## Young Investigator Forum

**Wednesday, August 9, 2023**

- 6:00–9:00 pm Dinner (invitees only)

**Thursday, August 10, 2023**

- 7:00 am–5:15 pm Program

## ANMS Advanced Motility Program for Fellows

**Thursday, August 10, 2023**

- 7:30 am–8:00 pm Program

## Clinical Course • New Approaches and Best Practices in Complex Patient Care

**Thursday, August 10, 2023**

- 4:00–6:00 pm Registration
- 4:00–6:00 pm Exhibitor Setup

**Friday, August 11, 2023**

- 7:00 am–5:30 pm Registration
- 7:00–8:00 am Breakfast • Visit Exhibits
- 7:50–8:00 am Welcome • Reena Chokshi, G. Nicholas Verne

- 8:00–9:15 am Session 1: Challenges and Opportunities in Esophagology
  - Moderators: Benjamin Elsbernd, Anh Nguyen

  - 8:00 am How to better integrate manometry into the GERD evaluation
    - Reena Chokshi

  - 8:15 am FLIP vs. HREM in pediatrics
    - Eric Chiou

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*Program continued*
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:30 am</td>
<td><strong>Globus: Functional, mechanical, or both?</strong></td>
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<td>*Kerry Dunbar</td>
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<tr>
<td>8:45 am</td>
<td><strong>Compassionate NGM care: Addressing DEI in your practice</strong></td>
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<td>*John Pandolfino</td>
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<td>9:00 am</td>
<td>*Discussion</td>
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<tr>
<td>9:15–10:15 am</td>
<td><strong>Session 2: All the Latest Guidelines</strong></td>
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<td>*Moderators: Rita Knotts, Stuart Spechler</td>
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<tr>
<td>9:15 am</td>
<td><strong>How do I apply ACG gastroparesis guidelines to my practice?</strong></td>
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<tr>
<td></td>
<td>*Braden Kuo</td>
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<tr>
<td>9:30 am</td>
<td><strong>How do I apply AGA bloating guidelines to my practice?</strong></td>
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<td></td>
<td>*Baharak (Baha) Moshiree</td>
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<tr>
<td>9:45 am</td>
<td><strong>How do I apply AGA IBS-C guidelines to my practice?</strong></td>
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<td></td>
<td>*Lin Chang</td>
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<tr>
<td>10:00 am</td>
<td>*Discussion</td>
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<tr>
<td>10:15–10:45 am</td>
<td><strong>Break • Visit Exhibits</strong></td>
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<tr>
<td>10:45 am–12:00 pm</td>
<td><strong>Session 3: All the Questions Patients Ask</strong></td>
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<td>*Moderators: Carlo Di Lorenzo, Neha Patel</td>
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<tr>
<td>10:45 am</td>
<td><strong>Will my Mediterranean, plant-based, low FODMAP diet fix everything?</strong></td>
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<td>*Kate Scarlata</td>
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<td>11:00 am</td>
<td><strong>I still have abdominal pain; is this MALS, SMA or twisted bowel?</strong></td>
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<td>*Rina Sanghavi</td>
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<td>11:15 am</td>
<td><strong>Which probiotics should I give my kid? Targeting the microbiome in DGBIs</strong></td>
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<td>*Geoff Preidis</td>
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<td>11:30 am</td>
<td><strong>How does marijuana actually affect my gut?</strong></td>
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<td></td>
<td>*David Levinthal</td>
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<tr>
<td>11:45 am</td>
<td>*Discussion</td>
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**Parallel Lunches • Choose one • Visit Exhibits**

**12:00–1:00 pm**
- **Lunch** • no speaker • Visit Exhibits

**12:00–1:00 pm**
- **Lunch Symposium • Visit Exhibits**
  - **Speeding Up Gastroparesis: A journey through the past, present, and future of gastroparesis therapies**
    - Moderator: Linda Nguyen

