

Picasso Birthplace Museum, Malaga, Spain. Read in this issue of Gut the PICaSSO masterpiece. by Gui et al: the PICaSSO Histologic Remission Index (PHRI) for monitoring mucosal healing and predicting clinical outcomes in ulcerative colitis.

An international journal of gastroenterology and hepatology Impact Factor: 23.059 Editor

Emad El-Omar (Australia)

**Deputy Editor (Hepatology)** Alexander Gerbes (Germany)

**Deputy Editor (Luminal** Gastroenterology) William Grady (USA)

Deputy Editor (Endoscopy) Thomas Rosch (Germany)

**Associate Editors** 

Guy Boeckxstaens (Belguim) Patrice Cani (Belgium) Jean-François Dufour (Switzerland) Thomas Gress (Germany) Christian Jobin (USA) Ernst Kuipers (The Netherlands) Markus Neurath (Germany) Siew C Ng (Hong Kong) Francisco Real (Spain) Robert Thimme (Germany) Herbert Tilg (Austria) Fabien Zoulim (France)

Artificial Intelligence/ **Machine Learning Editor** Akhar Waliee (USA)

#### **Statistics Editors**

Ruben Hernaez (USA) Susan Hutfless (USA)

**Editorial Office** 

**BMJ** Journals BMA House, Tavistock Square London, WC1H 9JR, UK

E: info.gut@bmj.com ISSN: 0017-5749 (print) ISSN: 1468-3288 (online)

**Disclaimer:** The Editor of *Gut* has been granted editorial freedom and *Gut* is published in accordance with editorial guidelines issued by the World Association of Medical Editors and the Committee on Publication Ethics. *Gut* is primarily intended for healthcare professionals and its content is for information only. The Journal is published without any guarantee as to its accuracy or completeness and any representations or warranties are expressly excluded to the fullest extent permitted by law. Readers are advised to independently verify any information on which they choose to rely. Acceptance of advertising by *Gut* does not imply endorsement. Neither *BSG* nor BMJ Publishing Group Limited shall have any liability for any loss, injury or damage howsoever arising from *Gut* (except for liability which cannot be legally excluded). Copyright © 2022 BMJ Publishing Group Ltd

and British Society of Gastroenterology. All rights reserved; no part of this publication may be reproduced in any form without permission. Gut is published by BMJ Publishing Group Ltd, typeset by Exeter Premedia Services Private Ltd, Chennai, India and printed in the UK on acid-free paper

Gut is published by BMJ Publishing Group Ltd, typeset by Exeter Premedia Services Private Ltd, Chennai, India and printed in the UK on acid-free paper Gut (ISSN: 0017-5749) (USPS 2278) is published bimonthly by BMJ Publishing Group Ltd, BMA billionini y y olivid Fubishing Iduo Lu, bilvid House,Tavistock Square, WC1H 9JR London. Airfreight and mailing in the USA by agent named World Container Inc, 150-15, 1837 Street, Jamaica, NY 11413, USA. Periodicals postage paid at Brooklyn, NY 11256. US Postmaster: Send address changes to *Gut*, World Container Inc, 150-15, 183rd Street, Jamaica, NY 11413, USA. Subscription records are maintained at BMA House, Tavistock Square WC1H 9HR London. Air Business Ltd is acting as our mailing agent. WC1H 9HR London. Air Business Ltd is acting as our mailing agent

# **Commentaries**

847 Prognostic value of DAXX/ATRX loss of expression and ALT activation in PanNETs: is it time for clinical implementation? I Marinoni

Combining dietary fibres to reduce intestinal gas production in patients with IBS K Verbeke

# **Endoscopy news**

**6** 

**850** Lumen-apposing metal stents for drainage of pancreatic fluid collections: does timing of removal matter?

> M Nayar, J S Leeds, UK & Ireland LAMS Colloborative, K Oppong

#### Stomach

6

854 Severity of gastric intestinal metaplasia predicts the risk of gastric cancer: a prospective multicentre cohort study (GCEP)

> J W J Lee, F Zhu, S Srivastava, S KK Tsao, C Khor, K Y Ho, K M Fock, W C Lim, T L Ang, W C Chow, JBY So, CJ Koh, SJ Chua, ASY Wong, J Rao, L G Lim, K L Ling, C-K Chia, C J Ooi, A Rajnakova, W M Yap, M Salto-Tellez, B Ho, R Soong, K S Chia, Y Y Teo, M Teh, K-G Yeoh

