

Diabetes Care

THE JOURNAL OF CLINICAL AND APPLIED RESEARCH AND EDUCATION

January 2014 Volume 37, Number 1

[T]he simple word *Care* may suffice to express [the journal's] philosophical mission. The new journal is designed to promote better patient care by serving the expanded needs of all health professionals committed to the care of patients with diabetes. As such, the American Diabetes Association views *Diabetes Care* as a reaffirmation of Francis Weld Peabody's contention that "the secret of the care of the patient is in caring for the patient."

—Norbert Freinkel, *Diabetes Care*, January-February 1978

EDITOR IN CHIEF

William T. Cefalu, MD

ASSOCIATE EDITORS

George Bakris, MD
Lawrence Blonde, MD, FACP
Andrew J.M. Boulton, MD
Mary de Groot, PhD
Eddie L. Greene, MD
Robert Henry, MD
Sherita Hill Golden, MD, MHS, FAHA
Frank Hu, MD, MPH, PhD
Derek LeRoith, MD, PhD
Robert G. Moses, MD
Stephen Rich, PhD
Matthew C. Riddle, MD
Julio Rosenstock, MD
William V. Tamborlane, MD
Katie Weinger, EdD, RN
Judith Wylie-Rosett, EdD, RD

EDITORIAL BOARD

Silva A. Arslanian, MD
Angelo Avogaro, MD, PhD
Mary Ann Banerji, MD
Ananda Basu, MD, FRCP
Patricia El Beitune, MD, PhD
Mark R. Burge, MD
John B. Buse, MD, PhD
Sonia Caprio, MD
N. Wah Cheung, MBBS, FRACP, PhD
Robert Chilton, DO
Kenneth Cusi, MD, FACP, FACE
Stefano Del Prato, MD
Dariush Elahi, PhD
Massimo Federici, MD
Robert G. Frykberg, DPM, MPH
W. Timothy Garvey, MD
Ronald B. Goldberg, MD
Linda Gonder-Frederick, PhD
Margaret Grey, DrPH, RN, FAAN
Rita R. Kalyani, MD, MHS
Dianna J. Magliano, MPH, PhD
Theodore Mazzone, MD
Rory J. McCrimmon, MD, MRCP, MB, ChB
Louis Monnier, MD
Antoinette Moran, MD
Sunder Mudaliar, MD
Gianluca Perseghin, MD
Anne L. Peters, MD
Pedro Romero-Aroca, PhD
Elizabeth R. Seaquist, MD
Jeff Unger, MD
Ram Weiss, MD, PhD
Deborah J. Wexler, MD, MSc

AMERICAN DIABETES ASSOCIATION OFFICERS

CHAIR OF THE BOARD Dwight Holing	SECRETARY/TREASURER-ELECT Richard Farber, MBA
PRESIDENT, MEDICINE & SCIENCE Elizabeth R. Seaquist, MD	VICE CHAIR OF THE BOARD Robin J. Richardson
PRESIDENT, HEALTH CARE & EDUCATION Marjorie Cypress, PhD, RN, CNP, CDE	VICE PRESIDENT, MEDICINE & SCIENCE Desmond Schatz, MD
SECRETARY/TREASURER Robert J. Singley, MBA	VICE PRESIDENT, HEALTH CARE & EDUCATION Margaret Powers, PhD, RD, CDE
CHAIR OF THE BOARD-ELECT Janel L. Wright, JD	VICE SECRETARY/TREASURER Lorrie Welker Liang
PRESIDENT-ELECT, MEDICINE & SCIENCE Samuel Dagogo-Jack, MD, FRCP	CHIEF EXECUTIVE OFFICER Larry Hausner, MBA
PRESIDENT-ELECT, HEALTH CARE & EDUCATION David G. Marrero, PhD	CHIEF SCIENTIFIC & MEDICAL OFFICER Robert E. Ratner, MD, FACP, FACE



The mission of the American Diabetes Association
is to prevent and cure diabetes and to improve
the lives of all people affected by diabetes.

