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Dr. Farah Hosseinian

Correspondence language: English

Sex: Female

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Dr. Farah Hosseinian

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes

Degrees

- 2006/4 Doctorate, Pharmaceutical Science, University of Saskatchewan
Supervisors: Dr. Ed Krol, 2001/9 - 2006/4
- 2000/4 Master's Thesis, Food and Bioproduct Sciences, University of Saskatchewan
Supervisors: Dr. Bob Tyler, 1997/9 - 2000/4
- 1986/9 Bachelor's Honours, Food Science, University of Tehran

Recognitions

- 2017/9 International fund
AgroSup Dijon University
Honor
2017-to present: Initiate application for L'Oréal scholarship in order to continue an scholarship-based international collaboration with Dr. Ali Assifaoui and Remi Saurel at AgroSup Dijon University, Dijon France. The focus is study on microemulsions systems from berries for cosmetic uses.
- 2016/10 Student Exchange program
University
Honor
2016-to present: Initiate a student exchange program between Carleton University and Miguel Hernández university, Alicante, Spain. This is the outcome of my collaboration with Drs. Domingo Lopez and Nuria Martí Bruñá from 2013. A discussion on the agreement process between two universities is underway. Additionally, I and Professor Michel Rod (Associate Dean Research & International and PhD Program Director) from Sprott School of Business contributed to a workshop (Dec 10 to Dec 20, 2016) at Miguel Hernandez University.
- 2016/9 Consulting
Canada border
Honor
2016-to present: Consulting with Lawyers at Canada border and health Canada to provide scientific evidences for food safety and food adulteration. Examples are helping lawyers at government of Canada to identify adulterated table olive, olive oil, processed meat and colour.

- 2016/2 Founder: Jerusalem Artichoke Association of Canada (JAAC) (2016)
 Jerusalem Artichoke Association of Canada (JAAC)
 Distinction
 Jerusalem Artichoke is a native plant in Canada and I strongly believe that it can be used as a table sugar alternative. There is a big gap in research between growers, processors and researchers. After 3-4 years of activities, initiate a JAAC in order to fill the gaps.
- 2011/1 Top Cited Paper
 International Society for Nutraceuticals and Functional Foods (ISNFF)
 Citation
 Hosseinian, F.S., and Mazza, G. Triticale bran and straw: Potential new sources of phenolic acids, proanthocyanidins, and lignans. J FF. 1: 57-64 (2009). This paper was awarded the Top Cited Paper for 2010. The method used in this paper is very unique to separate different phenolics from the same extract.

User Profile

Research Specialization Keywords: Phytochemistry, Agri-Food Processing, Ultrasound, Supercritical CO₂, Fermentation, Value-Added to Agricultural byproducts

Employment

- 2013/7 Associate Professor
 Food Science & Nutrition, Chemistry Department, Science, Carleton University
 Full-time, Associate Professor
 Tenure Status: Tenure
- 2009/7 - 2013/7 Assistant Professor
 Food Science & Nutrition, Chemistry Department, Carleton University
 Full-time, Assistant Professor
 Tenure Status: Tenure Track
- 2008/1 - 2009/1 PDF
 Food and Bioprocess Section, Pacific Agriculture Research Centre
 Full-time, Term
 Tenure Status: Non Tenure Track
 working on extraction, purification and antioxidant activity of bioactives from agri-food byproducts and leftovers including cereal bran and flaxseed meal.
- 2007/1 - 2008/1 PDF
 Food Science Department, College of Agriculture, The University of Manitoba
 Full-time, Term
 Tenure Status: Non Tenure Track
 Working on extraction of bioactives from Agri-food byproducts.
- 2007/9 - 2007/12 Sessional Lecturer
 Department of Food Science, University of Manitoba, The University of Manitoba
 Part-time, Sessional, Lecturer
 Tenure Status: Non Tenure Track
 Teaching Dairy Science
- 2007/9 - 2007/10 Guest Lecturer
 Department of Food Science, University of Manitoba, The University of Manitoba
 Part-time, Lecturer
 Tenure Status: Non Tenure Track
 Teaching Food Chemistry, section on Food enzymes

2001/9 - 2004/9	Teaching/Lab Assistant College of Pharmacy and Nutrition, University of Saskatchewan Part-time Tenure Status: Non Tenure Track TA in two Pharmacy Labs.
2002/9 - 2002/10	Guest Lecturer College of pharmacy and Nutrition, University of Saskatchewan Part-time Tenure Status: Non Tenure Track Taught first year Nurtition, fats and oils section.
1999/9 - 2002/1	Research Assistant Food and Bioprocess Section, Agriculture and Agri-Food Canada, Saskatoon Research Centre Full-time Tenure Status: Non Tenure Track working on processing and characterization of flaxseed and canola oil as well as their dietary fibre.
1998/9 - 2000/9	Teaching/Lab Assistant Food and Bioproduct Sciences, University of Saskatchewan Part-time Tenure Status: Non Tenure Track TA in Food Microbiology Labs
1998/1 - 2000/1	Research Assistant Food Processing, Saskatchewan Research Council Full-time Tenure Status: Non Tenure Track Oil processing and characterization from oilseed crops.
1993/9 - 1994/8	Research Assistant Biotechnolgy, Biotechnolgy research centre Full-time, Term Tenure Status: Non Tenure Track Working on application of cheese whey for production of heath resistance alpha-amylase.
1989/1 - 1990/1	Quality Control Manager Food Processing Company Quality Control Manager in a Chocolate manufacture.
1989/9 - 1989/9	Lecturer Food Science Department, Azad University, University Full-time, Sessional, Lecturer Tenure Status: Non Tenure Track Teaching Food Technology
1983/1 - 1985/1	Quality Control Manager Food Company Quality Control Manager in a fruit Canned manufacture.