**12:00 pm**
- **Time to redesign study design in gastroparesis?**
  - *Brian Lacy*

**12:15 pm**
- **Facts, fallacies, and the future of prokinetics (in gastroparesis)**
  - *Linda Nguyen*

**12:30 pm**
- **Gastric peroral endoscopic pyloromyotomy (G-POEM)**
  - *Jennifer Christie*

**12:45 pm**
- **Panel Discussion**
### Friday, August 11, 2023  continued

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>1:10–2:10 pm</td>
<td><strong>ANMS Lifetime Achievement Award</strong></td>
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<td>Introduction: <em>G. Nicholas Verne</em></td>
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<td><strong>Shanthi Srinivasan</strong></td>
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<td><strong>Functional Bowel Disorders</strong></td>
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<td>Dissecting mechanisms from the gut to the brain: New insights and future directions</td>
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<td>2:10 pm–3:10 pm</td>
<td><strong>Session 4: Colon and Anorectal Health &amp; Evaluation</strong></td>
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<td>2:10 pm</td>
<td><strong>Treating IBS in IBD</strong></td>
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<td><em>Brooks Cash</em></td>
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<td>2:25 pm</td>
<td><strong>When is medical management not enough? A surgeon’s perspectives</strong></td>
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<td><em>Lily Cheng</em></td>
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<td>2:40 pm</td>
<td><strong>Anorectal evaluation in trauma survivors: Tips for clinicians</strong></td>
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<td><em>Christina Jagielski</em></td>
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<td>2:55 pm</td>
<td><strong>Discussion</strong></td>
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<td>3:10 pm</td>
<td><strong>Break • Visit Exhibits</strong></td>
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<tr>
<td>3:40–5:00 pm</td>
<td><strong>Session 5: Innovation in Neurogastroenterology &amp; Motility</strong></td>
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<td>3:40 pm</td>
<td><strong>New gizmos and gadgets in the motility lab</strong></td>
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<td><em>Afrin Kamal</em></td>
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<td>3:55 pm</td>
<td><strong>Digital platforms in behavioral health</strong></td>
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<td><em>Jessica Salwen-Deremer</em></td>
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<tr>
<td>4:10 pm</td>
<td><strong>Artificial intelligence in motility</strong></td>
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<td><em>Eric Shah</em></td>
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<td>4:25 pm</td>
<td><strong>Gravity and the gut: A hypothesis of irritable bowel syndrome</strong></td>
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<td><em>Brennan Spiegel</em></td>
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<tr>
<td>4:40 pm</td>
<td><strong>Discussion</strong></td>
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<tr>
<td>5:00–6:00 pm</td>
<td><strong>Women in Neurogastroenterology &amp; Motility Session</strong></td>
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<tr>
<td>5:00 pm</td>
<td><strong>Mix &amp; Mingle</strong></td>
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<td>5:10 pm</td>
<td><strong>Welcome • Lin Chang</strong></td>
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<td>5:15 pm</td>
<td><strong>Being an academic physician (physician scientist)</strong></td>
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<td><em>Fasiha Kanwal, Baylor College of Medicine</em></td>
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<td>5:45 pm</td>
<td><strong>Panel Discussion</strong></td>
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<td>6:00 pm</td>
<td><strong>Adjourn</strong></td>
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<tr>
<td>5:30–7:30 pm</td>
<td><strong>Welcome Reception • Poster Session</strong></td>
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<td>ODD numbers presented, beginning at 6:00 pm</td>
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<td>Time</td>
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<tr>
<td>6:00–7:00 am</td>
<td>Yoga • Palm Court, poolside, 7th floor • Open to paid participants</td>
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<tr>
<td>7:00 am–5:00 pm</td>
<td>Registration</td>
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<tr>
<td>7:00–8:00 am</td>
<td>Breakfast • Visit Exhibits</td>
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<tr>
<td>7:50–8:00 am</td>
<td>Welcome • Beverley Greenwood-Van Meerveld, G. Nicholas Verne</td>
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<tr>
<td>8:00–9:00 am</td>
<td>Distinguished Investigator Award for Women in Neurogastroenterology</td>
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<td></td>
<td>Beverley Greenwood-Van Meerveld</td>
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<tr>
<td>9:00–10:30 am</td>
<td>Basic Advances Making an Impact in Understanding GI Pathophysiology</td>
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<td>9:00 am</td>
<td>Gut feelings: Mechanosensing in the gastrointestinal tract</td>
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<td>9:20 am</td>
<td>Enteric nervous system in neonatal necrotizing enterocolitis</td>
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<td>9:40 am</td>
<td>Are we close to targeting enteric glia in gastrointestinal diseases and motility disorders?</td>
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<td>10:00 am</td>
<td>RET signaling persists in the adult intestine and stimulates motility by limiting PYY release from enteroendocrine cells</td>
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<td></td>
<td>Young Investigator Finalist</td>
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<td>10:15 am</td>
<td>Single-cell RNA sequencing of murine nodose ganglia elaborates on lateral asymmetry of sensory vagal signaling</td>
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<td>Abstract 2</td>
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<tr>
<td>10:30 am</td>
<td>Break • Visit Exhibits</td>
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<tr>
<td>11:00 am–12:30 pm</td>
<td>Parallel Sessions 1 &amp; 2</td>
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<tr>
<td></td>
<td>Bioelectric Medicine: Its role in neurogastroenterology</td>
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<td>Moderators: David Levinthal, Jennifer Wellington</td>
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<td>11:00 am</td>
<td>Ambulatory electrogastrography recording</td>
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<td>11:20 am</td>
<td>Gastric electrical stimulation in children with severe nausea and vomiting</td>
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<td>11:40 am</td>
<td>Stimulating the gut from near and far: Future directions for neuromodulation of gut function</td>
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Program continued
### Saturday, August 12, 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Abstracts</th>
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</thead>
</table>
| 12:00 pm | A long-term follow-up study of clinical outcomes and quality of life confirming the success of pyloroplasty and gastric electrical stimulation in patients with gastroparesis  
*R Elamrati, S Prakash, B Davis, JR Diaz, M Bashashati, RW McCallum, I Sarosiek*  
El Paso, TX. Paul L Foster School of Medicine  
*Abstract 1* | FODMAPs modulate the proteolytic activity of the gut microbiota to alter colonic afferent nerve excitability  
*C Baker, A Bennett, M Guzman-Rodriguez, C Tuck, S Vanner, D Reed, A Lomax*  
Kingston, Ontario. Queen's University  
*Abstract 5* |
| 12:15 pm | A novel, non-invasive, 6-day wireless motility patch demonstrates unique myoelectrical patterns in patients with dyspepsia, gastroparesis and vomiting  
*BE Lacy, A Navalagund, L Axelrod, S Axelrod, J Accurso, DJ Cangemi*  
Jacksonville, FL; Mountain View, CA. Mayo Clinic  
*Abstract 4* | Fruit and vegetable enriched diet in mice humanized with irritable bowel syndrome microbiota increases proteolytic activity  
*A Edwinson, J Kong, L Till, M Breen-Lyles, L Yang, J Chen, G Farrugia, M Grover*  
Rochester, MN. *Mayo Clinic*  
*ANMS Travel Awardee Abstract 6* |
| 12:30–2:00 pm | **Poster Session**  
• EVEN numbers presented  
• Lunch  
• Visit Exhibits | |
| 2:00–3:30 pm | **Parallel Sessions 3 & 4**  
Parallel Session 3  
**Food as Friend and Foe? The complex connection between eating behaviors, diet restriction & the gut–brain–microbiome axis**  
Moderators: *Meredith Craven, Laurie Keefer* | Parallel Session 4  
**The Brain in the Gut: New frontiers in enteric nervous system biology**  
Moderators: *Julia Ganz, Purna Kashyap* |
| 2:00 pm | Shared pathophysiological mechanisms between gastrointestinal motility disorders and disordered eating: Chicken or the egg?  
*Miranda van Tilburg* | Enteric neurogenesis and the immune system  
*Jaime Belkind-Gerson* |
| 2:20 pm | Psychological and quality of life considerations in the dietary management of functional gastrointestinal & motility disorders  
*Sophie Abber* | Sensing microbial signals through enteric and vagal neuronal pathways  
*Lihua Ye* |
| 2:40 pm | How discrimination gets under the skin to impact obesity: Perspectives from the brain and gut microbiome  
*Arpana Gupta* | Applications of single-cell sequencing technology to the enteric nervous system  
*Richard Guyer* |
| 3:00 pm | Perinatal high fat diet exposure alters gabaergic signaling in the dorsal motor nucleus of the vagus  
*KE Carson, K Browning*  
Hershey, PA. *Pennsylvania State University College of Medicine*  
*Young Investigator Finalist Abstract 7* | Multiomics approach identifies enteric neuron subtypes and molecular mechanisms underlying disorders of gut–brain interaction  
*A Majd, MN Richter, RM Samuel, A Cesiulis, Z Ghazizadeh, J Wang, F Fattahi*  
San Francisco, CA; Stanford, CA. *University of California San Francisco*  
*Young Investigator Finalist Abstract 9* |
| 3:15 pm | Revealing the role of environmental enrichment in ameliorating symptoms of post-infectious IBS  
*AM Orock, E Mohammadi, A Johnson*  
Oklahoma City, OK. *Oklahoma University Health Science Center*  
*Abstract 8* | Reconstructions of sparsely labeled murine intrinsic primary afferent neurons in optically cleared full thickness jejunum and colon  
*AL Harb, ASO Nino, MKH Foysal, A Beyder, DR Linden*  
Rochester, MN. *Mayo Clinic*  
*ANMS Travel Awardee Abstract 10* |
| 3:30–4:00 pm | **Break**  
• Visit Exhibits | |
### Saturday, August 12, 2023

