CAMD セミナー

(Center for Development of Advanced Medicine for Dementia)

Biomarkers of and Clinical Trials for Cognitive Impairment

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第 1 研究棟 2 階小会議室

Chen 先生は Singapore を代表する認知症研究者で、現在 Asian Society Against Dementia の president もされています。今回は最近ご発表された exosome-bound Aβ 血液バイオマーカー研究の話題や、先生が PI をされている SINGER study (World-Wide FINGER の Singapore 版) についてお話をしていただきます。

Earlier diagnostic criteria supported a probabilistic diagnosis of Alzheimer's Disease (AD), within the clinical context and without definitive diagnostic biomarkers. However, our understanding of the biological basis of AD has advanced greatly allowing an unprecedented understanding of the disease process and intense research interest in characterizing the earliest stages of AD. Several factors have driven the need to update criteria for AD and these include improving diagnostic specificity, identification of the AD phenotype, the urgent need to test early intervention, and the validation of new in-vivo biomarkers for AD. This has led towards a pathological instead of a clinically based definition of AD and the realization that "Alzheimer's Disease" does not equate to "Alzheimer's Dementia". Similar efforts are also required and currently being undertaken for biomarkers of cerebrovascular disease.

These biomarkers have driven changes in clinical research criteria as well as selection of patients for clinical trials. Insight into their relationship as well as their co-occurrence on cognition will contribute to (i) a better understanding of disease mechanisms responsible for cognitive impairment and dementia, (ii) enable clinicians to provide their patients with more accurate prognostic information and (iii) selecting patients who might benefit from targeted therapies.

This lecture will review novel biomarkers associated with neurodegeneration and vascular processes which may contribute to cognitive decline as well as recent clinical trials including the SINGapore intervention study to prevEnt coGnitive impairment and disability (SINGER) study which forms part of the World Wide FINGERS collaboration.

<参考文献>

1) Lim, C. Z. J. et al. Subtyping of circulating exosome-bound amyloid β reflects brain plaque deposition. Nature Communications 10, 1144, doi:10.1038/s41467-019-09030-2 (2019).

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