

Gastroenterology

Volume 168 / Issue 3 March 2025

www.gastrojournal.org

TABLE OF
CONTENTS

Contents

ON THE COVER



Gut Archaea in CRC. See article by Li, et al, page 525 for additional information.

COMMENTARIES

439 Evolutionary Medicine for Chronic Inflammatory Diseases of the Gut: More Than a Clinical Fantasy?

N. A. Andreani, D. Unterweger, S. Schreiber, and J. F. Baines

444 Liver Transplantation for Colorectal Cancer Metastasis: An Evolving Option With Hope in Selected Patients

M. Baimas-George, M. Russo, J. R. Soto, L. Eskind, D. Levi, and D. Vrochides

MENTORING, EDUCATION, AND TRAINING CORNER

450 The Educational Impact of the GI Hospitalist Model on Gastroenterology Fellowship Training

R. Flanagan, C. Levine, K. Hung, M. Hughes, C. D. L. Fritz, D. Wan, and D. J. Stein

EDITORIALS

454 Catching up With Creeping Fat: Unravelling the Mysteries of the Mesentery in Crohn's Disease

J. C. Coffey, L. Bai, and F. Wu

See Liu W et al on page 508.

457 Gut Archaeal Biomarkers in Colorectal Cancer Prediction: A Tale of Opportunity and Prudence

R. Y. Tito and J. Raes

See Li T et al on page 525.

RESEARCH LETTERS

Understanding why the intestinal muscle layer in Crohn's disease structures thicken and how creeping fat and the muscle layer differ in Crohn's disease: A novel link between fat and intestinal structure formation in Crohn's disease
A. L. Pine, A. M. Ubbala, M. W. Hwang, H. A. Pietrowski, K. Allen-Groves, and K. A. Peterson

Video **Related article in CGH** **Hot Papers From New Investigators**
CME quiz **Editorial accompanies this article** **Additional online content available** **Cover**

Publisher: *Gastroenterology* (ISSN 0016-5085) is published monthly (semi-monthly in April) in two indexed volumes by Elsevier Inc, 230 Park Avenue, New York, NY 10169-0901, USA. Periodicals postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to Elsevier, Journal Returns, 450 Fame Avenue, Hanover, PA 17331, USA. 2025 US subscription rates: individual, \$848.00; student and resident, \$323.00. Outside of the U.S. and possessions: individual, \$1026.00; student and resident, \$596.00; surface delivery, no additional charge; air mail delivery, add \$78.00. Prices subject to change without notice.

459 To Look or Not to Look: A New Score for Stratifying Patients at Risk of Developing Hepatocellular Carcinoma*F. Foerster and P. R. Galle*

See Fujiwara N et al on page 556.

GASTRO CURBSIDE CONSULT**461 A Rare Cause of Blood in Stool and Anemia***Y. Chen, Y. Fu, and Y. Fan***466 What are the Causes of Acute Pancreatitis?***K. Ochi, T. Ogawa, and T. Ueki***ELECTRONIC GASTRO CURBSIDE CONSULT**For a full list, please see the table of contents online at www.gastrojournal.org.**GASTRO GRAND ROUNDS****471 The Management of Internal Fistulizing Crohn's Disease in a Child: More Than Meets the Eye***K. Jones, L. Plotkin, S. Loukogeorgakis, R. Cytter-Kuint, A. Worth, and D. Turner***REVIEWS IN BASIC AND CLINICAL GASTROENTEROLOGY AND HEPATOLOGY****480 Intestinal Permeability in Disorders of Gut-Brain Interaction: From Bench to Bedside***M. Grover, T. Vanuytsel, and L. Chang***ORIGINAL RESEARCH****Full Reports****Esophagus****496 A High-Resolution Microendoscope Improves Esophageal Cancer Screening and Surveillance: Implications for Underserved Global Settings Based on an International Randomized Controlled Trial***M. C. Tan, Z. Li, K. K. Patel, F. Zhang, X. Yu, X. Wang, D. G. Rosen, S. M. Dawsey, L. Xue, C. Hur, R. A. Schwarz, I. Vohra, Y. Tang, M. Wu, T. Wang, J. Carns, H. Xu, R. R. Richards-Kortum, G. Wang, and S. Anandasabapathy*

The addition of a low-cost, high-resolution microendoscope to Lugol's chromoendoscopy improved the efficiency with potential reduction in unnecessary biopsies during evaluation for esophageal squamous cell neoplasia in diverse global health contexts.

