Research Highlights 2015-2016

Dairy Farmers of Canada in partnership with Agriculture and Agri-Food Canada, the Canadian Dairy Commission and the Natural Sciences and Engineering Research Council of Canada (NSERC), is supporting 23 research activities in the area of human nutrition and health via the Dairy Research Cluster, ESAC or through the Dairy Research Consortium (Dairy Management Inc, Dairy Australia Ltd, Dutch Dairy Association, CNIEL, Danish Dairy Research Foundation).

Expected Outcomes of Ongoing Research:

• Provide important data on the impact of regular fat dairy products on cardiovascular risk factors and type 2 diabetes with implications for dietary guidelines related to higher fat dairy products;
• Provide science-based evidence related to the role of dairy product consumption on satiety, glycemic control, type 2 diabetes, cardiometabolic diseases, bone and gut health - this information will support the importance of dairy product consumption on health;
• Supply scientific data for novel food formulations using dairy products and milk components for better health;
• Supply scientific data that may be useful for health claims related to satiety, postprandial glycemia and bone health;
• Investigate the role of milk components like choline and lactoferrin in the diet, especially choline for women during pregnancy;
• Develop strategies to understand and address low consumption of dairy products in children;
• Determine whether adding milk products to an exercise intervention results in greater benefits related to body composition and bone health for overweight and obese girls.
Ongoing Projects:

1. Integrated research program on dairy, dairy fat and cardiovascular health –
   Pt: Benoît Lamarche, Université Laval

2. The effect of milk products and novel milk products on satiety, food intake and metabolic control (glycemia) in early and late adulthood –
   Pt: Harvey Anderson, University of Toronto

3. Dairy nutrition and risk of diabetes in vulnerable populations: novel insights from biomarkers-based approach –
   Pt: Anthony Hanley, University of Toronto

4. Beneficial effects of milk and fermented dairy products on intestinal and adipose tissue inflammation, and obesity-linked cardiometabolic diseases –
   Pts: Denis Roy, Université Laval and Martin Lessard, AAFC-Sherbrooke

5. Association between dietary intakes and cardiovascular risk of Canadians using the Canadian Health Measures Survey cycles 1+2 –
   Pt: Susan Whiting, University of Saskatchewan

6. Role of high dairy diet on bone health outcomes in pregnant women and their offspring in early life (Bone BHIP): A randomized clinical trial –
   Pt: Stephanie Atkinson, McMaster University

7. FAMILY (FAmily MILk product two-Year) dose-response study to enhance bone health –
   Pt: Hope Weiler, McGill University

8. Nutritional synergy between dairy products and other food nutrients –
   Pt: Michel Britten, AAFC-Saint-Hyacinthe

9. Concentration of biogenic amines in different Canadian cheeses and effect of salt concentration on the type of biogenic amines produced in cheeses –
   Pt: Daniel St-Gelais, AAFC-Saint-Hyacinthe

10. Milk and dairy products, outstanding sources of vitamin B12: A farm to fork approach –
    Pt: Christiane Girard, AAFC-Sherbrooke

11. Regular fat cheese as part of a dietary management for diabetes treatment and prevention: Proof of concept –
    Pt: Catherine Chan, University of Alberta

12. Study of the impact of cheese matrix on postprandial lipemia: A clinical study –
    Pt: Patrick Couture, Université Laval

    Pt: Tim Green, University of British Columbia

    Pt: Mary Jung, University of British Columbia

15. Investigating the therapeutic potential of vaccenic acid in intestinal inflammatory diseases –
    Pt: Spencer Proctor, University of Alberta

16. The influence of vitamin D on monocyte/macrophage function in patients with Crohn’s disease –
    Pt: Ernest Seidman, McGill University

17. Impact of buttermilk on immune function and the development of oral tolerance early in life –
    Pt: Catherine Field, University of Alberta

18. Effects of a weight management intervention with increased dairy intake on body composition and bone health in overweight and obese girls –
    Pt: Andrea Josse, Brick University.

19. A randomized clinical trial on the effect of dietary calcium intake as compared to calcium supplement on vascular health in postmenopausal women –
    Pt: Suzanne Morin, McGill University

20. Role of milk and alternatives on bone material and strength, body composition and cardio-metabolic risk from childhood to adulthood through the Pediatric Bone Mineral Accrual Longitudinal Study –
    Pt: Hassan Vatanparast, University of Saskatchewan

21. Exercise and dairy protein interactions in the treatment of obesity and adipose tissue inflammation –
    Pt: David Wright, University of Guelph

22. Copenhagen cheese studies –
    Pt: Arne Astrup, University of Copenhagen

23. The impact of low-fat and full-fat dairy consumption on glucose homeostasis –
    Pt: Mario Kratz, Fred Hutchinson, Cancer Research Centre

2015-2016 Research Transfer Activities:

- 3 scientific papers were published in a peer-reviewed scientific journal
- 27 posters and abstracts were presented in scientific conferences
- 1 information and technical report was provided to the industry
- 15 invited presentations were delivered at national and international conferences
- 2 workshops and presentations were delivered to farmers for knowledge transfer

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