Integrating Biologically-Inspired Nanotechnology into Medical Practice

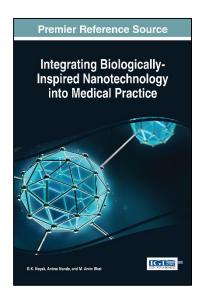
Part of the Advances in Medical Technologies and Clinical Practice Book Series

B.K. Nayak (K.M. Centre for Post Graduate Studies, India), Anima Nanda (Sathyabama University, India) and M. Amin Bhat (Sathyabama University, India)

Description:

Nanotechnology has grown in its use and adoption across sectors. In particular, the medical field has identified the vast opportunities nanotechnology presents, especially for earlier disease detection and diagnosis versus traditional methods.

Integrating Biologically-Inspired Nanotechnology into Medical Practice presents the latest research on nanobiotechnology and its application as a real-world healthcare solution. Emphasizes applications of micro-scale technologies in the areas of oncology, food science, and pharmacology.



Readers:

This reference publication is an essential resource for medical professionals, researchers, chemists, and graduate-level students in the medical and pharmaceutical sciences.

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Topics Covered:

- Biomedical Technologies
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- Nanoparticles
- Vaccine Delivery

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Anima Nanda, a Doctorate from Berhampur University, Odisha joined Sathyabama University in September 2005 as Assistant Professor and currently the Dean, Faculty of Bio & Chemical Engineering. Having specialized in the field of Microbial Nanotechnology, research interest toward microbe mediated synthesis of nanosilver & gold particles for the development of an alternate antimicrobial material toward Multidrug resistant pathogens (MDR) is highly focused. The scientific contributions with more than 105 research articles being published in peer reviewed International and National journals has been cited 83 times with an average 31.21 impact points. Moreover, she has got several projects from funding agencies such as DBT, India for Rs.52 lakhs and DST-FIST for Rs.80 lakhs to her credit. Dr. Nanda has a patent on "Automated staircase climbing wheel chair" for physically challenged. She is honored with Fellow of Natural Resources Society (FNRS) in 2006 and holds membership in many science academies and societies.

M. Amin Bhat, Doctorate in Biotechnology from Sathyabama University Chennai, Tamil Nadu India under the joint supervision of Dr. B. K. Nayak, Associate Professor, Department of plant sciences and Biotechnology, KMC autonomus Pudicherry, India and Dr. Anima Nanda, Dean, Faculty of Bio & Chemical Engineering, Sathyabama University since 2011. His Ph.D work was focused on to study the Molecular mechanism behind the Biosynthesis of noble metal nanoparticles and their biomedical application. He has been able to publish a his research work in various esteemed international journals and participated and presented research work in National and International conferences organized at University level. He has authored two books as Editor and has reviewed man research articles from reputed journals. His current research interests include Nanomedicine, Ag-Protein interactions, Ag-DNA interactions, isolation of AgNPs. Working as Teaching and Research Assistant has well equipped with Technical specialties in microbiological techniques and various molecular biology work related from bacteria and fungi and a basic knowledge on the equipments used for nano based work.