



## **Ceapro Presents Unique Advantages of Pressurized Gas Expanded Technology (PGX) at the 12<sup>th</sup> Annual BIO World Congress on Industrial Biotechnology**

**EDMONTON, ALBERTA – July 21, 2015 – [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, presented the unique advantages of its proprietary and novel [Pressurized Gas eXpanded \(PGX\) platform](#) processing technology at the [12<sup>th</sup> Annual BIO World Congress on Industrial Biotechnology](#) in Montréal, Canada.

Ceapro’s President and CEO, Gilles Gagnon, M.Sc., MBA, commented, “Our novel PGX processing technology allows for biopolymer processing at a whole new level by generating unique morphologies otherwise not possible. The dried highly porous biopolymers created by this enabling technology can be impregnated and functionalized with other biopolymers to generate exfoliated nano-composites and novel advanced materials for applications ranging from functional foods, nutraceuticals, drug delivery, cosmetic systems to advanced technical applications. Given promising results obtained with various samples, Ceapro is committed to developing the many unique applications of the PGX platform to their fullest potential.”

Ceapro’s poster presentation entitled, “*PGX Technology: a platform technology for novel biopolymer applications*,” details the Company’s disruptive enabling technology for drying aqueous solutions or dispersions of high molecular weight biopolymers, such as starch, polysaccharides, gums, pectins or cellulose nanocrystals. As part of his presentation Bernhard Seifried, Ph.D., Ceapro’s Senior Research Scientist and a co-inventor of PGX, discussed the numerous key advantages of PGX over conventional drying and purification technologies and its use in processing biopolymers into high-value, nano-sized polymer structures and novel bio-nanocomposites.

Additionally, he explained that Ceapro’s patented PGX Technology has the ability to:

- Dry aqueous solutions or dispersions of polymers derived from agricultural and/or forestry feedstocks, such as polysaccharides, gums, biopolymers at mild processing conditions (40°C);
- Purify biopolymers by removing contaminants, impurities and odours during the precipitation and drying process;
- Micronize the polymer to a matrix consisting of highly porous fibrils or spherical particles having nano-scale features depending on polymer molecular structure;
- Functionalize the polymer matrix by generating exfoliated nano-composites of various polymers forming fibers and/or spheres simply by mixing various aqueous polymer solutions/dispersions prior to PGX processing;



- Impregnate the polymer matrix homogeneously with thermo-sensitive bioactives and/or hydrophobic modifiers to tune solubility of the final polymer bioactive matrix all in the same processing equipment at mild conditions (40°C); and
- Extract valuable bioactives at mild conditions from fermentation slurries, while drying the residual biomass.

### **About Pressurized Gas eXpanded Liquid Technology (PGX)**

PGX is a unique and disruptive technology with several key advantages over conventional drying and purification technologies that can be used to process biopolymers into high-value, nano-sized polymer structures and novel bio-nanocomposites. PGX is ideally suited for processing challenging high-molecular-weight, water-soluble biopolymers. It has the ability to make ultra-light, highly porous polymer structures on a continuous basis, which is not possible using today's conventional technologies. PGX was co-invented by Ceapro researcher Dr. Bernhard Seifried and University of Alberta professor, Dr. Feral Temelli.

### **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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Source: Ceapro Inc.

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