The Journal of Nutritional Biochemistry (JNB) is an international journal devoted to advancements in nutrition science. Its major focus is on investigations about nutrients that overlap with the areas of biochemistry molecular biology, neurochemistry, toxicology, and pharmacology. For details concerning the preparation of manuscripts see Information for Authors on the journal's website at www.jnutbio.com.

JNB: Journal of Nutritional Biochemistry (ISSN: 0955-2863) is published monthly by Elsevier, 360 Park Avenue South, New York, NY 10010-1710. Business Office: 1600 John F. Kennedy Blyd.

NY 10010-1710. Business Office: 1600 John F. Kennedy Blvd., Suite 1800, Philadelphia, PA 19103-2899. Editorial Office: 360 Park Avenue South, New York, NY 10010-1710. Accounting and Circulation Offices: 11830 Westline Industrial Drive, St. Louis, MO 63146. Periodicals postage paid at New York, NY and additional mailing offices.

MO 63146. Periodicals postage paid at New Tork, NT and additional mailing offices.

POSTMASTER: Send address changes to JNB: Journal of Nutritional Biochemistry, Elsevier Periodicals Customer Service, 11830 Westline Industrial Drive, St. Louis, MO 63146.

11830 Westline Industrial Drive, St. Louis, MO 63146.
Subscription Rates (2009): Institutional price: US\$1,703.00;
Personal price: US\$328.00; Prices include postage and are subject to change without notice. Claims for missing issues can be honored only up to three months for domestic addresses, six months for foreign addresses. Duplicate copies will not be sent to replace one undelivered through failure to notify Elsevier of change of address. Single copy and back volume information available upon request.

Customer service (orders, claims, online, change of address):
Elsevier Pariodicals (Customer Service 11830 Wortline Industrial

Elsevier Periodicals Customer Service, 11830 Westline Industrial Drive, St. Louis, MO 63146. Tel: (800) 654-2452 (U.S. and Canada); (314) 453-7041 (outside U.S. and Canada). Fax: (314) 523-5170. E-mail: JournalsCustomerService-usa@elsevier.com (for print support); JournalsOnlineSupport-usa@elsevier.com (for online support).

online support).

Reprints: For copies of 100 or more of articles in this publication, please contact the Commercial Reprints Department, Elsevier Inc., 360 Park Avenue South, New York, NY 10010-1710. Tel: (212) 633-3812; Fax: (212) 462-1935 e-mail: reprints@elsevier.com or visit www.elsevierreprints.com.

reprints@elsevier.com or visit www.elsevierreprints.com.

© 2009 Elsevier Inc. All rights reserved.

This journal and the individual contributions contained in it are protected under copyright by Elsevier Inc. and the following terms and conditions apply to their use:

Photocopying: Single photocopies of single articles may be made for personal use as allowed by national copyright laws. Permission of the publisher and payment of a fee is required for all other photocopying, including multiple or systematic copying, copying for advertising or promotional purposes, resale, and all forms of document delivery. Special rates are available for educational classroom use.

Permission may be sought directly from Elsevier's Global Rights

for non-profit educational classroom use. Permission may be sought directly from Elsevier's Global Rights Department in Oxford, UK: phone: 215-239-3804 or +44 (0) 1865 843830, fax: +44 (0) 1865 853333, e-mail: healthpermissions@ elsevier.com. Requests may also be completed online via the Elsevier homepage (http://www.elsevier.com/permissions). In the USA, users may clear permissions and make payments through the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA; Tel: (978) 750 8400, Fax: (978) 750-4744, and in the UK through the Copyright Licensing Agency Rapid Clearance Service (CLARCS), 90 Tottenham Court Road, London WIP 0LP, UK; Tel: (+44) 171 436 5931; Fax: (+44) 171 436 3986. Other countries may have a local reprographic rights agency for payments. for payments.

Derivative Works: Subscribers may reproduce tables of con-tents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the publisher is required for resale or distribution outside the institution.

Permission of the publisher is required for all other derivative works, including compilations and translations.