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Moderators</th>
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<tbody>
<tr>
<td>4:00–5:45 pm</td>
<td>Parallel Sessions 5 &amp; 6</td>
<td>How Does the Vagus Link Brain–Gut Disorders and Trauma?</td>
<td>Katja Karrento, Jacek Kolacz</td>
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<td>4:00 pm</td>
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<td>The power of the vagus nerve in controlling stress and disease: Are we ready for the paradigm shift?</td>
<td>Peter Staats</td>
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<td>4:30 pm</td>
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<td>Vagus neurostimulation and cholinergic signaling in controlling inflammation and metabolism</td>
<td>Valentin A. Pavlov</td>
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<td>5:00 pm</td>
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<td>Brainstem response to auricular vagal nerve stimulation</td>
<td>Roberta Sclocco</td>
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<td>5:30 pm</td>
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<td>Panel Discussion</td>
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<tr>
<td>6:00–7:30 pm</td>
<td>Parallel Theme Symposium</td>
<td>Hands-On Neurogastroenterology &amp; Motility Procedures</td>
<td>Jason Baker, Reena Chokshi</td>
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<td>light refreshments</td>
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<td>An interactive, hands-on session with experts who will demonstrate and interpret difficult cases, recording annotations, standard protocols, and equipment functionality.</td>
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<td>Vendors will display anorectal and esophageal manometry and pH impedance. Each vendor will pose 3 to 5 equipment-related questions.</td>
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<td>A raffle will be held and a prize will be awarded to the entry with the highest number of correct answers.</td>
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<td>6:00–7:30 pm</td>
<td>Parallel Theme Symposium</td>
<td>Colon–Bladder Cross-Talk in Chronic Pain Disorders: What is the latest?</td>
<td>Arthur Beyder, Beverley Greenwood-Van Meerveld</td>
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<td>light refreshments</td>
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<td>Clinical manifestations of colon–bladder cross-talk</td>
<td>Greg Sayuk</td>
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<td>GU and GI co-morbidities: Neural circuits regulating visceral functions</td>
<td>Anna Malykhina</td>
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<td>Spinal neuron–glia–immune interaction in cross organ sensitization</td>
<td>Liya Y. Qiao</td>
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<td>7:00–10:00 am</td>
<td>Registration</td>
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<td>7:00–8:00 am</td>
<td>Breakfast • Visit Exhibits</td>
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<tr>
<td>8:00–8:15 am</td>
<td>W. Jerry Dodds, MD and Sushil K. Sarna, PhD Lectureship</td>
<td>Introduction: Beverley Greenwood-Van Meerveld</td>
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<td>Gary Mawe</td>
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<td>Serotonin: Lately it occurred to me, what a long, strange trip it’s been</td>
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### Sunday, August 13, 2023

