



KEMIJSKI INŠTITUT

Vabilo na Preglov kolokvij / Invitation to the Pregl colloquium

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Petek / Friday, 4. 9. 2026, ob / at 13:00

Velika predavalnica Kemijskega inštituta /
Great Lecture Hall
National Institute of Chemistry
Hajdrihova 19, Ljubljana, Slovenia

Venom-derived peptides as drug leads for disease

Venomous marine cone snails produce a wealth of peptide toxins to catch prey, including fish. Because of their ability to precisely modulate molecular targets that have important physiological functions, cone snail toxins have become valuable tools in biomedical research and have been developed as drug leads for various diseases. The research in my group focuses on the discovery of cone snail toxins that mimic human neuropeptides and peptide hormones expressed, and to develop these toxins as next-generation peptide therapeutics for disease. I will present several case studies, including our discovery and development of toxins that mimic the human hormone insulin to rapidly lower blood glucose in diabetes, and toxins that mimic the human neuropeptide somatostatin to silence chronic pain. These studies span field collections, venom preparation, chemical and pharmacological toxin characterization, in vivo studies, and drug development.

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Vljudno vabljeni / Kindly invited