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The Relation Between The Quantum Entanglement In Theoretical Physics As A New Insight Into The Cancer Biology SORUSH NIKNAMIAN, Liberty University, Military Medicine — Quantum entanglement is a phenomenon in theoretical physics that happens when pairs or groups of particles are generated in ways that the quantum state of each particle cannot be described independently of the others, even when the particles are separated by a large distance. Instead, a quantum state must be described for the system as a whole. Based on the introduction of cancer as an evolutionary metabolic disease (EMHC), each cancerous cell are eukaryotic cells with different metabolic rate from healthy cells due to the damaged or shut down mitochondria in them. Assuming each human eukaryotic cell as a particle and the whole body as a quantum entangled system, is a new perspective into the description of the cancer disease and this link between theoretical physics and biological sciences in the field of cancer therapies can be a new insight into the cause, prevention and treatment of cancer. Additionally, this perspective admits the Lamarckian evolution in the understanding of the mentioned disease. We have introduced each human eukaryotic cell containing mitochondria as a QES, also, the whole body containing healthy and normal cells as a QES as well. The difference between the entropy of the healthy and cancer cells has been mentioned in this research as well.

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