

Preface

Mechanics of Biological Systems and Materials, Volume 7: Proceedings of the 2014 Annual Conference on Experimental and Applied Mechanics represents one of eight volumes of technical papers presented at the SEM 2014 SEM Annual Conference & Exposition on Experimental and Applied Mechanics organized by the Society for Experimental Mechanics and held in Lombard, IL June 3–5, 2013. The complete Proceedings also includes volumes on: *Dynamic Behavior of Materials*; *Challenges In Mechanics of Time-Dependent Materials*; *Advancement of Optical Methods in Experimental Mechanics: MEMS and Nanotechnology*; *Composite, Hybrid, and Multifunctional Materials*; *Fracture, Fatigue, Failure and Damage Evolution*; and *Experimental and Applied Mechanics*.

Each collection presents early findings from experimental and computational investigations on an important area within Experimental Mechanics, the Mechanics of Biological Systems and Materials being one of these areas.

This volume summarizes the exchange of ideas and information among scientists and engineers involved in the research and analysis of how mechanical loads interact with the structure, properties, and function of living organisms and their tissues. The scope includes experimental, imaging, numerical, and mathematical techniques and tools spanning various length- and timescales. Establishing this symposium at the Annual Meeting of the Society for Experimental Mechanics provides a venue where state-of-the-art experimental methods can be leveraged in the study of biomechanics. A major goal of the symposium was for participants to collaborate in the asking of fundamental questions and the development of new techniques to address bio-inspired problems in society, human health, and the natural world. The organizers would like to thank all the speakers and staff at SEM for enabling a successful program.

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