

Microglia: Where Friends Go Rogue in Neurological Disorders

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Online Webinar

For Researchers



Speaker:

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Host: Sunghee Cho, Ph.D.

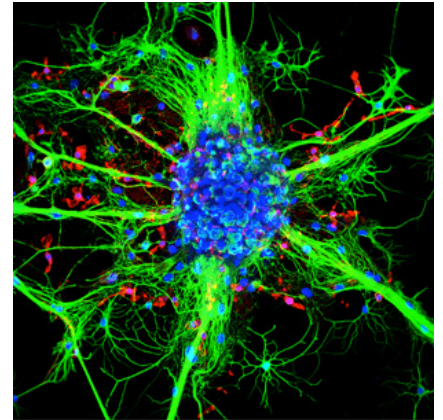
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Abstract

Microglia have numerous beneficial properties during development and after injury, such as the removal of inhibitors to reparative processes or the control of brain tumor growth. Yet, in many neurological conditions, the persistently activated microglia appear injurious and promote lesion expansion. This presentation considers factors that turn microglia from friend to rogue, including through single cell and spatial transcriptomic studies, and aging. Finally, inhibitors of injurious microglia activity applicable for clinical use are considered.



1. Sarkar S, Yang R, Mirzaei R, Rawji K, Poon C, Mishra MK, Zemp FJ, Bose P, Kelly J, Dunn JF, Yong VW, Control of brain tumor growth by reactivating myeloid cells with niacin, *Science Translational Med* 12(537). pii: eaay9924, 2020
2. Dong Y, D'Mello C, Moezzi D, Lozinski B, Kaushik D, Ghorbanigazar S, Brown D, Melo FC, Vo T, Yong VW, Oxidized phosphatidylcholines in multiple sclerosis lesions mediate neurodegeneration and are neutralized by microglia, *Nature Neuroscience* 24:489-503, 2021
3. Dong Y, Jain RW, D'Mello C, Lozinski B, Visser F, Ghorbani S, Zandee S, Brown DI, Prat A, Xue M, Yong VW, Single cell and spatial RNA sequencing identify perturbators of microglia functions with ageing, *Nature Aging*, in press

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