

SEMINAR

Thurs, 3 Mar 2016 | 10.30am | DBS Conference Room 1

Hosted by Professor Gong Zhiyuan

Context-dependent dynamics of microglia expansion in the mouse brain

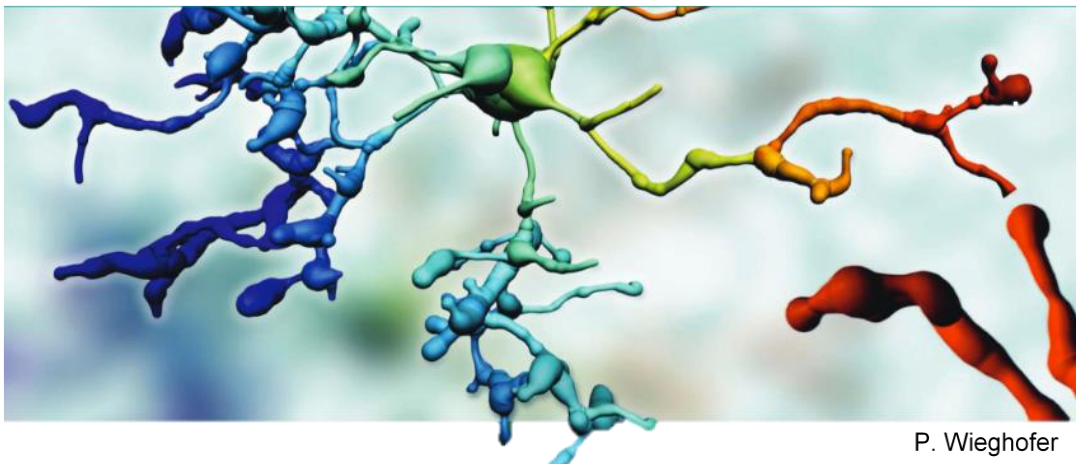
By Tay Tuan Leng

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Microglia constitute a highly specialized network of immune cells that is important for the control of brain development, homeostasis and resolution of diseases of the central nervous system (CNS). However, how the organization and maintenance of the microglial network is established *in vivo* and the kinetics of these processes are poorly understood. Using a new multicolor reporter system we monitored microglia dynamics during steady state and disease. We found that microglia establish a remarkably stable network over time albeit with regional differences and differential turnover rates that challenge the postulated longevity of these cells. Under pathological conditions we observed rapid clonal expansion of microglial cells that is finally resolved by both cell apoptosis and egression, ensuring the re-establishment of the previously stable microglial network. Our data reveal new insights on how microglia ensure their complex distribution throughout the healthy and diseased CNS.

About the Speaker

The speaker is alumni of DBS and she was graduated from DBS with both B.Sc (Hons) in 2002 and M.Sc in 2004.



P. Wieghofer