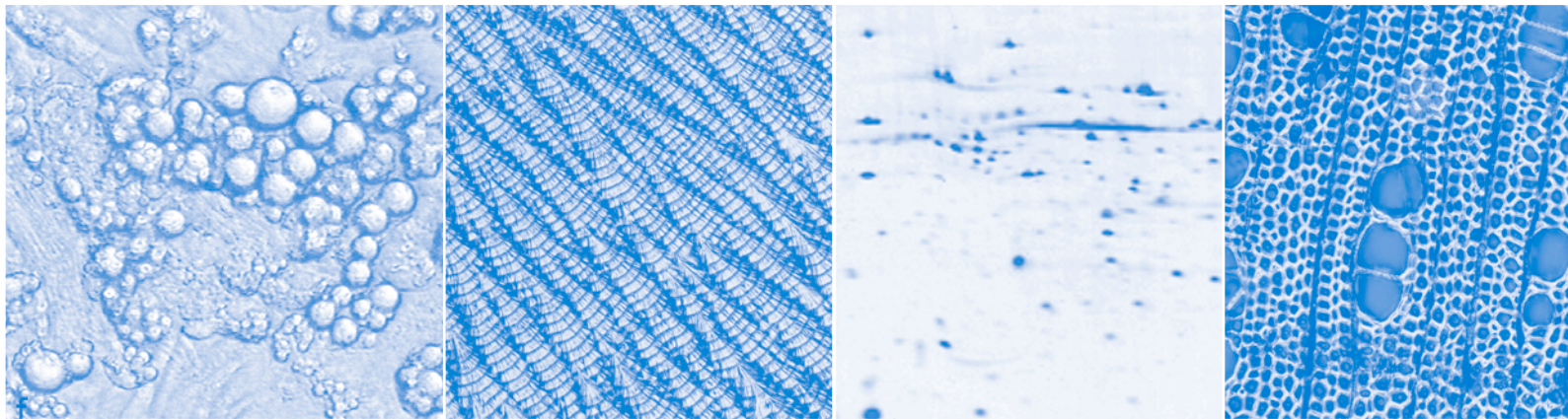


British Journal of Nutrition

Published online by Cambridge University Press

BJN An International Journal of Nutritional Science

Volume 101 Number 7 14 April 2009



Published on behalf of The Nutrition Society by Cambridge University Press

ISSN 0007-1145

British Journal of Nutrition
An International Journal of Nutritional Science
Volume 101, 2009 ISSN: 0007-1145

Aims and Scope

The *British Journal of Nutrition* is an international, peer-reviewed journal publishing original papers, review articles, short communications and technical notes on human and clinical nutrition, animal nutrition and basic science as applied to nutrition. Correspondence is encouraged in a Nutrition Discussion Forum. The Journal recognizes the multidisciplinary nature of nutritional science and encourages the submission of material from all of the specialities involved in research and clinical practice. The Journal also publishes supplements on topics of particular interest.

The *British Journal of Nutrition* is published twice monthly by Cambridge University Press on behalf of The Nutrition Society.

The *British Journal of Nutrition* is available online to subscribers at journals.cambridge.org/bjn

Tables of contents and abstracts are available free at the same website.

Editor-in-Chief

P C Calder, *School of Medicine, University of Southampton, Southampton, UK*

Deputy Editors

F Bellisle, *INRA, University of Paris, Bobigny, France*

D R Jacobs Jr, *School of Public Health, University of Minnesota, Minneapolis, MN, USA*

R J Wallace, *Gut Health Programme, Rowett Research Institute, Aberdeen, UK*

S J Whiting, *College of Pharmacy and Nutrition, University of Saskatchewan, Saskatoon, Sask., Canada*

Reviews Editor

J C Mathers, *School of Clinical Medical Sciences, University of Newcastle upon Tyne, Newcastle upon Tyne, UK*

Supplements Editor

C Seal, *School of Agriculture, Food and Rural Development, University of Newcastle upon Tyne, Newcastle upon Tyne, UK*

