Quantum entanglement of living organisms

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Predictions of quantum mechanics are unsurpassedly precise and extremely counterintuitive. Quantum entanglement ("spooky action at a distance") is one such effect. Since 2000 AD, the breakthroughs in “Quantum Technologies 2.0” demonstrated the essentially quantum behaviour in increasingly large systems and put the problem of the quantum-classical transition on the forefront of research. In particular, there is an intense effort directed at the understanding of the role of quantum effects in life, mainly at the level of certain biochemical processes inside the cells.The question whether and how entanglement and other quantum correlations influence the behaviour of living organisms

Here I speculate on the possible effect of quantum entanglement on the behaviour of photosensitive single-cell organisms (e.g., Chlamydomonas). The pattern of correlations between the velocities of spatially separated groups of these organisms would depend on whether they are illuminated with quantum correlated light (e.g., entangled photon pairs) or not. I discuss the conditions under which such differences could be observed.