



FNM 2020

4th Meeting of the Federation of Neurogastroenterology & Motility

Adelaide Convention Centre
Adelaide, Australia
14 – 17 April 2021

Wednesday 14th April 2021

14:00	Registration <i>Foyer L</i>
	<i>Hospital Research Foundation Sponsor Message</i>
16:30	Welcome and Opening Presentation <i>City Rooms 1,2&3</i> Professor Robin Warren (<i>Australia</i>), Nobel Laureate Helicobacter: The ease and difficulty of a new discovery
17:30	Life-Time Achievement Award – <i>City Rooms 1,2&3</i> Professor Michael Gershon (<i>Columbia University, USA</i>)
17:30	Diet, Microbes and Mental Health - <i>City Rooms 1,2&3</i> Felice Jacka (<i>Australia</i>)
18:00	A Gut Feeling About the Brain - <i>City Rooms 1,2&3</i> John Cryan (<i>Ireland</i>)

18:30	Welcome Reception <i>Hall L</i>		
Thursday 15th April 2021			
8:30	Official Welcome		
Symposium 1	Obesity and The Gut <i>City Rooms 1,2&3</i>		
	<i>Chair: Amanda Page</i>		
8:45	Microbiome, Diet and Obesity Intervention Andrew Holmes (<i>Australia</i>)		
9:10	Gastrointestinal vagal afferents and food intake: Relevance of circadian rhythms Amanda Page (<i>Australia</i>)		
9:35	Personalised Approaches to Obesity Andres Acosta (<i>USA</i>)		
10:00	Motility Changes After Bariatric Surgery Michael Talbot (<i>Australia</i>)		
10:30	Morning Break – <i>Hall L</i>		
10:35	Exhibition Showcase / Demonstration Space Presentation – ENDOTHERAPEUTICS - <i>Hall L</i>		
Concurrent sessions	Upper GI disorders: Diagnosis & Treatment <i>City Rooms 1,2&3</i>	State of the Art: Translational Applications In The Study Of Dysmotility <i>Riverbank Rooms 7&8</i>	Enteric Nervous System: Circuitry & Function <i>Riverbank Room 5</i>
	<i>Chair: Geoff Kohn</i>	<i>Chair: Phil Dinning</i>	<i>Chair: John Furness</i>
11:00	Diagnosis GERD André Smout (<i>Netherlands</i>) (Invited Speaker)	Emerging Methods for Evaluating Gastric Motility Greg O’Grady (<i>New Zealand</i>) (Invited Speaker)	New Insights Into ENS Circuits and Function Marcello Costa (<i>Australia</i>) (Invited Speaker)
11:30	Management of Reflux Hypersensitivity and Functional Heartburn Ronnie Fass (<i>USA</i>)	The New Understanding Of Colonic Motility: When Clinicians Speak With Basic Scientists (Lower Gut) Maura Corsetti (<i>UK</i>) (Invited Speaker)	Imaging the Enteric Nervous System In Health and Disease Pieter Vanden Berghe (<i>Belgium</i>) (Invited Speaker)

