

Ilaria Bassani achieved in 2012 her master's degree with honors in Medical and Pharmaceutical Biotechnologies at the University of Pavia, focusing on microbiology, molecular biology and biochemistry. In 2017 she achieved her PhD at Denmark Technical University (DTU) with a thesis on biological biogas upgrading, combining the development of novel bioreactor configurations and metagenomic approaches for the optimization of biomethanation process and the study of reactor microbial ecology.

Between 2017 and 2018 she worked as a Postdoctoral researcher for a startup company located in Paris for the development of ultrafast qPCR systems. She continued her research activity at the Institute Sophia Agrobiotech, in Sophia Antipolis (France), a research institute financed by INRAE, Université Côte d'Azur and CNRS, where she investigated molecular and cellular responses driving *Phytophthora parasitica* zoospores plant infection upstream events, such as environment perception, collective motion and auto-aggregation.

She joined the System and Synthetic Biology (SyBio) research line of the Italian Institute of Technology (IIT) at the end of 2020, working on underground gas storage (UGS) microbiology, the development of biological methanation and dark fermentation processes for the valorization of waste streams, and the recovery of critical raw materials (CRMs).