**大師講堂-失智症研究前沿系列講座 課程表**

**Frontiers in Dementia Research—Master Lectures**

| 課程時間 | 112年9月08日 12：30~13：30 |
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| 課程地點 | **Webex meeting room**：<https://taipeimedicaluniversityshuanghohospitalministryofhealth.my.webex.com/meet/pr1585279471>  **meeting room number**：1585 27 9471 |
| 主題 | Frontiers in Dementia Research—Master Lectures |
| 講師 | Prof. Hiroshi Matsuda |
| 講師簡歷 | **Affiliation(s):**  Graduated with a degree in Medicine at Kanazawa University School of Medicine in 1979. Then finished the doctor’s course at Graduate School of Kanazawa University School of Medicine in 1983. Rotary Foundation Scholarship in Montreal Neurological Institute from 1984 to 1985. Head of Department of Radiology, National Center of Neurology and Psychiatry from 1993 to 2004. Professor of Department of Nuclear Medicine, Saitama Medical University from 2004 to 2012. Director general of integrative brain imaging center, National Center of Neurology and Psychiatry from 2012 to 2020. Director of Drug discovery Research and Cyclotron Center, Southern TOHOKU Research Institute for Neuroscience from 2020. Professor of Department of Biofunctional Imaging, Fukushima Medical University from 2021. |
| 課程摘要 | Alzheimer's disease (AD) has long been considered a clinicopathological entity characterized by typical amnesic symptoms and three pathological features: amyloid beta plaques in the postmortem brain, neurofibrillary changes, and neurodegeneration. However, it has since been recognized that some patients with typical clinical symptoms do not have neuropathological amyloidosis or tauopathy. Therefore, a framework for AD research has been proposed that defines AD by the presence or absence of biomarkers of amyloidopathy (A), tauopathy (T), and neurodegeneration/ neuronal injury (N) as well as the clinical syndrome. Recent advances have enabled in vivo A/T/N classification using neuroimaging techniques such as amyloid PET, tau PET, MRI, and fluorodeoxyglucose PET to confirm the presence of A, T, and N, respectively. Under this new framework, AD is diagnosed when both A and T are positive, regardless of whether N is positive or negative. The positivity/negativity of amyloid PET is principally determined by visual interpretation. However, when amyloid accumulation is low, this dichotomous visual interpretation tends to vary from reader to reader. To aid the visual interpretation, quantitative measures of amyloid accumulation in the brain have been proposed. In particular, the Centiloid (CL) scale has become widely used in recent years as a harmonized value for standardizing each analytical method or PET ligand used. On the other hand, tau PET ligands have been developed that bind to 3R/4R tau in AD, but not to 3R tau or 4R tau alone. Several second-generation tau PET probes with less off-target binding are being applied clinically. Visual interpretation of tau PET should be based on neuropathologic staging of neurofibrillary tangles rather than simple positive/negative classification. This presentation will discuss the role of amyloid and tau PET in the diagnosis of AD, as well as visual reading and quantification methods. |
| 課程形式 | 課程時長1小時 (12:30~13:30)  Date: September 8th, 2023  Agenda:  12:30-12:35: Opening (online meeting room opens at 12:20 p.m.)  12:35-13:15: Diagnosis of Alzheimer's disease by imaging of amyloid and tau positron emission tomography  13:15-13:30: Q&A session |
| 主辦單位 | 衛生福利部雙和醫院(臺北醫學大學興建經營) 失智症中心 |
| 協辦單位 | 衛采製藥股份有限公司  臺灣神經學學會  臺北榮民總醫院神經內科  臺中榮民總醫院失智症中心  臺北市立聯合醫院失智症中心  臺北醫學大學醫學院 |
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