**Master's or Doctoral candidate in nutrition**

**Université Laval (Quebec City, Quebec)**

**Characterizing and monitoring the healthfulness of the food supply: a fundamental step towards creating healthier food environments**

**Funded by the Canadian Institutes of Health Research (CIHR)**

**Description of the project**

It is difficult for Canadians to apply healthy eating recommendations knowing that many food products available on the market do not align with such recommendations. Enhancing the food supply's quality therefore represents one of the cornerstones for food environments that support and amplify healthier choices. Achieving healthier food environments first requires a thorough examination of the nutritional quality of commonly purchased foods. While analyzing the food supply on a per-nutrient basis (e.g. sugar or salt content) remains informative, it does not provide a complete picture of the overall nutritional quality (healthfulness) of foods. Nutrient profiling allows characterizing such healthfulness using objective and reproducible criteria. Nutrient profiling models assign a nutritional quality score to a food by taking into account several nutrients of public health concern, some of which may be to encourage (e.g., fiber, protein) and others to limit (e.g., saturated fat, sugars, sodium). Examples of existing nutrient profiling models are the *Nutri-Score* in Europe, and the Health Star Rating System in Australia & New-Zealand.

However, many challenges remain regarding the use of nutrient profiling models, in part because of their lack of validation in their respective jurisdictions. A nutrient profiling model established as valid in the Canadian context is therefore essential to better characterize the healthfulness of the food supply and its evolution over time. A better understanding of how the healthfulness of foods is associated with determinants of food choices is also required to better support the identification of actions and the implementation of public policies aimed at improving food and diet quality, as well as the health status of Canadians.

The first objective of this project is to evaluate the validity of three nutrient profiling models, to determine whether or not consuming foods of higher nutritional quality (as determined by each model) is associated with a higher diet quality and a more favourable health status (**Aim 1**; convergent and criterion-related validity testing, respectively). The nutrient profiling models will be applied to food intake data in two Canadian cohorts, including the Canadian Community Health Survey (CCHS) - Nutrition 2015 and the project "PRÉDicteurs Individuels, Sociaux et Environnementaux" (PREDISE; led by Dr. Simone Lemieux). The nutrient profiling model that emerges as the most associated with diet quality and health outcomes will then be used to:

a) Assess the healthfulness of food categories defined as "high-priority" in the food supply, overall and in association with factors influencing food purchasing decisions (e.g., prices). Specifically, the nutrient profiling model will be applied to a consolidated database of branded packaged foods from the Food Quality Observatory (henceforth Observatory), accounting for market shares (n=15 food categories) (**Aim 2**; baseline assessment of the food supply).
b) Monitor potential changes in the healthfulness of the food supply over time, by evaluating the same 15 food categories five years after their first data collection by the Observatory (**Aim 3**; follow-up assessment of the food supply).

More specifically, the candidate would be expected to participate in the validity testing of nutrient profiling models within the CCHS - Nutrition 2015 cohort (Aim 1). In the context of a PhD, the candidate would also have the opportunity to contribute to the baseline assessment of the healthfulness of the food supply (Aim 2).

**Academic supervision**
This project is under the supervision of Dr. Marie-Ève Labonté, Assistant Professor at the School of Nutrition and researcher at the Centre Nutrition, santé et société (NUTRISS) at Université Laval.

**Research setting**
The Institute of Nutrition and Functional Foods (INAF) is located on the campus of Université Laval.
Pavillon des Services
2440 Hochelaga Boulevard
Quebec City (Qc) G1V 0A6

**Expected start date**
Summer or Fall 2022

**Graduate program**
Master's or doctorate degree in nutrition

**Profile required**
- Completed bachelor's degree in nutrition (in the case of a master's application) or completed master's degree in nutrition (in the case of a doctoral application);
- Experience or interest in statistics and database management;
- Experience in research;
- Good writing and communication skills, in both French and English;
- Author or co-author of scientific publications in English (an asset);
- Be organized, methodical, rigorous and autonomous;
- Excellent teamwork skills.

**Submission of application**
Interested applicants are invited to send a letter of motivation outlining their interests, skills and experiences related to this project, their resume and their most recent academic transcript by email to Mylène Turcotte, Research Coordinator (mylene.turcotte@fsaa.ulaval.ca). Applications will be reviewed as they are received until the candidate is selected.

**For more information**
**Mylène Turcotte,** Research Coordinator
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