

Selected Publications

- 2019 **Neher, J.J.** and Cunningham, C. Priming microglia for innate immune memory in the brain. *Trends in Immunology* 40, 358–374.
- Parhizkar, S., Arzberger, T., Brendel, M., Kleinberger, G., Deussing, M., Focke, C., Nuscher, B., Xiong, M., Ghasemigharagoz, A., Katzmarski, N., Krasemann, S., Lichtenthaler, S., Müller, S. A., Colombo, A., Monasor, L.S., Tahirovic, S., Willem, M., Pettkus, N., Butovsky, O., Bartenstein, P., Edbauer, D., Rominger, A., Ertürk, A., Grathwohl, S. A., **Neher, J. J.**, Holtzman, D. M., Meyer-Luehmann, M. and Haass, C. Loss of TREM2 function increases amyloid seeding but reduces plaque associated ApoE. *Nature Neuroscience*, 22:194-204.
- 2018 Wendeln, A.-C., Degenhardt, K., Kaurani, L., Gertig, M., Ulas, T., Jain, G., Wagner, J., Häsler, L. M., Wild, K., Skodras, A., Blank, T., Staszewski, O., Datta, M., Centeno, T. P., Capece, V., Islam, M. R., Kerimoglu, C., Staufienbiel, M., Schultze, J. L., Beyer, M., Prinz, M., Jucker, M., Fischer, A., and **Neher, J. J.** Innate immune memory in the brain shapes neurological disease hallmarks. *Nature* 556, 332–338.
- 2017 Füger, P., Hefendehl, J. K., Veeraraghavalu, K., Wendeln, A.-C., Schlosser, C., Obermüller, U., Wegenast-Braun, B. M., **Neher, J. J.**, Martus, P., Kohsaka, S., Thunemann, M., Feil, R., Sisodia, S. S., Skodras, A., and Jucker, M. Microglia turnover with aging and in an Alzheimer's model via long-term in vivo single-cell imaging. *Nature Neuroscience* 20, 1371–1376.
- 2016 Varvel, N. H., **Neher, J. J.**, Bosch, A., Wang, W., Ransohoff, R. M., Miller, R.J., and Dingledine, R. Infiltrating monocytes promote brain inflammation and exacerbate neuronal damage after status epilepticus. *Proceedings of the National Academy of Sciences USA* 113, E5665–74.
- 2015 Varvel, N.H., Grathwohl, S., Degenhardt, K., Resch, C., Bosch, A., Jucker, M., **Neher, J.J.** Replacement of brain-resident myeloid cells does not alter cerebral β -amyloid deposition in mouse models of Alzheimer's Disease. *Journal of Experimental Medicine*. 10 (10): 579-596.
- 2014 Brown, G.C., and **Neher, J.J.** Microglial phagocytosis of live neurons. *Nature Reviews Neuroscience*. 15, 209–216.
- Neher, J.J.**, Neniskyte, U., Hornik, T., and Brown, G.C. Inhibition of UDP/P2Y6 purinergic signaling prevents phagocytosis of viable neurons by activated microglia in vitro and in vivo. *Glia*. 62, 1463–1475.
- Hefendehl, J.K., **Neher, J.J.**, Sühs, R.B., Kohsaka, S., Skodras, A., and Jucker, M. Homeostatic and injury-induced microglia behavior in the aging brain. *Aging Cell*. 13, 60–69.
- 2013 **Neher, J.J.**, Emmrich, J.V., Fricker, M., Mander, P.K., Théry, C., and Brown, G.C. Phagocytosis executes delayed neuronal death after focal brain ischemia. *Proceedings of the National Academy of Sciences USA*. 110, E4098–E4107.