

# FOOD TECHNOLOGY CENTRE

*Innovation for the Food & Bioresource Industries*

Prince Edward Island, CANADA

## NEWSLETTER

December 2007

### Featured in this issue:

- Sepragen Automated Chromatography System
- Bioresource Industry Coordinator position posting
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### Success Stories

We love to help our clients succeed! A few of their success stories are available on a new feature on FTC's website. See [Success Stories](#).

The **Prince Edward Island Food Products Development Fund** will assist Island businesses with projects conducted at the Food Technology Centre. Companies from neighbouring provinces, NB and NS, also have funding support available from their provincial governments for product development activities conducted at FTC. Contact Yaw Dako, Food Technologist (902-569-7699).

### Free Preliminary Consultation

FTC provides free preliminary consultation services and FTC will help you source appropriate funding for your food development projects.

FTC provides certified **organic processing** services. Contact Dr. Leigh Gao, Food Scientist/Engineer at 902-368-5465.

FTC can provide solutions in **natural products extraction** and nutraceuticals/ functional foods product development. Contact Dr. Edward Charter, Manager, Food Science & Natural Products Extraction, at 902-368-5912.

### Season's Greetings from the Food Technology Centre

*All of us at the Food Technology Centre wish you a Happy Holiday Season and All the Best for the New Year!*

The Centre will be closed and our staff will be taking vacation from December 24 to January 1. We have made arrangements for our main phone line to be answered, and our staff will be available to respond to food safety emergencies. The Centre will re-open on Wednesday, January 2<sup>nd</sup>.

We look forward to working with you in 2008. Please give us a call if we can be of any help.

### Sepragen QuantaSep 100 Automated Chromatography System

*By Stephen Gould, Senior Extraction Technologist*



The QuantaSep100, featured in the March 2007 newsletter, was recently put through its paces by evaluating a protein purification technique. Cation exchange column chromatography was one of several techniques used to investigate lower purification costs for a specific protein.

Column chromatography is a technique used to obtain pure chemical compounds from a mixture of components. The amount of time a component takes to pass through the column depends on its chemical properties. The column causes the components to separate and fractions of varying chemical composition are produced.

The protein in question was from a non-traditional source, which means that previous purification protocols could only be used as a guide. To investigate thoroughly the least expensive column setup and the most efficient protein separation, several precisely controlled actions were required. This is where the QuantaSep 100 proved itself.

The QuantaSep 100 is an automated system and is a very repeatable method to enhance column evaluation. Critical control points such as salt gradient and the precise collection of thirty fractions were easily programmed into the unit. These critical points were effectively eliminated as variables due to the precision of the flow rate and the dual pump gradient controls. Further understanding of the elution profile was obtained by continuous monitoring of pH, conductivity, temperature, column pressure and UV absorption.

FTC has the equipment and the expertise to help you develop new products and techniques that will help you to design extraction, separation and purification methods and to reduce your production costs. For further information, please contact Dr. Edward Charter, Manager, Food Science & Natural Products Extraction, at 902-368-5912.

## Bioresource Industry Coordinator

The Food Technology Centre is seeking a [Bioresource Industry Coordinator](#) with a M.Sc. or Ph.D. in bioscience or a related field and extensive experience in business development, including procurement and coordination of industry project partnerships. Please visit our [Job Opportunities](#) website for further information.

## Microbiology Laboratory Services

- [Sample Submission forms](#)
- [Requirements for the collection and shipping of samples](#)
- [Specific instructions for the collection and shipping of shellfish samples](#)

To obtain swabbing supplies and sterile bottles, or for further information about our laboratory services, please call our microbiology laboratory at (902) 368-5937.

### Prince Edward Island Food Technology Centre

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**Feedback: If you have ideas for future newsletters or any comments, we would love to hear from you.** Please call Janet Docherty at 902-368-5226 or email [jvdocher@gov.pe.ca](mailto:jvdocher@gov.pe.ca)

## Featured FOODTECH Canada Centre: Saskatchewan Food Industry Development Centre Inc.

Thirteen similar centres across Canada have formed a network incorporated as **FOODTECH Canada**. The purpose of this network is to provide technical support for Canada's food processors to commercialise new products, to enable the centres to work on large projects that they could not do on their own, and to allow the centres to focus on their particular expertise. This month we are featuring a **FOODTECH Canada** Centre in Saskatchewan.



The [Saskatchewan Food Industry Development Centre](#)'s mission is to assist in the development and continued growth of a dynamic food processing sector by providing an extensive understanding of markets and support mechanisms for technology and human resource development.

For further information, please contact Dan Prefontaine - phone (306) 933-7555.

## Food Safety Workshops

Course outlines of all our Food Safety Workshops are available on the [Training page](#) of our FTC website.

For further information on these, or if you would like a course held in your area, please contact Jim Landrigan at 902-368-5772 or by email at [jklandri@gov.pe.ca](mailto:jklandri@gov.pe.ca)

## Staff Profile: Malgorzata (Gosia) Zawadzka, M.Sc.

Gosia Zawadzka grew up in Gdansk, Poland, and received her Master's degree in Science at the Technical-Agriculture University in Olsztyn, Poland. She worked for several years as a Research Assistant at the university, and later as an inspector of State Farms for the Department of Agriculture in Gdansk, Poland. She immigrated to Canada in 1988.

Ms. Zawadzka was hired as a Food Chemistry Technologist at the newly-built PEI Food Technology Centre in 1990. In this position Gosia operated high performance liquid chromatography (HPLC) units using various detectors, and performed extractions from a variety of food samples for analysis by HPLC, GC and GC/MS. She developed analytical methods to a level of precision and accuracy that allowed FTC's Chemistry Laboratory to become accredited by the Standards Council of Canada.

When the Natural Products Extraction suites were opened at FTC in 2004, Ms. Zawadzka was promoted to the position of Senior Analytical Technologist, where she manages the Natural Products Extraction Laboratory and provides technical support to Natural Products Extraction personnel. Ms. Zawadzka participates in the experimental design of extraction projects and delivers analytical results and information in support of extraction projects. Gosia performs her duties using highly specialized analytical instruments such as the LC/MS, HPLC and GC, up to ISO 9001:2000 quality standards which FTC follows for all contracted services.

## Funding Programs

Links to information about programs available from our funding partners are available on FTC's website. See [Funding Programs](#).