

Special Issue

Pathogenic Mechanisms and Biological Control in Entomopathogenic Fungi, 2nd Edition

Message from the Guest Editors

The pathogenic mechanisms of insect pathogenic fungi are complex, infecting insects by adhering, germinating, and penetrating the host's exoskeleton, as well as proliferating and secreting toxins within the insect's body and tissues, ultimately leading to the death of the insect. In response, host insects have evolved physical barriers, cellular and humoral immune responses, and antagonism against microorganisms to combat fungal infections, which insect pathogenic fungi must evade or overcome to successfully cause disease. The current limitations in understanding the pathogenic mechanisms restrict their application in the field. Additionally, the characteristics of insect pathogenic fungal strains and their production, formulation, and field application techniques are important factors affecting the efficacy of pest control. Therefore, providing the latest advances in the pathogenic mechanisms of insect pathogenic fungi and biological control can promote the application of insecticidal fungal pesticides. For this Special Issue, we encourage the submission of all relevant themed articles, including reviews, articles, or viewpoints, for consideration.

Guest Editors

Prof. Dr. Guoxiong Peng

School of Life Sciences, Chongqing University, 174 Shazheng St.,
Shangpingba District, Chongqing 400030, China

Dr. Senmiao Tong

College of Advanced Agricultural Sciences, Zhejiang A&F University,
Hangzhou 311300, China

Deadline for manuscript submissions

31 May 2026



Journal of Fungi

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 8.4
Indexed in PubMed



mdpi.com/si/253514

Journal of Fungi
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jof@mdpi.com

mdpi.com/journal/

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





Journal of Fungi

an Open Access Journal
by MDPI

Impact Factor 4.0
CiteScore 8.4
Indexed in PubMed



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

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



About the Journal

Message from the Editor-in-Chief

The *Journal of Fungi* (JoF, ISSN 2309-608X) is an international, peer-reviewed, scientific, open access journal that provides an advanced forum for studies related to pathogenic fungi, fungal biology, and all other aspects of fungal research. Research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. David S. Perlin

Hackensack Meridian Health Center for Discovery and Innovation, 340
Kingsland Street, Nutley, NJ 07110, USA

Author Benefits

Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

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

Journal Rank:

JCR - Q1 (Mycology) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)