Review of: "Neuronal apoptosis drives remodeling states of microglia and shifts in survival pathway dependence"

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This manuscript written by Anderson and colleagues study the diversity of microglia in postnatal retina and the cues that promoting this diversity. To achieve this, the authors performed scRNAseq on microglia from mice, and subsequently bioinformatic analyze, and find that interactions with apoptotic neurons drives multiple microglial remodeling states, subsets of which are resistant to CSF1R inhibition.

The manuscript is well written and it is easy to follow as well. There are a few comments that needed to be done in order to accept this paper in this journal.

1. The authors state that multiple microglial states coexist in postnatal retina. In order to prove this, this section should only include the scRNA-seq data from WT or vehicle mice. Bax KO or PLX3397 administration may influence the diversity in postnatal retina in mice.
2. The author mention that Mer and Axl are not required for expression of remodeling genes. In the opinion of this reviewer it would be interesting to further investigate which pathway drives the expression of remodeling genes.