

# Review of: "On the Origin of Aging by Means of Natural Selection"

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The manuscript "On the Origin of Aging by Means of Natural Selection", is a nice review and reflection about the origins and evolution of aging. This is a very interesting piece of work relevant for the field of aging.

There are, however, some aspects that might be improved and are mainly related to the structure of the review/theory paper. In its present form, it is too long and quite difficult for the reader to keep on track with the message from the author. Although the idea of the author is understandable, for this concept to reach more readers on the field a re-structuration of the review that makes it more focused would benefit its impact.

Other aspects that could be considered is the debate whether this new theory explains long lived organisms, particularly the centenarians. Although this aspect is addressed, more emphasis could be given to the molecular findings obtained within this group. In line, progeria syndromes could also be explained in light of the new concept presented.

Although it is understandable why the author considers that aging is not multifactorial, to be presented like this, the author has to detail and specify the regulatory mechanisms that are products of natural selection. This could be improved and clarified for the reader.

In the future, natural selection is based in different environmental pressures that might be considered by the author since as referred a complete dissociation between reproduction fitness and aging is already observed.

From a clinical point of view, it starts to emerge a new concept of biological aging instead of age to accommodate different rates of aging. Could be interesting to include some reference and alignment with the new concept. Another relevant aspect is to consider the failing of aging and the appearance of cancer that also leads to the demise of the organism.

Given that the text is so long, abbreviations should be avoided.