Diabetes Care

January 2014 Volume 37, Number 1

THE JOURNAL OF CLINICAL AND APPLIED RESEARCH AND EDUCATION

Diabetes Care is a journal for the health care practitioner that is intended to increase knowledge, stimulate research, and promote better management of people with diabetes. To achieve these goals, the journal publishes original research on human studies in the following categories: Clinical Care/Education/Nutrition/Psychosocial Research, Epidemiology/Health Services Research, Emerging Technologies and Therapeutics, Pathophysiology/Complications, and Cardiovascular and Metabolic Risk. The journal also publishes ADA statements, consensus reports, clinically relevant review articles, letters to the editor, and health/medical news or points of view. Topics covered are of interest to clinically oriented physicians, researchers, epidemiologists, psychologists, diabetes educators, and other health professionals. More information about the journal can be found online at care.diabetesjournals.org.

Diabetes Care (print ISSN 0149-5992, online ISSN 1935-5548) is owned, controlled, and published monthly by the American Diabetes Association, Inc., 1701 North Beauregard St., Alexandria, VA 22311. *Diabetes Care* is a registered trademark of the American Diabetes Association.

Copyright © 2014 by the American Diabetes Association, Inc. All rights reserved. Printed in the USA. Requests for permission to reuse content should be sent to Copyright Clearance Center at www.copyright.com or 222 Rosewood Dr., Danvers, MA 01923; phone: (978) 750-8400; fax: (978) 646-8600. Requests for permission to translate should be sent to Permissions Editor, American Diabetes Association, at permissions@diabetes.org.

The American Diabetes Association reserves the right to reject any advertisement for any reason, which need not be disclosed to the party submitting the advertisement.

Commercial reprint orders should be directed to Sheridan Content Services, (800) 635-7181, ext. 8065.

Single issues of *Diabetes Care* can be ordered by calling toll-free (800) 232-3472, 8:30 A.M. to 5:00 P.M. EST, Monday through Friday. Outside the United States, call (703) 549-1500. Rates: \$75 in the United States, \$95 in Canada and Mexico, and \$125 for all other countries.

Diabetes Care is available online at care.diabetesjournals.org. Please call the numbers listed above, e-mail membership@diabetes.org, or visit the online journal for more information about submitting manuscripts, publication charges, ordering reprints, subscribing to the journal, becoming an ADA member, advertising, permission to reuse content, and the journal's publication policies.

Periodicals postage paid at Alexandria, VA, and additional mailing offices.

POSTMASTER: Send address changes to *Diabetes Care*, American Diabetes Association, Inc., Journal Subscriptions, 1701 North Beauregard St., Alexandria, VA 22311. Claims for missing issues should be made within 6 months of publication. The publisher expects to supply missing issues free of charge only when losses have been sustained in transit and when the reserve stock permits.

PRINT ISSN 0149-5992
ONLINE ISSN 1935-5548
PRINTED IN THE USA

AMERICAN DIABETES ASSOCIATION PERSONNEL AND CONTACTS

EDITORIAL OFFICE DIRECTOR

Lyn Reynolds

PEER REVIEW MANAGER

Shannon Potts

EDITORIAL ASSISTANT

Rita Summers

EDITORIAL OFFICE SECRETARIES

Raquel Castillo

Joan Garrett

MANAGING DIRECTOR, SCHOLARLY

JOURNAL PUBLISHING

Christian S. Kohler

DIRECTOR, SCHOLARLY JOURNAL PUBLISHING

Heather L. Norton

EDITORIAL MANAGERS

Valentina Such

Nancy C. Baldino

PRODUCTION MANAGER

Amy S. Gavin

TECHNICAL EDITOR

Oedipa Rice

VICE PRESIDENT, MEMBERSHIP &

DIRECT RESPONSE MARKETING

Richard Erb

VICE PRESIDENT, CORPORATE ALLIANCES

Nancy Stinson Harris

ADVERTISING MANAGER

Julie DeVoss Graff

jdevoss@diabetes.org

(703) 299-5511

MANAGER, MEMBERSHIP/SUBSCRIPTION SERVICES

Donald Crowl

ASSOCIATE DIRECTOR, FULFILLMENT

Caryn Cochran

ADVERTISING REPRESENTATIVES

TMG Custom Media

Nancy Greenwald

ngreenwald@adamediasales.com

(646) 783-3786

The Jackson-Gaeta Group, Inc.

B. Joseph Jackson

bartjack@aol.com

Paul Nalbandian

pnalbandian4ada@aol.com

(973) 403-7677