

From new products, to food safety to public perception, the Advanced Foods & Materials Network (AFMNet) is driving Canadian advances in food and biomaterials knowledge to market for societal benefit. Our multi-disciplinary teams of scientific researchers, professionals, industry partners and government agencies are working to improve the quality and nutritional value of foods while applying new processes in biotechnology to develop products, like lower cost antibiotics, that contribute to better health.

Collaboration and networking are vital to the success of all Networks of Centres of Excellence and AFMNet is no exception. Over 75 researchers at 22 Canadian universities help identify gaps in existing research capacity, support the training of highly qualified individuals and succeed in moving research from the lab to store shelves. Below is a listing of our 18 current projects. Please visit www.afmnet.ca for more information on any of our cutting-edge research and researchers.



AFMNet Discovery Research Projects

April 1, 2009 – March 31, 2011

Stephen Cunnane and Melanie Plourde,
Université de Sherbrooke

Do apolipoprotein E polymorphisms influence risk of cognitive decline by modulating omega-3 fatty acid metabolism?

John Dutcher, *University of Guelph*

Bacteria Biofilms and Foods: Nanotechnology-based strategies for the detection, characterization and remediation of bacterial contamination of foods and food processing surfaces

Ahmed El-Sohemy, *University of Toronto*

Toronto nutrigenomics and health study

Spencer Henson, *University of Guelph*

The AFMNet Consumer Monitor: Tracking consumer attitudes towards new products for health and wellbeing in Canada

Martin Kalmokoff, *Dalhousie University*

Brent Selinger, *University of Lethbridge*

Examining the impact of diet and the intestinal microbiome on gut health and general well-being

David Kitts, *University of British Columbia*

Nutrigenomic studies on the effectiveness of stabilizing reduced folates using nano-encapsulation technologies

Nicholas Low, *University of Saskatchewan*

Traceability and authenticity of foods from analytical and consumer perspectives

Alejandro Marangoni, *University of Guelph*

Gianfranco Mazzanti, *Dalhousie University*

Engineering the oil binding capacity and rheological properties of nanocrystalline fat networks structured using high shear fields under non-isothermal conditions

André Marette, *Université Laval*

Creation of a new fish-peptide/n-3 PUFA-based functional food for the treatment of obesity and type 2 diabetes moving towards nutrigenomics-based personalized nutritional interventions

Yoshinori Mine, *University of Guelph*

Dietary peptide- and amino acid-based interventions to improve human gut health and immunity

Dérick Rousseau, *Ryerson Polytechnic University*

Salt, science and society - a collaborative approach to salt reduction in processed foods

Wankei Wan, *University of Western Ontario*

Biopolymer based controlled release systems for biomedical applications

AFMNet Strategic Transition & Application of Research (STAR) Projects

As of April 1, 2009 - Various Funding Periods

Rotimi Aluko, *University of Manitoba*

Antihypertensive Properties of a Novel Pea Protein Hydrolysate Product

Douglas Fudge, *University of Guelph*

Manufacture of High Performance Renewable fibres from Hagfish Slime Thread

Tom Gill, *Dalhousie University*

Bacterial Destruction of Amnesic Shellfish Toxin

Randy Guzman, *St. Boniface General Hospital*

Nutrigenomic Approach to Understanding the Cardioprotective Mechanisms of Dietary Flaxseed in Patients with Peripheral Arterial Disease

Yoshinori Mine, *University of Guelph*

Identification of Bioactive Peptides in Egg Yolk Digests

Louise Nelson, *University of British Columbia (Okanagan)*

Peter Sholberg, *Pacific Agri-Food Research Centre*

Biological Strategies for Improved Detection and Control of Post-Harvest Decay in Pome Fruits