

20 February 2025

Thursday

3pm

TLL Auditorium (Level 1)

Hosted by:

Prof George Augustine

ALL ARE WELCOME



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Lim Kah-Leong obtained his Ph.D. from the Singapore Institute of Molecular & Cell Biology in 1999. He did his postdoctoral training at the Department of Pathology in Harvard Medical School (2000-2001), and subsequently at the Department of Neurology in Johns Hopkins University School of Medicine (2001-2002) where he worked on the topic of Parkinson's disease with Professor Ted Dawson. Lim has received numerous awards including the prestigious (Singapore) President's Science Award (Team) and the Singapore Neuroscience Association Distinguished Neuroscientist Award.

## Professor Lim Kah-Leong

Associate Vice President (Biomedical & Life Sciences)

Professor, Lee Kong Chian School of Medicine

President's Chair in Translational Neuroscience

## Neuroprotective and Neurorestorative Strategies for Parkinson's disease

Parkinson disease (PD) is a prevalent neurodegenerative disease affecting millions of predominantly elderly individuals worldwide. Despite intensive efforts devoted to therapeutics discovery, the disease remains incurable. In this talk, I will share our work on uncovering mechanism-guided compounds to offer neuroprotection. Alongside this, I will also share our programme on the establishment and use of human umbilical cord lining-derived iPS cells (termed "CLIPS") as a genetically unmodified, naturally occurring hypo-immunogenic source of cells for regenerative therapy for PD. To support our research, we utilize a broad range of disease models including *Drosophila*, rodents, human neurons and brain organoids generated from patient-derived induced pluripotent stem cells, and non-human primates, which I will showcase during the talk.

### Recent Publications:

1. Koh, D.H.Z., Naito, T., Na, M., Yeap, Y.J., Rozario, P., Zhong, F., **Lim, K.L.**, Saheki, Y. (2023) Visualization of accessible cholesterol using a GRAM domain-based biosensor. *Nature Communication*, Oct 25;14(1):6773 (2023)
2. Jo, J., Yang, L., Tran, H., Yu, W., Yang, L., Sun, A., Chang, Y.Y., Jung, B.C., Lee, S.J., Saw, T.Y., Xiao, B., Khoo, A.T.T., Yaw, L.P., Xie, J.J., Lokman, H., Ong, W.Y., Lim, G.Y., **Lim, K.L.\***, Tan, E.K.\*, Ng, H.H.\*, Je, S.\* (\*co-corresponding) (2021) Lewy-body like Inclusions in Human Midbrain Organoid Carrying Glucocerebrosidase and Alpha Synuclein mutations. *Annals of Neurology*, Sep;90(3):490-505
3. Rajan S, Jang Y, Kim CH, Kim W, Toh HT, Jeon J, Song B, Serra A, Lescar J, Yoo JY, Beldar S, Ye H, Kang C, Liu XW, Feitosa M, Kim Y, Hwang D, Goh G, **Lim K.L.**, Park HM, Lee CH, Oh SF, Petsko GA, Yoon HS, Kim KS (2020). PGE1 and PGA1 bind to Nurr1 and activate its transcriptional function. *Nature Chemical Biology*, Aug;16(8):876-886 (PMID: 32451509)