

Purple hydrangea flowers are blooming beautifully in Yangmingshan National Park, Taiwan. Read in this issue the great work by Lai *et al* on how gut microbiota modulates COPD pathogenesis and the role of anti-inflammatory *Parabacteroides goldsteinii* lipopolysaccharide.

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 Boeckstaens (Belgium)

Patrice Cani (Belgium)

Jean-Francois 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

Akbar Waljee (USA)

Statistics Editors

Ruben Hernaez (USA)

Susan Hutfless (USA)

Editorial Office

Gut

BMJ Journals

BMA House, Tavistock Square

London, WC1H 9JR, UK

E: [info.gut@bmj.com](mailto: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 House, Tavistock Square, WC1H 9JR London. Airfreight and mailing in the USA by agent named World Container Inc, 150-15, 183rd 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

**233** Silencing HBV transcription with SMC5/6: has a path been found?  
*J Tavis, R Chauhan*

**234** NAFLD in lean individuals: not a benign disease  
*S Franque, V W-S Wong*

**236** Endoscopic submucosal dissection and potential cancer dissemination  
*K K Wang*

Guidelines

**238** Chinese Consensus Report on Family-Based *Helicobacter pylori* Infection Control and Management (2021 Edition)  
*S-Z Ding, Y-Q Du, H Lu, W-H Wang, H Cheng, S-Y Chen, M-H Chen, W-C Chen, Y Chen, J-Y Fang, H-J Gao, M-Z Guo, Y Han, X-H Hou, F-L Hu, B Jiang, H-X Jiang, C-H Lan, J-N Li, Y Li, Y-Q Li, J Liu, Y-M Li, B Lyu, Y-Y Lu, Y-L Miao, Y-Z Nie, J-M Qian, J-Q Sheng, C-W Tang, F Wang, H-H Wang, J-B Wang, J-T Wang, J-P Wang, X-H Wang, K-C Wu, X-Z Xia, W-F Xie, Y Xie, J-M Xu, C-Q Yang, G-B Yang, Y Yuan, Z-R Zeng, B-Y Zhang, G-Y Zhang, G-X Zhang, J-Z Zhang, Z-Y Zhang, P-Y Zheng, Y Zhu, X-L Zuo, L-Y Zhou, N-H Lyu, Y-S Yang, Z-S Li, On behalf of the National Clinical Research Center for Digestive Diseases (Shanghai), Gastrointestinal Early Cancer Prevention & Treatment Alliance of China (CECA), Helicobacter pylori Study Group of Chinese Society of Gastroenterology, and Chinese Alliance for Helicobacter pylori Study*

Gastroduodenal

**254** Safety and efficacy of hydrothermal duodenal mucosal resurfacing in patients with type 2 diabetes: the randomised, double-blind, sham-controlled, multicentre REVITA-2 feasibility trial  
*G Mingrone, A CG van Baar, J Devière, D Hopkins, E Moura, C Cercato, H Rajagopalan, J C Lopez-Talavera, K White, V Bhambhani, G Costamagna, R Haidry, E Grecco, M Galvao Neto, G Aithal, A Repici, BH Hayee, A Haji, AJ Morris, R Bisschops, MD Chouhan, N S Sakai, D L Bhatt, AJ Sanyal, JJ G H M Bergman, Investigators of the REVITA-2 Study*

Endoscopy

**265** Long-term outcomes after endoscopic treatment for Barrett's neoplasia with radiofrequency ablation ± endoscopic resection: results from the national Dutch database in a 10-year period  
*S van Munster, E Nieuwenhuis, B L A M Weusten, L Alvarez Herrero, A Bogte, A Alkhalaf, B E Schenk, E J Schoon, W Curvers, A D Koch, S E M van de Ven, P J F de Jonge, T J Tang, W B Nagengast, F T M Peters, J Westerhof, M H M G Houben, J J G H M Bergman, R E Pouw, Dutch Barrett Expert Centers*