	(Invited Speaker)		
12:00	The Relation Between Gastric Motility, as Assessed with the Novel VIPUN Balloon Catheter, Gastric Emptying and Nutrient Load Nick Goelen (Selected Abstract)	High-Resolution Colonic Manometry Reveals Postprandial Motility Differences Between Constipation Subtypes. Victoria Wilkinson-Smith (Selected Abstract)	Functional Testing in Zebrafish to Determine Causal Genes Included in Large Copy Number Deletions Found in Hirschsprung Disease Patients with Additional Associated Anomalies Laura Kuil (Selected Abstract)
12:15	Correlation Between Antroduodenal Manometry and Histopathology in Paediatric Intestinal Pseudo-obstruction. Atchariya Chanpong (Selected Abstract)	Defaecatory Function Testing of Constipated Patients with a Simulated Stool Hans Gregersen (Selected Abstract)	
12:30	Lunch Break and Poster Viewing – <i>Hall L</i>		
12:45	“Lunch & Learn” Presentation with BiomeBank – Supported by THE HOSPITAL RESEARCH FOUNDATION GROUP – <i>Hall L</i> Dr Sam Costello , Chief Medical Officer of BiomeBank, a clinical stage microbiome therapeutics company, for an informal lunch and learn session on faecal microbiota transplantation (FMT). Dr Costello will take you through the practical aspects and requirements around how to safely administer an FMT, a procedure currently being used to treat patients living with <i>Clostridioides difficile</i> infection.		
Concurrent Sessions	Gut Dysfunction & Systemic Disorders <i>City Rooms 1,2&3</i>	FGIDs: A world view <i>(based on "Rome IV: Global study")</i> <i>Riverbank Rooms 7&8</i>	EC & EE Cells Contributing To Mucosal Signalling <i>Riverbank Room 5</i>
	<i>Chair: Luke Grundy</i>	<i>Chair: Christine Feinle-Bisset</i>	<i>Chair: Damien Keating</i>
14:00	What Role does GI Dysfunction Play in ASD? Kara Margolis (USA) (Invited Speaker)	A 33-Country Population-Based Study of the Prevalence and Burden of the Functional GI Disorders Ami D. Sperber (Israel) (Invited Speaker)	The Touching Story of Enterochromaffin Cell Mechanosensitivity Art Beyder (USA) (Invited Speaker)
14:30	Parkinson's Disease: it's Not All in Your Head Alberto Travagli (USA) (Invited Speaker)	A Comparison of Findings Between the Rome IV Global Epidemiology Study and Previous Studies Max Schmulson (Mexico) (Invited Speaker)	A Gut Choice for Sugars Diego Bohorquez (USA) (Invited Speaker)
15:00	LIG3 Mutations Cause A New Type of Mitochondrial	The Rome IV PI-IBS Working Team Giovanni Barbara (Italy)	Different Luminal Nutrients Activate Distinct Patterns of Myenteric Neurons.

	Neurogastrointestinal Encephalomyopathy Francesca Bianco (Selected Abstract)	(Invited Presentation)	Candice Fung (Selected Abstract)
15:15	Evaluation of Defecation Disorders in Children with Autism Spectrum Disorder by Colonic Manometry Alexander Coe (Selected Abstract)		Sensory Epithelial Gastrointestinal Enteroendocrine Cells Use Different Signaling Pathways for Chemo and Mechanotransduction. Constanza Alcaino (Selected Abstract)
15:30	Afternoon Break – <i>Hall L</i>		
<i>Concurrent Sessions</i>	Integrated & Complementary Treatments for FGIDs <i>Riverbank Rooms 7&8</i>	Microbiome-Gut-Brain-Axis <i>City Rooms 1,2&3</i>	Ageing & Sex Differences in GI Motility & Transit <i>Riverbank Room 5</i>
	<i>Chair: Alyce Martin</i>	<i>Chair: Marlene Hao</i>	<i>Chair: John Furness</i>
16:00	Complementary and Alternative Medicine: Myths or Facts? Justin Wu (Hong Kong) (Invited Speaker)	Brain-Gut Interactions and Gut Microbiota in Irritable Bowel Syndrome Shin Fukudo (Japan) (Invited Speaker)	Gastrointestinal Motility in Aged Mice Hongzhen Hu (USA) (Invited Speaker)
16:30	Diet as a Risk Factor and Treatment Target for Mental and Brain Health: Does our Gut Hold the Key? Amy Loughman (Australia) (Invited Speaker)	Modulating the Gut Microenvironment as a Treatment Strategy for Irritable Bowel Syndrome Magnus Simren (Sweden) (Invited Speaker)	Where Have All the ICC Gone? A Chromatin-Based Push-Pull Mechanism for Gastric Aging Tamas Ordog (USA) (Invited Speaker)
17:00	Alternative treatments of abdominal and or pelvic pain Lorimer Moseley (Australia) (Invited Speaker)	Role of Colonic Mucosal MicroRNA and Host-Microbiome interactions in Irritable Bowel Syndrome. Swapna Mahurkar-Joshi (Selected Abstract)	Neonatal Exposure to the Antibiotic Vancomycin Induces Long Term Effects on the Microbiota Enteric Nervous System and Host Metabolism. Jaime Foong (Selected Abstract)
17:15		Bacterial and metabolomic profiles identify subsets of diarrhea predominant irritable bowel syndrome Sean Bennet (Selected Abstract)	Estrogens Induce Visceral Hypersensitivity and Low-Grade Inflammation in Male Rats After Early Life Stress. Alison Accarie

