



JOURNAL OF OSTEOPATHIC MEDICINE

AOA EDITOR IN CHIEF

Ross D. Zafonte, DO

*Spaulding Rehabilitation Hospital Harvard Medical School
Boston, Massachusetts*

EDITORIAL BOARD

BEHAVIORAL HEALTH

Section Editor: Eileen Ryan, DO

*The Ohio State University Wexner Medical Center
Columbus, Ohio*

Associate Editors:

Justin Faden, DO (*Philadelphia, Pennsylvania*)
R. Gregory Lande, DO (*Silver Spring, Maryland*)
Jed Magen, DO, MS (*East Lansing, Michigan*)
Stephen M. Scheinthal, DO, CS (*Mount Laurel, New Jersey*)

CARDIOPULMONARY MEDICINE

Section Editor: Kenneth J. Steier, DO, MBA, MPH

*Touro College of Osteopathic Medicine
Middletown, New York*

Associate Editors:

Olalekan Ogunsakin, MD, PhD, MBA, MPH (*New York, New York*)
Tanchun Wang, PhD (*Middletown, New York*)

MEDICAL EDUCATION

Section Editor: Nadege Dady, EdD

*Touro College of Osteopathic Medicine
New York, New York*

Associate Editor:

Albert H. O-Yurvati, DO, PhD (*Fort Worth, Texas*)

MUSCULOSKELETAL MEDICINE AND PAIN

Section Editor: Arthur J. De Luigi, DO

*Mayo Clinic
Phoenix, Arizona*

Associate Editors:

Mary E. Caldwell, DO (*Henrico, Virginia*)
Jonathan W. Lowery, PhD (*Indianapolis, Indiana*)
R. Dallin Thomas, DO, MPH, CAQSM (*Bethesda, Maryland*)

NEUROMUSCULOSKELETAL MEDICINE/OMT

Section Editor: Kimberly Wolf, DO

*Touro University California College of Osteopathic Medicine
Vallejo, California*

Associate Editor:

Sheldon C. Yao, DO (*Old Westbury, New York*)

OBSTETRICS AND GYNECOLOGY

Section Editor: Meaghan Nelsen, DO

*The University of North Texas Health Science Center
Fort Worth, Texas*

Associate Editors:

Kiran Kavipurapu, DO, JD, MPH (*San Francisco, California*)
Daniel J.S. Martingano, DO, PhD (*Rockaway, New York*)
DeEtte Vasques, DO (*Fort Worth, Texas*)

PEDIATRICS

Section Editor: Amanda Foster, DO

*Oklahoma State University
Tulsa, Oklahoma*

Associate Editors:

Michael A. Baxter, DO (*Tulsa, Oklahoma*)
Alissa Craft, DO, MBA (*Scottsdale, Arizona*)
Colony S. Fugate, DO (*Tulsa, Oklahoma*)
Tami Hendriks, DO (*Vallejo, California*)
Muhammad Waseem, MD, MS, CHSE-A (*Bronx, New York*)

PUBLIC HEALTH AND PRIMARY CARE

Section Editor: Elizabeth A. Beverly, PhD

*Ohio University Heritage College of Osteopathic Medicine
Athens, Ohio*

Section Editor: Kevin M. Pantalone, DO, ECNU

*Cleveland Clinic
Twinsburg, Ohio*

Associate Editors:

John Ashurst, DO, MSc (*Scottsdale, Arizona*)
Craig S. Boisvert, DO (*Lewisburg, West Virginia*)
John J. Dougherty, DO (*Provo, UT*)
Lisa M. Hodge, PhD (*Fort Worth, Texas*)
Kim Pfothenhauer, DO (*Vallejo, California*)

CME EDITOR

Alissa Craft, DO, MBA (*Scottsdale, Arizona*)

INTERNATIONAL ADVISORY BOARD

Yasir Rehman, MD, MsC, PhD (*Ontario, Canada*)

Cleofás Rodríguez Blanco, PhD, DO (*Madrid, Spain*)

Loic Treffel, DO, PhD (*Toulouse, France*)

**STUDENT, RESIDENT, AND FELLOW
ADVISORY BOARD**

Emily Chin, OMS IV, MBA, MHA (*Auburn, Alabama*)

Jantzen J. Faulkner, OMS II (*Tulsa, Oklahoma*)

Divakara Gouda, OMS I (*Stratford, New Jersey*)

Matthew Mayeda, OMS IV, MPH (*East Lansing, Michigan*)

AOA LEADERSHIP

President:

Ernest Gelb, DO

President-elect:

Ira Monka, DO

Interim Chief Executive Officer:

