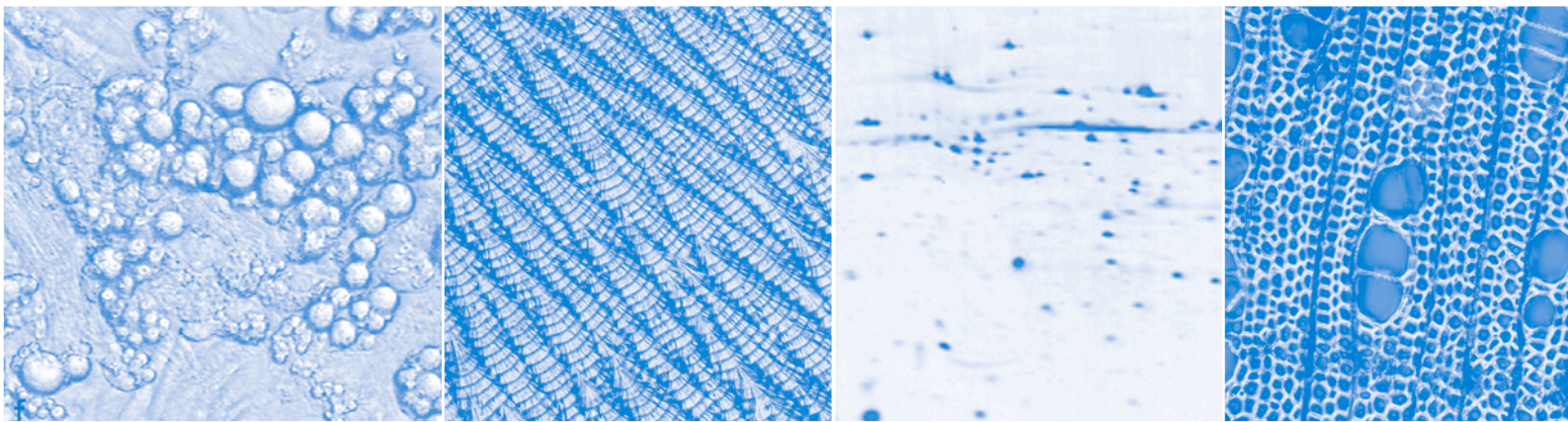


British Journal of Nutrition

Published online by Cambridge University Press

BJN An International Journal of Nutritional Science

Volume 106 Number 1 14 July 2011



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 106, 2011 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, *Institute of Ageing and Chronic Disease, University of Liverpool, Liverpool, UK*

Reviews Editors

D J Millward, *Faculty of Health and Medical Sciences, University of Surrey, UK*

P Aggett

Systematic Reviews Editor

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

Supplements Editor

J Woodside, *Nutrition and Metabolism Group, Centre for Public Health, Queen's University, Belfast, UK*

Editorial Board

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

Y Bao, *Norwich, UK*

J H Beattie, *Aberdeen, UK*

G Bell, *Stirling, UK*

M Blaut, *Bergholz-Rehbrücke, Germany*

S Brix Pedersen, *Lyngby, Denmark*

G C Burdge, *Southampton, UK*

A E Buyken, *Dortmund, Germany*

J Buysse, *Leuven, Belgium*

K D Cashman, *Cork, Ireland*

R S Chapkin, *College Station, TX, USA*

M S Choi, *Daegu, Korea*

A Collins, *Oslo, Norway*

S J Duthie, *Aberdeen, UK*

U Ekelund, *Cambridge, UK*

A Esmailzadeh, *Isfahan, Iran*

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*

J C G Halford, *Liverpool, UK*

E Herrera, *Madrid, Spain*

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*

J P Lallès, *Rennes, France*

A Laviano, *Rome, Italy*

H J Lightowler, *Oxford, UK*

A M López-Sobaler, *Madrid, Spain*

J A Lovegrove, *Reading, UK*

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

C Mayer, *Aberdeen, UK*

S McCann, *Buffalo, NY, USA*

J P McClung, *Natick, MA, USA*

N M McKeown, *Boston, MA, USA*

S McMullen, *Nottingham, UK*

D McMurray, *College Station, TX, USA*

J G Mercer, *Aberdeen, UK*

A M Minihane, *Norwich, UK*

T A Mori, *Perth, Australia*

M Murphy, *Reus, Spain*

P Nestel, *Southampton, UK*

U Nöthlings, *Kiel, Germany*

M C Ocké, *Bilthoven, The Netherlands*

J H Y Park, *Chuncheon, Korea*

E Perissinotto, *Padova, Italy*

C J Petry, *Cambridge, UK*

S M Phillips, *Hamilton, Ont., Canada*

S Proctor, *Edmonton, Alta., Canada*

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*

T Sheehy, *Cork, Ireland*

A J Sinclair, *Geelong, Australia*

C R Sirtori, *Milan, Italy*

K S Swanson, *Urbana, IL, USA*

D Tomé, *Paris, France*

F Visioli, *Madrid, Spain*

M R Yeomans, *Sussex, UK*

Publications Staff

C Goodstein (*Publications Manager*), C Jackson (*Deputy Publications Manager*), L Weeks,
 H Zdravics and C T Hughes (*Publications Officers*) and S Hui and D Owen (*Publications Assistants*)

