Treg cells have been shown to play a critical role in immunologic self-tolerance as well as anti-tumor immune responses and transplantation.

Transfered Treg cells in the intracerebral hemorrhage model, and investigated the effect.

The cytokines of microglia were measured by ELISA, JNK/ERK and NF-κB were measured by Western blot and EMSA (Electrophoretic Mobility Shift Assay), animal behavior was evaluated by animal behavioristics. We found that Treg cells could inhibit microglia mediated inflammatory response through NF-κB activation via the JNK/ERK pathway in vitro, and improve neurological function in vivo. Our findings suggest that Treg cells could suppress inflammatory injury and represent a novel cell-based therapeutical strategy in ICH [1].

1)
Yang Z, Yu A, Liu Y, Shen H, Lin C, Lin L, Wang S, Yuan B. Regulatory T cells inhibit microglia activation and protect against inflammatory injury in intracerebral hemorrhage. Int Immunopharmacol. 2014 Jul 4. pii: S1567-5769(14)00251-3. doi: 10.1016/j.intimp.2014.06.037. [Epub ahead of print] PubMed PMID: 25000335.