

Canadian Food Innovation Network & Large Canadian Food Company Innovation Scouting Fund - Call for Proposals Summer 2025

The concept of "food for health" has evolved from simply satisfying hunger to understanding the profound impact of nutrition on our well-being. It recognizes that the foods we consume are not just fuel but complex matrices of nutrients and bioactive compounds that can prevent disease, promote optimal physiological function, and even influence our mental state. This perspective emphasizes a proactive approach to health, leveraging dietary choices to build resilience and enhance overall quality of life.

To support their mutual mandate of supporting the health of Canadians through food, the Canadian Food Innovation Network, in partnership with a large Canadian food company, invites companies and academics across Canada to pitch their innovations.

Overall Call Eligibility:

- Projects must focus on human health. Animal health, beauty, or cosmetic applications are not eligible for this call.
- Branded products are not eligible for this call; the focus is on ingredients only.
- Clinical trials are not eligible.
- Solutions must have achieved a TRL of 3: Analytical and experimental critical function and/or characteristic proof of concept.
- Applicants must be seeking to demonstrate a novel solution using science or evidence-based methodologies to be eligible. Solutions can be 3-5 years from full commercialization.
- Submissions must be safe for consumption under current Canadian food regulations. Novel ingredients are welcome, but applicants should be considering or actively pursuing Health Canada approval.
- Applicants can be from Canadian business and academic institutions. See the Program Guide for the full overview of eligible costs, funding levels, and application questions.
- Applicants must be CFIN members to apply; membership is free.

This food company is exploring opportunities for its next generation of products and is focused on the below call priorities. Applications must align with one or more of these areas:

Hormone Balancing

- **Novel ingredients to assist with insulin, cortisol, or other hormones:** This includes research and development of ingredients, functional foods or natural health products, that can help regulate blood sugar levels, manage stress responses, or support the healthy production and function of other key hormones. This could involve:
 - **Ingredients that improve insulin sensitivity or secretion:** Exploring plant extracts, fibers, or other compounds with potential anti-diabetic effects.
 - **Adaptogenic ingredients for cortisol regulation:** Investigating natural substances that may help the body adapt to stress and maintain healthy cortisol levels.

- **Precursors or cofactors for hormone synthesis:** Identifying nutritional components that support the body's natural production of hormones.
- **Open to ingredients, functional foods or natural health products:** This indicates a broad interest in various formats that can deliver hormone-balancing benefits, ranging from isolated ingredients for incorporation into existing foods to standalone functional food products or natural health supplements.

Innovative Protein Solutions

- **High quality protein sources that support the achievement of a PDCAAS (Protein Digestibility Corrected Amino Acid Score) that enables a protein-based claim to be made:** This area seeks novel protein ingredients that are not only rich in essential amino acids but also highly digestible, contributing effectively to overall protein quality and nutritional value. This could involve:
 - **Novel plant-based protein sources:** Exploring underutilized plant proteins with complete amino acid profiles and high digestibility.
 - **Single-cell proteins:** Exploring protein production from microorganisms through fermentation.
- **Address sensory issues with novel protein applications or sources:** This acknowledges the common challenges associated with alternative protein sources (e.g., off-flavors, undesirable textures) and encourages the development of innovative applications or processing techniques to improve their sensory attributes and consumer acceptance. This could involve:
 - **Advanced processing techniques:** Utilizing methods like extrusion, fermentation, or enzymatic modification to improve the taste, texture, and solubility of novel proteins.
 - **Creative product formulations:** Developing innovative food products that effectively mask or mitigate any undesirable sensory characteristics of alternative proteins.

Saturated Fat Reduction

- **Technologies to reduce saturated fat:** This area seeks enabling technologies – such as ingredients, alternative fats, or novel processes - that can reduce saturated fat across a broad range of prepared food categories. This could involve:
 - **Plant-based fat alternatives:** Exploring plant-derived fats and oils with lower saturated fat content that can mimic the texture and functionality of traditional animal fats in dairy and other applications.
 - **Fat modification technologies:** Investigating innovative processing techniques or enzymatic modifications to alter the fatty acid profile of existing fats.
 - **Structuring agents and emulsifiers:** Identifying ingredients that can create desired textures and stability with reduced levels of saturated fat.

Precision Fermentation

- **Novel ingredients from precision fermentation:** This area focuses on leveraging the power of microbial fermentation to produce specific high-value ingredients with enhanced functionality, sustainability, and consistency. This could involve:
 - **Synthesis of bioactive compounds:** Employing fermentation to produce specific vitamins, enzymes, antioxidants, or other health-promoting compounds.
 - **Production of novel fats and oils:** Utilizing microbial fermentation to create sustainable and potentially healthier fats and oils with specific fatty acid compositions.

Improving nutrient density for Canadian commodities

- **Novel processing techniques to enhance nutrient density of vitamins and minerals, fibre, and bioactives (antioxidants):** This area encourages innovative approaches in processing, to naturally increase the nutritional value of Canadian-grown commodities. This could involve:
 - **Innovative primary processing methods:** Developing techniques that preserve or even enhance the nutrient content of raw commodities during initial processing stages (e.g., milling, extraction).

Shelf-Life Extension

- **Ingredients to extend shelf life in bakery, home meal replacements, or other prepared foods:** This focuses on identifying and applying novel food-grade ingredients that can naturally inhibit microbial growth, oxidation, and enzymatic spoilage, thereby extending the freshness and usability of these product categories. This could involve:
 - **Natural antimicrobials:** Exploring plant-derived extracts, essential oils, or fermentation products with proven antimicrobial properties.
 - **Antioxidants to prevent lipid oxidation:** Investigating natural antioxidants that can prevent rancidity and maintain the quality of fats and oils.
 - **Enzyme inhibitors:** Identifying ingredients that can slow down enzymatic reactions that lead to spoilage and quality degradation.
- **No packaging solutions:** This explicitly excludes innovations focused solely on packaging technologies, emphasizing the need for ingredient-based solutions for shelf-life extension.

The Innovation Scouting program is designed to support a targeted, 12-month collaboration between the applicant and a large food company to test and validate high-potential innovations. Up to \$75K in funding is available to support further development, trial production, demo formulations, and nutritional or performance validation. See the Program Guide for a full overview of Call requirements.

Further program details are available on our website: www.cfin-rcia.ca