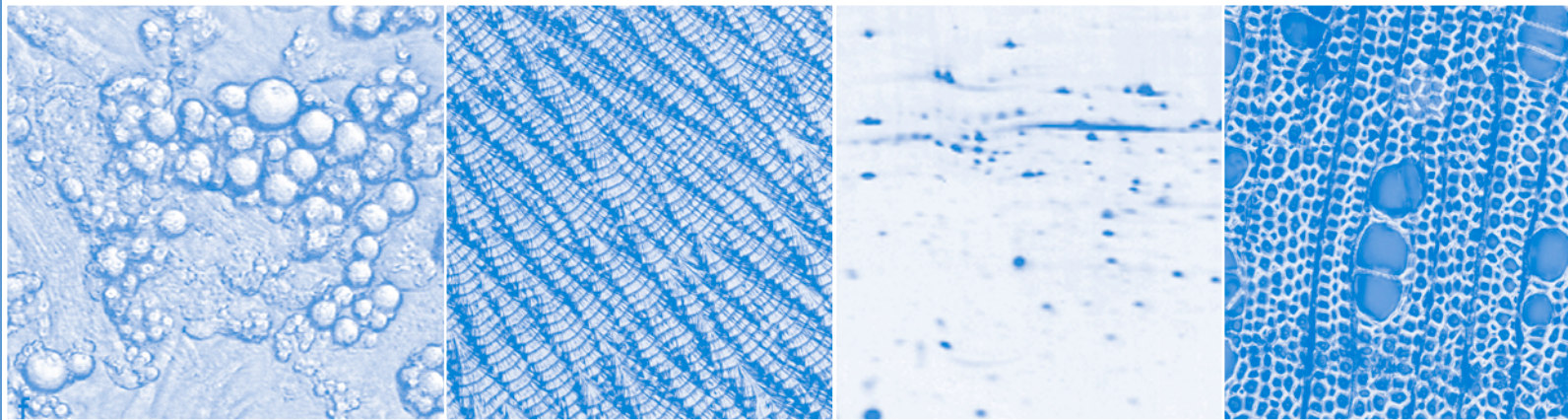


British Journal of Nutrition

Published online by Cambridge University Press

BJN An International Journal of Nutritional Science

Volume 104 Number 5 14 September 2010



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 104, 2010 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 Institute of Nutrition and Health, University of Aberdeen, Aberdeen, UK*

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

I S Wood, *Department of Medicine, University of Liverpool, Liverpool, UK*

Reviews Editors

J C Mathers, *Institute of Ageing and Health, Newcastle University, Newcastle upon Tyne, UK*

P Aggett

Systematic Reviews Editor

M Makrides, *Women's and Children's Health Research Institute and University of Adelaide, Adelaide, Australia*

Supplements Editor

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

D Attaix, *Ceyrat, France*

Y Bao, *Norwich, UK*

J H Beattie, *Aberdeen, UK*

G Bell, *Stirling, UK*

M Blaut, *Bergholz-Rehbrücke, Germany*

K Botham, *London, UK*

G C Burdge, *Southampton, UK*

A E Buyken, *Dortmund, Germany*

J Buyse, *Leuven, Belgium*

K D Cashman, *Cork, Ireland*

M S Choi, *Daegu, Korea*

A Chwalibog, *Frederiksberg, Denmark*

S J Duthie, *Aberdeen, UK*

K Eder, *Giessen, Germany*

A Esmailzadeh, *Isfahan, Iran*

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

B A Fielding, *Oxford, UK*

J L Firkins, *Columbus, OH, USA*

J K Friel, *Winnipeg, MB, Canada*

M Fukushima, *Obihiro City, Japan*

S Garnett, *Sydney, Australia*

B A Griffin, *Surrey, UK*

E Herrera, *Madrid, Spain*

M M Hetherington, *Leeds, UK*

D J Hoffman, *New Brunswick, NJ, USA*

E J Johnson, *Boston, MA, USA*

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

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

C W C Kendall, *Toronto, Ont., Canada*

H J Lightowler, *Oxford, UK*

A M López-Sobaler, *Madrid, Spain*

J A Lovegrove, *Reading, UK*

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

R D Mattes, *West Lafayette, IN, USA*

C Mayer, *Aberdeen, UK*

S McCann, *Buffalo, NY, USA*

N M McKeown, *Boston, MA, USA*

G McNeill, *Aberdeen, UK*

J G Mercer, *Aberdeen, UK*

A M Minihane, *Auckland, New Zealand*

T A Mori, *Perth, Australia*

M Murphy, *Reus, Spain*

P Nestel, *Southampton, UKU Nöthlings, Kiel, Germany*

M C Ocké, *Bilthoven, The Netherlands*

J H Y Park, *Chuncheon, Korea*

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*

A J Sinclair, *Geelong, Australia*

C R Sirtori, *Milan, Italy*

K S Swanson, *Urbana, IL, USA*

M W A Verstegen, *Wageningen, The Netherlands*

F Visioli, *Paris, France*

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

B Woodward, *Guelph, Ont., Canada*

Publications Staff

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

H Zdravics and C T Hughes (*Publications Officers*)

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

Editorial

- BJN* impact factor increases by 25%.
P. C. Calder 621–623

Short Communication

- Reducing effect of a *Phaseolus vulgaris* dry extract on operant self-administration of a chocolate-flavoured beverage in rats.
P. Maccioni, G. Colombo, A. Riva, P. Morazzoni, E. Bombardelli, G. L. Gessa & M. A. M. Carai 624–628
- Temporal reproducibility of taurine measurements in frozen serum of healthy postmenopausal women.
O. P. Wójcik, K. L. Koenig, A. Zeleniuch-Jacquotte, M. Costa & Y. Chen 629–632
- Presence of alkylresorcinols, potential whole grain biomarkers, in human adipose tissue.
E. Jansson, R. Landberg, A. Kamal-Eldin, A. Wolk, B. Vessby & P. Åman 633–636