Research Funding History

Awarded [n=3]

2017/5 - 2017/11 Principal Applicant	Ultrasound can enhance physical and chemical properties of whey permeate, Grant Funding Sources:
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Natural Sciences and Engineering Research Council of Canada (NSERC)
Engage
Total Funding - 25,000
Portion of Funding Received - 25,000
Funding Competitive?: Yes

2015/5 - 2017/5
Principal Investigator Innovative bioeconomic ways to reduce okara waste in soybean food products, Grant

Funding Sources:
Natural Sciences and Engineering Research Council of Canada (NSERC)
CRD
Total Funding - 88,300
Portion of Funding Received - 88,300
Funding Competitive?: Yes

2016/9 - 2017/2
Principal Investigator Total utilization of wine waste improving agri-food sustainability, Grant

Funding Sources:
Natural Sciences and Engineering Research Council of Canada (NSERC)
NSERC-CRD
Total Funding - 25,000
Portion of Funding Received - 25,000
Funding Competitive?: Yes

Completed [n=8]

2011/1 - 2016/5
Co-applicant Renewable bioactives from cereal byproducts and fruit leftovers/wastes, Grant

Funding Sources:
Canada Foundation for Innovation (CFI)
Total Funding - 373,440
Portion of Funding Received - 373,440
Funding Competitive?: Yes

Co-applicant : Dr. Apollinaire Tsopmo

2013/1 - 2016/1
Principal Investigator Flaxseed mucilage to enhance antioxidant, anti-inflammatory activity and nutritional quality of innovative fermented dairy products, Grant

Funding Sources:
Natural Sciences and Engineering Research Council of Canada (NSERC)
CRD
Total Funding - 135,000
Portion of Funding Received - 135,000
Funding Competitive?: Yes

Co-applicant : Dr. Bob Burk;

Collaborator : Natunola Health Inc.

2014/1 - 2015/8
Principal Investigator Investigation of contributing factors to nutritional yield in zero-loss soybean processing system, Grant

Funding Sources:
Natural Sciences and Engineering Research Council of Canada (NSERC)
Engage
Total Funding - 25,000
Portion of Funding Received - 25,000
Funding Competitive?: Yes

2013/1 - 2014/1
Principal Investigator Characteristics of mucilage from brown and yellow flaxseed and their properties, Grant

Funding Sources:

National Research Council Canada (NRC) (Ottawa, ON)

Industrial Research Assistance Program (IRAP)

Total Funding - 20,000

Portion of Funding Received - 20,000

Funding Competitive?: Yes

Collaborator : Natunola Health Inc.

2013/1 - 2014/1

Principal Investigator

Investigate of sensory profile of innovative flaxseed-yogurt and kefir using E-nose, Grant

Funding Sources:

Ontario Center of Excellence (OCE)

Technical Problem Solving (TPS)

Total Funding - 25,000

Portion of Funding Received - 25,000

Funding Competitive?: Yes

Collaborator : Natunola Health Inc.

2010/1 - 2013/4

Principal Investigator

Developing high-value bioproducts from cereal byproducts and berries leftovers, Grant

Funding Sources:

Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)

New Directions Research Program

Total Funding - 110,000

Portion of Funding Received - 110,000

Funding Competitive?: Yes

2012/1 - 2012/9

Principal Investigator

Investigation of prebiotics and antioxidant activity of flaxseed in yogurt and yogurt beverages (kefir), Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Engage

Total Funding - 25,000

Portion of Funding Received - 25,000

Funding Competitive?: Yes

Collaborator : Natunola Health Inc.

2011/5 - 2011/12

Principal Investigator

E-nose technique to enhance the quality of fresh strawberries and raspberries, Grant

Funding Sources:

Natural Sciences and Engineering Research Council of Canada (NSERC)

Engage

Total Funding - 25,000

Portion of Funding Received - 25,000

Funding Competitive?: Yes

Collaborator : Dentz Berry INC.

Under Review [n=3]

2018/5 - 2021/4

Principal Applicant

Jerusalem Artichoke in Canada: Advancing Knowledge and Farming Best Management Practices, Grant

Funding Sources:

Yes

Agriculture and Agri-Food Canada, Canadian Agricultural Adaptation Program, Growing Forward 3

Total Funding - 315,000

	Portion of Funding Received - 0 Funding Competitive?: Yes
2018/1 - 2020/12 Principal Applicant	Role of Jerusalem artichoke inulin in type 2 diabetes in a mouse model, Grant Funding Sources: Yes Northern Ontario Academic Medicine Association Total Funding - 75,000 Portion of Funding Received - 0 Funding Competitive?: Yes
2018/1 - 2020/12 Principal Applicant	Pork livestock health and wellness: exploring the benefits of introducing Jerusalem artichoke in swine feedstock, Grant Funding Sources: Yes Ontario Pork Research Total Funding - 70,000 Portion of Funding Received - 0 Funding Competitive?: Yes

Student/Postdoctoral Supervision

Bachelor's Honours [n=23]

2017/9 - 2017/4 Principal Supervisor	Segolene Salat (In Progress) , Carleton Student Degree Expected Date: 2018/4 Thesis/Project Title: Theeffects of ultrasound on bioaccessibility on whey permeate Present Position: BSc student at Carleton, Carleton university
2017/4 - 2017/9 Academic Advisor	Raisa Lokman (In Progress) , Carleton Student Degree Expected Date: 2018/4 Thesis/Project Title: Developing a StableEmulsion by Incorporating Inulin Derived from Jerusalem Artichoke to Produce an Innovative Cosmetic Moisturizing Cream Present Position: BSc student at Carleton, Carleton university
2017/4 - 2017/8 Academic Advisor	Colleen Celton (In Progress) , Carleton Student Degree Expected Date: 2018/4 Thesis/Project Title: Influenceof partial wheat flour substitution by germinated and non-germinated blackpurslane on rheological properties of bread and phenolic content Present Position: BSc student at Carleton, Carleton university
2017/4 - 2017/8 Academic Advisor	Ana Qureshi (In Progress) , Carleton Student Degree Expected Date: 2018/4 Thesis/Project Title: Optimization of freshJerusalem artichoke and inulin powder as alternatives to wheat flour toincrease bread quality Present Position: BSc student at Carleton, Carleton university
2016/9 - 2017/4 Co-Supervisor	Daniel Lambert (Completed) , Carleton Thesis/Project Title: Investigationthe market potential of industrial scale vertical farming to improveenvironmental sustainability and food security. Present Position: Part of R&D, Mississauga, ON, Maple Leaf

