Velia graduated in Medical Biotechnology at Uni Federico II and obtained a PhD in Human Genetics and Bioengineering at the Telethon Institute for Genetics and Medicine (Naples, ITA). She then moved to MIT as postdoc and then to Imperial College London as Junior PI. She is now Principal Investigator Tenured at the Istituto Italiano di Tecnologia-IIT where she leads the Synthetic and Systems biology lab for Biomedicine. Over the past few years, she received awards including the MIT Young Innovator under 35, the Rotary International award, Inspiring 50 Women in Science &100 STEM experts (Fondazione Bracco, Startup Italia), 10 representative women of 2019 (La Repubblica). She is also member of the Global Young Academy of Science. Velia got the ERC Starting Grant in 2020. She is also involved in collaborative European projects at the forefront of designing novel technological platforms for healthcare and cell-based therapies. Her research is at the interface of building foundational technologies for rational design, robust performances of synthetic circuits, and translational applications of synthetic biology in biomedicine.