Directions to Contributors can be found at journals.cambridge.org/bjn

British Journal of Nutrition

Volume 127, 2022 ISSN: 0007-1145

Publishing, Production, Marketing, and Subscription Sales Office:

Cambridge University Press Journals Fulfillment Department University Printing House, Shaftesbury Road Cambridge CB2 8BS, UK

For Customers in North America:

Cambridge University Press Journals Fullfillment Department 1 Liberty Plaza Floor 20 New York, NY 10006 USA

Publisher: Cambridge University Press

Special sales and supplements:

This Journal accepts relevant advertisements and inserts. We also provide bulk reprints of suitable papers to meet teaching or promotional requirements. The journal also publishes supplements on behalf of academic and corporate collaborators. Please contact Sarah Maddox at the Cambridge address for further details. E-mail: special sales@cambridge.org

Subscription information:

British Journal of Nutrition is an international journal published by Cambridge University Press on behalf of The Nutrition Society. The twelve issues starting January 2021 comprise Volume 125, the twelve issues starting July 2021 comprise Volume 126.

Annual subscription rates:

Volumes 127/128 (24 issues): Internet/print package £1724/\$3363 Internet only: £1164/\$2271

Any **supplements** to this journal published in the course of the annual volume are normally supplied to subscribers at no extra charge.

Back volumes are available. Please contact Cambridge University Press for further information.

Claims for non-receipt of journal issues will be considered on their merit and only if the claim is received within six months of publication. Replacement copies supplied after this date will be chargeable. **US POSTMASTERS:** please send address corrections to *British Journal of Nutrition*, Cambridge University Press, 1 Liberty Plaza, Floor 20, New York, NY 10006, USA.

Directions to Contributors are available from the Society at the address below or can be found on the Society's website at http://www.nutritionsociety.org.

Offprints: The author (or main author) of an accepted paper will receive a copy of the PDF file of their article. There will be an option to purchase paper offprints, these should be ordered at proof stage. No page charges are levied by this journal.

Copyright: As of 1 July 2000 the copyright of all articles submitted to *British Journal of Nutrition* are retained by the authors or their institutions. For articles prior to this date permission for reproduction of any part of the journal (text, figures, tables or other matter) in any form (on paper, microfiche or electronically) should be sought directly from the Society, at: The Publications Office, The Nutrition Society, 10 Cambridge Court, 210 Shepherds Bush Road, Hammersmith, London W6 7NJ, UK.

Disclaimer: The information contained herein, including any expression of opinion and any projection or forecast, has been obtained from or is based upon sources believed by us to be reliable, but is not guaranteed as to accuracy or completeness. The information is supplied without obligation and on the understanding that any person who acts upon it or otherwise changes his/her position in reliance thereon does so entirely at his/her own risk. Neither the Society nor Cambridge University Press accepts responsibility for any trade advertisement included in this publication.

This journal is printed on acid-free paper from renewable sources. Printed in Great Britain by Bell & Bain Ltd, Glasgow.

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

British Journal of Nutrition is covered in Current Contents®/Agriculture, Biology & Environmental Sciences, SciSearch®, Research Alert®, Current Contents®/Life Sciences, Index Medicus® (MEDLINE®), AGRICOLA®, CAB Abstracts TM, Global Health, BIOSIS® Database, EMBASE/Excerpta Medica and Elsevier BIOBASE/Current Awareness in Biological Sciences, CINAHL, and Chemical Abstracts Service.

