



Reinforcing research potential in the Laboratory for  
Chemical Contaminants at the Faculty of Technology  
towards the establishment of the  
Center of Excellence in  
Food Safety and Emerging Risks  
CEFSER





## CEF SER project details

**Coordinator:** Faculty of Technology Novi Sad

**Total cost:** 1.01 million euro

**EU contribution :** 897650.00 euro

**Start Date:** 2009-02-01

**Duration:** 42 months

**End Date:** 2012-07-31



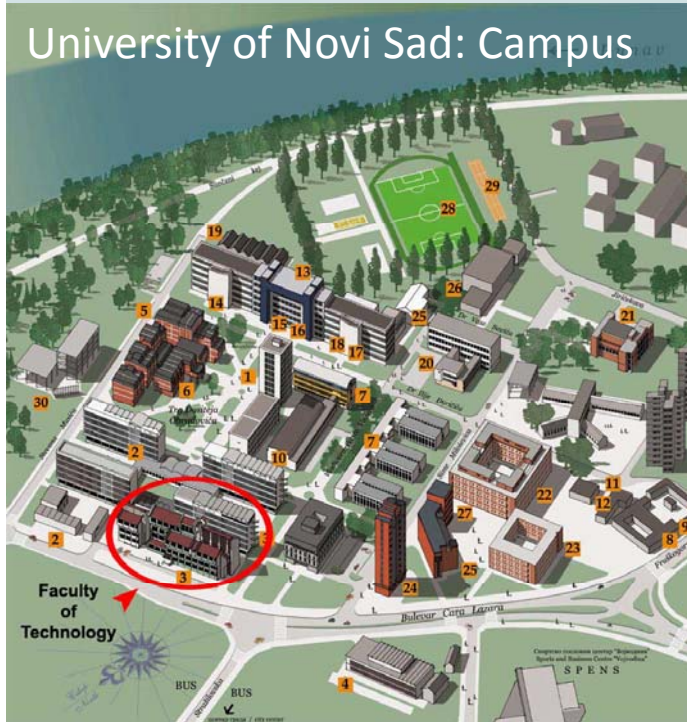
## *Project beneficiary*





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

University of Novi Sad: Campus



UNIVERZITET U NOVOM SAOU  
TEHNOLOŠKI  
FAKULTET  
NOVI SAO

# CEFSEER project manager



*Prof. Dr. Biljana Škrbić*

**Head of the Laboratory for Chemical Contaminants,  
Laboratory for Mass Spectrometry,  
FP7-CEFSEER Centre of Excellence**

- *Significant experience in coordination and leadership of research projects at both national (9 projects since 1991) and international (1 FP7, 2 IPA, 1 WUS, 5 bilateral projects) level; peer-reviewer in numerous international journals; prestigious membership*
- *References: 9 books, 450 scientific publications, 80 articles in international journals from the SCI list*

# CEFSEER team members



*Dr. Biljana Škrbić*, full professor – Project Manager, WP1 Leader

*Dr. Spasenija Milanović*, full professor – WP4 Leader

*Dr. Eva Lončar*, full professor – WP2 Leader

*Dr. Jelena Cvejanov*, docent – WP3 Leader

*Nataša Đurišić-Mladenović*, MSc, research assistant – Communication Coordinator

Early stage researchers employed at FT through CEFSEER:

*Jelena Živančev*, research assistant, PhD student

*Sanja Koprivica*, research trainee, PhD student

*Ana Tjapkin*, research trainee, PhD student

*Nataša Mrmoš*, BSc (Dr. Miroslav Zorić)



