



**Department of Organic Chemistry
Faculty of Science,
Palacký University Olomouc**

would like to invite you to a lecture by:

Assoc. Prof. PharmDr. Jaroslav Roh, Ph.D.

Department of Organic and Bioorganic chemistry, Faculty of Pharmacy in
Hradec Králové, Charles University, Czech Republic

With topic:

„Development and Structure-Activity Relationships of 3,5-Dinitrophenyl-Containing Heterocyclic Compounds as Anti-Tuberculosis Agents“

Tuberculosis (TB), one of the most widespread and dangerous infectious diseases, is among the world's top 10 causes of death. Despite the problematic toxicological profile of nitro group-containing compounds, several such compounds are under development as anti-TB drugs and three candidates already reached second or third phase of clinical trials. Our research group identified 3,5-dinitrobenzylsulfanyl-substituted 1,3,4-oxadiazoles and their reverse analogues, 3,5-dinitrophenyl-substituted 1,3,4-oxadiazoles, as very potent antitubercular agents, with outstanding antimycobacterial activities with MIC values reaching 0.03 μM (0.011-0.026 $\mu\text{g/mL}$), which are superior to those of all current first-line anti-TB drugs. Similar results were obtained with series of triazole analogues of these lead compounds. The syntheses and structure-activity relationships with respect to antimycobacterial activity, toxicity and selectivity of action of these compounds will be discussed.

**Seminar will take place on November 26th, 2019 at 13:00 in a room
3.016 at Faculty of Science, 17. listopadu 12, Olomouc.**