

OPEN PEER REVIEW REPORT 1

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Title: TMT-based proteomics reveals the vital roles of inflammation in a mouse model of controlled cortical impact

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COMMENTS TO AUTHORS

The work is well written, illustrated and discussed overall. The authors have adopted an innovative approach to TBI also using TMT. This technique, however, currently has several limitations, since it highlights factors (at least those emphasized by the authors) that are expected given that TBI undoubtedly and notoriously involves an inflammatory reaction. On the other hand, the authors have honestly recognized further limitations of their experimental work. Thus, the hope is that in the near future proteomics as well as all omics sciences will be better used and may lead to more useful discoveries for the treatment of diseases in general and neurological ones in particular.

The corrections to this paper, in my opinion, are of a minor nature and are the following:

- An abbreviation is not shown (on page 6 line 26, SDT, what is the meaning?)
- The discussion in the first part could be shortened as it is a bit repetitive. Furthermore, in the last sentence the authors' state that their results indicate that inflammatory processes in TBI could account for cognitive decline after TBI. But in fact their findings indicate that there is increased anxiety rather than cognitive decline. So they should correct that sentence.