

# Nanobody Isolation In Silico From Pre-Immune Libraries

*Tuesday 23 September 2025 11:00 (1 hour)*

Recent advances in high-throughput sequencing and structure prediction have enabled “virtual panning” of naïve nanobody (VHH) repertoires. This session reviews the core modules of computational nanobody discovery: repertoire profiling via MiXCR and clonotype clustering, homology modeling with NanobodyBuilder2 and ColabFold/Boltz1, and docking benchmarking of published VHH–antigen complexes using ZDock and Boltz-1 scored by different scoring strategies.

We’ll showcase case studies from ongoing work—including clonotype analysis of a naïve llama library and redocking of SAbDab-derived VHH–antigen pairs to assess predictive performance.

**Presenter:** KROPIVSEK, Klara (University of Nova Gorica)