# CEFSEER supporting partners



**Chiron, Trondheim, Norway**



**Institute for Environmental Studies, Vrije University, Amsterdam, the Netherlands**



**Institute of Environmental Assessment and Water Research – Spanish Council for Scientific Research, Barcelona, Spain**



**Institute of Chemical Technology, Prague, Czech Republic**



## *CEFSER – new equipment*

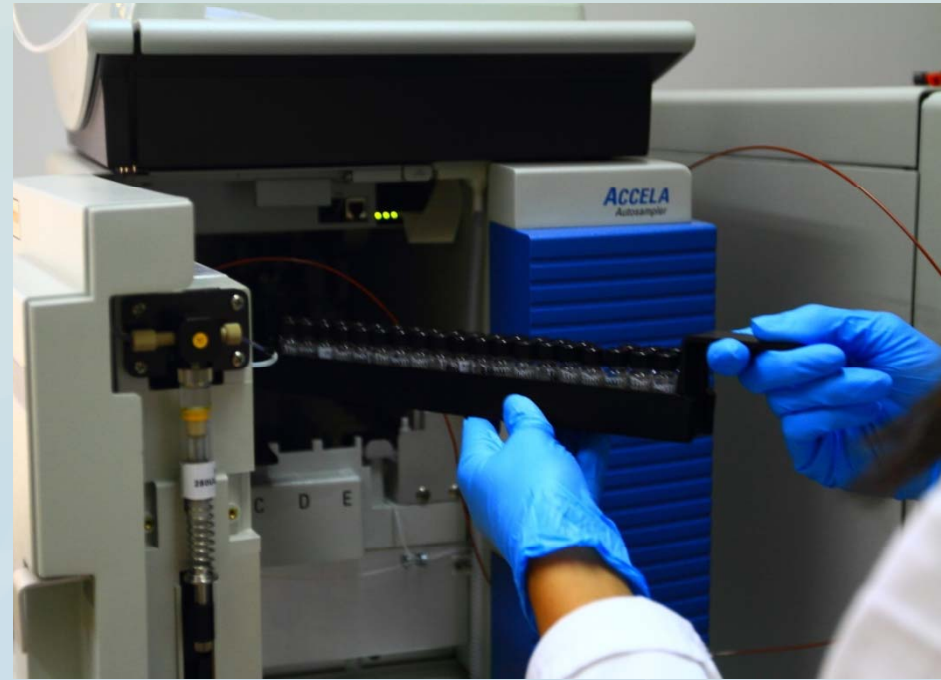




***ultra high performance liquid chromatography coupled to  
tandem mass spectrometry  
(Accela UHPLC-TSQ Vantage, Thermo Fisher Scientific)***

