He was awarded his doctorate from the University of Cambridge in 1999 and appointed as an MRC Clinician Scientist in 2004. He became a HEFCE Clinical Senior Lecturer in 2010 and was appointed Associate Professor in Neurosurgical Oncology, University of Cambridge, in 2016. Colin moved to Birmingham in March 2018 and leads the newly established Brain Cancer Program at the University of Birmingham. He has published over 160 papers, articles, book chapters and reviews and serves on the editorial boards of Neuro-oncology and the European Journal of Surgical Oncology. He has received over £8M research funding as an academic consultant and was awarded the SNO translational research prize in 2013 for his work in evolutionary genomics of glioblastoma.



#### PROFESSOR WOLFGANG WICK

Wolfgang Wick is Chairman of the Neurology Clinic and Professor of Neurology at Heidelberg University in Germany and is appointed as Division Head for Neuro Oncology at the German Cancer Research Center, Heidelberg, Germany. He was trained in Tübingen and did his medical studies in Bonn, London and Boston. Dr Wick is active in basic, translational and clinical research with a translational and basic research focus on precision medicine, treatment resistance and immunotherapy.

Dr Wick serves as a member of the steering committees of NOA, the European Association for Neuro-Oncology (EANO) and the EORTC Brain Tumor Group and is currently Chair of the NOA, and served as President of EANO 2016-2018 as well as Chair of the EORTC Brain Tumor group 2009-2015. He is Spokesperson of the first Neuro Oncology Collaborative Research Centre in Germany (SFB 1389/UNITE) on Understanding and Targeting Resistance in Glioblastoma.

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## ON THE PLATFORM POWER POSTERS

34 posters have been selected to provide supplementary power poster video presentations at BNOS 2021! These short 2 minute videos are available on the platform in the Power Posters area. Here you can locate the video you wish to watch, by entering the abstract title into the search bar. The corresponding PDF posters can be found in the Posters area of the platform. See poster information on the following pages for poster number allocation. All power posters are available to view before, during and after the conference (for 1 month).

TITLE	PRESENTING AUTHOR/S
ADULT GLIOMA	
Lipid levels and lipid associated genes as potential risk factors for glioma - A Mendelian randomisation study	Katie Shea
Extent of MGMT promoter methylation modifies the effect of temozolomide on overall survival in patients with glioblastoma - A regional cohort study in Southeast Scotland	Shivank Keni
A role of seizures in promoting progression of glioblastoma multifome	Anam Anzak
Establishing a link between commonly reported toxicities and tumour location in brain tumour patients treated with Volumetric Modulated Arc radiation Therapy (VMAT)	Sharon Fernandez
Elderly glioblastoma score to estimate the survival of 70+ year old patients with primary glioblastoma	Mark Zorman
Genetic syndromes and brain tumours	Vishal Manik
Re-irradiation in glioblastoma multiforme - A single centre experience	Hamish Sinclair
The Impact of COVID-19 on the management of patients with high-grade gliomas - Experience from a national tertiary centre	Zhangjie Su
Does the extent of resection have an impact on time to transformation – 10 years retrospective analysis of low grade glioma treatment	Bernadett Kovacs
Surgical management of recurrent GBM- is it safe and does it improve survival? A single centre study	Shuvamay Chowdhury
IMAGING	
Finding the optimal skull-stripping method in MRI brain scans for deep learning segmentation of primary gliomas	Andrew Ho
Rare case of intracranial capillary haemangioma with a dural tail sign mimicking meningioma	Hadleigh Cuthbert
PAEDIATRIC ONCOLOGY AND TUMOURS IN YOUNG ADULTS	
Prediction of survival in paediatric brain tumours using multicentre perfusion MRI	Steph Withey
Hypothyroidism after craniospinal irradiation in children with medulloblastoma	Helen Woodman
Molecular classification of paediatric CNS tumours - Experience from a single neuropathology centre	Zita Reisz
Effectiveness of BRAF inhibitors in patients with BRAF-V600 mutation-positive glioma - A systematic review	Zak Thornton
Outcomes of children and adults with H3K27M mutant diffuse midline gliomas treated in a single centre	Pranjal Roy
LABORATORY, TRANSLATIONAL AND CLINCAL SCIENCE	
The inflammatory environment in glioblastoma	Delphine Boche
Screening novel Glycogen Synthase Kinase-3 Beta inhibitors for targeted glioma therapy in a blood brain barrier-glioma model	Klaudia Rzepecka
Development and characterisation of patient-derived glioblastoma 3D tumourspheres	Alina Finch
Isocitrate dehydrogenase -1 wild type is associated with increased expression of immunsuppressive immune checkpoints in newly diagnosed glioblastoma multiforme	Alistair Paterson
Playing hide and seek with glioblastoma - Using epigenetic modulators to increase cancer testis antigen and neoantigen expression	Ruichong Ma

