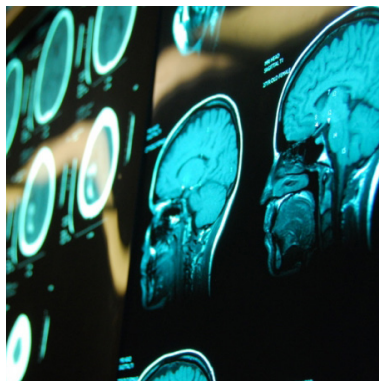


Keynote Forum
June 11, 2018

Neuroscience 2018



6th International Conference on
Neurology & Neuroscience

June 11-13, 2018 | London, UK

Neurology and Neuroscience

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Jack de la Torre

University of Texas, USA

Prevention of Alzheimer's disease may be achieved with transcranial infrared laser stimulation


There is now compelling evidence that chronic brain hypoperfusion (CBH) during advanced aging is not only a major contributor to cognitive impairment but may also be the underlying cause of Alzheimer's disease (AD). This conclusion forms part of the vascular hypothesis of AD which argues that AD development is dependent on the presence of vascular risk factors for AD and on the progressive age-related decline of cerebral blood flow.(1) Over time, this combination of events can lead to significant cerebrovascular insufficiency. Neuroimaging studies of aged persons with mild cognitive impairment (MCI), a presumed precursor of AD, have shown marked reduction of cerebral perfusion in brain regions later attacked by Alzheimer-related neurodegeneration. These brain regions include prefrontal, temporoparietal and posterior cingulate cortices. We have proposed in previous reports that CBH promotes neuronal energy hypometabolism leading to cognitive dysfunction and AD. If CBH is a vital element in the development of AD, then interventions that prevent or delay neuronal hypometabolism could be a therapeutic target in patients at high risk of AD. Transcranial infrared laser stimulation (TILS) offers a non-invasive approach to raise neurometabolic energy levels that can improve cerebral hemodynamics and

cognitive function in humans. TILS may work by increasing brain cytochrome-c-oxidase to boost mitochondrial ATP production and neuronal energy capacity. Preliminary studies in normal adult human volunteers indicate that using TILS in the prefrontal cortex significantly improved memory tasks compared to a placebo group. Pilot randomized, placebo-controlled studies have reported that MCI patients improved memory function following 12 weeks of daily TILS. These and other findings using TILS to enhance mitochondrial ATP synthesis in dysfunctional brain cells require randomized clinical trials to evaluate the merit of this technique.

Speaker Biography

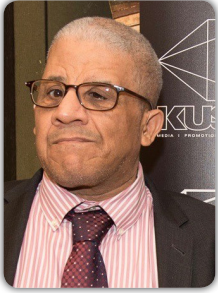
Jack de la Torre began his research studies of Alzheimer's disease in 1990. He has written over 200 peer-reviewed articles and edited or coedited ten volumes on the vascular pathophysiology of dementia which he proposed in 1993 as the cause of Alzheimer's disease. He is the author of 4 books including the recent Alzheimer's Turning Point: A Vascular Approach to Clinical Prevention (Springer 2016). He has held professorial appointments in neurosurgery and neuroscience departments at the University of Chicago, Northwestern University and the University of Ottawa, and is presently continuing his research as a Professor in Neuropsychology at the University of Texas, Austin.

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Neurology and Neuroscience

June 11-13, 2018 | London, UK



David Truswell

Dementia Alliance for Culture and Ethnicity, UK

Raising awareness about vascular dementia in the African-Caribbean community in the London

London, the UK capital is home to 58% of all those who identified themselves as African-Caribbean in the UK 2011 National Census. It is demographically the oldest of the Black populations in the Census categories and proportionally has a higher rate of dementia than the White UK majority. With research indicating that vascular dementia and early onset dementia is a growing issue for Caribbean men under the age of 65 strong cultural beliefs lead many of those most at risk to dismiss any mainstream efforts at preventative health education. Denial of problems and refusal to seek help or diagnosis can often lead to a major crisis before there is any engagement with professional support services and frustrate efforts to develop ongoing links with services. Culture Dementia UK a voluntary organisation has been working on awareness raising and providing support in the African-Caribbean community in London. The presentation explores how the African-Caribbean cultural narrative of independence and resilience mitigates against help-seeking in dementia and some of the approaches adopted by Culture Dementia UK to raise awareness and encourage people to look for support.