Kathleen S. Creason, MBA

EDITORS IN CHIEF EMERITUS

Robert Orenstein, DO

Mayo Clinic

Phoenix, Arizona

Thomas Wesley Allen, DO, MPH

*Oklahoma State University Center for Health Sciences College of
Osteopathic Medicine*

Tulsa, Oklahoma

University of Oklahoma College of Medicine

Oklahoma City, Oklahoma

Gilbert E. D'Alonzo Jr, DO

Temple University School of Medicine

Philadelphia, Pennsylvania

EDITORIAL STAFF

Senior Vice President, Communications and Marketing:

Lori Wemhoff, MA

Director:

Hunter Alexander

ABSTRACTED/INDEXED IN Baidu Scholar · CNKI Scholar (China National Knowledge Infrastructure) · CNPIEC: cnpLINKer · Dimensions · EBSCO Discovery Service · Google Scholar · J-Gate · KESLI-NDSL (Korean National Discovery for Science Leaders) · Medline · MyScienceWork · Naver Academic · Naviga (Softweco) · Primo Central (ExLibris) · PubMed · ReadCube · SCImago (SJR) · SCOPUS · Semantic Scholar · Sherpa/RoMEO · Summon (ProQuest) · TDNet · WanFang Data · Web of Science: Emerging Sources Citation Index · WorldCat (OCLC) · X-MOL · Yewno Discover

e-ISSN 2702-3648

EDITORIAL OFFICE Hunter Alexander, American Osteopathic Association, 142 E. Ontario St., Chicago, IL 60611-2864,
Email: editorial@osteopathic.org

PUBLISHER Walter de Gruyter GmbH, Berlin/Boston, Genthiner Straße 13, 10785 Berlin, Germany

JOURNAL MANAGER Katharina Appelt, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany, Tel.: +49 (0)30 260 05-325, Fax: +49 (0)30 260 05-352,
Email: katharina.appelt@degruyter.com

ADVERTISEMENTS Email: anzeigen@degruyter.com

© 2023 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING TNQ Technologies, Chennai, India



Offenlegung der Inhaber und Beteiligungsverhältnisse gem. § 7a Abs. 1 Ziff. 1, Abs. 2 Ziff. 3 des Berliner Pressegesetzes: Die Gesellschafter der Walter de Gruyter GmbH sind: Cram, Gisela, Rentnerin, Berlin; Cram, Elisabeth, Pensionärin, Rosengarten-Alvesen; Cram, Dr. Georg-Martin, Unternehmens-Systemberater, Stadtbergen; Cram, Maike, Wien (Österreich); Cram, Jens, Mannheim; Cram, Ingrid, Betriebsleiterin, Tuxpan/Michoacan (Mexiko); Cram, Sabina, Mexico, DF (Mexiko); Cram, Silke, Wissenschaftlerin, Mexico DF (Mexiko); Cram, Björn, Aachen; Cram, Berit, Hamm; Cram-Gomez, Susana, Mexico DF (Mexiko); Cram-Heydrich, Walter, Mexico DF (Mexiko); Cram-Heydrich, Kurt, Angestellter, Mexico DF (Mexiko); Duvenbeck, Brigitta, Oberstudienrätin i.R., Bad Homburg; Gädeke, Gudula, M.A., Atemtherapeutin/Lehrerin, Tübingen; Gädeke, Martin, Student, Ingolstadt; Gomez Cram, Arturo Walter, Global Key Account Manager, Bonn, Gomez Cram, Ingrid Arlene, Studentin, Mexico, DF (Mexiko), Gomez Cram, Robert, Assistant Professor, London UK, Lubasch, Dr. Annette, Ärztin, Berlin; Schütz, Dr. Christa, Ärztin, Mannheim; Schütz, Sonja, Diplom.-Betriebswirtin (FH), Berlin; Schütz, Julianne, Berlin; Schütz, Antje, Berlin; Schütz, Valentin, Mannheim; Seils, Dorothee, Apothekerin, Stuttgart; Seils, Gabriele, Journalistin, Berlin; Seils, Christoph, Journalist, Berlin; Siebert, John-Walter, Pfarrer, Oberstenfeld; Anh Vinh Alwin Tran, Student, Zürich (Schweiz), Tran, Renate, Mediatorin, Zürich (Schweiz); Carmen Siebert, Angestellte, Kempten; Duyen Anh Johann Tran, Architekt, Zürich (Schweiz); Lang Lieu Laurin Tran, Lehrperson, Zürich (Schweiz); Duyen Mai Marie Tran, Studentin, Zürich (Schweiz); Anh Huy Merlin Tran, Schüler, Zürich (Schweiz)