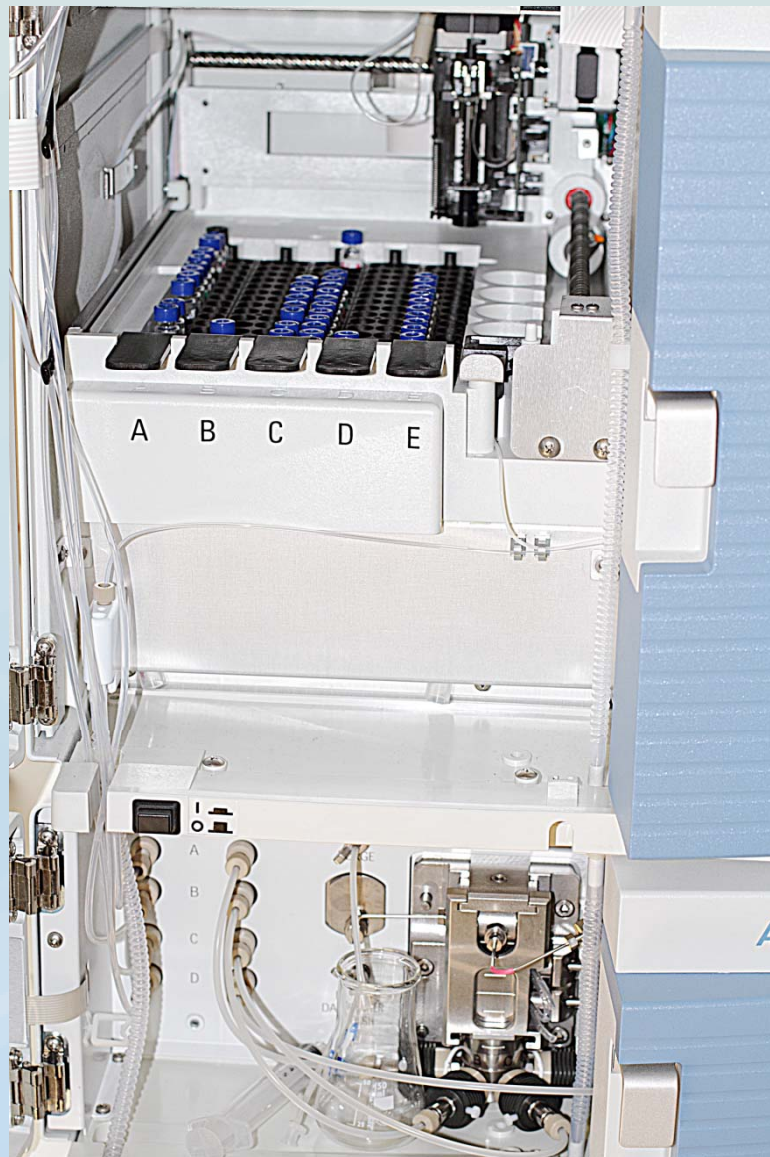


2010

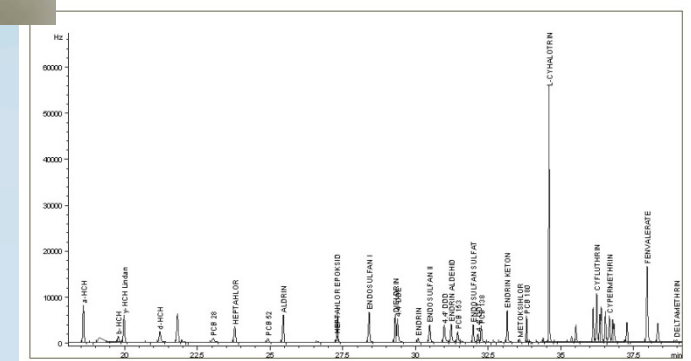
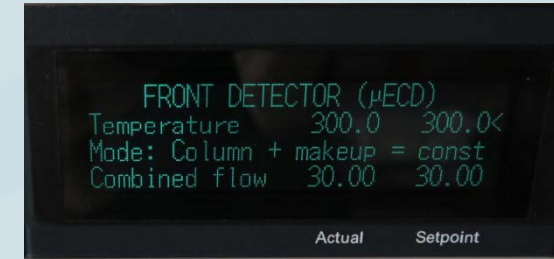


***ultra high performance liquid chromatography coupled to  
high resolution mass spectrometry with Orbitrap technology  
(Accela UHPLC-Exactive, Thermo Fisher Scientific)***





# gas chromatograph with micro electron capture detector (Agilent 7890A)





*CEFSER dissemination and promotional activities*



# CEFSEER Symposium

## *Communicating research to the public*

30 November 2009, Faculty of Technology, Novi Sad



## 1<sup>st</sup> CEFSEER Training Course

# *Capabilities of U-HPLC-MS/MS in Analysis of Contaminants and Pharmaceutical Compounds in Food and the Environment*

6-8 April 2010, Faculty of Technology, Novi Sad



*Prof. Jana Hajšlova, Institute of Chemical Technology, Prague, Czech Republic*



*Dr. Jon E. Johansen, CHIRON, Trondheim, Norway*



*CEFSER team members and lecturers at the Dean's office*



*CEFSER team members with course grantholders*



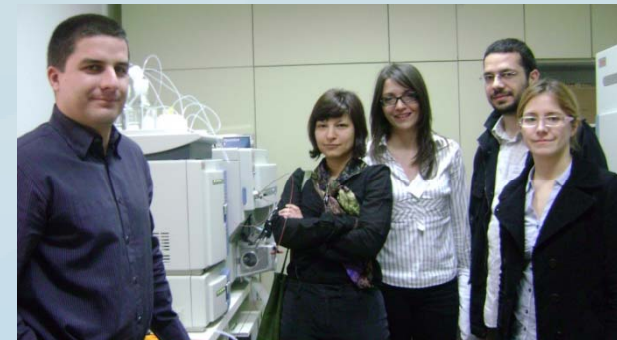
## 2<sup>nd</sup> CEFSEER Training Course

# *Quality Assurance (QA) and Quality Control (QC) Procedures in Analysis of Contaminants and Pharmaceutical Compounds in Food and the Environment*

9 April 2010, Faculty of Technology, Novi Sad



*Lecture of Prof. Biljana Škrbić*



*Practical session in CEFSEER Lab  
with Dr. Michal Godula,  
Thermo Fisher Scientific,  
Prague, Czech Republic*



*Participants*

### 3<sup>rd</sup> CEFSEER Training course

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

16-17 September 2010, Faculty of Technology, Novi Sad



*Lecture of Dr. Michal Godula, Thermo Fisher Scientific, Prague, Czech Republic*



*Practical session at the CEFSEER Lab*



*CEFSEER team members with course grantholders*

# 4<sup>th</sup> CEFSEER Training course



## *Persistent organic pollutants in food and environment: Risk assessment*

14-15 November 2011, Faculty of Technology, Novi Sad



*Prof. Ivan Holoubek,  
RECETOX, Masaryk  
University, Brno,  
Czech Republic*



*Prof. Karoly Heberger,  
Hungarian Academy of  
Sciences, Budapest,  
Hungary*

# 5<sup>th</sup> CEFSER Training course

## *Analysis of chemical contaminants in food and the environment*

7-11 May 2012, Faculty of Technology, Novi Sad



*Prof. Trajče Stafilov,  
Faculty of Science and Mathematics,  
Sts. Cyril and Methodius University,  
Republic of Macedonia*



