



Applications of Biomaterials on Vascular Tissue Engineering

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Message from the Guest Editors

The main topics of this Special Issue include, but are not limited to, the following:

- State-of-the-art and next-generation biomaterials for vascular tissue engineering;
- Functional biomaterials, especially those that focus on the development of SD-TEVG;
- Different aspects of functional biomaterials for application in SD-TEVG, e.g., anti-thrombosis, cellular compatibility, and mechanical properties;
- Surface modification/coating techniques in the development of SD-TEVG;
- Optimal recellularization techniques in vascular scaffolds;
- The criteria for the in vitro testing of SD-TEVG via functional biomaterials;
- Animal model and preclinical criteria for in vivo testing of SD-TEVG;
- The inflammatory response of different biomaterials to SD-TEVG;
- Image monitoring of preclinical in vivo performance of SD-TEVG;
- The development of SD-TEVG via functional biomaterials from an industry perspective;
- Clinical applications in vascular bypass or replacement surgery or dialysis surgery, such as congenital heart disease, pediatric surgery, chronic kidney disease, peripheral arterial occlusive disease, microsurgical flap reconstruction.





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Editor-in-Chief

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Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the *Journal of Functional Biomaterials (JFB)* is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. *JFB* seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

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