International Trainee Symposium in Agri-Food, Nutrition and Health

JANUARY 25-26, 2024

8 AM - 4 PM CST

RICHARDSON CENTRE FOR FOOD TECHNOLOGY AND RESEARCH

SPONSORED BY:

UM | Richardson Centre for Food Technology and Research

UM | Faculty of Agricultural and Food Sciences

ORGANIZED BY:

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University of Manitoba

CCARM

WELCOME MESSAGE

Welcome to the 2nd International Trainee Symposium in Agri-Food, Nutrition, and Health, hosted at the Richardson Centre for Food Technology and Research that will be held on January 25 and 26, 2024. The symposium emerged as a result of a partnership between the University of Manitoba's Department of Food and Human Nutritional Sciences and the Canadian Centre for Agri-Food Research in Health and Medicine. This distinctive occasion provides an opportunity for graduate students and postdoctoral fellows to present their research and participate in conversations with fellow researchers and trainees within their respective domains. This international platform will contribute to strength collaborations and why not, to open future professional opportunities in other research programs around the world.

Today, we are delighted to showcase the outstanding contributions of trainees who have pushed the boundaries of Agri-health research. Each presenter will have a concise 7-minute slot to elucidate their research problem, share their findings, and discuss the implications for the intersection of Agri-foods and health. Additionally, we are honored to have an invited lecturer who will provide valuable insights into trainee professional development.

We invite you to join us for a networking reception and banquet, where engaging discussions, new connections, and a sense of community await. Together, we share common goals of advancing knowledge and enhancing the realms of Agri-food and health.

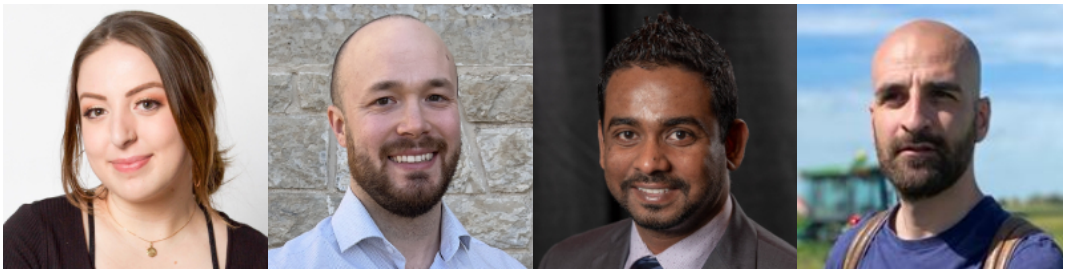
On behalf of the organizing committee, we extend our gratitude for your interest and sincerely hope you thoroughly enjoy the program.

Chair:

Dr. Cristina M. Rosell

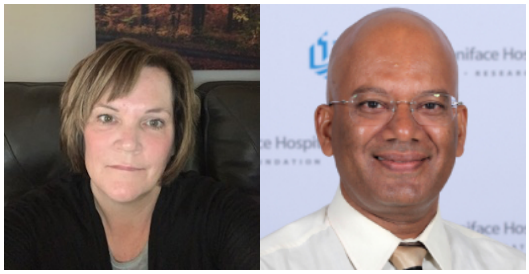
Co-Chairs:

Jenny Bouchard Brad Feltham Dr. Ruchira Nandasiri Dr. Nicola Gasparre



Organizing Committee:

Pam Gauthier Dr. Thomas Netticadan



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IC-IMPACTS

Program Schedule:

DAY 1 - January 25th, 2024

7:00 am - 7:30 am: Registration

7:30 am - 8:00 am : Ceremony Chair: Dr. Cristina M. Rosell

Welcome Message

Associate Vice-President (Research) - Dr. Annemieke Farenhorst

Dean Faculty of Graduate Studies - Dr. Kelley Main

8:15 am - 8:45 am: Invited Lecture

IDEA Start! Program Manager - Rajeev Koyal - Navigating the Entrepreneurial Landscape to Bring Ideas to Life

