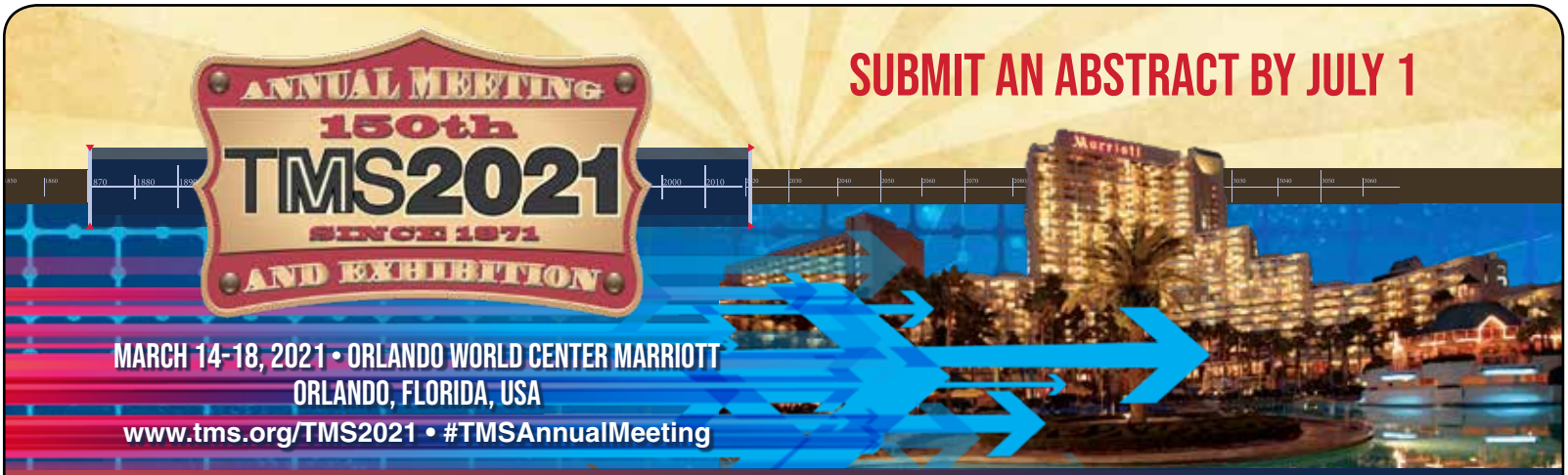

SUBMIT AN ABSTRACT TO:

BIOMATERIALS

BIOLOGICAL MATERIALS SCIENCE

The interaction of materials and biological systems is a rapidly growing, interdisciplinary frontier in materials science and engineering with boundless possibilities. Biological materials science involves the application of materials science and engineering principles to the study of biological materials, including the design, synthesis, and fabrication of materials systems from biological lessons. The Symposium on Biological Materials Science emphasizes the primacy of biological materials to the development of biomaterials and biomimetic materials.

Biological materials comprise the inorganic and organic constituents of biological systems, whereas biomaterials are synthetic materials developed to replace, restore or augment biological materials. The structure and properties of biological materials exhibit a breadth and complexity unmatched in current biomaterials. Biological materials are formed under ambient conditions by living and adaptive biological systems for multifunctional performance. The structure and properties of biological materials are typically hierarchical, inhomogeneous and anisotropic. Therefore, biological materials exhibit complex structure-property relationships which are only beginning to be elucidated. Biomimetic materials (or bioinspired materials) have unique, tailored structures and properties designed based upon the study of structure-property relationships in biological materials. Biomimetic materials most often utilize creative new methods of synthesis/processing and microstructure design in order to achieve the desired functionality.

The symposium will encompass the following themes:

- Biological and natural materials (hard and soft tissues)
- Biomaterials (implants and devices)
- Biomimetic and bioinspired materials
- Bioenabled materials and systems
- Biorelated applications

In addition, two poster sessions are proposed:

- Biological Materials Science Poster Session
- Biological Materials Science Student Poster Contest (Please select “Student Poster” as your abstract type to be considered for this session.)

ORGANIZERS

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SYMPOSIUM SPONSORS

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Abstract Deadline is July 1, 2020. Submit online at www.programmaster.org/TMS2021.

Questions?
Contact programming@tms.org