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Magnetic Cell Separation

Guest Editor:

Dr. Marie Frenea-Robin
Ampère Laboratory, Bioengineering Department, Ecole Centrale de Lyon, University Lyon 1, Bât H9 36 avenue Guy de Collongue, 69134 Ecully, France

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closed (30 July 2022)

Message from the Guest Editor

Magnetic cell separation has become a key methodology for the isolation of target cell populations from biological suspensions, covering a wide spectrum of applications from diagnosis and therapy in biomedicine to environmental applications or fundamental research in biology. This Special Issue aims to create a forum of discussion to share advances and address current challenges in magnetic cell separation. The topics listed below are meant as a guideline for possible contributions:

1. Cell separation devices:
   a) Batch-type magnetic separators;
   b) Optimized magnetic field sources for cell separation;
   c) Microfluidic separation platforms based on magnetism.
2. Cell targeting and sorting strategies:
   a) Cell labeling strategies;
   b) Label-free separation methods based on magnetism;
   c) Multifunctional nanoparticles for magnetic cell separation and detection.
3. Applications:
   a) Translation into clinical and industrial practice;
   b) Rare cell isolation;
   c) Single cell isolation;
   d) Environmental applications;
   c) Other applications.