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Garri Davydyan* (garri.davyddyan@gmail.com), 213-224 Viewmount Dr., Nepean, Ontario K2E 0B4, Canada. *Carcinogenesis: does indefinite metric of a split-quaternion give a clue?* Preliminary report.

Previously it was assumed that a structure of biologic objects can be described by split-quaternions whose vector part represents basis functional mechanisms of biologic systems (negative feedback, positive feedback and reciprocal links). Split-quaternions with the defined basis have a metric signature $(- - + +)$ that determines normal systemogenesis. Each hierarchical level of the system is equipped with the indefinite metric inherited from the previous level during maturation. If an individual living cycle does not support the metric structure, it causes a pathologic regulation between hierarchical levels. In the frames of this concept, transformation of the indefinite metric to the positive definite one is a major systemic mechanism for cancer development. (Received August 27, 2017)