

Editor: Michael J G Farthing

Associate Editors: David Adams, John Atherton, Ian Forgacs (reviews, editorials) Thomas T MacDonald, Jan Tack, Nicholas A Wright

Evidence-Based Gastroenterology Advisory Group:

Richard F A Logan, Stephen J W Evans, Andrew Hart, Jane Metcalf

Managing Editor: Andrea Horgan

Technical Editors: Linda Gough, Josie Stephenson

Editorial Office Manager: Claire Castle

Editorial Assistants: Alex Hodge, Hannah Schlesinger

## EDITORIAL COMMITTEE

M J P Arthur (UK)	O Lundgren (Sweden)
K E Barrett (USA)	P Malfertheiner (Germany)
E Beubler (Austria)	D Martin (UK) (USA)
M K Bhan (India)	E Mayer (USA)
M Blaser (USA)	K Moore (UK)
H Buller (The Netherlands)	M F Neurath (USA)
J Calam (UK)	M Novelli (UK)
R W Chapman (UK)	F Pallone (Italy)
T Chiba (Japan)	R H Riddell (Canada)
S Collins (Canada)	S Schalm (The Netherlands)
E Corazzari (Italy)	S Schreiber (Germany)
A M Di Bisceglie (USA)	M Swain (Canada)
L Greco (Italy)	D Schuppan (Germany)
R H Holloway (Australia)	J J Y Sung (Hong Kong)
P J Kahrilas (USA)	I Tomlinson (UK)
M A Kamm (UK)	G Triadafilopoulos (USA)
N F LaRusso (USA)	Z Tulassay (Hungary)
L Lundell (Sweden)	S J H van Deventer (The Netherlands)

S J W Evans (UK)  
Statistical adviser

Editor  
British Medical Journal

## Local editions

China: Excerpta Medica Asia Ltd, 19/F Eight Commercial Tower, 8 Sun Yip Street, Chai Wang, Hong Kong. Tel: +852 2965 1300; Fax: +852 2976 0778

Netherlands/Belgium: Medicom Excel, Box 151, 1400 AD Bussum, Netherlands. Tel: +31 35 69 52480; Fax: +31 35 69 48565

NOTES TO ADVERTISERS Applications for advertisement space and for rates should be addressed to the Advertisement Manager, Gut, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR.

NOTICE TO SUBSCRIBERS Gut is published monthly. The annual subscription rates for institutions are £300 (USA \$462) for print only. Online licences are priced on the FTE basis and allow access by the whole institution. Institutions that opt for online access may purchase print at deeply discounted rates. Personal subscription rates which include online access are £125 (\$199). Enquiries regarding rates and orders should be sent to the Subscription Manager, Gut, BMJ Publishing Group, BMA House, Tavistock Square, London WC1H 9JR. Subscribers may pay for their subscriptions by Mastercard, Visa, or American Express, by quoting on their order the credit or chargecard preferred, together with the appropriate personal account number and expiry date of the card. Orders can also be placed with any leading subscription agent or bookseller. (For the convenience of readers in the USA subscription orders, with or without payment, may also be sent to the BMJ Publishing Group, PO Box 590A, Kennebunkport, ME 04046, USA. Tel: 001 800 236 6265. All enquiries, however, must be addressed to the publisher in London.) All enquiries regarding air mail rates and single copies already published should be addressed to the publisher in London.

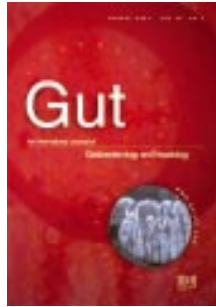
COPYRIGHT © 2001 Gut. This publication is copyright under the Berne Convention and the International Copyright Convention. All rights reserved. Apart from any relaxations permitted under national copyright laws, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission of the copyright owners. Permission is not, however, required to copy abstracts of papers or of articles on condition that a full reference to the source is shown. Multiple copying of the contents of the publication without permission is always illegal. Periodicals postage paid, Rahway NJ. Post-master: send address changes to: Gut, c/o Mercury Airfreight International Ltd., 365 Blair Road, Avenel, NJ 07001, USA.

ISSN 0017-5749

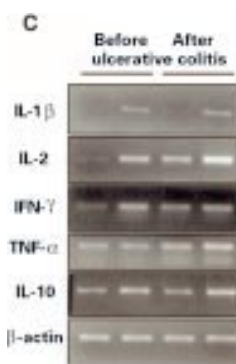
ISSN 1468-3288 (electronic Gut)

Gut is now available full text online:  
[www.gutjnl.com](http://www.gutjnl.com)

Published by the BMJ Publishing Group  
Printed in UK on acid free paper by Cambrian Printers,  
Aberystwyth.



Detection of keratino-  
cyte growth factor  
mRNA by in situ  
hybridisation. (From  
the paper by Salvati *et al*, pp 176–81.)



