

Prof. Dr.-Ing. Laura De Laporte

Selection Committee  
International Society for Biofabrication

Dear Members of ISBF,

With this letter, I would like to nominate myself to continue as one of the Directors of ISBF. Our research group at the DWI – Leibniz Institute for Interactive Materials and the RWTH University Aachen focuses on creating interactive polymer-based biomaterials to recapitulate the complexity and dynamics of the native cell environment and grow functional tissues. Synthetic molecular and micron-scale building blocks are assembled into 3D scaffolds. The main aim is to design and produce injectable materials with pre-programmed information to construct specific architectures with precise alignment and porosity, and provide variable mechanical and biochemical stimuli spatially controlled and over time to mature the tissue. These materials are employed for regenerative medicine *in vivo*, bioprinting *ex vivo*, and automated high-throughput tissue models *in vitro*. We aim to work at the interface between synthetic polymeric materials and living matter, while combining biocompatible hydrogel crosslinking mechanisms with new concepts to create hierarchically structured and bioinspired biomaterials for tissue engineering, regenerative medicine, and mechanobiology. We work in an interdisciplinary manner, combining chemistry, engineering, and biology and think our expertise in the field of soft biomimetic materials fit well with the ongoing activities of ISBF.

Within ISBF, I strongly believe that well-chosen collaborations strengthen the depth and design of material approaches and increase the understanding of how synthetic and hybrid material systems interact with living systems. I also believe that translation of biomaterial developments and biofabrication technologies is crucial to contribute to society. For this, contact with the medical staff and regulatory experts is crucial to guide us in our research by defining the clinical needs and providing guidelines to produce material systems for clinical use. The ISBF provides an ideal platform to enable networking with a large variety of colleagues, train the next generation of scientists working in this field, and establish valuable contacts with industry.

I would be honored to have the opportunity to continue my position at ISBF.

Sincerely,



Laura De Laporte