

Peer Review

Review of: "Is There a Hereditary Cancer Resistance Genotype?"

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This essay provides an overview of cancer resistance. By reviewing the existing data from animals, the author lists currently known evidence supporting cancer resistance, including genetic variants in functionally important genes, immu-genes, and telomerase, etc. The author also lists the evidence derived from multiple human cancer types. In general, the issue is interesting, although not enough attention has been given to this topic as indicated by the author.

There are multiple issues in the current version of the presentation.

1. “What do we know about those who never develop cancer? Almost nothing..... very little is known about what we have called here “hereditary cancer resistance” “Humans do not have strong, well-defined hereditary cancer resistance mechanisms. Humans can inherit traits that modestly reduce cancer risk..... Unfortunately, based on the current scientific literature, there is no direct evidence describing groundbreaking specific germline mutations that confer resistance to the development of cancer in humans”. In fact, it is so little that we can even doubt its existence.” These statements contradict the data the author presented. Further, the author missed an important study on the topic, “Downs B, Sherman S, Cui J, Kim YC, Snyder C, Christensen M, Luo J, Lynch H, Wang SM. Common genetic variants contribute to incomplete penetrance: evidence from cancer-free BRCA1 mutation carriers. Eur J Cancer. 2019 Jan;107:68-78.”, which provides solid evidence for the presence of cancer resistance in humans.
2. There are many redundant descriptions across the text, e.g., “Research has uncovered several biological mechanisms that help explain elephants’ cancer resistance.”
3. The English writing is too loose in the current version and needs significant improvement as a scientific essay.

Declarations

Potential competing interests: No potential competing interests to declare.