

# NUTRITION RESEARCH FUNDING PROGRAM GUIDELINES

#### I. INTRODUCTION

<u>Dairy Farmers of Canada</u> (DFC) is a non-profit organization funded by dairy farmers across Canada and representing the approximately 10,000 dairy farms in the country. Our organization plays a leadership role on behalf of the industry in several important areas, including funding and support of research in dairy production and in human nutrition and health. DFC has a long-standing commitment (over 30 years) of investing in dairy research to drive innovation and ensure a sustainable future for the sector.

DFC's investments in science are guided by the <u>2022-2027 National Dairy Research Strategy</u>. The strategy was developed through extensive consultations involving a broad range of stakeholders from the scientific community and industry and resulted in the identification of targeted outcomes and research priorities under three areas: dairy farm sustainability; animal health, care and welfare; and dairy in human nutrition and health.

<u>DFC's Nutrition Research Funding Program</u> (the "**Program**") aims to support scientific research in the areas of nutrition, health, food science and sustainable diets, in relation to dairy products, in order to generate new knowledge and innovations for the benefit of the dairy sector and all Canadians.

DFC has adopted a peer-review system and a funding application process similar to those of major granting agencies (e.g., NSERC and CIHR).

#### II. RESEARCH PRIORITIES

The objective of the Program is to gain a better understanding of the specific role of dairy products in attaining and maintaining optimal health as well as their contribution in a sustainable diet. DFC considers proposals that have nutrition and health implications for Canadian dairy products and are relevant to Canadian dairy farmers.

Of specific interest to DFC are proposals which feature dairy products in their entirety (particularly milk, cheese and yogurt, including regular fat versions), demonstrate technological innovation and utilize a multidisciplinary approach, whenever possible, to address fundamental and applied research questions. Applied human randomized controlled trials and mechanistic studies in humans are of particular interest.

Please note that studies that refer to or involve the potential for a health claim should ensure compliance with Health Canada's Guidance Document for scientific substantiation of health claims. For more details, please consult Health Canada's website at: <a href="http://www.hc-sc.gc.ca/fn-an/label-etiquet/claims-reclam/assess-evalu/index-eng.php">http://www.hc-sc.gc.ca/fn-an/label-etiquet/claims-reclam/assess-evalu/index-eng.php</a>

Please refer to the Appendix for our latest research priorities.

# Terminology for plant-based alternative foods:

Canada's food standards for milk and dairy products have existed in some form for more than a century and have a long history of providing both industry and consumers with clearly defined requirements for composition, strength, potency, purity, quality and other properties. Unfortunately, while Canada's food standards for milk and dairy products have been well-understood for decades, recently, there has been a lack of enforcement by the Canadian Food Inspection Agency (CFIA) when it comes to a steady proliferation of plant-based products misusing standardized dairy terminology.

We therefore request that researchers **not refer to any plant-based foods by standardized dairy names** (e.g. milk, cheese, yogurt, cream, ice-cream, ice-milk, butter, etc) within their proposals or any research they may conduct. Furthermore, the addition of terms like "substitute" (e.g. milk "substitute"),

or "equivalent", etc., implies a level of nutritional equivalency which is not supported by evidence in the case of most dairy products. It is therefore similarly recommended that researchers not use any term that implies nutritional equivalency.

The following are examples of appropriate text and terminology for researchers to use:

## Plant-Based Beverages

This category of alternative products should be referred to as 'plant-based beverages'. Appropriate terms that may be used to describe these products include:

- 'Beverage', 'Drink', 'Juice' or 'Puree', etc.
  - o E.g. 'soy beverage', 'coconut drink', 'almond juice', 'oat puree' etc.

#### Plant-Based Foods

Specific categories of plant-based 'alternative' food products should be referred to as 'plant-based alternatives to XX' [XX = category of dairy products, e.g. butter, cheese, etc.].

• E.g. 'plant-based alternatives to cheese', 'oat-based alternatives to ice cream', 'soy-based alternatives to yogurt', etc.