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

Obituary

- John Conrad Waterlow CMG, FRS, FRCP, DSc.
G. Alleyne 1–5

Review Articles

- Dietary cholesterol: from physiology to cardiovascular risk.
J.-M. Lecerf & M. de Lorgeril 6–14
- A review of consumer awareness, understanding and use of food-based dietary guidelines.
K. A. Brown, L. Timotijevic, J. Barnett, R. Shepherd, L. Lähteenmäki & M. M. Raats 15–26

Short Communications

- Effects of short-term infusion of lipid emulsions on pro-inflammatory cytokines and lymphocyte apoptosis in septic and non-septic rats.
P. Scheiermann, J. Ott, S. Hoegl, M. Hecker, C. Hofstetter, W. Seeger, B. Zwissler, B. Bausch, K. A. Boost & K. Mayer 27–32
- 1-Phenyl-6,7-dihydroxy-isochroman suppresses lipopolysaccharide-induced pro-inflammatory mediator production in human monocytes.
G. Trefiletti, A. R. Togna, V. Latina, C. Marra, M. Guiso & G. I. Togna 33–36
- A protein-rich beverage consumed as a breakfast meal leads to weaker appetitive and dietary responses v. a protein-rich solid breakfast meal in adolescents.
H. J. Leidy, L. I. Bales-Voelker & C. T. Harris 37–41

Molecular Nutrition

- Are apparent negative effects of feeding GM MON810 maize to Atlantic salmon, *Salmo salar*, caused by confounding factors?
N. H. Sissener, G.-I. Hemre, S. P. Lall, A. Sagstad, K. Petersen, J. Williams, J. Rohloff & M. Sanden 42–56
- Hypocholesterolaemic effect of water-insoluble fish protein from Alaska pollock in ovariectomised rats is not abolished by methionine addition.
M. Kato, H. Ogawa, T. Kishida & K. Ebihara 57–62
- Chronic dietary supplementation with turmeric protects against 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-mediated neurotoxicity *in vivo*: implications for Parkinson's disease.
R. B. Mythri, J. Veena, G. Harish, B. S. Shankaranarayana Rao & M. M. S. Bharath 63–72
- Iron bound to pectin is utilised by rats.
T. Miyada, A. Nakajima & K. Ebihara 73–78

Metabolism and Metabolic Studies

- Effects of 4-week very-high-fructose/glucose diets on insulin sensitivity, visceral fat and intrahepatic lipids: an exploratory trial.
G. Silbernagel, J. Machann, S. Unmuth, F. Schick, N. Stefan, H. U. Häring & A. Fritsche 79–86
- Effect of a mitochondria-targeted vitamin E derivative on mitochondrial alteration and systemic oxidative stress in mice.
G. Mao, G. A. Kraus, I. Kim, M. E. Spurlock, T. B. Bailey & D. C. Beitz 87–95
- Dietary supplementation with hydroxypropyl-distarch phosphate from waxy maize starch increases resting energy expenditure by lowering the postprandial glucose-dependent insulinotropic polypeptide response in human subjects.
A. Shimotoyodome, J. Suzuki, Y. Kameo & T. Hase 96–104

Nutritional Endocrinology

- Neonatal exposure to genistein ameliorates high-fat diet-induced non-alcoholic steatohepatitis in rats.
C. Huang, X. Qiao & B. Dong 105–113

Microbiology

- Ruminal methane inhibition potential of various pure compounds in comparison with garlic oil as determined with a rumen simulation technique (Rusitec).
C. R. Soliva, S. L. Amelchanka, S. M. Duval & M. Kreuzer 114–122

Human and Clinical Nutrition

- Effects on markers of inflammation and endothelial cell function of three *ad libitum* diets differing in type and amount of fat and carbohydrate: a 6-month randomised study in obese individuals.
E.-M. Bladbjerg, T. M. Larsen, A. Due, S. Stender, A. Astrup & J. Jespersen 123–129

Dietary Surveys and Nutritional Epidemiology

- Nutrient intake variability and number of days needed to assess intake in preschool children.
M. Erkkola, P. Kyttälä, H.-M. Takkinen, C. Kronberg-Kippilä, J. Nevalainen, O. Simell, J. Ilonen, R. Veijola, M. Knip & S. M. Virtanen 130–140
- Flavonoid intake in relation to cognitive function in later life in the Lothian Birth Cohort 1936.
C. Butchart, J. Kyle, G. McNeill, J. Corley, A. J. Gow, J. M. Starr & I. J. Deary 141–148
- Adherence to a Mediterranean diet and plasma fatty acids: data from the Bordeaux sample of the Three-City study.
C. Féart, M. J. M. Torrès, C. Samieri, M.-A. Jutand, E. Peuchant, A. P. Simopoulos & P. Barberger-Gateau 149–158