February 2018 | Volume 8
ISSN: 2161-0460
Journal of Alzheimers Disease & Parkinsonism

conferenceseries.com
1539th Conference

Proceedings of
10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

conferenceseries.com

VASCULAR DEMENTIA 2018

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Keynote Forum

DAY 1

Deborah Oliveira, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

Deborah Oliveira
University of Nottingham, UK

Recent developments on dementia risk reduction

Individuals' lifestyle contributes to the risk of dementia and lack of physical exercises, lack of social interaction, poor diet, smoking and alcohol consumption are among the major risk factors. Researchers have developed interventions aimed at promoting mental and physical fitness via increased cognitive and physical activity and improving diet and health, but too little is known about possible benefits or levels of uptake. Implementation of life style changes depends on individual attitudes and little is known about what and how much older people are prepared to change in order to prevent dementia. If the factors associated with better attitudes towards change of life style can be predicted, more accurate interventions tailored to these specific issues can be developed in order to reduce the risk of dementia. This presentation will show preliminary data from a national UK survey that involved approximately 4,000 people aged 50+ without dementia. The study aimed to assess people's willingness to change their lifestyle to potentially reduce their risk of future dementia, as well as understand more about factors that might predict willingness to change. Sociodemographic and current lifestyle information was collected. Motivation to change lifestyle was assessed using the MCLHB-DRR scale and non-validated questions based on the current lifestyle profile (e.g. if the individual smoked, it was asked how much he/she would be willing to stop smoking). The data suggests important differences in gender and age in relation to motivation to change lifestyle. These will be discussed in detail in this presentation.

Biography

Deborah Oliveira is a Research Fellow Nurse working for the Institute of Mental Health, University of Nottingham. She is currently leading a national UK survey on dementia risk reduction funded by the Alzheimer Research UK and editing a book on this topic. She has completed her PhD in 2016, in which she developed and validated an age- and dementia-specific quality of life scale for use with older family carers - the DQoL-OC.

oliveiradc.phd@gmail.com

Notes:

conferenceseries.com

Jagdish Singh, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Jagdish Singh

North Dakota State University, USA

Challenges and opportunities for drug discovery for neurodegenerative diseases

Neurodegenerative diseases have become the most common cause of dementia among the elderly. There were 36 million people living with dementia worldwide in 2010, increasing to 66 million by 2030 and 115 million by 2050. In 2010, the global cost of dementia was $604 billion. This is 1% of global GDP and it is likely that these costs will increase in proportion to the number of people with dementia. Gene therapy has been identified to possess a broad potential for the treatment of numerous neurological diseases, including Alzheimer's disease (AD). AD is a progressive neurodegenerative disease and the most common form of dementia caused by accumulation of toxic amyloid-β (Aβ) peptides in the brain, in which the development of effective therapies have been desired. However, the major challenge in the field of gene therapy is the design of safe vectors that can cross the blood brain barrier (BBB). It has been found that the transferrin receptors are present on the surface of brain endothelial cells. The liposomes, lipid based nanoparticles, can be surface modified with transferrin (Tf) protein for targeting the brain endothelial receptors and conjugated to cell penetrating peptide (CPP) for improving their internalization into brain by overcoming receptor saturation. In order to deliver gene/drug across the BBB, we conjugated the liposomes with two ligands (1) a receptor targeting protein (Tf) and (2) a CPP. Thus, we designed near-neutral, PEGylated liposomal nanoparticles encapsulating gene and drug and modifying the surface with Tf and CPP. Findings of in vitro characterization and in vivo bio-distribution will be discussed.

