
BJN

BRITISH JOURNAL OF NUTRITION

Volume: 112

Supplement 1

July 2014

An International Journal
of Nutritional Science

Supplement

Exploring the influence of the gut microbiota and probiotics on health: a symposium report
Linda V. Thomas, Theo Ockhuizen and Kaori Suzuki

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

G C Burdge, *Southampton, UK*

Deputy Editors

A E Buyken, *Dortmund, Germany*

J L Firkins, *Columbus, OH, USA*

D N McMurray, *College Station, TX, USA*

A M Minihihane, *Norwich, UK*

W D Rees, *Aberdeen, UK*

A J Sinclair, *Burwood, Australia*

M B Schulze, *Potsdam-Rehbruecke, Germany*

S J Whiting, *Saskatoon, Sask., Canada*

Reviews Editors

P J Aggett, *Parbold, UK*

D J Millward, *Guildford, UK*

Supplements Editor

J V Woodside, *Belfast, UK*

Statistics Editors

M Heo, *Bronx, NY, USA*

C Mayer, *Aberdeen, UK*

I Saunders, *Glen Osmond, Australia*

N St-Pierre, *Columbus, OH, USA*

Editorial Board

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

T Bohn, *Belvaux, Luxembourg*

J T Brenna, *Ithaca, NY, USA*

J Buyse, *Leuven, Belgium*

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

J K Cleal, *Southampton, UK*

K A Cockell, *Ottawa, Ont., Canada*

A R Collins, *Oslo, Norway*

S J Duthie, *Aberdeen, UK*

U Ekelund, *Oslo, Norway*

A Esmailzadeh, *Isfahan, Iran*

B A Fielding, *Oxford, UK*

E Forano, *St Genes Champanelle, France*

M Fukushima, *Obihiro City, Japan*

H R Gaskins, *Urbana, IL, USA*

B Glencross, *Brisbane, Australia*

J C G Halford, *Liverpool, UK*

W Hendriks, *Wageningen, The Netherlands*

T Hill, *Newcastle-Upon-Tyne, UK*

L T Ho, *Taipei, Taiwan*

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

K G Jackson, *Reading, UK*

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*

L Lauritzen, *Copenhagen, Denmark*

A Laviano, *Rome, Italy*

A M López-Sobaler, *Madrid, Spain*

J A Lovegrove, *Reading, UK*

S R Lynch, *Grafton, VA, USA*

J P McClung, *Natick, MA, USA*

S McNaughton, *Burwood, Australia*

J G Mercer, *Aberdeen, UK*

E A Miles, *Southampton, UK*

T A Mori, *Perth, Australia*

M M Murphy, *Reus, Spain*

P S Nestel, *Southampton, UK*

K Northstone, *Bristol, UK*

U Nöthlings, *Bonn, Germany*

C M Nyachoti, *Winnipeg, Man., Canada*

M C Ocké, *Bilthoven, The Netherlands*

A Palou, *Palma de Mallorca, Spain*

J H Y Park, *Chuncheon, Korea*

E Perissinotto, *Padova, Italy*

C J Petry, *Cambridge, UK*

K Poore, *Southampton, UK*

S D Proctor, *Edmonton, Alta., Canada*

P Ritz, *Angers, France*

S M Robinson, *Southampton, UK*

E Ros, *Barcelona, Spain*

E Rush, *Auckland, New Zealand*

Y Sanz, *Paterna, Spain*

T Sheehy, *Cork, Ireland*

A Sjödin, *Copenhagen, Denmark*

K S Swanson, *Urbana, IL, USA*

C G Taylor, *Winnipeg, Man., Canada*

R Thompson, *London, UK*

D Tomé, *Paris, France*

D L Topping, *Adelaide, Australia*

J H M de Vries, *Wageningen, The Netherlands*

M R Yeomans, *Brighton, UK*

Publications Staff

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

L Weeks and D Owen (*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>

British Journal of Nutrition
Volume 112 Supplement S1 July 2014

**Exploring the influence of the gut microbiota and probiotics on health:
a symposium report**

Linda V. Thomas, Theo Ockhuizen and Kaori Suzuki

Sponsors

Yakult Europe B.V.

Publication of this supplement was supported by an educational grant from Yakult Europe BV. Papers in this supplement have undergone the standard journal peer review process and may be cited.

Published on behalf of The Nutrition Society, by Cambridge University Press

Preface and Acknowledgements

The gut microbiota was the focus of the 7th International Yakult symposium (*The Intestinal Microbiota and Probiotics: Exploiting Their Influence on Health*), which was held in London, UK from 22nd–23rd April, 2013.

International experts presented the latest findings on the microbiota's genomics and physiology, as well as the dynamic, metabolic and immunological aspects of its interaction with the host in the context of health and disease. Related to this, the potential influence of probiotics in beneficially influencing the composition and function of the gut microbiota was discussed. As before, the symposium provided a platform for both young investigators and established scientists to present their latest basic and clinical findings on the gut microbiota and probiotics.

This report reflects the content of the symposium. Before submission, the manuscript was sent to all the speakers.

Symposium Scientific Committee

Professor Glenn Gibson (University of Reading, UK)
Professor Stella C. Knight (Imperial College London, UK)
Professor Lorenzo Morelli (Catholic University of the Sacred Heart, Piacenza, Italy)
Professor Herbert Lochs (Innsbruck Medical University, Austria)
Dr Tomoyuki Sako (Yakult Europe B.V., The Netherlands)

Symposium faculty

Chairpersons

Professor Glenn Gibson (University of Reading, UK)
Professor Lorenzo Morelli (Catholic University of the Sacred Heart, Piacenza, Italy)
Professor Stella C. Knight (Imperial College London, UK)
Professor Herbert Lochs (Innsbruck Medical University, Austria)

Speakers

Professor Joël Doré (INRA, France)
Dr Kenji Oishi (Yakult Honsha European Research Center, Ghent, Belgium)
Professor Paul O'Toole (University College Cork, Ireland)
Professor Jerry Wells (Wageningen University, The Netherlands)
Professor Stephan C. Bischoff (Institute of Nutritional Medicine, University of Hohenheim, Germany)
Professor Yolande Sanz (IATA-CSIC, Valencia, Spain)
Dr Ailsa Hart (St Mark's Hospital, London, UK)
Professor Hiroshi Kiyono (Institute of Medical Science, The University of Tokyo, Japan)
Professor Maria Rescigno (European Institute of Oncology, Milan, Italy)
Professor Julia-Stefanie Frick (University of Tübingen, Germany)
Professor Harry J. Flint (University of Aberdeen, UK)
Professor Patrice D. Cani (Catholic University Louvain, Belgium)
Professor Fedrik Bäckhed (University of Gothenburg, Sweden)

Acknowledgements

Yakult Europe B.V. would like to thank the presenters for their contribution to the success of this meeting, and for their support for this publication. In addition, the efforts of Dr Kaori Suzuki, Miss Hikari Beck and Dr Linda Thomas in helping organise this symposium were particularly appreciated.

Dr Tomoyuki Sako

On behalf of the Symposium Scientific Committee

This paper was published as part of a supplement to *British Journal of Nutrition*, the publication of which was supported by an educational grant from Yakult Europe BV. Papers in this supplement have undergone the standard journal peer review process and may be cited.