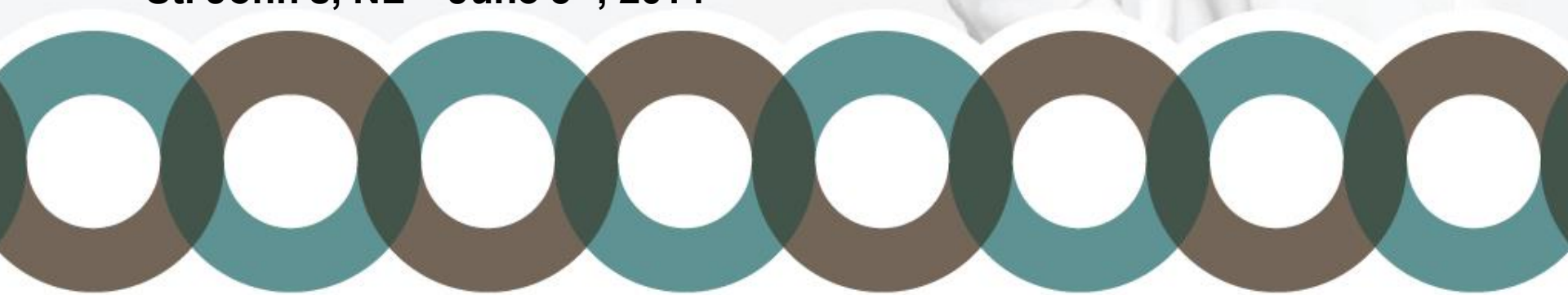




**NSERC  
CRSNG**

# STRATEGY FOR PARTNERSHIPS AND INNOVATION

**CNS ILSI North America Food for Health Workshop  
St. John's, NL – June 5<sup>th</sup>, 2014**



Natural Sciences and Engineering  
Research Council of Canada

Conseil de recherches en sciences  
naturelles et en génie du Canada

Canada 

# Food for Health Research with NSERC?

- NSERC can fund projects that are natural sciences or engineering related, such as:
  - *Animal health and veterinary sciences*
  - *Biomedical devices and Imaging technology*
  - *Informatics*
  - *Cell biology (not disease treatment stage)*
  - *Nutraceuticals*
  
- *NSERC will NOT fund:*
  - *Treatment disease or prevention projects*
  - *Clinical trails*
  - *Research in active pharmaceuticals or vaccines and more*

