

Report on the 5th Neurological Disorders Summit (NDS-2019)

Jin Jun Luo^{1,2*}

¹Department of Neurology, Lewis Katz School of Medicine at Temple University, Philadelphia, PA 19140, USA

²Department of Pharmacology, Lewis Katz School of Medicine at Temple University, Philadelphia, PA 19140, USA

*Correspondence to:

Dr. Jin Jun Luo, MD, PhD
Department of Neurology, Lewis Katz School of
Medicine at Temple University
Philadelphia, PA 19140, USA
Tel: 1(215)-707-3040
Fax: 1(215) 707-8235
E-mail: jjluo@temple.edu

Received: August 02, 2019

Accepted: August 06, 2019

Published: August 07, 2019

Citation: Luo JJ. 2019. Report on the 5th Neurological Disorders Summit (NDS-2019). *J Neurol Exp Neurosci* 5(2): 68-70.

Copyright: © 2019 Luo. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY) (<http://creativecommons.org/licenses/by/4.0/>) which permits commercial use, including reproduction, adaptation, and distribution of the article provided the original author and source are credited.

Published by United Scientific Group

Meeting Report

5th Neurological Disorders Summit (NDS-2019) was held at Four Points by Sheraton, Los Angeles, CA, USA from July 18-20, 2019, organized by United Scientific Group, a nonprofit organization. This three-day conference had gathered 114 participants from 31 countries; had 64 oral presentations and 38 poster presentations on a wide variety of topics on Neurological Disorders and the related fields. Here are the highlights of some topics in the Summit.

The keynote session started with the talk of Stephen Grossberg (*Boston University, Boston, MA, USA*) on “Normal and Abnormal Spatial, Temporal, and Category Learning and Memory Consolidation: Multiple Roles of the Hippocampus”. Grossberg discussed a self-contained summary of neural models of normal and abnormal learning and memory consolidation in which the hippocampus plays an important role. Stephen D. Miller (*Northwestern University, IL, USA*) talked on “Opposing Roles of Peripherally-Derived gδ T Cells and Tregs in Epilepsy Pathogenesis”, suggesting an autoimmune component to chronic epilepsy and the potential use of immunomodulatory therapies for disease therapy. Rajendra D. Badgaiyan (*South Texas Veteran Health Care System, TX, USA*) elaborated “Study of Neuropathology of Neurological Disorders: Novel approach” by using the single scan dynamic molecular imaging technique to detect, map and measure neurotransmitters in the live human brain. Kalpna Gupta (*University of Minnesota Medical School, MN, USA*) talked on “Mast Cells and Endoplasmic Reticulum Stress Contribute to Cerebrovascular Pathobiology” hypothesizing in a sickle microenvironment, mediators derived from activated mast cells stimulate endothelial P-selectin expression via endoplasmic reticulum stress leading to increased blood brain barrier permeability. Kenneth Blum (*Western University Health Sciences, CA, USA*) studied “Precision Behavioral Management (PBM®) of Reward Deficiency Syndrome, the Construct that Underpins All Addictive Behaviors” introducing development of PBM and potential clinical applications. Jin Jun Luo (*Temple University, PA, USA*) talked on “The shadow of vitamin and health”, discussing the importance of balanced diet with naturally adequate vitamins and stated that the belief of “the more the better” for taking a vitamin may not be true in this regard.

The first day of the meeting continued with sessions on “Alzheimer’s Disease, Dementia and Mild Cognitive Impairment”, “Neurological Disorders: Symptomatology, Pathophysiology and Etiology”, and “Diagnostics of Neurological Disorders: Neuroimaging, Biomarkers and Laboratory Studies” with 25 speakers presenting their recent research work.

In the session of Alzheimer’s disease, dementia and mild cognitive impairment, studies and reviews were presented including Neil Chernoff (*United States Environmental Protection Agency, WA, USA*) on “Lack of Evidence for a Role of BMAA (β-N-methylamino-L-alanine) in Human Neurodegenerative

