

Peer Review

Review of: "Programmed Cell Death and the Origin of Wing Polyphenism in Ants: Implications for Major Evolutionary Transitions in Individuality"

Jose Eduardo Serrao¹

1. Universidade Federal de Viçosa, Brazil

The study is surprising due to the simplicity and originality of the hypothesis, as it fills an important gap in understanding the evolution of social behavior in ants. By demonstrating that programmed cell death by apoptosis contributes to the polyphenism of the wings of reproductive or non-reproductive individuals throughout the evolution of ants, it shows how this cellular process was co-opted in these insects. The experimental design is correct, the methodology was adequate, and the good-quality results support the conclusion validating the hypothesis tested. For these reasons, I consider the manuscript suitable for publication. My only minor observation is in relation to the use of programmed cell death as a synonym for apoptosis, which was even addressed by the authors when testing the occurrence of autophagy. Therefore, I suggest changing the term PCD to apoptosis because autophagy, necroptosis, mitophagy, among others, are types of PCD.

Declarations

Potential competing interests: No potential competing interests to declare.