



Caption: Prion protein. Computer artwork of part of a prion protein. Prions cause diseases such as BSE (bovine spongiform encephalopathy) in cows and CJD (Creutzfeldt-Jakob disease) in humans. They are a mutated form of a normal cell protein (PrP). The rod-shaped atoms are colour-coded: hydrogen (light blue), oxygen (red), nitrogen (dark blue) and carbon (orange). Prions consist of amino acids formed into spiralling alpha-helices (pink & orange) and straight beta-sheets (for example the two mauve areas on the strands at lower right). This is part of the rigid and stable half of the protein. The other half (not shown) is variable in shape. One shape is thought to cause CJD and BSE.

An international journal of gastroenterology and hepatology

Editor

Emad El-Omar (UK)

Deputy Editor (Hepatology)

Alexander Gerbes (Germany)

Deputy Editor (Luminal Gastroenterology)

William Grady (USA)

Associate Editors

Matias Avila (Spain)

Guy Boeckxstaens (Belgium)

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 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 © 2012 BMJ Publishing Group Ltd 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 is distributed in the USA by Air Business Ltd. Periodicals postage paid at Jamaica NY 11431 POSTMASTER: send address changes to Gut, Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA.

Commentaries

787 The elegance of the gastric mucosal barrier: designed by nature for nature

K E L McColl

789 New hope for functional dyspepsia?

P Bytzer

790 Targeting cathepsins: a new glimmer of hope for pancreatic cancer therapy?

P Michl

792 Natural killer cell recognition and killing of activated hepatic stellate cells

J Clària



Leading article

794 Colorectal cancer: a tale of two sides or a continuum?

M Yamauchi, P Lochhead, T Morikawa, C Huttenhower, A T Chan, E Giovannucci, C Fuchs, S Ogino

Original articles

Oesophagus

798 Learners favour high resolution oesophageal manometry with better diagnostic accuracy over conventional line tracings

A S Soudagar, G S Sayuk, C P Gyawali

Stomach

804 Inhibitors of acid secretion can benefit gastric wound repair independent of luminal pH effects on the site of damage

E S Demitrack, E Aihara, S Kenny, A Varro, M H Montrose

812 Effects of selective COX-2 inhibitor and *Helicobacter pylori* eradication on precancerous gastric lesions

B C Y Wong, L Zhang, J-I Ma, K-f Pan, J-y Li, L Shen, W-d Liu, G-s Feng, X-d Zhang, J Li, A-p Lu, H H X Xia, S Lam, W-c You

Neurogastroenterology

821 A placebo-controlled trial of acotiamide for meal-related symptoms of functional dyspepsia

K Matsueda, M Hongo, J Tack, Y Saito, H Kato

Probiotics

829 Lactobacillus probiotic protects intestinal epithelium from radiation injury in a TLR-2/cyclo-oxygenase-2-dependent manner

M A Ciorba, T E Riehl, M S Rao, C Moon, X Ee, G M Nava, M R Walker, J M Marinshaw, T S Stappenbeck, W F Stenson

Gastrointestinal neoplasia

839 Aberrant intestinal stem cell lineage dynamics in Peutz-Jeghers syndrome and familial adenomatous polyposis consistent with protracted clonal evolution in the crypt

D Langeveld, M Jansen, D V de Boer, M van Sprundel, L A A Brosens, F H Morsink, F M Giardiello, G J A Offerhaus, W W J de Leng

Colon

847 Assessment of colorectal cancer molecular features along bowel subsites challenges the conception of distinct dichotomy of proximal versus distal colorectum

M Yamauchi, T Morikawa, A Kuchiba, Y Imamura, Z R Qian, R Nishihara, X Liao, L Waldron, Y Hoshida, C Huttenhower, A T Chan, E Giovannucci, C Fuchs, S Ogino

855 Cell surface proteomics identifies glucose transporter type 1 and prion protein as candidate biomarkers for colorectal adenoma-to-carcinoma progression

M de Wit, C R Jimenez, B Carvalho, J A M Belien, P M Delis-van Diemen, S Mongera, S R Piersma, M Vikas, S Navani, F Pontén, G A Meijer, R J A Fijneman

865 Comparison between universal molecular screening for Lynch syndrome and revised Bethesda guidelines in a large population-based cohort of patients with colorectal cancer

L Pérez-Carbonell, C Ruiz-Ponte, C Guarinos, C Alenda, A Payá, A Brea, C M Egoavil, A Castillejo, V M Barberá, X Bessa, R M Xicola, M Rodríguez-Soler, C Sánchez-Fortún, N Acame, S Castellví-Bel, V Piñol, F Balaguer, L Bujanda, M-L De-Castro, X Llor, M Andreu, A Carracedo, J-L Soto, A Castells, R Jover

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>

C O P E 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



When you have finished with this magazine please recycle it.

Pancreas

- 873** Increased risk of acute pancreatitis among tetracycline users in a Swedish population-based case–control study
R Ljung, J Lagergren, T S Bexelius, F Mattsson, M Lindblad
- 877** Cathepsin B promotes the progression of pancreatic ductal adenocarcinoma in mice
A Gopinathan, G M DeNicola, K K Frese, N Cook, F A Karreth, J Mayerle, M M Lerch, T Reinheckel, D A Tuveson
- Hepatology**
- 885** NKp46-mediated killing of human and mouse hepatic stellate cells attenuates liver fibrosis
C Gur, S Doron, S Kfir-Erenfeld, E Horwitz, L Abu-tair, R Safadi, O Mandelboim
- 894** Therapeutic potential of a distinct population of human amniotic fluid mesenchymal stem cells and their secreted molecules in mice with acute hepatic failure
D S Zagoura, M G Roubelakis, V Bitsika, O Trohatou, K I Pappa, A Kapelouzou, A Antsaklis, N P Anagnou
- 907** Bone marrow transplantation improves hepatic fibrosis in *Abcb4*^{-/-} mice via Th1 response and matrix metalloproteinase activity
M Roderfeld, T Rath, S Pasupuleti, M Zimmermann, C Neumann, Y Churin, C Dierkes, R Voswinckel, P J Barth, D Zahner, J Graf, E Roeb

Recent advances in clinical practice

- 918** New therapies for inflammatory bowel disease: from the bench to the bedside
S Danese

Recent advances in basic science

- 933** Iron sensing and signalling
R Evstatiev, C Gasche

JournalScan

- 953** GI highlights from the literature

PostScript

- 955** Letters

Editor's quiz: GI snapshot

- 819** A rare cause of an ileocaecal mass and lymphadenopathy
E L Culver, E Barnes, D Delaney, A J Ellis, B George, R W Chapman

Miscellaneous

- 932** Gut tutorial