KEMIJSKI INŠTITUT

Vabilo na Forum40 / Invitation to the Forum40

dr. Matic Kisovec

D-11, Department of Molecular Biology and Nanobiotechnology

Petek / Friday, 16.6.2017 ob / at 13:00

Velika predavalnica Kemijskega inštituta/ Lecture hall, National Institute of Chemistry; Hajdrihova 19, Ljubljana

Pore-forming toxins and nanobiotechnology

Pore-forming toxins are proteins that punch holes into biological membranes. They are used by organisms to attack or defend against other organisms.

They have recently attracted a lot of attention due to their use in DNA sequencing and their high potential in medical applications. We study the mechanism of pore formation at the molecular level and potential biotechnological applications of different families of pore-forming toxins, such as listeriolysin O from a human pathogen *Listeria monocytogenes* or lysenin from the earthworm. These toxins could be used for detection of environmental pH, delivery of molecules to living cells and sensing of various molecules.

Vljudno vabljeni / Kindly invited