ELSEVIER

6th International Conference on MECHANICS OF BIOMATERIALS AND TISSUES

6-10 December 2015, Waikoloa, Hawaii, USA

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BIOLOGICAL MATERIALS
- Hard tissues and materials (e.g. bone, teeth, scales, osteoderms, mineralized biological materials)
- Soft tissues and materials (e.g. cartilage, tendon, silk, elastin, organs)
- Mechanobiology (development, physiology and disease)
- Cell functions, structure and motility
- Multiscale modelling and simulation of tissue mechanical properties (e.g. ab initio approaches, molecular dynamics, coarse-graining, finite element modeling, fluid-structure interactions)
- Multiscale experimental characterization of tissue mechanical properties (e.g. AFM, TEM, nanoindentation, optical tweezers, x-ray diffraction, in situ methods)
- Dynamic response of biological materials and tissues (trauma from impact and explosions)

BIOMATERIALS
- Tribology, friction and wear as well as fatigue
- Materials failure in physiologically extreme conditions and disease (e.g. infectious disease, cancer, cardiovascular disease)
- Hierarchical polymer materials and composites (e.g. dental ceramics and fibre-reinforced composites)
- Regenerative medicine and tissue engineering
- Metals and ceramics as biomaterials

BIOINSPIRED MATERIALS
- Self-assembly of biological and biomaterials (e.g. peptides, DNA, polymers, nanoparticles, hierarchical structures)
- Biologically inspired and biomimetic materials (including biomimicking materials)
- Novel synthesis and processing methods: additive manufacturing, freeze casting
- Molecular level bioinspiration

Submit your abstract now! Deadline **26 June 2015**

For more information about the conference, please visit the website:

www.mechanicsofbiomaterials.com