**More details  
available at  
[www.science.gc.ca](http://www.science.gc.ca)**



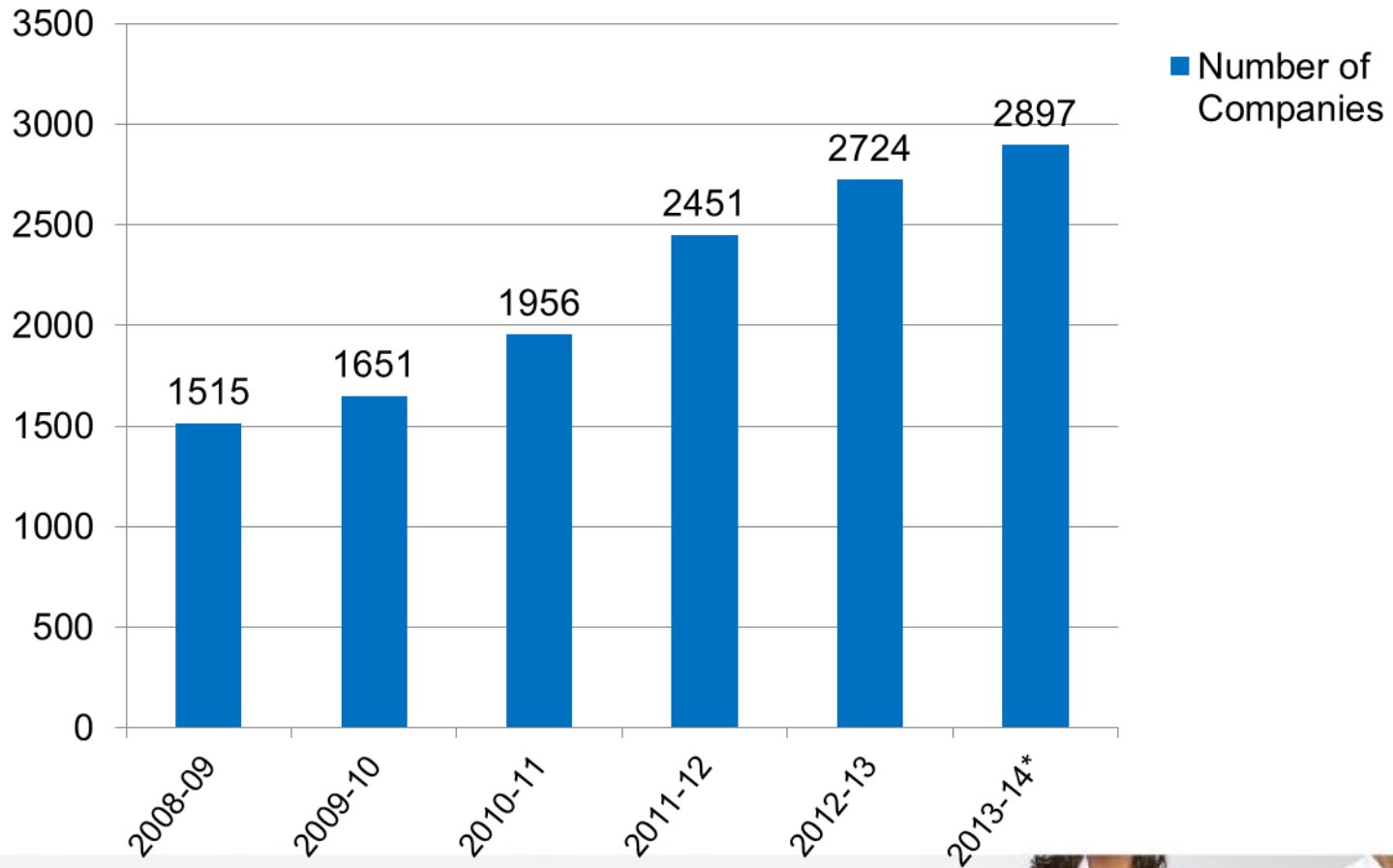
# NSERC Partnerships

- Industry-Driven Research Collaborations
- Strategic Research Projects & Networks
- Commercialization
- Student Training in Industry
- College & Community Innovation

CONNEXION. COLLABORATION. PROSPÉRITÉ.



# More Companies are Working with NSERC Every Year



CONNEXION. COLLABORATION. PROSPÉRITÉ.



# Initiating New Research Partnerships with Companies – Interaction & Engage Grants

## Interaction Grant

- Travel grant for academic researchers to establish a new relationship with companies
- Up to \$5000/3 months
- Apply through NSERC regional offices

## Engage Grants

- New research partnership that responds to company needs
- Up to \$25K; 6 months
- Simple application
- Quick decision
- No IP negotiation
- Requires previous peer review in NSE (within the past 6 years)
- Engage Plus allows 6 month extension



# What are companies saying about Engage Projects?

- Project was a success 94%
- Problem was partially or completely solved 86%
- Intend to apply the results 76%
- New technology or knowledge gained 95%
- 15% of surveyed companies hired one of the students
- A majority of participating companies have experienced growth in revenue & number of employees

CONNEXION. COLLABORATION. PROSPÉRITÉ.



# Recent Engage Grant in Food for Health



**Researcher:** Brian Staveley, Biology, Memorial University

**Company Partner:** Sedna Nutraceuticals Inc.

**Project:** Nutraceutical Product Assessment in *Drosophila* models of Parkinson Disease.

This project aims to evaluate the effectiveness of a number of dietary supplements produced by Sedna Nutraceuticals (blueberry powder, cranberry powder, blueberry/chia powder, chia) to counteract the effects of ageing and, in particular, the effects of Parkinson Disease-related neurodegeneration in our model organism over time.





