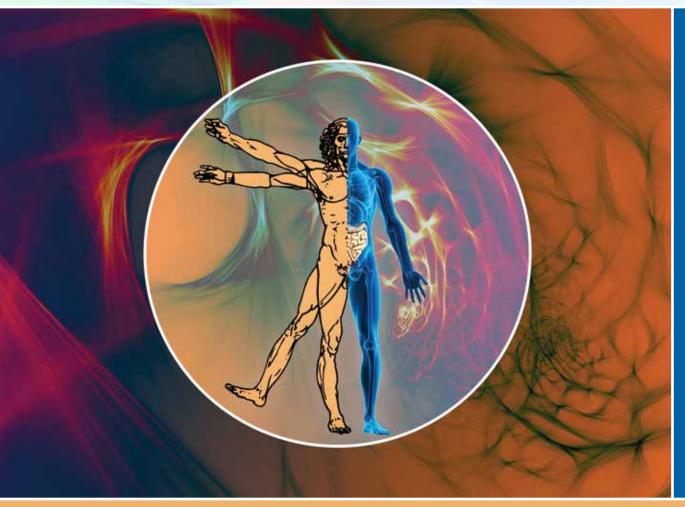
## MEETING OF THE MINDS

## WESTIN HARBOUR CASTLE, TORONTO

SATURDAY, November 4, 2023

## Canada Future Directions in IBD





#IBDMinds2023

Co-Chairs: Remo Panaccione, MD FRCPC and A. Hillary Steinhart, MD MSc FRCPC









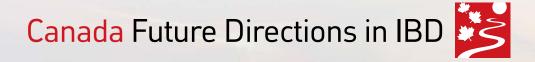




## MEETING OF THE MINDS

WESTIN HARBOUR CASTLE, TORONTO



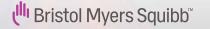


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### **ABOUT Canada Future Directions in IBD**

Canada Future Directions in IBD is Crohn's and Colitis Canada's premier conference for healthcare professionals and researchers who care for patients with inflammatory bowel diseases (IBD) and carry out research into these disorders.

One of the goals of *Canada Future Directions in IBD* is to present the best new scientific research in IBD and advance knowledge on the state of the science. Crohn's and Colitis Canada's Promise Statement and Mission statements emphasize our long-term commitment to finding cures for Crohn's disease and ulcerative colitis as well as our commitment to undertakings that will have a more immediate impact on the lives of Canadian children and adults affected by these chronic diseases.

**Our Promise:** To cure Crohn's disease and ulcerative colitis and improve the lives of children and adults affected by these chronic diseases.

Knowledge translation is important to delivering on our Promise. Now in its twelfth year, the *Canada Future Directions in IBD* national symposium remains one of our key programs to translate what is learned in research into the hands of the practitioners treating IBD patients and to highlight the significant progress being made by our funded researchers.

Again this year, *Canada Future Directions in IBD* hosts the Canadian IBD Nurses (CANIBD) Annual Conference. This educational initiative provides nurses with a tailored program to meet their evolving needs.





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### **LEARNING OBJECTIVES**

Canada Future Directions in IBD reaches forward to translate what is learned in research into the hands of practitioners treating patients living with inflammatory bowel diseases, to present the best new scientific research in IBD and to advance knowledge on the state of the science.

### Participants in this program will be able to:

- Explore progress towards precision health from a scientific and clinical perspective
- Consider mechanisms of fibrosis from a scientific and clinical perspective
- Integrate basic science and clinical practice by participating in a choice of workshops to:
  - Review the role of diet and pathobiomes in the microbiome
  - Develop strategies for antibiotic use in IBD
  - Consider the paradox of immunization and IBD
  - Examine complementary medicines and IBD
- Examine pain mechanisms from a scientific and clinical perspective



### **AGENDA**

Time	Working Title/Topic — Format & Objectives	Speakers
08:30	0.1 Welcome & Award Announcements Nurse of the Year Award, Physician of the Year Award, Women in IBD Emerging Researcher Award, Women in IBD Outstanding Researcher Award	Lori Radke, CCC CEO
08:40	0.2 Opening Remarks Welcome, program objectives	CO-CHAIRS: Remo Panaccione & Hillary Steinhart
08:40	0.3 Overview of CCC 2023 Impact of IBD in Canada Report	Eric Benchimol & Gilaad Kaplan
Session I:	Precision Medicine	SESSION CHAIR: Charles Bernstein
09:05	Plenary Presentation 1.1 Precision Medicine from the Basic to Translational Science Perspective	Bram Verstockt
09:25	Plenary Presentation 1.2 Precision Medicine in the IBD Clinic: Where are we today?	James Lee
09:45	1.3 Ask-the Expert Panel Session	PANEL: James Lee, Florian Rieder, Bram Verstockt
10:05	Junior Investigator Award Presentation 1.4 Perspectives of Appointment Styles for Canadians with Inflammatory Bowel Disease: A randomized trial	MODERATORS: Hillary Steinhart, Ciarán Galts
	Pfizer – Benefactor closes session	
10:25	Refreshment Break	
Session II:	Mechanisms of Fibrosis	SESSION CHAIR: Laura Sly
10:40	Plenary Presentation 2.1 Fibrotic Pathways from the Basic to Translational Science Perspective	Simon Hirota
11:00	Plenary Presentation  2.2 Clinical Approaches to the Management of Fibrosis	Florian Rieder
11:20	2.3 Ask-the Expert Panel Session	PANEL: Simon Hirota, Klaus Kaestner, Florian Rieder
11:40	2.4 Rising Star Award & Presentation	MODERATOR: Kate Lee, CCC
	AbbVie — Benefactor closes session	
12:00	Lunch	
Session III:	: Workshops — Hot Topics from Bench to Policy	I
	3.1 Microbiome: Diet and resident bacteria	Deanna Gibson & Elena Verdu
13:00	3.2 Antibiotics in IBD: The Good, the bad and the ugly	Smita Halder & Laura Targownik
13.00	3.3 Paradox of Immunization and IBD	Eric Benchimol & Gilaad Kaplan
	3.4 Brain-Gut Care in IBD: An integrative approach	Lesley Graff & Maitreyi Raman
13:50	Grab & Go Break	
	Janssen – Benefactor opens session	II
13:55	4.0 Research Leadership Award & Presentation	MODERATOR: Kate Lee, CCC
Session IV:	Pain Mechanisms	SESSION CHAIR: Andy Stadnyk
14:15	Plenary Presentation 4.1 Pain Pathways from the Basic to Translational Science Perspective	Keith Sharkey
14:35	Plenary Presentation 4.2 Treatment of Pain in the IBD Clinic	Steve Vanner
14:55	4.3 Ask-the Expert Panel Session	PANEL: Yasmin Nasser, Keith Sharkey, Steve Vanner
15:15	Closing Remarks and Program Evaluation	CO-CHAIRS: Remo Panaccione & Hillary Steinhart