			(Selected Abstract)
17:30	Break – Hall L		
Plenary Session	<i>Chair: Marcello Costa</i>		
17:45	Role of Diet in Functional Bowel Disorders: Toward a Mechanism-Based Treatment <i>City Rooms 1,2&3</i> Robin Spiller (UK)		
18:15	The ENS: Evolution, Function and Malfunction <i>City Rooms 1,2&3</i> John Furness (Australia)		

Friday 16th April 2021

Concurrent Sessions	Neuro-oncology of the Gastrointestinal Tract <i>City Rooms 1,2&3</i>	Miscellaneous Best Scored Abstracts <i>Riverbank Rooms 7&8</i>	Highlights from Little Brain to Big Brain <i>Riverbank Room 5</i>
	<i>Chair: Lincoln Stamp</i>	<i>Chair: Amanda Page</i>	<i>Chairs: Simona Carbone/Luke Grundy</i>
7:30	NDGR4- When Tumours Get Nervous Veerle Melotte (Netherlands) (Invited Speaker)	Role of Muscularis Macrophages in the Maintenance of NOS1+ Enteric Neurons Gianluca Cipriani (Selected Abstract)	The gut microbiome and gut-derived serotonin – a complex bidirectional relationship Alyce Martin (Australia)
7:45		An Insulin-Like Peptide 5 Related Agonist, INSL5-A13, Stimulates Colorectal Propulsion via the Relaxin Family Peptide 4 Receptor John Furness (Selected Abstract)	miR-302 contributes to the gene regulatory network of enteric neural crest cells Naomi Tjaden (USA)
8:00		Antibiotic Exposure During Adolescence Disrupts the Neurochemistry and Function of Enteric Neurons	Unraveling Mucosal Immune Activation in Idiopathic Gastroparesis and Impact of Therapy

		Lin Yung Hung (Selected Abstract)	Andres Gottfried (USA)
8:15		GWAS of stool frequency reveals genes, pathways, and cell types relevant to human gastrointestinal motility and irritable bowel syndrome Mauro D'Amato (Selected Abstract)	Dietary approaches for IBS, a disorder of gut-brain interaction Heidi Staudacher (Australia)
Symposium 2	Mechanisms in Functional GI disorders <i>City Rooms 1,2&3</i>		
	<i>Chair: Christine Feinle-Bisset</i>		
8:30	New Clinical Perspectives in FGIDs Nick Talley (Australia)		
9:00	Immune Activation in FBD Guy Boeckxstaens (Belgium)		
9:30	Role of the Gut-Brain Axis in FGIDS Lin Chang (USA)		
10:00	Neuro-Immune Effects on Sensation in FGIDs Nathalie Vergnolle (France)		
10:30	Morning Break – <i>Hall L</i>		
10:35	Exhibition Lounge Sponsor Presentation – GLOBAL MEDICAL SOLUTIONS – <i>Hall L</i>		
Concurrent sessions	Personalising Treatments For Functional Disorders – Clinical Debate Session <i>City Rooms 1,2&3</i>	Neuro-Immune Interactions in IBS/IBD <i>Riverbank Rooms 7&8</i>	Transformative New Technologies For Neurogastroenterology <i>Riverbank Room 5</i>
	<i>Chair: Geoff Kohn</i>	<i>Chair: Joel Castro</i>	<i>Chair: Andrea Harrington</i>
11:00	Psychological Treatment for Intervention in Functional Disorders Gerald Holtmann (Australia) (Invited Speaker)	Neuro-Immune Mediators in Intestinal Disorders Nicolas Cenac (France) (Invited Speaker)	Organoids and Beyond: Integrated Models for Neurogastroenterology. Maxime Mahe (France) (Invited Speaker)

