# Article information:

Early posttraumatic CSF1R inhibition via PLX3397 leads to time- and sex-dependent effects on inflammation and neuronal maintenance after traumatic brain injury in mice - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0889159122003385?via%3Dihub>

# Article summary:

1. Early CSF1R inhibition via PLX3397 leads to time- and sex-dependent effects on inflammation and neuronal maintenance after traumatic brain injury in mice.

2. CSF1R inhibition attenuates the TBI-induced perilesional M/M increase and associated gene expressions by up to 50%.

3. At 30 dpi, CSF1R inhibition attenuated brain tissue loss regardless of sex, as well as hippocampal atrophy and thalamic neuronal loss in male mice.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Early posttraumatic CSF1R inhibition via PLX3397 leads to time- and sex-dependent effects on inflammation and neuronal maintenance after traumatic brain injury in mice” is a comprehensive review of the effects of early CSF1R inhibition on inflammation and neuronal maintenance after traumatic brain injury in mice. The article is written in an objective manner, presenting both sides of the argument equally, with no bias or promotional content. The authors provide evidence for their claims through data from experiments conducted on mice, as well as RNAseq analysis. Furthermore, the authors acknowledge potential risks associated with early CSF1R inhibition, such as impaired hematoma clearance, which could lead to further complications if not monitored closely.

The article does not present any unsupported claims or missing points of consideration; however, it does not explore any counterarguments or alternative treatments that could be used instead of early CSF1R inhibition. Additionally, there is no discussion about how these findings can be applied to humans or other species beyond mice. Despite these minor shortcomings, the article provides a thorough overview of the effects of early CSF1R inhibition on inflammation and neuronal maintenance after traumatic brain injury in mice, making it a reliable source for further research into this topic.

# Topics for further research:

* Alternative treatments for traumatic brain injury
* Effects of CSF1R inhibition on other species
* Clinical applications of CSF1R inhibition
* Counterarguments to early CSF1R inhibition
* Hematoma clearance after traumatic brain injury
* Long-term effects of CSF1R inhibition on inflammation

# Report location:

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