### **SCHEDULE OF EVENTS**

Time	Event		Location	
06:30	Sponsor Exhib	it set-up	Harbour Ballroom Foyer, Convention Level	
07:30	Registration, B	Breakfast & Sponsor Exhibits	Harbour Ballroom Foyer, Pier 4 & 5	
08:30	Meeting Conve	enes	Harbour Ballroom	
10:25	Refreshment B	Break	Harbour Ballroom Foyer, Pier 4 & 5	
10:40	Meeting Recor	nvenes	Harbour Ballroom	
12:00	Lunch Buffet 8	& Sponsor Exhibits	Harbour Ballroom Foyer, Pier 4 & 5	
	Workshop Breakouts	3.1 Microbiome: Diet and resident bacteria	Harbour Ballroom	
13:00			3.2 Antibiotics in IBD: The Good, the bad and the ugly	Pier 7 & 8
13:00			3.3 Paradox of Immunization and IBD	Dockside 2
		3.4 Brain-Gut Care in IBD: An integrative approach	Dockside 3	
13:50	Grab & Go Brea	ak	Harbour Ballroom Foyer	
13:55	Canada Future	Directions in IBD Reconvenes	Harbour Ballroom	
15:25	Canada Future	Directions Meeting Adjourns		



## Canadian IBD Nurses annual conference

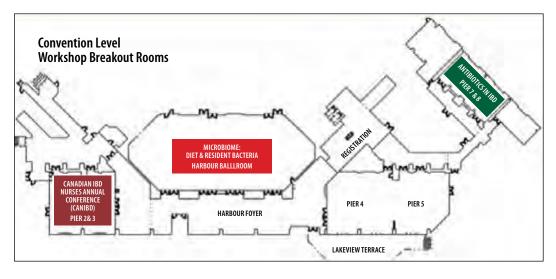
Friday November 3, 2023						
18:00	Session I Convenes	Pier 2 & 3, Convention Level				
18:05	Dinner Buffet	Pier 2 & 3				
19:00	Session I Reconvenes	Pier 2 & 3				
20:50	Session I Adjourns					
Saturday,	November 4, 2023					
13:00	Session II Convenes	Pier 2 & 3				
14:10	Refreshment Break	Pier 2 & 3				
14:25	Session 2 Reconvenes	Pier 2 & 3				
16:30	Session 2 Adjourns					

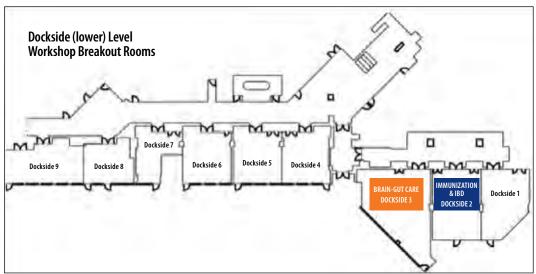


# WORKSHOP BREAKOUT GROUPS, LOCATIONS AND FACILITATORS

	Convent	ion Level	Lower (Dockside) Level		
Workshop Groups 13:00 – 13:50	Microbiome: Diet and resident bacteria Antibiotics in IBD: The good, the bad and the ugly		Paradox of Immunization and IBD	Brain-Gut Care: An integrative approach	
Location	Harbour Ballroom	Pier 7 & 8	Dockside 2	Dockside 3	
Facilitators	ilitators Deanna Gibson Smi Elena Verdú Laura		Eric Benchimol Gilaad Kaplan	Lesley Graff Maitreyi Raman	

Delegates attend one pre-selected 45-minute workshop — Time includes 5 minutes for rotation









### **SESSION I**

### PRECISION MEDICINE

# Precision Medicine from the Basic to Translational Science Perspective

Bram Verstockt, MD PhD

Gastroenterologists will be all too familiar with the difficult decisions that managing IBD often presents. How aggressively should I treat this patient? Do I expect them to have a mild or aggressive form of disease? Do they need a biologic? If so, which one? And when should I start it? The reality is that the answers that would be right for one patient, might be disastrous for another. The growing therapeutic armamentarium will only make these decisions more difficult, and yet we have seen how other specialties have begun to use the molecular heterogeneity in their diseases to provide some answers.<sup>1</sup>

In this talk, I would like to take you on a journey from the bench to the bed. Starting from genetics, variants in TL1A were linked to IBD disease susceptibility. Subsequent research demonstrated upregulation at the tissue level, explored the target in rodents and suggested that targeting TL1A might have anti-inflammatory and/or anti-fibrotic characteristics. Hence, various anti-TL1A agents are currently being developed, with some trial programs incorporating biomarkers during the development phase.<sup>2,3</sup>

#### References

- 1. Verstockt B, Parkes M, & Lee J. How do we predict a patient's disease course and whether they will respond to specific treatments? *Gastroenterology*. 2022 Apr;162(5):1383–95.
- 2. Sands B, Peyrin-Biroulet L, Danese S, et al. Demonstrated efficacy and favourable safety as induction therapy for moderately to severely active UC: Phase 2 ARTEMIS-UC study results. Presented at UEGW October 2023 (OP40).
- 3. Danese S, Sands BD, Peyrin-Biroulet L, et al. Endoscopic and histologic improvements with PRA023 in ARTEMIS-UC placebo-controlled study on moderately to severely active ulcerative colitis. Presented at UEGW October 2023 (OP103).





