**Bakteriološka sekcija HMD-a**

**Poziv na predavanje**

**Maja Šemanjski:**

**Quantitative proteomics and its applications in studying bacterial persistence in *E. coli***

Quantitative Proteomics, University of Tuebingen, Tuebingen, Germany

Quantitative proteomics is a powerful approach to study dynamics of proteins and their modifications in complex biological samples. We apply this technology to investigate molecular mechanisms of bacterial persistence, a phenomenon associated with a small subpopulation of cells, that can become transiently tolerant to multiple antibiotics by restraining their growth and entering a dormant-like state. One of the key players in *E. coli* persistence is a Ser/Thr protein kinase HipA that phosphorylates and inhibits glutamate-tRNA ligase causing strong inhibition of translation. We study HipA-mediated persistence using stable isotope labeling by amino acids in cell culture (SILAC) in a combination with high-resolution mass spectrometry-based proteomic and phosphoproteomic workflows.

**Predavanje će se održati na Institutu Ruđer Bošković**

**29.05.2017. 14:30**

**Predavaonica III krilo**