Molecular Nutrition

- Expression of Na⁺/glucose co-transporter 1 (SGLT1) is enhanced by supplementation of the diet of weaning piglets with artificial sweeteners.
A. W. Moran, M. A. Al-Rammahi, D. K. Arora, D. J. Batchelor, E. A. Coulter, K. Daly, C. Ionescu, D. Bravo & S. P. Shirazi-Beechey 637–646
- Expression of Na⁺/glucose co-transporter 1 (SGLT1) in the intestine of piglets weaned to different concentrations of dietary carbohydrate.
A. W. Moran, M. A. Al-Rammahi, D. K. Arora, D. J. Batchelor, E. A. Coulter, C. Ionescu, D. Bravo & S. P. Shirazi-Beechey 647–655
- Biotransformed blueberry juice protects neurons from hydrogen peroxide-induced oxidative stress and mitogen-activated protein kinase pathway alterations.
T. Vuong, C. Matar, C. Ramassamy & P. S. Haddad 656–663

Metabolism and Metabolic Studies

- Response of European sea bass (*Dicentrarchus labrax*) to graded levels of methionine (total sulfur amino acids) in soya protein-based semi-purified diets.
F. Tulli, M. Messina, M. Calligaris & E. Tibaldi 664–673
- Bone mineral content is positively correlated to *n*-3 fatty acids in the femur of growing rats.
Y. Li, M. F. Seifert, S.-Y. Lim, N. Salem Jr & B. A. Watkins 674–685

Nutritional Immunology

- Effects of dietary arginine on inflammatory mediator and receptor of advanced glycation endproducts (RAGE) expression in rats with streptozotocin-induced type 2 diabetes.
M.-H. Pai, K.-H. Huang, C.-H. Wu & S.-L. Yeh 686–692

Microbiology

- Association between *Faecalibacterium prausnitzii* and dietary fibre in colonic fermentation in healthy human subjects.
R. F. J. Benus, T. S. van der Werf, G. W. Welling, P. A. Judd, M. A. Taylor, H. J. M. Harmsen & K. Whelan 693–700
- A human volunteer study to assess the impact of confectionery sweeteners on the gut microbiota composition.
E. Beards, K. Tuohy & G. Gibson 701–708

Human and Clinical Nutrition

- Overnight urinary excretion of isoflavones as an indicator for dietary isoflavone intake in Korean girls of pubertal age.
J. Kim, H. J. Kim, H. Joung, M. K. Park, S. Li, Y. Song, A. A. Franke & H.-Y. Paik 709–715
- Effects of whey protein isolate on body composition, lipids, insulin and glucose in overweight and obese individuals.
S. Pal, V. Ellis & S. Dhaliwal 716–723
- Differences in postprandial inflammatory responses to a 'modern' v. traditional meat meal: a preliminary study.
F. Arya, S. Egger, D. Colquhoun, D. Sullivan, S. Pal & G. Egger 724–728

Effects of a convenience drink fortified with <i>n</i> -3 fatty acids on the <i>n</i> -3 index. <i>A. Köhler, D. Bittner, A. Löw & C. von Schacky</i>	729–736
A randomised study on the clinical progress of high-risk elective major gastrointestinal surgery patients treated with olive oil-based parenteral nutrition with or without a fish oil supplement. <i>M. B. Badía-Tahull, J. M. Llop-Talaverón, E. Leiva-Badosa, S. Biondo, L. Farran-Teixidó, J. M. Ramón-Torrell & R. Jódar-Masanes</i>	737–741
Influence of an iron intervention on the zinc status of young adult New Zealand women with mild iron deficiency. <i>N. R. Prosser, A.-L. M. Heath, S. M. Williams & R. S. Gibson</i>	742–750
A four-stage evaluation of the Paediatric Yorkhill Malnutrition Score in a tertiary paediatric hospital and a district general hospital. <i>K. Gerasimidis, O. Keane, I. Macleod, D. M. Flynn & C. M. Wright</i>	751–756
<i>Dietary Surveys and Nutritional Epidemiology</i>	
Dietary intake of folate, vitamin B ₆ , vitamin B ₁₂ and riboflavin and risk of Parkinson's disease: a case–control study in Japan. <i>K. Murakami, Y. Miyake, S. Sasaki, K. Tanaka, W. Fukushima, C. Kiyohara, Y. Tsuboi, T. Yamada, T. Oeda, T. Miki, N. Kawamura, N. Sakae, H. Fukuyama, Y. Hirota, M. Nagai & the Fukuoka Kinki Parkinson's Disease Study Group</i>	757–764
A single nucleotide polymorphism in the 3-hydroxy-3-methylglutaryl-coenzyme A reductase gene (<i>HMGCR</i>) influences the serum triacylglycerol relationship with dietary fat and fibre in the European Prospective Investigation into Cancer and Nutrition in Norfolk (EPIC-Norfolk) study. <i>R. N. Freitas, K.-T. Khaw, K. Wu, R. Bowman, H. Jeffery, R. Luben, N. J. Wareham & S. A. Bingham</i>	765–772
<i>Letter to the Editor</i>	
Effects of a gluten-free diet on gut microbiota and immune function in healthy adult human subjects – comment by Jackson. <i>F. W. Jackson</i>	773–773