Specific products should be described according to their function and/or characteristics (e.g. texture, condition, form, shape, consistency, etc.). For example:

- Plant-based alternatives to Butter
  - o 'Margarine' (where applicable), 'Brick', 'Stick' or 'Spread'
    - E.g. 'plant-based spread', 'plant-based brick/stick for baking/sauteing', etc.
- Plant-based alternatives to Cheese
  - Alternatives to 'Hard Cheeses'
    - 'Brick', 'Block', 'Shred', 'Crumble', 'Slice' or 'Flake'
      - E.g. 'cashew-based brick', 'oat-based shred', 'plant-based slice', etc.
  - Alternatives to 'Soft Cheeses'
    - 'Spread' or 'Paste'
      - E.g. 'almond-based spread', 'oat-based paste,' etc.
  - Alternatives to 'Cheese varieties'
    - E.g. 'soy-based meltable pizza shred', 'fermented cashew crumble in brine,' etc.
- Plant-based alternatives to Ice Cream
  - 'Frozen Dessert'
    - E.g. 'cashew-based frozen dessert,' etc.
- Plant-based alternatives to Yogurt
  - E.g. 'fermented smoothie' or 'fermented emulsion,' etc.

Please note that the aforementioned terms do not apply to partial products that are 'blends' of dairy and plant-based foods. For these specific products, please refer to them as 'partial' or 'blended' products.

<sup>\*\*</sup>Note: 'Milk' and 'Cream' are standardized dairy terms that should not be used to describe plant-based beverages.

<sup>\*\*</sup>Note: 'Butter', 'Cheese/Cheese variety', 'Ice Cream', and 'Yogurt' are standardized dairy terms that should not be used to describe plant-based foods.

#### III. ELIGIBILITY

Researchers from Canadian universities and/or from federal and provincial research centres are eligible to apply to the Program. Non-Canadian researchers could be considered as co-investigators or collaborators.

The principal investigator (the "**Principal Investigator**") is responsible for the complete direction of the approved project (the "**Project**") and other activities associated with its efficient execution. The role of the co-investigator(s) in the Project must be clearly defined. Students and trainees are normally not eligible to act as co-investigators.

A researcher cannot be the Principal Investigator for two projects simultaneously carried out under this Program. However, the same researcher can be a co-investigator for no more than one additional project.

Projects should, when possible, involve complementary teams of researchers from across Canada.

Commercial product research and development is not eligible.

#### IV. FUNDING PROGRAM ADMINISTRATION

Under this Call for Proposals, the submission of a Letter of Intent (the "Letter of Intent") is the first step in the funding application process.

The Letter of Intent will be first reviewed by the Nutrition Expert Scientific Advisory Committee, an independent body of researchers and dairy farmers. Based on their recommendations, <a href="DFC's Canadian Dairy Research Council">DFC's Canadian Dairy Research Council</a> will make the final decision regarding the Letters of Intent selection. The Principal Investigators whose Letter of Intent is selected based on alignment with research priorities, relevance to the dairy sector and sound scientific approach will be invited to submit a Full Proposal (the "Proposal").

The Proposals will be evaluated based on their overall clarity, scientific merit and technical feasibility, team expertise, training opportunities, knowledge translation and transfer opportunities, and realistic budget. The Proposals will first be subjected to an independent external peer review process. Based on the external peer reviews, the Nutrition Expert Scientific Advisory Committee will evaluate the Proposals and make recommendations. DFC's Canadian Dairy Research Council will make the final decisions regarding the funding of the Proposals. Decisions will be communicated to the Principal Investigators in July 2025. Expected start date of the Projects is January 2026.

A selected Letter of Intent and/or an approved Proposal do not ensure Project funding per se. Funding will be confirmed upon signing of a Research Agreement (the "**Agreement**") (section VI).

In certain instances, projects of interest to DFC that fall outside the established timelines and research priorities may be considered.

#### V. FUNDING APPLICATION PROCESS

#### a) Letter of Intent

The Letter of Intent must be submitted on the Letter of Intent Form at <a href="mailto:dairyresearch@dfc-plc.ca">dairyresearch@dfc-plc.ca</a> **by December 2, 2024**. The Form of the Letter of Intent can be found on the website.

**Please note:** The same investigator can submit more than one Letter of Intent. However, regardless of how many Letters of Intent are approved, only one Proposal per Principal Investigator can be submitted for final review. Switching the names of Principal Investigator and co-investigators is not appropriate and may exclude the Letter of Intent or the Proposal.

The PDF Form provided for the Letter of Intent is self-contained and specifically designed to eliminate the need for additional supporting material to transmit relevant information (i.e., appendices or cover letter). Additional pages will be removed from the Letter of Intent Form. Please also comply with the space and format limitations as presented in the Letter of Intent Form. Do not use photo-reduced type. The font size is Arial 11 points.

Letters of Intent submitted in French will be translated for English reviewers; the Principal Investigator and/or their team may not review the translation.

