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Area F

Symposium F1

Title Bioceramics and Bioglasses		
Organizer	Institution	Contact email
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Abstract		
<p>This symposium will cover bioceramics, bioactive glasses and related composites used in healthcare, encompassing applications as orthopedic implants, dental materials, tissue engineering scaffolds and drug delivery systems as well as in other healthcare applications, for example in wound healing, theranostics and for cancer treatment.</p> <p>A wide range of topics on the design, fabrication and characterization of all classes of bioceramics and bioactive glasses will be considered, covering current and prospect applications.</p> <p>Advances in the emerging area of ion doped systems with enhanced biological activity, e.g. ion releasing scaffolds for enhanced osteogenesis, angiogenesis, antibacterial and antiviral effects and for immunomodulation will be presented in this symposium. Papers discussing current challenges in the field and presenting emerging research themes will feature, including the processing and manufacturing of 3D multifunctional ceramic structures by additive manufacturing methods for precision and regenerative medicine. New synthesis and processing in non-equilibrium conditions generating 3-D bulk nanostructured materials. Papers presenting case studies of successful translation to the clinic are particularly welcome.</p> <p>The symposium will offer a forum to international experts for the presentation and discussion of the most recent and relevant results in the bioceramics and bioactive glass field.</p> <p>Topics to be covered in the symposium include but are not limited to:</p> <ul style="list-style-type: none">- Structural bioceramics- Scaffolds for bone and soft tissue engineering- Bioactive glasses- Vascularisation and angiogenesis- Therapeutic ion and drug delivery- Wound healing, antibacterial and antiviral effects and immunomodulation- <i>In vivo</i> models- Nanostructured and functional bioceramics- Bioceramics in cancer research- Dental applications-		