Review of: "Is creeping abandon of human cancer defences evolutionarily favoured?"

Alex Kentsis

Potential competing interests: No potential competing interests to declare.

This manuscript "Is creeping abandon of human cancer defences evolutionarily favoured? focuses on the causal mechanisms of cancer in humans. This question has been extensively studied over the past 50 years. The argument advanced by the current manuscript would benefit from more careful consideration of past ideas. For instance, they are well described by Nunney et al (http://dx.doi.org/10.1098/rstb.2014.0177). in addition, the manuscript makes extensive inferences about the evolutionary dynamics of early humans. This too has been studied extensively, and the manuscript would benefit from a more detailed review of the current state of this field.

Ultimately, the manuscript proposes the idea that evolutionary selection against cancer has been waning during human evolution. These considerations only apply to cancers that affect children and young adults in their reproductive age, as most common forms of human cancer that are aging related and occur in elderly adults are neutral with respect to evolutionary pressure, at least directly. Thus, the hypothesis should be refined with respect to the current understanding of the causes of childhood cancers, which were recently synthesized by Kentsis (https://doi.org/10.1002/pbc.28335).