## ON THE PLATFORM POWER POSTERS

SURVIVORSHIP AND QUALITY OF LIFE	
Steroid induced osteoporosis in glioblastoma multiforme patients	Keisha Marchon
Supportive care needs of TYA childhood brain tumour survivors and their caregivers - A mixed methods study	Emma Nicklin
Can neurosurgical Twitter content help patients with brain tumours?	Shumail Mahmood
Speech and language therapy and survivorship - Working with people with brain tumours	Georgie Smith
Describing the longitudinal journey to achieving integrated, team working at Velindre Cancer Centre, Cardiff	Rachel Evans
CEREBRAL METASTASIS AND OTHER CNS MALIGNANCIES	
Durable responses of leptomeningeal metastatic cancer to modern systemic therapy	Emma Kenney-Herbert
Fibulin-2 - A novel biomarker for differentiating grade II from grade I meningiomas	Agbolahan Sofela
Highly conformal IMRT to cavity for resected brain metastases – Local control and toxicity outcomes from a single UK centre	Laura Coxon
Medium-term outcomes of Northern Ireland acoustic neuroma patients following Gamma knife radiosurgery	Colin Leonard
Metastasectomy in multiple intracranial metastases - Analysis of survival and comparison of cases over a decade in a single unit	Sobiya Bilal
Outcomes of patients with five or more brain metastases treated with stereotactic radiosurgery - A UK series	Helen Benghiat
Stereotactic radiosurgery brain metastases pathway at University Hospitals Birmingham NHS Trust	Mitchell Hickman





Orbus Therapeutics primary focus is the development of therapeutic products that treat patients suffering from rare diseases for which there are few available effective therapies.

Currently, Orbus Therapeutics is working to develop and commercialize effornithine in North America. Effornithine is a novel cytostatic (growth-inhibiting) agent, which we are developing for the potential treatment of patients with anaplastic astrocytoma (AA). Effornithine slows tumor growth by inhibiting the production of an enzyme, ornithine decarboxylase (ODC), a key enzyme associated with cell growth and proliferation.

We at Orbus are committed to bringing innovative products to the underserved patients affected by rare diseases. We are focused and passionate about achieving more positive outcomes for patients facing life-threatening or significantly life-altering diseases. As we approach the end of enrollment for our Phase 3 clinical trial with effornithine, we continue to evaluate additional development stage and commercial stage opportunities to add to our portfolio.

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## ON THE PLATFORM ORAL PRESENTATIONS – ON DEMAND

With limited time available for the condensed 2 day virtual programme, BNOS were unable to allocate the standard time to free papers within the main stage agenda. However, with a high number of submissions at oustanding quality, the organising committee made the decision to include these high scoring papers as oral presenations to be viewed on demand.

These can be located in the Oral Presentations – On Demand area of the platform. Presentations can be easily located by using the search bar in this area, simply enter the abstract title to find the relevant video submission from the list below. Should you have a question, locate the author in the Attendees area and contact directly using the chat function.

Please take the time to view these presentations, which have been carefully prepared in advance. All presentations are available to view before, during and after the conference (for 1 month).