2014/9 - 2016/4 Principal Supervisor	Dorsa Arfand (Completed) , Carleton Thesis/Project Title: DNA-based methods to characterize conjugated phenolics and dietary fibre. Present Position: MSc student at McGill, McGill
2014/9 - 2016/4 Principal Supervisor	Natasha Dheda (Completed) , Carleton Thesis/Project Title: Stability of phenolics and dietary fibre in soybean bread and kefir Present Position: NA
2014/5 - 2014/9 Principal Supervisor	Melanie Ha Yeung (Completed) , Carleton Thesis/Project Title: Antioxidant activity of phenolics in lentils Present Position: Research Assistant in Food Science and Nutrition
2012/9 - 2013/4 Co-Supervisor	Shana Cameron (Completed) , Carleton Thesis/Project Title: Extraction, characterization, and antioxidant activity of amygdalin. (Honours thesis BIOC 4908) Present Position: PhD Chemistry student at Carleton University
2012/5 - 2012/8 Principal Supervisor	Shana Cameron (Completed) , Carleton Thesis/Project Title: Antioxidant activity of flaxseed mucilage. Present Position: MSc Chemistry student at Carleton University
2012/5 - 2012/8 Principal Supervisor	Natasha Ramkay (Completed) , Carleton Thesis/Project Title: Flaxseed and prevention of lipid oxidation. Present Position: Food Quality Assurance Coordinator, Mississauga, ON, Real Food For Real Kids
2012/5 - 2013/4 Principal Supervisor	Yichen Du (Completed) , Carleton Thesis/Project Title: Sugar analysis by HPLC Present Position: NA
2011/9 - 2012/4 Principal Supervisor	Kristine Tuckey (Completed) , Carleton Thesis/Project Title: Antioxidant Activity of Free and Bound Phenolics in Triticale Bran. (Honours thesis FOOD 4908) Present Position: Fisher Scientific Technical Support
2011/9 - 2012/4 Principal Supervisor	Leanne Wilson (Completed) , Carleton Thesis/Project Title: Pomegranate- super fruit of 21st century with super antioxidant activity. (Honours thesis FOOD 4908) Present Position: MSc student in Food Science, McGill
2011/9 - 2012/4 Principal Supervisor	Susanna Fang (Completed) , Carleton Thesis/Project Title: Prebiotic in strawberries and raspberries. (Honours thesis FOOD 4908) Present Position: Research assistant in Food Science and Nutrition laboratory at Carleton University
2011/5 - 2011/8 Principal Supervisor	Susanna Fang (Completed) , Carleton Thesis/Project Title: Antioxidant activity of anthocyanins in strawberries and raspberries. Present Position: Research assistant in Food Science and Nutrition laboratory at Carleton University
2011/5 - 2011/8 Principal Supervisor	Shana Cameron (Completed) , Carleton Thesis/Project Title: Developing gluten-free low salt foods. Present Position: MSc Chemistry student at Carleton University
2011/5 - 2011/8 Principal Supervisor	Candace Legault (Completed) , Carleton Thesis/Project Title: Antioxidant activity of prebiotics in berries. (Honours thesis INSC 4908) Present Position: Applied for Forensic labs- RCMP

- 2010/9 - 2011/4
Principal Supervisor Abdelrahman Hashem (Completed) , Carleton
Thesis/Project Title: Extraction and characterisation of alkylresorcinols from triticale using Microwave. (Honours thesis INSC 4908)
Present Position: BSc student Neuroscience
- 2010/9 - 2011/4
Principal Supervisor Christina Alswiti (Completed) , Carleton
Thesis/Project Title: Potential of bioactive polysaccharides in seabuckthorn in fermented dairy products. (Honours thesis INSC 4908)
Present Position: Pharmacy Student
- 2010/9 - 2011/4
Principal Supervisor Ibrahim Farah (Completed) , Carleton
Thesis/Project Title: Extraction of flaxseed lignan and mucilage using microwave technology. (Honours thesis INSC 4908)
Present Position: Student in Caribbean Medical school
- 2010/9 - 2011/4
Co-Supervisor Julia Gliwa (Completed) , Carleton
Thesis/Project Title: Antioxidant activity of rye bran. (Honours thesis BIOC 4908)
Present Position: MSc student in Food Science and Nutrition at Carleton
- 2010/9 - 2011/4
Principal Supervisor Helene Redfern (Completed) , Carleton
Thesis/Project Title: Antioxidant activity of anthocyanins in sour cherries. (Honours thesis INSC 4908)
Present Position: MSc student in Biology at University of Ottawa

Master's Thesis [n=6]

- 2017/4 - 2017/9
Academic Advisor Marie Beccat (In Progress) , AgroSup Dijon University
Student Degree Expected Date: 2018/8
Thesis/Project Title: Developing seabuckthor kombucha with dietary fibre and bioactivity
Present Position: MsC student, AgroSup Dijon University
- 2016/9 - 2018/8
Principal Supervisor Diba Behzad-Poor (In Progress) , Carleton
Thesis/Project Title: Microemulsion properties of phenolic lipids from purslane seeds
Present Position: MsC student, Carleton University
- 2016/9 - 2018/12
Principal Supervisor Ryan Xu (In Progress) , Carleton
Student Degree Expected Date: 2018/12
Thesis/Project Title: Investigation of ultrasound technique on physical and chemical characteristics of fermented beverages containing inulin
Present Position: MSc student, Carleton university
- 2014/1 - 2017/4
Principal Supervisor Xuhao Zhao (Completed) , Carleton
Thesis/Project Title: Functionality of Jerusalem Artichoke Derived Inulin in Vietnamese Coffee and Developing a Novel Food Grade Microemulsion System
Present Position: Research Assistant in Chemistry, Carleton University
- 2011/9 - 2013/9
Co-Supervisor Julia Gliwa (Completed) , Carleton
Thesis/Project Title: Alkylresorcinols in rye bran and their bioactivity.
Present Position: Associate Scientist, Toronto, ON, Custom Biologics cell-based bioassays Company
- 2010/9 - 2012/12
Principal Supervisor Christina Alswiti (Completed) , Carleton
Thesis/Project Title: Potential of Seabuckthorn as a new source of prebiotics.
Present Position: Administration Assistant at Ottawa Hospital

Doctorate [n=5]