*Prof. Živoslav Tešić, Faculty of  
Chemistry,  
University of Belgrade, Belgrade*



*Prof. Biljana Škrbić,  
Faculty of Technology, Novi Sad*



*CEFSER Early stage researchers:  
Jelena Živančev and Sanja Koprivica*



*CEFSER coordinator with course grantholders*

# CEFSEER Closing Event and Final Training

## 30 July 2012, Faculty of Technology, Novi Sad



*Prof. Biljana Škrbić,  
Faculty of Technology,  
Novi Sad*



*Jelena Živančev,  
CEFSEER early stage  
researcher*

# 1<sup>st</sup> CEFSER Workshop

## *Regional perspectives in food safety*

### 14-15 September 2010, Faculty of Technology, Novi Sad



## 2<sup>nd</sup> CEFSEER Workshop

*Persistent Organic Pollutants in Food and the Environment*  
8-10 September 2011, Faculty of Technology, Novi Sad





# *CEFSER promotion and publications*





**After the 1<sup>st</sup> year: CEFSER in 2009**

CEFSER is the FP7-REGPOT-2008-1 project dedicated to the reinforcement of research capacities at the Laboratory for Chemical Contaminants in Food and the Environment at the Faculty of Technology, University of Novi Sad, Serbia, in order to become a unique Western Balkan Country (WBC) Centre of Excellence in Food Safety and Emerging Risks. It started on Feb 01, 2009, and will last 36 months. The summary of the realized activities and outcomes of CEFSER in the first project year is given hereafter.



CEFSER celebra

**REINFORCEMENT OF THE MATERIAL**

Two outstanding instruments are arriving at the CEFSER lab. This is the result of the negotiation of the CEFSER coordinator, Prof. Dr. Biljana Škrbić with the representatives of the world companies for the separation instruments and mass spectrometric detectors, conducted during 2009.

Prof. Dr. Biljana Škrbić explained: "In order to perform the procurement of the instruments as successful as possible in terms of the CEFSER sustainability and attractiveness for the future international research activities, it was decided to try to extend the project budget share allocated to the reinforcement of the material resources in a way to purchase two instruments with complementary application ranges in the field of food and environmental safety instead of one instrument originally planned to be bought". She further said that the CEFSER supporting partners suggested to have ultra performance liquid chromatograph (UPLC) with high resolution mass spectrometer (MS) together with UPLC coupled to triple quadrupole mass spectrometer (MS/MS), originally planned to be bought. Laboratory with such systems is fully equipped for targeted analysis and also for the screening of unknowns, both very important aspects in the food safety analysis, particularly in the analysis of emerging pollutants.



During the installation of Thermo Fisher Scientific UHPLC Accela - TSQ Vantage™ MS/MS in the CEFSER lab

CEFSER support such as CHRON (RM) at Vrije Universiteit Amsterdam, Institute of Chemistry, Ljubljana, Slovenia

"Now, the CEFSER lab is possessing Thermo Scientific Orbitrap technology research" said Prof. Dr. Biljana Škrbić. "The practice are now designed to fully support of the CEFSER project in the field of food and environmental safety instead of one instrument originally planned to be bought".

- 1st CEFSER T Analysis of Contaminants and the Environment
- 2nd CEFSER Quality Control (Pharmaceuticals)
- 3rd CEFSER T September 16-17

Thermo Fisher Accela



Accela UHPLC with TSQ Vantage MS/MS in the CEFSER lab

The reinforcement of the material resources in the Laboratory for Chemical Contaminants (Lab CHEMCONT) at the Faculty of Technology, University of Novi Sad, through the CEFSER project was completed during the second year of implementation. The CEFSER Lab now possesses two outstanding instruments: ultra high performance liquid chromatograph (UHPLC) Accela, Thermo Fisher Scientific) coupled to triple quadrupole mass spectrometer (TSQ Vantage MS/MS Thermo Fisher Scientific) and UHPLC with high resolution mass spectrometer with Orbitrap technology (Exactive, Thermo Fisher Scientific). These two instruments are unique for the whole Western Balkan Countries (WBCC) region and even wider for now, particularly due to their mass spectrometers with features that separated them from the similar instruments available in the region. The project coordinator, Prof. Biljana Škrbić, clarified the extended research scope of the CEFSER Lab: "Laboratory with such systems, together with the instruments pre-

Members employed and trained Scientific troubleshoot calibration, data "The Michal God basics from Jelena, and front of us, in our every that the is organized Measures



**NEW EQUIPMENT AND ANALYTICAL**

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.