TITLE	PRESENTING AUTHOR/S
ADULT GLIOMA	
Characteristics of glioblastoma long-term survivors	Tamara Ali
Impact of surgical delays on pre-operative complications in primary GBM patients - A 5-year study	Thaaqib Nazar
The incidence of major subtypes of primary brain tumours in adults in England 1995-2017	Hiba A Wanis
Tumour treating fields in glioblastoma - Is the treatment tolerable, effective, and practical in UK patients?	Farouk Olubajo
A snapshot of "real world" current neuro-oncology practice in ten UK centres participating in the Tessa Jowell BRAIN MATRIX platform study	Victoria Wykes
Evaluation of health outcomes in patients aged 70 years and above with glioblastoma multiforme in NHS Tayside between 2017 - 2020	Caitlin Finnan
Clinical features at presentation for glioblastoma patients impact survival predictions in a machine learning model	Alistair Lawrence
Temozolomide hypersensitivity – A story of success	Lanka Alagiyawanna
Urgent elective pathway service reconfiguration facilitates increased use of surgical adjuncts, improvement in survival trends, and reduced hospital stay for glioblastoma patients	Rosa Sun
Extent of resection in glioblastoma - A 10-year local survival analysis	Theodore Hirst
IMAGING	
Delayed contrast and multiparametric MRI for treatment response assessment in brain metastases following stereotactic radiosurgery	Markand Patel
T2-FLAIR mismatch sign for diagnosis of 1p19q non-codeleted or ATRX mutant astrocytoma	Jian Ping Jen
Static permeability assessment method to distinguish brain tumour recurrence from pseudoprogression	Kai Tsang
PAEDIATRIC ONCOLOGY AND TUMOURS IN YOUNG ADULTS	
Trial working groups for paediatric brain tumours	Kristian Aquilina
Metachronous oligodendroglial tumours with different IDH mutational profile in a young patient	Ute Pohl
Prevalence of BRAF V600 in primary gliomas - A systematic review	Lily Andrews
Transcriptomic and methylome analysis of formalin fixed paraffin embedded craniopharyngioma tissue charcaterises differences between adamantinomatous and papillary types	John R. Apps
The impact of the COVID-19 pandemic on paediatric glioma patients in low, middle, and high-income countries - A multicentre, international, observational cohort study	Soham Bandyopadhyay
Intracranial myxoid mesenchymal tumour with EWSR1-ATF1 fusion mimicking high grade glioma	Santhosh Nagaraju

## ON THE PLATFORM ORAL PRESENTATIONS – ON DEMAND

LABORATORY, TRANSLATIONAL AND CLINCAL SCIENCE	
Role of treatments for diabetes and hyperlipidaemia in risk and mortality of primary and secondary brain tumours - A case control and cohort study	Jamie Robinson
A feasibility study evaluating the use of cell-free DNA analysis in laboratory brain cancer investigations	Ros Ganderton
BRAIN surgical tissue for advanced tumour models in precision medicine - Developing the BRAIN-STAT pathway	Victoria Wykes
Single-cell transcriptomics identifies a conserved brain tumour growth mechanism driven by HEATR1-dependent ribogenesis control	Jon Gil-Ranedo
Use of a new mouse schwannoma tumour model to monitor changes in peripheral nerve morphology in Merlin null schwann cells	Marie Srotyr
The role of citrin in the mitochondrial adaptation to hypoxia in glioma cell metabolism	Himani Rana
Effects of the tumour microenvironment on protoporphyrin IX accumulation in glioblastoma	Paul Walker
Activation of MAPK/ERK signalling in Merlin-null Schwann cells leads to increased and sustained immune cell infiltration in the peripheral nervous system	Evyn Woodhouse
Investigating mitochondrial SLC25A transporters involved in supporting glioma survival and metabolism under hypoxia	Katherine Eales
Metabolomic profiling of ASS1+/- isogenic primary GBM cells reveal distinct metabolic responses to arginine deprivation	Sajeenth Vishnu K
The ketogenic diet alters the expression of chromatin modifying enzymes in GBM to potentiate the effects of chemotherapy and radiotherapy	Qingyu Zeng
SURVIVORSHIP AND QUALITY OF LIFE	
BrainWear - Longitudinal, objective assessment of physical activity in 42 High Grade Glioma (HGG) patients	Seema Dadhania
Survival in patients with radiological diagnoses of glioblastoma - A retrospective study of 115 patients on a best supportive care pathway	James Riley, Vladimir Petrik
Functional neurological disorders in patients with brain tumours	Charmaine Toh
Raised cardiovascular disease mortality after central nervous system tumour diagnosis analysis of 171,926 from UK and USA	Kai Jin
Evaluating the impact of a joint Clinical Nurse Specialist and Allied Health Care Professional clinic for neuro-oncology patients attending Velindre Cancer Centre, Cardiff	Rachel Evans, Rhian Burke, Cathryn Lewis
Differential cerebrovascular risks in glioblastoma and meningioma patients: a population-based matched cohort study in Wales (United Kingdom)	Michael TC Poon
Telephone versus face-to-face neuro-oncology consultations - Comparing patient satisfaction, convenience, family support and clinician attitude during the COVID-19 pandemic	Emma Toman
Seizure outcome after surgery for insula high grade glioma	Joshua Pepper
Brain tumour related epilepsy with co-existing non epileptic attacks - Characteristics of a clinically challenging cohort	Shanika Samarasekera
CEREBRAL METASTASIS AND OTHER CNS MALIGNANCIES	
Cranial meningiomas requiring cranioplasty	Max Norrington
Outcomes following craniotomy for brain metastases	Hadleigh Cuthbert
Three-staged stereotactic radiosurgery for brain metastases - A single institution experience	Hamoun Rozati
Estimating population-based incidence of brain metastases – A comprehensive incident cohort study	Hamish Sinclair
Re-operation for recurrent intracranial meningioma – Is it worth it?	George Richardson
Development of 'Core Outcome Sets' for meningioma in clinical studies - The COSMIC project	Christopher Millward
Ependymomas - Surgeon case volume and patient outcomes	Rosa Sun
Arginine deprivation therapy induces apoptotic cell death in melanoma brain metastasis	Aithne Atkinson
An audit on the diagnosis of primary CNS lymphoma	Dorothy Joe

