

Dried Oats Yield New Opportunities

University of Alberta



Oats are a great source of carbohydrates, proteins, fiber and important nutrients. They also contain valuable bioactive compounds that play a role in the prevention of diabetes, coronary heart disease and cancer.

Extracting these natural ingredients can be challenging for pharmaceutical and nutraceutical products — products that may need to be dried or powdered to be made into tablets, pills or supplements. The water-based natural biopolymers from oats must be converted into a dry form, a process that often requires heat which can weaken the most important ingredients.

To overcome this obstacle, the Edmonton-based biotechnology company Ceapro Inc. turned to Dr. Feral Temelli in the Department of Agricultural, Food & Nutritional Science at the University of Alberta. Dr. Temelli and doctoral student Bernhard Seifried developed a novel moderate-temperature spray-drying technique called PGX.

“ The PGX technology utilizes the unique properties of Pressurized Gas expanded liquids to produce numerous forms of water-soluble biopolymers including oat beta glucan, already well-known for its cholesterol-lowering properties.

“This partnership between Ceapro and the University of Alberta is a great example of translational research, from lab to the marketplace,” says Gilles Gagnon, President and CEO of Ceapro.

As the commercialization agent for University of Alberta technologies, TEC Edmonton helped negotiate the licensing agreement giving Ceapro the right to use the PGX technology. Already, multi-national food and natural drug processors have approached Ceapro with interest in sub-licensing the game-changing drying technology.

“This agreement will create jobs and export revenue,” says Chris Lumb, CEO of TEC Edmonton, the university’s licensing agent. It also demonstrates the importance of local licensing as a way to develop economic diversity and increase linkages between universities and their communities.”

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