SESSION LECTURE

No.34

Pathogenesis and New Drug Research of Alzheimer's Disease
Room: Swan Room 2

Co-Chairs:
Lin Li

Alejandra Alonso

Day 2 October 20th (Sunday) 14:00 – 18:00		
Time	**Speaker**	**Title**
14:00-14:30	**Alejandra Alonso** The City University of New York, USA	Mechanism of tau-induced neurodegeneration with changes in its function beyond microtubule stability
14:30-15:00	**Jianzhi Wang** Huazhong University of Science and Technology, China	Role of the phosphorylated tau accumulation in Alzheimer neurodegeneration and its specific targeting
15:00-15:30	**Thomas C. Foster** University of Florida, USA	Effect of peripheral cellular senescence on brain aging and cognitive decline
15:30-16:00	**Cuibai Wei** Xuan Wu Hospital, Capital Medical University, China	Application of Multimode Neuroimaging Brain Network in the Evaluation of Drug Efficacy on MCI
16:00-16:30	**Miranda E. Orr** Wake Forest University, USA	Cellular senescence as a pathogenic contributor and therapeutic target in Alzheimer's Disease
16:30-17:00	**Ying Peng** Institute of Materia Medica, Chinese Academy of Medical Sciences, China	From stroke to Alzheimer's Diseases: The neuroprotective effects of 3-n-butylphthalide and its derivatives
17:00-17:30	**Tao Ma** Wake Forest University, USA	Deciphering molecular signaling mechanisms underlying Alzheimer's Disease
17:30-18:00	**Hanting Zhang** Qingdao University, China	Targeting phosphodiesterase for alcoholic dementia

Lin Li

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Dr. Lin Li is the professor of pharmacology at Xuanwu Hospital of Capital Medical University, Beijing, China. She serves as the vice president of Chinese Pharmacological Society. Her area of research expertise is the pharmacological study and new drug development for the treatment of neurodegenerative diseases. She has completed more than 20 research projects at national and provincial levels as the principal investigator. She haspublished over 300 scientific researchpapers, got 21 invention patents granted, and won the first prize of Beijing Science Technology Award and the second prize of National Science and Technology Progress Award of China.

Alejandra Alonso

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Prof. Alejandra Alonso, Department of Biology and Center for Developmental Neuroscience, College of Staten Island, Graduate Center, The City University of New York, Staten Island, NY, 10314, USA. She received her PhD in the university of Cordoba, Argentina. Her postdoctoral training was in the NY State Institute for Basic Research with Drs. Iqbal and Grundke-Iqbal, first to describe that hyperphosphorylated tau in the component of Pair Helical Filaments in Alzheimer disease. Since then, she has been interested on tau-induced mechanism of neurodegeneration. Dr. Alonso started her own lab in the City University of NY, and became tenure full Professor in 2012. Dr. Alonso has generated a mouse model of neurodegeneration, trained multiple undergraduates, PhD, masters, and post-doc. Received awards from sources including NIH, Alzheimer Association, and private foundations.

Jianzhi Wang

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Prof. Jian-Zhi Wang, Tongji Medical College, Huazhong University of Science and Technology. She has been awarded the Distinguished Professor of Changjiang Scholars of the Ministry of Education, the National Outstanding Youth Fund, the National High-level Talents Special Support Plan, and the National Famous teacher. She serves as Vice Chairman of the International Pathophysiological Society and director of the Key Laboratory of Major Diseases of Nervous System of the Ministry of Education. She has been engaged in research on pathogenesis, early diagnostic and therapeutic strategies of Alzheimer's disease for over 30 years and has published over 300 papers in the international journals.

Thomas C. Foster

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Dr. Foster is the McKnight Chair for Research on Cognitive Aging and has published over 175 papers on brain aging and cognitive decline. He has been awarded a National Advisory Council on Aging NIH Method to Extend Research in Time (MERIT). Gene expression studies characterized brain agingassociated with cognitive decline and resilience mechanisms that preserve cognition in the face of aging stressors. Current work focuses on systemic inflammation due to peripheral cellular senescence and the history of infection in cognitive decline. This work includes sex differences as fundamental biological processes influencing the onset and trajectory of cognitive decline.