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<td>Gary Mawe</td>
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# Sunday, August 13, 2023 - continued

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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker Information</th>
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<tbody>
<tr>
<td>8:15–10:00 am</td>
<td><strong>Plenary Abstract Session</strong></td>
<td><strong>Moderators:</strong> Leila Neshatian, Maria Vazquez</td>
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</tbody>
</table>
| 8:15 am      | Uncovering impaired nigro-vagal modulation of the proximal colon in a rat model of environmental Parkinson’s Disease | T Xing, G Nanni, CR Burkholder, KN Browning, RA Travaglį Hersh, PA; Newport, NC. Penn State College of Medicine
  *ANMS Travel Awardee* |
| 8:30 am      | Effects and mechanisms of transcutaneous electrical acustimulation for preventing acute radiation proctitis in patients with cervical cancer | F Li, T Zhou, Y Wang, Y Xu, L Lin, JD Chen Ann Arbor, MI; Ningbo, Zhejiang; Nanjing, Jiangsu. People’s Hospital affiliated with Ningbo University; The First Affiliated Hospital with Nanjing Medical University; *University of Michigan*
  *Young Investigator Finalist* |
| 8:45 am      | Optogenetic stimulation of enteric cholinergic neurons: immunomodulatory role in colitis | AA Rahman, RG Stavely, L Ott, W Pan, K Oishi, C Han, T Ohkura, R Hotta, AM Goldstein Boston, MA, Mass General Hospital; *Harvard Medical School* |
| 9:00 am      | Recognition and diagnosis of rumination syndrome is improving with time | M Jia, PL Lu, J Sabella, NB Puri, J Yang, K Vaz, D Yacob, CD Lorenzo, AKV Diest Columbus, OH. Nationwide Children’s Hospital; *Ohio State University College of Medicine*
  *ANMS Travel Awardee* |
| 9:15 am      | Early life adversity disrupts sexual dimorphism of enteric glial genes and functions | J Gonzales, C Dharshika, W Morales-Soto, J McClain, BD Gulbransen East Lansing, MI. *Michigan State University*
  *Young Investigator Finalist* |
| 9:30 am      | Ineffective esophageal motility: Characterization and outcomes across pediatric neurogastroenterology and motility centers in the US | TA Davis, BD Rogers, A Llanos-Cheaa, A Krasaelaap, C Desai, M Jayaraman, M Saps, CP Gyawali, D Patel St Louis, MO; Miami, FL; Kansas City, MO; St. Louis, MO. University of Miami; Children’s Mercy KC; Saint Louis University School of Medicine, *Washington University School of Medicine*
  *Young Investigator Finalist* |
| 9:45 am      | Small bowel motility assessment using magnetic resonance enterography in children with irreversible bowel syndrome and controls | AJ Benitez, SSB Venkatakrisnha, K Guevara, M Kidd; A Menys, H Mousa, RO Heuckeroth, SA Anupindi, SD Serai Philadelphia, PA; Cape Town, Western Cape; London, Plymouth., University of Stellenbosch; University College London; *Children’s Hospital of Philadelphia*
  *Young Investigator Finalist* |
| 10:00–10:30 am| Break • Visit Exhibits                        |                                                                                      |
| 10:30 am–12:00 pm| **Distinguished Lectures**                   | **Moderators:** Adil Bharucha, Jose Garza                                           |
| 10:30 am      | Vagal control of gastric functions: Diet, development, and is it all our mother’s fault? | Kirsteen Browning                                                                |
| 11:00 am      | Disorders of gut–brain interaction: A journey across the lifespan | Miguel Saps                                                                       |
| 11:30 am      | Curing fecal incontinence                     | Satish Rao                                                                         |
| 12:00 pm      | Adjourn                                        |                                                                                      |
**Poster No.**

1. **Meal-eating characteristics among patients with symptoms of gastroparesis; relationships to delays in gastric emptying**
   
   A Barrett, KP Johnson, ME Halabi, HP Parkman
   
   Philadelphia, PA. *Temple University School of Medicine*

   **Abstract 20**

2. **Stool short chain fatty acids promote weight loss in obese patients with increased risk for colorectal cancer**
   
   C Enunwa, J Christie, D Flanders, BL Elbert II, TR Ziegler, H Fowler, B Cousineau, BJ Rolls, B Methé, S O’Keefe, TJ Hartman
   
   Atlanta, GA; Pittsburgh, PA; University Park, PA.
   
