Astrocyte Cell-Cell Communication in Health and Disease

April 11

Tuesday, 12:30 pm

Zoom Only

SPEAKER:

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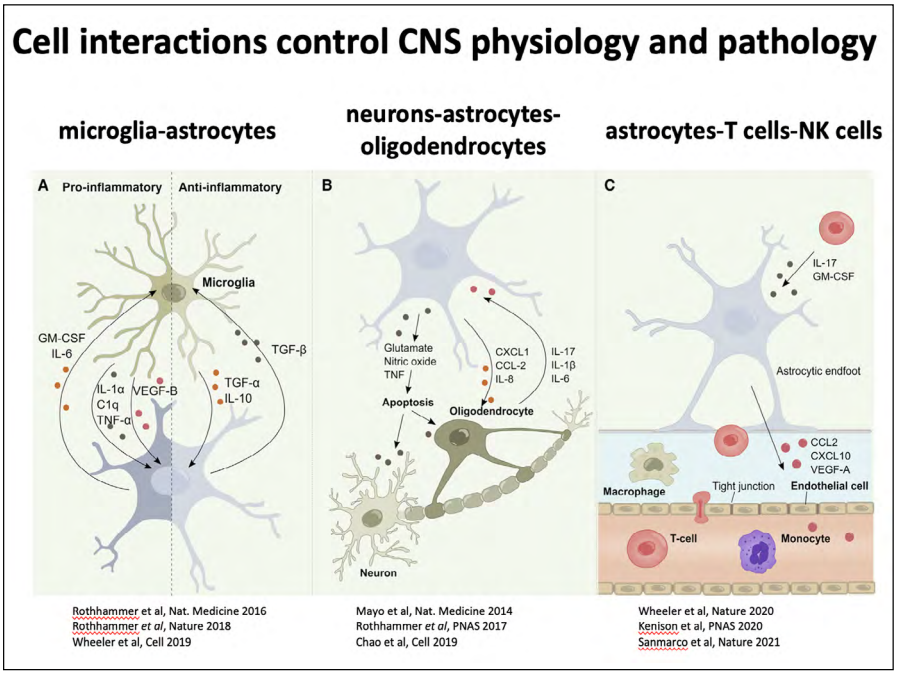
Abstract

Astrocytes perform diverse functions in health and disease. Astrocyte dysfunction is found in numerous diseases, including multiple sclerosis, Alzheimer disease, Parkinson disease, Huntington disease and neuropsychiatric disorders. Astrocytes regulate glutamate and ion homeostasis, cholesterol and sphingolipid metabolism and respond to environmental factors, all of which have been implicated in neurological diseases. Astrocytes also exhibit significant heterogeneity, driven by developmental programs and stimulus-specific cellular responses controlled by CNS location, cell-cell interactions and other mechanisms. In this presentation, we will discuss novel tools to study cell interactions, and how they can define cell-cell interaction mechanisms that control astrocyte function in health and disease, while illuminating candidate targets for therapeutic intervention.



Publications:

1. Sanmarco, Wheeler et al, Nature 2021.
2. Clark, Gutierrez-Vazquez, Wheeler et al, Science 2021.
3. Clark, Wheeler et al, Nature 2023.

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