11:15	FODMAP Dietary Strategy Peter Gibson (Australia) (Invited Speaker)		
11:30	Pharmacological Treatments for Functional Disorders Jan Tack (Belgium) (Invited Speaker)	Inflammation and impaired gut physiology in postoperative ileus Hyojin Park (Korea) (Invited Speaker)	Novel Methods for Studying Vagal Sensory Neurons Will De Lartigue (USA) (Invited Speaker)
11:45	Antibiotics in Functional Disorders Uday Ghoshal (India) (Invited Speaker)		
12:00		Vagus Nerve Stimulation Ameliorates Murine Colitis by Dampening Intestinal Inflammation Nathalie Stakenborg (Selected Abstract)	Use of epigenetics and optogenetics in Neurogastroenterology Beverly Greenwood (Invited Speaker)
12:15		Allosteric modulation of the delta opioid receptor improves dysmotility in preclinical models of irritable bowel syndrome Jesse DiCello (AUS) (Selected Abstract)	
12:30	Lunch Break and Poster Viewing – Hall L		
<i>Concurrent sessions</i>	Functional Oesophageal Disorders City Rooms 1,2&3	Epithelial Barrier & Gut Dysfunction Riverbank Rooms 7&8	Visceral Sensation/ Pain & The New Molecular Targets Riverbank Room 5
	<i>Chair: Taher Omari</i>	<i>Chair: Richard Young</i>	<i>Chair: Simon Brookes</i>
14:00	Esophageal Pain - Current State of Art Ravinder Mittal (USA) (Invited Speaker)	From Infected to Irritable Bowel: a Barrier Dysfunction Problem? Madhu Grover (USA) (Invited Speaker)	Modulation of Colonic Afferents by Luminal Factors Steve Vanner (Canada) (Invited Speaker)
14:30	The Role of Provocative Testing in Routine High Resolution Manometry, is it Necessary? Daphne Ang (Singapore) (Invited Speaker)	Targeting hypoxia responses for accelerated wound healing in IBD Simon Keely	Molecular Targets in Visceral Nociceptors Stuart Brierley (Australia) (Invited Speaker)

15:00	Evaluating the Impact of Position, Volume and Consistency on High Resolution Oesophageal Manometry Outcomes Chamara Basnayake (Selected Abstract)	Anti-Inflammatory Actions of an Intraluminally Acting 5-HT4 Receptor Agonist Brigitte Lavoie (Selected Abstract)	Gut-Innervating Nociceptor Neurons Regulate Peyer's Patch Microfold Cells and Segmented Filamentous Bacteria Levels to Protect Against Salmonella Infection Nicole Lai (Selected Abstract)
15:15	Serial Diagnostic Study: Effect of Position and Provocative Tests on the Diagnosis of Oesophageal Motility Disorders by High-Resolution Manometry Mark Fox (Selected Abstract)	Gastrointestinal Infection Breaks Tolerance to Dietary Antigens and Triggers Food-Induced Abdominal Pain Javier Aguilera-lizarraga (Selected Abstract)	Illuminating Central Neurocircuitry Underlying Visceral Pain via Optogenetics in Rats Anthony Johnson (Selected Abstract)
15:30	Afternoon Break – <i>Hall L</i>		
<i>Concurrent sessions</i>	Interactive Discussion Panel: Difficult Clinical Cases Of Motility Disorders <i>City Rooms 1,2&3</i>	Functional Dyspepsia <i>Riverbank Room 5</i>	Gut-Brain Axis <i>Riverbank Rooms 7&8</i>
	<i>Chair: Geoff Kohn</i>	<i>Chair: Stuart Brierley</i>	<i>Chair: Andrea Harrington</i>
15:50	Absent Contractility After Fundoplication": Could it be Recovery? Albis Hani (<i>Colombia</i>) (Invited Speaker)	Duodenal Pathophysiology Hiroto Miwa (<i>Japan</i>) (Invited Speaker)	Role of Central Vagal Circuits in Gut Motility in Health and Disease Kirsteen Browning (<i>USA</i>) (Invited Speaker)
16:10	Can Esophageal Motor Disorders Change Over Time? Claudia Defilippi (<i>Chile</i>) (Invited Speaker)		
16:20	The implications of manometry findings on choice of foregut surgery Geoff Kohn (<i>Australia</i>) (Invited Speaker)	Dietary Therapies in Functional Dyspepsia Victoria Tan (<i>Hong Kong</i>) (Invited Speaker)	A New Approach to Decoding the Gut-Brain Axis Nick Spencer (<i>Australia</i>) (Invited Speaker)
16:30	Actionable Bio Markers in FGID Michael Camilleri (<i>USA</i>) (Invited Speaker)		
16:50		Self-Reported Non-Celiac Wheat Sensitivity in Patients with Chronic Unexplained (Functional) Gastrointestinal Symptoms Gerald Holtmann	Connecting the Brain to the Gut: Efferent Neurocircuitry of Neuropod Cells Maya Kaelberer (Selected Abstract)