### **SESSION I**

### PRECISION MEDICINE

### Precision Medicine in the IBD Clinic: Where are we today?

James C. Lee, MD PhD

Almost all of the complexity of managing Crohn's disease and ulcerative colitis can be traced to the immense variability in disease course and treatment response that occurs between patients<sup>1</sup>. Despite this, traditional inflammatory bowel disease (IBD) management has primarily involved a one-size-fits-all approach, which has inevitably led to suboptimal outcomes and variable responses to treatment.

Against this background, the concept of precision medicine has emerged—initially in oncology—with the promise of integrating advanced technologies and personalized patient data to tailor treatments based on individual characteristics<sup>2</sup>.

This talk will examine the current landscape of precision medicine in IBD, focusing on key basic science advances and their potential to help identify clinically-relevant disease subtypes, predictive biomarkers, and even novel therapeutic targets. I will highlight examples of precision medicine that are already in use, and discuss the friction between the immense potential of precision medicine and the obstacles to implementing it in 2023. The need for further research and collaborative efforts to overcome these hurdles will be discussed, in the hope that this will ultimately pave the way for a more effective, personalized, and patient-centric IBD treatment in the future.

### References

- 1. Verstockt B, Parkes M, Lee JC. How do we predict a patient's disease course and whether they will respond to specific treatments? *Gastroenterology*. 2022;162(5):1383–95.
- 2. Burki T. UK and US governments to fund personalised medicine. Lancet Oncol. 2015;16(3):e108.

### **SESSION I**

## MEETING OF THE MINDS JUNIOR INVESTIGATOR AWARD PRESENTATION

# Perspectives of Appointment Styles for Canadians with Inflammatory Bowel Disease: A randomized trial

Ciarán Galts MD

**Introduction:** Across disciplines a significant shift away from in-person patient visits occurred during the COVID-19 pandemic. To date, there are no prospective studies randomizing Inflammatory Bowel Disease (IBD) patients to different styles of appointment and evaluating perspectives. We aimed to identify preferred styles of appointments across various patient factors to inform decisions regarding the optimal appointment style for patients.

**Methods:** We randomized IBD patients' appointments to either in-person, video with virtual, or telephone and subsequent appointments to the alternate style of visit in a single-centre study in British Columbia, Canada. To minimize bias, participants completed surveys after each appointment style. We collected anthropometric data on participants and analyzed average scores assessing for potential associations. We used standard regression analyses and T-scores for assessment of statistical significance.

**Results:** Eighty-six surveys were completed, 30 in-person, 29 telephone, and 27 telehealth. We excluded those with incomplete data e.g., no appointment rating. The average age was  $46.5 \pm 18$ yrs and 59% were female. The overall patient score by appointment type (out of ten) was  $9.1 \pm 1.0$  for in-person,  $7.8 \pm 2.1$  for telephone, and  $8.0 \pm 2.6$  for telehealth. The percentage of patients who would have preferred an alternate appointment style was 25.0% for in-person, 52.9% for telephone, and 33.0% for virtual. The highest rated factors for preference of an in-person appointment were optimal communication and interaction with care-provider (86.4%). Among participants who would have preferred telehealth appointments 62.5%, and 37.5% cited time savings and cost savings as reasons respectively, and 60.0% for the same reasons for telephone-based appointments. In-person appointments were associated with a higher cost, longer time commitment. Neither age or gender were associated with any preferred style of appointment.

**Discussion:** In our study randomizing IBD patients to virtual, telephone or in-person visits it is clear that all appointment styles have their merits. Despite the increased cost and time commitment, there was a trend toward preference of in-person appointments. With the movement away from in-person patient visits we suggest than providers should consider patient preferences in choosing a style of appointment.



### **SESSION II**

### **MECHANISMS OF FIBROSIS**

# Fibrotic Pathways from the Basic to Translational Science Perspective

Simon Hirota, PhD CAGF

### Objectives

- 1. To understand the basic cellular processes that contribute to fibrosis and tissue modelling in inflammatory bowel disease (IBD.
- 2. To appreciate the heterogeneity of the intestinal mesenchyme
- 3. To determine which pre-clinical models are best suited to model the key aspects of fibrosis in patients with IBD

During the normal tissue repair response, inflammation initiates a cascade of events that include the activation of immune cells and mesenchymal cells, triggering the secretion of cytokines, proteases, chemokines, and growth factors<sup>1</sup>. This response is tightly controlled, limiting mesenchymal cell proliferation, migration, and extracellular matrix (ECM) production, and is followed by resolution of inflammation and fibrotic signaling<sup>1</sup>. However, in the setting of pathogenic tissue remodelling, the mechanisms that control these processes are not operative at the appropriate levels, and fibrogenic mesenchymal cells are not only maintained, but are expanded in number<sup>2</sup>. The intestinal mesenchyme has long been considered solely as a structural component of the intestine, providing the necessary support and growth mediators to maintain intestinal epithelial growth/differentiation, and the framework within which immune cells function. Single-cell RNA sequencing approaches have identified extensive heterogeneity in the intestinal mesenchyme<sup>3,4</sup>, revealing new subclasses of fibroblasts and stromal cells, and describing a large degree of "responsiveness" in their respective transcriptomes in the context of IBD<sup>3,4</sup> and animal models of colitis<sup>4</sup>. The discovery of unique stromal sub-sets and their phenotypic changes during inflammation, suggest that these cells may play a role in mucosal homeostasis and inflammatory events. This presentation will summarize what is currently known about the interplay between immune responses and the activation of mesenchymal cells, and discuss how we can harness relevant pre-clinical models to help translate our findings into treatments for fibrosis and tissue remodeling in patients with IBD.