Small Bowel**508 Creeping Fat-Derived Free Fatty Acids Induce Hyperplasia of Intestinal Muscularis Propria Muscle Cells: A Novel Link Between Fat and Intestinal Stricture Formation in Crohn's Disease** *W. Liu, R. Mao, T. H. Nga Le, G. West, V. Varadharajan, R. Banerjee, G. Doyon, P. Mukherjee, Q. T. Nguyen, A. Mulya, J. H. Rennison, I. O. Gordon, M. Cruise, S. Hu, D. Czarnecki, T. Plesec, J. Chandra, S. Banerjee, J. Wang, W. J. Massey, I. Goren, S.-N. Lin, S. Kurada, B. L. Cohen, T. Qazi, S. D. Holubar, J. Lipman, A. Kanters, C. M. Gliniak, P. E. Scherer, M.-H. Chen, B. Siegmund, A. I. Ivanov, C. Fiocchi, D. R. Van Wagoner, J. M. Brown, and F. Rieder*

See editorial on page 454.

Understanding why the intestinal muscle layer in Crohn's disease strictures thickens and how creeping fat and the muscle layer interact with each other can help identify a potential novel treatment target.

GI Cancer**525 Multi-Cohort Analysis Reveals Altered Archaea in Colorectal Cancer Fecal Samples Across Populations**

COV E

*T. Li, O. O. Coker, Y. Sun, S. Li, C. Liu, Y. Lin, S. H. Wong, Y. Miao, J. J. Y. Sung, and J. Yu***See editorial on page 457.**

The authors conducted multi-cohort analyses to identify signature gut archaea species in colorectal cancer, and these archaea, combined with bacteria, are potential biomarkers for a noninvasive diagnosis of colorectal cancer.

539 Hypoxic and Acidic Tumor Microenvironment-Driven AVL9 Promotes Chemoresistance of Pancreatic Ductal Adenocarcinoma via the AVL9-I κ B α -SKP1 Complex

WWW

J. Ding, Y. Xie, Z. Liu, Z. Zhang, B. Ni, J. Yan, T. Zhou, and J. Hao

Edotecarin is capable of overcoming the chemotherapy resistance of gemcitabine combined with albumin-paclitaxel (Abraxane) regimen induced by hypoxic and acidic tumor microenvironments through targeting AVL9, thereby enhancing the therapeutic effects of gemcitabine combined with albumin-paclitaxel (Abraxane) in pancreatic cancer.

Hepatobiliary**556 Phase 3 Validation of PAaM for Hepatocellular Carcinoma Risk Stratification in Cirrhosis**

E WWW

*N. Fujiwara, C. Lopez, T. L. Marsh, I. Raman, C. A. Marquez, S. Paul, S. K. Mishra, N. Kubota, C. Katz, H. Kanzaki, M. Gonzalez, L. Quirk, S. Deodhar, P. Selvakumar, P. Raj, N. D. Parikh, L. R. Roberts, M. E. Schwartz, M. H. Nguyen, A. S. Befeler, S. Page-Lester, S. Srivastava, Z. Feng, K. R. Reddy, S. Khaderi, S. K. Asrani, F. Kanwal, H. B. El-Serag, J. A. Marrero, A. G. Singal, and Y. Hoshida***See editorial on page 459.**

An integrative molecular and clinical variable-based score, PAaM, was validated for prediction of hepatocellular carcinoma risk in 2 independent prospective statewide and nationwide multicenter cohorts of patients with cirrhosis.

