

Micro- and Nano-Engineered Materials for Medical Applications		
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<b>Summary</b>		
<b>F1.I</b>	<p>Due to unique structure, physical and chemical properties achieved in cellular and biomolecular-scale resolutions, micro- and nano-engineered materials have been showing a great potential to be used in different medical applications. They are considered as materials of choice for tissue engineering and regenerative medicine, bio-imaging, drug delivery, biosensors, medical implants, etc. To micro- or nano-engineer biomaterials with desired geometry, structure and physico-chemical properties for imaging, diagnostics, treatment or regeneration of diseased human tissues or organs novel fabrication techniques and characterization methods are required.</p> <p>The aim of this symposium is to review current achievements in the fields of processing, evaluation and biomedical applications of advanced micro- and nano-engineered biomaterials. Various synthetic and natural, 3D, 2D and 1D micro- and nano-biomaterials will be discussed. The special focus will be made on 3D micro and nano-porous materials, self-assembled structures, micro and nano-sized particles, nanofibers and nanosheets. The recommendations and future directions on how to engineer novel biomaterials with enhanced efficiency in treatment of cancers and regeneration of complex tissues and organs will be also addressed.</p>	