Biography

Jagdish Singh is a Professor and Chair of the Department of Pharmaceutical Sciences at NDSU College of Pharmacy, North Dakota and a Fellow of American Association of Pharmaceutical Scientists (AAPS) and Fellow of Association of Biotechnology and Pharmacy. His efforts focus on the mechanistic studies for developing and testing novel delivery technologies to deliver biotechnologically derived molecules (e.g., peptide, protein, and gene). He has published over 150 peer-reviewed papers and 270 abstracts.

jagdish.singh@ndsu.edu

Notes:

conferenceseries.com

Si Ching Lim, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Si Ching Lim

National University of Singapore, Singapore

Eating disorders and dementia

Dementia is becoming an expensive disease worldwide and its prevalence is on the rise, particularly in the developing countries. Eating disorders are common among the different types of dementia at various stages of the disease process. In the early stages, cognitive deficits cause them to eat very frequently, having forgotten they had just eaten. At the late stages, metabolic rate gets down regulated as the disease cause increasingly severe atrophy and physical activities reduce. The patients develop anorexia and together with functional dysphagia, nutritional intake and adequacy becomes a big concern for the caregivers. In addition, they have difficulties using the cutlery, recognizing food and are easily distracted by changes in the environment. The presence of behavioral problems also interferes with meal times and nutritional intake. There are ways to manipulate and increase the nutritional values of their intake at the late stages and explore the pros and cons of tube feeding for the elderly with severe dementia, the ethical consideration of tube feeding, etc.

Biography

Si Ching Lim has a special interest in dementia care particularly in patients with behavioral and psychological symptoms of dementia. She is currently working as an In-charge of a 20 bedded dementia ward in a teaching hospital in Singapore and is responsible in developing the ward and training the staff in managing elderly with delirium and dementia with challenging behavior. She is also an Adjunct Assistant Professor at National University of Singapore and Dukes Graduate Medical School.

si_ching_lim@cgh.com.sg

Notes:

conferenceseries.com

Markku Kurkinen, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Markku Kurkinen

Wayne State University, USA

Alzheimer's drug discovery: Targeting astrocyte synaptic glutamate uptake

According to the amyloid hypothesis, Alzheimer dementia begins in the brain with Aβ peptides accumulation and amyloid formation. However, clinical drug trials targeting Aβ peptides and brain amyloid have failed to help anybody living with Alzheimer. Instead of repeating similar trials and errors of 25 years, we have to discover novel drug targets and better our research to prevent and treat Alzheimer. Glutamate is the synaptic signaling molecule of neurons. As soon as the glutamate signaling starts it is stopped in 0.1-2 ms by astrocytes, which take up and clear glutamate from synapses. This prevents glutamate neurotoxicity causing synapse loss and neuron cell death. Astrocytes make EAAT2 (excitatory amino acid transporter-2), the major glutamate transporter and 1% of brain protein. In Alzheimer dementia, astrocytes are impaired in glutamate uptake. In experimental mouse models of Alzheimer, increasing EAAT2 expression slows dementia progression. To discover drugs that can activate EAAT2 in glutamate uptake; we describe a simple assay that targets the EAAT2 protein reconstituted in liposomes and measures glutamate uptake with Oxonol VI red light. By directly targeting the EAAT2 protein, the assay should limit 'off-targeting' of drugs and adverse events, which are the main problems in Alzheimer's drug discovery and clinical development. We may have to screen a million or more drugs, chemical compounds and natural products, before we find what we are looking for. We believe our drug assay of liposome glutamate uptake, in a high-throughput screening (HTS) format, can do exactly that. For efficacy, specificity and safety, the EAAT2 activating drugs are studied in an experimental C. elegans model of Alzheimer.

