OBAVIJEST

Javna obrana teme doktorskog rada studenta poslijediplomskog sveučilišnog studija BIOFIZIKA

TOMISLAVA RONČEVIĆA

održat će se u ponedjeljak, **12. 11. 2018.** u **14.00 sati** na Prirodoslovno-matematičkom fakultetu u Splitu (dvorana B3-47), pred članovima Stručnog povjerenstva:

1. doc. dr. sc. Larisa Zoranić, (Prirodoslovno-matematički fakultet, Split), predsjednica
2. doc. dr. sc. Ana Maravić, (Prirodoslovno-matematički fakultet, Split), član
3. izv. prof. dr. sc. Vedrana Čikeš Čulić, (Medicinski fakultet, Split), član

Title:
Targeted DNA sequencing and QSAR for identification of anuran antimicrobial peptides and re/design to improve activities

Naslov:
Ciljano sekvenciranje DNK i QSAR za identifikaciju antimikrobnih peptida iz žaba (Anura) i re/dizajn s ciljem poboljšanja aktivnosti

Abstract:
Antimicrobial peptides (AMPs) are structurally diverse molecules naturally produced by all organisms, with direct antimicrobial activity against pathogens and often showing other immune-related properties. Anurans are a particularly rich source of these peptides, with 1923 different sequences reported in Database of Anuran Defense Peptides (DADP). We propose a novel approach for peptide identification by exploiting the highly conserved signal peptide region, RNAseq data available in Sequence Read Archive (SRA) database and selectively amplifying AMP-coding transcripts from small amounts of frog skin tissue. Additionally, novel peptides will be re/designed with the help of molecular descriptors using software developed at Split University (e.g. Mutator) that links the biophysical properties of the peptides with their biological activity. This software has been trained on helical AMPs of anuran origin and may provide best results if natural peptides of anuran origin are used as input.

Programme Head: pasko@pmfst.hr
Administrative Leader: ibitunjac@pmfst.hr
Phone: +385 21 619 217

Address: PMFST Biofizika
R. Boškovića 33
HR-21000 Split
Croatia