



Rokas Grigaitis, PhD

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Title

High-throughput *in vitro* biochemistry: from phage biology to genome editing

Abstract

By allowing the acquisition and/or processing of large experimental data-sets high-throughput approaches have transformed a variety of fields within life sciences. However, since mechanistic biochemical studies strongly depend on the classical recombinant protein expression and purification techniques, they largely remain costly and time-consuming. Recent advances in the development of cell-free protein expression methods have the potential to facilitate the high-throughput acquisition of in-depth structural and functional data and thus greatly enhance our understanding of biochemical systems. In this seminar, Dr. Rokas Grigaitis will present a general overview of high-throughput cell-free protein expression techniques and offer insights on how he utilizes/plans to utilize them in the study of bacteriophages as well as discovery and characterization of potentially novel genome editing tools.

Bio-sketch

Rokas Grigaitis is a postdoctoral researcher at the VU LSC-EMBL Partnership Institute where he is developing high-throughput approaches for the study of nucleic acid metabolism in bacteriophages and CRISPR nucleases. Prior to his postdoctoral work, Rokas has studied bacterial anti-phage defense systems at Vilnius University as well as eukaryotic DNA recombination and repair at ETH Zurich and University of Vienna.