# ON THE PLATFORM POSTERS

PDF posters can be found in the Posters area of the platform. Please take time to view the posters during the break periods. Should you have a question, locate the author in the Attendees area and contact directly using the chat function. All posters are available to view before, during and after the conference (for 1 month).

	TITLE	PRESENTING AUTHOR/S
	ADULT GLIOMA	
1	Lipid levels and lipid associated genes as potential risk factors for glioma - A Mendelian randomisation study	Katie Shea
2	Extent of MGMT promoter methylation modifies the effect of temozolomide on overall survival in patients with glioblastoma - A regional cohort study in Southeast Scotland	Shivank Keni
3	A role of seizures in promoting progression of glioblastoma multifome	Anam Anzak
4	Establishing a link between commonly reported toxicities and tumour location in brain tumour patients treated with Volumetric Modulated Arc radiation Therapy (VMAT)	Sharon Fernandez
5	Elderly glioblastoma score to estimate the survival of 70+ year old patients with primary glioblastoma	Mark Zorman
6	Genetic syndromes and brain tumours	Vishal Manik
7	Re-irradiation in glioblastoma multiforme - A single centre experience	Hamish Sinclair
8	The Impact of COVID-19 on the management of patients with high-grade gliomas - Experience from a national tertiary centre	Zhangjie Su
9	Does the extent of resection have an impact on time to transformation – 10 years retrospective analysis of low grade glioma treatment	Bernadett Kovacs
10	Surgical management of recurrent GBM- is it safe and does it improve survival? A single centre study	Shuvamay Chowdhury
11	In or out? A review of GBM recurrence post radiotherapy in NHS Tayside	Hannah Lord
12	Double trouble - A rare case of synchronous glioblastoma multiforme and anaplastic oligodendroglioma	Niloufar Farahani, Zeluleko Sibanda, Elizabeth Attia
13	Circumventing resistance to EGFR-targeted therapy in glioblastoma	Demi Wiskerke
14	Supratentorial glioblastoma with extensive spinal leptomeningeal spread and drop metastasis	Manoj Kumar
15	Hypofractionated radiotherapy and simultaneous boost in radically inoperable cases with glioblastoma	Fabiana Gregucci
16	Coexistent two distinct pathologies masquerading as a single multicentric lesion	Salman Shaikh
17	Gliolan for fluorescence-guided resection of high grade gliomas – Our experience	Zenab Sher
18	Assessment of molecular markers in Gliomas – Adherence to NICE guidelines	Prisca Singh, Ananya Singh
19	How far has glioblastoma prognosis come since 2005?	Jessica La



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## ON THE PLATFORM POSTERS

IMAGING	
Finding the optimal skull-stripping method in MRI brain scans for deep learning segmentation of primary gliomas	Andrew Ho
Rare case of intracranial capillary haemangioma with a dural tail sign mimicking meningioma	Hadleigh Cuthbert
PAEDIATRIC ONCOLOGY AND TUMOURS IN YOUNG ADULTS	
Prediction of survival in paediatric brain tumours using multicentre perfusion MRI	Steph Withey
Hypothyroidism after craniospinal irradiation in children with medulloblastoma	Helen Woodman
Molecular classification of paediatric CNS tumours – Experience from a single neuropathology centre	Zita Reisz
Effectiveness of BRAF inhibitors in patients with BRAF-V600 mutation-positive glioma - A systematic review	Zak Thornton
Outcomes of children and adults with H3K27M mutant diffuse midline gliomas treated in a single centre	Pranjal Roy
LABORATORY, TRANSLATIONAL AND CLINCAL SCIENCE	
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# ON THE PLATFORM POSTERS