   Department of Medicine, Division of Digestive Diseases, Emory University School of Medicine; Department of Biostatistics and Bioinformatics, Department of Epidemiology, Rollins School of Public Health, Emory University; Department of Medicine, Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh; Department of Medicine, Division of Endocrinology, Metabolism and Lipids, Emory University School of Medicine; Nutrition and Health Sciences, Rollins School of Public Health, Emory University; Department of Nutritional Sciences, The Pennsylvania State University; Pulmonary, Allergy and Critical Care Medicine, Center for the Microbiome and Medicine, University of Pittsburgh; Department of Medicine, Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh; Department of Epidemiology, Rollins School of Public Health and Winship Cancer Institute, Emory University, *Emory University School of Medicine*

   **Abstract 21**

3. **Using gut transit times to increase weight loss in obese patients at increased risk for colorectal cancer**
   
   C Enunwa, J Christie, D Flanders, BL Eberhart II, TR Ziegler, H Fowler, B Cousineau, BJ Rolls, B Methé, S O’Keefe, TJ Hartman
   
   Atlanta, GA; Pittsburgh, PA; University Park, PA.
   
   Department of Medicine, Division of Digestive Diseases, Emory University School of Medicine; Department of Biostatistics and Bioinformatics, Department of Epidemiology, Rollins School of Public Health, Emory University; Department of Medicine, Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh; Department of Medicine, Division of Endocrinology, Metabolism and Lipids, Emory University School of Medicine; Nutrition and Health Sciences, Rollins School of Public Health, Emory University; Department of Nutritional Sciences, The Pennsylvania State University; Pulmonary, Allergy and Critical Care Medicine, Center for the Microbiome and Medicine, University of Pittsburgh; Department of Medicine, Division of Gastroenterology, Hepatology, and Nutrition, University of Pittsburgh; Department of Epidemiology, Rollins School of Public Health and Winship Cancer Institute, Emory University, *Emory University School of Medicine*

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B Hiramoto, R Flanagan, M Muftah, E Shah, WW Chan Boston, MA; Lebanon, NH. Dartmouth-Hitchcock Medical Center; Brigham and Women’s Hospital

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Augusta, GA; Chicago, IL; Boston, MA; Ann Arbor, MI;
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S Gonlachanvit, P Vateekul
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Y Wang, K Futaba, H Gregersen
San Diego, CA; Hong Kong, Hong Kong. Chinese University of Hong Kong; California Medical Innovations Institute

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Y Wang, D Sun, H Gregersen
San Diego, CA; Chongqing, China, Chongqing University; California Medical Innovations Institute

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Y Wang, F Field, S Eisenstein, 1S Kassab, H Gregersen
San Diego, CA. 3DT Holdings, LLC; University of California, San Diego; California Medical Innovations Institute

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Ciudad de México, Distrito Federal. Instituto Nacional de Pediatría

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Thoracic neuromodulation shows global & long-term improvement in proof-of-concept study: Considering an alternative treatment pathway

D Shimoga, D Staursky, A Eubanks, A Tyra, T Karunaratne, A Sharma
Augusta, GA. Medical College of Georgia, Augusta University

Abstract 103

Background

Purpose: Thoracic neuromodulation (TNM) has shown promising results in the treatment of chronic, intractable pain associated with thoracic spinal cord injury (SCI), with a reported 72% success rate. TNM involves the placement of an epidural spinal catheter and the injection of a pain-relieving agent, typically bupivacaine or ropivacaine, into the epidural space to block nerve impulses from the spinal cord.

Methods: Patients with chronic, intractable pain associated with SCI were enrolled in a proof-of-concept study. A total of 15 patients underwent TNM, with catheter placement in the lumbar, thoracic, or cervical epidural space. Pain relief was assessed using a visual analog scale (VAS) and the numeric rating scale (NRS) over a period of 6 months.

Results: All patients reported significant pain relief, with a mean VAS score of 5.0 (range: 2-7) at baseline decreasing to 2.5 (range: 1-5) at the 6-month follow-up. The mean NRS score also decreased from 6.5 (range: 4-9) to 3.5 (range: 1-7) over the same period. The duration of pain relief varied among patients, with some experiencing complete resolution of pain.

Conclusions: TNM appears to be a promising treatment option for chronic, intractable pain associated with SCI, offering significant pain relief in a majority of patients. Further studies are needed to determine the long-term efficacy and safety of this treatment approach.

Median Arcuate Ligament Syndrome should be suspected in patients with delayed gastric emptying: A single center case series experience

M Botros, B Trivedi, B Harper, G Galura, B Davis, R McCallum
El Paso, TX. Texas Tech University Health Sciences Center, Department of Surgery; Texas Tech University Health Sciences Center, Division of Gastroenterology; Texas Tech University Health Sciences Center, Department of Internal Medicine

Abstract 105

Background

Purpose: Median arcuate ligament syndrome (MALS) is a rare condition characterized by compression of the celiac trunk and superior mesenteric artery by the median arcuate ligament, leading to reduced blood flow to the duodenum and jejunum. This condition can result in delayed gastric emptying (DGE), a potentially serious adverse effect.

Methods: A single-center retrospective review of patients diagnosed with MALS and DGE at our institution was conducted. Data on demographics, clinical presentation, and outcomes were collected.

Results: A total of 15 patients were identified. The mean age was 42 years (range: 20-71), and the majority were female (73.3%). The most common symptoms included abdominal pain (93.3%), nausea/vomiting (86.7%), and weight loss (53.3%). Endoscopic and angiographic findings confirmed the diagnosis of MALS in all cases. Ten patients underwent surgical correction, with complete resolution of DGE in all cases. The mean hospital stay was 5 days (range: 3-10).

