



The Abdus Salam
**International Centre
for Theoretical Physics**
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Second Conference on Nanotechnology for Biological and Biomedical Applications (Nano-Bio-Med 2013)

14 – 18 October 2013

(Miramare - Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics is organizing a *Second Conference on Nanotechnology for Biological and Biomedical Applications* to be held at ICTP, Trieste, Italy from 14 to 18 October 2013.

This conference is intended to discuss the fabrication and realisation of various biomaterials in their bulk and nanoforms for their applications in various sectors of science and technology, especially in medicine.

The event proposes to:

- Conduct conference for 4 days in the week-long event, and
- One-Day Hands-on Training Workshop on nano-synthesis, nano-characterization and bio-functionalization methods, protocols and equipment

In the event a), the conference will focus on topics which relate to the biophysical understanding of nanoscale devices, objects and modalities for medical diagnostics and therapy applications.

The topics will include:

- ✓ Synthesis and biofunctionalisation of nanomaterials for biomedical applications
- ✓ Biomaterials for therapy and diagnostics
- ✓ Nanobiomaterials for antifouling and antibacterial applications
- ✓ Modulated drug delivery system
- ✓ Clinical biosensors, diagnostics and therapy
- ✓ Bio-MEMs used in Bio bar-coding, labeling and signal transduction, bio-imaging
- ✓ Nanotechnology in disease research and diagnostics
- ✓ Smart Biosensors
- ✓ Microfluidics in Life Sciences

In the part b) of the conference, hands-on opportunities to teach and learn simple, inexpensive but almost essential methods grounded in physics and chemistry that have practical applications to the many studies of biological, biomedical science and nano-biotechnological problems will be offered. Specific protocols, techniques and methods will be demonstrated by the actual industry vendors. This part will also include visits to various laboratories and/or companies around Trieste to actually witness the high-end laboratories and their setups.

Participation

Applicants from all countries that are members of the United Nations, UNESCO or IAEA may attend. As the Conference will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by their home institutions. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants, who are nationals of, and working in, a developing country. Such support is available only to those attending the entire activity. **There is no registration fee.**

HOW TO APPLY FOR PARTICIPATION

The Online Application can be accessed at the activity website: <http://agenda.ictp.it/smr.php?2492>. Comprehensive instructions will guide you step-by-step on how to fill out and submit the application form. Kindly send all file attachments in Word or Acrobat format.

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February 2013

Organizers

Sangeeta N. Kale
(Defence Institute of Advanced
Technology Pune, India)

Samir Iqbal
(University of Texas at Arlington,
U.S.A.)

Local Organizer

Joseph Niemela
(ICTP, Trieste, Italy)

List of Invited Speakers

Javeed Akhtar (Pakistan)
Rashid Bashir (USA)
Loredana Casalis (Italy)
Hai-Lung Dai (USA)
Jawwad Darr (UK)
Mauro Ferrari (USA)
Ljiljana Fruk (Germany)
Samir Iqbal (USA)
Ding Jun (Singapore)
Sangeeta Kale (India)
Galina Kurlyandskaya (Spain)
Alessandro Laio (Italy)
Marco Lazzarino (Italy)
Joseph Niemela (Italy)
Satish Ogale (India)
Maurizio Prato (Italy)
Taher Saif (USA)
Giacinto Scoles (USA & Italy)
Francesco Valle (Italy)
Kislon Voitchovsky (Switzerland)

DEADLINE

15 June 2013