Prof. Biljana Škrbić explained: "In order to perform the procurement of the instruments as successful as possible in terms of the CEFSER sustainability and attractiveness for the future international research activities, it was decided to try to extend the project budget share allocated to the reinforcement of the material resources in a way to purchase two instruments with complementary application ranges in the field of food and environmental safety instead of one instrument originally planned to be bought".

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."



The FP7 the sec 2010. Th because analytic, intensiv promoti



**After the 2<sup>nd</sup> year: CEFSER in 2010**



CEFSER team celebrated the second anniversary of the project

The second year of FP7-REGPOT-229629) was. It was very diverse team member the development instruments project and transfer activities CEFSER acti year is given i

**WIDENING OF RESEARCH ACTIVITIES IN**

Two outstanding instruments arrived at the Faculty of Technology, University of Novi Sad, in the beginning of 2010; delivery of the third instrument on Feb 01, 2011, has come as a birthday present for the successful project implementation in the second year. The procurement of the instruments was performed in line with the suggestions of the CEFSER Advisory Committee (AC) that gathers the key personnel of four supporting institutions from EU and it considered the CEFSER sustainability and attractiveness for the future international research activities.



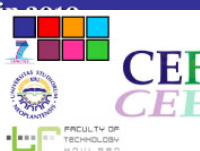
The reinforcement of the material resources in the Laboratory for Chemical Contaminants (Lab CHEMCONT) at the Faculty of Technology, University of Novi Sad, through the CEFSER project was completed during the second year of implementation. The CEFSER Lab now possesses two outstanding instruments: ultra high performance liquid chromatograph (UHPLC) Accela, Thermo Fisher Scientific) coupled to triple quadrupole mass spectrometer (TSQ Vantage MS/MS Thermo Fisher Scientific) and UHPLC with high resolution mass spectrometer with Orbitrap technology (Exactive, Thermo Fisher Scientific). These two instruments are unique for the whole Western Balkan Countries (WBCC) region and even wider for now, particularly due to their mass spectrometers with features that separated them from the similar instruments available in the region. The project coordinator, Prof. Biljana Škrbić, clarified the extended research scope of the CEFSER Lab: "Laboratory with such systems, together with the instruments pre-



GC/ECAD Agilent 7890

"With all these systems the lab has been broadened new analytical capabilities of multicomponent analysis by UHPLC-MS/MS. development MS, devel APPI-MS/MS) for an issues are new and even wider in the WB

**After the 2<sup>nd</sup> year: CEFSER in 2010**



**CEFSER research**

Reinforcement of the material and human resources of the Laboratory for Chemical Contaminants in Food and the Environment at the Faculty of Technology, Novi Sad, through the FP7-REGPOT-2008-1 project CEFSER (GA 229629) is almost fully completed and the Lab capacities have been directed towards gathering of new knowledge on the chemical pollutants in various food and environmental samples. The research agenda of the Lab is broadened and some of the latest challenges in food safety and environmental protection have been tackled, covering the topics of several national and international projects running and coordinated by the CEFSER Project Coordinator. Through these projects new collaborations with research institutions from EU have been established, proving the attractiveness of the CEFSER Lab. Description of the Lab material resources and the list of recent projects, developed methods and those under development are presented hereafter, and all this could be regarded as a direct indicator of successful project implementation and, in fact, a domino effect caused by CEFSER.

**MATERIAL RESOURCES OF CEFSER LAB**

- Ultra high performance liquid chromatography (UHPLC) with triple quadrupole mass spectrometer (MS/MS) Thermo Scientific Accela - TSQ Vantage.
- UHPLC with high resolution mass spectrometer with Orbitrap technology Thermo Scientific Accela - Exactive.
- Atomic absorption spectrometer with a graphite tube Varian AA240G(A12).
- Gas chromatograph equipped with electron capture detector Agilent 7890
- Gas chromatograph equipped with flame-ionization detector DAN1000
- Various sample prep equipment: centrifuge, MillQ system for ultrapure water, vacuum rotary evaporator, sample concentrator, shaker, ultrasonic bath, ...

