POSTDOCTORAL FELLOWSHIP OPPORTUNITY IN MARINE BIOPROCESSING AND BIOTECHNOLOGY:
(Fisheries and Marine Institute of Memorial University of Newfoundland)

Position Description
The Center for Aquaculture and Seafood Development (CASD) of the Fisheries and Marine Institute of Memorial University of Newfoundland invites applications for one or two year postdoctoral fellowship position to develop environmental friendly and cost effective methods to use/reduce salmon waste and produce fish oil/omega-3 fatty acids, bioactive peptides and multitude of value added products. This position is based at the CASD’s Marine Bioprocessing Research Lab in St. John’s, Newfoundland and Labrador, Canada, with occasional travel within the province. The position will be supervised by Dr. Deepika Dave, Research Scientist at the Fisheries and Marine Institute of Memorial University of Newfoundland and Labrador. The research team at the Marine Bioprocessing Research Lab allows the CASD to help the NL fisheries capitalize on the potential for product diversification and value addition, to create commercially valuable by-products such as liquid fertilizers, chitin/chitosan, protein hydrolysates, and biofuels.

Introduction to the Project
The topic of the postdoctoral position is to develop a bioprocessing strategy for the production of fish oil and omega-3 fatty acids, bioactive peptides and other value added products from salmon waste: An approach for the sustainability of the Newfoundland aquaculture industry. Salmon waste (processing discards and diseased mortalities) management is a problem and handling of this waste is limited to composting, mink feed, rendering and landfilling in Newfoundland and Labrador. Responding to the salmon waste management for minimizing the environmental risk, this project aims to develop an economically viable and environmental friendly production process for waste streams generated from salmon aquaculture communities. The work consists of completing the following short term objectives: (a) handling, preservation and characterization of salmon non-fillet portion (gut, head and frames); (b) investigation and optimization of novel physico-enzymatic processes for extracting primary value chain products including nutraceutical-grade salmon oil, protein and marine calcium; (c) scientific assessment and theoretical evaluation of feasible, cost effective, green extraction and concentration methods for secondary products including omega-3 fatty acids and bioactive peptides to further extend the value chain of farmed Atlantic salmon; (d) based on assessment separate or in combination extraction methods will be developed for the production of omega-3 fatty acids and bioactive peptides.
**Duties**
The successful candidate will take a lead role in carrying out all research activity and analysis related to the proposed project including developing relationships at different sites to facilitate data collection; participating in various research activities and meetings; presenting research results in group meetings, seminars and scientific national and international conferences; and preparing manuscripts for publication.

**Qualifications**
Minimum qualifications include a Ph.D degree in biotechnology, biochemistry or food science. An equivalent combination of experience and training may be considered. Applicants should have a strong knowledge of analytical research in the fields of fisheries, bioprocessing, waste management, and/or related fields, and be able to engage in conceptual analyses of the data. Applicants should also have expertise in qualitative data collection and analyses methods, statistical analyses and interpretation of results. The candidate will demonstrate evidence of prior research productivity, including a quality publication record, excellent collaboration and communication skills, an interest in working in an interdisciplinary research environment, and a strong work ethic and motivation to succeed within a competitive research field.

**Conditions**
This term position is expected to commence February 1, 2018 for one year term. The fellow will be based at the Marine Institute of Memorial University of Newfoundland and with a starting salary of $40,000 per year. The continuation of the appointment is dependent upon satisfactory performance. Possession of valid class 5 driver license as issued by the province of Newfoundland and Labrador is also required.

Applications will be accepted until December 31, 2017. Only candidates that are selected for an interview will be notified.

Interested applicants should submit a detailed CV and cover letter to Dr. Deepika Dave (Deepika.Dave@mi.mun.ca).