



Institute of Experimental  
Pharmacology & Toxicology  
SLOVAK ACADEMY OF SCIENCES



POZVÁNKA

Vedenie Ústavu experimentálnej farmakológie a toxikológie (ÚEFT) SAV

Vás pozýva na prednášku *Prof. Yoel Rodríguez, PhD.* (Natural Sciences Department

Hostos Community College of The City University of New York)

s názvom

**STRUCTURE-GUIDED DESIGN OF SELECTIVE SMALL MOLECULE INHIBITORS  
FOR THE FIRST BROMODOMAIN OF BRD4**

***Annotation***

Histone lysine acetylation is an important post-translational modification that regulates several physiological and pathological processes. Bromodomains (BrDs), a conserved structural module in chromatin-associated proteins, are well known for recognizing  $\epsilon$ -acetyl lysine residues on proteins. One of the most relevant BrDs is BRD4 (bromodomain-containing protein 4), a two-tandem bromodomain-containing protein (BrD1 and BrD2) that plays a critical role in numerous diseases including cancer. Growing evidence shows that the physiological functions of BRD4 are mediated through its two BrDs, however, the specific role of each of these bromodomains is still poorly understood. Accordingly, small molecule inhibitors capable of selectively targeting either BrD1 or BrD2 are of great interest. Such inhibitors would be of invaluable aid to unravel the mechanistic insights underlying BRD4 functions in human biology and disease. Thus, our presentation will focus on the in silico design of selective small molecule chemical inhibitors for the first bromodomain (i.e. BrD1) of BRD4.

Prednáška sa uskutoční v pondelok dňa **28.11.2016** o 13:00 v novej zasadacej miestnosti ÚEFT SAV.

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