



KEMIJSKI INŠTITUT

Vabilo na Forum40 / Invitation to the Forum40

v Tedna Kemijskega inštituta / the National Institute of Chemistry Week

dr. Tina Lebar

D12, Department of Synthetic Biology and Immunology

Četrtek / Thursday, 7. 6. 2018 ob / at 10:00

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

Reprogramming mammalian cells with designed transcription factors

All cells are composed of molecular elements, which control cellular processes. They depend on the presence of different signals, which determine cell behavior through cascades of different interactions. Some of the most important regulatory elements in cells are transcription factors – proteins that bind to DNA and control gene expression. By rationally introducing designed transcription factors into living cells, we can create complex »biological machines«, which could be applied for different functions. We discovered new mode of transcriptional inhibition by designed TAL effectors, which enabled construction of complex logic circuits in mammalian cells. Additionally, a new strategy for enhancement of CRISPR/Cas9-based transcriptional activation will be presented.



Vljudno vabljeni / Kindly invited