Job Title: Postdoctoral Fellow, College of Pharmacy and Nutrition and the Global Institute for Food Security (req5609)

Department: College of Pharmacy & Nutrition
Location: Saskatoon
Status: 12 Month Term with the possibility of extension
Employment Group: Post-Doctoral Fellows - PSAC
Full Time Equivalent (FTE): 1.0
Posted Date: 4/14/2020
Closing Date: Until Filled.
Number of Openings: 1

Primary Purpose: Along with cost-effective and climate-smart agronomic practices, the nutrient content of foods is re-emerging as a key element for improving food security and the quality of food production and diets. In this regard, there is growing interest in increasing the use of crops as a primary source of nutrition due to increasing population and the environmental impacts of animal production, as well as their widespread consumption, ease of production, favorable functional characteristics, and ability to act as a source of multiple vitamins, minerals and other nutrients. As a single crop does not, on its own, contain sufficient quantities of all nutrients for optimal human growth and survival, a broadening of focus from increasing the quantity produced to also improving the nutritional quality of the product is in order. In addition to nutrient composition, understanding the functional properties of a crop is necessary in order to determine the best downstream utilization of the crop. This research program will increase the understanding of how agronomic and genetic variability affects the nutrient composition and functional characteristics of high value food crops.

Project Title: Influence of agronomic conditions on the nutritional properties of plants and plant-based products

Nature of Work: Reporting to Dr. Carol Henry, the successful candidate will assess the nutritional characteristics of plant-based foods as related to agricultural practice and genetic variability.
**Typical Duties or Accountabilities:** The Postdoctoral Fellow will generate nutritional profiles and functional characteristics for food crops of various genotypes and grown in a variety of environments. Nutritional data on amino acid composition and mineral, and vitamin content as well as protein, fat, fibre and carbohydrate content will be generated. These analyses will be performed using standard and published methods in collaboration with researchers at the University of Saskatchewan and in other organizations on the university campus. Samples also will be assessed for their functional characteristics such as oil and water holding capacity, gelling ability, and foaming capacity and foam stability. The successful candidate also will be asked to participate in related international activities and will be expected to assist in applying for internal and external grants, publish results in relevant journals, and present results at national and international conferences.

The position is funded for one year with the potential for renewal. The successful candidate is guaranteed a stipend through a funding arrangement with a Canada First Research Excellence Fund (CFREF) P2IRC program at the Global Institute for Food Security (GIFS).

**Qualifications**

**Education:** A doctoral degree in Nutrition, Agriculture, or a related discipline.

**Experience:** Substantial experience at a doctoral/post-doctoral level in the compositional and functional analysis of food crops and food products and ingredients.

**Skills:** Hands-on experience with classical and modern analytical methods for the compositional and functional analysis of crops and crop products. Ability to work with a minimum of supervision and to troubleshoot analytical and instrumental problems. Ability to undertake independent research and to work in a team environment. Demonstrated ability to participate in the preparation of successful grant applications and demonstrated success in publication of peer-reviewed research articles. Well-developed oral, communications, interpersonal and mentoring skills.

**To Apply:**

Potential candidates must submit electronically to Dr. Carol Henry at carol.henry@usask.ca:

- A letter explaining your research goals
• Your curriculum vitae (CV),
• Contact information for three individuals each willing to provide a reference

The University believes equity, diversity, and inclusion strengthen the community and enhance excellence, innovation and creativity. We are dedicated to recruiting individuals who will enrich our work and learning environments.

We are committed to providing accommodations to those with a disability or medical necessity. If you require an accommodation in order to participate in the recruitment process, please notify us and we will work together on the accommodation request.

The University of Saskatchewan’s main campus is situated on Treaty 6 Territory and the Homeland of the Métis. We pay our respects to the First Nations and Métis ancestors of this place and reaffirm our relationship with one another. Together, we are uplifting Indigenization to a place of prominence at the University of Saskatchewan.