8:45 am - 10:15 am: Session I - Food Science and Technology

Chair: Dr. Nicola Gasparre

Judges: Dr. Snehil Dua and Dr. Anujit Ghosal

1. Yenisha Thisarani Senaweera
2. Weralupe Gamladdalage Shrawani Samodha Maldeniya
3. Hettigedara R.K. Bandara
4. Judi. T. Uthayakumar
5. K.A.D. Chamali Lavanya
6. Madhushanka L. Jayasinghe
7. Chamini Madushika Lokuge
8. Aruni U. Liyanage
9. Adamu Ubaida Muhammad
10. Carla N. Molina

10:15 am - 10:30 am: Coffee Break

10:30 am - 12:00 pm: Session II - Food Science and Technology

Chair: Brad Feltham

Judges: Dr. Rotimi Aluko and Dr. Indhurathna Swaminathan

11. Alessio Sergiacomo
12. Marica Troilo
13. Eva Grau-Fuentes
14. Leire Cantero-Ruiz de Eguino
15. Cynthia Obumneke Udemba
16. Francesca Vurro
17. Davide Russo
18. Essil Abidi
19. Inês Gonçalves de Sousa

20. Ainhoa Vicente
21. Santiago Ricardo Velasco-Abarca

12:00 pm - 1:00 pm: Lunch

1:00 pm - 2:15 pm: Session III - Food Science and Technology

Chair: Jenny Bouchard

Judges: Dr. Sijo Thandapilly and Dr. Nazanin Vafaei

22. Ingrid Guadalupe Hernandez Gutierrez
23. Joana Martinez
24. Michela Pia Totaro
25. Giuditta de Gennaro
26. Maria T. Fernandez
27. Antonio Francesco Caputi
28. Angel Luis Gutierrez
29. Vittoria Latrofa
30. Filipa S. Carreiro

2:15 pm - 2:30 pm: Coffee Break

2:30 pm - 4:00 pm: Session IV - Nutrition

Chair: Dr. Ruchira Nandasiri

Judges: Dr. Thomas Netticadan and Dr. Daniel Zogona

31. Tahmina Rahman
32. Natalia Madrid Briseño
33. Silvia Matias Ibanez
34. Cristiana Lucas Pereira
35. Nathalie B. Portelada
36. Chelsey A. Walchuk
37. Breanne N. Semenko
38. Shiqi Huang
39. Anne Manson
40. Joanna Candas

4:00 pm - 5.00 pm: Networking Event

DAY 2 - January 26th, 2024

8:00 am – 8:30 am: Invited Lecture

Dr. Pratap Pati, IC-IMPACTS: Food Security Presentation

8:30 am - 10:00 am: Session V - Agriculture, Plant Science & Biotechnology

Chair: Brad Feltham

Judges: Dr. Champa Wijekoon and Shivani Tiwari

41. Jing Hou
42. Joana S. Gomes-Dias
43. Bianca P.S. Marques
44. Jihene Hasni
45. Elizabeth Perez Rodriguez
46. Maroua Radhouane
47. Marco A. Maldonado-Campos
48. Carolina Lagunes Delgado
49. Paula Plasencia
50. Kheira Moufida Mouffok
51. Vinuri Weerasinghe
52. Mathieu Proulx

10:00 am - 10:15 am: Coffee Break

10:15 am - 11.30 am: Session VI - Food Chemistry

Chair: Dr. Nicola Gasparre

Judges: Dr. Lovemore Malunga and Dr. Deepak Kadam

53. Harichandana Valisakkagari
54. Dinushi K. Gamage
55. Raquel Peñalba
56. Maria Manuela Lageiro
57. Aitana Duch-Calabuig
58. Giusy Rita Caponio
59. Daiana S. Alemida
60. Mariana Miccolis
61. Maria B. Quelal
62. Olamide S. Fadairo

11:30 am - 12:30 pm: Brunch

12:30 pm - 1:30 pm: Session VII - Food Science and Technology

Chair: Dr. Ruchira Nandasiri

Judges: Dr. Chamila Nimalarathne and Dr. Aayushi Kadam

63. Reyna E. Stefanson
64. Isanka Gimhani
65. Kemashalini Kirusnaruban
66. Mackenzie J. Ferguson
67. Si Nhat Nguyen
68. Xiaohang Zou
69. Sathsara Deyalage
70. Kofi Owusu-Akyaw Oduro