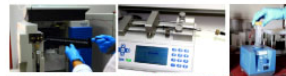
**METHODS (developed/under development in CEFSER Lab)**

- Multicomponent analysis of principal mycotoxins in crude extracts of different food commodities (flours, cereal grains, spices, green coffee) by UHPLC-MS/MS
- Multicomponent analysis of selected pesticides in soil and water extracts by UHPLC-MS/MS
- Multicomponent screening of food and environmental extracts by UHPLC-HRMS
- Multicomponent analysis of organochlorine pesticides and pyrethroids in food and environmental matrices by GC/ECAD
- Multicomponent analysis of priority (EPA and 15+ EU) polycyclic aromatic hydrocarbons in food and environmental matrices by UHPLC-APPI-MS/MS
- Analysis of perfluorinated compounds in food and environmental matrices by UHPLC-MS/MS
- Analysis of mineral oil in food and environmental matrices by GC/FID
- Analysis of heavy elements in food and environmental matrices by AAS

**After the 2<sup>nd</sup> year: CEFSER in 2010**



**CEFSER research**



**RUNNING PROJECTS IN CEFSER LAB**

- Development and application of the advanced chromatographic and spectrometric methods in the analysis of xenobiotics and their degradation pathways in biotic and abiotic matrices, Serbian Ministry of Education and Science, No. 172050, 2011-2014.
- Estimation of chemical safety of market basket and population dietary exposure, Secretariat of the Vojvodina Province for Science and Technological Development, 2011-2014.
- Organic and inorganic pollutants in urban areas, bilateral project within Serbian-Croatian intergovernmental S&T programme, 2011-2012.
- Polycyclic aromatic hydrocarbons and biogenic amines in smoked dry traditionally manufactured meat products from Serbia and Portugal, Serbian-Portugal intergovernmental S&T programme, 2011-2012.
- Development of xenobiotic-degrading bioaugmentation products (BIOREM), Hungary-Serbia IPA Cross-border Co-operation programme implemented within the 2007 - 2013 European Union financial framework under the Instrument for Pre-accession Assistance (IPA), 2010-2011.
- Comparison of various analytical and chemometric methods, bilateral project within Serbian-Hungarian intergovernmental S&T programme, 2010-2011.
- Heavy metals in the environment as a consequence of the anthropogenic activities, bilateral project within Serbian-Slovenian intergovernmental S&T programme, 2010-2011.



CEFSER Newsletters (all 4 newsletters are available on the CEFSER web site)



 **CEFSER**   **UNIVERZITET U NOVOM SADU**  
**TEHNOLOŠKI**  
**FAKULTET**  
**NOVI SAD**

**FP7 Centar izvrsnosti za bezbednost hrane i nove rizike**  
Laboratorija za analizu zagađujućih materija  
Laboratorija za masenu spektrometriju  
Univerzitet u Novom Sadu, Tehnološki fakultet Novi Sad

**FP7 Center of Excellence in Food Safety and Emerging Risks**  
Laboratory for Chemical Contaminants  
Laboratory for Mass Spectrometry  
University of Novi Sad, Faculty of Technology Novi Sad

 Ova brošura je štampana za potrebe EU FP7 projekta CEFSEER, 229629, finansiranog u okviru FP7 programa „Capacity-Research Potential”.  
This brochure is an outcome of EU FP7 project CEFSEER, GA 229629, funded under the Programme’s Capacity header „Research Potential”. 

*Cover page of the CEFSEER monograph (presentation of the monograph is available on the CEFSEER web site)*



*Design of the CEF SER USB flash memory stick distributed during the CEF SER events and elsewhere*

**CEFSER web site:**

**<http://www.tf.uns.ac.rs/CEFSERweb/CEFSERindex.html>**



The screenshot shows the top part of the CEF SER website. At the top left is the European Union flag and the FP7 CAPACITIES logo. In the center is the CEF SER logo, which includes the text 'UNIVERSITY OF NOVISAD FACULTY OF TECHNOLOGY NOVISAD' and 'CEF SER CEEB EK' with a colorful graphic of a DNA helix. To the right is a small image of a hand holding a red apple. Below the header is a 'News' section with a list of articles organized by month, including July 2012, May 2012, January 2012, October 2011, September 2011, August 2011, and February 2011. On the right side of the news section is a vertical green navigation menu with links: Home, Project, Project support, Work packages, Project beneficiary, Project impact, FOOD CLUSTER, Resources, FS & ER, News, ChemContDATABASE, Contact, and Links.

- Header of the CEF SER web site contains the CEF SER logo with FP7 emblem and European flag;
- CEF SER web site also contains ChemContDATABASE – list of researchers and institutions from Western Balkan Countries dealing with different aspects of food and environmental safety (the database is based on information obtained through CEF SER questionnaire distributed throughout the WBC region);
- More about the CEF SER events could be found in the Reports available at the CEF SER web site.

