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OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY
沖縄科学技術大学院大学

VISITING PROGRAM

TSVP TALK

Viral Origami: Structural Insights Into Infectious Architectures



2025

THU.

Aug.07

15:00–16:00

HYBRID

L5D23, ZOOM



For zoom and other details scan QR code or visit oist.jp/visiting-program

This seminar will trace the history of virology, detailing key breakthroughs in understanding virus structure. Viruses, with their relatively few genes devoted to structural components, employ ingenious strategies in which individual proteins often fulfil multiple roles in assembling the virion, protecting it in the environment, recognizing the host, and uncoating the genome in the right environment at the right moment. We will discuss the principles governing viral assembly, illustrating how these complex "infectious architectures" self-organize from their limited components. The talk will cover various structural strategies, from the minimalist design of picornaviruses to the elaborate machinery of bacteriophages and giant viruses. Understanding these structures is crucial for both harnessing viruses for biotechnological applications and developing effective treatments against infectious diseases.

Otago University

Mihnea Bostina

Mihnea Bostina works in the Department of Microbiology and Immunology at the University of Otago, New Zealand and is the Academic Lead of the Electron Microscopy Unit at the Otago Micro and Nano Imaging Center. Dr. Bostina obtained an MSc from The University of Bucharest, Romania, followed by a PhD in Biophysics from the Max Planck Institute and Goethe University in Frankfurt, Germany. He previously held positions at Harvard Medical School and McGill University before joining the University of Otago in 2013. Bostina Lab employs electron microscopy techniques to study viral structures and virus-host interactions critical for infection, focusing on oncolytic viruses like Senecavirus, SARS-related coronaviruses, bacteriophages, giant viruses, and wildlife viruses affecting endangered species.

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CONTACT

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