	LABORATORY, TRANSLATIONAL AND CLINCAL SCIENCE (CONTINUED)	
31	Playing hide and seek with glioblastoma - Using epigenetic modulators to increase cancer testis antigen and neoantigen expression	Ruichong Ma
32	Nanoparticles in the treatment of brain tumours - translation of banoparticles into clinic	Bodunde Ajibade
33	Novel local delivery techniques to bypass the blood brain barrier in the treatment of glioblastoma	Rhys Llewellyn
34	PYCRL is a targetable vulnerability in hypoxic glioblastoma	Lisa Vettore
	SURVIVORSHIP AND QUALITY OF LIFE	
35	Steroid induced osteoporosis in glioblastoma multiforme patients	Keisha Marchon
36	Supportive care needs of TYA childhood brain tumour survivors and their caregivers - A mixed methods study	Emma Nicklin
37	Can neurosurgical Twitter content help patients with brain tumours?	Shumail Mahmood
38	Speech and language therapy and survivorship - Working with people with brain tumours	Georgie Smith
39	Describing the longitudinal journey to achieving integrated, team working at Velindre Cancer Centre, Cardiff	Rachel Evans
	CEREBRAL METASTASIS AND OTHER CNS MALIGNANCIES	
40	Case report - Brainstones - A rare interdisciplinary phenomenon	Patrick McAleavey
41	Cerebellar liponeurocytoma – A rare case report	Omar Shawki
42	Durable responses of leptomeningeal metastatic cancer to modern systemic therapy	Emma Kenney-Herbert
43	Fibulin-2 - A novel biomarker for differentiating grade II from grade I meningiomas	Agbolahan Sofela
44	Highly conformal IMRT to cavity for resected brain metastases - Local control and toxicity outcomes from a single UK centre	Laura Coxon
45	Medium-term outcomes of Northern Ireland acoustic neuroma patients following Gamma knife radiosurgery	Colin Leonard
46	Metastasectomy in multiple intracranial metastases - Analysis of survival and comparison of cases over a decade in a single unit	Sobiya Bilal
47	Outcomes of patients with five or more brain metastases treated with stereotactic radiosurgery - A UK series	Helen Benghiat
48	Radiosurgery for benignant central nervous system disease - Data collection of preliminary experience	Fabiana Gregucci
49	Staged stereotactic radiotherapy – Case report and literature review	Jiarong Chen
50	Stereotactic radiosurgery brain metastases pathway at University Hospitals Birmingham NHS Trust	Mitchell Hickman
51	Tonsillar carcinoma spreading metastases to central nervous system – Case report and literature review	Shujhat Khan

## PROGRAMME DAY 1 – THURSDAY 8<sup>TH</sup> JULY 2021

#### EDUCATIONAL DAY - PRECISION MEDICINE AND TRIALS

#### 08:30 Exhibition and poster viewing

08:55	Welcome from BNOS President	Professor Colin Watts
	SESSION 1 – PRECISION MEDICINE TRIALS	CHAIRS: Dr Victoria Wykes, Dr Leila Khoja
09:00	Key Note Lecture   Precision medicine and complex trials	Professor Pamela Kearns
09:30	Key Note Lecture   Translating science into trials	Professor Neil Carragher
10:00	The Tessa Jowell BRAIN MATRIX - A platform to support clinical and translational research	Professor Colin Watts
10:20	Q&A	
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10:30	Comfort break and exhibition	
	10:30 - 10:35 Exhibitor Showcase   Brainlab	
	Welcome to Brainlab headquarters	Mr Nils Ehrke
	SESSION 2 - TUMOUR BIOLOGY	CHAIRS: Dr Lucy Stead, Dr Daniel Tennant, Dr Chiara Bardella
10:45	Key Note Lecture   Glioma patient avatars and functional profiling for precision medicine	Professor Simone Niclou
11:15	The metabolism of gliomas - From genetics to the microenvironment	Dr Daniel Tennant
11:35	Q&A	
11:45	Top Scoring Paper   Laboratory, translational and clinical science Elevated 2HG does not cause features of tumorigenesis	Dr Chiara Bardella
11:52	<b>Top Scoring Paper</b>   <b>Laboratory, translational and clinical science</b> Activation of Raf signalling in NF2-null schwann cells leads to sustained proliferation – An investigation of a new and inducible model for human schwannoma	Ms Charlotte Lespade
11:59	<b>Top Scoring Paper</b>   <b>Laboratory, translational and clinical science</b> Excessive new origin firing underlies selective glioma stem cell cytotoxicity induced by replication stress response inhibition	Ms Emily Clough
12:06	Top Scoring Paper   Laboratory, translational and clinical science Proteomic analysis of genetically stratified low-grade meningioma	Mrs Yeasmin Akther
12:13	Q&A	
X		
12:20	Lunch and exhibition	
	12:30 Sponsored Lecture   Novocure	
	Tumor Treating Fields (TTFields) for the treatment of newly diagnosed glioblastoma.	Dr Adrian Kinzel,
	How does the therapy work?	Dr Leonardo Lustgarten
	SESSION 3 – IMMUNOLOGY AND CANCER	CHAIRS: Dr Gary Doherty, Dr Victoria Wykes
13:00	Key Note Lecture   Lessons learnt from UK National Lung Matrix Trial (NMLT)	Professor Gary Middleton

