

Engel et al.'s 2007 work on FMO complexes remains foundational, though debates continue on the precise role of coherence in vivo.

Radical-pair magnetoreception models align with behavioral disruptions in birds exposed to weak oscillating fields.

Proton tunneling has been demonstrated in enzymatic catalysis via kinetic isotope effects exceeding classical predictions.

The vibrational theory of olfaction remains controversial; alternative classical models still compete.

Orch-OR theory faces criticisms of decoherence timescales, though newer work suggests biological scaffolds may stabilize coherence longer than expected.