



HighChem
Identification made simple



Announcement of Training Event F

on "Practical exercise on computer tools for identification and structure elucidation of antibiotics, their metabolites and transformation products"

January 23-26, 2018, Bratislava/Bela, Slovak Republic

The Environmental Institute (EI) and the HighChem organize a Training Event (TE) on **"Practical exercise on computer tools for identification and structure elucidation of antibiotics, their metabolites and transformation products"** in the framework of ANSWER/H2020-MSCA-ITN-2015/675530 project, which will be held in Bratislava and Bela, **Slovak Republic on 23rd to 26th of January, 2018**. This event will be hosted by Dr. Jaroslav Slobodnik (EI, Kos, Slovak Republic). ANSWER Early-Stage Researchers (ESRs) will participate in this event.

The aim of the TE-F is to provide ANSWER ESRs with professional and personal development opportunities beyond what they are generally exposed to in the course of their Ph.D. training. During this TE-F the theory and practice of Gas chromatography-mass spectrometry (GC-MS) and accurate Liquid chromatography-mass spectrometry (LC-MS) techniques will be presented in lectures and practical demonstration together with state-of-the-art models and computer tools for structure elucidation and spectral libraries including Mass Frontier, publicly accessible m/zCloud and the open source database 'NORMAN MassBank'. Structure generation and public database search together with approaches to yield fragmentation-based classifiers will be presented. The participants will also have the opportunity to test the abovementioned tools themselves on their own data.

The main objectives of the TE-F are:

- European and national regulations on water contaminants
- Analysis of complex mixtures of contaminants
- Computer tools for the identification and structure elucidation of antibiotics, their metabolites and transformation products (TPs)
- Design of web-based databases
- Design of prioritisation algorithms for contaminants at river basin, national and European scale.

The programme also will cover the complementary/soft skill training: European and international water policies and frameworks (1 day): The protection of water resources and fresh water ecosystems is one of the cornerstones of environmental protection in Europe. The relevant European and international framework concerning WW treatment, water (WFD), WW reuse issues, etc will be covered by this training course, (TE-F).



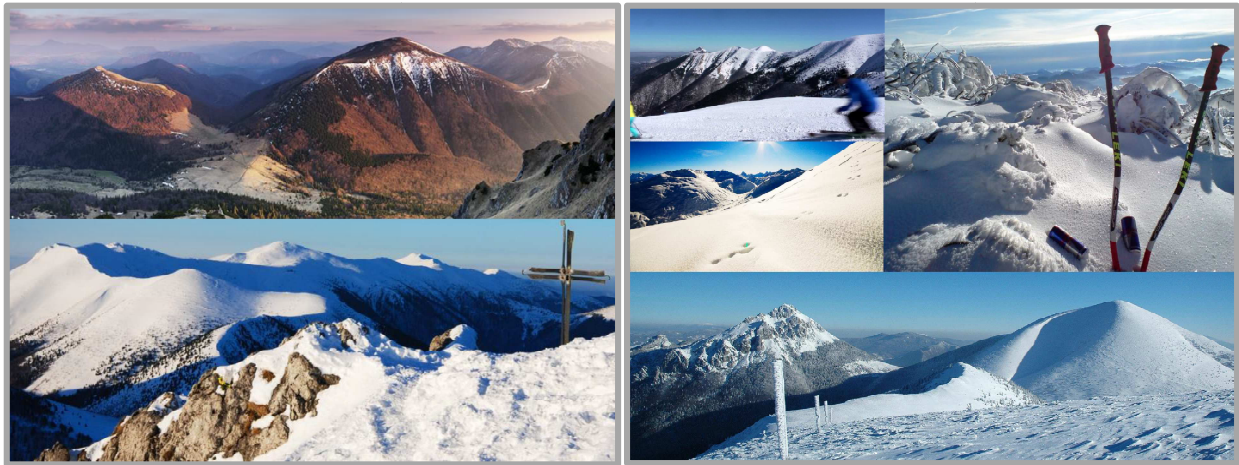
Other information:

- ✓ A number of vacancies (10) is available in this training event for **Ph.D. students in the field of Chemists, Chemical/Environmental Engineering and Environmental Sciences**, not integrated in the ANSWER project.
- ✓ Applicants for the vacancies should submit their application to Dr. Jaroslav Slobodnik by email (slobodnik@ei.sk). If admitted they are expected to cover their travel and stay costs. The participation to the event is free of charge. **All applications should be submitted no later than January 10, 2018.**
- ✓ Successful applicants will be contacted directly by e-mail by **January 12, 2018.**
- ✓ **Travel and accommodation must be arranged and covered by each participant after the receipt of the acceptance email.**

Training Event F topics

Through TE-F the following aspects will be tackled:

- Liquid and gas chromatography techniques coupled to low- and high-resolution mass spectrometry detectors
- Sample preparation and determination of pollutants at environmentally relevant concentration levels
- Structural elucidation of mass spectra: novel approaches used at the identification of unknown substances
- Derivation of ecotoxicity threshold levels (PNECs/EQs) using NORMAN EcotoxDatabase module
- Hands-on exercises



In addition to studying, the students will have the opportunity to explore the city in their free time.