## PROGRAMME DAY 1 – THURSDAY 8<sup>TH</sup> JULY 2021

#### EDUCATIONAL DAY - PRECISION MEDICINE AND TRIALS

	SESSION 4 - IMAGING	CHAIRS: Dr Harpreet Hyare, Dr Michael Bowen
13:35	Advances in multi-parametric imaging in brain tumour	Professor Vijay Sawlani
13:55	Imaging and precision medicine	Dr Gerry Thompson
14:15	Q&A	
14:22	Top Scoring Paper   Imaging Artificial intelligence for early prediction of treatment response in glioblastoma	Dr Markland Patel
14:29	Top Scoring Paper   Imaging Selection of headache cases for expedited scanning to assist prompt diagnosis of brain tumour	Dr Robin Grant
14:36	Top Scoring Paper   Imaging Fully automated deep learning system for detecting sarcopenia on brain MRI in glioblastoma	Dr Ella Mi
14:43	Top Scoring Paper   Imaging Initial experience with navigated intraoperative ultrasound for brain tumour surgery	Mr Adam Nunn
14:50	ABD	
P		
15:00	Comfort break and exhibition	
	15:00 – 15:05 Exhibitor Showcase   Inomed	
	Intraoperative Neuromonitoring in Oncology procedures in the UK	Ms Hannah Keeble
	SESSION 5 - CNS AND AHP	CHAIRS: Mr Will Garratt, Dr Sara-Meade
15:15	Key Note Lecture   Brain tumour - Patient and carer survivorship programme	Dr Susan Chang
15:45	Living with brain tumour	Mrs Stine Giles
15:52	Patient advocate	Mr Peter Buckle
15:59	Quality of life - Measuring what matters to people living with a brain tumour	Dr Helen Bulbeck
16:15	The Brain Tumour Patients' Charter of Rights	Mrs Kathy Oliver
16:30	Can quality of life be optimised for neuro oncology patients? A view from a CNS perspective	Ms Ingela Oberg
16:45	Q&A	
16:55	<b>Top Scoring Paper</b>   <b>Survivorship and quality of life</b> CaPaBLE: Comparing the patient generated index to standard quality of life measures in patients and caregivers affected by high-grade brain tumours - Preliminary analysis	Ms Lillie Pakzad-Shahabi
17:00	Top Scoring Paper   Survivorship and quality of life Developing guidelines for the management of brain tumour related epilepsy	Ms Elizabeth Vacher
17:05	Top Scoring Paper   Survivorship and quality of life BrainApp - Using near-patient sensing through a mobile app and machine learning in brain tumour patients	Dr Nur Aizaan Anwar
	SESSION 5 - CNS AND AHP (CONTINUED)	CHAIR: Dr Shanika Samesekera, Dr Will Garratt
17:10	Top Scoring Paper   Survivorship and quality of life Are patients with brain tumours being given timely DVLA advice?	Mr Shumail Mahmood
17:15	Top Scoring Paper   Survivorship and quality of life Bridging the gap - Development of a patient public involvement group	Mrs Claire Goddard
17:20	<b>Top Scoring Paper</b>   <b>Survivorship and quality of life</b> Longitudinal connectome analyses following low-grade glioma neurosurgery – Implications for cognitive rehabilitation	Mr Anujan Poologaindran
17:25	Q&A	