- 2017/4 - 2017/12
Academic Advisor
Azza Ferchichi (In Progress) , University of Tunis El-Manar
Student Degree Expected Date: 2019/4
Thesis/Project Title: Fatty acids, sterols, phospholipids and triterpenoids of Vicia faba oil (faba bean seed oil) fractions and their bioaccessibility.
Present Position: PhD student, University of Tunis El-Manar
- 2016/10 - 2018/8
Academic Advisor
Yasmina Aitchait (In Progress) , Université de Béjaïa, Algeria
Student Degree Expected Date: 2019/12
Thesis/Project Title: Interaction between phenolics and sugars in carob-kefir with lactic acid bacteria strains: effects on solubility of vitamins, antioxidant activity and sensory properties
Present Position: PhD student, University of Bejaia
- 2013/9 - 2018/8
Co-Supervisor
Shana Cameron (In Progress) , Carleton University
Thesis/Project Title: Role of inflammation in oxidation stress
Present Position: PhD Chemistry student, Carleton University
- 2010/1 - 2016/8
Principal Supervisor
Rania Agil (Completed) , Carleton
Thesis/Project Title: Antioxidant and anti-inflammatory activity of alkylresorcinols in triticale bran.
Present Position: Faculty in Food Science Department, Penn State University, USA
- 2009/9 - 2014/4
Principal Supervisor
Aynur Gunenc (Completed) , Carleton
Thesis/Project Title: Extraction and characterization of alkylresorcinols in wheat bran as valuable bioproducts.
Present Position: Instructor in Food Science at Carleton University

Research Associate [n=3]

- 2014/5 - 2016/5
Principal Supervisor
Bita Jafarpour (Completed) , Carleton
Thesis/Project Title: Developing foodomic and DNA-Based methods for bioactives in kefir.
Present Position: NA
- 2013/9 - 2015/9
Principal Supervisor
Mehri HadiNezhad (Completed) , Carleton
Thesis/Project Title: Physical and chemical characteristics of phenolics in oilseeds.
Present Position: Research Assistant, AAFC
- 2011/9 - 2012/5
Principal Supervisor
Hanna Mirrashed (Completed) , Carleton
Thesis/Project Title: E-nose application for shelf life of fresh berries.
Present Position: Manager at Stem Cell and Research Laboratory, Western University of Health Sciences, CA, US

Event Administration

- 2016/3 - 2017/2
Instructor, New Course development, Course, 2017/9 - 2030/9
- 2016/8 - 2016/10
Chair and helping organizer for antioxidant section, International Society of Nutraceuticals and Functional Foods (ISNFF) in Orlando, FL, USA, Conference, 2016/10 - 2016/10
- 2013/9 - 2016/9
External Reviewer, Variety of grant application including two NSERC-CRD, one NSERC-DG, one OMAFRA, one Alberta innovation and one international grant from 'German Academic Exchange Service (DAAD), EU/COFUND-Program P.R.I.M.E., Association, 2013/9 - 2016/9
- 2015/3 - 2016/3
Instructor, Developing new course (Food Processing) for Food Science and Nutrition Students, Course, 2017/9 - 2018/9

2013/2 - 2016/2	Internal Reviewer, NSERC-USRA and OGS scholarship/award for undergraduate (40 to 45 applications) and graduate students (15 to 20 application) at Carleton University, Course, 2013/5 - 2016/5
2015/8 - 2015/10	Chair for bioactive phenolics section, International Society of Nutraceuticals and Functional Foods (ISNFF) , Wuxi, China, Conference, 2015/10 - 2015/10
2014/1 - 2014/7	Chair and helping organizer for food bioactives, International Union of Food Science and Technology (IUFoST), Conference, 2014/6 - 2014/6
2014/1 - 2014/6	Volunteer Organizer, CIFST conference, Conference, 2014/6 - 2014/6
2011/9 - 2013/12	Course Development, Functional Foods and Nutraceuticals (FOOD 5101), Course, 2011/9 - 2013/12
2010/9 - 2013/12	Course Development, Food Engineering (FOOD 3004), Course, 2013/9 - 2013/12
2013/8 - 2013/10	Chair and helping organizer for antioxidant section, International Society of Nutraceuticals and Functional Foods (ISNFF) in Istanbul, Turkey, Conference, 2013/10 - 2013/10
2012/3 - 2013/5	Coordinator, Food Science Research Project (FOOD 4908), Course, 2012/9 - 2013/4
2012/3 - 2013/5	Coordinator, Food Science Honours Essay and Research Proposal (FOOD 4907), Course, 2013/4 - 2013/4
2012/3 - 2013/5	Cordinator, Food Science Research Project (FOOD 4907), Course, 2012/9 - 2013/4
2010/12 - 2013/4	Course Development, Food Analysis (FOOD 3002), Course, 2013/1 - 2013/4
2010/1 - 2013/4	Undergraduate Recruitment, Presentations to educate high school students, teachers, and principles on the relevance of Food Science and Nutrition (FSN) and increase awareness for the FSN program at Carleton, Seminar, 2010/3 - 2013/3
2012/10 - 2012/10	Coordinator, Student Field Trips to Food Industries, Workshop, 2011/10 - 2012/7
2012/10 - 2012/10	Member, Contributing to Future of Food in Healthcare, Conference, 2012/10 - 2012/10

Editorial Activities

2009/1 - 2016/12	Reviewer, invited to review manuscripts (average 5 per year) for variety of journals including: J. Agric. Food Chem, Food Chem, Food and Bioprocess Technology, J. Functional Food, Foodscience&Technology, Journal
2015/12 - 2016/10	Editor, Dietary Fiber Functionality in Food and Nutraceuticals From Plant to Gut, Book
2011/4 - 2016/4	Member, Member of Editorial Board of the Mediterranean Journal of Chemistry, Journal
2010/1 - 2011/7	Reviewer, Handbook of Analysis of Active Ingredients in Functional Foods, Book

Expert Witness Activities

2016/2 - 2020/2	Chair, Consulting for research and knowledge transfer for Jerusalem Artichoke through (JAAC), Canada, Ottawa I am founder of JAAC and chair of research committee.
2016/10 - 2017/1	Scientist witness, Adulteration of canned meat, Canada, Ottawa Assisting lawyers at Canada border and Health Canada to provide scientific evidences for a case on adulteration food (Canned process meat). Two students are helping too. This was based on invitation through Health Canada.

2015/11 - 2016/1 Consulting, Adulteration of table olive, Canada, Ottawa
 Consulting with government of Canada (Canadian border) for a case on adulteration of table olives and olive oil.

Organizational Review Activities

2016/1 - 2020/1 Founder, Jerusalem Artichoke Association of Canada (JAAC)
 The JAAC was formed in 2016 to bring together people who are interested in the many aspects of Jerusalem artichoke growing, processing, utilization and health properties. By working together, we hope to raise the visibility and re-discovering of this truly Canadian plant (as future sustainable sugar).