Speaker Biography

David Truswell has worked in community based mental health services in the UK for over thirty years developing services for people with complex care needs and enduring mental health problems in a career spanning the voluntary sector, local authority services, and the NHS. From 2009 - 2011 he was the Dementia Implementation Lead for Commissioning Support for London, working with commissioners across London to improve dementia services. He is the founder and Director of the Dementia Alliance for Culture and Ethnicity (www.demace.com) and an independent writer and researcher on dementia support and services for Black and minority ethnic communities, working with a number of projects and initiatives.

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Neurology and Neuroscience

June 11-13, 2018 | London, UK



Jacqueline A Hinds¹

David Truswell²

¹Society of Emotional Intelligence

²Culture Dementia, UK

Promoting excellence within dementia care: Maintaining emotional intelligence and wellbeing of staff working within dementia care management

Promoting excellence in service and care for patients with dementia, has had a significant impact on the staff working within the dementia care management arena. Stress levels and burnout of caregivers without adequate support, has resulted in the essential need of respite by way of development and coaching to support and promote their health and wellbeing whilst they administer and provide essential and effective care to their patients. In the current healthcare climate, the effect of severe cuts in service provisions and staff shortages, whilst maintaining optimum levels of output, has left care givers somewhat jaded over a period of time. Some have gone to the extent of seeking other opportunities due to lack of job satisfaction and challenges around demanding work commitments; consistently taking them beyond their core working hours. The use of the Emotional Intelligence Skills Assessment Profile (EISAP) model as a mode for developing Dementia Care Management staff at all levels, although not referred to or identified as an integral part of their core clinical and non-clinical training or personal development plans, is none-the-less a skill that is interwoven throughout their practices and procedures delivering effective dementia care management. Caring for someone living with dementia, is unlike any other form of caring because of the emotional challenges

and levels of complexity; EISAP allows the dissemination of complex situations in a relatively accessible way. With the rapid changes with health provisions and more cases of dementia patients being identified, the need for emotionally intelligent care givers is crucial in this day and age. By enabling caregivers to understand their emotions, emotional meanings and to, reflectively regulate these emotions whilst undertaking their roles in effectively. The four quadrants on the EISAP model, enables healthcare and management professionals to tap into their emotional and social skills, enabling them to utilise these skills effectively within their respective working environments

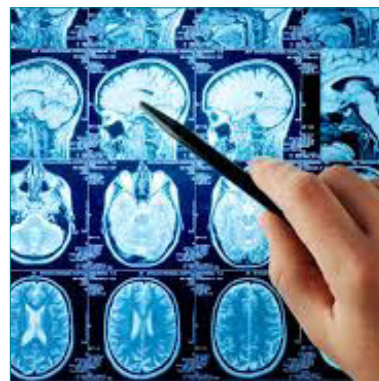
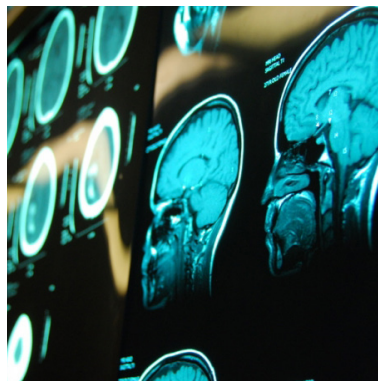
Speaker Biography

Jacqueline A Hinds is Chair, Society of Emotional Intelligence UK & Board Chair & International Liaison for International Society of Emotional Intelligence, USA. A certified Emotional Intelligence Coach (CEIC) and Leadership Consultant. She has worked within the National Healthcare Service for over 10 years; in two of the largest merged healthcare organisations in UK and Europe (Imperial College Healthcare NHS Trust and Barts Health NHS Trust). She is a published author, having written a paper on Transformation in Healthcare and role of Emotional Intelligence; and has a wealth of knowledge and expertise within the Human Resource Development arena (HRD), working with people at all levels, establishing and enabling them to be emotionally intelligent during mergers and organisational changes. She is now an independent consultant working on various training initiatives and coaching assignments, around Emotional & Cultural Intelligence, also in collaboration with Culture Dementia UK on training projects within healthcare and the community.