*CEF SER official web site opens with the latest news on the project activities;*

## *List of the presentations on the CEFSEK activities and the results given at the meetings*

### 2008

B. Škrbić, "Reinforcing research potential in the Laboratory for Chemical Contaminants at the Faculty of Technology towards the establishment of the Center of Excellence in Food Safety and Emerging Risks - CEFSEK", Presentation of successful national projects, Info day on Seventh Research Framework Programme of European union - FP7 EU - Regions of Knowledge/Research Potential, Belgrade, November 24, 2008.

### 2009

B. Škrbić, Research potentials of the Faculty of Technology from the University of Novi Sad, Visit of the Serbian High-Level Expert Delegation to European Commission - Joint Research Centre - Institute for Reference Materials and Measurements, Geel, Belgium, June 16, 2009.

B. Škrbić, Experience in FP7-Food Safety and Emerging Risk, EU Research Information Event "Towards Integration into the European Research Area", in organization of the Ministry of Science and Technological Development of the Republic of Serbia and EC, Belgrade, June 29, 2009.

B. Škrbić, Research synergies towards a safer food for European consumers, FP7 KBBE Brokerage Event 2010, Lisbon, Portugal, October 20, 2009.

B. Škrbić, Presentation of CEFSEK project: goals, plan, impact, realization, Symposium – Communicating Research to the Public, Novi Sad, Serbia, November 30, 2009.

B. Škrbić, Communication in FP7 projects, Symposium – Communicating Research to the Public, Novi Sad, Serbia, November 30, 2009.

*Presentation of CEFSEK resources by Prof. B. Škrbić during the FP7 KBBE Brokerage Event-2010, Lisbon, 20 October 2009*



B. Škrbić, FP7 REGPOT projects as a way to bridge R&D transnational gaps: the CEFSEER project, FP7 RESTCA Seminar Microanalytical techniques in applied Earth science, Belgrade, February 18-26, 2010.

B. Škrbić, N. Đurišić-Mladenović, REGPOT as a successful way to bridge the transnational gaps: the CEFSEER project, Conference of WIRE 2010 (Week of Innovative Regions in Europe), Granada, Spain, March 15-17, 2010.

B. Škrbić, Presentation of the Centre of excellence in food safety and emerging risks, 1<sup>st</sup> CEFSEER Training Course – Capabilities of U-HPLC-MS/MS in Analysis of Contaminants and Pharmaceutical Compounds in Food and the Environment, Novi Sad, Serbia, April 6-8, 2010.

B. Škrbić, CEFSEER project: Presentation of outcomes, Book of abstracts of 1st CEFSEER Workshop “Regional perspective in food safety” adjoined to 12<sup>th</sup> Danube-Kris-Mures-Tisa (DKMT) Conference on Food, Environment and Health, Novi Sad, Serbia, September 14-15, 2010.

B. Škrbić, N. Đurišić-Mladenović, J. Cvejanov, S. Milanovic, E. Lončar, M. Zorić, J. Živančev, S. Koprivica, A. Tjapkin, Reinforcing research potential in the laboratory for chemical contaminants at the Faculty of Technology towards the establishment of the Center of Excellence in Food Safety and Emerging Risks, Book of Abstracts of 1<sup>st</sup> CEFSEER Workshop “Regional perspective in food safety” adjoined to 12<sup>th</sup> Danube-Kris-Mures-Tisa (DKMT) Conference on Food, Environment and Health, Novi Sad, Serbia, September 14-15, 2010.

B. Škrbić, Food safety as a global challenge, Book of abstracts of 1st CEFSEER Workshop “Regional perspective in food safety” adjoined to 12<sup>th</sup> Danube-Kris-Mures-Tisa (DKMT) Conference on Food, Environment and Health, Novi Sad, Serbia, September 14-15, 2010.

B. Škrbić, CEFSEER Project: Bridging the gap in food safety capacities and capabilities of WBC region, 3rd CEFSEER training course "High resolution mass spectrometry in quantitative analysis and screening of organic contaminants in food and environment", Novi Sad, Serbia, September 16-17, 2010.

B. Škrbić, N. Đurišić-Mladenović, Formation of Centre of Excellence for Food Safety and Emerging Risks, Workshop Specific methods for food safety and quality, Vinča-Belgrade, Serbia, September 21, 2010.

<http://www.vin.bg.ac.rs/Workshop-0910/C2-IL.html>.