Electronic Storage or Usage: Permission of the publisher is required to store or use electronically any material contained in this journal, including any article or part of an article. Contact the publisher at the address indicated.

Except as outlined above, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the publisher.

Address permissions requests to: Elsevier Inc. Rights & Permissions Department, at the mail, fax and e-mail addresses

Notice: No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Because of rapid advances in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made.

Although all advertising material is expected to conform to ethical (medical) standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

This paper meets the requirements of ANSI Standard Z39.48-1992 (Permanence of Paper).

## The Journal of

## **Nutritional** Biochemistry

Volume 20, Number 3, March 2009

## **CONTENTS**

## RESEARCH ARTICLES

- Resveratrol counteracts gallic acid-induced down-regulation of gap-junction intercellular communication Jong Hun Kim, Bo Kyong Lee, Ki Won Lee, Hyong Joo Lee
- 155 Long-chain fatty alcohols from pomace olive oil modulate the release of proinflammatory mediators Angeles Fernández-Arche, Ana Marquez-Martín, Rocío de la Puerta Vazquez, Javier S. Perona, Carmen Terencio, Carmen Perez-Camino, Valentina Ruiz-Gutierrez
- 163 Inducing gene expression of cardiac antioxidant enzymes by dietary phenolic acids in rats Chi-Tai Yeh, Li-Chien Ching, Gow-Chin Yen
- 172 Effect of folate deficiency on placental DNA methylation in hyperhomocysteinemic rats Ji-Myung Kim, Kyungju Hong, Ji Hye Lee, Suman Lee, Namsoo Chang
- Increased incorporation of dietary plant sterols and cholesterol correlates with decreased expression of hepatic and intestinal Abcg5 and Abcg8 in diabetic BB rats Kylie A. Scoggan, Heidi Gruber, Qixuan Chen, Louise J. Plouffe, Jaclyn M. Lefebvre, Bingtuan Wang, Jesse Bertinato, Mary R. L'Abbé, Stephen Hayward, W.M. Nimal Ratnayake
- 187 Antiobesity effect of PEGylated conjugated linoleic acid on high-fat diet-induced obese C57BL/6J (ob/ob) mice: attenuation of insulin resistance and enhancement of antioxidant defenses Hyun-Seuk Moon, Hong-Gu Lee, Ji-Hye Seo, Chung-Soo Chung, Tae-Gyu Kim, Yun-Jaie Choi, Chong-Su Cho
- 195 Regulation of estrogen receptor  $\alpha$  expression in human breast cancer cells by sulforaphane Marcela Cortes Ramirez, Keith Singletary
- 202 Role of caveolin-1 in EGCG-mediated protection against linoleic-acid-induced endothelial cell activation Yuanyuan Zheng, Eum Jin Lim, Lei Wang, Eric J. Smart, Michal Toborek, Bernhard Hennig
- 210 Grape-seed procyanidins prevent low-grade inflammation by modulating cytokine expression in rats fed a high-fat diet Ximena Terra, Gemma Montagut, Mario Bustos, Niurka Llopiz, Anna Ardèvol, Cinta Bladé, Juan Fernández-Larrea, Gerard Pujadas, Josepa Salvadó, Lluís Arola, Mayte Blay
- 219 A fluorometric assay to determine antioxidant activity of both hydrophilic and lipophilic components in plant foods Lei Li, C.-Y. Oliver Chen, Hye-Kyung Chun, Soo-Muk Cho, Ki-Moon Park, Yang Cha Lee-Kim, Jeffrey B. Blumberg, Robert M. Russell, Kyung-Jin Yeum
- 227 Effects of isoflavone supplements vs. soy foods on blood concentrations of genistein and daidzein in adults Christopher D. Gardner, Lorraine M. Chatterjee, Adrian A. Franke

This journal is indexed in BIOSIS; Current Awareness in Biological Sciences; Scisearch; Science Citation Index; Research Alert; EMBASE/Excerpta Medica; Medline; PubMed; and Current Contents.