



EDITOR-IN-CHIEF

EDWARD A. DENNIS
University of California, San Diego

DEPUTY EDITOR-IN-CHIEF

JOSEPH L. WITZTUM
University of California, San Diego

ASSOCIATE EDITORS

Alan D. Attie

Univ. of Wisconsin-Madison

George M. Carman

Rutgers University

Martha K. Cathcart

Cleveland Clinic Foundation

Linda K. Curtiss

The Scripps Research Inst., La Jolla

Roger A. Davis

San Diego State University

William C. Duane

VA Med. Ctr., Minneapolis

Sandra K. Erickson

Univ. of California, San Francisco

Kenneth Feingold

Univ. of California, San Francisco

Godfrey S. Getz

University of Chicago

Henry N. Ginsberg

Columbia University

Ira J. Goldberg

Columbia University

Jay W. Heinecke

University of Washington

Alice H. Lichtenstein

Tufts University

Aldons J. Lusis

Univ. of California, Los Angeles

Linda J. Pike

Washington Univ., St. Louis

Silvia Santamarina-Fojo

NIH, NHLBI

Donald M. Small

Boston Univ. School of Medicine

Stephen G. Young

Univ. of California, Los Angeles

Robert K. Yu

Medical College of Georgia

EDITORIAL BOARD

Tim Aitman - London, United Kingdom

Susumu Ando - Tokyo, Japan

David A. Bernlohr - Minneapolis, MN

John K. Bielicki - Berkeley, CA

Robert Bittman - Flushing, NY

William S. Blaner - New York, NY

Wendy Bollag - Augusta, GA

Dawn Brasaemle - New Brunswick, NJ

Jan L. Breslow - New York, NY

Margaret E. Brousseau - Boston, MA

Germán Camejo - Molndal, Sweden

Jeffrey S. Cohn - Sydney, Australia

Allen D. Cooper - Palo Alto, CA

Nicholas Davidson - St. Louis, MO

W. Sean Davidson - Cincinnati, OH

John M. Dietschy - Dallas, TX

Peter A. Edwards - Los Angeles, CA

Pascal Ferre - Paris, France

F. Jeffrey Field - Iowa City, IA

Edward Fisher - New York, NY

Steven J. Fliesler - St. Louis, MO

Alan M. Fogelman - Los Angeles, CA

Jan F. C. Glatz - Maastricht, The Netherlands

James Hamilton - Boston, MA

Robert Hegele - Toronto, Canada

Marten Hofker - Maastricht, The Netherlands

Walter M. Holleran - San Francisco, CA

Jay D. Horton - Dallas, TX

Murray Huff - London, Canada

Eva Hurt-Camejo - Molndal, Sweden

Suzanne Jackowski - Memphis, TN

Gail P. Jarvik - Seattle, WA

Folkert Kuipers - Groningen, The Netherlands

Todd Leff - Detroit, MI

Ruth McPherson - Ottawa, Canada

Alfred H. Merrill, Jr. - Atlanta, GA

Jason D. Morrow - Nashville, TN

Richard Morton - Cleveland, OH

Rama Natarajan - Duarte, CA

Thomas Olivecrona - Umea, Sweden

John Oram - Seattle, WA

Jose M. Ordovas - Boston, MA

Paivi E. Pajukanta - Los Angeles, CA

Sampath Parthasarathy - New Orleans, LA

Oswald Quehenberger - La Jolla, CA

Daniel J. Rader - Philadelphia, PA

Joyce J. Repa - Dallas, TX

Karen Reue - Los Angeles, CA

David W. Russell - Dallas, TX

Kerry-Anne Rye - Camperdown, Australia

Frank Sacks - Boston, MA

Wolfgang J. Schneider - Vienna, Austria

Clay F. Semenkovich - St. Louis, MO

Carol Shoulders - London, United Kingdom

Mary Sorci-Thomas - Winston-Salem, NC

Arthur A. Spector - Iowa City, IA

Richard W. St. Clair - Winston-Salem, NC

Urs P. Steinbrecher - Vancouver, Canada

Papasani V. Subbaiah - Chicago, IL

Hei-Sook Sul - Berkeley, CA

Kunihiko Suzuki - Hillsborough, NC

Phillipa Talmud - London, United Kingdom

Peter Tontonoz - Los Angeles, CA

Dennis E. Vance - Edmonton, Canada

Klaus von Bergmann - Bonn, Germany

Arnold von Eckardstein - Zurich, Switzerland

Shinji Yokoyama - Nagoya, Japan

Victor A. Zammit - Scotland, United Kingdom

Rudolph Zechner - Graz, Austria

PAST EDITORS-IN-CHIEF: Donald B. Zilversmit - Daniel Steinberg - Edward H. Ahrens, Jr. - Maurice M. Rapport - Richard J. Havel - Erwin H. Mosbach - Donald M. Small - Julian B. Marsh - Michael C. Phillips - Alan M. Fogelman - Scott M. Grundy - Arthur A. Spector - Trudy M. Forte

