

Milica Radisic

I am eager to join the Board of the International Society of Biofabrication to contribute to advancing the global mission of the field. My expertise in biofabrication, specifically in engineering tissues and developing organ-on-a-chip platforms, aligns with the society's goals.

Throughout my career, I have focused on enhancing the structure-function relationship in engineered tissues. I developed biodegradable elastomers and fabrication techniques to scale tissue production and model cardiac structure and function. My work includes the creation of novel tissues-on-a-chip using biodegradable UV-curable elastomers like poly(octamethylene maleate (anhydride)) (POMaC) and innovative methods such as 3D stamping, enabling precise control over tissue architecture. These efforts led to the creation of AngioChip, a generic vasculature platform widely used in organ-on-a-chip engineering, tissue engineering, and surgical applications, as highlighted in Nature Materials. This work has garnered significant attention, including media coverage and numerous scientific accolades.

I also developed the inVADE platform, a miniaturized blood vessel system for high-throughput screening in cardiac, liver, and tumor models. During the COVID-19 pandemic, the inVADE platform proved essential for modeling SARS-CoV-2-induced endothelialitis and myocarditis, allowing for the testing of novel therapeutic strategies.

As a Professor at the University of Toronto and a Tier 1 Canada Research Chair in Organ-on-a-Chip Engineering, I lead cutting-edge research in biomaterials and tissue engineering. I have received numerous prestigious awards, including the MIT Technology Review Top 35 Under 35, Killam Fellowship, and Humboldt Research Award. In addition, I co-founded two biotech companies, TARA Biosystems and Quthero, both advancing innovative solutions in drug development and regenerative medicine.

I am actively involved in the academic community as an Executive Editor for ACS Biomaterials Science & Engineering and serve on the editorial boards of 10 other journals. I have organized international EMBO, Keystone and ECI conferences and served on review panels for CIHR, NIH, and other funding agencies. My work has been published in high-impact journals and cited over 23,000 times.

Joining the International Society of Biofabrication Board would allow me to contribute my expertise and leadership to advance the field globally.