Abstract Submitted
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Quantum Darwinian Evolution Implies Tumor Origination W. GRANT COOPER, International Physics — Quantum uncertainty limits operating on metastable amino DNA protons drive the arrangement, keto-amino ? enol-imine, which contributes to time-dependent stochastic mutations. Product enol-imine protons participate in coupled quantum oscillations at frequencies of about 1013 s-1 until "measured by" an evolutionarily selected quantum reader, the transcriptase. This introduces entanglement states between coherent protons and transcriptase components, which ultimately yield an ensemble of decohered, non-reequilibrated enol and imine isomers that participate in "molecular clock" base substitutions at G'-C' and *G-*C sites. This introduces a quantum Darwinian evolution model which (a) simulates incidence of cancer data and (b) implies insight into quantum origins of evolutionary extinction. Data identify an inherited "genetic space," s, which is initially mutation-free and satisfies the inequality, $1 = s = 0.97$. When accumulated stochastic mutations cause s-values to approach their evolutionarily allowed threshold limit, s 0.97 + e, age-related degenerative disease is manifested. This implies a gain in evolutionary advantage which protects the gene pool against acquiring unsafe levels of mutation. Data requiring coherent states imply that classical duplex DNA contains an embedded microphysical subset of electron lone-pairs and hydrogen bonded protons that govern time-dependent genetic specificity in terms of quantum probability laws.

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