See p 190

### Leading article

- 159 Intestinal zonulin: open sesame! *A Fasano*

### Commentaries

- 163 The father figure in coeliac disease *L Greco*  
164 Signals on the immune tract *M F Neurath*  
165 Descartes and the gut: "I'm pink therefore I am" *D G Thompson*

### Science @lert

- 167 Serum antibody responses to *Clostridium difficile* toxin A: predictive and protective? *C Phillips*

### Small intestine

- 169 Coeliac disease in the father affects the newborn *J F Ludvigsson, J Ludvigsson*  
176 Keratinocyte growth factor and coeliac disease *V M Salvati, M Bajaj-Elliott, R Poulsom, G Mazarrella, K E A Lundin, E M Nilsen, R Troncone, T T MacDonald*  
182 Erythropoietin acts as a trophic factor in neonatal rat intestine *S E Juul, D J Ledbetter, A E Joyce, C Dame, R D Christensen, Y Zhao, V DeMarco*

### Inflammation and inflammatory bowel disease

- 190 Loss of transforming growth factor  $\beta$  signalling in the intestine contributes to tissue injury in inflammatory bowel disease *K-B Hahn, Y-H Im, T W Parks, S-H Park, S Markowitz, H-Y Jung, J Green, S-J Kim*  
199 Inflammatory bowel disease and laterality: is left handedness a risk? *D L Morris, S M Montgomery, M L Galloway, R E Pounder, A J Wakefield*

### Motility and visceral sensation

- 203 Perception of changes in wall tension of the proximal stomach in humans *H Piessevaux, J Tack, A Wilmer, B Coulie, A Geubel, J Janssens*  
209 Relationship between psychological state and level of activity of extrinsic gut innervation in patients with a functional gut disorder *A V Emmanuel, H J Mason, M A Kamm*  
214 Response to a behavioural treatment, biofeedback, in constipated patients is associated with improved gut transit and autonomic innervation *A V Emmanuel, M A Kamm*

- 220 *SOX10* is abnormally expressed in aganglionic bowel of Hirschsprung's disease infants *M H Sham, V C H Lui, M Fu, B Chen, P K H Tam*

**Cancer**

- 227 The prognostic value of quality of life scores during treatment for oesophageal cancer *J M Blazeby, S T Brookes, D Alderson*
- 231 Decision analysis in the surgical treatment of patients with familial adenomatous polyposis: a Dutch-Scandinavian collaborative study including 659 patients *H F A Vasen, P van Duijvendijk, E Buskens, C Bülow, J Björk, H J Järvinen, S Bülow*
- 236 Overexpression of the *CD155* gene in human colorectal carcinoma *D Masson, A Jarry, B Baury, P Blanchardie, C Laboisie, P Lustenberger, M G Denis*

**Pancreatic disease**

- 241 Arginine induced acute pancreatitis alters the actin cytoskeleton and increases heat shock protein expression in rat pancreatic acinar cells *M Tashiro, C Schäfer, H Yao, S A Ernst, J A Williams*
- 251 Interferon  $\gamma$  inhibits growth of human pancreatic carcinoma cells via caspase-1 dependent induction of apoptosis *K M Detjen, K Farwig, M Welzel, B Wiedenmann, S Rosewicz*

**Liver disease**

- 263 Interferon responsiveness in patients infected with hepatitis C virus 1b differs depending on viral subtype *I Nakano, Y Fukuda, Y Katano, H Toyoda, K Hayashi, T Hayakawa, T Kumada, S Nakano*
- 268 The cardiac response to exercise in cirrhosis *F Wong, N Girgrah, J Graba, Y Allidina, P Liu, L Blendis*
- 276 Jaundice in non-cirrhotic primary biliary cirrhosis: the premature ductopenic variant *F P Vleggaar, H R van Buuren, P E Zondervan, F J W ten Kate,*

*W C J Hop, the Dutch Multicentre PBC study group*

- 282 Osteoporosis in primary biliary cirrhosis revisited *J Newton, R Francis, M Prince, O James, M Bassendine, D Rawlings, D Jones*
- 288 Association of the tumour necrosis factor  $\alpha$  -308 but not the interleukin 10 -627 promoter polymorphism with genetic susceptibility to primary sclerosing cholangitis *S A Mitchell, J Grove, A Spurkland, K M Boberg, K A Fleming, C P Day, E Schrumpf, R W Chapman, the European Study Group of Primary Sclerosing Cholangitis*

**Occasional report**

- 295 International gastroenterology research: subject areas, impact, and funding *G Lewison, J Grant, P Jansen*

**Review**

- 303 Angiotensin converting enzyme inhibitors and angiotensin II antagonists as therapy in chronic liver disease *J Vlachogiannakos, A K W Tang, D Patch, A K Burroughs*

**Therapy update**

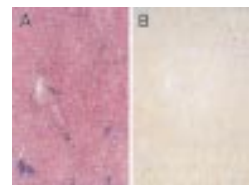
- 309 Which PPI? *M J S Langman*

**Letters to the editor**

- 311 Ulcerative colitis is more strongly linked to chromosome 12 than Crohn's disease *M Parkes, J Satsangi, D P Jewell, D E Weeks, M M Barmada, R H Duerr,*
- 312 Intestinal permeability: the cellobiose/mannitol test *R M Craig,*
- 312 Evaluation of the role of CFTR in alcohol related pancreatic disease *J Ockenga, M Stuhmann, M P Manns*
- 313 Alcohol, obesity, and TNF- $\alpha$  *A Poullis, M A Mendall*
- 314 Book reviews Corrections Notes



See p 241



See p 276