Knowledge and Technology Translation

2010/1 - 2013/3 Researcher, R&D Collaboration with Industry
 Group/Organization/Business Served: Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
 Target Stakeholder: Academic Personnel
 Outcome / Deliverable: Networking with cereal industry: cereal-based food sectors/several Food companies. including Kraft Canada
 Evidence of Uptake/Impact: Value added to wheat grown in Ontario
 References / Citations / Web Sites: OMAFRA
 Activity Description: Information exchange meetings. Product development. Developing of Environmentally-friendly extraction method, using a supercritical CO₂ extractor. Presentations at national and international meetings, including American Association of Cereal Chemists (AACC), Canadian section of American Oil Chemists' Society (AOCS) and Canadian Institute of Food Science and Technology (CIFST). Communication with members of the Ontario Cereal grower association.

International Collaboration Activities

2017/4 - 2018/12 Collaborator, Tunisia
 The collaboration is with Prof. H. Saousse, Faculty of Medicine, University of Tunis El-Manar, Tunisia. The focus is on the extraction, fractionation and identification of the fatty acids, sterols, phospholipids and triterpenoids of Vicia faba oil (faba bean seed oil) with the aim of therapeutic applications, especially for oxidative stress disorders. Additionally, the bioaccessibility of each fraction is investigated.

2016/12 - 2018/12 Collaborator, Spain
 Initiate an international collaboration with Drs. Nuria Marti Brūna and Domingo Lopez, Department of Food Technology, Miguel Hernandez University, Spain. The focus is on investigation of microemulsion systems for fermented foods and cosmetic applications.

2016/10 - 2018/8 Collaborator & Co-supervisor, Algeria
 The main focus of the collaboration is extraction and characterization of prebiotic sugars from carob (date) and fermented carob (date) used for the manufacture of functional fermented dairy products. Furthermore, the functionality of phenolics in the fermented dairy products, solubility of vitamins (D₃ and K₂) and minerals, antioxidant activity and interaction between dietary fibres with phenolics are investigated.

2012/7 - 2013/7 Collaborator, Spain
 Environmental factors affecting phenolics in grapes and wine. A collaboration with Dr. Nuria Marti Brūna, Department of Food Technology, Miguel Hernandez University, Spain

2013/4 - 2013/6 Collaborator, Mexico
 Collaboration with Dr. Sergio Medina-Godoy. Accepting International visiting students.
 Departamento de Biotecnología Agrícola, CIIDIR-IPN Unidad Sinaloa, Juan de Dios Bátiz
 Paredes 250, Guasave, Sin., México

Committee Memberships

2016/9 - 2019/8 Committee Member, Carleton University Senate, Carleton University
 Invited from Dean of Science to act as a member at CU senate.

2016/9 - 2018/8 Committee Member, Curriculum Review Committee for the Institute of Biochemistry,
 Carleton University
 Invitation from Professor B. Willmore for: Curriculum Review Committee for the Institute of
 Biochemistry. Also I act as a member for tenure and promotion for the institute.

2017/10 - 2017/12 Committee Member, Tenure and Promotion, University of Western Ontario
 Invited as an external reviewer for faculty tenure and promotion.

2015/3 - 2017/4 Committee Member, Hiring committee for faculty for Food Science and Nutrition program,
 Carleton University

2016/3 - 2016/4 Committee Member, Hiring a CRC in Food Science and Nutrition, Carleton University

2013/1 - 2014/1 Committee Member, Retirement Program for the Sprott School of Business Committee,
 Carleton University
 Discuss to improve Retirement Program at Carleton

2011/1 - 2013/12 Committee Member, Integrated Science Institute Council Member, Carleton University
 Work closely with the chair of the integrated science program in the expansion of the
 program, addition of new courses, writing the annual report, and in supervision of
 student's honours projects.

2010/1 - 2013/12 Committee Member, Institute of Biochemistry, Carleton University
 Involved in the expansion of the Biochemistry program, addition of new courses, writing
 the annual report, and in supervision of biochemistry student's honours projects.

2010/1 - 2013/12 Committee Member, Curriculum Review Committee for the Institute of Biochemistry,
 Carleton University

2013/10 - 2013/2 Committee Member, Committee of Tenure and Promotion for the Sprott School of
 Business, Carleton University
 Committee of Tenure and Promotion for the Sprott School of Business

2011/10 - 2012/1 Committee Member, Tenure and Promotion Committee in the Chemistry Department,
 Carleton University
 Involved in Tenure and Promotion Committee for four faculty members.

Other Memberships

2009/6 - 2017/7 Member, International Functional Food and Nutraceutical Conference (ISNFF)
 Membership in scientific societies

1998/1 - 2017/1 Member, Institute of Food Technology (IFT)
 Membership in scientific societies

2011/7 - 2014/7 Member, American Association of Cereal Chemists (AACC)
 Membership in scientific societies

1998/1 - 2013/7 Member, American Oil Chemists' Society (AOCS)
 Membership in scientific societies

Presentations

1. Alavifard, D and Hosseinian, F. (2016). Jerusalem Artichoke: Re-Discovering a Forgotten Plant of the Past with Promising Nutritional and Functional Benefits for the Future. Grand opening of Jerusalem Artichoke Association of Canada (JAAC), Ottawa, Canada
 Main Audience: Knowledge User
 Invited?: Yes, Keynote?: Yes
2. Dheda, N and Hosseinian, F. (2016). Effects of fermentation on phenolics and antioxidants in soy-kombucha: a potential dairy free probiotic beverage. International Functional Food and Nutraceutical Conference, Orlando, United States
 Main Audience: Researcher
 Invited?: Yes, Keynote?: No
3. Martin, A and Hosseinian, F. (2016). Developing a microemulsion system from wine waste. International Functional Food and Nutraceutical Conference, Orlando, United States
 Main Audience: Researcher
 Invited?: Yes, Keynote?: No
4. Agil A, Melanie Ha Yeung M, Tulbek MC and Hosseinian F.(2015). Impact of germination on the nutritional value and mineral solubility of wrinkled lentils in fermented kefir- An innovative approach to generating value from waste. International Functional Food and Nutraceutical Conference, Wuxi, China
 Main Audience: Researcher
 Invited?: Yes, Keynote?: No
5. Hosseinian F.(2015). Prebiotic activity of soluble dietary fibre (SDF) and insoluble dietary fibre (IDF) from germinated lentils. Gut Health conference at Penn State University, State Colledge, United States
 Main Audience: Researcher
 Invited?: Yes, Keynote?: No
6. Gunec, A and Hosseinian, F. (2014). Wheat bran dietary fibers as a carrier of phenolics and their prebiotic activity. International Functional Food and Nutraceutical Conference, Istanbul, Turkey
 Invited?: Yes, Keynote?: No
7. Agil, R, Hosseinian, F. (2014). Investigation of wheat bran fibers as a carrier of phenolics and their bioactivity.IUFost, Montreal, Canada
 Invited?: Yes, Keynote?: No
8. Hosseinian F. (2014). Effect of health benefits of whole grain.Carleton University, Ottawa, Canada
 Invited?: Yes, Keynote?: No
9. Agil, R, Ondet, A, Hadinezhad, M, Tavakoli, H, Han, NF, Hosseinian, F. (2014). Fermented dietary fibre and phenolics in flaxseed facilitate mineral solubility and carry antioxidants- dual functionality in bone health. International Functional Food and Nutraceutical Conference, Istanbul, Turkey
 Invited?: Yes, Keynote?: No
10. (2012). Bioproducts with antioxidant and anti-inflammatory action.Food Research Symposium, Carleton University, Ottawa, Canada
 Invited?: Yes, Keynote?: No
11. Agil R, Cameron S. (2012). Flaxseed mucilage enhancing probiotic growth in yogurt and acting as an antioxidant source. Canadian Institute of Food Science and Technology (CIFST), Niagara Falls, Canada
 Invited?: Yes, Keynote?: No