17:05		(Selected Abstract)	Modulation of dopamine D2 receptor coupling by the ghrelin receptor in the defecation control pathway
17:10			Linda Fothergill (Selected Abstract)
17:20	Break – Hall L		
<i>Concurrent sessions</i>	Advances in GI Imaging <i>Riverbank Rooms 7&8</i>	Control of GI Smooth Muscle <i>City Rooms 1,2&3</i>	Great Late Breaking Abstracts <i>Riverbank Room 5</i>
	<i>Chair: Tim Hibberd</i>	<i>Chair: Marcello Costa</i>	<i>Chair: Martin Stebbing</i>
17:30	Developements in Imaging the Gut using Nuclear Medicine Dylan Batholomeusz (<i>Australia</i>) (Invited Speaker)	Control of intestinal and colonic motility by the super-network of ICC, smooth muscle and nerves Jan Huizinga (<i>Canada</i>) (Invited Speaker)	Clinical Impact of Rectal Hyposensitivity: a Cross-Sectional Study of 2,876 Patients with Functional Constipation Rebecca Burgell (Abstract Selected)
17:45			Exploring the Interactions Between the Developing Enteric Nervous System and its Surrounding Tissues with an Intestinal Organoid Model and Single-Cell Sequencing Elise Loffet (Abstract Selected)
18:00	fMRI-Based Biomarkers for (Visceral) Pain Perception: One or Many? Lukas van Oudenhove (<i>Belgium</i>) (Invited Speaker)	Ca ²⁺ regulation of interstitial cells provide fundamental regulation of motility Ken Sanders (<i>USA</i>) (Invited Speaker)	Predictors of Treatment Response to Diet or Medication in a Large Controlled Trial in Primary Care IBS Karen Van den Houte (Abstract Selected)
18:15			
18:30	Increased Symptom and Brain Responses to Intragastric Administration of FODMAPS in Patients with Irritable Bowel Syndrome Versus Healthy Subjects Jie Wu (Selected Abstract)	Human Intestinal Smooth Muscle Progenitors Generate Orientated Muscle Layers for Intestinal Regeneration Silvia Perin (Selected Abstract)	

18:45	Detection of Colitis Induced Intestinal and Kidney Fibrosis Using α -pro-MMP9 Immuno-PET Patrick Hughes (Selected Abstract)	Effects of Provocative Testing on Phase III Migrating Motor Complex in Children With Normal Antroduodenal Manometry Dr Khalil El-Chammas (Selected Abstract)	Intestinal distension orchestrates neuronal activity in the enteric nervous system of adult mice Jean-Baptiste Cavin (Abstract Selected)
19:00	Conference Dinner "A taste of South Australia: Outside function at Regattas Riverbank Promenade, Adelaide Convention Centre"		