Endoscopy**568 Adverse Events Associated With Endoscopic Retrograde Cholangiopancreatography: Systematic Review and Meta-Analysis**

WWW

K. Bishay, Z. W. Meng, R. Khan, M. Gupta, Y. Ruan, M. Vaska, J. Iannuzzi, D. E. O'Sullivan, B. Mah, A. C. R. Partridge, A. M. Henderson, H. Guo, S. Samnani, M. DeMarco, Y. Yuan, B. J. Elmunzer, R. N. Keswani, S. Wani, Z. L. Smith, R. J. Bridges, S. J. Heitman, R. J. Hilsden, D. R. Brenner, G. I. Leontiadis, and N. Forbes

This review of 380 studies confidently established the common risks associated with endoscopic retrograde cholangiopancreatography in addition to identifying several risk factors and preventive strategies.

Prevention and Early Detection**587 Fecal Hemoglobin Levels in Prior Negative Screening and Detection of Colorectal Neoplasia: A Dose-Response Meta-Analysis**

WWW

D. M. N. van den Berg, R. van den Puttelaar, L. de Jonge, I. Lansdorp-Vogelaar, and E. Toes-Zoutendijk

Small amounts of blood in stool that do not yield a positive screening test can still raise the risk of future colorectal cancer, suggesting that screening strategies may benefit from refinement.

RESEARCH LETTERS**598 Differing Epithelial and Immunologic Activation Patterns Following Food Reintroduction Reveal Different Transcriptional Profiles in Active Eosinophilic Esophagitis**

WWW

*A. L. Pyne, A. M. Uchida, M. W. Hazel, M. A. Pletneva, K. Allen-Brady, and K. A. Peterson***601 Faecalibacterium prausnitzii Is Associated With Clinical Response to Immune Checkpoint Inhibitors in Patients With Advanced Gastric Adenocarcinoma: Results of Microbiota Analysis of PRODIGE 59-FFCD 1707-DURIGAST Trial**

WWW

M. Bredon, K. le Malicot, C. Louvet, L. Evesque, D. Gonzalez, D. Tougeron, and H. Sokol

- 604** **Sucrase Isomaltase Dysfunction Reduces Sucrose Intake in Mice and Humans**
P. Aldiss, L. Torices, S. Ramne, M. E. Jørgensen, *Sucrase-Isomaltase Working Group*, M. D'Amato, and M. K. Andersen

- 608** **High Serum Pesticide Levels Are Associated With Increased Odds of Inflammatory Bowel Disease in a Nested Case-Control Study**
M. Agrawal, R. C. Ungaro, P. Rajauria, J. Magee, L. Petrick, and V. Midya, *on behalf of PREDICTS study collaborators*

AGA SECTION

- 612** **AGA Institute Quality Indicator Development for Irritable Bowel Syndrome**
K. W. Hung, D. A. Leiman, A. Kaza, R. Watson, L. Chang, and J. K. Maratt, *on behalf of the American Gastroenterological Association Quality Committee*