Cuibai Wei

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Cuibai Wei is Professor in the Department of Neurology, Xuan Wu Hospital, Capital Medical University. She obtained her Ph.D and M.D in Institute of Neurology , Beijing University of Chinese Medicine. After that, she did her Postdoc research and then Residency, Professor and currently the Deputy Director in Neurology Department, Xuan Wu Hospital, Capital Medical University. In 2013-2014, Prof. Wei was a visiting scholar in Alzheimer's Disease and Memory Disorders Center, Baylor College, Houston, USA. Her major research fields include cognitive disorders, neurodegenerative disease, and earlybiomarker of Alzheimer's Disease. She has published more than 70 original articles. She is also the Vice President of Cognitive Disorders Branch, Chinese Geriatrics Society, and the Vice Chair of Cognitive Disorders Specialized Committee, Neurology Branch, Chinese Physicians Association.

Miranda E. Orr

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Dr. Miranda E. Orr is an Associate Professor at Wake Forest University School of Medicine and a Research Scientist at the VA Medical Center in Salisbury, NC. She earned her PhD in Neuroscience from Montana State University and received postdoctoral training at the Barshop Institute in San Antonio, TX. Her research focuses on tau neurobiology in aging and neurodegeneration. Dr. Orr's lab discovered a link between tau accumulation and cellular senescence, identifying a new therapeutic target for neurodegenerative diseases. She leads a Phase II clinical trial targeting senescent cells in Alzheimer's. She received the 2022 Melvin R. Goodes Prize for her work.

Ying Peng

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Professor of Pharmacology in the Institute of Materia Medica, Chinese Academy of Medical Sciences & Peking Union Medical College. Her research focuses on the molecular pathogenesis and drug development of cerebral ischemia and Alzheimer's disease. She have been committed to establish molecular, cellular, and animal models of cerebral ischemia and Alzheimer's disease for new drug screening evaluation. She has been involved in the development of multiple new drugs against ischemia stroke and Alzheimer's disease.

Tao Ma

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Dr. Ma is a professor with tenure at Wake Forest University School of Medicine (USA). He received his PhD in Neuroscience from Mount Sinai School of Medicine and New York University (NYU) in 2008, followed by postdoctoral training at Weill Cornell Medical College of Cornell University and NYU Center for Neural Science. His original research findings on molecular mechanisms in Alzheimer's disease (AD) have been published in many high-impact journals, and garnered international attention. He is a recipient and principal investigator of NIH K99/R00 award, and multiple R01 grants. He is associate editor of "Journal of Alzheimer's Disease". He is a fellow of "American Neurological Association (ANA)", member of "Society for Neuroscience" and "New York Academy of Science".

Hanting Zhang

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Dr. Hanting Zhang is currently the Distinguished Professor and Dean of Qingdao University School of Pharmacy, Shandong, China. He has been a tenured professor of Neuroscience at the Rockefeller Neuroscience Institute, West Virginia University Health Sciences Center, Morgantown, West Virginia, USA. He received his Bachelor/M.D. from Southern Medical Universityin Guangzhou and M.S. and Ph.D. of Pharmacology from Beijing Institute of Pharmacology & Toxicology, China. He was a postdoctoral fellow at Louisiana State University Health Sciences Center in Shreveport, LA and then University of Tennessee Health Science Center in Memphis, TN.His research focuses include identification of CNS functional roles of phosphodiesterases (PDEs) and intracellular signaling in neurodegenerative and neuropsychiatric disorders, specifically Alzheimer's disease and alcoholism. He has published more than 160 research papers/review articlesand 18 book chapters, in addition to a book entitled "Phosphodiesterases: CNS Functions and Diseases"(Springer).