Disease”; Jason E. Miller (*University of Pennsylvania, Philadelphia, PA, USA*) on “Pathway Level Codon Bias among Synonymous Rare Variants is Associated with Alzheimer’s disease Imaging Biomarker”; Stuart Zola (*MapHabit, Inc., GA, USA*) on “Developing Mobile Software that Uses Visual Mapping Techniques as Habit-based Assistive Technology for Individuals with Alzheimer’s disease and Alzheimer’s Related Dementias and their Caregivers”; Neil Jeyasingam (*Sydney University, Australia*) on a debatable topic “Lithium to Prevent Dementia: A Review and Call to Action”; Konrad Rejdak (*Medical University of Lublin, Lublin, Poland*) on “Psychological and Behavioral Patterns of Stigma among Patients with Dementia: A Cross-sectional Study”; Nicola Pieroni (*Sapienza University, Italy*) on “Exploring Alzheimer’s disease Mouse Brain through X-ray Phase Contrast Tomography: From the Cell to the Organ”; Herbert B Allen (*Drexel University, PA, USA*) on “The Essential Role of Biofilms in Alzheimer’s disease” reasoning the relationship between gum bacteria and the development of dementia; and Liqin Zhao (*University of Kansas School of Pharmacy, KS, USA*) on “Sex Differences in Alzheimer’s Disease: Female Susceptibility and Therapeutic Opportunity”.

The session of Neurological disorders: symptomatology, pathophysiology and etiology” and “diagnostics of neurological disorders: neuroimaging, biomarker and laboratory studies” had interesting presentations from Denis Larrivee (*Loyola University Chicago, IL, USA and University of Navarra, Pamplona, Spain*) on “Tracing Cognitive Disease to Global Representations: Neurological Etiologies Affecting the Self Construct”; Zhude Tu (*Washington University, MO, USA*) on “In vitro Pharmacological Characterization of [3H] TZ3321 Binding toward Sphingosine-1-phosphate Receptor 1(S1P1), a Promising Target for Neuroinflammation”; Lynn George (*Montana State University, MT, USA*) on “The Role of Codon Bias and Elongator in Neurological Disease”; Mahtab Jafari (*University of California, Irvine, CA, USA*) on “Drosophila *Melanogaster*: A Robust and Cost-Effective Model to Screen Therapeutics for Neurodegenerative Disorders”; C.-K. James Shen (*Academia Sinica, Taiwan*) on “Function and Dysfunction of the Neuropatho- Signature Protein TDP-43”; Franz Grus (*University Medical Center, Mainz, Germany*) on “Autoimmune Biomarkers and AI algorithms could Lead to New Diagnosis and Treatment Options in Neurodegenerative diseases such as Glaucoma”; Patrick Lekgwara (*Sefako Makgatho Health Sciences University, Pretoria, South Africa*) on “Tuberculous Hypertrophic Pachymeningitis”; Shu-Hui Yeh (*Mackay Medical College, Taiwan*) on “Effects of Music Aerobic Exercise on Autonomic Nervous Function among the Residents in Long-term Care Facilities”; Effects of Music Aerobic Exercise on Autonomic Nervous Function among the Residents in Long-term Care Facilities”; Kuender D. Yang (*Mackay Children Hospital, Taiwan*) on “Different Senescence Associated Secretory Phenotypes in Exosomes of Plasma and Urine in Elders with and without Degenerative Brain diseases”; Yu-Feng Wang (*Harbin Medical University, Harbin, China*) on “Neuromodulatory Roles of Oxytocin in the Activity of Neuroendocrine Immune Networks”; Alan D. Dorval (*University of Utah, UT, USA*) on “Cortical-

subthalamic beta-frequency signaling supports movement in healthy individuals but impairs movement in Parkinsonism”.

The Day 2 was highlighted with the series of interesting talk in different sessions on “Autism and Neurodevelopmental Disorders”, “Parkinson’s Disease and Other Movement Disorders, Neuromuscular Disorders and Peripheral Neuropathies”, “Neurological Disorders: Prevention, Treatments and Rehabilitation” and “Neurotrauma, Neuroinflammation, Neurobehavioral Disorders and Neuro-immune Diseases” kept the audience engaged with discussions.

Some of the notable presentations of the session on “Autism and Neurodevelopmental Disorders” were from Valdis Folkmanis (*University of Latvia, Latvia*) on “Children with Autism Spectrum Disorders: Comparison of Montessori Therapy and Treatment by Special Pedagogue”; Isanely Guerrero Kurz (*University of Texas at San Antonio, USA*) on “Experiences of Latinx Families with a Child with Autism: Cultural Considerations”; Romana Strausova (*Czech Republic Charles University, Czech Republic*) on “Advantages of Early Screening for Risk of Autism, Rehabilitation through Behavioral Parenting Training and Early Intervention O.T.A. for Children with Autism Spectrum Disorder”.

In the session related to Parkinson’s and other movement disorders has presentations from Manuela C. Matesan (*University of Washington, WA, USA*) on “Parkinsonian Syndromes Associated with Cognitive Deficit: A Molecular Imaging Update”; Xiao-Ming Xu (*Indiana University, IN, USA*) on “Remodeling of Lumbar Motor Circuitry for Recovery after Spinal Cord Injury”; Jiang Huang (*Soochow University, China*) on “SD-OCT Study of Retinal Morphological Changes in Patients with Parkinson’s disease in Different Clinical Stages”.

