

6th International Conference on

MECHANICS OF BIOMATERIALS AND TISSUES

6-10 December 2015, Waikoloa, Hawaii, USA

CHAIR

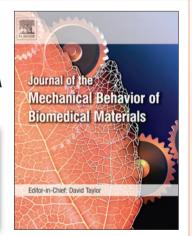
Marc Meyers, USA

Robert O. Ritchie, USA David Taylor, Ireland

Impact Factor*

3.048

*Journal Citation Reports published by Thomson Reuters 2014



COMMITTEE MEMBERS

- Eduard Arzt, Germany
- François Barthelat, Canada
- Aldo Boccaccini, Germany
- Markus Buehler. USA
- Michelle Dickinson, New Zealand
- Carlos Elias, Brazil
- Qingling Feng, China
- Peter Fratzl, Germany
- Lei Jiang, China
- Juan C. Lasheras, USA
- Chwee Teck Lim, Singapore
- Ali Miserez, Singapore
- Wen Yang, Switzerland
- Po Yu Chen, Taiwan
- H. Daniel Wagner, Israel

KEYNOTE SPEAKERS

- François Barthelat, Canada
- Markus Buehler, USA
- Michelle Dickinson, New Zealand
- Qingling Feng, China
- Huajian Gao, USA
- Lei Jiang, China
- Kalpana Katti, USA
- Juan C. Lasheras, USA
- Joanna McKittrick, USA
- Ali Miserez, Singapore
- Chwee Teck Lim, Singapore
- André R. Studart, Switzerland
- Po Yu Chen, Taiwan
- H. Daniel Wagner, Israel



6th International Conference on

MECHANICS OF BIOMATERIALS AND TISSUES

6-10 December 2015, Waikoloa, Hawaii, USA

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 modelling, 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
- Cardiovascular implants
- Orthopaedic implants

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
- Processing and fabrication including additive manufacturing

For more information about the conference, please visit the website: www.mechanicsofbiomaterials.com