

Review of: "[Review] Structural and Functional Roles of Non-bilayer Lipid Phase in Mitochondria"

Rajesh Ramachandran¹

¹ Case Western Reserve University

Potential competing interests: No potential competing interests to declare.

This well-written review offers a comprehensive assessment of the existence and role of nonbilayer lipid phases in mitochondrial structure and function, with a particular emphasis on cardiolipin (CL) and ATP synthase function. Yet, how these nonbilayer phases contribute to mitochondrial membrane fission and fusion are not discussed in any mechanistic detail. Moreover, the references posted for the statement "It has been well established that CL, a lipid in IMM with the highest non-bilayer propensity, drives the membrane fusion and fission via triggering lipid phase transitions from bilayer to non-bilayer phase" are wrong and out of place. These references pertain mostly to ATP synthase with no relationship to the above processes and should be double-checked before finalizing the article.