17:35 Closing remarks

## PROGRAMME DAY 2 - FRIDAY 9<sup>TH</sup> JULY 2021

#### 08:00 Exhibition and poster viewing

	SESSION 6 - PAEDIATRIC AND TYA	CHAIRS: Dr Helen Benghiat, Professor Andrew Peet, Dr Harpreet Hyare
08:30	<b>Top Scoring Paper</b>   <b>Paediatric and TYA</b> The role of diffusion tensor imaging metrics in machine learning-based characterisation of paediatric brain tumors and their practicality for multicentre clinical assessment	Dr Heather Rose
08:37	<b>Top Scoring Paper</b>   <b>Paediatric and TYA</b> Spatiotemporal changes in along-tract profilometry of cerebellar peduncles in cerebellar mutism syndrome	Mr Sebastian Toescu
08:44	<b>Top Scoring Paper</b>   <b>Paediatric and TYA</b> Chemotherapy strategies for young children newly diagnosed with desmoplastic/extensive nodular medulloblastoma up to the era of molecular profiling – A comparative outcomes analysis of prospective multi-center European and North American trials	Professor Girish Dhall
08:51	<b>Top Scoring Paper</b>   <b>Paediatric and TYA</b> Identification of novel therapeutic targets for histone 3 mutated children's brain tumour, using unique tumour cell surface proteomic signatures	Dr Farhana Haque
08:58	Q&A	
09:05	Key Note Lecture   Precision medicine in paediatrics and TYA	Professor Darren Hargrave
09:35	Multi-modal MRI in children's brain tumours	Professor Andrew Peet
09:55	QELA	

P.		
10:05	Comfort break and exhibition	
	10:05 - 10:10 Exhibitor Showcase   B. Braun Medical Ltd Exoscopic experiences in Neuro-Oncology	Professor Juergen Konczalla
	SESSION 7 – ADULT GLIOMA	CHAIRS: Professor Susan Short, Professor Colin Watts
10:15	Key Note Lecture   Results of precision medicine trial in Glioblastoma	Professor Wolfgang Wick
10:45	Functional neurosurgical approach for glioma resection and future GB	Professor Puneet Plaha
11:05	Q&A	
11:15	Top Scoring Paper   Adult glioma Readmission and reoperation rates after resection of malignant primary brain tumours in England 2013-2017	Mr Adam Wahba
11:22	<b>Top Scoring Paper</b>   <b>Adult glioma</b> Evaluation of Intraoperative Surgical Adjuncts and Resection of Glioblastoma (ELISAR GB) - A UK and Ireland, multicentre, prospective observational cohort study	Dr Georgios Solomou
11:29	<b>Top Scoring Paper</b>   <b>Adult glioma</b> Preliminary evidence of antitumour activity of Ipatasertib (Ipat) and Atezolizumab (ATZ) in glioblastoma patients (pts) with PTEN loss from the Phase 1 Ice-CAP trial	Dr Juanita Lopez
11:36	Top Scoring Paper   Adult glioma The use of cannabinoid and non-cannabinoid supplementary therapies in patients undergoing treatment for Glioblastoma reveals an urgent need for guidance	Mr Babar Vaqas
11:43	Top Scoring Paper   Adult glioma GlioCova - Treatment and hospital admissions for patients with GBM in England	Ms Radvile Mauricaite
11:50	Q&A	