### References

- 1. Wynn TA, Ramalingam TR. Mechanisms of fibrosis: therapeutic translation for fibrotic disease. Nat Med. 2012;18:1028–40.
- 2. Latella G, Rogler G, Bamias G, et al. Results of the 4th scientific workshop of the ECCO (I): pathophysiology of intestinal fibrosis in IBD. *J Crohns Colitis*. 2014;8:1147–65.
- 3. Smillie CS, Biton M, Ordovas-Montanes J, et al. Intra- and Inter-cellular Rewiring of the Human Colon during Ulcerative Colitis. *Cell*. 2019;178:714–30.e22.
- 4. Kinchen J, Chen HH, Parikh K, et al. Structural Remodeling of the Human Colonic Mesenchyme in Inflammatory Bowel Disease. *Cell*. 2018:175:372–86.e17.





### **SESSION II**

### **MECHANISMS OF FIBROSIS**

## **Clinical Approaches to the Management of Fibrosis**

Florian Rieder, MD PhD

Stricturing complications are an important and common event during the course of Crohn's disease (CD) and may lead to significant disability. It is a leading indication for surgery among patients with CD. Strictures are most commonly diagnosed during colonoscopy or on cross-sectional imaging. They appear as a narrowing in the bowel lumen and may be associated with a variety of concomitant features, such as internal penetrating disease.

Standardized radiologic diagnostic criteria have been proposed by the CONSTRICT group. Abdominal cross-sectional imaging, including intestinal ultrasound, is crucial in the evaluation of strictures and helps guide treatment.

Management of strictures is often multidisciplinary and involves a combination of medical, endoscopic and surgical options. However, despite recent advances in medical therapies, the progression to stricturing complications has not been significantly altered and only a subset of patients improve on medical therapy temporarily, highlighting the need for durable treatment options. Anti-fibrotics are being evaluated in this setting and further data are eagerly awaited.

#### References

El Ouali S, Click B, Holubar SD, Rieder F. Natural history, diagnosis and treatment approach to fibrostenosing Crohn's disease. *United European Gastroenterol J.* 2020;8(3):263–70.

Rieder F, Bettenworth D, Ma C, et al. An expert consensus to standardise definitions, diagnosis and treatment targets for anti-fibrotic stricture therapies in Crohn's disease. *Aliment Pharmacol Ther.* 2018;48(3):347–57.

Rieder F, Fiocchi C, Rogler G. Mechanisms, Management, and Treatment of Fibrosis in Patients With Inflammatory Bowel Diseases. Gastroenterology. 2017;152(2):340–50 e6.



### **SESSION III**

### WORKSHOPS – HOT TOPICS FROM BENCH TO POLICY

### Microbiome: Diet and resident bacteria

Deanna Gibson, BSc PhD Elena Verdú, MD PhD

In recent years, research into the gut microbiome has illuminated its pivotal role in human health. Yet, this exploration has disproportionately centered on European and Westernized populations, limiting our capacity to define a universally healthy gut microbiome. This gap prompts a critical examination of whether a distinct microbiome profile exists for inflammatory bowel disease (IBD) and whether there are identifiable pre-disease markers.

Studies have delved into the concept of keystone species, which play a crucial role in maintaining a balanced gut ecosystem. These organisms exert significant influence, and alterations in their abundance or function have been associated with disease states. Additionally, the symbiosis-pathobiont continuum—a spectrum that ranges from beneficial to potentially harmful microorganisms—has garnered attention. Understanding this continuum is essential in discerning the delicate balance between symbiotic and pathogenic microbes in the gut.

Diet emerges as a paramount factor in the development and progression of IBD. The Mediterranean diet, characterized by high fiber, antioxidants, and high intake of omega-6 polyunsaturated fatty acids and low omega-3 polyunsaturated fatty acids, has shown promise in promoting IBD remission. Conversely, the Western diet, rife with ultra-processed foods, food toxins, and high salt content, has been implicated in exacerbating inflammation and gut dysbiosis, thus elevating the risk of IBD.

This workshop will cover the evidence that underscores the intricate interplay between diet, resident bacteria, and IBD. Recognizing the global diversity in gut microbiomes and their susceptibility to dietary influences is imperative in formulating comprehensive strategies for IBD. Furthermore, a nuanced understanding of keystone species and the symbiosis-pathobiont continuum holds great promise in unraveling the intricate mechanisms underlying IBD pathogenesis.

### **SESSION III**

# WORKSHOPS – HOT TOPICS FROM BENCH TO POLICY **Antibiotics in IBD: The good, the bad, and the ugly**

Smita Halder, MRCP PhD Laura Targownik, MD MSHS

### Learning Objectives

- Explore the potential causality of early-life antibiotic use as a risk factor for the development of inflammatory bowel disease (IBD)
- Understand the role of antibiotics in the management of established IBD

#### **Case Studies**

### Case 1

You are seeing a 27-year-old woman with a 10-year history of ileocolonic Crohn's disease which has been in long-term remission on ustekinumab. Six months ago, she gave birth to a healthy baby following a complication-free pregnancy and delivery.

Recently her son has developed recurrent urinary tract infections and was diagnosed with ureteropelvic reflux. He has received one course of antibiotics, and his pediatric urologist wants him to be placed on suppressive doses of ciprofloxacin to prevent relapse pending surgery.

On her online forum, she has recently heard about antibiotics possibly increasing the risk of IBD in children and wants your advice on what his risk is.

#### Case 2

Your 39-year-old male patient, Mr. A, presents to your clinic with a specific request. He has a known history of ulcerative colitis (UC) diagnosed 10 years ago and primary sclerosing cholangitis (PSC) diagnosed 8 years ago. Mr. A has been experiencing recurrent flares of his UC and PSC over the past few years, despite being compliant with 5-ASAs for UC and ursodeoxycholic acid for PSC. Most recently he describes a four-week history of jaundice and right upper quadrant pain.