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Keynote Forum June 12, 2018

Neuroscience 2018



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Saleem Abdulrauf

Walter E. Dandy Neurosurgical Society, USA

New frontiers in awake brain surgery

The young specialty of neurosurgery is undergoing significant and dynamic changes and at improving patient outcomes. One of the key limitations faced during complex neurosurgical procedures is the lack of ability to access patient's neurological functions during critical portions of the procedure. I will share with you at this congress meeting new innovations directed at decreasing the risks of morbidity and mortality. We are now able to perform complex neurosurgical procedures with the patient's awake. Thus allowing us to examine neurological function live during the most critical portions of these procedures. We will demonstrate awake aneurysm, AVM, extra-cranial to intra-cranial bypass, and brain stem surgery. We will share published data from this experience showing improved outcomes.

Speaker Biography

Saleem Abdulrauf is considered a leading figure in the field of neurosurgery. Neurosurgeons from around the world come to SLU throughout the year to be taught complex neurosurgical techniques by him. He has served as a visiting professor to over 100 universities around the globe. He has authored the main reference textbook for brain bypass surgery titled "Cerebral Revascularization" in which Dr. Abdulrauf details extra-cranial to intra-cranial bypass surgery. Additionally, he has pioneered a procedure for brain bypass that is named after him. He has served on the boards of multiple neurosurgical societies including the Congress of Neurological Surgeons (CNS), the North American Skull Base Society (NASBS), and the World Federation of Skull Base Societies (WFSBS). His most preeminent role was his appointment as the inaugural President of the Walter E. Dandy Neurosurgical Society, which is considered the primary international society for operative neurosurgery. He has been named as one of the Best Doctors in America annually for the last eight years. His opinion is routinely sought for the treatment of complex cases by neurosurgeons from around the world

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Notes:

Neurology and Neuroscience

June 11-13, 2018 | London, UK



Babak Kateb

Society for Brain Mapping & Therapeutics, USA

From Nanoneurosurgery to supercomputing, and AI to smart intraoperative microscopy

The field of Brain Mapping has been evolving rapidly in the last few years. Brain Mapping is defined as the study of the anatomy and function of the brain and spinal cord through the use of a variety of techniques, including: imaging (including intra-operative, microscopic, endoscopic, and multi-modality imaging), immunohistochemistry, molecular & optogenetics methods, stem cell and cellular biology, engineering (material, electrical and biomedical), neurophysiology, and nanotechnology. Importantly, the field has gone from being defined by imaging alone to include not only imaging but also molecular/cellular and nano-level mapping with detailed genetic and connectomic maps.


In 2013 the Society for Brain Mapping & Therapeutics (SBMT), the Brain Mapping Foundation (BMF), and a few other organizations successfully helped the White House to formulate the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) initiative. The Organization has also started a G20 Summit/Neuroscience-20 initiative as well as Brain technology and Innovation Park (BTIP). BMF has been funding a major partnerships with NASA and Federal Labs in order to integrate nanotechnology devices, imaging, cellular and molecular studies, artificial intelligence, supercomputing, and stem cell biology.

In this presentation, I will explain how SBMT's G20 Summit/Neuroscience-20 and BTIP advancing neuroscience globally by building international partnerships. I will demonstrate how we have impacted the field through innovation, integration, translation and commercialization of neurotechnologies. I will also discuss how emerging technologies such as nanoneuroscience, nanoneurosurgery, nanobioelectronics, neurophotonics, predictive modeling combined and Artificial Intelligence (AI) could provide game changing intraoperative brain mapping systems.