## PROGRAMME DAY 2 – FRIDAY 9<sup>TH</sup> JULY 2021

X		
12:00	Lunch and exhibition	
	12:30 Sponsored Lecture   TAE Life Sciences New Era in Accelerator-Based Boron Neutron Capture Therapy (BNCT)	Dr Bruce Bauer
	SESSION 8 - RECENT ADVANCES AND UPDATES	CHAIR: Dr Ute Pohl, Professor Colin Watts
13:00	Key Note Lecture   Update on WHO classification and DNA methylation of CNS tumours	Professor David Capper
13:30	Trials update	Professor Michael Jenkinson
13:50	Q&A	
	14:00   Young Investigator Award	CHAIR: Professor Colin Watts
	14:20 Q&A	
	Jointly supported by Brain Tumour Research and BNOS	Together we will find a new BINOS INCLUSIV
pl -		
14:25	Comfort break and exhibition	
	14:25 - 14:30 Exhibitor Showcase   Novocure	
	Introduction to Optune by Novocure	
	14:30 - 14:35 Exhibitor Showcase   TAE Life Sciences	Dr Bruce Bauer
	The new era in biologically targeted radiation therapy - Boron neutron capture therapy	
	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT	CHAIR: Dr Helen Benghiat
14:40	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT Debate   Controversies in neuro-oncology MDT	CHAIR: Dr Helen Benghiat Dr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika Samarasekera
14:40	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT Debate   Controversies in neuro-oncology MDT SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS	CHAIR: Dr Helen Benghiat Dr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika Samarasekera CHAIR: Dr Paul Sanghera, Dr Gary Doherty
14:40	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT Debate   Controversies in neuro-oncology MDT SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS Developments in boron neutron capture therapy	CHAIR: Dr Helen BenghiatDr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika SamarasekeraCHAIR: Dr Paul Sanghera, Dr Gary DohertyProfessor Stuart Green
14:40 15:30 15:50	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT         Debate   Controversies in neuro-oncology MDT         SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS         Developments in boron neutron capture therapy         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Survival outcomes following LINAC based Stereotactic Radiosurgery/Stereotactic         Radiotherapy (SRST) treatment of brain metastases - The Wessex experience	CHAIR: Dr Helen BenghiatDr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika SamarasekeraCHAIR: Dr Paul Sanghera, Dr Gary DohertyProfessor Stuart GreenDr Mark Noble
14:40 15:30 15:50 15:57	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT         Debate   Controversies in neuro-oncology MDT         SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS         Developments in boron neutron capture therapy         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Survival outcomes following LINAC based Stereotactic Radiosurgery/Stereotactic         Radiotherapy (SRST) treatment of brain metastases - The Wessex experience         Top Scoring Paper   Cerebral metastasis and other CNS tumours         The role of brain biopsy in the diagnosis of CNS lymphoma	CHAIR: Dr Helen BenghiatDr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika SamarasekeraCHAIR: Dr Paul Sanghera, Dr Gary DohertyProfessor Stuart GreenDr Mark NobleMs Joy Roach
14:40 15:30 15:50 15:57 16:04	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT         Debate   Controversies in neuro-oncology MDT         SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS         Developments in boron neutron capture therapy         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Survival outcomes following LINAC based Stereotactic Radiosurgery/Stereotactic         Radiotherapy (SRST) treatment of brain metastases - The Wessex experience         Top Scoring Paper   Cerebral metastasis and other CNS tumours         The role of brain biopsy in the diagnosis of CNS lymphoma         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Efficacy and safety of CyberKnife stereotactic radiosurgery in acromegaly	CHAIR: Dr Helen BenghiatDr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika SamarasekeraCHAIR: Dr Paul Sanghera, Dr Gary DohertyProfessor Stuart GreenDr Mark NobleMs Joy RoachDr Rachel Lewis
14:40 15:30 15:50 15:57 16:04 16:11	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT         Debate   Controversies in neuro-oncology MDT         SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS         Developments in boron neutron capture therapy         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Survival outcomes following LINAC based Stereotactic Radiosurgery/Stereotactic         Radiotherapy (SRST) treatment of brain metastases - The Wessex experience         Top Scoring Paper   Cerebral metastasis and other CNS tumours         The role of brain biopsy in the diagnosis of CNS lymphoma         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Efficacy and safety of CyberKnife stereotactic radiosurgery in acromegaly         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Efficacy and safety of CyberKnife stereotactic radiosurgery in acromegaly         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Efficacy and safety of CyberKnife stereotactic radiosurgery in acromegaly         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Stereotactic radiosurgery combined with immune checkpoint inhibition for the treatment of melanoma brain metastases is associated with high levels of extracranial disease control and survivorship - An abscopal effect?	CHAIR: Dr Helen BenghiatDr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika SamarasekeraCHAIR: Dr Paul Sanghera, Dr Gary DohertyProfessor Stuart GreenDr Mark NobleMs Joy RoachDr Rachel LewisDr Philip Webb
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14:40 15:30 15:50 15:57 16:04 16:11 16:18 16:25	SESSION 9 - CONTROVERSIES IN THE NEURO-ONCOLOGY MDT         Debate   Controversies in neuro-oncology MDT         SESSION 10 - CEREBRAL METASTASIS AND OTHER CNS TUMOURS         Developments in boron neutron capture therapy         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Survival outcomes following LINAC based Stereotactic Radiosurgery/Stereotactic         Radiotherapy (SRST) treatment of brain metastases - The Wessex experience         Top Scoring Paper   Cerebral metastasis and other CNS tumours         The role of brain biopsy in the diagnosis of CNS lymphoma         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Efficacy and safety of CyberKnife stereotactic radiosurgery in acromegaly         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Stereotactic radiosurgery combined with immune checkpoint inhibition for the treatment of melanoma brain metastases is associated with high levels of extracranial disease control and survivorship - An abscopal effect?         Top Scoring Paper   Cerebral metastasis and other CNS tumours         Characterising immune cell subsets of Tumour Infiltrating Lymphocytes (TILs) in brain metastases         QEMA	CHAIR: Dr Helen BenghiatDr Rovel Colaco, Dr Gary Doherty, Professor Puneet Plaha, Professor Colin Watts, Dr Michael Bowen, Dr Ute Pohl, Dr Shanika SamarasekeraCHAIR: Dr Paul Sanghera, Dr Gary DohertyProfessor Stuart GreenDr Mark NobleMs Joy RoachDr Rachel LewisDr Philip WebbDr Priyakshi Kalita-de Croft



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