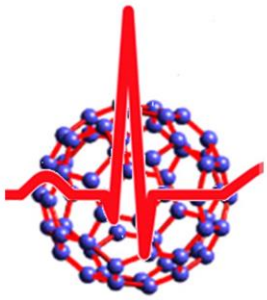
6th INTERNATIONAL CONFERENCE
on Nanotechnologies and Biomedical Engineering

September 20-23, 2023, Chisinau, Republic of Moldova

Abstract Book



ICNBME - 2023

6th INTERNATIONAL CONFERENCE on Nanotechnologies and Biomedical Engineering

Organized by:
Moldavian Society of Biomedical Engineering
Technical University of Moldova

In collaboration with:
Nicolae Testemitanu State Medical and Pharmaceutical University
International Federation for Medical and Biological Engineering
European Alliance for Medical and Biological Engineering & Science
Academy of Sciences of Moldova

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Information Note

ICNBME-2023 continues the series of International Conferences in the field of nanotechnologies and biomedical engineering. The conference aims at bringing together scientists and engineers dealing with fundamental and applied research for reporting on the latest theoretical developments and applications in the fields involved.

The Conference details are available through the website https://icnbme.sibm.md/

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PREFACE

It is our great pleasure to welcome all of you at the 6th International Conference on Nanotechnologies and Biomedical Engineering (ICNBME), to be held on September 20–23, 2023, in Chisinau, Republic of Moldova. ICNBME-2023 continues the series of international conferences in the field of nanotechnologies and biomedical engineering with the main goal focused at bringing together scientists and engineers dealing with fundamental and applied research for reporting on the latest theoretical developments and applications in the fields involved.

The conference covers a wide range of subjects of primary importance for research and development such as nanotechnologies and nanomaterials; bio-micro/nano technologies and devices, biomaterials for medical applications, biosensors and bioinstrumentation, biomedical signal and image processing, bioinformatics and computational biology, medical physics and biophysics, molecular, cellular and tissue engineering, clinical engineering, health technology management and assessment, innovation, development and interdisciplinary research, nuclear and radiation safety and security, medical physics and radiation protection, new technologies for diagnosis, treatment and rehabilitation, personalized approaches in medicine.

The contributions of the Conference reflect the results of multidisciplinary research undertaken by about one hundred of groups worldwide. Special attention is paid to the development of novel nanotechnologies and nanomaterials, in particular of bio-nanotechnologies and bio-nanomaterials. New biocompatible materials are proposed for use in regenerative medicine, cellular and tissue engineering. Interesting data on novel chemical and biosensors are reported which are based on nanostructured metal oxides and hybrid nanocomposite materials. A wide range of new technologies for diagnosis, treatment and rehabilitation, personalized approaches in medicine are also presented.

Considerable progress has been achieved at the intersection of nanotechnologies, information technologies and biomedicine as, for example, in health informatics, e-health, telemedicine, biomedical instrumentation and signal processing. New theoretical and experimental results are highlighted in such fields as metamaterials, aeromaterials, micro-opto-electronic and photonic materials, photovoltaic structures, quantum dots, one- and two-dimensional nanomaterials, 3D nanoarchitectures, multifunctional hybrid materials like sandwich and core–shell structures, etc. The papers reflect the state of the art in controlling the properties of several classes of nanocomposite materials for important future applications in various fields.

We hope that the papers scheduled to be presented at the Conference will be of interest for established researchers working in multidisciplinary fields of science and technology, young scientists, students and broad community wishing to get up-to-date information on progress in the fast-developing areas of nanotechnology and biomedical engineering.

Prof. Victor SONTEA, Acad. Prof. Ion TIGINYANU
Chairmen

Chisinau, Republic of Moldova, September 2023