The Journal of Nutritional Biochemistry (JNB) is an inter-The Journal of Nutritional Biochemistry (JNB) is an inter-national 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, which is published in each issue of the journal. JNB: Journal of Nutritional Biochemistry (JSSN: 0955-2863) is published monthly by Elsevier, 360 Park Avenue South, New York, NY 10010 1710. Puriorse officiar 1600 Lebre K expended Plud

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: 6277 Sea Harbor Drive, Orlando, FL 32887-4800. Periodicals postage paid at New York, NY and additional mailing offices. mailing offices. POSTMASTER: Send address changes to JNB: Journal of

Nutritional Biochemistry, Elsevier Periodicals Customer Service, 6277 Sea Harbor Drive, Orlando, FL 32887-4800.

Subscription Rates (2007): Institutional price: US\$1,435.00; Personal price: US\$269.00; 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, 6277 Sea Harbor Drive, Orlando, FL 32887-4800. Tel: (800) 654-2452 (U.S. and Canada); (407) 345-4000 (outside U.S. and Canada). Fax: (800) 225-6030 (U.S. and Canada); (407) 363-9661 (outside U.S. and Canada). E-mail: ohere @-leavier.com

(U.S. and Canada); (407) 363-9661 (outside U.S. and Canada). E-mail: elspcs@elsevier.com. 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) 633-3813 Fax: (212) 633-3820 e-mail: reprints@elsevier.com. @ 2007 Elsevier Inc. All rights reserved. This isural and the individual contributions contained in it.

© 2007 Elsevier Inc. All rights reserved. This journal and the individual contributions contained in it are protected under copyright by Elsevier Inc. and the follow-ing 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.

available for educational institutions that wish to make photocopies for non-profit educational classroom use. Permissions may be sought directly from Health Science Rights Department, Elsevier Inc., 1600 John F. Kennedy Blvd, Suite 1800, Philadelphia, PA 19103-2899, USA; Tel: (+1) 215-238-7869; Fax: (+1) 215-238-239; e-mail: healthpermission@elsevier.com. You may also contact Rights & Permissions directly through Elsevier's home page (http://www.elsevier.nl), selecting first 'Customer Sup-port', then 'General Information', then 'Permissions Query Form'. 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 Covrieth Licensine Agency Rapid

Janton, M. C. Charles, C. C. K. Stark, C. C. Stark, C. C. Stark, C. C. Stark, C. C. Stark, C. 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 deriv-

ative 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 diagnoser and drug decages chould be made 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). (**O**)<sup>TM</sup>

## The Journal of Nutritional Biochemistry Volume 18, Number 7, July 2007

## CONTENTS

**REVIEWS: CURRENT TOPICS** 

427 Effects of dietary flavonoids on apoptotic pathways related to cancer chemoprevention Sonia Ramos

**RESEARCH ARTICLES** 

- 443 Cardiac nitric oxide synthases are elevated in dietary copper deficiency Jack T. Saari, Loren E. Wold, Jinhong Duan, Jun Ren, Hangian L. Carlson, Ann M. Bode, Alex B. Lentsch, Huawei Zeng, Dale A. Schuschke
- Lycopene inhibits matrix metalloproteinase-9 expression and down-regulates 449 the binding activity of nuclear factor-kappa B and stimulatory protein-1 Chin-Shiu Huang, Yang-En Fan, Chen-Yu Lin, Miao-Lin Hu
- 457 Phenolic-rich juice prevents DNA single-strand breakage and cytotoxicity caused by tert-butylhydroperoxide in U937 cells: the role of iron chelation Francisco J. Garcia-Alonso, Andrea Guidarelli, María J. Periago
- 467 Conjugated linoleic acid protects against age-associated bone loss in C57BL/6 female mice Md Mizanur Rahman, Arunabh Bhattacharya, Jameela Banu, Gabriel Fernandes
- 475 An avidin-based assay for histone debiotinylase activity in human cell nuclei Yap Ching Chew, Gautam Sarath, Janos Zempleni
- 482 Factors associated with longitudinal plasma selenium decline in the elderly: The EVA Study Josiane Arnaud, N. Tasmine Akbaraly, Isabelle Hininger, Anne-Marie Roussel, Claudine Berr
- 488 Effect of docosahexaenoic acid on brain 3-hydroxy-3-methylglutaryl-coenzyme A reductase activity in male ICR mice Nobuya Shirai, Hiramitsu Suzuki

Calendar 495