

## Special Issue

# Mitochondrial Genetics: Progress and Challenges

### Message from the Guest Editor

Mitochondrial genetics has long been a complex and challenging field. Unlike the nuclear genome, mitochondrial DNA (mtDNA) exists in multiple copies per cell, creating a dynamic "population" within each cell, including germ cells. This adds an additional layer of complexity to mitochondrial research. Over time, many errors in mitochondrial genetics research have been identified and corrected, yet some undoubtedly remain unaddressed. Unfortunately, studies that critically examine errors and misconceptions often receive less recognition and are less welcome than those presenting positive findings, despite their essential role in upholding the most basic fundamentals of scientific inquiry itself. With this in mind, we especially welcome contributions to this Special Issue that identify errors, misconceptions, and methodological challenges in mtDNA genetics research. By addressing these issues, we aim to refine the field and ensure the reliability of future studies. Additionally, we encourage novel and potentially controversial contributions that challenge existing paradigms in mitochondrial genetics, fostering critical discussion and advancing the discipline.

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### Guest Editor

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### Deadline for manuscript submissions

closed (25 March 2026)

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*Genes* is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider *Genes* for your next genetics paper?

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Prof. Dr. Selvarangan Ponnazhagan  
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