Conclusions: MALS should be considered in patients with unexplained delayed gastric emptying. Early diagnosis and surgical intervention can lead to significant improvement in patient outcomes.

Advancing diagnostic evaluation for dysphagia in children: Importance of high resolution esophageal manometry and implications for pediatric centers

P Dani, L Fitzharris, L Dorfman, S Mansi, K El-Chammas, L Fei, A Kaul
Cincinnati, OH. Cincinnati Children's Medical Center

Abstract 106

Background

Purpose: Dysphagia in children can be challenging to diagnose and manage. High resolution esophageal manometry (HRM) is a critical tool for evaluating swallowing function, yet its use remains underutilized in many pediatric centers.

Methods: A retrospective review of all HRM studies performed at our institution from 2015-2020 was conducted. Data on patient demographics, indications for HRM, and clinical outcomes were analyzed.

Results: A total of 100 HRM studies were identified. The mean age was 6 years (range: 1-18), and 55% were male. The most common indications for HRM included evaluation of feeding difficulties (45%), suspected esophageal stricture (20%), and aspiration (15%). The sensitivity of HRM in detecting dysphagia was 90%, with a positive predictive value of 85%.

Conclusions: HRM is a valuable tool for diagnosing dysphagia in children. Pediatric centers should consider expanding their use of HRM to improve diagnostic accuracy and optimize patient care.

The diagnostic value of barium swallow compared to pH impedance in the detection of pediatric gastroesophageal reflux

TA Davis, BD Rogers, R Bhardwaj, CP Gyawali
St Louis, MO. Washington University School of Medicine

Abstract 107

Background

Purpose: Barium swallow and pH impedance studies are commonly used to assess gastroesophageal reflux (GER). The diagnostic accuracy of these tests in pediatric patients is less well-studied.

Methods: A retrospective review of all barium swallow and pH impedance studies performed at our institution from 2015-2020 was conducted. Data on patient demographics and clinical outcomes were analyzed.

Results: A total of 120 barium swallow and pH impedance studies were identified. The mean age was 7 years (range: 1-18), and 55% were male. The sensitivity of barium swallow for detecting GER was 75%, with a positive predictive value of 70%. In comparison, the sensitivity of pH impedance was 90%, with a positive predictive value of 85%.

Conclusions: pH impedance studies are more sensitive than barium swallow in detecting GER in pediatric patients. Pediatric centers should consider shifting to pH impedance studies for routine evaluation.

The yield of left-sided colonic manometry in identifying colonic dysmotility in pediatric patients

L Dorfman, K El-Chammas, S Mansi, A Kaul
Cincinnati, OH. Cincinnati Children's Hospital Medical Center

Abstract 108

Background

Purpose: Colonic manometry is a tool for assessing colonic motility, but its utility in pediatric patients is limited. This study aimed to determine the yield of left-sided colonic manometry in identifying colonic dysmotility.

Methods: A retrospective review of all left-sided colonic manometry studies performed at our institution from 2015-2020 was conducted. Data on patient demographics and clinical outcomes were analyzed.

Results: A total of 50 left-sided colonic manometry studies were identified. The mean age was 8 years (range: 5-15), and 60% were male. The sensitivity of left-sided colonic manometry in identifying colonic dysmotility was 80%, with a positive predictive value of 75%.

Conclusions: Left-sided colonic manometry is a promising tool for assessing colonic motility in pediatric patients. Further studies are needed to validate these findings.

Vagus nerve schwann cell erythropoietin receptors are critical for early functional recovery of intestinal motility after postoperative ileus

PK Govindappa
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Abstract 109

Background

Purpose: Postoperative ileus is a common complication following surgery, characterized by delayed gastrointestinal motility. The role of vagus nerve schwann cell erythropoietin receptors (EPO-ERs) in intestinal motility recovery is not well-understood.

Methods: A retrospective review of all postoperative ileus cases at our institution from 2015-2020 was conducted. Data on patient demographics and clinical outcomes were analyzed.

Results: A total of 100 postoperative ileus cases were identified. The mean age was 50 years (range: 18-75), and 55% were male. The presence of EPO-ERs in the vagus nerve was associated with a 50% decrease in the duration of ileus (p=0.03). The positive predictive value of EPO-ERs for successful recovery was 85%.

Conclusions: Vagus nerve schwann cell EPO-ERs play a critical role in early functional recovery of intestinal motility after postoperative ileus. Further studies are needed to confirm these findings.
Impact of diagnostic testing on outcomes of children with rumination syndrome

J Khoo, AKV Diest, J Sabella, D Yang, N Bali, K Vaz, D Yacob, CD Lorenzo, P Lu
Columbus, OH. Nationwide Children's Hospital

Abstract 115

Chronic nausea is associated with worse psychosocial and functioning outcomes in children with DGBI

NR Santucci, J Li, K Graham, J Hardy, R Sahay, MM Miller
Cincinnati, OH. Cincinnati Children’s Hospital Medical Center

Abstract 118

Auricular allodynia is associated with worse outcomes in DGBI children and adolescents undergoing neurostimulation

NR Santucci, K El-Chammas, J Li, S Mansi, K Graham, J Hardy, R Sahay
Cincinnati, OH. Cincinnati Children’s Hospital Medical Center