He has been researching potential treatments for PSC and has read about the use of vancomycin in some cases. He remembers being on this for C. difficile earlier in the year, and is wondering if the infection has led to his liver issues.

### References

Ahmed T, Kayal M, Hashem D, Ungaro RC. Besting the biologics: Vancomycin monotherapy for ulcerative colitis management in patients with primary sclerosing cholangitis. *Dig Dis Sci.* 2023 Apr;68(4):1118–20.

Almomen HS, Al-Bawardy B. Oral vancomycin induced and maintained clinical and endoscopic remission in ulcerative colitis and primary sclerosing cholangitis post-liver transplantation. *Inflamm Bowel Dis.* 2023 May 2;29(5):837–38.

Bernstein CN, Burchill C, Targownik LE, et al. Events within the first year of life, but not the neonatal period, affect risk for later development of inflammatory bowel diseases. *Gastroenterology*. 2019 Jun;156(8):2190–97.

Deneau MR, Mack C, Mogul D, et al. Oral vancomycin, ursodeoxycholic acid, or no therapy for pediatric primary sclerosing cholangitis: A matched analysis. *Hepatology*. 2021 Mar;73(3):1061–73.

Faye AS, Allin KH, Iversen AT, et al. Antibiotic use as a risk factor for inflammatory bowel disease across the ages: a population-based cohort study. Gut. 2023 Apr;72(4):663–70.

Gordon M, Sinopoulou V, Grafton-Clarke C, et al. Antibiotics for the induction and maintenance of remission in ulcerative colitis. *Cochrane Database Syst Rev.* 2022 May 18;5(5):CD013743.





### **SESSION III**

## WORKSHOPS – HOT TOPICS FROM BENCH TO POLICY

### Paradox of Immunization and IBD

Eric Benchimol, MD PhD FRPC Gilaad Kaplan, MD MPH FRCPC CAGF AGAF FCAHS, Killam Laureate

### Learning Objectives

- 1. Consider the ethics of recommending or not recommending immunization
- 2. Discuss the effectiveness of vaccines in the IBD patient
- 3. Discuss the safety and efficacy of COVID-19 vaccines in IBD patients

#### Case

A 14-year-old boy is newly diagnosed with moderate-to-severe ileocolonic Crohn's disease. His pediatric gastroenterologist wants to start a course of prednisone as a bridge to anti-TNF therapy. His pre-biologic work-up showed no immunity to measles or hepatitis B. His parents did not vaccinate him for his childhood vaccines and he has not received a vaccine for COVID-19. They do not want to vaccinate him prior to starting treatment. This case will address the following questions:

- 1. What are the ethical implications of vaccinating an adolescent whose parents refuse vaccination?
- 2. What are the recommended vaccines for an immunocompromised adolescent with IBD?
- 3. What are safety considerations for vaccines for a person with IBD?
- 4. What is the safety and efficacy of COVID-19 vaccines?

#### References

Benchimol El, Tse F, Carroll MW, et al. Canadian Association of Gastroenterology Clinical Practice Guideline for Immunizations in Patients With Inflammatory Bowel Disease (IBD)-Part 1: Live Vaccines. *J Can Assoc Gastroenterol*. 2021 Jul 29;4(4):e59–e71.

Jones JL, Tse F, Carroll MW, et al. Canadian Association of Gastroenterology Clinical Practice Guideline for Immunizations in Patients With Inflammatory Bowel Disease (IBD)-Part 2: Inactivated Vaccines. *J Can Assoc Gastroenterol*. 2021 Jul 29;4(4):e72–e91.

Kaplan GG, Kuenzig ME, Windsor JW, et al. The 2023 Impact of Inflammatory Bowel Disease in Canada: COVID-19 and IBD. *J Can Assoc Gastroenterol*. 2023 Sep 5;6(Suppl 2):S76–S82.

### **SESSION III**

# WORKSHOPS – HOT TOPICS FROM BENCH TO POLICY **Brain-Gut Care in IBD: An integrative approach**

Lesley Graff, PhD CPsych Maitreyi Raman, MD MSc FRCPC CAGF

### **Learning Objectives**

- 1. Examine psychological, physical and dietary interventions as adjunct therapies for IBD management
- 2. Discuss how to select and engage patients in these approaches, including CBT, mindfulness, yoga, exercise and diet, to appropriately enhance outcomes

The current state for inflammatory bowel disease (IBD) is lifelong disease management, often with a fluctuating and unpredictable disease course. It is well established that disease severity and impact of IBD are not solely explained by the degree of intestinal inflammation; mental health and gut microbiome research in IBD suggests bidirectional influence of the brain and gut. Treatment focuses on improving symptoms, reducing inflammation, and promoting mucosal healing with the aim of lasting disease remission.

While biologic treatments have undoubtedly altered the natural history for IBD, some patients are not responsive or cannot maintain remission, and notably up to a third of patients with IBD are not on any medication. Patients have identified quality of life as one of the most important treatment objectives, and are often highly motivated to be active in their disease care. Adjuvant interventions, aiming to optimize patient outcomes, have increasingly been seen to have an important role in IBD care, with healthy lifestyle notably associated with decreased mortality risk in IBD<sup>1</sup>.

Cognitive behavioral therapy has some of the strongest empirical support for improved psychological outcomes in IBD<sup>2</sup>. In addition, there is growing data on potential benefits of approaches such as yoga, mindfulness, exercise, and specific diet for individuals with IBD<sup>3</sup>. In this interactive workshop, using a case-based approach, there will be consideration of the why, what, when and how of these adjuvant interventions with adult IBD patients, based on clinical knowledge, experience, and emerging evidence, and emphasizing what can be initiated in the GI clinic.

