

Wednesday, October 16, 2019

LSC 3 | 1:00 - 2:00PM



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“Should I Stay or Should I Go: Fibrin(ogen) and Fibrinolysis in Neuroinflammation”

Multiple sclerosis (MS) is an autoimmune inflammatory demyelinating disease of the central nervous system (CNS). While T-cells that target myelin initiate disease, microglia/macrophages are the primary effector cells resulting in demyelination. Thrombin activation and fibrin(ogen) deposition, at sites of blood brain barrier (BBB) breakdown, is an early key feature of MS. Growing evidence supports that fibrin(ogen) contributes to MS pathogenesis a local cue for microglial/macrophage activation via interactions with $\alpha_M\beta_2$ and the $\alpha_M\beta_2$ -binding motif on the fibrin(ogen) γ chain. However, as yet, the precise molecular form of fibrin(ogen) that contributes to MS has not been defined. We have found that fibrinogen and fibrin crosslinking by factor XIII are significant determinants of neuroinflammation, however, interestingly fibrin polymerization only has a modest impact on driving disease severity. Further, and seemingly paradoxically, plasmin-mediated fibrinolysis also drives neuroinflammatory disease. In this talk, I will discuss the role of fibrin polymerization, crosslinking, and lysis in the development of neuroinflammation.

Please note that due to some technical difficulties we
are unable to webcast this seminar.



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