Tentative Outline

Special Thematic Issue for Nanoscience & Nanotechnology-Asia

Advances in Smart Nanomaterials for biomedical Applications

Guest Editor: Dr. Roozbeh Nikkhah-Moshaie

Aims & Scope:

This Special Issue will cover recent advances in the field of Smart Nanomaterials including nanocarriers for controlled drug delivery and on-demand release, nanoparticles for bioimaging and cell & tissue engineering, 2D and 3D nanomaterials, nanotubes and nanosensors for biological applications, nanostimulators to cure neurodegenerative disorders (Alzheimer and Parkinson). Recent theoretical, numerical simulation, and experimental findings in this field will be reviewed too. Nanocarriers based on advanced nanomaterials can play a significant role in curing cancer, neuro-HIV, and neurodegenerative diseases. Biocompatibility and cytotoxicity are the factors which should be considered as well as size, shape, morphology, structural integrity, chemical and physical properties of nanoformulations.

Keywords: Drug delivery, on-demand release, imaging, cancer, HIV, neurodegenerative diseases, blood brain barrier.

Subtopics:

- Advanced Nanocarriers Capable of Passing through Blood-Brain Barrier
- Advanced Nanoparticles for Bioimaging Applications
- Nanosensors for Biological Use at Point of Care
- Design of Next Generation of Nanocarries for Controlled and On-Demand Release: Theory, Science, and Numerical Simulation
- Nanoelectroporation, Cell Membrane, and Targeting Mechanisms

Schedule:

- Manuscript Submission deadline: June 2020
- Peer review due: July 2020
- Revision due: September 2020
- Notification of acceptance: November 2020
- Final manuscript due: January 2021

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