



# Having IMPACTT 4: Advancing Microbiome Research Symposium Program

Malcolm Hotel, Canmore, AB, Canada  
June 3-5, 2024

## Monday – June 3, 2024

06:45 – 08:45 Breakfast (Stirling Grill, Glamis, Balmoral, & Inverness Rooms)  
07:45 – 08:45 Registration (Pre-Function Foyer)

**09:00 – 10:15** **Opening Remarks & Keynote Talk**  
Chair: Dr. Kathy McCoy (Edinburgh Castle Room)

09:00 – 09:15 **Welcome Address & Land Acknowledgement**  
Dr. Kathy McCoy | *University of Calgary, Canada*

09:15 – 10:15 **Priming for Life: The Microbiome as a Key Regulator of Brain & Behaviour**  
Dr. John F. Cryan | *University College Cork, Ireland*

10:15 – 11:00 **AM Break (Pre-Function Foyer)**

**11:00 – 12:30** **Session 1: Microbiome in Early Life**  
Chair: Dr. Anita Kozyrskyj (Edinburgh Castle Room)

### *Plenary Talks*

11:00 – 11:30 **Early life origins of autoimmunity: genes, microbes and immunity in type 1 diabetes**  
Dr. Jayne Danska | *The Hospital for Sick Children, Canada*

11:30 – 12:00 **Maternal microbiota and neonatal skin barrier**  
Dr. Mercedes Gomez de Agüero | *University of Würzburg, Germany*

### *Short Talks Selected from Abstracts*

12:00 – 12:15 **Exposome attrition leads to transgenerational alterations in adaptive immune landscape**  
Meggie Kuypers | *University of Toronto, Canada*

12:15 – 12:30 **Effect of the early-life premature microbiome on growth and neurodevelopment in mice in response to stress**  
Dr. Van Ortega | *University of Calgary, Canada*

12:30 – 14:00 **Lunch Break (Stirling Grill, Glamis, Balmoral, & Inverness Rooms)**



**14:00 – 15:30**

**Session 2: Innovative Approaches for Elucidating Microbiome Function**

Chair: Dr. Karen Madsen (Edinburgh Castle Room)

*Plenary Talks*

14:00 – 14:30

**Imaging the immune response and impact of the microbiome**

Dr. Paul Kubes | *University of Calgary, Canada*

14:30 – 15:00

**Antigen-level resolution of commensal-specific B cell responses**

Dr. Oliver Harrison | *Benaroya Research Institute, USA*

*Short Talks Selected from Abstracts*

15:00 – 15:15

**A genetic system for *Akkermansia muciniphila* reveals a role for mucin foraging in gut colonization**

Dr. Lauren Davey | *University of Victoria, Canada*

15:15 – 15:30

**Unraveling the functionality of microbiomes with novel computational and single-cell profiling approaches**

Dr. Vanessa Dumeaux | *Western University, Canada*

**15:30 – 16:00**

**PM Break (Pre-Function Foyer)**

**16:00 – 18:00**

**Flash Talks & Poster Session #1**

Chair: Dr. Braedon McDonald (Edinburgh Castle Room)

*Flash Talks Selected from Abstracts*

16:00 – 16:30

**Shirin Afroj** | *University of Calgary, Canada*

**Dr. Jacqueline Barnett** | *University of British Columbia Okanagan, Canada*

**Dr. Francisco Daniel Davila Aleman** | *University of Calgary, Canada*

**Hans Ghezzi** | *University of British Columbia, Canada*

**Connor Gianetto-Hill** | *University of Guelph, Canada*

**Dr. Rebecca Jeffery** | *University of Oxford, UK*

16:30 – 18:00

**Poster Session #1**

(Pre-Function Foyer, Holyrood & Edinburgh Castle Rooms)



## Tuesday – June 4, 2024

06:45 – 08:45 Breakfast (Stirling Grill, Glamis, Balmoral, & Inverness Rooms)  
07:45 – 08:45 Registration (Pre-Function Foyer)

### 09:00 – 10:30 **Session 3: Harnessing the Microbiome**

Chair: Dr. Joe Harrison (Edinburgh Castle Room)

#### *Plenary Talks*

09:00 – 09:30 **Tissue-protective roles of the microbiota during infection and inflammation**  
Dr. Irah King | *McGill University, Canada*

09:30 – 10:00 **Cultivating Complexity: Harnessing Microbial Culture for Model Ecosystems**  
Dr. Emma Allen-Vercoe | *University of Guelph, Canada*

