Vážené kolegyne, vážení kolegovia,

Katedra molekulárnej biológie PriFUK v spolupráci s Vedeckým parkom UK v Bratislave a Slovenskou spoločnosťou pre Biochémiu a Molekulárnu biológiu vás pozýva na vedeckú prednášku v rámci cyklu **“Letné stretnutia v Parku”**

RNDr. Ivan Košík, PhD.

NIH/NIAID/LVD/CBS, Bethesda, MD, USA

„Anti-viral Antibodies, how they work, and what can we make them do“

dňa 26.6. 2023 o 11:00

v Konferenčnej miestnosti Vedeckého parku UK, Ilkovičova 8, Bratislava

Tešíme sa na stretnutie,

za organizátorov,

Stano Stuchlík

Ivan Košík has been passionate about biology and life sciences for as long as I can remember. He attended Comenius University in Bratislava in 2002 and studied mitochondrial genetics in forensic molecular biology under the supervision of Dr. Gabriel Minarik. Ivan defended his Bachelor's degree in 2005 with a major in molecular biology. Shortly after, he became interested in biotechnology and worked with Dr. Stanislav Stuchlík to quantify horizontal gene transfer.

He graduated in 2007 and then turned his focus to virology and immunology, joining Dr. Gustav Russ at the Institute of Virology in Bratislava for a Ph.D. program. During this time, he contributed to the understudied field of nonstructural influenza virus protein PB1-F2, where he linked genetic determinants of protein post-translation modifications and stability with viral pathogenicity and humoral response. After successfully defending his Ph.D., he joined the Institute of Virology's research crew, continuing as a young investigator at the Department of Orthomyxoviruses.

In 2015, he joined Dr. Yewdell's group as a postdoctoral fellow at NIAID, where he shifted his attention to influenza hemagglutinin antibodies, especially HA2 or so-called stem Abs. This brought him back to VU-SAV history and his former mentor Gustav Russ who discovered these Abs and the prospect of a universal influenza vaccine more than 30 years ago.

Recognizing his talents, NIH leadership offered him a staff scientist position which he currently occupies. Ivan has published several papers revealing novel molecular mechanisms of action for HA antibodies and is actively working on antibody-mediated viral interference, evolutionary pressure, and viral and antibody structural determinants of escape and neutralization.

Selected papers:

Dacon C. ....Kosik, I.,....et al. Broadly neutralizing antibodies target the coronavirus fusion peptide**.** ***Science*** 12;377(6607):728-735, 2022.

Kosik, I. et al. Neuraminidase inhibition contributes to influenza A virus neutralization by anti-hemagglutinin stem antibodies**.** ***J Exp Med*** 216 (2): 304–316, 2019

Kosik, I., Yewdel, J.W. Influenza Hemagglutinin and Neuraminidase: Yin-Yang Proteins Coevolving to Thwart Immunity**,** ***Viruses*** 11(4):3 46. 2019

Angeletti, D., Gibbs, J.S., Angel, M., **Kosik, I.** et al. Defining B cell immunodominance to viruses. ***Nat Immunol*****.** 18(4):456-463, 2017