**277** Possible tumour cell reimplantation during curative endoscopic therapy of superficial Barrett's carcinoma  
*H Ehleben, R Schmitz, S Riethdorf, L Riethdorf, Y Krause, K-F Karstens, J Schrader, F Viol, A Giannou, W Sterlacci, M Vieth, T Clauditz, C Kähler, O Mann, J R Izbicki, S Huber, K Pantel, T Rösch*

Inflammatory bowel disease

**287** Antibiotic use differentially affects the risk of anti-drug antibody formation during anti-TNFα therapy in inflammatory bowel disease patients: a report from the epi-IIRN  
*Y Gorelik, S Freilich, S Gerassy-Vainberg, S Pressman, C Friss, A Blatt, G Focht, Y L Weisband, S Greenfeld, R Kariv, N Lederman, I Dotan, N Geva-Zatorsky, S S Shen-Orr, Y Kashi, Y Chowers, On behalf of the IIRN*

Gut microbiota

**296** Gut mucosa alterations and loss of segmented filamentous bacteria in type 1 diabetes are associated with inflammation rather than hyperglycaemia  
*M Rouland, L Beaudoin, O Rouxel, L Bertrand, L Cagninacci, A Saffarian, T Pedron, D Gueddouri, S Guilmeau, A-F Burnol, L Rachdi, A Tazi, J Mouriès, M Rescigno, N Vergnolle, P Sansonetti, U Christine Rogner, A Lehuen*

**309** Gut microbiota modulates COPD pathogenesis: role of anti-inflammatory *Parabacteroides goldsteinii* lipopolysaccharide  
*H-C Lai, T-L Lin, T-W Chen, Y-L Kuo, C-J Chang, T-R Wu, C-C Shu, Y-H Tsai, S Swift, C-C Lu*

Colon

**322** Genomic evolution and diverse models of systemic metastases in colorectal cancer  
*H-N Chen, Y Shu, F Liao, X Liao, H Zhang, Y Qin, Z Wang, M Luo, Q Liu, Z Xue, M Cao, S Zhang, W-H Zhang, Q Hou, X Xia, H Luo, Y Zhang, L Yang, J-K Hu, X Fu, B Liu, H Hu, C Huang, Y Peng, W Cheng, L Dai, L Yang, W Zhang, B Dong, Y Li, Y Wei, H Xu, Z-G Zhou*

MORE CONTENTS ►

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

**OPEN ACCESS** This article has been made freely available online under the BMJ Journals open access scheme. See <http://authors.bmj.com/open-access/>

**COPE** Member since 2008  
 This journal is a member of and subscribes to the principles of the Committee on Publication Ethics  
[www.publicationethics.org](http://www.publicationethics.org)


**recycle** When you have finished with this magazine please recycle it.

Gut: first published as on 1 February 2022. Downloaded from <http://gut.bmj.com/> on January 17, 2022 by guest. Protected by copyright.



**GI cancer**


- 333** Targeting cancer-associated fibroblast-secreted WNT2 restores dendritic cell-mediated antitumour immunity  
 T-X Huang, X-Y Tan, H-S Huang, Y-T Li, B-L Liu, K-S Liu, X Chen, Z Chen, X-Y Guan, C Zou, L Fu

**Pancreas**

- 345** Senolytic elimination of Cox2-expressing senescent cells inhibits the growth of premalignant pancreatic lesions  
 D Kolodkin-Gal, L Roitman, Y Ovadya, N Azazmeh, B Assouline, Y Schlesinger, R Kalifa, S Horwitz, Y Khalainik, A Hochner-Ger, A Imam, J A Demma, E Winter, H Benyamini, S Elgavish, A AS Khatib, K Meir, K Atlan, E Pikarsky, O Parnas, Y Dor, G Zamir, I Ben-Porath, V Krizhanovskiy
- 357** ESE3/EHF, a promising target of rosiglitazone, suppresses pancreatic cancer stemness by downregulating CXCR4  
 T Zhou, J Liu, Y Xie, S Yuan, Y Guo, W Bai, K Zhao, W Jiang, H Wang, H Wang, T Zhao, C Huang, S Gao, X Wang, S Yang, J Hao