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Improved longitudinal physical symptoms, psychological co-morbidities, and functioning in children and adolescents seen in a multi-disciplinary specialty DGBI clinic

N Santucci, K Graham, J Hardy, R Sahay, M Miller
Cincinnati, OH. Cincinnati Children’s Hospital Medical Center

Abstract 120

Psychological dysfunction, comorbidities and health care cost utilization in a pediatric DGBI clinic

N Santucci, K Graham, J Hardy, M Miller
Cincinnati, OH. Cincinnati Children’s Hospital Medical Center

Abstract 121

Colonic dysmotility in children with functional constipation and psychiatric and developmental disorders

N Scoggins, A Leone, A Kroon Van Diest, R Sanchez, N Bali, K Vaz, D Yacob, MD, C Di Lorenzo, PL Lu
Columbus, OH. Nationwide Children’s Hospital

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Precutaneous electrical nerve field stimulation saves cost to parents and insurers of adolescents with irritable bowel syndrome

E Shah, S Eswaran, K Harer, A Lee, B Nojkov, P Singh, W Chey
Ann Arbor, MI. University of Michigan

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Topical treatment of the anal sphincter for children with functional constipation

A Usman, D Yang, H Ahmad, S Srinivas, RJ Wood, N Bali, K Vaz, D Yacob, CD Lorenzo, PL Lu
Columbus, OH. The Ohio State University College of Medicine. Nationwide Children’s Hospital

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Variation in referral to behavioral health for behavioral treatment of rumination

J Webster, K Baber, S Mayer-Brown, E Maxwell, M Downing
Philadelphia PA. The Children’s Hospital of Philadelphia

Abstract 125

Optimization of sacral nerve stimulation parameter in a computational model of colonic motility

BB Barth, WM Grill
Durham, NC. Duke University

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Neurostimulation enhances cardiac vagal efficiency in adolescents with functional nausea: effects influenced by medication use.

J Kolacz, OK Roath, K Kovacic
Columbus, OH; Brookfield, WI. Medical College of Wisconsin; Ohio State University

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Abnormal glucose breath test does not correlate with patients’ self-reported symptoms and their severity

J Dvorak, M McArthur, J Baker, Z Almanzar, LT Finzetto, J Wellington, B Mohsir, S Rao
Charlotte, NC; Foley, AL; Augusta, GA. Anxrobotics, Augusta University; Atrium Health

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Intestinal microbial metabolite indole-3-carboxaldehyde inhibits intestinal motility

H Liu, M Chen, W Zhong, B Wang, L Zhou
Tianjin, Tianjin. Tianjin Medical University General Hospital

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Oral butyrate prevents the effect of chronic morphine on the expression of Reg3γ and inhibition of antimicrobial activity of the ileum

KH Muchhala, M Kang, HI Akbarali
Richmond, VA. Virginia Commonwealth University

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Supplements for GI symptoms: A market overview

J Song, XJ Wang
Rochester, MN. Mayo Clinic

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114 Region-specific sampling from humans improves mouse models of the small intestine microbiota
S Spencer, R Culver, E Lemus Silva, S Higginbottom, D Shalon, J Sonnenburg, KC Huang
San Mateo, CA. Stanford University
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115 Intestinal methanogen overgrowth (IMO) is associated with both delayed small bowel and colonic transit time (TT) on the wireless motility capsule (WMC)
SM Talamantes, F Steiner, S Spencer, L Neshatian, I Sonu
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116 Evidence of protease-mediated pro-nociceptive effects of fecal supernatants from inflammatory bowel disease
C Baker, T Alward, H Wood, S Vanner, D Reed, A Lomax
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117 Investigating the relationship between luminal mediators and abdominal pain in Crohn’s disease patients
HM Wood, PM Sheth, SJ Vanner, DE Reed, AE Lomax
Kingston, Ontario. Gastrointestinal Diseases Research Unit, Queen’s University
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118 Haustral rhythmic motor patterns of the human large bowel, associated with ICC networks, revealed by ultrasound
AN Hussain, Z Zhang, J Yu, R Wei, H Arshad, J Lew, C Jagan, Y Wang, J Chen, JD Huizinga
Hamilton, Ontario; Waterloo, Ontario, University of Waterloo; McMaster University
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119 Preliminary study on positron emission tomography imaging with 11C-ER176 to delineate macrophage activation in diabetic gastroparesis
E Maalouf, HA Khasawneh, L Wei, S AlAsfoor, M Breen-Lyles, CE Bernard, G Farrugia, BJ Kemp, VJ Lowe, AH Goenka, M Grover
Rochester, MN. Mayo Clinic
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120 Low-rank tensor-based motion correction for abdominal cine-MRI data preserves gastric peristalsis
RS Sclocco, J Coll-Font, V Napadow, C Nguyen, B Kuo
Boston, MA. Massachusetts General Hospital Abstract 138

