Modulating TRPV4 activity as a novel method of controlling microglial activation state and dynamics

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Tissue/cell swelling occurs in a variety of retinal blinding diseases and after traumatic injury. Retinal microglia retract their processes when exposed to hypotonic stimuli.

The ‘activation’ of microglia in response to HTS can be blocked with TRPV4 antagonists.

Swelling results in the production of AA and its metabolites, which are critical components of the inflammatory cascade.