# Engage Grants Leading to a CRD



**Researcher:** Farah Hosseinian, Food Science and Nutrition program (Chemistry), Carleton University

**Company Partner:** Natunola Health Inc., Winchester, ON

**EG Project (04/2012):** Investigation of prebiotics and antioxidant activity of flaxseed in yogurt and yogurt beverages (kefir)- a new alternative dietary therapy to prevent CVD.



## Collaborative Research and Development Grants (CRD)

**Company Partner:** Natunola Health Inc.

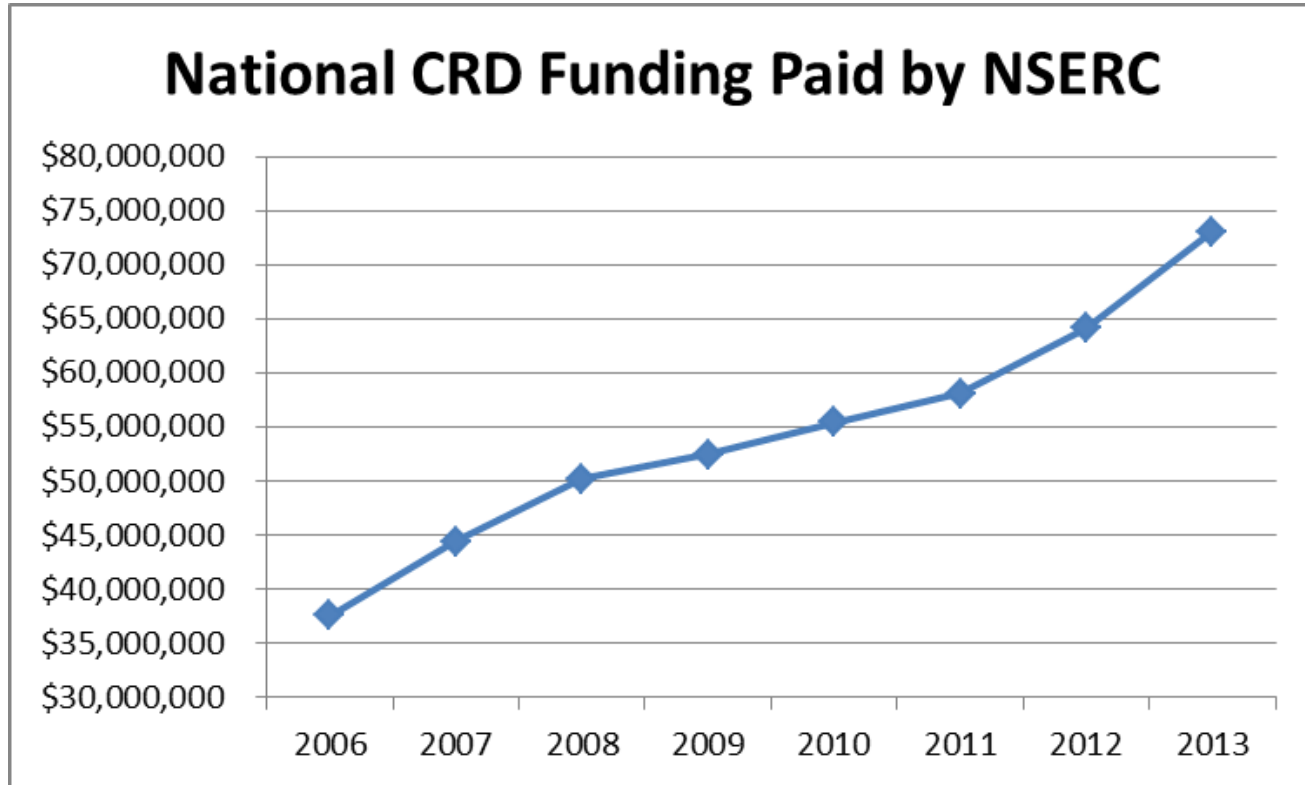
**CRD Project (03/2013):** Flaxseed mucilage to enhance antioxidant, anti-inflammatory activity and nutritional quality of innovative fermented dairy products.

***“This is one of the best programs my company has [worked with] so far, which helped develop a new product and new opportunity.”***

Nam Fong Han, Natunola Health Inc.



