



Katedry genetiky a biochémie PriF UK
a občianske združenie *NATURA*



Vás pozývajú na 127. prednášku v rámci Kuželových seminárov:

Dr. Jan Jamroskovic

Slovak Academy of Sciences, Department of Microbial Genetics,
Bratislava, Slovakia

G-QUADRUPLEX DNA FOR GENETIC ENGINEERING IN BACTERIA

ktorá sa uskutoční **22. marca 2024** (piatok) o **13:30**

v miestnosti CH1-222 Prírodovedeckej fakulty UK

<http://www.naturaoz.org/seminare.html>
<http://www.naturaoz.org/KuzeloveSeminare.html>

Mgr. Ján Jamroškovič, PhD.

2023-present – Head of the working group, Impulz fellow, Slovak Academy of Sciences, Institute of Molecular Biology, Department of Microbial Genetics, Bratislava, Slovakia

2015-2023 – Post-doctoral researcher, Umeå University, Department of Medical Biochemistry and Biophysics, Umeå, Sweden

2014-2015 – Post-doctoral researcher, Ecole Polytechnique Federal de Lausanne, Environmental Microbiology Laboratory, Lausanne, Switzerland

2009-2015 – PhD. Slovak Academy of Sciences, Institute of Molecular Biology, Department of Microbial Genetics, Bratislava, Slovakia

2004-2009 – Bc., Mgr. Comenius University, Faculty of Natural Sciences, Department of Genetics, Bratislava, Slovakia

In my presentation, I will discuss my scientific background and how it translates into my current research plan as an IMPULZ fellow at the Slovak Academy of Sciences. I will explore the potential use of G-quadruplex DNA structures in designing artificial gene regulators in bacteria and elaborate on how my research contributes to the bio-economy and the transition towards a more sustainable society.



Selected publications

Jamroskovic, J. [✉]; Deiana, M., Sabouri, N., Probing the folding pathways of four-stranded intercalated cytosine-rich motifs at single base-pair resolution. *Biochimie* 2022, 199, 81-91

Jamroskovic, J.; Doimo, M.; Chand, K.; Obi, I.; Kumar, R.; Brannstrom, K.; Hedenstrom, M.; Nath Das, R.; Akhunzianov, A.; Deiana, M.; Kasho, K.; Sulis Sato, S.; Pourbozorgi, P. L.; Mason, J. E.; Medini, P.; Ohlund, D.; Wanrooij, S.; Chorell, E.; Sabouri, Quinazoline ligands induce cancer cell death through selective STAT3 inhibition and G-quadruplex stabilization. *Journal of the American Chemical Society* 2020, 142 (6), 2876-2888

Deiana, M.; Chand, K.; **Jamroskovic, J.**; Obi, I.; Chorell, E.; Sabouri, N., A Light-up logic platform for selective recognition of parallel G-quadruplex structures via disaggregation-induced emission. *Angewandte Chemie* 2020, 59 (2), 896-902

Obi, I., Rentoft, M., Singh, V., **Jamroskovic, J.**, Chand, M., Chorell, E., Westerlund, F., Sabouri, N.; Stabilization of G-quadruplex DNA structures in *Schizosaccharomyces pombe* causes single-strand DNA lesions and impedes DNA replication. *Nucleic Acid Research* 2020, 48(19), 10998-11015