

Cellular electrodynamic activity

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Abstract

Electromagnetic activity of cells (>100 kHz) beyond the conventional frequency region of electrophysiology is poorly explored, yet it offers opportunities for new diagnostic and therapeutic methods in bioelectronic medicine and may provide insights into new general mechanism in cellular signalling. Here, we describe electromagnetic properties of microtubules, protein nanostructures omnipresent in biological systems, and how they are predicted to be involved in cellular electromagnetic activity (10 MHz - 10 GHz).

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