Saturday 17th April 2021

Concurrent sessions	Advances in Pharmacological and Non-Pharmacological Treatments of Constipation. City Rooms 1,2&3	Top Ranked Abstracts Riverbank Room 5	Rome Foundation Interactive Symposium On Disorders Of Gut Brain Interaction: What to Do and How to Do it Riverbank Rooms 7&8
	<i>Chair: Phil Dinning</i>	<i>Chair: Stuart Brierley</i>	<i>Chair: Charles Cock</i>
7:00	Evaluation and Pharmacological Advances in Treatment of Constipation Satish Rao (USA) (Invited Speaker)	Wnt/R-Spondin/Frizzled Signaling – following bread crumbs to understand postnatal enteric progenitor regulation Peter Neckel (Germany)	Case Discussions on IBS: Rome IV Diagnostic Algorithms, MDCP and GI Genius Lin Chang, Brian Lacy, Douglas Drossman (Invited Speakers)
7:15		Nitric oxide modulates intracellular Ca ²⁺ in intramuscular interstitial cells of Cajal of the mouse internal anal sphincter Caroline Cobine (USA)	
7:30	Dyssynergic Defecation and Biofeedback Therapy Sutep Gonlachanvit (Thailand) (Invited Speaker)	Optogenetic inhibition of colon epithelium reduces hypersensitivity in a mouse model of inflammatory bowel disease Sarah Najjar (France)	Optimizing the Patient-Provider Relationship: It's not only what you do but how you do it that makes the difference Douglas Drossman (Invited Speaker)
7:45		Fermentable carbohydrates induce visceral and abdominal hypersensitivity and mucus barrier dysregulation in mice through increased mucosal mast cell populations Jasper Kamphuis (USA)	
8:00	Non-pharmacological treatment of constipation including biofeedback Charles Knowles (UK)	A high fat diet alters endocannabinoid and ghrelin mediated regulation of orexigenic receptor expression in nodose ganglia	

	(Invited Speaker)	Stewart Christie (<i>Australia</i>)	
8:15		Direct activation of tuft cells by transient receptor potential subfamily M member 5 (TRPM5) agonists increases colonic motility and secretion through induction of a Th2 cytokine response and mobilization of non-neuronal acetylcholine Richard Myers (<i>USA</i>)	
<i>Concurrent sessions</i>	Diabetes, Gastroparesis, Transit & The Gut <i>City Rooms 1,2&3</i>	Enteropathies <i>Riverbank Rooms 7&8</i>	Glial Cells In The Gut <i>Riverbank Room 5</i>
	<i>Chair: Christine Feinle-Bisset</i>	<i>Chair: John Furness</i>	<i>Chair: Simon Brookes</i>
9:00	Gastroparesis and Functional Dyspepsia: a Distinction Without a Difference Jay Pasricha (<i>USA</i>) (Invited Speaker)	Enteric Neuromuscular Disease: Lessons from Early Life Nikhil Thapar (<i>UK</i>) (Invited Speaker)	Modulation of Enteric Circuits and Intestinal Immune Responses by Enteric Glia Brian Gulbransen (<i>USA</i>) (Invited Speaker)
9:30	Disordered gastric emptying in diabetes-prevalence, pathogenesis and management Michael Horowitz (<i>Australia</i>) (Invited Speaker)	Novel Insights on Human Enteric Neuropathies Roberto De Giorgio (<i>Italy</i>) (Invited Speaker)	The Enteric Neuron-Glia Liaison Werend Boesmans (<i>Belgium</i>) (Invited Speaker)
10:00	Mechanisms Linking Low-Calorie Sweeteners to Impaired Glycaemic Control Denise Kreuch (Selected Abstract)	Patient-reported functional outcomes after surgery for total colonic and long-segment Hirschsprung's disease in comparison to rectosigmoid segment: lessons learned from patients Sanne Verkuijl (Selected Abstract)	
10:15	Pyloric Diameter and Distensibility Responses Utilizing EndoFLIP to Compare Double vs. Single Myotomy in Gastroparesis Patients Following G-POEM Lydia Watts (Selected Abstract)	Inhibition of Axonal Outgrowth by Sema3A in Enteric Neurons and its Potential Implication in Hirschsprung Disease Hélène Boudin (Selected Abstract)	The Role of IL-1-Dependent Glial Activation in the Inflamed Gut of Mice and Humans Reiner Schneider (Selected Abstract)

10:30	Morning Break – <i>Hall L</i>
Symposium 3	Neurogastroenterology and the Microbiome <i>City Rooms 1,2&3</i>
	<i>Chair: Felice Jacka</i>
11:00	Fecal Microbiota Transplantation Sam Costello (<i>Australia</i>)
11:30	The Microbiome In Functional Disorders Purna Kashyap
12:00	Psychobiotics John Cryan (<i>Ireland</i>)
12:30	Lunch – City Room Foyer
13:30	Conference Close