12. Gunec, A and Hosseinian, F. (2012). Antioxidant and anti-inflammatory action of foods. Food Research Symposium, Carleton University, Ottawa, Canada
Invited?: Yes, Keynote?: Yes
13. Gunenc A, Seetharaman K, Mayer P, Hosseinian F. (2011). Potential of alkylresorcinols in Canadian red hard and red soft wheat bran and their stability during baking. American Association of Cereal Chemists (AACC) International Annual Meeting, Palm Springs, United States
Invited?: Yes, Keynote?: No
14. Gunenc A, Seetharaman K, Mayer P, Hosseinian F. (2011). Potential of alkylresorcinols in Canadian red hard and red soft wheat bran and their stability during baking. Canadian Section of American Oil Chemists' Society (CAOCS) 24th Canadian Conference on Fats and Oils, Edmonton, Canada
Invited?: Yes, Keynote?: No
15. Agil R, Hosseinian F. (2011). Triticale bran: A novel dietary source of prebiotics and antioxidants in fermented dairy products. American Association of Cereal Chemists (AACC) International Annual Meeting, Palm Springs, United States
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Broadcast Interviews

2016/10/15 - Olive and Olive oil, Agriculture & Agri-Food Canada. It was invitation for a presentation
2016/10/15 and discussion with public on table olives and olive oil., Agriculture & Agri-Food Canada

Text Interviews

2012/08/02 Gluten-free breakfast cereal, Interview in Metro News: <http://metronews.ca/food/318630/gluten-free-cereal-a-hit-after-dragons-den-give-it-a-thumbs-down/>

2011/05/01 Potential of alkylresorcinols as anti-fusarium compounds in wheat, OMAFRA

Publications

Journal Articles

1. Walters M, Paula Lima Ribeiro A, Hosseinian F and Tsopmo A. (2018). Phenolic acids, avenanthramides, and antioxidant activity of oats defatted with hexane or supercritical fluid. *Journal of Cereal Science*. 79: 21-26.
Published
Refereed?: Yes, Open Access?: No
2. Gunenc A, Ha Yeung M, Lavergne C, Bertinato J and Hosseinian, F. (2017). Enhancements of antioxidant activity and mineral solubility of germinated wrinkled lentils during fermentation in kefir. *Journal of Functional Foods*. 32: 72-79.
Published
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3. Ould Saadi L, Zaidi F, Oomah B, Haros M, Yebra M, and Hosseinian F. (2017). Pulse ingredients supplementation affects kefir quality and antioxidant capacity during storage. *LWT - Food Science and Technology*. 86: 619-626.
Published
Refereed?: Yes, Open Access?: No

