

Review of: "Somatostatin and the pathophysiology of Alzheimer's disease"

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Potential competing interests: No potential competing interests to declare.

This comprehensive and interesting review, compiling a wide range of literature, is a useful resource for anyone wanting to understand more about somatostatin and its potential role in Alzheimer's disease pathophysiology. A number of other reviewers have already addressed overlapping comments.

Minor aspects that can improve the manuscript:

- Prevalence statistics in the introduction – more recent sources/references should be added when possible;
- “with financial expenditure on the disease soaring around \$321 billion a year and costs projected to exceed \$1 trillion by 2050 (Skaria, 2022)” – Globally? Where should be clarified;
- Inconsistent use of my/I and our/we – the use of “my” and “I” instead of “our” or “we” would be more appropriate since this review is authored by a single person;
- There are citations mentioned in the text that are either missing or incorrect in the References section. We detected the following:
 - Anderson et al., 2020
 - Dao et al., 2021 (the preprint is cited in some places, and the final publication in other places)
 - Andrews-Zwilling et al., 2012 (mentioned in the text as “Andrews-Zwilling et al., 2010, 2012”) is not listed in the references;
- More recent citations (up to the present date) should be added;
- Typos (e.g., “Inasmuch”, “..”, “alsofrom”);
- “UP” and “DOWN” states should be defined;
- “Conversely, in APP23PS45 mice, the first plaques emerge in deep layers (Busche et al., 2008) - layer Vb pyramidal neurons being, accordingly, the chief targets of SST-IN inhibition, and highly prone to a distinctively sustained, high-frequency burst firing activity (Almeida, 2022).” – this sentence is long and confusing; can it be changed for clarity?
- Section “4.3. Spatial memory deficits” – a variety of concepts is mentioned here. It would be of utility if there was more focus on SST-IN.
- The figures should be improved, and additional figures to explain complex concepts and diagrams of relationships should be considered to improve the readability and take-homes of the manuscript
- A conclusion, including a general “why this is important” is missing at the end of the article