#### References

- 1. Lo CH, Khalili H, Song M, et al. Healthy Lifestyle Is Associated With Reduced Mortality in Patients With Inflammatory Bowel Diseases. *Clin Gastroenterol Hepatol*. 2021 Jan;19(1):87–95.
- 2. Riggott C, Mikocka-Walus A, Gracie DJ, et al. Efficacy of psychological therapies in people with inflammatory bowel disease: a systematic review and meta-analysis. *Lancet Gastroenterol Hepatol*. 2023 Oct;8(10):919–31.
- 3. Sasson AN, Ingram RJM, Zhang Z, et al. The role of precision nutrition in the modulation of microbial composition and function in people with inflammatory bowel disease. *Lancet Gastroenterol Hepatol*. 2021 Sep;6(9):754–69.





### **SESSION IV**

### PAIN MECHANISMS

# Pain Pathways from the Basic to Translational Science Perspective

Keith A. Sharkey, PhD CAGF FCAHS

### Objectives

- Discuss the gut-brain-microbiota axis in the context of inflammatory bowel disease (IBD)
- Explore the pain pathways involved in IBD

Neural control of the gastrointestinal tract involves the complex interplay of intrinsic and extrinsic nerves with immune cells, interstitial cells, enteroendocrine cells, enteric glia and the gut microbiota. In IBD, all these systems are altered either as a result of active inflammation, or due to persistent changes in structure and function in the chronic inflamed state. Hence IBD is associated with changes in gut function and abdominal pain that frequently outlast bouts of acute inflammation (flares). The presentation of these symptoms is sex-specific: women experience a greater degree of chronic pain than men. IBD is also associated with emotional and behavioural comorbidities, including high rates of depression and anxiety, and higher levels of stress. Via the brain-gut axis these psychological changes may exacerbate IBD. Pain in IBD remains hard to treat, in part because of an incomplete understanding of pain pathways and how they are activated. In this presentation, I will review the gut-brain-microbiota axis in the context of IBD and explore the pain pathways involved in IBD. I will highlight important new findings that shed light on novel pain mechanisms including the role of enteric glia, enterochromaffin cells and the gut microbiota. I will also examine sex-specific activation of pain pathways and their links with stress and anxiety. Most of these findings remain at the preclinical stage of development. Translational studies are required to better understand the importance of these findings in IBD populations. Nevertheless, the multitude of new treatment targets afforded by recent developments offers hope that in the future there will be better therapies for the treatment of pain in IBD.

#### References

- 1. Grundy L, Erickson A, Brierley SM. Visceral pain. Annu Rev Physiol. 2019;81:261-84.
- 2. Abdullah N, Defaye M, Altier C. Neural control of gut homeostasis. Am J Physiol Gastrointest Liver Physiol. 2020;319(6):G718–32.
- 3. Morales-Soto W, Gulbransen BG. Enteric glia: A new player in abdominal pain. Cell Mol Gastroenterol Hepatol. 2019;7(2):433-45.





### **SESSION IV**

### PAIN MECHANISMS

### Treatment of Pain in the IBD Clinic

### Stephen Vanner, MSc MD FRCPC

Pain is a major cause of morbidity for patients with inflammatory bowel disease (IBD) and results from a complex interaction of peripheral and central mechanisms. This presentation highlights the advantages (and some pitfalls) of a mechanistic approach to pain management in these patients, using both pharmacological and non-pharmacological approaches. Mechanistic causes include inflammation, post-inflammatory irritable bowel syndrome (IBS), abdominal wall pain, partial obstruction, small intestinal bacterial overgrowth (SIBO), food-induced symptoms, and chronic pain syndromes. Treatment with anti-inflammatory drugs, i.e., prednisone and biologics, are often effective in reducing pain during active disease. Post-inflammatory IBS is reported in up to 50% of patients and may respond to non-pharmacological approaches, including behavioural therapy and diet, and IBS pharmacological approaches. Abdominal wall pain can be overlooked and responds well to local therapy. SIBO should be suspected in those with partial obstruction or prior intestinal surgery. Breath testing for diagnosis is unreliable and presumptive treatment with antibiotics is suggested. Chronic pain syndromes are best managed with low-dose antidepressants and behavioural therapies. Special consideration is given to opioids as they are an independent predictor of mortality, pose serious risk for addiction, and cause serious side effects including increased risk of infection. When absolutely necessary in an inpatient setting, very careful attention should be given to mitigating addictive risk and plans to avoid their ongoing use after discharge. Other special considerations include the potential role of cannabinoids and the use of nonsteroidal anti-inflammatory drugs (NSAIDS).

#### References

Sinopoulou V, Gordon M, Akobeng AK, et al. Interventions for the management of abdominal pain in Crohn's disease and inflammatory bowel disease. *Cochrane Database Syst Rev.* 2021;11(11):CD013531.

Srinath A, Young E, Szigethy E. Pain management in patients with inflammatory bowel disease: Translational approaches from bench to bedside. *Inflamm Bowel Dis.* 2014;20(12):2433–49.

Swierczynski M, Makaro A, Grochowska A, et al. Pharmacological approaches to treat intestinal pain. Expert Rev Clin Pharmacol. 2023;16(4):297–311.



### **ACADEMIC ACTIVITIES ADDRESSING CANMEDS ROLES**

		Roles						
Activity	Medical Expert	Communicator	Collaborator	Leader	Health Advocate	Scholar	Professional	
Workshops 3.1 Microbiome: Diet and resident bacteria 3.2 Antibiotics in IBD: The Good, the bad and the ugly 3.3 Paradox of Immunization and IBD 3.4 Brain-Gut Care in IBD: An integrative approach	Х	Х	Х	Х	Х	Х	Х	
<ul> <li>Plenary Presentations</li> <li>1.1 Precision Medicine from the Basic to Translational Science Perspective</li> <li>1.2 Precision Medicine in the IBD Clinic: Where are we today?</li> <li>1.3 Junior Investigator Award Presentation - Perspectives of Appointment Styles for Canadians with Inflammatory Bowel Disease: A randomized trial</li> <li>2.1 Fibrotic Pathways from the Basic to Translational Science Perspective</li> <li>2.2 Clinical Approaches to the Management of Fibrosis</li> <li>2.3 Rising Star Award Presentation</li> <li>4.0 Research Leadership Award Presentation</li> <li>4.1 Pain Pathways from the Basic to Translational Science Perspective</li> <li>4.2 Treatment of Pain in the IBD Clinic</li> </ul>	X		Х	Х	X	Х	Х	
Ask-the-Expert Panel Q&A Sessions Session I: Precision Medicine — Plenary 1.1 & 1.2 Session II: Mechanisms of Fibrosis — Plenary 2.1 & 2.2 Session IV: Pain Mechanisms — Plenary 4.1 & 4.2	Х	Х	Х	Х	Х	Х	Х	
Program Evaluation	Х	Х	Х		Х	Х	Х	

