Quantum Mechanics, Cell-Cell Signaling, and Evolution

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A causally integrated account linking basic natural laws with biological evolution and the evolution of consciousness has remained elusive despite many key publications seeking integration between biology, physics, and the study of consciousness. ***Quantum Mechanics, Cell-Cell Signaling, and Evolution*** offers a detailed account of the latest research and theorizing on the integration of quantum physics with biological action, to produce a novel perspective on evolution.

The book advocates for a paradigm shift toward understanding biology and medicine causally as predictive sciences, presenting quantum mechanics and physiology as vertically integrated. The author has taken a unique approach to the question of how and why evolution has occurred. The account is based on extensive knowledge of lipid physical chemistry and its role in the evolution of the lung under the influence of hormonal effects on structure and function. The title arranges lipid biochemistry and biophysics into an integrated explanation, guiding readers from the immersion of lipids in water as the origin of life to lung surfactant in alveolar homeostasis, leading to a new understanding of how consciousness interacts with the laws of nature. This volume argues for a novel understanding of evolutionary processes, based on fundamental science, and positions itself as seeking consilience among research disciplines. Starting from the origins of the cosmos, the author proceeds through nucleosynthesis and endosymbiosis theory, to finally describe consciousness in relation to natural law.

Key Features

- Offers a novel account of evolutionary mechanisms integrating quantum mechanics and cell-cell signaling
- Presents the latest research and theorizing on the integration of quantum physics with biological action
- Grounds theoretical insights into lipid physical chemistry and its role in the evolution of the lung
- Details an integrated, causal account of evolution operating across physical and biological domains
- Argues for a paradigm shift in the way evolution is understood

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