Special Issue

An Update on Magnetotactic Bacteria

Message from the Guest Editor

Magnetotactic microorganisms produce magnetic nanoparticles controlling their size, shape, and composition. These structures are called magnetosomes, and their usual intracellular organization in chain(s) provides the cell with a magnetic moment. Traditional knowledge associates the orientation of cells along geomagnetic field lines and chemotaxis in stratified environments to explain the function of magnetosomes and the benefits of this organelle to the cell. However, detailed analysis has shown that magnetosomes have additional roles in cell homeostasis. Current studies have revealed the broad phylogenetic distribution of magnetotactic microorganisms in life domains, mainly bacteria. In this Special Issue, we aim to gather updates on magnetotactic bacteria. Original data on other magnetotactic organisms are welcome.

Guest Editor

Dr. Fernanda Abreu
Instituto de Microbiologia Paulo de Góes, Universidade Federal do Rio de Janeiro—UFRJ, Rio de Janeiro 21941-902, RJ, Brazil

Deadline for manuscript submissions

closed (31 August 2023)

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/si/156299

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

mdpi.com/journal/microorganisms

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/journal/microorganisms

About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

Dr. Nico Jehmlich
Department of Molecular Toxicology, UFZ-Helmholtz Centre for Environmental Research, 04318 Leipzig, Germany

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).

MDPI