

**When: October 25, 15:30**

**Where:** Skoltech, MR 403, TPOC-3

**Skoltech**

Skolkovo Institute of Science and Technology

# The evolutionary ecology of CRISPR-phage interactions

## ABSTRACT

Bacteria have a range of sophisticated immune mechanisms to protect against virus infections that are favoured under different ecological conditions. Under laboratory conditions, bacteria typically evolve de novo virus resistance using either surface modification or CRISPR-Cas adaptive immune systems.

In this talk I will discuss how both biotic and abiotic factors tip the balance in the evolution of these two immune mechanisms, and how this impacts the coexistence and coevolution between bacteria and their phages.

## BIOGRAPHY

A NERC funded Independent Research Fellow (Associate Professor), working on the evolutionary ecology of host-parasite interactions.

A member of the Environment and Sustainability Institute and the Biosciences department of the College of Life and Environmental Sciences.

## RESEARCH INTERESTS

- Evolutionary ecology of host-parasite interactions
- Coevolution of bacteria and phage
- Evolution of parasite host range and virulence



**Speaker:**  
**Professor Edze Westra**  
The University of Exeter, UK



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