

Edward Charter, PhD, PEng

Food & Bioscience Technology Manager, BIO|FOOD|TECH

Telephone: (902) 368-5912

Email: eacharter@biofoodtech.ca

Responsibilities:

- Responsible for management of the Food Technology group and the Bioscience Technology group. The Bioscience Technology group is focused on the use of various technologies to extract, separate and purify bio-active compounds with potential application in the various markets including functional-foods and nutraceuticals. Leadership in terms of: technical direction and coordination of staff and resources. Responsible for: acquiring, managing and ensuring delivery of projects to clients of BioFoodTech. These projects must be carried out under the requirements of several quality management and certification programs, including ISO 9001, HACCP and food processing guidelines set by the Canadian Food Inspection Agency.

Professional and Technical Background:

- Consultant in the fields of: protein separation, filtration and purification. Sales and equipment selection for various scientific equipment and products including lab to production level water treatment systems (reverse osmosis, de-ionizing systems, high purity systems, USP water), peristaltic pumps, membrane filters for bio-burden reduction and sterile filtration, and cross-flow filtration equipment for protein fractionation and dia-filtration.
- Familiar with: sales territory management to obtain technical information in support of validation and compliance work. Carried-out pilot studies introducing new equipment or technology for clients.
- Technical experience: ion-exchange adsorption, membrane filtration for fractionation of proteins and sterile filtration, and to a lesser extent, supercritical fluid extraction.
- Culinary Institute of Canada Instructor: ADCO 320 Foodservice Product Development. University of British Columbia Instructor: BIOE 471 Systems Design I; BIOE 300 Principles of Food Engineering.

University Education:

- PhD, Chemical Engineering Dept., University of British Columbia.
- BAsC (Honours), Bio-Resource Engineering, University of British Columbia.

Previous Employment:

- Sales and Technical Manager for Quebec/Atlantic Provinces for Sin-Can International Biological Sciences Inc.
- Independent consultant in the field of bio-separation and purification of bio-active compounds such as proteins and peptides from various agricultural/food sources.
- Research and Development Manager: for Inovatech BioProducts (formerly Canadian Lysozyme Inc.), Abbotsford, BC.

Professional and Committee Memberships:

- Canadian Institute of Food Science and Technology
- Member of Engineers PEI. (The Association of Professional Engineers of the Province of Prince Edward Island)

Selected Publications:

- Ji, X., Rivers, L., Zielinski, Z., Xu, M., MacDougall, E., Stephen, J., Zhang, S., Wang, Y., Chapman, R.G., Keddy, P., Robertson, G.S., Kirby, C.W., Embleton, J., Worrall, K., Murphy, A., De Koeyer, D., Tai, H., Yu, L., Charter, E. and J. Zhang. 2012. Quantitative analysis of phenolic components and glycoalkaloids from 20 potato clones and *in vitro* evaluation of antioxidant, cholesterol uptake, and neuroprotective activities. *Food Chemistry*, Vol 133 (4), pp 1177–1187.
- Smith, J. and E.A. Charter, editors. 2010. *Functional Food Product Development*. Wiley-Blackwell, 528 p.
- Gao, Y.C. and E.A. Charter. 2000. Nutritionally Important Fatty Acids in Hen Egg Yolks from Different Sources, *Poultry Science*, Vol 79, pp 921-924.
- Fichtali, J., E.A. Charter, K.V. Lo and S. Nakai. 1993. Purification of Antibodies from Industrially Separated Egg Yolk. *Journal of Food Science*, Vol. 58(6), pp 1282-1285 & 1290.

Selected Patents:

- Methods and Compositions for Inhibiting Microbial Growth. Inventors: Charter, Edward A. et al. Patent Application No. 09/553,378. USA. (filed April 20, 2000)
- Isolation of Proteins. Inventors: Charter, Edward A., Fredric J. Nugent, Lei Gao, and Rakesh Kapoor. Patent Application No. 0709037.6. U.K. (filed May 11, 2007).

Languages:

- English (mother tongue);
- French (fluent);