Biography

Markku Kurkinen has completed his PhD in 1979 at University of Helsinki, Finland and Post-doctoral studies from 1980-1983 at Imperial Cancer Research Fund, Mill Hill, London, UK. He was an Assistant Professor from 1984-1986 at Rutgers Medical School, Piscataway, New Jersey, USA; Associate Professor from 1986-1992, and Division Chief, Connective Tissue Research, Robert Wood Johnson Medical School, Piscataway, New Jersey, USA. He is a Professor at Wayne State University School of Medicine, Detroit, Michigan, USA. He has published more than 100 papers, reviews and book chapters.

markku@genetics.wayne.edu

Notes:

conferenceseries.com

VASCULAR DEMENTIA 2018

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Keynote Forum

DAY 2

conferenceseries.com

Jacqueline A Hinds, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

10th International Conference on

VASCULAR DEMENTIA

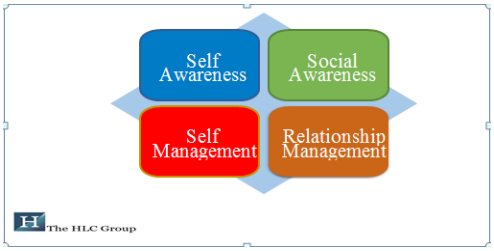
February 22-23, 2018 | Paris, France

Jacqueline A Hinds

Society of Emotional Intelligence, 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 utilize these skills effectively within their respective working environments.



Biography

Jacqueline A Hinds is a Certified Emotional Intelligence Coach (CEIC), Leadership Consultant and has worked within the national healthcare service for over 10 years in two of the largest merged healthcare organizations in UK and Europe. With 30 years of experience working within the human resource development arena has been paramount whilst working with management and staff during organizational changes; establishing and enabling them to be emotionally intelligent during mergers and organizational changes. From 2006-2010, she was the Leadership Development Consultant pre and post merge of Imperial College Healthcare NHS Trust (circa 10,000 staff) and, from 2010-2015 she was an Education Academy Training Manager pre and post merge of Barts Health NHS Trust (circa 15,000 staff). She is currently the Chair of the Society of Emotional Intelligence, UK Chapter and an Independent Consultant working on various coaching assignments, and with Culture Dementia UK on training projects within the healthcare and community.

information@soeiuk.org.uk

conferenceseries.com

Sandra Gilbert, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Sandra Gilbert

Noosa Care Inc., Australia

Family carers are the experts, we are not the experts

In the past, a person living with dementia was handed over to the expert staff when they entered residential aged care. The family carer was told to go home and the expert staff would now handle everything. Transition into care has effects on both the person living with dementia and their family. This presentation will share the journey of Noosa Care, when designing their Memory Support Unit and how as part of that design process, the decision was made to make the family carer the focus of the unit. The resident's family carer is considered the expert and has since the introduction of this new model, has taught and mentored staff on how to care for their loved one living with dementia. The physical design of the unit was also an important aspect of the model. The design of the unit promotes self-esteem and autonomy for the person living with dementia. This environment allows resident to walk from one room to another, through the gardens and living areas 24 hours per day. The University of The Sunshine Coast, Queensland, Australia conducted research on the new model, "To understand the perspectives of older people, their families or carers and staff of the effect of a purpose-built Memory Support Unit on the transition into care". In the findings, family, staff and most importantly the residents living with dementia, expressed an overwhelming positive impact of the built environment and the new model of care.

Biography

Sandra Gilbert has over 25 years of experience as a Registered Nurse and is the Group Care Manager of Noosa Care Australia where she manages over 300 care staff. She is also a Dementia Coach and provides education and consultation to businesses and communities on becoming dementia friendly. She is a Dementia Blogger, Podcaster, and Keynote Speaker and has led many projects designed to provide enabling environments for people living with dementia. She has won numerous awards for her work in the dementia care space.

sandra@noosacare.com.au

Notes:

George Paxinos, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

George Paxinos

University of New South Wales, Australia

Brain & Mind: Who is the puppet and who the puppeteer?

The question in the title has social, legal and religious implications. If the mind controls the brain, then there is free will and its corollaries, dignity and responsibility. You are king in your skull-sized kingdom. You are the architect of your destiny. If, on the other hand, the brain controls the mind, an incendiary conclusion follows: There can be no free will, no praise, no punishment and no purgatory. Our brain is the riverbed that holds and channels our stream of consciousness. It is molded by the family and the culture we were raised in. Dementia will pay an unwelcome visit to many of us at the end of life. It will disrupt the internal structure of our neurons or their nourishing blood vessels and we will be living evidence the mind is the product of the brain and has no influence on it.

