

Dr. Enrico Domenico Lemma, PhD

I was born in 1989 and I currently hold a position as a Tenure-Track Assistant Professor in Materials Science and Technology at the Department of Engineering, Università Campus Bio-Medico di Roma.

My academic background includes a MS degree in Materials Engineering at Università del Salento (2014) and a PhD in Materials and Structural Engineering and Nanotechnologies at Università del Salento (2018).

In 2019 I was awarded a two-year Alexander von Humboldt Postdoctoral Research Fellowship at the Karlsruhe Institute of Technology (Karlsruhe, Germany), to develop novel strategies based on DNA coupling for triggering selective cell adhesion on 3D micro-structures.

In 2022 I came back to Italy at Università Campus Bio-Medico to join the Tissue Engineering Laboratory and in 2025 I was awarded a FIS (Fondo Italiano per la Scienza) Starting Grant to develop novel high-resolution, high-throughput solution based on multi-photon lithography for vascular graft tissue engineering.

I'm interested in exploring nonlinear absorption optical systems (e.g., multi-photon polymerization) for studying cell mechanobiology in 3D, and (bio)chemical and mechanical properties of innovative materials for 3D printing. I also make efforts to develop models to merge 3D microfabrication with microfluidics and organ-on-chip technologies.