Medical Expert: As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in

 $their provision \ of \ high-quality \ and \ safe \ patient-centred \ care. \ Medical \ Expert \ is \ the \ central \ physician \ Role \ in \ the \ CanMEDS \ Framework \ and$ 

defines the physician's clinical scope of practice.

Communicator: As Communicators, physicians form relationships with patients and their families that facilitate the gathering and sharing of essential

information for effective health care.

**Collaborator:** As Collaborators, physicians work effectively with other health care professionals to provide safe, high-quality, patient-centred care.

Leader: As Leaders, physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the

 $delivery\ of\ excellent\ patient\ care\ through\ their\ activities\ as\ clinicians,\ administrators,\ scholars,\ or\ teachers.$ 

Health Advocate: As Health Advocates, physicians contribute their expertise and influence as they work with communities or patient populations to improve

health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the

mobilization of resources to effect change.

Scholar: As Scholars, physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and by teaching others,

 $evaluating\ evidence, and\ contributing\ to\ scholarship.$ 

**Professional:** As Professionals, physicians are committed to the health and well-being of individual patients and society through ethical practice, high

personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.

 $\underline{http://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e}$ 

## FACULTY FINANCIAL INTEREST DISCLOSURE SUMMARY

To ensure balance, independence, objectivity, and scientific rigour in all educational and scientific activities, the faculty participating in this educational event are expected to disclose to the audience any significant financial interest or other relationships. The intent of this initiative is to provide members of the audience with information on the speaker's and moderator's interests or relationships that could influence the presentation with respect to interpretations, recommendations, and conclusions.

Please note: Unless listed below, faculty disclosure information was not provided.

The following faculty have indicated that they **do not** have a significant financial interest:

Faculty	Applicable Date
Ciaran Galts	04 Nov 23
Smita Halder	04 Nov 23
Simon Hirota	04 Nov 23
Klaus Kaestner	04 Nov 23

Applicable Date
04 Nov 23
04 Nov 23
04 Nov 23

The following faculty have indicated that they **do** have a significant financial interest:

	A !!	C	Nature and resolu	nancial relationship	
Faculty	Applicable Date	Commercial Interest	What was received?	For what role?	Planned resolution
Eric Benchimol	04 Nov 23	McKesson Canada, Dairy Farmers of Ontario	Honorarium	Consultant	Unrelated to topics of presentation
		AbbVie, Amgen. Biojamp, Bristol Myers Squibb, Eli Lilly, Janssen, Organon, Pfizer, Takeda	Honorarium	Advisory Board Member	
Charles Bernstein	04 Nov 23	AbbVie, Bristol Myers Squibb, Eli Lilly, Ferring, Janssen, Organon, Pfizer, Takeda	Institution Funds	Education Funds & Research Grants	Program vetted by co-chairs
		AbbVie, Ferring, Janssen, Pfizer, Takeda	Honorarium	Speaker	
Alain	04 Nov 23	AbbVie, Amgen, Biojamp, Bristol Myers Squibb, McKesson, Takeda,	Honorarium	Advisory Board Member	Program vetted by Co-Chair, Steering
Bitton		Fresenius Kabi	Honorarium	Educational Program	Committee, based on needs analysis
		AbbVie, Janssen, Takeda, Viatris	Honorarium	Speaker	necus analysis
Deanna Gibson	04 Nov 23	Melius MicroBiomics	Shares and stipend	Chief Scientific Officeer and Co-Founder	Talk vetted by co-chairs
Lesley Graff	04 Nov 23	Pfizer, Takeda	Grant funding investigator initiated	co-PI	Talk vetted by co-chairs
Gilaad	04 Nov 22	AbbVie, Janssen, Pfizer	Honorarium	Speaker	Talk vetted
Kaplan	04 Nov 23	Ferring	Grant	Research	by co-chairs



	Applicable Commercial Nature and resolution of relevant financial				
Faculty	Applicable Date	Interest	What was received?	For what role?	Planned resolution
		Abbvie	Honorarium	Advisory Board Member	
Jame Lee	04 Nov 23	C4X Discovery, PredictImmune Ltd	Consultancy fee	Consultant	Talk vetted by co-chairs
		GSK	Research grant	Collaborative research	
Yasmin Nasser	04 Nov 23	Abbvie	Honorarium	Speaker	Talk vetted by co-chairs
		AbbVie, Alimentiv (formerly Robarts), Amgen, Arena Pharmaceuticals, AstraZeneca, Biogen, Boehringer Ingelheim, Bristol-Myers Squibb, Celgene, Eli Lilly, Ferring, Fresenius Kabi, Genentech, Gilead Sciences, Glaxo-Smith Kline, JAMP Bio, Janssen, Merck, Mylan, Novartis, Oppilan Pharma, Organon, Pandion Pharma, Pfizer, Progenity, Protagonist Therapeutics, Roche, SandozShire, Sublimity Therapeutics, Takeda Pharmaceuticals, Ventyx	Honorarium	Advisory Board Member	
Remo Panaccione	04 Nov 23	Abbott, AbbVie, Abbivax, Alimentiv (formerly Robarts), Amgen, Arena Pharmaceuticals, AstraZeneca, Biogen, Boehringer Ingelheim, Bristol-Myers Squibb, Celgene, Celltrion, Cosmos Pharmaceuticals, Eisai, Elan, Eli Lilly, Ferring, Galapagos, Fresenius Kabi, Genentech, Gilead Sciences, Glaxo-Smith Kline, JAMP Bio, Janssen, Merck, Mylan, Novartis, Oppilan Pharma, Organon, Pandion Pharma, Pendopharm, Pfizer, Progenity, Prometheus Biosciences, Protagonist Therapeutics, Roche, Sandoz, Satisfai Health, Shire, Sublimity Therapeutics, Takeda Pharmaceuticals, Theravance Biopharma, Trellus, Viatris, Ventyx, UCB	Consulting Fees	Consultant	Program vetted by Co-Chair, Steering Committee
		AbbVie, Amgen, Arena Pharmaceuticals, Bristol-Myers Squibb, Celgene, Eli Lilly, Ferring, Fresenius Kabi, Gilead Sciences, Janssen, Merck, Organon, Pfizer, Roche, Sandoz, Shire, Takeda Pharmaceuticals	Speaker Fees	Speaker	



