

Neuroinflammation in Post-Stroke Injury and Repair

July 13

Tuesday, 12:30pm

Online Webinar

For Researchers



Speaker:

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Host: Sunghee Cho, Ph.D.

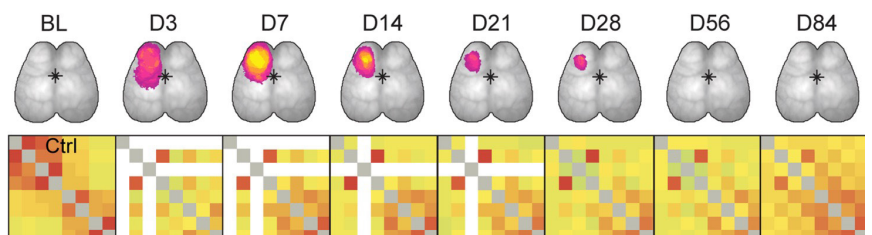
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Abstract

Inflammatory mechanisms have become a prime target for stroke therapy mainly based on animal studies which suggest that certain immune mediators have profound detrimental effects in the early stage of the disease process. Several of these mechanisms are turned on with sufficient delay after ischemia-onset to make them amenable to therapeutic intervention. Clinical proof-of-concept trials have investigated the efficacy of different immunomodulatory approaches in stroke patients. More recently, clinical studies aiming at preventing T cell migration into the brain reported controversial findings regarding prevention of infarct growth in neuroimaging studies but yielded some promising results on clinical endpoints. The talk will focus on the lessons learned from recent experimental and clinical immunomodulatory trials for stroke with a particular emphasis on the open questions regarding the role of neuroinflammation in long-term recovery and neuronal plasticity after stroke.



1. Roth S, Cao J, Singh V, Tiedt S, Hundeshagen G, Li T, Boehme JD, Chauhan D, Zhu J, Ricci A, Gorka O, Asare Y, Yang J, Lopez MS, Rehberg M, Bruder D, Zhang S, Groß O, Dichgans M, Hornung V, Liesz A. (2021) **Post-injury immunosuppression and secondary infections are caused by an AIM2 inflammasome-driven signaling cascade.** *Immunity* Mar 1;S1074-7613(21)00070-4
2. Heindl S, Ricci A, Carofiglio O, Zhou Q, Arzberger T, Lenart N, Franzmeier N, Hortobagyi T, Nelson PT, Stowe AM, Denes A, Edbauer D, Liesz A. (2021) **Chronic T cell proliferation in brains after stroke could interfere with the efficacy of immunotherapies.** *Journal of Experimental Medicine* Aug 2;218(8):e20202411.
3. Colombo AV, Sadler RK, Llovera G, Singh V, Roth S, Heindl S, Sebastian Monasor L, Verhoeven A, Peters F, Parhizkar S, Dichgans M, Steiner H, Giera M, Haass C, Tahirovic S, Liesz A. (2021) **Microbiota-derived short chain fatty acids modulate microglia and promote A β plaque deposition.** *Elife.* Apr 13;10:e59826