# NSERC Collaborative R&D (CRD) Funding Trends



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# NSERC Industrial Research Chairs



## Mansel Griffiths

Department of Food Science, University of Guelph  
NSERC/Dairy Farmers of Ontario Industrial Research Chair  
in Dairy Microbiology

Research focused on the health impacts and benefits of milk-related products (e.g. identification of molecules produced by probiotics to combat gastrointestinal infections in children; use of food-grade microorganisms to produce novel foods with health-promoting properties).



## Gerhard Gries

Department of Biological Sciences, Simon Fraser University  
NSERC Industrial Research Chair in Insect Communication Ecology

Research focused on improving human health through reduced exposure to toxic insecticides; improving food quality through elimination of insecticide residues.



- Over 150 NSERC IRCs supported across Canada
- NSERC expenditures of approximately \$27M/year

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# Collaborative Research & Training Experience (CREATE)



- NSERC CREATE for the Canadian Meat Education and Training Network (MEaTnet) for Assuring Meat Safety and Quality
- \$1.65M in NSERC funding
- Shared graduate studies curriculum; 50 grads in six years; meat science graduate programs at all four partner universities by 2020

UAlberta professor and meat scientist Heather Bruce is the director of the new Canadian Meat Education and Training Network.



CONNEXION. COLLABORATION. PROSPÉRITÉ.



# NSERC Industry Student Training Awards

## Industrial Postgraduate Scholarships (IPS)

- Up to 2 years, \$21K per year (NSERC contribution is \$15K)
- **KeelyNicole Johnston**, Grad Student, Faculty of Land & Food Systems, UBC, supervised by Dr. Kevin Allen
- NSERC IPS – Underway: **Surveillance and Characterization of Listeria monocytogenes Recovered from Oceanfood Food Processing Facilities**
- **Industry partner:** Oceanfood Industries Ltd., Richmond, BC

## Industrial Undergraduate Student Research Awards (IUSRA)

- Up to 16 weeks; \$4500 salary paid to the company; B average required
- Kiersten Dionne (U de Moncton)
- NSERC IUSRA Underway: **Natural Product Modulators of Muscle Protein Synthesis**
- Evaluating phytoconstituents from a variety of food crops for an ability to modulate muscle protein synthesis
- **Industry Partner:** OmniActive Health Technologies (Canada) Ltd., PEI

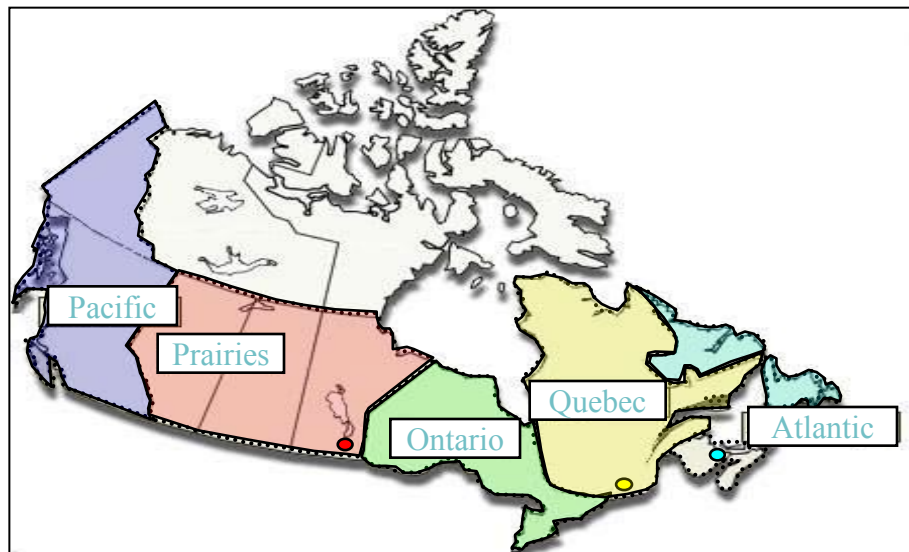


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**Contact any of the 5  
NSERC Regional  
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with NSERC  
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