1:30 pm - 1:45 pm: Coffee Break

1:45 pm - 2:45 pm: Session VIII - Food Science and Technology

Chair: Jenny Bouchard

Judges: Dr. Filiz Koksel and Shivani Tiwari

71. Vidheesha S. Abeysinghe
72. Harshani Nadeeshani Vidana Hewage
73. Thilini Dissanayake
74. Nancydeep Kaur
75. Anuruddika Hetti Hewage
76. Chamali Tharangani Kodikara
77. Sachini Senarathne
78. Cristina Chairez
79. Gianfilippo Nigro

2:45 pm - 3:15 pm: Coffee Break / Award Selection

3:15 pm - 3:45 pm: Award Ceremony

3:45 pm - 4:15 pm: Closing Remarks

Director of the RCFTR - Dr. Rotimi Aluko

Director of the CCARM - Dr. Thomas Netticadan

Head of FHNS Department - Dr. Cristina M. Rosell

Faculty of Agricultural and Food Science - Dr. Martin Scanlon

4:30 pm - 7:00 pm: Banquet (100 Innovation Drive, Winnipeg, Manitoba, Canada) Food will be served at 5.00 PM

Paula Plasencia

Title: Response surface methodology applied to ultrasound-assisted extraction of raspberry and blueberry pruning residues

Organization/Affiliation: Centro de Investigação de Montanha (CIMO), Polytechnic Institute of Bragança, Portugal

Laboratório Associado para a Sustentabilidade e Tecnologia em Regiões de Montanha (SusTEC), Polytechnic Institute of Bragança, Portugal

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Authors: Paula Plasencia, Márcio Carocho, Sandrina A. Heleno, Tiane C. Finimundy, Filomena Barreiro, Pablo A. García and Lillian Barros

Abstract

Due to their high nutritional value, berries production has increased, but this inevitably leads to the accumulation of bioresidues. To prevent this, leaves and other aerial components of berry plants can be converted into valuable ingredients for cosmetics applications due to their unique chemical composition and functional properties. Ultrasound-assisted extraction methodology is an efficient technique to obtain these potentially bioactive extracts. The objective of this study was to investigate the optimal conditions to maximize the yield of ultrasound-assisted extractions of pruning residues of Rubus idaeus L. (raspberry) and Vaccinium myrtillus L. (blueberry) using response surface methodology (RSM). Three factors were used in the analysis: solvent ranging from 0% to 100% ethanol:water, time ranging from 5 to 30 minutes and extractive power from 20% to 100% (maximum of 500W). The Box Behnken design was used, relying on 17 individual randomized runs. The response to optimize was the dry weight of the extract (YRB and YBB), which ranged from 22.2 to 202.8 and 123.5 to 394.0 mg/g, respectively. The optimization performed by RSM indicated the optimal extractive point as a function of dry weight at 32.9% of ethanol:water, 15.2 min and 95.7% of extractive power for raspberry; and 63.6% of ethanol:water, 29.5 min, and 72.2% of extractive power regarding blueberry extract. Hydrolyzable tannins were the major phenolic compounds found in raspberry extract, while blueberry extracts showed a higher presence in flavonoids. These results showed that the pruning residue extracts could have a potential application in the cosmetic industry.

Keywords: Agri-food byproducts, Phenolic compounds, RSM

Acknowledgements: The authors are grateful to the Foundation for Science and Technology (FCT, Portugal) for financial support through national funds FCT/MCTES (PIDDAC) to CIMO (UIDB/00690/2020 and UIDP/00690/2020) and SusTEC (LA/P/0007/2020). L. Barros and S. Heleno also thanks FCT through the institutional scientific employment program–contract for her contract. This study was financied within the mobilizing project ‘AquaeVitae - Água Termal Como Fonte de Vida e Saúde” - “PROMOVE – O futuro do Interior” call 2020, Fundação BPI La Caixa.