**Hepatology**

- 372** Therapeutic shutdown of HBV transcripts promotes reappearance of the SMC5/6 complex and silencing of the viral genome in vivo  
 L Allweiss, K Giersch, A Piroso, T Volz, R C Muench, R K Beran, S Urban, H Javanbakht, S P Flecher, M Lütgehetmann, M Dandri
- 382** Caucasian lean subjects with non-alcoholic fatty liver disease share long-term prognosis of non-lean: time for reappraisal of BMI-driven approach?  
 R Younes, O Govaere, S Petta, L Miele, D Tiniakos, A Burt, E David, F M Vecchio, M Maggioni, D Cabibi, D McLeod, M J Pareja, A L Fracanzani, R Aller, C Rosso, J Ampuero, R Gallego-Durán, A Armandi, G P Caviglia, M Y W Zaki, A Liguori, P Francione, G Pennisi, A Grieco, G Biolo, P Fariselli, M Eslam, L Valenti, J George, M Romero-Gómez, Q M Anstee, E Bugianesi
- 391** Integrative analysis reveals early and distinct genetic and epigenetic changes in intraductal papillary and tubulopapillary cholangiocarcinogenesis  
 B Goepfert, D Stichel, R Toth, S Fritzsche, M A Loeffler, A M Schlitter, O Neumann, Y Assenov, M N Vogel, A Mehrabi, K Hoffmann, B Köhler, C Springfeld, D Weichenhan, C Plass, I Esposito, P Schirmacher, A von Deimling, S Roessler

- 402** Two-dimensional shear wave elastography predicts survival in advanced chronic liver disease  
 J Trebicka, W Gu, V de Ledinghen, C Aubé, A Krag, M Praktekenjo, L Castera, J Dumortier, D J M Bauer, M Friedrich-Rust, S Pol, I Grgurevic, R Zheng, S Francque, H Gottfriedová, S Mustapic, I Sporea, A Berzigotti, F E Uchner, B Simbrunner, M Ronot, C Cassinotto, M Kjaergaard, F Andrade, M Schulz, G Semmler, I T Drinkovic, J Chang, M J Brol, P E Rautou, T Vanwolleghem, C P Strassburg, J Boursier, P G Ferstl, D N Rasmussen, T Reiberger, V Vilgrain, A Guibal, O Guillaud, S Zeuzem, C Vassord, X Lu, L Vonghia, R Senkerikova, A Popescu, C Margini, W Wang, M Thiele, C Jansen

- 415** Hepatobiliary phenotypes of adults with alpha-1 antitrypsin deficiency  
 M Fromme, C V Schneider, V Pereira, K Hamesch, M Pons, M C Reichert, F Benini, P Ellis, K H Thorhauge, M Mandorfer, B Burbaum, V Woditsch, J Chorostowska-Wynimko, J Verbeek, F Nevens, J Genesca, M Miravittles, A Nuñez, B Schaefer, H Zoller, S Janciauskiene, N Abreu, L Jasmijn, R Gaspar, R Liberal, G Macedo, R Mahadeva, C Gomes, K M Schneider, M Trauner, A Krag, B Gooptu, D Thorburn, A Marshall, J R Hurst, D A Lomas, F Lammert, N T Gaisa, V Clark, W Griffiths, C Trautwein, A M Turner, N G McElvaney, P Strnad

**Recent advances in clinical practice**

- 424** What to do about the leaky gut  
 M Camilleri, A Vella

**Obituary**

- 436** Obituary Professor Michael N Marsh BTh, DPhil, DM, DSc, FRCP  
 K Rostami, C J J Mulder, D S Sanders

**JournalScan**

- 437** GI highlights from the literature  
 P J Smith

**PostScript**

- 440** Letters  


**Editor's quiz: GI snapshot**

- 264** Unusual cause of bloody stool with earache and saddle-nose deformity  
 Z Liu, X Liu, J Liang, Y Shi, M Chen

**Electronic page**

- e4** Correction: *Exosomes derived from Fusobacterium nucleatum-infected colorectal cancer cells facilitate tumour metastasis by selectively carrying miR-1246/92b-3p/27a-3p and CXCL16*