Speaker Biography

Babak Kateb is a neuroscientist with more than 20 years of research experience. His research has been focused on introduction of game changing diagnostics and therapeutics into clinical neuroscience. He is founding chairman and CEO of the Society for Brain Mapping and Therapeutics (SBMT), President and Scientific Director of the Brain Mapping Foundation and Director of National Center for Nano-Bio-Electronics and Director of Brain Technology and Innovation Park (BTIP); He is a recipient of NASA Tech Brief Award (2011) for his pioneering work on sniffing cancer cells using NASA's electronic nose and the SBMT Pioneer in Medicine Award (2015) for designing an FDA-approved device for microwaving cancer. He has edited two textbooks: "Textbook of Nanoneuroscience and Nanoneurosurgery", and "Neurophotonics and Brain Mapping". He has been involved in global neuroscience legislation/policies. He has chaired 7 briefings on Brain Mapping at the US Congress, chaired brain mapping days at the Canadian (2012) and Australian (2016) Parliaments. He has been one of the key players in President Obama's BRAIN initiative and co-author of the G20 summit/Neuroscience-20, and author of BTIP Initiative.

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Neurology and Neuroscience

June 11-13, 2018 | London, UK



Walter Bini

Healthpoint Hospital, UAE

Degenerative disc disease (DDD): Up-front considerations regarding a truly bio-functional treatment with mesenchymal adipose tissue derived stem cells

Lumbar degenerative disc disease (DDD) poses an ongoing challenge as far as treatment options and alternatives, especially when considering younger patients. Over 80% of the adult population presents with one or more episodes of ongoing-progressive low-back pain (LBP). The primary cause is associated with degeneration of the intervertebral disc and which is triggered by a decrease of the nucleus pulposus cell population, as evidenced in histological studies. Definitely, in the presence of a “black disc” without profusion and neurological compromise, microsurgery or even fusion surgery should not be contemplated. Numerous percutaneous techniques have been propagated as proper way to treat this condition throughout the literature in the past years. They have been primarily focused on the treatment of the pain generated by the involved disc and the subsequent segmental insufficiency, without addressing the degeneration of the disc and for this have had limited success and remain as pain management tools. Some significant trials in the past (i.e. Chondrocyte transplantation trial) and the increasing recent research and achievements with more biological strategies as far as tissue regeneration, have motivated the development of a new treatment concept initially applicable to the lumbar spine which will be presented and discussed.


Advancements have led to a significant improvement in the understanding of the cell environment and tissue transplantation at a molecular, cellular and immunobiological level. Adipose tissue has already become a central source of clinical and research work involving adipose tissue derived progenitor cells.

Endothelial and mesenchymal stem cells derived from adipose tissue are being considered and used in an array of clinical conditions and seem to have clear therapeutic benefits for many disease conditions including those affecting bone, cartilage and muscle. The use of an accessible source with abundant cells which have a high potential for regeneration clearly is superior in comparison to the chondrocyte option for the lumbar disc. Mesenchymal cells have a high self renewal capacity and a potential for multi lineage differentiation. For this, adipose tissue derived MSCs (ADMSCs) are optimal candidates for tissue regeneration and can be obtained from the patient in a one step procedure-treatment.

Speaker Biography

Walter Bini has completed his Diploma at Westminster School, Simsbury Conn. USA and Post-graduate degree at Universidad de Zaragoza, Facultad de Medicina, Zaragoza-Spain. In 2014, he was the Middle East Chairman of ISLASS. He was Head of Neurosurgery at Sheikh Khalifa General Hospital, UAQ-UAE from 2014-2016. Currently, he is Consultant Neurosurgeon in Orthopedic department, spine section of Lanzo Hospital COF, Lanzo d'Intelvi in Italy and also Visiting Consultant Neurosurgeon in Orthopedic department at Healthpoint Hospital, UAE.

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