



REPORT:

3rd CEFSEK training course

"High resolution mass spectrometry in quantitative analysis and screening of organic contaminants in food and environment"

Third CEFSEK training course was organized on 16th and 17th of September 2010 at the Faculty of Technology, University of Novi Sad, Novi Sad, Serbia.

The program started with the presentation of the CEFSEK project entitled "CEFSEK Project: Bridging the gap in food safety capacities and capabilities of WBC region" given by Prof. Biljana Škrbić, the project coordinator.

Program continued by lectures of Dr. Michal Godula, European Food Safety Specialist from Thermo Fisher Scientific, Prague, Czech Republic. The lectures were dedicated to introducing the participants to the high resolution mass spectrometry and Orbitrap mass analyzer and their use in **target screening** of contaminants in food.

On September 17th, Dr. Godula gave a lecture on strategies of **screening of unknown** contaminants in food.



Dr. Godula giving lectures during theoretical sessions

Training course was divided between theoretical lectures mentioned above, and practical sessions organized during both days in four groups of 5-6 attendees. The practical sessions were held by Dr. Godula with assistance of the CEFSEER team. Participants were introduced to ultra high performance liquid chromatograph (U-HPLC Accela, Thermo Fisher Scientific) coupled with high resolution mass spectrometer with patented Orbitrap mass analyzer (Exactive, Thermo Fisher Scientific). They learned about the instrument's hardware components, instrument calibration, running real samples and processing of the acquired data using instrument software. Also some special software tools for screening of the unknown contaminants were presented.



Practical sessions at the CEFSEER Mass Spectrometry lab

The course was aimed at researchers, laboratory managers and all other practitioners in analytical laboratories from Western Balkan Countries (WBCs) who are involved in the analysis of chemical contaminants and pharmaceuticals in food and the environment. There were 20 participants from the Western Balkan Countries attending the 3rd CEFSER training course. Eleven of them were awarded by the CEFSER grant, to whom the accommodation and travel costs were fully reimbursed by the CEFSER project.

