

Topical Collection

Role of Autophagy in Viral Infection

Message from the Collection Editor

Macroautophagy (hereafter referred to as autophagy) is a degradation pathway whereby cytosolic double-membrane-bound compartments termed autophagosomes engulf cytoplasmic constituents such as sub-cellular organelles and microbial pathogens, and target them for lysosomal degradation. Autophagy is thus an autonomous innate immune defense through which cells can eliminate viruses by capture into autophagosomes with subsequent killing through autophagy. Autophagy can also restrict viral infection by promoting the survival or death of infected cells, control inflammation by cooperating with pattern recognition receptor signaling to induce pro- and anti-inflammatory cytokines, and coordinate adaptive immunity by delivering virus-derived antigens for presentation to CD4+ and CD8+ T cells. However, viruses can also usurp autophagy to promote their propagation.

Keywords:

- autophagy
- immunity
- non-lytic release
- secretory autophagy
- viral evasion
- viral pathogenesis
- virophagy
- virus–host interactions

Collection Editor

Dr. Grant R. Campbell

Division of Infectious Diseases, Department of Pediatrics, University of California, San Diego, CA 92093, USA



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



mdpi.com/si/47362

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

[mdpi.com/journal/
cells](https://mdpi.com/journal/cells)





Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



[mdpi.com/journal/
cells](https://mdpi.com/journal/cells)



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.

Editors-in-Chief

Dr. Alexander E. Kalyuzhny

Neuroscience, UMN Twin Cities, 6-145 Jackson Hall, 321 Church St SE,
Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation Centre, The University of Copenhagen,
Copenhagen, Denmark

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.5 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).