#### *Short Talks Selected from Abstracts*

10:00 – 10:15 **Ecology of the human microbiome: how diversity in the microbiome protects against pathogens**  
Dr. Erik Bakkeren | *University of Oxford, UK*

10:15 – 10:30 **With a little help from our [tiny] friends: modifying gut bacteria to detect malabsorption**  
Juan Camilo Burckhardt | *University of British Columbia, Canada*

10:30 – 11:00 **AM Break (Pre-Function Foyer)**

### 11:00 – 12:30 **Special Topic: Microbiome Sequencing & Computational Development**

Chair: Dr. Morgan Langille (Edinburgh Castle Room)

#### *Plenary Talk*

11:00 – 11:20 **Integrating Oxford Nanopore and NextFlow for real-time bacterial sequence analysis**  
Dr. William Hsiao | *Simon Fraser University, Canada*

#### *Short Talks*

11:20 – 11:40 **Reducing false-positive taxa in metagenomes by coverage validation of reference genomes**  
Dr. Robyn Wright | *Dalhousie University, Canada*

11:40 – 12:00 **Challenges and opportunities with integrating microbiome data with other metadata**  
Geoff Winsor | *Simon Fraser University, Canada*

#### *IMPACTT Update*

12:00 – 12:30 **Defining the Effects of Sample Handling on Metagenomic Amplicon Sequencing and Culturomic Profiles of the Gut Microbiome**  
Dr. Ali Mirza | *Simon Fraser University, Canada*

12:30 – 14:00 **Lunch Break (Stirling Grill, Glamis, Balmoral, & Inverness Rooms)**



## 14:00 – 15:30 **Session 4: Microbiome, Metabolites & Disease**

Chair: Dr. William Hsiao (Edinburgh Castle Room)

### *Plenary Talks*

14:00 – 14:30 **Bacterial bioenergetics shape metabolite production in the gut**  
Dr. Sam Light | *University of Chicago, USA*

14:30 – 15:00 **The role of the gut environment in shaping the intestinal microbiota and disease outcomes**  
Dr. Carolina Tropini | *University of British Columbia, Canada*

### *Short Talks Selected from Abstracts*

15:00 – 15:15 **Are microbiome extracellular vesicles the missing connection to the gut-brain axis?**  
Dr. Riadh Hammami | *University of Ottawa, Canada*

15:15 – 15:30 **Effects of lyophilized fecal filtrate compared to lyophilized donor stool in the treatment of recurrent *Clostridioides difficile* infection: a multi-center randomized trial**  
Dr. Dina Kao | *University of Alberta, Canada*

15:30 – 16:00 **PM Break (Pre-Function Foyer)**

## 16:00 – 18:00 **Flash Talks & Poster Session #2**

Chair: Dr. Braedon McDonald (Edinburgh Castle Room)

### *Flash Talks Selected from Abstracts*

16:00 – 16:30 **Jessica Josephson** | *University of British Columbia Okanagan, Canada*  
**Simarpreet Kaur** | *University of Calgary, Canada*  
**Dr. Maryam Kebbe** | *University of New Brunswick, Canada*  
**Kathryn Strayer** | *University of Calgary, Canada*  
**Athalia Voisin** | *University of Manitoba, Canada*  
**Christopher Yau** | *University of Toronto, Canada*

16:30 – 18:00 **Poster Session #2**  
(Pre-Function Foyer, Holyrood & Edinburgh Castle Rooms)



## Wednesday – June 5, 2024

06:45 – 08:45 Breakfast (Stirling Grill, Glamis, Balmoral, & Inverness Rooms)  
07:45 – 08:45 Registration (Pre-Function Foyer)

### 09:00 – 10:30 **Session 5: Microbiome Regulation in Cancer & Cancer Therapy** Chair: Dr. Marie-Claire Arrieta (Edinburgh Castle Room)

#### Plenary Talks

09:00 – 09:30 **Understanding microbiota regulation of the tumor microenvironment and response to cancer therapy**  
Dr. Romina Goldszmid | *National Institutes of Health, USA*

09:30 – 10:00 **Microbiota-Centered Interventions in Onco-immunology**  
Dr. Meriem Messaoudene | *Université de Montréal, Canada*

#### Short Talks Selected from Abstracts

10:00 – 10:15 **The role of intestinal microbiome in CD19 directed CAR-T cell therapy**  
Dr. Larisa Kovtonyuk | *University of Calgary, Canada*

10:15 – 10:30 **Viral predation guilds of the human gut**  
Dr. Ann Gregory | *University of Calgary, Canada*