Book Reviews Editor

O B Kennedy, *School of Food Biosciences, University of Reading, Reading, UK*

Editorial Board

J J B Anderson, *Chapel Hill, NC, USA*

J R Arthur, *Aberdeen, UK*

S B Astley, *Norwich, UK*

D Attaix, *Ceyrat, France*

Y Bao, *Norwich, UK*

G Bell, *Stirling, UK*

M Blaut, *Bergholz-Rehbrücke, Germany*

K Botham, *London, UK*

G C Burdge, *Southampton, UK*

J Buyse, *Leuven, Belgium*

M D Carro, *León, Spain*

M S Choi, *Daegu, Korea*

A Chwalibog, *Frederiksberg, Denmark*

K Eder, *Halle/Saale, Germany*

G C Fahey Jr, *Urbana, IL, USA*

C J Field, *Edmonton, Alta., Canada*

J K Friel, *Winnipeg, MB, Canada*

S Garnett, *Sydney, Australia*

F Ginty, *Niskayuna, NY, USA*

B A Griffin, *Surrey, UK*

E Herrera, *Madrid, Spain*

M M Hetherington, *Liverpool, UK*

G Holtrop, *Aberdeen, UK*

S J Kaushik, *Saint Pée-sur-Nivelle, France*

D S Kelley, *Davis, Ca., USA*

I Kyriazakis, *Karditsa, Greece*

H J Lightowler, *Oxford, UK*

A M López-Sobaler, *Madrid, Spain*

H C Lukaski, *Grand Forks, ND, USA*

H J McArdle, *Aberdeen, UK*

N M McKeown, *Boston, MA, USA*

E L Miller, *Cambridge, UK*

C Moinard, *Paris, France*

A M Molloy, *Dublin, Ireland*

T A Mori, *Perth, Australia*

P Nestel, *Southampton, UK*

J H Y Park, *Chuncheon, Korea*

M A Pereira, *Minneapolis, MN USA*

C J Petry, *Cambridge, UK*

V Ravindran, *Palmerston North, New Zealand*

W D Rees, *Aberdeen, UK*

G Rimbach, *Kiel, Germany*

S M Robinson, *Southampton, UK*

E Ros, *Barcelona, Spain*

S Salminen, *Turku, Finland*

M B Schulze, *Nuthetal, Germany*

C R Sirtori, *Milan, Italy*

I Tetens, *Søborg, Denmark*

K Tucker, *Boston, MA, USA*

M van Baak, *Maastricht, The Netherlands*

M W A Verstegen, *Wageningen, The Netherlands*

F Visioli, *Paris, France*

M S Westerterp-Plantenga, *Maastricht, The Netherlands*

I S Wood, *Liverpool, UK*

B Woodward, *Guelph, Ont., Canada*

P Yaqoob, *Reading, UK*

Publications Staff

C Goodstein (*Publications Manager*), C Jackson (*Deputy Publications Manager*), J Norton, L Weeks

H Zdravics and C Isherwood (*Publications Officers*), C T Hughes (*Sub-editor*)

The Nutrition Society has as its objective the advancement of the scientific study of nutrition and its applications to the maintenance of human and animal health.

Application of membership is invited from anyone whose work has contributed to the scientific knowledge of nutrition, whether such work has been in the laboratory, the field or the clinic, and whether experimental, clinical, agricultural or statistical in nature. There is also a student membership scheme with reduced subscriptions.

Particulars of The Nutrition Society and application forms for membership are available from The Nutrition Society, 10 Cambridge Court, 210 Shepherds Bush Road, London W6 7NJ, UK. Tel: +44 (0)20 7602 0228, Fax: +44 (0)20 7602 1756, Email: office@nutsoc.org.uk

The Nutrition Society Home Page is at <http://www.nutritionssociety.org>

Contents

Review Article

- Cocoa: antioxidant and immunomodulator.
E. Ramiro-Puig & M. Castell 931–940
- The influence of carbohydrate on cognitive performance: a critical evaluation from the perspective of glycaemic load.
M. B. Gilsenan, E. A. de Bruin & L. Dye 941–949

Systematic Review

- Evaluation of quality of life related to nutritional status.
C. Wanden-Berghe, J. Sanz-Valero, V. Escribà-Agüir, I. Castelló-Botia,
R. Guardiola-Wanden-Berghe & for Red de Malnutrición en Iberoamérica – Ciencia
y Tecnología para el Desarrollo (Red MeI – CYTED) 950–960

Short Communication

- Probiotic yogurt in the elderly with intestinal bacterial overgrowth: endotoxaemia and innate immune functions.
E. J. Schiffrin, A. Parlesak, C. Bode, J. C. Bode, M. A. van't Hof, D. Grathwohl
& Y. Guigoz 961–966
- Anti-carcinogenic soyabean Bowman–Birk inhibitors survive faecal fermentation in their active form and do not affect the microbiota composition *in vitro*.
M. C. Marín-Manzano, R. Ruiz, E. Jiménez, L. A. Rubio & A. Clemente 967–971

