

World interest in research work on the benefits of the Okra plant

July 10 2014



Estonian-born Katerina Alba's research at the University of Huddersfield could help to improve the quality of some of the most popular emulsion-based food products -- such as butter, mayonnaise, yogurt and fruit drinks -- and she is starting to gain an international profile for her work. Credit: University of Huddersfield

Estonian-born Katerina Alba's research at the University of Huddersfield could help to improve the quality of some of the most popular emulsion-based food products – such as butter, mayonnaise, yoghurt and fruit drinks – and she is starting to gain an international profile for her work.

Katerina gained her MSc degree in nutrition and [food science](#) at the University and now she has embarked on research for a PhD. Working with her supervisor, Dr Vassilis Kontogiorgos, she is investigating the potential of carbohydrates extracted from the pods of the [okra](#) plant. They can be introduced into foodstuffs that are categorised as food emulsions.

"The purpose is to improve the quality of the product – its consistency, texture, how it breaks in the mouth, and its shelf-life," says Katerina, aged 25.

She gained a first [food](#) science degree in her native Estonia before relocating to the University of Huddersfield for Master's and now doctoral study. Already she has published articles in *Food Research International* and *Food Hydrocolloids*, with one forthcoming in the journal of *Carbohydrate Polymers*. And she recently presented two papers at the 12th International Hydrocolloids Conference, a global gather of more than 300 scientists in Taiwan.

A new source of natural hydrocolloids

Katerina received an A.J. Banks Travel Bursary, awarded by the international science forum SCI, which enabled her to attend the conference, where her presentations created heightened interest in the potential of okra, which grows in Africa and India.

"Both presentations raised scientific interest in the development of the okra plant as a new source of natural hydrocolloids, and there were some valuable comments from well-known researchers following the talks," says Katerina.



"Attending the conference gave me the opportunity to promote my research to an international audience of scientists and industry representatives and raise my profile in the scientific community."

At the University of Huddersfield there is an important inter-disciplinary dimension to her work, because there is a research collaboration with the pharmacy department, probing the effects of okra polysaccharides in drug delivery systems and encapsulation of nutrients.

Katerina set her sights on PhD work while she was still studying for her first degree in Estonia and she aims to develop a research career. At the University of Huddersfield she uses techniques and technology such as gas chromatography, [nuclear magnetic resonance](#) spectroscopy, particle-size measurements and rheology and she has now been furnished with new devices known as a high-pressure homogeniser and sonicator for the preparation of emulsions stabilized with okra polysaccharides.

More information: *Food Hydrocolloids*:

www.sciencedirect.com/science/...ii/S0268005X14001647

Food Research International: www.sciencedirect.com/science/...ii/S0963996913005383

Carbohydrate Polymers:

www.sciencedirect.com/science/journal/01448617

Provided by University of Huddersfield

Citation: World interest in research work on the benefits of the Okra plant (2014, July 10)
retrieved 27 April 2024 from <https://phys.org/news/2014-07-world-benefits-okra.html>

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