



FEATURE

Rising stars

TEAGASC is involved in the FOODstars project, which is strengthening research potential in the Western Balkans.

FOODstars is a Horizon 2020-funded project aimed at strengthening the research capacity of the Institute of Food Technology (FINS) of the University of Novi Sad, Serbia, in close collaboration with two leading international research institutions: Teagasc and the University of Bologna, Italy. In progress since early 2016, FOODstars covers themes such as raw materials and food ingredients for novel food solutions, innovative food product development, and characterisation of food products, as well as intellectual property rights, knowledge dissemination and scientific networking. Knowledge transfer has been achieved through training courses, schools, themed workshops, study visits, joint publications, and various outreach activities, helping FINS to carry out efficient and high-quality research that will be transferred to industry.

Background

FOODstars was conceived in 2015 as a response to the need identified by the scientists working at FINS to strengthen their research potential and innovation capacity. As FINS is already recognised as one of the leading institutes of food technology in the Western Balkans region, the gain of additional applied knowledge and the enhancement of international co-operation with high-quality EU research organisations promoted by FOODstars is leading to direct responses in terms of economic and social development. An especially important outcome of the project is the creation of career development opportunities, encouraging young researchers to develop their science career in Serbia and thus reducing the ever-growing 'brain drain'.

Outcomes

Within the three-year programme, 12 one-month training courses for 31 researchers from FINS, four two-week schools involving nine researchers, and two study visits for four researchers are planned. Some of the past activities include:

- a two-day workshop on 'New value from food processing waste streams and by-products' (FINS, March 2016) organised by Teagasc researchers;
- two one-month training courses in 'Innovative technologies for advanced food processing' (Teagasc Ashtown, April and August 2016);
- a one-week school on 'Methods of optimisation for advanced food processing' organised by Teagasc Ashtown's researchers (FINS, May 2016);
- two one-month training courses on 'Novel methods of isolation and determination of plant bioactives' (University of Bologna, June 2016 and February 2017);
- a 30-day training course in 'Antimicrobial activity of natural molecules and functionalised polymers' (University of Bologna, September 2016);
- a one-month training course in 'Consumer testing methods' (Teagasc Ashtown, September 2016);
- a three-day workshop on 'Recent developments in microencapsulation of food ingredients' presented by researchers from Teagasc Ashtown (FINS, October 2016);
- a two-day workshop on the 'Protective/preventive role of bioactive food components in human health' organised by researchers from the University of Bologna (FINS, December 2016);
- two one-month training courses in 'Encapsulation of food ingredients' (Teagasc Ashtown, February and August 2017);
- a three-day workshop on 'Green extraction techniques in food science' offered by scientists from the University of Leiden, The Netherlands (FINS, March 2017);
- a two-day workshop entitled 'Creation of a successful business plan' (FINS, May 2017); and,
- a two-week school on 'Food authenticity and detecting and quantifying food adulteration' (Teagasc Ashtown, UCD and DIT, October 2017).



FOODstars involved a number of training and education opportunities in FINS, Teagasc, and the University of Bologna, Italy.

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Positive response to FOODstars from FINS researchers

"The 'Green extraction techniques in food science' workshop held last March at FINS was particularly interesting because it included two practical sessions by Dr Erica G. Wilson from Leiden University in The Netherlands.

The first session concerned the preparation of natural deep eutectic solvents (NADES). The participants were separated into several groups, and each group was asked to prepare a specific NADES. The second session was about the quantification of rutin, quercetin and quercitrin in different NADES extracts using HPLC-DAD," said Miona Belović, Research Associate at FINS.

"Another interesting event was the participation of FOODstars in the International Festival of Science and Education held on May 13-14, 2017, in the Central Campus of the University of Novi Sad. FOODstars organised a survey as part of the workshop 'Food without mistakes', prepared by FINS.

Children were asked to write down answers to the questions 'What would you want to eat in the future?' and 'Your dream meal!', and their name and age. Each hour, the most imaginative answer was chosen and the winner received a prize – a balloon, puzzle or candy bar." Dubravka Škrobot, Research Associate at FINS, says FINS researchers are very proud of FOODstars, as they have been given the opportunity to work with experts and learn about new food technologies that can be transferred into Serbian industry: "I participated in two one-month courses at Teagasc, one in Ashtown and the other in Moorepark. I am very satisfied with the knowledge gained in the 'Consumer testing methods' training organised by Dr Maeve Henchion, during which I could share my knowledge and experiences with colleagues working in the field of sensory analysis. FOODstars also enabled me to meet a lot of young researchers, to learn about the Irish customs and people, and to enjoy Ireland's beautiful nature".

Based on the outcomes from the first half of the project, the FOODstars leaders Milica Pojić and Aleksandra Mišan – Research Associates from FINS – believe the project will increase the participation of Serbia and countries from the Western Balkans in international research.

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