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# Ceapro Inc. Announces Positive Key Findings from Three Oral Presentations Given at European Meeting on Supercritical Fluids

**Research findings from collaboration between University of Alberta and Ceapro on PGX Technology further confirm versatility of PGX Technology and the potential as a platform for delivery systems**

EDMONTON, Alberta, April 15, 2019 (GLOBE NEWSWIRE) -- [Ceapro Inc. \(TSX-V: CZO\)](#) (“Ceapro” or the “Company”), a growth-stage biotechnology company focused on the development and commercialization of active ingredients for healthcare and cosmetic industries, today announced that three projects have been presented as oral presentations at the European Meeting on Supercritical Fluids Conference held from April the 8 - 11, 2019 in Ciudad Real, Spain.

“These studies further substantiate the unique versatility of PGX Technology, which is capable of generating highly functional biopolymer carriers from a wide range of polymers. PGX Technology can turn biopolymers into high-value and advanced materials with tune-able properties. As a result of the research we were able to produce very thin, highly porous fast dissolving strips, wafers, sheets, masks, or oral thin films (OTF) for cosmetic, nutraceutical or pharmaceutical applications. Such highly porous and flexible thin films generated from one or several polymers can be impregnated with bioactives thereby generating tune-able and tailor-made bioactive delivery systems for use in topical skin applications or for fast acting oral drug delivery systems,” said Dr. Bernhard Seifried, Senior Director, Engineering Research & Technology at Ceapro Inc.

Key outcomes:

**Abstract # 33537 Drying biopolymers with Pressurized Gas eXpanded (PGX) liquids: polysaccharides vs proteins**

***Presenter: Dr. Ricardo Couto***

This study compares the morphology and structure of different classes of biopolymers processed by PGX Technology, namely polysaccharides, peptides and proteins. More specifically, the study presents morphologies obtained by PGX processing of gum Arabic (GA), oat beta glucan, alginates, enzymatically obtained lupin seed peptides and soy proteins. The study shows that the type of dried particles obtained depends on the specific biopolymer used and can range from spherical particles (GA) to submicron thin open-porous fibrils ( $\beta$ -glucan) to fine fibers (sodium alginate), accompanied by corresponding differences

in bulk density and specific surface area. The versatility of PGX Technology to process many different biopolymers into various morphologies with open-porous structure and high specific surface area can lead to the development of highly potent bioactive delivery systems.

**Abstract # 33538: Pressurized Gas eXpanded (PGX) liquid drying of soy protein isolate**

**Presenter: Yonas Gebrehiwot**

This study shows that PGX Technology can be applied to dry soy protein isolate (SPI) and proteins in general without causing denaturation into sub-micron sized particles. With PGX Technology it is possible to generate sub-micron and nano-sized particles of SPI with high specific surface area and low bulk densities. Those PGX protein nano-particles have a great potential for bioactive delivery systems with desirable characteristics.

**Abstract #33540: Drying of sodium alginate using Pressurized Gas eXpanded (PGX) liquid technology**

**Presenter: Zixiang Liu**

This study shows that by tuning the PGX process parameters ultra-fine fibrils of Sodium Alginate (SA) can be obtained, with a large specific surface area (above 100m<sup>2</sup>/gram) and high porosity. The generated PGX SA material exhibits a unique fibrous structure, which can be very desirable for wound healing applications or bioactive delivery systems.

**About Ceapro Inc.**

Ceapro Inc. is a Canadian biotechnology company involved in the development of proprietary extraction technology and the application of this technology to the production of extracts and “active ingredients” from oats and other renewable plant resources. Ceapro adds further value to its extracts by supporting their use in cosmeceutical, nutraceutical, and therapeutics products for humans and animals. The Company has a broad range of expertise in natural product chemistry, microbiology, biochemistry, immunology and process engineering. These skills merge in the fields of active ingredients, biopharmaceuticals and drug-delivery solutions. For more information on Ceapro, please visit the Company’s website at [www.ceapro.com](http://www.ceapro.com).

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