EDITORIAL OFFICE: Barbara A. Gordon, Executive Officer - Nancy J. Rodnan, Director of Publications - Virginia R. Bourgeois, Peer Review Manager - Laurie Cartledge, Editorial Administrator

METABOLOMICS 2006:

The Second Annual International Conference of the Metabolomics Society

June 25-28, 2006
Boston, MA, USA

The conference will highlight recent developments in metabolomics research in nutrition, human health care, agriculture and the environment. Progress in the LIPIDMAPS initiative and the NIH Emerging Technologies program will be major themes as will standards and databases. Workshops on NMR, mass spectrometry, and informatics precede the main conference and will be held June 24-25

For information contact:
George Harrigan, Ph.D.
Treasurer, Metabolomics Society
423 Brookline Ave #315, Boston, MA 02215
Phone: 1-617-717-9556
Email: info@metabolomicssociety.org
Website: www.metabolomicssociety.org

GENERAL INFORMATION

This publication is available online at <http://www.jlr.org>. Inquire about availability through your subscription agent or contact: JOURNAL OF LIPID RESEARCH, P.O. Box 830399, Birmingham, AL 35283-0399, U.S.A., Phone: 800-633-4931 or 205-995-1567.

Submit all manuscripts via the web to: www.jlr.org/submit.

All correspondence should be addressed to:

Editor, Journal of Lipid Research
9650 Rockville Pike
Bethesda, MD 20814, U.S.A.

Accepted manuscripts will be published with the implicit understanding that the author(s) will pay a \$55 charge per page as well as color charges of \$450 per color figure.

Queries on matters of general editorial policy should be directed to the Journal Editorial Office in Bethesda, telephone 301-634-7106; fax 301-634-7129; E-mail: jlr@asbmb.org. The Journal of Lipid Research publishes papers on a broad range of topics of interest to scientists working in the field of lipids. The views expressed are those of the author(s) and not of the Journal of Lipid Research or the American Society for Biochemistry and Molecular Biology.

The Journal of Lipid Research is copyrighted by the American Society for Biochemistry and Molecular Biology, Inc. Reprographic copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law is allowed, provided that the \$10.00 per-copy fee is paid through the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. For those organizations that have been granted photocopy license by CCC, a separate system of payment has been arranged. The fee code for users of the Transactional Reporting Service is: 1535-9476/01 \$10.00. Reproduction of any portion of an article for subsequent republication requires permission of the copyright owner. Requests should be made in writing to the American Society for Biochemistry

and Molecular Biology, Inc. Attn: Editorial Office, 9650 Rockville Pike, Bethesda, MD 20814, or jlr@asbmb.org and should include a statement of intended use as well as explicit specifications of the material to be reproduced. Non-profit educational institutions may photocopy multiple copies of articles for classroom use without payment of fees. All reproduction must utilize institutionally owned equipment for this purpose.

Address all correspondence and orders relative to subscriptions and back copies to: Journal of Lipid Research, P.O. Box 830399, Birmingham, AL 35283-0399, U.S.A., telephone 800-633-4931 or 205-995-1567. Allow at least six weeks for address changes. Claims for replacement copies must be received within three months of the issue date.

The Journal of Lipid Research (ISSN 0022-2275) is published monthly by the American Society for Biochemistry and Molecular Biology, Inc., 9650 Rockville Pike, Bethesda, MD 20814. Volume 47 for 2006. **SUBSCRIPTIONS:** All print subscriptions include online access. Print only subscriptions are not available. **Institutional:** *Print (includes online access):* \$605; *Online Only:* \$485 (per site/location). **Personal:** *Print (includes online access):* \$190; *Online Only:* \$160 (per site/location). **Tax:** Maryland residents add 5% sales tax. Canada residents add 7% GST (GST #: 13037 0018RT). If you are tax-exempt, please provide your tax-exempt certificate number with your order. **Postage:** All countries outside of the U.S.A., please add \$55.00 for postage (AIRMAIL delivery service). All subscriptions entered are on a calendar year basis only, and payable in advance in U.S. funds, drawn on a U.S. bank or international money order. Single/back issues are available for purchase: \$50 (all countries outside of the U.S.A., please add \$5.00 for postage). C.P.C. Int'l. Pub. Mail # 0060119. Periodicals postage paid at Bethesda, MD 20814, U.S.A. and at additional mailing offices. Printed in the U.S.A. **POSTMASTER:** Send address changes to: Journal of Lipid Research, P.O. Box 830399, Birmingham, AL 35283-0399, U.S.A.