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v Ljubljani

Fakulteta *za kemijo*
in kemijsko tehnologijo

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VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI / INVITATION TO
THE LECTURE WITHIN DOCTORAL
PROGRAMME IN CHEMICAL SCIENCES

Assist. Prof. Dr. Sebastian J. Pomplun

*Drug Discovery, LACDR
Leiden University, The Netherlands*

z naslovom / title:

**Targeting disease related nucleic acids with
novel chemical modalities**

**v sredo, 28. 2. 2024 ob 15. uri /
on Wednesday, 28. 2. 2024 at 15.00**

**v predavalnici 1 v 1. nadstropju Fakultete za kemijo in
kemijsko tehnologijo, Večna pot 113 / in lecture room 1,
1st floor at the Faculty of Chemistry and Chemical
Technology, Večna pot 113**

Vljudno vabljeni! | Kindly invited!

Abstract:

Nucleic acids play pivotal roles in vital life processes, and their dysregulation is associated with numerous diseases. Despite this, therapeutic targeting of nucleic acids or their binding proteins has been challenging, as they are often deemed 'undruggable' by conventional small molecule approaches. In this study, we introduce innovative synthetic modalities tailored to address disease-associated RNA and cancer-related transcription factors. These modalities are enhanced mimics of natural proteins, crafted using advanced synthesis and bioconjugation techniques. We have also devised a robust combinatorial discovery platform capable of screening hundreds of millions of variants efficiently. Our findings underscore the potential of synthetically improved biomimetics as promising tools for targeting disease-involved nucleic acids.