### 10:30 – 11:00 **AM Break (Pre-Function Foyer)**

### 11:00 – 12:00 **IMPACTT Mentee Talks** Chair: Dr. Laura Sycuro (Edinburgh Castle Room)

11:00 – 11:15 **Establishing a comprehensive logistics and sequencing framework for microbiome analysis in colorectal cancer patients in Newfoundland**  
Dr. Akinola Alafiatayo | *Memorial University of Newfoundland, Canada*

11:15 – 11:30 **Long-lasting effects of commensal bacteria in innate immunity**  
Dr. Aline Ignacio | *University of Calgary, Canada*

11:30 – 11:45 **Exploring dynamic microbial environments in UTI (Urinary Tract Infection) development**  
Dr. Charlène Roussel | *University of Ottawa, Canada*

11:45 – 12:00 **Proteases from vaginal *Prevotella* species modulate endocervical barrier function**  
Dr. Karen Lithgow | *University of Calgary, Canada*

### 12:00 – 12:30 **Closing Remarks & Awards**

12:00 – 12:30 **Closing Remarks & Awards**  
Dr. Kathy McCoy | *University of Calgary, Canada*



Poster Session #1 – Monday, June 3, 2024	Poster Session #2 – Tuesday, June 4, 2024
Shirin Afroj (Poster 1)	Jessica Josephson (Poster 37)
Dr. Jacqueline Barnett (Poster 2)	Simarpreet Kaur (Poster 38)
Dr. Francisco Daniel Davila Aleman (Poster 3)	Dr. Maryam Kebbe (Poster 39)
Hans Ghezzi (Poster 4)	Kathryn Strayer (Poster 40)
Connor Gianetto-Hill (Poster 5)	Athalia Voisin (Poster 41)
Dr. Rebecca Jeffery (Poster 6)	Christopher Yau (Poster 42)
Spencer Abbott (Poster 7)	Giselle McCallum (Poster 43)
Dr. Shokouh Ahmadi (Poster 8)	Ailidh McGonigle (Poster 44)
Nazanin Arjomand Fard (Poster 9)	Emily Mercer (Poster 45)
Panuya Athithan (Poster 10)	Fynn Mitchell (Poster 46)
Dr. Preethi Balasundaram (Poster 11)	Hana Olof (Poster 47)
Sabrin Bashar (Poster 12)	Dr. Mona Parizadeh (Poster 48)
Diya Chandrasekhar (Poster 13)	
Dr. Rinku Chaudhari (Poster 14)	Dr. Leila Rezaei (Poster 50)
Christopher Cheng (Poster 15)	Dr. Jennifer Ronholm (Poster 51)
Sonia Czyz (Poster 16)	Dr. Elsa Rousseau (Poster 52)
Dr. Vanessa DeClercq (Poster 17)	Mahana Sabachvili (Poster 53)
Dr. Marcel de Leeuw (Poster 18)	Amy Shupe (Poster 54)
Dr. Zerihun Demissie (Poster 19)	Claire Sie (Poster 55)
Dr. Kirti Dubli (Poster 20)	Isla Skalosky (Poster 56)
Saly El Salti (Poster 21)	Dr. Matthew Sorbara (Poster 57)
Rose-Marie Fortin (Poster 22)	Dr. Yves St-Pierre (Poster 58)
Arash Ghasemi (Poster 23)	Dr. Marcel van de Wouw (Poster 59)
Dr. Thaís Glatthardt (Poster 24)	Dr. Joongjae Kim (Poster 60)
David Good (Poster 25)	Ray Wang (Poster 61)
Dr. Riadh Hammami (Poster 26)	Dr. Amber Fedynak (Poster 62)
Jerry He (Poster 27)	Noor Alsmadi (Poster 63)
Chadabhorn Insuk (Poster 28)	Dr. Marcela Davoli Ferreira (Poster 64)
Fatimoh Kasaba (Poster 29)	Lucas de Figueiredo Soveral (Poster 65)
Dr. Wei Wei Thwe Khine (Poster 30)	Dr. Erik Bakkeren (Poster 66)
Grace Kim (Poster 31)	Juan Camilo Burckhardt (Poster 67)
Meggie Kuypers (Poster 32)	Dr. Dina Kao (Poster 68)
Dana Lowry (Poster 33)	Dr. Larisa Kovtonyuk (Poster 69)
Christine Macpherson (Poster 34)	Mursal Nader (Poster 70)
Isabelle Mainville (Poster 35)	Dr. Xiaofan Jin (Poster 71)
Sarah Mansour (Poster 36)	



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