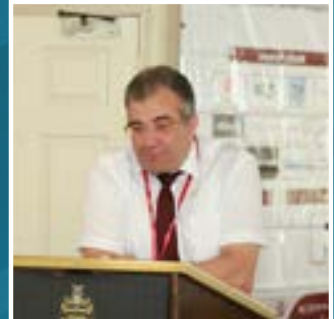


3rd International Conference on
NEUROLOGY AND BRAIN DISORDERS
June 19-20, 2019 | Dublin, Ireland

NEURO CONGRESS 2019



KEYNOTE FORUM
DAY 1

NEUROLOGY AND BRAIN DISORDERS

Keynote Forum | Day 1

June 19-20, 2019 | Dublin, Ireland

Li Zhang, J Brain Neurol 2019, Volume 3



Li Zhang

University of Texas at Dallas, USA

BIOGRAPHY

Li Zhang completed her PhD at UCLA and Post-doctoral studies at the MIT Department of Biology. She is the Cecil H and Ida Green Distinguished Chair in Systems Biology Science at the University of Texas at Dallas. Her laboratory has studied heme signaling and function for 20+ years and published many original research articles and a book entitled "HEME BIOLOGY: THE SECRET LIFE OF HEME IN REGULATING DIVERSE BIOLOGICAL PROCESSES" on this subject. Her laboratory has also helped unravel the functions of molecular chaperones, oxygen signaling and the actions of neurotoxicants. Her research interest is to elucidate the molecular events underlying altered heme iron homeostasis in AD pathogenesis and lung tumorigenesis.

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ALTERED HEME IRON HOMEOSTASIS IN ALZHEIMER'S DISEASE

Mitochondrial dysfunction and bioenergetic deficits have been identified as early and potentially causative events in Alzheimer's disease (AD) pathogenesis. Importantly, heme is a key factor in mitochondrial function and bioenergetics. Heme is a central metabolic and signaling molecule regulating diverse molecular and cellular processes relating to oxygen utilization and metabolism. Heme serves as a prosthetic group in proteins and enzymes involved in oxygen transport, utilization and storage such as globin's and cytochromes. Multiple subunits in mitochondrial respiration or oxidative phosphorylation (OXPHOS) complexes II-IV contain heme. Further, heme acts as a signaling molecule to coordinate the expression of genes encoding globins and cytochromes as well as the translocation and assembly of these protein/enzyme complexes. Heme binds to and directly regulates the activities of many proteins controlling processes ranging from tyrosine kinase signaling to microRNA processing. Thus, researchers assessed the importance of altered heme metabolism in AD pathogenesis. To investigate the role of altered heme metabolism in AD, they identified heme-related proteins whose expression is altered in AD patients and mouse models exhibiting amyloid pathology. They detected the levels of proteins involved in heme synthesis, uptake degradation and function during neuronal differentiation and characterized the effects of A β . They found that the expression levels of the rate-limiting heme synthetic enzyme ALAS1 and heme degradation enzyme HO-2 are selectively decreased in AD patients and mice. A β selectively reduces the levels of HO-2 and heme degradation, which are elevated to support neuronal functions in fully differentiated neuronal cells. Our data show that lowered heme metabolism, particularly the decreased levels of heme degradation and HO-2 are likely a very early event in AD pathogenesis.

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KEYNOTE FORUM
DAY 2

NEUROLOGY AND BRAIN DISORDERS

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Sherwin C Sy, J Brain Neurol 2019, Volume 3



Sherwin C Sy

Cardinal Santos Medical Center, Philippines

BIOGRAPHY

Sherwin C Sy has completed his Bachelor's Degree in Nutrition and Dietetics from the University of the Philippines, Philippines. He has completed his MD from the University of Santo Tomas, Philippines and is currently taking up residency training in internal medicine at Cardinal Santos Medical Center, Philippines.

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A CASE REPORT ON RECURRENT STROKE IN THE YOUNG

Stroke in individuals less than 45 years of age is not uncommon but poses a great economic and emotional burden to society. Though uncommon, recurrent stroke in the young can present as a disabling disease which can cause permanent incapacity to the patient. Author presents a case of a 31 year old Filipino male with a three month history of intermittent right upper arm numbness which progressed to the face with anomic aphasia for which a cranial MRI was done revealing a sub-acute infarct in the left parietotemporal region which appeared to be associated with occlusive or partial occlusive thrombus at the distal third of the superior sagittal sinus. In a span of four months, the stroke progressed further, documented through MRI. He underwent a cerebral angiogram, showing a complete occlusion of the left internal carotid artery with possible dissection of the left internal carotid artery with occlusion of the distal left sigmoid sinus. Presently, stable disease has been achieved but only supportive can be given to ensure maximal functional capacity.