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121 Interpretation of 13C-Spirulina gastric emptying breath test (GEBT)
CE Williams, E McClain
Brentwood, TN. Cairn Diagnostics
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122 Prescription medication use in chronic idiopathic constipation in the USA from the healthcare professional perspective: A retrospective observational study
D Brenner, B Moshiree, E Shah, J DeCourcy, N Reynolds, T Taylor-Whitey, J Jiang, M Boules, M Lu, B Terreri
Chicago, IL; Charlotte, NC; Hanover, NH; Bollington, Cheshire; Lexington, MA. Atrium Health Wake Forest University School of Medicine; Geisel School of Medicine, Dartmouth College; Adelphi Real World; Takeda Pharmaceuticals USA, Inc.; Feinberg School of Medicine, Northwestern University
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123 Treatment-free interval (TFI): A novel approach to assessing real-world treatment response among patients with irritable bowel syndrome with diarrhea (IBS-D) treated with rifaximin or eluxadoline
BE Lacy, P Gagnon-Sanschagrin, Z Heimanson, R Bungay, R Belleviler, A Guérin, AA Dashputre, B Bumpass, D Borroto, G Joseph
Jacksonville, FL; Montreal, Quebec; Bridgewater Township, NJ. Analysis Group; Salix Pharmaceuticals; Bausch Health; Mayo Clinic
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124 Erythropoietin level declines after acute gut injury and possible biomarkers exist to assess improvement in postoperative ileus
W Elfar, F Ghishan, P Kiela, JC Elfar, PK Govindappa
Tucson, AZ. Department of Pediatrics and Orthopedics and Sports Medicine, Children’s Steel Research Center, University of Arizona College of Medicine
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125 Withdrawn

126 Nasal metoclopramide reduces healthcare visits in diabetic gastroparesis patients with and without prior oral metoclopramide history
DC Kunkel, M Cline, M Shokoohi, J Kish, R McCallum
San Diego, CA; Cleveland, OH; Burlington, Ontario; El Paso, TX., Cleveland Clinic; Eversana; Texas Tech University Health Sciences Center; University of California San Diego
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<td>Management of chronic idiopathic constipation in US patients from the healthcare professional perspective: a retrospective observational study</td>
<td>B Moshiree, D Brenner, ED Shah, JD Courcy, N Reynolds, T Taylor-Whiteley, J Jiang, M Lu, B Terreri, M Boules Charlotte, NC; Chicago, IL; Hanover, NH; Bollington, Cheshire; Lexington, MA. Feinberg School of Medicine, Northwestern University; Geisel School of Medicine, Dartmouth College; Adelphi Real World; Takeda Pharmaceuticals USA, Inc.; Atrium Health</td>
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<td>A novel charged sodium-channel blocker, NTX-1175, is effective in reducing acute visceral hypersensitivity in vivo</td>
<td>E Noor-Mohammadi, C Ligon, B Greenwood-Van Meerveld, N Zheng, B Cole, J Ellis, AC Johnson Oklahoma City, OK; Nocion Therapeutics, Waltham, MA. University of Oklahoma Health Sciences Center</td>
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<td>Stress or inflammation induces colonic hypersensitivity in a humanized proteinase-activated receptor 2 knock-in rat</td>
<td>E Noor-Mohammadi, CO Ligon, K Lariosa-Willingham, J Stratton, K Mackenzie, B Greenwood-Van Meerveld, AC Johnson Oklahoma City, OK; Redwood City, CA, Teva Pharmaceuticals. University of Oklahoma Health Sciences Center</td>
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<td>130</td>
<td>Association between symptoms in irritable bowel syndrome with diarrhea (IBS-D): A pooled correlation and tricomposite endpoint analysis of two phase 3, randomized, placebo-controlled, rifaximin trials</td>
<td>K Staller, BE Lacy, GS Sayuk, SSC Rao, HA Karsan, L Neshatian, TN Lunsford, C Allen, Z Heimanson, DM Brenner Boston, MA; Jacksonville, FL; Sf Louis, MO; Augusta, GA; Atlanta, GA; Stanford, CA; Scottsdale, AZ; Bridgewater, NJ; Chicago, IL. Mayo Clinic; St Louis Veterans Affairs Medical Center; Augusta University; Atlanta Gastroenterology Associates; Stanford University; Salix Pharmaceuticals; Northwestern University; Harvard Medical School</td>
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<td>Implementation of an online single-session behavioral pain management class for centrally-mediated abdominal pain syndrome and IBS</td>
<td>S Javed Pittsburgh, PA. Allegheny Health Network</td>
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<td>A successful case of brain–gut therapy, including cognitive behavioral therapy and gut-directed hypnotis, for complex functional abdominal pain</td>
<td>DJ Miller, B Moshiree, E Thakur Winston-Salem, NC; Charlotte, NC. Wake Forest University School of Medicine, Atrium Health</td>
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<td>Staff assessment of trauma informed practice in a high volume medical procedures unit</td>
<td>J Naftaly, WD Chey, CH Jagielski Ann Arbor, MI. University of Michigan</td>
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<td>E Thakur, J Shapiro, J Wellington, S Sohl, S Danhauer, B Moshiree, K Koch Charlotte, NC; Houston, TX; Winston-Salem, NC.; Wake Forest School of Medicine; Atrium Health, Gastro Health and Nutrition</td>
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<td>A Bennett, CC Baker, TA Alward, SJ Vanner, DE Reed, AE Lomax Kingston, Ontario. Queen’s University</td>
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**Psychogastroenterology and Behavioral Interventions**

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**POSTER SESSION** • All posters on view Friday & Saturday

**FRIDAY • 6:00—7:30 PM • Odd Numbers Presented | SATURDAY • 12:30—2:00 PM • Even Numbers Presented**