

Abstract Submitted
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Modelling biological systems perturbed by plasmas¹ TOMOYUKI MURAKAMI, Seikei Univ — Plasma medicine is an interdisciplinary research spreading over physics, chemistry, biology and medical sciences. Instead of the great progress, many aspects still remain to be explored. Computational biology should be a powerful tool in this field. The present modelling work simulates one of the most important inner-cellular systems, mitochondrial function in cellular energetic metabolism. The essential parts of this system are the tricarboxylic acid cycle (TCA cycle), the respiratory chain (electron transport chain) and the adenosine triphosphate (ATP) synthesis machinery. The behavior of the biological system perturbed by low-temperature plasmas is numerically revealed. The key issues to link the plasma-physics and chemistry with biological systems will be presented and discussed in the talk.

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