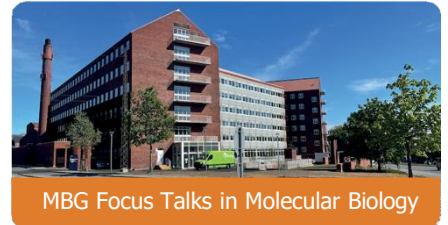


MBG FOCUS TALK

Hosted by Esben Lorentzen

Wednesday 23 October 2024 @ 10:00
1872-647



Luuk Loeff

Department of Biochemistry

University of Zürich, Switzerland

Molecular mechanisms of prokaryotic immune systems

The constant biological arms race between prokaryotic organisms and invading mobile genetic elements has resulted in the evolution of sophisticated genome defense mechanisms. While the underlying mechanisms vary, many of these prokaryotic genetic defense systems directly target the invading nucleic acids. Deciphering these mechanisms is important for our fundamental understanding of these systems that shape host-invader interactions, which may aid in the development of new tools for genome engineering. In this talk, I will present an overview of my efforts to provide a mechanistic understanding of how defense systems function at the molecular level using a wide array of techniques, including single-molecule spectroscopy, cryo-electron microscopy, biochemistry, and in vivo functional assays.