

Special Issue on
Future Prospects in Bionanotechnologies

CALL FOR PAPERS

The emerging science of bionanotechnology refers to the harnessing of the vast diversity of self-assembling building blocks and processes for the assembly of nanoscaled structures for the manufacture of highly functional nanomaterials. Bionanotechnology is an interdisciplinary field combining biological principles with physical and chemical procedures to generate nanosized building blocks and materials with specific functions and new properties. It involves the development of biologically based procedures, the use of biological components and systems, the design of biocompatible objects and systems, and the use of nanotechnology to support biotechnological processes.

Living organisms are built of cells that are typically 10 μm across. However, the cell parts are much smaller and are in the submicron size domain. Even smaller are the proteins with a typical size of just 5 nm, which is comparable with the dimensions of smallest manmade nanoparticles. This simple size comparison gives an idea of using nanoparticles as very small probes that would allow us to spy on the cellular machinery without introducing too much interference. Understanding of biological processes on the nanoscale level is a strong driving force behind development of nanotechnology.

The purpose of this special issue is to publish high quality research papers as well as review articles addressing recent advances on nanobiotechnology and its applications in biomedical fields. Original, high quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences are sought.

Potential topics include but are not limited to the following:

- ▶ Plant based synthesis of nanoparticles
- ▶ Microbes based synthesis of nanoparticles
- ▶ Application of nanoparticles
- ▶ Bioinspired, biomolecular, and supramolecular application
- ▶ Biomedical applications
- ▶ Biomarker discovery and detection
- ▶ Bionanoscaffold and its medical applications
- ▶ Bionano based work and its applications

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jnm/fpbn/>.

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Manuscript Due

Friday, 2 June 2017

First Round of Reviews

Friday, 25 August 2017

Publication Date

Friday, 20 October 2017