## b) Full Proposal

Upon selection of the Letter of Intent, DFC will send an invitation to submit a Proposal to the Principal Investigator and will provide a Full Proposal Form to be completed and submitted to <a href="mailto:dairyresearch@dfc-plc.ca">dairyresearch@dfc-plc.ca</a> by April 7, 2025.

Major changes from the Letter of Intent will not be permitted unless they had been suggested by the Nutrition Expert Scientific Advisory Committee. Making such changes could lead to the Proposal not being reviewed.

#### **Guidelines for completing Proposals:**

- Please comply with the space and format limitations as presented in the Full Proposal Form.
   Do not use photo-reduced type. The font size is Arial 11 points.
- The body of the Full Proposal Form is self-contained and must not include additional pages and/or attachments other than tables and figures. Up to three manuscripts can be appended to the Full Proposal and they must be relevant to the current proposed Project.

#### CV for the Principal Investigator and Co-Investigators

A complete Curriculum Vitae for the Principal Investigator and each Co-Investigator, in the Canadian Common CV format (CIHR or NSERC) or on the DFC CV Form (available upon request), must be appended to the Proposal.

#### Title of Project

The title should be concise and provide a clear indication of the subject/topic of the proposed Project and reflect its main purpose. There should be no abbreviations or acronyms in the title. The title may be modified upon mutual agreement between DFC and the Principal Investigator.

#### Project Details

In the Full Proposal Form, detailed information is required: background information; objectives and hypotheses; experimental approach including power and sample size calculations; milestones; team expertise and training of highly qualified personnel; potential benefits and economic impact for the dairy sector; and knowledge translation and transfer opportunities.

# c) Budget Information

The funding under the Program is for a maximum of 2 years. The total amount requested from this Program can be up to \$150,000. For studies requiring more than \$150,000, it is strongly recommended that other sources be identified.

Detailed information about the financial requirements for the Project is to be provided as outlined below.

#### Personnel

There are four categories of individuals who may be paid from the Program:

- 1. Research personnel whose skills are required to conduct the Project,
- 2. Technicians who are formally classified as such by their research institution,
- 3. Graduate students (MSc and PhD), and
- 4. Postdoctoral fellows.

Budget justification for personnel is to be included. DFC reserves the right to request further information from the research institution regarding fringe benefits. Salaries for Principal Investigator and co-investigators are not eligible under the Program.

#### Major Equipment

DFC does not provide equipment grants. However, in special cases where equipment is shown to be essential to the Project, DFC may, at its entire discretion, contribute to the purchase of major equipment upon request in writing from the research institution and/or Principal Investigator. Major equipment is considered a single item for which the price exceeds \$10,000.

#### Material and Supplies

Expenditures include expendable materials, such as experimental animals and feed, chemicals, glassware and supplies for existing equipment and its routine maintenance.

#### Publication and Publication Costs

DFC encourages the publication of research results in a reputable, peer-reviewed scientific journal. The choice of the journal for publishing results rests with the Principal Investigator. Primary consideration should be given to reputable Canadian or international journals with extensive readership in Canada. Publication costs **should not** be included in the budget.

<u>Note 1:</u> The invoice from the journal for costs related to the publication of a manuscript, should be sent to DFC no more than 18 months after the end of the Project (DFC does not usually pay for open-access publications).

<u>Note 2:</u> Publications resulting from DFC's support should be acknowledged using the following statement: This project was supported by Dairy Farmers of Canada. As per the research agreement, Dairy Farmers of Canada had no role in the design and conduct of the project, data collection, and analysis or interpretation of the results as well as the decision to publish the findings.

#### Travel

DFC encourages travel to scientific meetings within Canada or pertinent meetings outside Canada to present research results from the Project. A maximum of \$2,000 per year can be requested.

# Other Expenses

Computer costs related to data analyses, reimbursement to Project subjects and other routine expenses incurred, as part of the Project are eligible.

#### Overhead Charges or Indirect Costs

DFC will not pay the research institution, the Principal Investigator and/or the co-investigator(s), as the case may be, for any overhead/indirect costs for DFC funded projects.

## Unauthorized Expenses

Consultant fees are not eligible unless prior written approval is given by DFC.

# Transfer of Funds between Budget Categories

Expenditures which exceed budgeted items are permitted provided the total budget does not change. Budget transfers in excess of 10% of budget category require the prior written approval from DFC.

