

**Thursday, June 29
11:00 CEST**

SEPIA lecture series

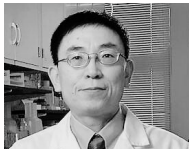
**Skin misfolded protein-
seeding activity as a
diagnostic biomarker
across neurodegenerative
diseases**



Webinar format

To register :

<https://app.livestorm.co/fontenay-aux-roses/lecture-wen-quen-zou>



Wen-Quan Zou, MD, PhD

Institute of Neurology, Jiangxi
Academy of Clinical Medical
Sciences, The First Affiliated
Hospital of Nanchang University,
Nanchang, China

For any question about the event
please contact
emmanuel.comoy@cea.fr



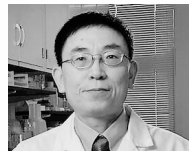
Abstract

Parkinson's disease (PD) and Alzheimer's disease (AD) are the two most common neurodegenerative diseases that have recently been proposed to share the pathogenic mechanism similar to that of prion diseases (PrD) associated with an infectious prion protein (PrPSc).

Their definitive diagnosis mainly relies on the examination of the pathologically misfolded α -synuclein (α -SynP) containing Lewy bodies, amyloid β ($A\beta$) plaque and phosphorylated tau tangles, or PrPSc aggregates in the brain.

By using ultrasensitive seed-amplification assays (SAA) with real-time quaking-induced conversion (RT-QuIC) and protein misfolding cyclic amplification (PMCA) technologies, we recently reported for the first time that the seeding activity of the skin PrPSc or α -SynP (PrPSc- or α -SynP-SA) could be a biomarker for diagnosis of prion diseases or PD.

Our new study also revealed that similar to brain tissues, skin tissues of patients with AD and other tauopathies showed detectable seeding activity of misfolded tau by RT-QuIC assay. Our studies provided evidence that prion-like seeding activity of misfolded proteins including PrPSc, α -SynP and tau can be detectable in the skin tissues of different neurodegenerative diseases. The seeding activity of these prion-like misfolded proteins could serve as a diagnostic biomarker across neurodegenerative diseases.



Biography of Wen-Quan Zou

Dr. Wenquan Zou is a Distinguished Professor, founding Director of the Institute of Neurology, Executive Dean of Jiangxi Academy of Clinical Medical Sciences of the First Affiliated Hospital of Nanchang University, Nanchang, Jiangxi Province, China.

Before joining Nanchang University in December 2022, Dr. Zou was a tenured Professor of Departments of Pathology and Neurology, and Associate Director of National Prion Disease Pathology Surveillance Center, Case Western Reserve University School of Medicine, Cleveland, Ohio, USA.

Dr. Zou's research focus is in the area of prion disease and other neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease. Currently, the Zou laboratory is developing skin-based early diagnostic biomarkers with ultrasensitive seed-amplification assays for prion disease, Parkinson's disease, Alzheimer's disease and other neurodegenerative diseases. His lab is also studying the pathogenic mechanism of neurodegenerative diseases using animal and cell models.