In the session of Neurological disorders: prevention, treatment and rehabilitation: Cristy Phillips (*Arkansas State University, AR, USA*) presented on “Lifestyle Modulators of Neuroplasticity” discussed how physical activity, mental engagement, and diet promote cognitive health during aging”; HyunMin Lee (*Honam University, South Korea*) on “Feasibility Test of Virtual Reality-based Visual Perception and Cognitive Rehabilitation Service” and Benjamin Chitambira (*University NHS Foundation Trust, United Kingdom*) presented on “Redefining Spasticity and its Rehabilitation: Insight from Use of Optokinetic Chart Stimulation”.

Presentations from Muchemi I (*United States International University -Africa, Kenya, Africa*) on “Major Economic and Psycho-social Changes Experienced by Retirees in Selected Counties in Kenya” and Altaf Qadir Khan (*Labore General Hospital, Labore, Pakistan*) on “Post-Stroke Delirium: Prognostic Variability between Anterior Circulation Strokes and Posterior Circulation Strokes” were among the notable presentations in the session of neurotrauma, neuro-inflammation, Neurobehavioral disorders and neuro-immune diseases.

Charity Huggins (*Longeviti Neuro Solutions, MD*) and Beau Billings (*Florida State University, FL, USA*) were awarded best Poster presentation award for their

presentation on “Chronic, Passive Electroencephalography as a Cortical Stimulation Mapping Alternative: A Review” and “Interventional First Person Video Game Training Reduces Fall Risk in Parkinson’s Disease by Improving Gait, Contrast Sensitivity, Visual Acuity, and Cognition”, respectively.

Last day of the summit was mainly focused on “Advances in Stroke Management Stroke: Prevention, Treatment and Recovery” and “Migraine and Headache, Epilepsy, Neurodegeneration and Multiple Sclerosis” with 14 notable speakers.

The session of advances in stroke management/stroke prevention, treatment and recovery had presentations from Jun Li (*University of Texas Health Science Center, TX, USA*) on “Inhibition of calcium/Calmodulin-Dependent Protein Kinase Kinase β is Detrimental in Hypoxia-Ischemia Neonatal Brain Injury”; Hong-Xuan Feng (*Suzhou Municipal Hospital, Suzhou, China*) on “T-lymphocyte Subsets as a Predictive Biomarker for Stroke-associated Pneumonia”; Wen Zeng (*Guizhou Provincial People’s Hospital, China*) on “Mirror Therapy for Motor Function of the Upper Extremity in Patients with Stroke: A Meta-analysis”.

The session of migraine & Headache, epilepsy/neurodegeneration/Multiple sclerosis included presentations from: Eman J. Abdullah (*Kuwait University, Kuwait*) on “Assessing the Quality of Life in Patients with Multiple Sclerosis in Kuwait: A Cross Sectional Study”; Nevra Alkanli (*Halic University, Istanbul, Turkey*) on “DNA Repair Genes

and Trace Elements Associated with Oxidative Stress in Multiple Sclerosis”; Arzu Ay (*Trakya University, Edirne, Turkey*) on “Investigation of the Relationship between Metalloproteinase-2 T1306C, Interleukin-18 (-607C/A) Gene Variations and Serum Trace Elements in Development of Parkinson’s disease”; Suleyman Serdar Alkanli (*Istanbul University, Istanbul, Turkey*) on “CRISPR/Cas-9 Approach for the Treatment of Huntington’s Disease in Mouse and Human Cell Lines”; Adam Harcourt (*Imagine X Functional Neurology, CA, USA*) on “Receptor Based Applications and Migraine: Customizing Treatment using a Neuroplastic Approach”; Marzia Buonfiglio (*Sapienza University, Rome, Italy*) on “Migraine with Aura and Photosensitive Epilepsy: Common Cognitive Behavioral and Linked Neurophysiological Traits”; Zhao Yang (*Tsinghua University, Beijing, China*) on “A Double-blind Randomized Control Trial of Vagus Nerve Stimulation for Pediatric Patients with Intractable Epilepsy between 3-6 Years of Age”.

NDS-2019 served an excellent platform for researchers, scientist, learners and trainees, and industrials to exchange information of their research advances, build networking, display the modern technologies, new products in the field of Neurological Disorders, and the service of the industry to the worldwide audience. The 6th Neurological Disorders Summit will be held in San Francisco, California from July 06-08, 2020. We look forward to having your active contribution and seeing you at the NDS-2020.