# d) Matching Funding/Other Sources of Funding

DFC encourages the Principal Investigator to get matching funds from federal funding agencies and/or from other sources. The funds that will be requested must be described in the Budget section of the PDF Forms as well as the objectives/parts of the Project that will be funded by other sources. Principal Investigators must have verified with the funding agencies if the Project complies with the research priorities and guidelines of the agency.

Note that DFC is an eligible organization for Mitacs programs. The Principal Investigator is encouraged to apply to Mitacs to support a portion of the graduate student and postdoctoral fellow scholarships.

#### VI. RESEARCH AGREEMENT

The funding is to be used entirely for specific activities supervised by the Principal Investigator. Prior to initiation of the Project, an Agreement (available upon request) is entered into by and between the research institution, the Principal Investigator, DFC and other funding partners, if applicable.

The Agreement defines the rights and obligations of the research institution, the Principal Investigator, DFC, and other funding partners, if applicable, including without limitation:

- Principal Investigator and research institution's responsibilities in the conduct of the Project,
- Financial responsibilities of the parties with respect to the Project,
- Reports.
- Publication of the Project results,
- Confidentiality,
- Ownership of intellectual property and other property rights, and
- Commercial use of the Project results.

In accordance with the provisions of the Agreement, the research institution and/or Principal Investigator grant DFC a licence to use the Project results for internal, non-commercial and research purposes; a first option to negotiate an exclusive commercial licence to commercially exploit Project results; and a right of first refusal to match any third-party offer to commercialize the Project results. In the event where DFC is not involved in the commercialization of the Project results, DFC shall earn a royalty based on the net profits generated by the research institution from the Project results; the percentage of the royalty would be determined prior to commercialization through good faith negotiations based on commercially reasonable terms.

# VII. ADDITIONAL INFORMATION

Failure to complete and submit the Letter of Intent or the Full Proposal in the manner outlined in these guidelines may delay or preclude review by the Nutrition Expert Scientific Advisory Committee for funding by DFC. Deviations from the above guidelines will be allowed only if approved by DFC.

All inquiries for additional information pertaining to any of the above points should be directed to <a href="mailto:dairyresearch@dfc-plc.ca">dairyresearch@dfc-plc.ca</a>.

# APPENDIX RESEARCH PRIORITIES

DFC considers those applications that have nutrition and health implications for Canadian dairy products and are relevant to Canadian dairy farmers. Of specific interest to DFC are research projects which feature milk products in their entirety (particularly milk, cheese and yogurt, including regular fat versions), demonstrate technological innovation and utilize a multidisciplinary approach, whenever possible, to address fundamental and applied research questions. Applied human randomized, controlled trials and mechanistic studies in humans are of particular interest. Our current research priorities and areas of interest are as follows:

# Targeted outcome: The contribution of dairy products as whole and unique foods in optimal health and wellness across the human lifespan is strengthened

#### Research priorities:

- → Improve the understanding of the impact of dairy products on optimal growth and development in children and adolescents.
- → Reinforce the benefits of dairy products in musculoskeletal health.
- → Identify the effects of dairy products on healthy aging (particularly on preserving mobility, cognition and nutrient adequacy) in older age.
- → Further define the role of dairy products in supporting healthy weight and body composition (including supporting satiety).
- → Investigate the role of dairy products and milk components, amongst others A2 beta-casein, in a healthy gut, including intestinal integrity and digestibility, and on the microbiome.

# Targeted outcome: The role of dairy products as whole and unique foods (particularly full fat milk, yogurt and cheese) in chronic disease prevention and management is reinforced

# Research priorities:

- → Identify the specific impact of including dairy products in healthy plant-based dietary patterns on various health outcomes.
- → Further support the role of dairy products in cardiometabolic disease (CVD, hypertension, Type 2 diabetes) prevention and management.
- → Contribute to build convincing evidence for the role of dairy products in colorectal cancer prevention.
- → Expand the understanding of the role of dairy products in breast cancer prevention.

# Targeted outcome: The value of dairy products as whole and unique foods within healthy sustainable diets in a Canadian context is further recognized

## Research priorities:

- → Identify the differential health effects and nutritional attributes of dairy products in relation to plant-based alternatives.
- → Determine the value of dairy products within healthy sustainable diets in supporting nutrient adequacy, considering nutrient bioavailability and protein quality.
- → Assess the effects of dairy products within healthy sustainable diets in a Canadian context taking into consideration the four key dimensions of healthy sustainable diets (human health and wellbeing, environmental impact, affordability, and cultural acceptability).