4. Gunenc A, Alswiti K, Hosseinian F.(2017). Wheat bran dietary fiber: Promising source of prebiotics with antioxidant potential. *Journal of Food Research*. 6: 1-10.
Published
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5. Munim A, Rod M, Tavakoli H and Hosseinian F.(2017). An Analysis of the Composition, Health Benefits, and Future Market Potential of the Jerusalem Artichoke in Canada. *Journal of Food Research*. 6: 69-84.
Published
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6. Lambert D, Rod M, Dobbin, Hosseinian F.(2017). The Market Potential of a Grape Pomace Microemulsion. *Journal of Food Research*. 6: 65-74.
Published
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7. Gunenc A, Ha Yeung M, Lavergne C, Bertinato J, and Hosseinian F. (2017). Enhancements of antioxidant activity and mineral solubility of germinated wrinkled lentils during fermentation in kefir. *Journal of Functional Foods*. 32: 72-79.
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8. *Agil R, Patterson Z, Mackay H, Abizaid A and Hosseinian F. (2016). Triticale and bran alkylresorcinols enhance resistance to oxidative stress in obesity-induced mice. *Journal of Foods*. 5: 1-16.
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9. *Mahtout, R, Zaidi, F, *Ould Saadi, L, *Boudjou, S, Oomah, BD, Hosseinian, F. (2016). Carob (*Ceratonia siliqua* L.) (pod, pulp, seed) flours and pulp mucilage affect kefir quality and antioxidant capacity during storage. *International Journal of Engineering*. 2(2): 168-177.
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10. *Gunenc A, *Khoury C, *Candace Legault C, *Mirrashed H, Rijke J, and Hosseinian F.(2016). Seabuckthorn as a novel prebiotic source improves probiotic viability in yogurt. *LWT - Food Science and Technology*. 66: 490-495.
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Refereed?: Yes, Open Access?: No
11. *Dwyer, K, Hosseinian, F and Rod, M. (2015). The Market Potential of Grape Waste Alternatives. *Journal of Food Research*. 3(2): 15-21.
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12. *Gunec, A, *Fang, S, and Hosseinian, F. (2015). Raspberry and strawberry addition improves probiotic viability in yogurt and possess antioxidant activity. *Journal of Food Research*. 4: 47-58.
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Refereed?: Yes, Open Access?: Yes
13. *Gunec, A, *Hadinezhad, M and Hosseinian, F. (2015). Impact of supercritical CO₂ and traditional solvent extraction systems on the extractability of alkylresorcinols, phenolic profile and their antioxidant activity in wheat bran. *Journal of Functional Food*. 12(1): 109-119.
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14. *Agil R, *Gilbert C, *Tavakoli H and Hosseinian, F. (2015). Redefining unusable weeds to beneficial plants: Purslane as a powerful source of omega-3 for the future. *J. Food Research*. 4: 39-47.
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15. *Hadinezhad, M, Rowland, O and Hosseinian, F. (2015). Fatty acid profile and phenolic composition of *Descurainia sophia* seeds extracted by supercritical CO₂. *Journal of the American Oil Chemists' Society*. 92: 1379-1390.
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16. *Samadi, A, Jafari, M, Nejhad NM and Hosseinian, F. (2014). Podophyllotoxin and 6-methoxy podophyllotoxin production in hairy root cultures of *Linum mucronatum* ssp. *Mucronatum*. *Pharmacognosy magazine*. 10(38): 12-17.
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17. *Boudjou, S, Zaidi, F, Hosseinian, F, and Oomah, D. (2014). Effects of Faba Bean (*Vicia faba* L). Flour on viability of probiotic bacteria during kefir storage. *Journal of Food Research*. 3(3): 13-22.
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18. *Agil R, Hosseinian F. (2014). Determination of water-extractable polysaccharides in triticale bran. *Journal of Food Composition and Analysis*. 34(1): 12-17.
Published
Refereed?: Yes
19. *Gunenc A, Tamburic-Ilincic L, Mayer M, Hosseinian F. (2013). Effects of region and cultivar on potential of alkylresorcinols in wheat bran as high value bioproducts. *Cereal Science*. 57(3): 405–410.
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20. *Gunenc A, *Tavakoli H, Seetharaman K, Mayer P, Fairbanks D, Hosseinian F. (2013). Stability and antioxidant activity of alkylresorcinols in breads enriched with hard and soft wheat brans. *Food Research International*. 51: 571-578.
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21. *Agil R, *Gaget A, *Gliwa J, Avis T, Willmore W, Hosseinian F. (2013). Lentils enhance probiotic growth in yogurt and provide added benefit of antioxidant protection. *LWT-Food Science and Technology*. 50: 45-49.
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22. *Boudjou S, Oomah B, Zaidi F, Hosseinian F. (2013). Phenolics content, antioxidant and anti-inflammatory activities of legume fractions. *Food Chemistry*. 138: 1543–1550.
Published
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23. *HadiNezhad M, *Duc, C, Han N, Hosseinian F. (2013). Flaxseed soluble dietary fibre enhances lactic acid bacterial survival and growth in kefir and possesses high antioxidant capacity. *Journal of Food Research*. 2(5): 152-163.
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24. *Boudjou S, Oomah BD, Zaidi F, Hosseinian F. (2013). Phenolics content and antioxidant and anti-inflammatory activities of legume fractions. *Food chemistry*. 138(2-3): 1543–1550.
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25. *Cameron S, Hosseinian F. (2013). Potential of Flaxseed in the development of Omega-3 Rice Paper with antioxidant activity. *LWT-Food Science and Technology*. 53: 170–175.
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26. *Agil R, Hosseinian F. (2012). Dual functionality of triticale as a novel dietary source of prebiotics with antioxidant activity in fermented dairy products. *Plant Foods for Human Nutrition*. 67: 88-93.
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27. *Agil R, Hosseinian F. (2012). Dual functionality of triticale as a novel dietary source of prebiotics with antioxidant activity in fermented dairy products. *Plant foods for human nutrition*. 67(1): 83-93.
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Refereed?: Yes

Journal Issues

1. *Gunenc A, Tamburic-Ilincic L, Mayer MP, Hosseinian F. (2013). Effects of region and cultivar on potential of alkylresorcinols in wheat bran as high value bioproducts. *Cereal Science*.
In Press
Refereed?: Yes
Editors: Dr. Grant Murray Campbell
2. *Gunenc A, *Tavakoli H, Seetharaman K, Mayer PM, Fairbanks D, Hosseinian F. (2013). Stability and antioxidant capacity of alkylresorcinols in Canadian hard and soft red wheat bran during baking. *Food Research International*. (51)
Published
Refereed?: Yes
Editors: Dr. Anderson de Souza Sant'Ana

Books

1. 11 authors contributed. (2017). *Dietary Fiber Functionality in Food and Nutraceuticals From Plant to Gut*. First Edition(1): 360. As an editor, Invitation from Oxford, after I attended the International Functional Food Conference, Turkey. (Submitted) (2015).
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Refereed?: Yes

Book Chapters

1. Gunec A, Hosseinian, F and Oomah D.(2017). Dietary Fiber-Enriched Functional Beverages in the Market. Farah Hosseinian, B. Dave Oomah and Rocio Campos-Vega. Dietary Fiber Functionality in Food and Nutraceuticals: From Plant to Gut. First Edition(1): 45-75.
Published, Wiley
Refereed?: Yes
2. E. R. Farnworth and F. Hosseinian. (2013). Validation of Health Claims for Fermented Milks. Dr. Anil Kumar Puniya. Fermented Foods and Beverages. : 30.
Published, CRC Press/ Taylor and Francis Group Publishers
Refereed?: Yes
3. F. Hosseinian, E. S. Krol, and D. Oomah. (2012). Bioactivity of Flaxseed Lignans. Bioactive Molecules in Plant Foods. : 81-110.
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4. *Agil, R and Hosseinian, F. (2012). Bioactivity of Alkylresorcinols. Dr. F.O. Uruakpa. Bioactive Molecules in Plant Foods. : 131-162.
Published, Nova Science Publishers
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Reports

1. Farah Hosseinian. (2013). Developing high-value bioproducts from cereal byproducts/leftovers. 40. Ontario Ministry of Agriculture, Food and Rural Affairs.