BRITISH JOURNAL OF NUTRITION, VOLUME 127 - Number 3

Molecular Nutrition	
Interactions between dietary carbohydrate and thiamine: implications on the growth performance and intestinal mitochondrial biogenesis and function of <i>Megalobrama amblycephala</i> Chao Xu, Yuan-You Li, Paul B. Brown, Wen-Bin Liu, Liu-Ling Gao,	
Zhi-Rong Ding, Xiang-Fei Li and Di-Zhi Xie	321
Impact of maternal obesity and prebiotic supplementation on select	
maternal milk microRNA levels and correlation with offspring outcomes	
Dana E. Lowry, Heather A. Paul and Raylene A. Reimer	335
Metabolism and Metabolic Studies	
Consumption of phenolic-rich jabuticaba (<i>Myrciaria jaboticaba</i>) powder	
ameliorates obesity-related disorders in mice	
Patrícia Leticia Trindade, Elaine dos Ramos Soares, Kim Ohanna Pimenta Inada,	
Fabiane Ferreira Martins, Martina Rudnicki, Daniel Perrone, Mariana Monteiro,	344
Vanessa Souza-Mello and Julio Beltrame Daleprane	344
Saccharomyces cerevisiae boulardii CNCMI-1079 supplementation	
in finishing male pigs helps to cope with heat stress through feeding	
behaviour and gut microbiota modulation Etienne Labussière, Caroline Achard, Serge Dubois, Sylvie Combes,	
Etternie Labussiere, Caroline Achard, Serge Dubois, Sylvie Collibes, Mathieu Castex and David Renaudeau	353
Nutritional Endocrinology	
Relationship between seaweeds consumption and hyperuricaemia in	
general adults: a Population-based study from the Tianjin Chronic	
Low-grade Systemic Inflammation and Health (TCLSIH) cohort study	
Tingjing Zhang, Yawen Wang, Yeqing Gu, Ge Meng, Qing Zhang, Li Liu, Hongmei Wu, Shunming Zhang, Xuena Wang, Shaomei Sun, Xing Wang,	
Ming Zhou, Huanli Jiao, Qiyu Jia, Kun Song, Yuntang Wu, Xiao-Hui Wu	
and Kaijun Niu	369
Bitter melon fruit extract enhances intracellular ATP production and	
insulin secretion from rat pancreatic eta -cells	
Takumi Shimada, Fumihiro Kato, Dinia Rizqi Dwijayanti, Takuma Nagata,	
Akito Kinoshita, Tetsuya Okuyama, Mikio Nishizawa and Eri Mukai	377
Nutritional Immunology	
n-3 long-chain PUFA promote antibacterial and inflammation-resolving	
effects in <i>Mycobacterium tuberculosis</i> -infected C3HeB/FeJ mice,	
dependent on fatty acid status	
Arista Nienaber, Mumin Ozturk, Robin Dolman, Renee Blaauw,	
Lizelle L. Zandberg, Simone van Rensburg, Melinda Britz,	
Frank E. A. Hayford, Frank Brombacher, Du Toit Loots, Cornelius M. Smuts, Suraj P. Parihar and Linda Malan	384
	364
Important roles of amino acids in immune responses Peng Li and Guoyao Wu	398
Microbiology	
Maternal supplementation with <i>Bacillus altitudinis</i> spores improves	
porcine offspring growth performance and carcass weight	
Daniel Crespo-Piazuelo, Gillian E. Gardiner, Samir Ranjitkar, Meike A. Bouwhuis,	
Rebecca Ham, John P. Phelan, Alan Marsh and Peadar G. Lawlor	403

Human and Clinical Nutrition	
Nutritional considerations of a paediatric gluten-free food guide for coeliac disease Diana R. Mager, Samantha Cyrkot, Christine Lirette, Herbert Brill, Jenna Dowhaniuk, Heather Mileski, Carlota Basualdo-Hammond, Roseann Nasser, Esther Assor, Margaret Marcon and Justine M. Turner	421
The relationship between famine exposure during early life and ascending aorta dilatation in adults Yu-Qing Huang, Lin Liu, Kenneth Ka Ho Lo, Yu-Ling Yu, Chao-Lei Chen, Jia-Yi Huang, Bin Zhang and Ying-qing Feng	431
Dietary Surveys and Nutritional Epidemiology	
The prevalence and influencing factors of anaemia among pre-pregnant women in mainland China: a large population-based, cross-sectional study Jun Zhao, Xiaoyue Zhu, Qiaoyun Dai, Xiang Hong, Hongguang Zhang, Kaiping Huang, Yuanyuan Wang, Xueying Yang, Yue Zhang, Zuoqi Peng, Ya Zhang, Yan Xuan, Qiaomei Wang, Haiping Shen, Yiping Zhang, Donghai Yan, Bei Wang and Xu Ma	439
Behaviour, Appetite and Obesity	
Does adaptive thermogenesis occur after weight loss in adults? A systematic review Catarina L. Nunes, Nuno Casanova, Ruben Francisco, Anja Bosy-Westphal, Mark Hopkins, Luís B. Sardinha and Analiza M. Silva	451
Food insecurity (hunger) and fast-food consumption among 180 164 adolescents aged 12–15 years from sixty-eight countries Lee Smith, Yvonne Barnett, Guillermo F. López-Sánchez, Jae II Shin, Louis Jacob, Laurie Butler, Chao Cao, Lin Yang, Felipe Schuch, Mark Tully	
and Ai Koyanagi	470
Letters to the Editor	
Zinc supplementation and inflammatory cytokines Alireza Jafari and Saeed Ghobadi	478
Invited letter to editor in response to profiling inflammatory cytokines following zinc supplementation: a systematic review and meta-analysis of randomised controlled trials Amir Hossein Faghfouri, Behzad Baradaran, Alireza Khabbazi, Yaser Khaje Bishak,	
Allin Hossein Fagillouri, Berizad Baradaran, Alineza Kiladbazi, Taser Kilaje Bishlak, Meysam Zarezadeh, Omid Mohammad Tavakoli-Rouzbehani, Elnaz Faghfuri, Laleh Payahoo, Maedeh Alipour and Beitullah Alipour	479

cambridge Journals Online For further information about this journal please go to the journal website at: journals.cambridge.org/bjn







