大学院特別講義

新潟脳神経研究会特別例会の御案内

日　　時：令和７年８月５日(火) 16:00～17:00(JST)

開催方法：ハイブリッド開催

会　場　脳研究所 遺伝子機能解析学分野 検討会室

Zoom　ミーティングID　：914 2582 3987
　　パスコード　：896831

THE APOE ε4 GENE AT THE CROSSROADS OF NEURODEGENERATION: DEFINING ITS ROLE IN PARKINSON'S DISEASE ONSET AND PROGRESSION — TOWARDS PRECISION NEUROLOGY

Gita Vita Soraya, MD, Ph.D[1,2,3]

Associate Professor

[1]Department of Neurology, Faculty of Medicine, Hasanuddin University

[2]Department of Biochemistry and Molecular Biology, Faculty of Medicine, Hasanuddin University [3]Neurology Division, Hasanuddin University Hospital

（脳研究所共同研究拠点国際共同研究者）

Parkinson's disease (PD), the most prevalent movement disorder, remains a major global burden. While the Apolipoprotein E (APOE) gene is well known for its involvement in Alzheimer's disease and other neurodegenerative conditions, its role in PD has remained elusive, with conflicting evidence across studies.

This study explored the impact of the APOE ε4 allele in Indonesian PD patients and complemented the findings with a global meta-analysis. Genetic analysis revealed that 2 out of 3 PD patients in the cohort carried the APOE ε4 allele. A meta-analysis of 14 published studies (up to January 2025) confirmed a significantly earlier age of onset in ε4 carriers (SMD = –0.16, 95% CI: –0.24 to –0.08, p = 0.0001). In contrast, no significant differences were observed in disease severity (Hoehn and Yahr stage) or cognitive performance (MMSE) between ε4 carriers and non-carriers. These results suggest that APOE ε4 functions as a genetic modifier, accelerating PD onset without markedly affecting clinical progression or cognition. Understanding its role may help identify high-risk individuals and contribute to the development of precision neurology approaches in PD care.

I look forward to sharing these insights and engaging in discussion with all of you.

どうぞ奮ってご参加ください。

（担当：脳研究所 遺伝子機能解析学分野）

新潟大学脳研究所
Brain Research Institute, Niigata University