Manuals

1. Levac S, Hosseinian F. (2013). Food Analysis Laboratory Manual (FOOD 3002).
Published

Conference Publications

1. Martin, A and Hosseinian, F. (2016). Developing amicroemulsion system from wine waste. International Functional Food and Nutraceutical Conference, Orlando, United States
Conference Date: 2016/10
Abstract
Published
Refereed?: Yes, Invited?: Yes
2. Dheda, N and Hosseinian, F. (2016). The effects of fermentation on phenolics and antioxidants in soy-kombucha: a potential dairy free probiotic beverage. International Functional Food and Nutraceutical Conference, Orlando, United States
Conference Date: 2016/10
Abstract
Published
Refereed?: Yes, Invited?: Yes
3. Hosseinian F.(2015). Prebiotic activity of soluble dietary fibre (SDF) and insoluble dietary fibre (IDF) from germinated lentils. Gut Health Conference. Penn State University, Penn State, United States
Conference Date: 2015/11
Abstract
Published
Refereed?: Yes, Invited?: Yes

4. Agil A, Melanie Ha Yeung M, Tulbek MC and Hosseinian F.(2015). Impact of germination on the nutritional value and mineral solubility of wrinkled lentils in fermented kefir- An innovative approach to generating value from waste. International Functional Food and Nutraceutical Conference, Wuxi, China
Conference Date: 2015/10
Abstract
Published
Refereed?: Yes, Invited?: Yes
5. Roth V, and Hosseinian F. (2015). Flaxseed dietary fibre association with phenolic compounds and their bioactivity. International Chemical Congress of the Pacific Basin Societies (PacifiChem, Honolulu, Hawaii (2015)., Honolulu, United States
Conference Date: 2015/10
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Published
Refereed?: Yes, Invited?: Yes
6. *Gliwa J, Hosseinian F.(2012). Antioxidant activity and characterization of alkylresorcinols from rye bran and rye bran fractions. Canadian Institute of Food Science and Technology (CIFST) 50th Annual Conference, Niagara Falls, Canada
Conference Date: 2012/5
Poster
Published
Refereed?: Yes, Invited?: Yes
7. *Alswiti C, Hosseinian F.(2012). Potential of sea-buckthorn berries as a novel source of prebiotic in fermented dairy products. Canadian Institute of Food Science and Technology (CIFST) 50th Annual Conference, Niagara Falls, Canada
Conference Date: 2012/5
Poster
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Refereed?: Yes, Invited?: Yes
8. *Gunenc A, Hosseinian F.(2012). Investigation of hard red wheat bran on yogurt production with antioxidant activity protection. Canadian Institute of Food Science and Technology (CIFST) 50th Annual Conference, Niagara Falls, Canada
Conference Date: 2012/5
Poster
Published
Refereed?: Yes, Invited?: No
9. *Agil R, Hosseinian F.(2012). Omega-3 enriched rice paper: A novel approach to enhancing nutritional quality by flaxseed addition. Canadian Institute of Food Science and Technology (CIFST) 50th Annual Conference, Niagara Falls, Canada
Conference Date: 2012/5
Poster
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Refereed?: Yes, Invited?: No
10. *Gunenc A, Seetharaman K, Mayer PM, Hosseinian F.(2011). Potential of alkylresorcinols in Canadian red hard and red soft wheat bran and their stability during baking. Canadian Section of American Oil Chemists' Society (CAOCS) 24th Canadian Conference on Fats and Oils, Edmonton, Canada
Conference Date: 2011/9
Poster
Published
Refereed?: Yes, Invited?: Yes

11. *Gunenc A, Tamburic-Ilincic L, Hosseinian F.(2011). New approach for food safety assessment to Ontario wheat.Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) 9th Annual Food Safety Research Forum, Guelph, Canada
Conference Date: 2011/5
Poster
Published
Refereed?: Yes, Invited?: Yes
12. *Agil R, Hosseinian F.(2011). Colorimetric determination of alkylresorcinols in soft wheat bran: potential antimicrobial compounds.Ottawa-Carleton Chemistry Institute (OCCI) Day, Ottawa, Canada
Conference Date: 2011/5
Poster
Published
Refereed?: Yes, Invited?: No
13. *Alswiti C, Hosseinian F.(2011). Potential of sea-buckthorn as a prebiotic in fermented dairy products.Ottawa-Carleton Chemistry Institute (OCCI) Day, Ottawa, Canada
Conference Date: 2011/5
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Refereed?: Yes, Invited?: Yes
14. *Agil R, Hosseinian F.(2011). Colorimetric determination of alkylresorcinols in soft wheat bran: potential antimicrobial compounds.Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) 9th Annual Food Safety Research Forum, Guelph, Canada
Conference Date: 2011/5
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Refereed?: Yes, Invited?: No
15. *Alswiti C, Hosseinian F.(2011). Potential of sea-buckthorn as a prebiotic in fermented dairy products.Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) 9th Annual Food Safety Research Forum, Guelph, Canada
Conference Date: 2011/5
Poster
Published
Refereed?: Yes, Invited?: No

Intellectual Property

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1. Book Title: Flaxseed Lignans: Properties and Health Benefits
Registered
The flaxseed (*Linum usitatissimum* L.) lignans secoisolariciresinol (SECO) and its diglucoside secoisolariciresinol diglucoside (SDG) are reported to have a number of health benefits including reduction of serum cholesterol levels, delay in the onset of type II diabetes and decreased formation of breast, prostate and colon cancers. The health benefits of SECO and SDG may be partially attributed to their antioxidant properties. To better understand their antioxidant properties, SECO and SDG are oxidized and the major lignan radical- scavenging oxidation products and their formation over time can be determined. Flaxseed lignans act as chain breaking antioxidants in food and biological systems. This indicates that flaxseed lignans may be useful as alternative natural antioxidant preservatives and may be applicable in this role in vegetable oils and in other oil-based foods to provide additional health benefits as antioxidant or antiestrogenic compounds.

2. PhD Thesis: Antioxidant properties of flaxseed lignans using in vitro model systems.

Registered

The major objectives of this study were to investigate the antioxidant properties of flaxseed lignans secoisolariciresinol (SECO) and secoisolariciresinol diglycoside (SDG) and their major oxidative compounds using 2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH) in an in vitro model of lipid peroxidation. This study showed that SECO oxidation occurs at the aromatic (4-OH) and aliphatic (9-OH) hydroxyl groups. Conversely for SDG, only compounds derived from the oxidation of aromatic hydroxyl groups were obtained because the 9-OH position is glucosylated. This study demonstrated that AAPH produces carbon-centred AP radicals upon thermal decomposition and mimics the formation of lipid peroxy radicals. SECO protected canola oil better than either SDG or SDG polymer. These results are important for better understanding about the chemistry behind flaxseed lignan antioxidant activities. This study provided useful evidence that flaxseed lignans can be used as natural antioxidants.