Biography

George Paxinos has studies at University of California at Berkeley, McGill and Yale. He is currently an NHMRC Senior Principal Research Fellow at Neuroscience Research, Australia. He has published 51 scientific books and one novel. His *Rat Brain in Stereotaxic Coordinates* is the third most cited book in science. He has served as the President of the Australian Neuroscience Society and of the IBRO World Congress of Neuroscience.

g.paxinos@neura.edu.au

Notes:

conferenceseries.com

Fan Fan, J Alzheimers Dis Parkinsonism 2018, Volume 8
DOI: 10.4172/2161-0460-C1-035

10th International Conference on

VASCULAR DEMENTIA

February 22-23, 2018 | Paris, France

Fan Fan

University of Mississippi Medical Center, USA

Disruption of actin cytoskeleton contributes to cerebral vascular dysfunction on Alzheimer-like cognitive deficits in diabetic T2DN rats

Diabetes mellitus is a leading risk factor for cerebrovascular disease and vascular cognitive impairment. However, the underlying mechanisms remain to be elucidated. The present study examines whether disruption of the actin cytoskeleton promotes cerebrovascular dysfunction in diabetic T2DN rat, and if this induces neurodegeneration and Alzheimer-like cognitive deficits. We found that F-Actin area distribution was significantly reduced in the vascular smooth muscle cells (VSMCs) freshly isolated from the middle cerebral arteries (MCAs) of T2DN rats compared with normal Sprague Dawley (SD) rats. The actin cytoskeleton was disrupted similarly in VSMCs treated with H2O2. Both young (4-month) and older (18-month) T2DN diabetic rats exhibit impaired pressure-induced myogenic response in isolated MCA. Forced dilatation occurred at pressures above 140 mmHg in MCAs isolated from elderly T2DN rats with mild hypertension but not controls. Cortical blood flow measured by laser Doppler flowmetry rose by 137±15% and 36±5%, respectively, in T2DN and SD rats when MAP was increased from 100 to 180 mmHg. Cerebral blood flow (CBF) auto-regulation was shifted to lower pressures in elderly hypertensive T2DN rats and they exhibited breakthrough at pressures above 140 mmHg. Levels of IL-1 β and IL-2, and the expression of amyloid β 42 (Aβ42) and p-tau (S416) was significantly higher in the brains of T2DN vs. SD rats. T2DN rats exhibited neurodegeneration in the hippocampus and cortex. Elderly T2DN rats showed learning and short and long-term memory disabilities. Latency of escape were longer in an eight-arm water maze test in T2DN rats (2-hour: T2DN 96±12 vs. SD 13±3 seconds; 24-hour: T2DN 105±15 vs. SD 8±2 seconds), and they spent less time in the target arm 48 hours after removal of target platform (T2DN 3.4±2.6 vs. SD 45.0±1.7%). These results indicate that actin cytoskeleton is disrupted in cerebral VSMCs of diabetic T2DN rats, possibly due to elevated oxidative stress, and this contributes to impair of cerebral vascular function, neurodegeneration and Alzheimer-like cognitive deficits.

Biography

Fan Fan is an Assistant Professor at University of Mississippi Medical Center, USA. Her research focuses on the genetic basis of impaired myogenic response and auto-regulation of cerebral and renal blood flow and end organ damage in aging, hypertension and diabetes. She has published more than 40 papers in peer reviewed journals, and is currently serving as an Editorial Board Member and Reviewer for several journals. She is a Member of study sections in the Alzheimer's Association and American Heart Association. She is funded by the National Institute of Health and American Heart Association to study roles of Adducin gamma, CYP4A1 and 20-HETE on aging and hypertension related renal and cerebral vascular and dementia.

ffan@umc.edu

Notes: