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Therapeutic Applications of Magnetotactic Bacteria and Magnetosomes: State of the Art and Perspectives

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Deadline for manuscript
submissions:

closed (31 July 2025)

Message from the Guest Editor

Dear Colleagues, We are glad to invite you to participate in the following new topics: Magnetotactic bacteria biomineralize magnetosomes, which are defined as intracellular nanocrystals of the magnetic minerals, magnetite (Fe_3O_4) or greigite (Fe_3S_4) enveloped by a phospholipid bilayer membrane. The synthesis of magnetosomes is controlled by a specific set of genes that encode proteins, some of which are exclusively found in the magnetosome membrane. Over the past decade, interest in nanotechnology and biotechnology of the magnetotactic bacteria has increased significantly, and their advantages in biomedical sciences has developed rapidly. We wanted to encourage the submission of any article that describe magnetite-producing MTB, magnetite magnetosomes and/or magnetosome magnetite crystals, include and/or involve bioremediation, cell separation, DNA/antigen recovery or detection, drug delivery, enzyme immobilization, magnetic hyperthermia and contrast enhancement of magnetic resonance imaging for biomedical usages. Dr. Patrice X. Petit
Guest Editor



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Special Issue



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Message from the Editorial Board

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