

Peer Review

Review of: "Do We Understand Heredity and Evolution? No"

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The manuscript is commendable for its detailed historical analysis and interdisciplinary perspective, highlighting important phenomena such as genomic instability, non-targeted radiation effects, and limitations of genotype-phenotype determinism. The article stimulates valuable scientific debate and encourages re-evaluation of reductionist models in modern biology. However, several conclusions appear overstated and insufficiently supported by balanced evidence, particularly the broad dismissal of Mendelism and molecular genetics despite extensive empirical validation in numerous biological contexts. The manuscript would benefit from a more nuanced discussion acknowledging the integrative role of genetics alongside epigenetic and systems-level mechanisms, as well as clearer mechanistic explanations and stronger empirical support for the proposed thermodynamic and cellular phenotype frameworks to enhance scientific rigor and credibility.

Declarations

Potential competing interests: No potential competing interests to declare.