

Cover caption: Salmonella bacteria (green), coloured scanning electron micrograph (SEM). Salmonella bacteria can cause food posioning when they are eaten in contaminated food. Symptoms include addominal pain, nausea, diarrhoes and vomiting. Magnification: X8700 when printed 10 centimetres wide. Cover credit: NAID / CDC / SCIENCE PHOTO LIBRARY.

Journal of the British Society of Gastroenterology

Impact Factor: 9.35 Editor

Professor Emad El-Omar (UK) Deputy Editor (Hepatology)

Alexander Gerbes (Germany)
Deputy Editor (Luminal

Gastroenterology) William Grady (USA)

Associate Editors

Ramon Bataller (Spain) Guy Boeckxstaens (Belguim) Laurence Egan (Ireland) Thomas Gress (Germany) Ernst Kuipers (The Netherlands) Julian Panes (Spain) Herbert Tilg (Austria) Fabien Zoulim (France)

Editorial Office

Gut BMJ Journals BMA House, Tavistock Square London, WC1H 9JR, UK T: +44 (0)20 7383 6394

F: +44 (0)20 7383 6668

E: guteditorial@bmjgroup.com ISSN: 0017-5749 (print)

ISSN: 1468-3288 (online) **Disclaimer:** *Gut* is owned and published by BMJ Publishing Group Ltd, a wholly owned subsidiary of the British Medical Association and the British Society of Gastroenterology. The owners grant

Society of Gastroenterology. The owners grant editorial freedom to the Editor of *Gut. Gut* follows guidelines on editorial independence produced by the World Association of Medical Editors and the code on good publication practice of the Committee on Publication Ethics.

Gut is intended for medical professionals and is provided without warranty, express or implied. Statements in the Journal are the responsibility of their authors and advertisers and not authors' institutions, the BMJ Publishing Group, the British Society of Gastroenterology or the BMA unless otherwise specified or determined by law. Acceptance of advertising does not imply endorsement.

To the fullest extent permitted by law, the BMJ Publishing Group shall not be liable for any loss, injury or damage resulting from the use of *Gut* or any information in it whether based on contract, tort or otherwise. Readers are advised to verify any information they choose to rely on.

Copyright © 2011 BMJ Publishing Group and British Society of Gastroenterology. All rights reserved; no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior permission

Gut is published by BMJ Publishing Group Ltd, typeset by TNQ Books & Journals, Chennai, India and printed in the UK on acid-free paper from sustainable forests by Latimer Trend & Co Ltd, Plymouth, UK

dut (ISSN 0017-5749) is published monthly by BMJ Publishing Group and distributed in the USA by Mercury International Ltd. Periodicals postage paid at Rahway, NJ. POSTMASTER: send address changes to *Gut*, Mercury International Ltd. 365 Blair Road, Avenel, NJ, 07001, USA.

Contents

Commentaries

- **285** Immunogenicity of anti-TNF antibodies. Has the veil been lifted? *G Van Assche*
- **287** Iron in the inflammed gut: another pro-inflammatory hit? *G Weiss*
- **288** The microbiota—gut—brain axis: learning from intestinal bacteria?
 - P Bercik

Stomach

- 290 CDX2 autoregulation in human intestinal
 - metaplasia of the stomach: impact on the stability of the phenotype R Barros, L T da Costa, J Pinto-de-Sousa, I Duluc, J-N Freund, L David, R Almeida

Endoscopy

299 Diagnostic value of confocal laser endomicroscopy for gastric superficial cancerous lesions W-B Li, X-L Zuo, C-Q Li, F Zuo, X-M Gu, T Yu, C-L Chu, T-G Zhang, Y-Q Li

Gut microbiota

307 Bacterial infection causes stress-induced memory dysfunction in mice *M G Gareau, E Wine, D M Rodrigues, J H Cho, M T Whary, D J Philpott, G MacQueen, P M Sherman*

Inflammatory bowel disease

- **318** Enteric Salmonella or Campylobacter infections and the risk of inflammatory bowel disease T Jess, J Simonsen, N M Nielsen, K T Jørgensen, P Bager, S Ethelberg, M Frisch
- **325** Depletion of luminal iron alters the gut microbiota and prevents Crohn's disease-like ileitis

T Werner, S J Wagner, I Martínez, J Walter, J-S Chang, T Clavel, S Kisling, K Schuemann, D Haller

Irritable bowel syndrome

334 Combined oro-caecal scintigraphy and lactulose hydrogen breath testing demonstrate that breath testing detects oro-caecal transit, not small intestinal bacterial overgrowth in patients with IBS

D Yu, F Cheeseman, S Vanner

Colon

- 341 Oxaliplatin in combination with liver-specific
 - expression of interleukin 12 reduces the immunosuppressive microenvironment of tumours and eradicates metastatic colorectal cancer in mice

M Gonzalez-Aparicio, P Alzuguren, I Mauleon, J Medina-Echeverz, S Hervas-Stubbs, U Mancheno, P Berraondo, J Crettaz, G Gonzalez-Aseguinolaza, J Prieto, R Hernandez-Alcoceba

350 The NSAID sulindac is chemopreventive in the mouse distal colon but carcinogenic in the proximal colon

D Mladenova, J J Daniel, J E Dahlstrom, E Bean, R Gupta, R Pickford, N Currey, E A Musgrove, M R J Kohonen-Corish

Pancreas

361 Pathophysiological relevance of apical large-conductance Ca²⁺-activated potassium channels in pancreatic duct epithelial cells *V Venglovecz, P Hegyi, Z Rakonczay Jr,*

L Tiszlavicz, A Nardi, M Grunnet, M A Gray

Hepatology

370 Evidence for neuroinflammation and neuroprotection in HCV infection-associated encephalopathy

> M Bokemeyer, X-Q Ding, A Goldbecker, P Raab, M Heeren, D Arvanitis, H L Tillmann, H Lanfermann, K Weissenborn

378 Hepatitis C virus production requires apolipoprotein A-I and affects its association with nascent low-density lipoproteins *C Mancone, C Steindler, L Santangelo, G Simonte, C Vlassi, M A Longo, G D'Offizi, C Di Giacomo, L P Pucillo, L Amicone, M Tripodi, T Alonzi*

MORE CONTENTS

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

Articles carrying the Unlocked Logo are freely available online under the BMJ Journals unlocked scheme. See http://qut.bmi.com/info/unlocked.dtl

COPE COMMITTEE ON PUBLICATION ETHICS

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

www.publicationethics.org.uk





Contents

387 Nor-ursodeoxycholic acid reverses hepatocytespecific nemo-dependent steatohepatitis N Beraza, L Ofner-Ziegenfuss, H Ehedego, M Boekschoten, S C Bischoff, M Mueller, M Trauner, C Trautwein

Recent advances in basic science

397 Molecular pathological epidemiology of colorectal neoplasia: an emerging transdisciplinary and interdisciplinary field *S Ogino, A T Chan, C S Fuchs, E Giovannucci*

Recent advances in clinical practice

412 Management of patients with cirrhosis awaiting liver transplantation *A Cárdenas, P Ginès*

PostScript

423 Letters

Editor's quiz: GI snapshot

298 The issue is tissue *K Subramaniam, H C Ee, S Fermoyle, C W Siah*

- **317** Refractory iron-deficiency anaemia in a child with portal cavernoma *S Pastore, M Londero, G Cont, G Di Leo, A Ventura*
- **340** Rare cause of chronic abdominal pain *M A Khan, S Dhillon*

JournalScan

422 GI Highlights from the literature