Reviewer’s report

Title: Cognitive Health Begins At Conception: Addressing dementia as a lifelong and preventable condition

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Reviewer: Paul Aisen

Reviewer’s report:

This is an interesting and well-written paper, and it does present a novel view of dementia prevention. In view of the exploding epidemic of Alzheimer’s disease, it is certainly timely to consider new approaches to risk reduction. The authors point to links between AD and cardiovascular disease, and suggest that it may be valuable to think about early-life interventions to address the remediable risks of vascular disease in terms of potential benefits for the development of dementia. The text overstates the theory, too readily accepting hypotheses drawn from observational, non-randomized studies. AD is not a lifelong process, it is a specific disease of advanced age. While it is plausible to consider that risk reduction may begin early in life, it seems implausible that AD can be prevented by lifestyle interventions. Associations do not establish causality, and certainly do not establish the benefit of reducing associated conditions in changing the course of a late-life disease. Nonetheless the authors present an interesting perspective that may further encourage interventions that are justifiable based on other health benefits.

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.