Special Issue

Recent Advances in Cardiac Assist Devices

Message from the Guest Editor

From rudimentary cardiopulmonary bypass systems to magnetically levitated micro-rotary flow pumps mounted onto catheters with self-expanding elements, we are in the midst of the next major inflection point in bioengineering for cardiac assist devices. In parallel to growth in mechanical engineering, our understanding of both the biologic and physiologic impacts of cardiac assist devices on myocardial recovery and multi-organ perfusion continues to develop. Finally, the promise of closed-loop communication between sensors and actuators driven by alternative intelligence platforms is emerging as a reality. To advance our understanding of this exciting field, this Special Issue of *Bioengineering* will promote interdisciplinary exchange, facilitate new collaborations, and stimulate expanded applications of innovations in the field of cardiac assist devices. The next major advance in cardiac assist devices is more likely to occur when seemingly disparate fields come together to innovate and disrupt existing paradigms. We invite engineers, scientists, healthcare professionals, and innovators from all disciplines to submit their original reports for consideration.

Guest Editor

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Editor-in-Chief

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