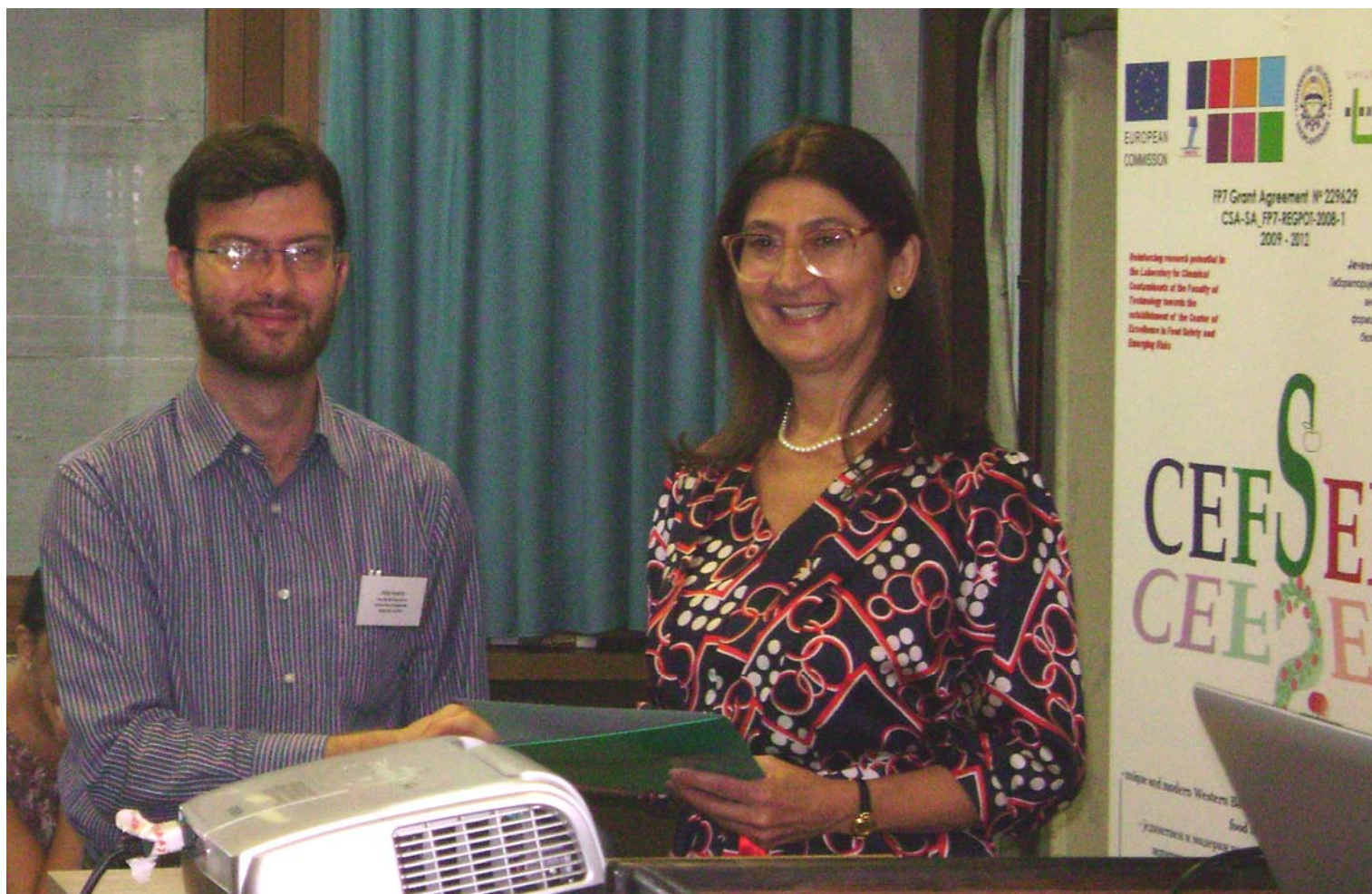


CEFSER grantholders

Participants were from the following institutions:

- Institute of Protection, Ecology and Informatics, Banja Luka, Republic of Srpska
- Institute for Public Health, Podgorica, Montenegro
- Faculty of Agricultural Sciences and Food, University "Ss Cyril and Methodius", Skopje, Republic of Macedonia
- Biotechnical Faculty, University of Montenegro, Podgorica, Montenegro
- Centre for Subtropical Cultures, Bar, Montenegro
- Institute of Meat Hygiene and Technology, Beograd, Serbia
- Republic Hydrometeorological Service of Serbia, Beograd, Serbia
- SP Laboratorija, Bečej, Serbia
- Institute for Food Technology, Novi Sad, Serbia
- Faculty of Chemistry, University of Belgrade, Belgrade, Serbia
- Institute for Chemistry, Technology and Metallurgy, Belgrade, Serbia
- Faculty of Science, University of Novi Sad, Novi Sad, Serbia
- A BIO TECH LAB d.o.o., Novi Sad, Serbia

CDs with presentations given during the 3rd CEFSER Training Course were provided to all participants together with the certificates of attendance.



Prof. Škrbić awarding the participants with certificates of attendance

FINAL PROGRAM OF THE 3rd CEFSE Training Course

16.09.2010	
09.30-10.00	• <i>Registration</i>
10.00-10.05	• <i>Welcome, Prof. Biljana Škrbić, Coordinator of the CEFSE project, Faculty of Technology, Novi Sad, Serbia</i>
10.05-10.35	• <i>CEFSE project, Prof. Biljana Škrbić, Coordinator of the CEFSE project, Faculty of Technology, Novi Sad, Serbia</i>
10.35-11.35	• <i>Introduction to high resolution mass spectrometry and Orbitrap mass analyzer, Dr. Michal Godula, Food Safety Specialist, Thermo Fisher Scientific, Prague, Czech Republic</i>
11.35-12.00	<i>Coffee break</i>
12.00-13.00	• <i>The use of high resolution mass spectrometry in target screening of contaminants in food, Dr. Michal Godula, Food Safety Specialist, Thermo Fisher Scientific, Prague, Czech Republic,</i>
13.00-14.00	<i>Lunch break</i>
14.00-16.00	• PRACTICAL SESSION - Group I
16.00-18.00	• PRACTICAL SESSION - Group II

17.09.2010	
10.00-11.00	<ul style="list-style-type: none"> Strategies for screening of unknown contaminants in food, Dr. Michal Godula, Food Safety Specialist, Thermo Fisher Scientific, Prague, Czech Republic,
11.00-11.30	Coffee break
11.30-13.30	<ul style="list-style-type: none"> Practical session-Group III
13.30-14.30	Lunch break
14.30-16.30	<ul style="list-style-type: none"> Practical session-Group IV

• **PRACTICAL SESSION: Dr. Michal Godula, Food Safety Specialist, Thermo Fisher Scientific, Prague, Czech Republic, with assistance of the CEFSEER team**

- Orbitrap instrument setup, tuning and maintenance;
- Running standard mixture solution of mycotoxins and pesticides;
- Running real sample;
- Data evaluation



Dr. Godula during the practical sessions