

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 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.

POSTMASTER: Send address changes to JNB: *Journal of Nutritional Biochemistry*, Elsevier Periodicals Customer Service, 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 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).

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.

© 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 institutions that wish to make photocopies 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 W1P 0LP, UK; Tel: (+44) 171 436 5931; Fax: (+44) 171 436 3986. Other countries may have a local reprographic rights agency for payments.

Derivative Works: Subscribers may reproduce tables of contents 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 noted above.

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 6, June 2009

CONTENTS

REVIEWS: CURRENT TOPICS

- 399** Zinc and diabetes — clinical links and molecular mechanisms
Judith Jansen, Wolfram Karges, Lothar Rink

RESEARCH ARTICLES

- 418** Alcohol-free red wine inhibits isoproterenol-induced cardiac remodeling in rats by the regulation of Akt1 and protein kinase C α/β II
Anita Palfi, Eva Bartha, Laszlo Copf, Laszlo Mark, Ferenc Gallyas Jr., Balazs Veres, Endre Kalman, Laszlo Pajor, Kalman Toth, Robert Ohmacht, Balazs Sumegi
- 426** Concomitant supplementation of lycopene and eicosapentaenoic acid inhibits the proliferation of human colon cancer cells
Feng-Yao Tang, Hsin-Ju Cho, Man-Hui Pai, Ye-Hsin Chen
- 435** Long-term effects of overfeeding during lactation on insulin secretion — the role of GLUT-2
Alessandra Cordeiro de Souza Rodrigues Cunha, Renata Oliveira Pereira, Mario José dos Santos Pereira, Vivian de Melo Soares, Mariana Renovato Martins, Michelle Teixeira Teixeira, Érica Patrícia Garcia Souza, Anibal Sanchez Moura
- 443** Resveratrol, a unique phytoalexin present in red wine, delivers either survival signal or death signal to the ischemic myocardium depending on dose
Jocelyn Dudley, Samarjit Das, Subhendu Mukherjee, Dipak K. Das
- 453** Femur EPA and DHA are correlated with femur biomechanical strength in young *fat-1* mice
Beatrice Y.Y. Lau, Wendy E. Ward, Jing X. Kang, David W.L. Ma
- 462** No effect of short-term arginine supplementation on nitric oxide production, metabolism and performance in intermittent exercise in athletes
Tsung-Han Liu, Ching-Lin Wu, Chi-Wei Chiang, Yu-Wei Lo, Hung-Fu Tseng, Chen-Kang Chang
- 469** Alpha-tocopherol modulates genes involved in hepatic xenobiotic pathways in mice
Debbie J. Mustachich, Kishorchandra Gohil, Richard S. Bruno, Michelle Yan, Scott W. Leonard, Emily Ho, Carroll E. Cross, Maret G. Traber
- 477** Circulating soluble CD36 is a novel marker of liver injury in subjects with altered glucose tolerance
Jose-Manuel Fernández-Real, Aase Handberg, Francisco Ortega, Kurt Højlund, Joan Vendrell, Wifredo Ricart