	Annlinghla		Nature and resolution of relevant financial relationshi			
Faculty	Applicable Date	Commercial Interest	What was received?	For what role?	Planned resolution	
Maitreyi	04 Nov 23	Pfizer	Research Grant	Operational Funds	Talk vetted	
Raman	041107 23	Lupin	Honorarium	Speaker	by co-chairs	
		Adiso, Adnovate, Agomab,	04 Nov 23	04 Nov 23		
Florian Rieder	04 Nov 23	Allergan, AbbVie, Arena, Astra Zeneca, Boehringer-Ingelheim, Celgene/BMS, Celltrion, CDISC, Celsius, Cowen, Ferring, Galapagos, Galmed, Genentech, Gilead, Gossamer, Granite, Guidepoint, Helmsley, Horizon Therapeutics, Image Analysis Limited, Index Pharma, Landos, Jannsen, Koutif, Mestag, Metacrine, Mopac, Morphic, Organovo, Origo, Palisade, Pfizer, Pliant, Prometheus Biosciences, Receptos, RedX, Roche, Samsung, Sanofi, Surmodics, Surrozen, Takeda, Techlab, Teva, Theravance, Thetis, UCB, Ysios, 89Bio	Honorarium	Advisory Board Member or Consultant	Talk vetted by Co-Chairs and Individual with no conflict of interest	
		Abbvie, Amgen, Biojamp, Bristol Myers Squibb, Fresenius Kabi, Janssen, McKesson, Mylan Pharmaceuticals, Organon, Pendopharm, Pfizer, Sandoz, Takeda, Viatris	Honorarium	Advisory Board Member	Program vetted by	
Hillary Steinhart	04 Nov 23	NKS Pharmacy	Consultant fee	Consultant	Co-Chair, Steering	
Stellillalt	(BMS), Genentech/Roche, Janssen, Takeda		Grant	Investigator	Committee	
			Honorarium	Speaker		
Laura	Laura 04 Nov 23 Squil Jar rgownik Squib Squib	Abbvie, Amgen, Bristol Myers Squibb, Eli Lilly, Fresenius Kabi, Janssen, Lilly, Pfizer, Viatris	Consulting Fees	Consultant	Talk vetted by co-chairs.	
Targownik		Abbvie, Amgen, Bristol Myers Squibb, Celltrion, Fresenius Kabi, Janssen, Pfizer, Takeda	Grants		No direct influence	



	Annlianhla	Commercial	Nature and resolu	ution of relevant fi	nancial relationship
Faculty	Applicable Date	Interest	What was received?	For what role?	Planned resolution
Stephen Vanner	04 Nov 23	pHarm Therapeutics Inc.	No funds	President	Will mention a preclinical analgesic licenced to the company. Not available for clinical use as still in development so minimal conflict. Talk vetted by Co-Chairs.
Elana Verdu	04 Nov 23	Biocodex, Pileje	Grant	Investigator	Will not talk of these topics. Talk vetted by Co-Chairs
Bram	0411 22	Abbvie, Alimentiv, Applied Strategic, Atheneum, Biora Therapeutics, Bristol Myers Squibb, Galapagos, Guidepont, Landos, Lilly, Mylan, Inotrem, Ipsos, Janssen, Pfizer, Progenity, Sandoz, Sosei Heptares, Takeda, Tillots Pharma, Viatris	Honorarium	Advisory Board Member or Consultant	Talk vetted
Verstockt	04 Nov 23	AbbVie, Biora Therapeutics, Landos, Pfize Sossei Heptares, Takeda	Honorarium	Research Support	by Co-Chairs
		Abbvie, Biogen, Bristol Myers Squibb, Celltrion, Chiesi, Falk, Ferring, Galapagos, Janssen, Lily, MSD, Pfizer, R-Biopharm, Takeda, Tillots Pharma, Truvion, Viatris	Honorarium	Speaker	

The following faculty have indicated that the content of their presentation **will** include discussion of investigative use or off-label application of medicines, medical devices, or procedures:

Faculty	Applicable Date		
James Lee	04 Nov 23		
Yasmin Nasser	04 Nov 23		

Faculty	Applicable Date		
Remo Panaccione	04 Nov 23		
Stephen Vanner	04 Nov 23		

The following faculty have indicated that the content of their presentation **will not** include discussion of investigative use or off-label application of medicines, medical devices, or procedures:

Faculty	Applicable Date			
Eric Benchimol	04 Nov 23			
Charles Bernstein	04 Nov 23			
Lesley Graff	04 Nov 23			
Smita Halder	04 Nov 23			
Simon HIrota	04 Nov 23			
Klaus Kaestner	04 Nov 23			
Gilaad Kaplan	04 Nov 23			

Faculty	Applicable Date			
Maitreyi Raman	04 Nov 23			
Florian Rieder	04 Nov 23			
Keith Sharkey	04 Nov 23			
Hillary Steinhart	04 Nov 23			
Laura Targownik	04 Nov 23			
Elana Verdu	04 Nov 23			
Bram Verstockt	04 Nov 23			