B. Škrbić, M. Petrović, J. Hajšlova, S. van Leeuwen, J. Johansen, Research potential of the Faculty of Technology in food safety and emerging risks, 1<sup>st</sup> FCUB ERA Workshop “Food Safety and Health Effects of Food”, p.4, Belgrade, Serbia, January 31-February 1, 2011.

B. Škrbić, Presentation of the Laboratory for Chemical Contaminants in the Environment and Food and Laboratory for Mass Spectrometry of the Centre of Excellence for Food Safety and Emerging Risks, BIOXEN Training Course “High resolution mass spectrometry of xenobiotics”, Novi Sad, Serbia, 1-3 June, 2011.

B. Škrbić, Presentation of the CEFSER project, 4<sup>th</sup> CEFSER Training course “Persistent organic pollutants in food and environment: Risk assessment”, Novi Sad, Serbia, 14-15, November 2011.

B. Škrbić, POPs analysis at the CEFSER Lab, 4<sup>th</sup> CEFSER Training course “Persistent organic pollutants in food and environment: Risk assessment”, Novi Sad, Serbia, 14-15 November 2011.



*Poster presentation of the CEFSER project at WIRE 2010 (Week of Innovative Regions in Europe) Conference, Granada, Spain, 15-17 March 2010*

- B. Škrbić, N. Đurišić-Mladenović, M. Petrović, Activities in the laboratory regarding the safety issues, International seminar of EU FP7 project FLAVOURE “New methods in assessment of food/feed quality and safety”, Saku (Harjumaa), Estonia, 17-18 January 2012.
- B. Škrbić, CEFSE resources and activities, 5<sup>th</sup> CEFSE Training Course “Analysis of chemical contaminants in food and the environment”, Novi Sad, Serbia, 7-11 May 2012.
- B. Škrbić, Results on heavy elements analysis in CEFSE Lab, 5<sup>th</sup> CEFSE Training Course “Analysis of chemical contaminants in food and the environment”, Novi Sad, Serbia, 7-11 May 2012.
- B. Škrbić, Results on UHPLC-MS/MS analysis of mycotoxins in CEFSE Lab, 5<sup>th</sup> CEFSE Training Course “Analysis of chemical contaminants in food and the environment”, Novi Sad, Serbia, 7-11 May 2012.
- B. Škrbić, Center of Excellence for Food Safety and Emerging Risks, Faculty of Technology Novi Sad, Book of Abstracts “Serbia-Italia: Status and Perspectives of the Scientific and Technological Bilateral Cooperation”, p.14, Belgrade, Serbia, June 25-26, 2012.
- B. Škrbić, Importance of FP7-REGPOT support: impacts of the CEFSE project, CEFSE Closing event and final training, Novi Sad, Serbia, 30 July 2012.



## ***Publications relating to the foreground of the CEFSEK project***

### **Articles in the international journals**

- B. Škrbić, J.E. Johansen, N. Đurišić-Mladenović, V. Ivanić: Occurrence of polycyclic aromatic hydrocarbons in a wide variety of soils worldwide: a chemometrical approach. Proceedings of PROGRESS IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY, VOL II, PTS A AND B, 1085-1088, 2009.
- B. Škrbić, M. Godula, N. Đurišić-Mladenović, J. Živančev, Multi-mycotoxin Analysis by UHPLC-HESI-MS/MS: A Preliminary Survey of Serbian Wheat Flour, *Agronomy Research* 9 (Special issue II), 461-468, 2011.
- B. Škrbić, A. Malachova, J. Živančev, Z. Veprikova, J. Hajšlová, Fusarium mycotoxins in wheat samples harvested in Serbia: A preliminary survey. *Food Control*, 22, 1261-1267, 2011.
- B. Škrbić, J. Živančev, N. Đurišić-Mladenović, M. Godula, Principal mycotoxins in wheat flour from the Serbian market: Levels and assessment of the exposure by wheat-based products. *Food Control*, 25, 389-396, 2012.

### **Manuscripts submitted to peer-reviewed journals in 2012**

- B. Škrbić, S. Koprivica, M. Godula: Validation of a method for determination of mycotoxins subjected to the EU regulations in spices: the UHPLC-HESI-MS/MS analysis of the crude extracts, *Food Control*
- B. Škrbić, A. Tjapkin, Lj. Petrović, S. Škaljac, Polycyclic aromatic hydrocarbons in smoked dry fermented sausages with protected designation of origin (Petrovska Klobasa) from Serbia, *Meat Science*

### Book of abstracts/proceedings

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