



CEFSER newsletter no.2

August 2010

Faculty of Technology, University of Novi Sad, Novi Sad, Serbia

www.tf.uns.ac.rs/CEFSERweb/CEFSERindex.html

CEFSER in 2010



The FP7-REGPOT-2008-1 project CEFSER is in the second year of implementation in the year 2010. This year is very important for the project because of the arrival of two outstanding analytical instruments in the CEFSER lab, intensive training activities and international promotion.

NEW EQUIPMENT AND ANALYTICAL CHALLENGES

Two outstanding analytical instruments arrived at the Faculty of Technology from the University of Novi Sad during February and March 2010 and are now operational at the Center of Excellence for Food Safety and Emerging Risks (CEFSER) enabling it to be in line with the newest trends in the analysis of organic contaminants.

They are Accela U-HPLC with TSQ Vantage MS/MS and Accela U-HPLC with Exactive MS Orbitrap, Thermo Fisher Scientific, USA. "These two instruments are unique for the whole Western Balkan region and even wider for now, making our lab a modern and an attractive partner for the joint research considering the occurrence of organic contaminants in food and environmental matrices as well" said prof. Biljana Škrbić, the project coordinator, explaining further that new analytical tasks set in the CEFSER lab for the next period deals with the latest analytical challenges in the field of food safety: "It is very challenging to develop analytical methods for the simultaneous determination of as many as possible contaminants in only one run of the instrument. This is also important from the aspect of economical running of analysis and also for the quick determination of reliable data necessary for the assessment of the possible risks as a consequence of the contaminants presence in food. We will focus our attention to the mycotoxins and pesticides, and we are going to include both instruments in developing of the methods for the analysis of these two classes of food contaminants."

Prof. Biljana Škrbić added also that one of the instruments is configured in a way to enable the analysis of perfluorinated compounds that requires special materials installed in the instrument that do not interfere with the analytes. She added: "There is no information on the occurrence of these contaminants in the Serbian food and the environment. There is also little data on their presence elsewhere and large work has been undertaken within few large European projects to determine in what extent perfluorinated compounds are around us. Thus, we are ready to contribute to this actual problem."

Accela U-HPLC with Exactive MS in the CEFSER lab



Accela U-HPLC with TSQ Vantage MS/MS in the CEFSER lab

Members of the CEFSER team, including young researchers employed at the Faculty of Technology through the CEFSER project, were trained on both instruments by a specialist from Thermo Fisher Scientific company, learning all from basic maintenance and hardware troubleshooting, to method development, compound optimization, calibration, to running real samples and processing of the acquired data. "The training sessions we have with the Thermo's specialist, Dr. Michal Godula, were very fruitful, as we had a chance to learn the basics from the trainer with large practical experience" explained Ana, Jelena, and Sanja, the CEFSER youngsters. "Now, much work is in front of us, and we already have had a real analytical tasks to resolve in our every day practice in the CEFSER lab." Prof. B. Škrbić added that the team already participated in the interlaboratory study organized by EC-JRC Institute for Reference Materials and Measurements, Geel, Belgium.

TRAINING COURSES

This 2010 year has been important for the CEFSEr project for very intensive training activities, dedicated not only to the CEFSEr team members but also to all interested researchers in the Western Balkan Countries.

1st CEFSEr Training Course "Capabilities of UPLC-MS/MS in Analysis of Contaminants and Pharmaceutical Compounds in Food and the Environment", April 6-8, 2010, and **2nd CEFSEr Training Course** "Quality Assurance (QA) and Quality Control (QC) Procedures in Analysis of Contaminants and Pharmaceutical Compounds in Food and the Environment", April 9, 2010, were held at the Faculty of Technology, University of Novi Sad.

The lecturers were the key persons from the CEFSEr supporting partners: Prof. Jana Hajšlová, Head of Department of Food Chemistry & Analysis at Institute of Chemical Technology, Prague, Czech Republic, and Dr. Jon E. Johansen, Director of CHIRON AS, Trondheim, Norway. Aleksandra Jelić, PhD student from the team of Prof. Mira Petrović from Instituto de Investigaciones Químicas y Ambientales, Spain also contributed to the course with an oral lecture.

Practical sessions in the CEFSEr lab during the training courses



Practical sessions at the CEFSEr lab for mass spectrometry that sparked a great interest among the participants, were held by Dr. Michal Godula, Food Safety Specialist from Thermo Fisher Scientific, Prague, Czech Republic.

The participants were introduced with hardware and software of the U-HPLC-TSQ Vantage MS/MS, its maintenance and troubleshooting, and with "TRACE FINDER" software for the targeted food safety analysis.



The attendees of the CEFSEr courses, April 2010



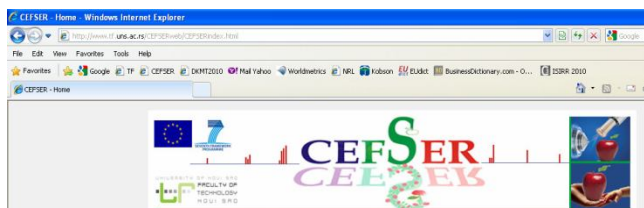
The CEFSEr grant holders

The courses were very successful with 61 attendees, eight of them coming from the Western Balkan Countries were the CEFSEr grant holders, to whom the attendance costs, including the accommodation and travel, were fully reimbursed by the CEFSEr project.

The closing ceremony was followed by the certificate award and announcement of the following third CEFSEr course dedicated to the high-resolution mass spectrometry in quantitative analysis and screening of organic contaminants in food and environment that will be held on September 16-17, 2010.

PROMOTIONS

The promotion of the CEFSEr project has been continued in 2010. The CEFSEr newsletter no. 1 was published in February 2010; the official project web site has been updated with news on the upcoming CEFSEr events; the project coordinator have presented the CEFSEr during several events; brochure on the CEFSEr lab capacities and capabilities have been distributed.



For more information on the CEFSEr events and news please visit the official project site

The project was presented during the following events:

- Seminar „Microanalytical techniques in applied Earth sciences“, organized within FP7 project RESTCA, in Belgrade 22-24.02.2010,
- The WIRE 2010 (Week of Innovative Regions in Europe) Conference held in Granada, Spain, 15-17 March 2010,
- 1st CEFSEr Training Course "Capabilities of UPLC-MS/MS in Analysis of Contaminants and Pharmaceutical Compounds in Food and the Environment", April 6-8, 2010

The CEFSEr management team members attended the 5th FOOD CLUSTER INITIATIVE meeting adjoined with the International Conference "MIND YOUR FOOD" held in Thessaloniki, Greece on 5th and 6th of March 2010. The Conference and the Food Cluster Initiative meeting served as a forum for the exchange of know-how and experience, as well as a chance for the elaboration of new ideas for research projects.

More about the FOOD CLUSTER initiative could be find at:
www.foodclusterinitiative.eu