#### **Endoscopy**

864 Histopathological effects of electrosurgical interventions in an in vivo porcine model of colonic endoscopic mucosal resection

A M Whitfield, N G Burgess, F F Bahin, S Kabir, M Pellisé, R Sonson, V Subramanian, H Mahajan, D McLeod, K Byth, M I Bourke

Identification of the source events for aerosol generation during oesophago-gastro-duodenoscopy FKA Gregson, AJ Shrimpton, F Hamilton, TM Cook, JP Reid, A E Pickering, D J Pournaras, B R Bzdek, I Brown, the AERATOR group

#### COVID-19



Oral famotidine versus placebo in non-hospitalised patients with COVID-19: a randomised, double-blind, data-intense, phase 2 clinical trial

C M Brennan, S Nadella, X Zhao, R J Dima, N Jordan-Martin, B R Demestichas, S O Kleeman, M Ferrer, E C von Gablenz, N Mourikis, M E Rubin, H Adnani, H Lee, T Ha, S Prum, C B Schleicher, S S Fox, M G Ryan, C Pili, G Goldberg, J M Crawford, S Goodwin, X Zhang, J B Preall, A S H Costa, J Conigliaro, J R Masci, J Yang, D A Tuveson, K J Tracey, T Janowitz

# Artificial intelligence



6

889 PICaSSO Histologic Remission Index (PHRI) in ulcerative colitis: development of a novel simplified histological score for monitoring mucosal healing and predicting clinical outcomes and its applicability in an artificial intelligence system

> X Gui, A Bazarova, R del Amor, M Vieth, G de Hertogh, V Villanacci, D Zardo, T L Parigi, E S Røyset, U N Shivaji, M A T Monica, G Mandelli, P Bhandari, S Danese, J G Ferraz, BH Hayee, M Lazarev, A Parra-Blanco, L Pastorelli, R Panaccione, T Rath, G E Tontini, R Kiesslich, R Bisschops, E Grisan, V Naranjo, S Ghosh, М Іасиссі

# **Gut microbiota**

**899** Altered faecal microbiome and metabolome in lgG4-related sclerosing cholangitis and primary sclerosing cholangitis

> Q Liu, B Li, Y Li, Y Wei, B Huang, J Liang, Z You, Y Li, Q Qian, R Wang, J Zhang, R Chen, Z Lyu, Y Chen, M Shi, X Xiao, Q Wang, Q Miao, J-Y Fang, M E Gershwin, M Lian, X Ma, R Tang

**910** Underdevelopment of the gut microbiota and bacteria species as non-invasive markers of prediction in children with autism spectrum disorder

> Y Wan, T Zuo, Z Xu, F Zhang, H Zhan, D CHAN, T-F Leung, Y K Yeoh, F K L Chan, R Chan, S C Ng

# **Neurogastroenterology**



919 Psyllium reduces inulin-induced colonic gas production in IBS: MRI and in vitro fermentation studies

> D Gunn, Z Abbas, H C Harris, G Major, C Hoad, P Gowland, L Marciani, S K Gill, F J Warren, M Rossi, J M Remes-Troche, K Whelan, R C Spiller

> > MORE CONTENTS ▶



This article has been chosen by the Editor to be of special interest or importance and is freely available online.



This article has been made freely available online under the BMJ Journals open access scheme.

See http://authors.bmj.com/open-access/



This journal is a member of and subscribes to the principles of the Committee on Publication Ethics



www.publicationethics.org



Decoy bypass for appetite suppression in obese adults: role of synergistic nutrient sensing receptors GPR84 and FFAR4 on colonic endocrine cells

M Peiris, R Aktar, D Reed, V Cibert-Goton, A Zdanaviciene, W Halder, A Robinow, S Corke, H Dogra, C H Knowles, A Blackshaw

# Colon

**938** Chromatin state dynamics confers specific therapeutic strategies in enhancer subtypes of colorectal cancer

> E Orouji, A T Raman, A K Singh, A Sorokin, E Arslan, A K Ghosh, J Schulz, C Terranova, S Jiang, M Tang, M Maitituoheti, S C Callahan, P Barrodia, K Tomczak, Y Jiang, Z Jiang, I S Davis, S Ghosh, H M Lee, L Reves-Uribe, K Chang, Y Liu, H Chen, A Azhdarinia, J Morris, E Vilar, K S Carmon, S E Kopetz, K Rai

