PREFACE

JBBTE is also one of the few journals in the biomaterials and tissue engineering realm that publishes both research papers and review papers, and this journal spans the diverse but closely interrelated fields of Biomimetics, Biomaterials, and Tissue Engineering. This volume (volume 12) comprises seven papers, all of which have a unique contribution to make to the interconnected fields of biomimetics, biomaterials, and tissue engineering:

1. Majhi, Kumar, Singh and Pyare (India) present a comprehensive **biomaterials** research paper investigating the role of iron in the highly promising bioactive material bioglass.

2. Persaud-Sharma and McGoron (USA) have published a very topical biomaterials **review** paper citing 82 references on the topic of biodegradable magnesium alloys, potentially the next big thing in vascular stent technology: biodegradable stents. Other potential applications in the orthopaedics realm are also overviewed.

3. Gelber, Hermida, Patil, Colwell and D'Lima (USA), report a novel biomaterials research paper exploring the in vivo response to biomimetic calcium phosphate coated Ti6Al4V in comparison to plasma sprayed coatings. Their study yields positive outcomes.

4. Adibnia, Nemati, Fathi and Baghshahi (Iran) present a novel **biomaterials** research paper exploring the in vitro bioactivity of hydroxyapatite-bioglass composites, demonstrating enhanced bioactivity by this strategy of combining two highly bioactive materials.

5. Gupta, Sharma, Dinda, Ray and Mishra (India) have compiled a comprehensive tissue engineering and biomimetics **review** paper with 108 references providing a state-of-the-art update on the very topical area of tooth tissue engineering.

6. Rahman, Olabi and Hashmi (Ireland) have presented a biomaterials research paper involving computational modelling of the flow of bone cement through cancellous bone, a topic of great interest to the orthopaedics community.

7. Vo, A.D. Mai Huynh, H.T. Ngo, D.T. Nguyen and T.M.T. Tran (Vietnam) present a **biomimetics** research paper on one of the most important topics ever reported in our journal: Methicillin-Resistant *Staphylococcus aureus* in farmed Pigs. This is one of the world's first ever studies done in Asia. Antibiotic-resistant bacteria present a clear and present danger to world health and are well known to inhabit hospitals. This study looks at animal transmission in Asia, and shows that small-scale pig farming in Asia carries a much lower transmission risk than the industrial-scale farming of Europe and the USA.

Five of these papers document cutting edge research in the interrelated disciplines of biomimetics, biomaterials and tissue engineering, one of them on an urgent and pressing topic concerning world health, and we have two comprehensive review papers, both on very topical issues. Thus I believe that Volume 12 of the Journal of Biomimetics, Biomaterials, and Tissue Engineering not only makes a significant contribution to the growing body of scientific knowledge, but also serves to inform and update our readers on the latest developments in the field.

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Editor in Chief: JBBTE
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