

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

Minu Chaudhuri¹

¹ Meharry Medical College

Potential competing interests: No potential competing interests to declare.

This review article describes the important roles of non-bilayer lipid phase of the phospholipids in mitochondria on cristae remodeling, proton translocation, and ATP synthase function. This is a very interesting topic on mitochondria research. A previous article has been published by this group on this topic that included both mitochondrial and thylakoid membranes. This review primarily focused on the role of non-bilayer lipid phase on mitochondrial functions.

1. At the beginning the chronological discovery about the non-bilayer lipid phase is very nice. A table would be better.
2. It would be helpful for general readers if the authors describe about the concept of bilayer and non-bilayer phases in the introduction.
3. The subheading "Role of non-bilayer phospholipids in mitochondrial functions and remodeling", could be changed to "Role of non-bilayer phospholipids in cristae remodeling and functions, since authors mainly described the later.
4. The idea about proton translocation via reversible changes of the lipid phase is very nice. However, it requires experimental verification. A model picture could clarify the idea better.
5. All pictures are from another review article that reduced the originality.