

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 100 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 25 CURRENT PROJECTS. PLEASE VISIT WWW.AFMNET.CA FOR MORE INFORMATION ON ANY OF OUR CUTTING-EDGE RESEARCH AND RESEARCHERS.

AFMNET PROJECTS 2006-2008

THEME I:

Structure-Dynamics-Function of Foods and Biomaterials (SDFF&B)

THEME LEADER:

John Dutcher, *University of Guelph*

John Dutcher and Terry Beveridge, *University of Guelph*

Bacteria, Biofilms and Foods: Structure, Growth and Nanotechnology Applications

Tom Gill, *Dalhousie University*

David Pink, *St. Francis Xavier University*

Terry Beveridge, *University of Guelph*

Bacterial Porin Proteins: Their Importance in Uptake and Resistance to Cationic Antimicrobial Peptides

Dérick Rousseau, *Ryerson Polytechnic University*

Allan Paulson, *Dalhousie University*

Biopolymer-based platforms for controlled release applications in foods and biomaterials

Barbara Moffatt, *University of Waterloo*

Characterization of Plant-Derived Proteins and Carbohydrates and Their Use to Improve Frozen Food Quality

Robert Hancock, *University of British Columbia*

Engineering new antimicrobial agents for food safety

Nicholas Low, *University of Saskatchewan*

Michael Nickerson, *University of Saskatchewan*

Darren Korber, *University of Saskatchewan*

Production, Characterization and Functionality of Plant-extracted Oligosaccharides Towards Enhancing the Health-promoting Properties of Encapsulated Probiotics

Jacek Lipkowski, *University of Guelph*

Protein and Peptide Self-Assembly: Food-Derived Materials and Interactions with Nanostructured Surfaces

Adam Hitchcock, *McMaster University*

Resistance and control of biofilms on food and food processing surfaces

Rotimi Aluko, *University of Manitoba*

Structure-function properties of novel bioactive peptides

THEME II:

Functional Foods and Nutraceuticals (FF&N)

THEME LEADER:

Ahmed El-Sohehy, *University of Toronto*

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Nutrigenomics and Biomarkers of Chronic Disease

James Friel, *University of Manitoba*

Bioactive Compounds in Human Milk

Peter Jones, *McGill University*

Conjugated Linoleic Acid as a Nutraceutical for Health Promotion in Humans

Martin Kalmokoff, *Dalhousie University*

Brent Selinger, *University of Lethbridge*

Manipulation of intestinal bacterial populations; an investigation on the impact of dietary fibre and prebiotics

Yoshinori Mine, *University of Guelph*

Nutrigenomic and proteomic approaches for the study of functional peptides and amino acids to improve gut health

André Marette, *Laval University*

The beneficial effects of fish nutrients on the obesity-linked metabolic syndrome and cardiovascular risk profile. An integrative genomic and metabolic phenotyping project

THEME III:

Genetics, Ethics, Economics, Environment, Law & Society (GE³LS)

THEME LEADER:

Conrad Brunk, *University of Victoria (until June 1, 2007)*

David Castle, *University of Ottawa (post June 1, 2007)*

Conrad Brunk, *University of Victoria*

Sarah Hartley, *University of British Columbia*

Factors Accounting for Expert and Non-Expert Positions on the Ethical Issues in Animal Biotechnology and the Implications for Public Policy

Heather Boon, *University of Toronto*

Natural Health Product Regulations: Perceptions and Impact

David Castle, *University of Ottawa*

Tim Caulfield, *University of Alberta*

Social Issues in Nutritional Genomics: The Design of Appropriate Regulatory Systems and Issues of Public Representations and Understanding

Cecil Forsberg, *University of Guelph*

Omics for Novel Plant and Animal Food Product Assessment and Risk Identification

Spencer Henson, *University of Guelph*

Understanding Consumer Acceptance of Functional Foods and Nutraceuticals

STRATEGIC TRANSITION & APPLICATION OF RESEARCH (STAR) PROJECTS

John Dutcher, *University of Guelph*

Highly branched bacterial polysaccharides that assemble into nanospheres with unusual surface properties

Alejandro Marangoni, *University of Guelph*

Market validation initiative for zero trans fat soy and canola oil baking fats and food spreads

Santosh Misra, *University of Victoria*

Field trials of antimicrobial peptide expressing transgenic plants

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

Molecular and biological approaches for improved prediction and control of post-harvest decay in pome fruits

Gregor Reid, *University of Western Ontario*

(*Lawson Health Research Institute*)

Novel probiotic yogurt supplemented with micronutrients for patients with HIV/AIDS or other immune deficiencies and malnutrition