

Review of: "Somatic evolution of Cancer: A new synthesis"

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Potential competing interests: No potential competing interests to declare.

Bao et al. present an exciting perspective on cancer, supporting the hypothesis that cancer cells reawaken physiological programs/pathways involved in development to facilitate uncontrolled proliferation. Hence, it challenges the traditional idea that perceives cancer as a somatic evolution. The article is interesting and relevant in the field. However, some areas require significant improvement, as mentioned below.

1. *The authors stated that "the simple view of cancer as accumulation of chance mutations serially or at once which imply that cancer is only bad luck is not compatible with the observed epidemiological patterns ."*It is not clear why this is not compatible with epidemiological evidence.
2. Authors should consider reducing the introduction to include only the relevant concepts in their manuscript.
3. The organization of the article makes it hard to follow. For instance, in the section where the authors discuss the limitations and criticism of existing perspectives on cancer, it may be easy to read to discuss these concepts, their limitations, and criticisms paragraph by paragraph.
4. This article states that "a control on cell proliferation is needed at two distinct levels. One is the level of normal healthy tissue maintenance". This should be viewed as developmental regulation that occurs during organismal growth, while wound healing and repair are better perceived as a mechanism evolved to maintain tissue homeostasis.
5. This article requires significant grammatical editing.