



Symposium A : Nanomaterials in Medicine, Nanotoxicology and Nanoregulation

Scope of the Symposium

Nanomaterials have been proven efficient theranostic agents to disease detection and diagnosis. Nevertheless, understanding the bio-nano interface is of key importance to guide the design of drug delivery systems with the better therapeutic outcomes. In this context, functionality, and safety is considered an integrated way from the earliest phases of the research and innovation of the nanoproduct, which opens up the focus on safety, making agencies around the world to supply specific regulatory guidelines for such materials before their commercialization. The latter is an openness of toxicology studies which can give information to guide regulatory decisions toward developing a safety net to enable the marketing of products before commercialization. We propose the symposium "Nanomaterials in Medicine, Nanotoxicology and Nanoregulation", which will bring together a state-of-the-art discussion on the safe-by-design nanomaterials to be used in medicine as well as their toxicological aspects, a topic which is increasing over the world, and has been covered by important international conferences. Moreover, it will be the opportunity to present the updates of the international agreement NanoReg between Brazil and EU for the standardization of production and safe use of nanomaterials. The symposium welcomes all researchers in the field of Nanoscience and Nanotechnology that is interesting in the nanomaterials applied to medicine and Nanotox field. Aligned with the fruitful scientific environment of the event, we also intend to organize the first technical meeting of the Project ?Certification of Nanoproducts?, a project elaborated as a national continuation of the NanoReg Program and coordinated by MCTIC and Inmetro, which aims to transfer the technical knowledge produced to the regulator agencies in Brazil such as Anvisa (National Health Surveillance Agency), Ibama (Brazilian Institute of the Environment and Renewable Natural Resources), Mapa (Ministry of Agriculture, Livestock and Food Supply) and Inmetro. The symposium will create opportunities for participants to present and share experiences, explore new directions and to debate topics with experts from across the globe in the fields of Nanomedicine and Nanotoxicology. This symposium has been offered since 2015 in SBPMat.

Abstracts will be solicited in (but not limited to) the following areas

- *Nanomaterials for Diagnosis and Therapy, Nanomaterials for Biosensors, Nanomedicine and Bio-Nano Interfaces, Nanomedicine in Cancer, Nanocarriers for Drug-Delivery, Nanomedicine for Tissue Regeneration, In vitro and In vivo Nanotoxicology, Eco/Environment*

Tentative list of invited speakers (To be confirmed)

Marco Monopoli (*Royal College of Surgeons in Ireland*) **Gnter Oberdrster** (*University of Rochester Medical Center, USA*) **Dr. Bengt Fadeel** (*Karolinska Institutet*) **Dr Jos Maria de Monserrat** (*Universidade Federal do Rio Grande do Sul*) .

Symposium Organizers

Valtencir Zucolotto (*Nanomedicine and Nanotoxicology Group, IFSC, USP*) **Juliana Cancino** (*Federal University of Alfenas*) **Felipe Silva Belucci** (*Ministry of Science, Technology, Innovation and Communications - MCTIC*) **Jos M Granjeiro** (*INMETRO*) .

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XVIII Brazil MRS Meeting