**950** Faecal immunochemical tests safely enhance rational use of resources during the assessment of suspected symptomatic colorectal cancer in primary care: systematic review and meta-analysis

> N Pin-Vieito, C Tejido-Sandoval, N de Vicente-Bielza, C Sánchez-Gómez, J Cubiella

#### **Pancreas**



Non-functional pancreatic neuroendocrine tumours: ATRX/DAXX and alternative lengthening of

telomeres (ALT) are prognostically independent from ARX/PDX1 expression and tumour size

W M Hackeng, L A A Brosens, I Y Kim, R O'Sullivan, Y-N Sung, T-C Liu, D Cao, M Heavn, J Brosnan-Cashman, S An, FHM Morsink, CM Heidsma, GD Valk, M R Vriens, E Nieveen van Dijkum, G J A Offerhaus, K M A Dreijerink, H Zeh, A H Zureikat, M Hogg, K Lee, D Geller, J W Marsh, A Paniccia, M Ongchin, J F Pingpank, N Bahary, M Aijazi, R Brand, I Chennat, R Das, K E Fasanella, A Khalid, K McGrath, S Sarkaria, H Singh, A Slivka, M Nalesnik, X Han, M N Nikiforova, R T Lawlor, A Mafficini, B Rusev, V Corbo, C Luchini, S Bersani, A Pea, S Cingarlini, L Landoni, R Salvia, M Milione, M Milella, A Scarpa, S-M Hong, C M Heaphy, A D Singhi

**974** Optimal timing of cholecystectomy after necrotising biliary pancreatitis

> N D Hallensleben, H C Timmerhuis, R A Hollemans, S Pocornie, J van Grinsven, S van Brunschot, O J Bakker, R van der Sluijs, M P Schwartz, P van Duijvendijk, T Römkens, MW I Stommel, RC Verdonk, MG Besselink, S A W Bouwense, T L Bollen, H C van Santvoort, M J Bruno, for the Dutch Pancreatitis Study Group

#### Hepatology

983 Clinical utility of 30% relative decline in MRI-PDFF in predicting fibrosis regression in non-alcoholic fatty liver disease

> N Tamaki, N Munaganuru, J Jung, A Q Yonan, R R Loomba, R Bettencourt, V Ajmera, M A Valasek, C Behling, C B Sirlin, R Loomba

RNA helicase DDX5 enables STAT1 mRNA translation and interferon signalling in hepatitis B virus replicating hepatocytes I Sun, G Wu, F Pastor, N Rahman, W-H Wang, Z Zhang, P MERLE, L Hui, A Salvetti, D Durantel, D Yang, O Andrisani

1006 Diagnostic accuracy of non-invasive tests for advanced fibrosis in patients with NAFLD: an individual patient data meta-analysis

> FE Mózes, J A Lee, E A Selvaraj, A N A Jayaswal, M Trauner, J Boursier, C Fournier, K Staufer, R E Stauber, E Bugianesi, R Younes, S Gaia, M Lupsor-Platon, S Petta, T Shima, T Okanoue, S Mahadeva, W-K Chan, P I Eddowes, G M Hirschfield, P N Newsome, V W-S Wong, V de Ledinghen, J Fan, F Shen, J F Cobbold, Y Sumida, A Okajima, J M Schattenberg, C Labenz, W Kim, M S Lee, J Wiegand, T Karlas, Y Yılmaz, G P Aithal, N Palaniyappan, C Cassinotto, S Aggarwal, H Garg, G J Ooi, A Nakajima, M Yoneda, M Ziol, N Barget, A Geier, T Tuthill, M J Brosnan, Q M Anstee, S Neubauer, S A Harrison, P M Bossuyt, M Pavlides, the LITMUS Investigators

#### Recent advances in basic science

**1020** Gut microbiome and health: mechanistic insights



W M de Vos, H Tilg, M Van Hul, P D Cani

# **JournalScan**

1033 GI highlights from the literature P J Smith

# **PostScript**

1035 Letters



# Editor's quiz: GI snapshot

**888** Recurrent colonic polyps

J Aslan, T E Conley, F Campbell, P J Smith, F McNicol, T Andrews, S Subramanian

#### **Electronic pages**

- Correction: Growth differentiation factor 11 attenuates liver fibrosis via expansion of liver progenitor cells
- Correction: PTH-60 Impact of SARS-CoV-2 pandemic on the IBD advice line— a single centre experience