Molecular Nutrition

- Effects of ascorbic acid, phytic acid and tannic acid on iron bioavailability from reconstituted ferritin measured by an *in vitro* digestion–Caco-2 cell model.
F. Jin, C. Frohman, T. W. Thannhauser, R. M. Welch & R. P. Glahn 972–981
- Attitudes toward genetic testing and personalised nutrition in a representative sample of European consumers.
B. J. Stewart-Knox, B. P. Bunting, S. Gilpin, H. J. Parr, S. Pinhão, J. J. Strain,
M. D. V. de Almeida & M. Gibney 982–989
- Reduced growth and integrin expression of prostate cells cultured with lycopene, vitamin E and fish oil *in vitro*.
T. Bureyko, H. Hurdle, J. B. Metcalfe, M. T. Clandinin & V. C. Mazurak 990–997

Metabolism and Metabolic Studies

- Effects of dietary supplementation with an expressed fusion peptide bovine lactoferricin–lactoferrampin on performance, immune function and intestinal mucosal morphology in piglets weaned at age 21 d.
Z. Tang, Y. Yin, Y. Zhang, R. Huang, Z. Sun, T. Li, W. Chu, X. Kong, L. Li, M. Geng
& Q. Tu 998–1005
- Effect of calcium salts of a mixture of conjugated linoleic acids containing *trans*-10, *cis*-12 in the diet on milk fat synthesis in goats.
K. J. Shingfield, J. Rouel & Y. Chilliard 1006–1019

Developmental Biology

- Intergenerational programming of impaired nephrogenesis and hypertension in rats following maternal protein restriction during pregnancy.
M. Harrison & S. C. Langley-Evans 1020–1030

Nutritional Endocrinology

- Ethanol extract of *Psoralea corylifolia* L. and its main constituent, bakuchiol, reduce bone loss in ovariectomised Sprague–Dawley rats.
S.-H. Lim, T.-Y. Ha, S.-R. Kim, J. Ahn, H. J. Park & S. Kim 1031–1039

Nutritional Immunology

- Dietary fish oil decreases secretion of T helper (Th) 1-type cytokines by a direct effect on murine splenic T cells but enhances secretion of a Th2-type cytokine by an effect on accessory cells.
D. H. Petursdottir & I. Hardardottir 1040–1046

Human and Clinical Nutrition

- Effects of food energy on cognitive performance: no support from event-related potentials (yet?).
E. A. de Bruin & M. B. Gilsenan 1047–1051

<i>Dietary Surveys and Nutritional Epidemiology</i>	
Vitamin D status among immigrant mothers from Pakistan, Turkey and Somalia and their infants attending child health clinics in Norway. <i>A. A. Madar, L. C. Stene & H. E. Meyer</i>	1052–1058
<i>Nutritional Supplementation</i>	
Effects of eicosapentaenoic acid ethyl ester on visfatin and apelin in lean and overweight (cafeteria diet-fed) rats. <i>N. Pérez-Echarri, P. Pérez-Matute, B. Marcos-Gómez, J. Alfredo Martínez & M. J. Moreno-Aliaga</i>	1059–1067
The addition of high manganese to a copper-deficient diet further depresses copper status and growth of cattle. <i>S. L. Hansen, M. S. Ashwell, L. R. Legleiter, R. S. Fry, K. E. Lloyd & J. W. Spears</i>	1068–1078
<i>Nutritional Energetics</i>	
Impact of energy deficit calculated by a predictive method on outcome in medical patients requiring prolonged acute mechanical ventilation. <i>C. Faisy, N. Lerolle, F. Dachraoui, J.-F. Savard, I. Abboud, J.-M. Tadie & J.-Y. Fagon</i>	1079–1087
<i>Behaviour</i>	
The effects of a reduced-sodium, high-potassium salt substitute on food taste and acceptability in rural northern China. <i>N. Li, J. Prescott, Y. Wu, F. Barzi, X. Yu, L. Zhao, B. Neal & for the China Salt Substitute Study Collaborative Group</i>	1088–1093
<i>Appetite</i>	
Reproducibility of energy intake, gastric emptying, blood glucose, plasma insulin and cholecystokinin responses in healthy young males. <i>N. S. Nair, I. M. Brennan, T. J. Little, D. Gentilcore, T. Hausken, K. L. Jones, J. M. Wishart, M. Horowitz & C. Feinle-Bisset</i>	1094–1102
<i>Obesity</i>	
Eating behaviours of non-obese individuals with and without familial history of obesity. <i>A.-M. Paradis, G. Godin, S. Lemieux, L. Pérusse & M.-C. Vohl</i>	1103–1109
<i>Book Review</i>	
<i>P. John</i>	1110–1111
<i>Corrigendum</i>	1112