

Cover caption: False-colour scanning electron micrograph (SEM) of the cell structure within a lobule of the fiver. Hepatic cells (brown) surround sinusoids (blue channels) in a three-dimensional network. Bood (feel) flows through these simusoids to link up to a central vein. In this process of blood flow, specialized liver cells clean the blood of microorganisms, toxins, aged cells, and debris. Bile formed by the liver cells is released into timy bile capillaries (cholengoiles. reen). Bile enters the gall bladder to be used for digestive urposes. The liver also synthesizes Vitamin A. Magnification: x300 purposes. The liver also synthesizes vitalinin. All wagnincation. Adol at 6x7cm size. Magnification: x460 at 4x5 inch size.

Cover credit: PROF. P. MOTTA / DEPT. OF ANATOMY / UNIVERSITY "LA SAPIENZA", ROME / 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

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 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

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

Gut (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.

Leading article

Contents

425 Managing symptoms of irritable bowel syndrome in patients with inflammatory bowel disease M Camilleri

Commentaries

429 Enteric glial cells: new players in mucosal defence against bacteria? G Matteoli

430 Lessons from type I interferons in ulcerative

A Kaser, R S Blumberg

- 432 FXR activation inhibits inflammation and preserves the intestinal barrier in IBD M E Wildenberg, G R van den Brink
- 433 Influenza vaccines in patients with IBD: ready for primetime? K M Kunisaki

Oesophagus

435 Effects of anti-reflux surgery on weakly acidic reflux and belching

[A] L Broeders, A [Bredenoord, E] Hazebroek, I A M J Broeders, H G Gooszen, A J P M Smout

Stomach

456

442 BMI is superior to symptoms in predicting response to proton pump inhibitor: randomised trial in patients with upper gastrointestinal symptoms and normal endoscopy J Fletcher, M H Derakhshan, G-R Jones, A A Wirz, K E L McColl

Inflammatory bowel disease

Suppression of inflammation in ulcerative colitis by interferon-β-1a is accompanied by inhibition of IL-13 production

P J Mannon, R L Hornung, Z Yang, C Yi, C Groden, J Friend, M Yao, W Strober, I J Fuss

H1N1 vaccines in a large observational cohort of patients with inflammatory bowel disease treated with immunomodulators and biological therapy

J-F Rahier, P Papay, J Salleron, S Sebastian, M Marzo, L Peyrin-Biroulet, V Garcia-Sanchez, W Fries, D P van Asseldonk, K Farkas, N K de Boer, T Sipponen, P Ellul, E Louis, S T C Peake, U Kopylov, J Maul, B Makhoul, G Fiorino, Y Yazdanpanah, M Chaparro, for the European Crohn's and Colitis Organisation (ECCO)

Farnesoid X receptor activation inhibits inflammation and preserves the intestinal barrier in inflammatory bowel disease R M Gadaleta, K J van Erpecum, B Oldenburg, E C L Willemsen, W Renooij, S Murzilli, LWI Klomp, PD Siersema, ME I Schipper, S Danese, G Penna, G Laverny, L Adorini, A Moschetta, S W C van Mil

Neurogastroenterology

473 Enteric glia protect against Shigella flexneri invasion in intestinal epithelial cells: a role for S-nitrosoglutathione

> M Flamant, P Aubert, M Rolli-Derkinderen, A Bourreille, M R Neunlist, M M Mahé, G Meurette, B Marteyn, T Savidge, J P Galmiche, P J Sansonetti, M Neunlist

Endoscopy

485 Pancolonic chromoendoscopy with indigo carmine versus standard colonoscopy for detection of neoplastic lesions: a randomised two-centre trial

J Pohl, A Schneider, H Vogell, G Mayer, G Kaiser, C Ell

Colon

491 Prediagnostic non-steroidal anti-inflammatory drug use and survival after diagnosis of colorectal cancer

> A E Coghill, P A Newcomb, P T Campbell, A N Burnett-Hartman, S V Adams, E M Poole, I D Potter, C M Ulrich

Seguential DNA methylation changes are associated with DNMT3B overexpression in colorectal neoplastic progression

> A E K Ibrahim, M J Arends, A-L Silva, A H Wyllie, L Greger, Y Ito, S L Vowler, T H-M Huang, S Tavaré, A Murrell, J D Brenton

> > 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://gut.bmj.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





Pancreas

509 Prognostic relevance of morphological types of intraductal papillary mucinous neoplasms of the pancreas

T Furukawa, T Hatori, I Fujita, M Yamamoto, M Kobayashi, N Ohike, T Morohoshi, S Egawa, M Unno, S Takao, M Osako, S Yonezawa, M Mino-Kenudson, G Y Lauwers, H Yamaguchi, S Ban, M Shimizu

Hepatology

- 517 Endothélial expression of transcription factor Kruppel-like factor 2 and its vasoprotective target genes in the normal and cirrhotic rat liver *J Gracia-Sancho, L Russo, H García-Calderó, J C García-Pagán, G García-Cardeña, J Bosch*
- Remodelling of extracellular matrix is a requirement for the hepatic progenitor cell response

Y N Kallis, A J Robson, J A Fallowfield, H C Thomas, M R Alison, N A Wright, R D Goldin, J P Iredale, S J Forbes **534** Clinical significance of *CHD1L* in hepatocellular carcinoma and therapeutic potentials of virus-mediated *CHD1L* depletion *L Chen, Y-F Yuan, Y Li, T H M Chan, B-J Zheng, J Huang, X-Y Guan*

Recent advances in basic science

The acinar-ductal tango in the pathogenesis of acute pancreatitis

P Hegyi, S Pandol, V Venglovecz, Z Rakonczay Ir

Recent advances in clinical practice

553 Pathogenesis of postoperative recurrence in Crohn's disease

T Ahmed, F Rieder, C Fiocchi, J-P Achkar

JournalScan

563 Gl Highlights from the literature

Editor's quiz: GI snapshot

441 An unusual elevated lesion of the oesophagus

K Sawada, K Ikuta, K Itabashi, Y Suzuki, Y Mizukami, M Fujiya, K Kubo, Y Tamura, Y Torimoto, Y Kohgo