Special Issue

Caenorhabditis elegans: A Model Organism, Endless Possibilities

Message from the Guest Editor

Originally introduced as a model organism to study development and neurobiology in the mid-1960s, the nematode Caenorhabditis elegans has proven over the years to be extremely versatile and is currently used to investigate a wide range of topics in modern biology. Several features including its small size, short life cycle, large brood size, transparency, and amenability to genetic studies, are the key to C. elegans success, and helped secure the Nobel Prize in Physiology or Medicine to Sydney Brenner, H. Robert Horvitz, and John Sulston. The purpose of this Special Issue is to highlight recent advances in cell biology, genetics, and genomics research related to C. elegans, and to provide the reader with an overview of the biological questions that can be addressed using this simple metazoan. The potential topics include but are not limited to: Cell division and cell cycle;

Organ development and programmed cell death (PCD); Nervous system;

Autophagy and apoptosis;

Innate immunity;

Genetics and epigenetics of aging;

C. elegans as a model for human diseases;

Oxidative stress, mitochondrial function, and longevity; Genome-wide screens;

Expression and function of small RNAs.

Guest Editor

Dr. Paola Fabrizio

Laboratory of Biology and Modeling of the Cell, Ecole Normale Supérieure de Lyon, 69364 Lyon, France

Deadline for manuscript submissions

closed (15 September 2023)



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Cells
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cells@mdpi.com

mdpi.com/journal/cells





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About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. Cells encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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Dental Basic Sciences, University of Minnesota, 308 Harvard St. SE, Minneapolis, MN 55455, USA

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