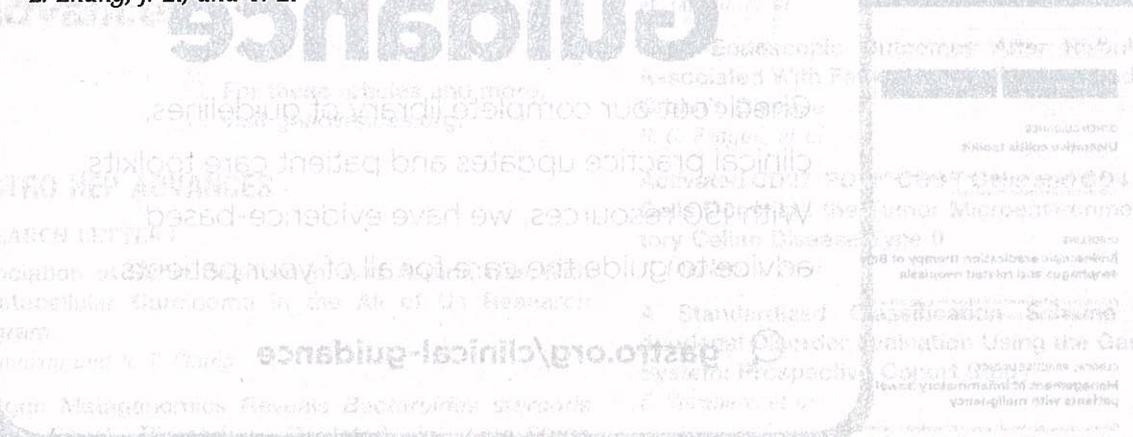
GASTRO DIGEST

- 623** **Risankizumab for Induction and Maintenance of Remission in Ulcerative Colitis**
P. S. Roshanov and R. Khanna
- 624** **A Head-to-Head Comparison of Risankizumab and Ustekinumab as Second-Line Therapy in Moderate to Severely Active Crohn's Disease**
P. S. Roshanov and R. Khanna
- 624** **Novel Immune Manipulators for IBD: Miniproteins!**
E. Wine
- 625** **Neurons on a Mission: Glial Global Positioning System for the Gut Reboot!**
C. Y. Q. Lee and K. G. Margolis

CORRESPONDENCE

- 627** **Exploring the Potential of Real-Time Audio-Visual Interactions of ChatGPT-4o in Endoscopy Training and Practice**
Q. Wu
- 627** **PDO-Based Drug Screening in Advanced Pancreatic Cancer**
C. Liang, D. Shan, and Z. Wei
- 628** **Reply**
A. Boilève, M. Ducreux, and F. Jaulin
- 630** **Optimizing CT-P13 SC Use in IBD: ADA Formation, Comparative Efficacy, and Dose Adjustment Strategies**
X. Zhao, D. Shan, and J. Han
- 631** **Reply**
S. B. Hanauer and J.-F. Colombel
- 632** **Fazirsiran Unveiled: Methodological Considerations for Optimizing Treatment in Alpha-1 Antitrypsin Deficiency**
M. Ou and D. Qian

- 633 **Reply**
V. C. Clark, P. Strnad, and T. Schlupe
- 634 **Optimizing Methodological Rigor and Evidence Reporting in Brain-Gut Behavioral Treatments for Irritable Bowel Syndrome: Enhancing the Credibility of Network Meta-Analyses**
Q. Zheng, Y. Zhou, and J. Tian
- 636 **Comments on "Effect of Brain-Gut Behavioral Treatments on Abdominal Pain in Irritable Bowel Syndrome: Systematic Review and Network Meta-Analysis"**
L. Zhang, J. Li, and Y. Li



Our...
 a quick and easy way to...
 Search for an article...
 Get a quote...
 The Role of...
 Metastasis in Gastrointestinal Cancer...

Ordering Reports of
 Seeking Permissions?

Access to the full content of Gastroenterology Online is available to all subscribers!

AGA members have seamless access to full *Gastroenterology* content from the AGA Web site. Simply sign in to <http://www.gastro.org>, visit the Publications section of the Web site, and click on *Gastroenterology*. You will be directed to the Journal Web site and will have full access to all content without having to supply a different username and password. Members can also visit <http://www.gastrojournal.org> directly and click on "Activate Online Access." Nonmember subscribers must create an online user account and activate their subscription to access the full text of articles on *Gastroenterology* Online. To activate your individual online subscription, please visit <http://www.gastrojournal.org> and click on "Activate Online Access." To activate your account, you

will need your subscriber account or member number, which you can find on your mailing label, (AGA members must use their 10-digit member number, including leading zeros). If you have any questions regarding your online subscription please call Elsevier Customer Service at (800) 654-2452.

Institutional access to *Gastroenterology* Online will be allowed only by limited site licensing. Further instructions will be available online. Personal subscriptions to *Gastroenterology* Online are for individual use only and may not be transferred. Use of *Gastroenterology* Online is subject to agreement to the terms and conditions of use as indicated online.

AGA Member Number

Your Account Number

Sample
 mailing
 label

GAST0000101864
 JANE DOE
 531 MAIN ST
 CENTER CITY, NY 10001-001

1GAST V91-4 1234567-8
 JANE DOE
 531 MAIN ST
 CENTER CITY, NY 10001-001