

JIM is the official publication of the American Federation for Medical Research (AFMR).

Journal of Investigative Medicine (JIM) is the official publication of the American Federation for Medical Research (AFMR). In keeping with the mission of the AFMR, *JIM* publishes original, high quality clinical and translational research. *JIM* also provides an avenue by which investigators can publish scholarly reviews relevant to the research-focused mission of the AFMR.

Editorial Board

Editor-in-Chief

Richard W. McCallum, MD,
El Paso, Texas

Editor Emeritus

Michael McPhaul, MD
Dana Point, California

Associate Editors

Michael S. Bronze, MD
Oklahoma City, Oklahoma

Paul Casner, MD
El Paso, Texas

David P. Cistola, MD, PhD
El Paso, Texas

Samrat U. Das, MD
Durham, North Carolina

Kevin D. Deane, MD, PhD
Aurora, Colorado

Octavian C. Ioachimescu, MD, PhD
Decatur, Georgia

Richard A. Lange, MD, MBA
El Paso, Texas

Robert T. Means, Jr., MD
Johnson City, Tennessee

MingMing Ning, MD, MMSc
Boston, Massachusetts

Don C. Rockey, MD
Charleston, South Carolina

Peter N. Van Buren, MD
Dallas, Texas

G. Nicholas Verne, MD
New Orleans, Louisiana

Peter H. Wiernik, MD
Chappaqua, New York

Amir A. Zeki, MD, MAS
Davis, California

Yutong Zhao, MD, PhD
Columbus, Ohio

Social Media Editor

Amit Dey, MD
Bethesda, Maryland

Stephanie L. Baer, MD
Augusta, Georgia

Keith K. Colburn, MD
Loma Linda, California

Dawn B. Davis, MD, PhD
Madison, Wisconsin

Janice P. Dutcher, MD
The Bronx, New York

Vijay Gayam, MD
Brooklyn, New York

L. Parker Gregg, MD
Dallas, Texas

Taylor B. Harrison, MD
Atlanta, Georgia

Armand A. Krikorian, MD, FACE
Oak Lawn, Illinois

Suthat Liangpunsakul, MD, MPH
Westfield, Indiana

Marco Marcelli, MD
Houston, Texas

James C. Oates, MD
Charleston, South Carolina

Allison B. Reiss, MD
Mineola, New York

Don C. Rockey, MD
Charleston, South Carolina

Florence Rothenberg, MS, MD
Cincinnati, Ohio

Leticia M. Ryan, MD, MPH
Baltimore, Maryland

Michael Schivo, MD, MAS
Sacramento, California

Attaya Suvannasankha, MD
Indianapolis, Indiana

Abraham Thomas, MD, MPH
Springfield, Massachusetts

Kristina Utzschneider, MD,
Seattle, Washington

Gloria Lena Vega, MD
Dallas, Texas

G. Nicholas Verne, MD
New Orleans, Louisiana

Cherry Wongtrakool, MD,
Decatur, Georgia

AFMR National Council

President

Leticia M. Ryan, MD, MPH
Baltimore, MD

President-Elect

Janice P. Dutcher, MD
Bronx, NY

Immediate Past President

Suthat Liangpunsakul, MD, MPH
Westfield, IN

Past President

Florence Rothenberg, MS, MD
Cincinnati, OH

Secretary-Treasurer

Peter H. Wiernik, MD
Chappaqua, NY

VP of Meetings & Programs

Cherry Wongtrakool, MD
Decatur, GA

Membership Committee Chair

Edgar Lerma, MD
Berwyn, IL

Publications Committee Chair

Amir A. Zeki, MD, MAS
Davis, CA

Ex-officio

Richard W. McCallum, MD
El Paso, TX

Michael J. McPhaul, MD
Dana Point, CA

Councilors-at-Large

Kevin D. Deane, MD, PhD
Aurora, CO

Sidharth Mahapatra, MD, PhD
Omaha, NE

Abeer Moanna, MD
Decatur, GA

Allison B. Reiss, MD
Mineola, NY

Eastern Chair

Shireen M. Atabaki, MD, MPH
Washington, DC

Eastern Chair-Elect

Theo Trandafirescu, MD
Bayside, NY

Eastern Secretary-Treasurer

Akankasha Goyal, MD
New York, NY

Midwestern Chair

Joumana T. Chaiban, MD, FACE
Chicago, IL

Midwestern Chair-Elect

Attaya Suvannasankha, MD
Indianapolis, IN

Midwestern Secretary-Treasurer

Jennifer Alexander-Brett, MD, PhD
Saint Louis, MO

Southern Chair

Samrat U. Das, MD
Durham, NC

Southern Chair-Elect

Viranuj Sueblinvong, MD
Decatur, GA

Southern Secretary-Treasurer

Stephanie L. Baer, MD
Augusta, GA

Western Chair

Everardo Cobos, MD
Bakersfield, CA

Western Chair-Elect

Prasanth Surampudi, MD
Sacramento, CA

Western Secretary-Treasurer

Melanie Cree-Green, MD
Aurora, CO

Contact Details

Editorial Office

Nicole Aronis
 Tel: +1 919 650 1459
 E: info.jim@bmj.com

Production Editor

Tasnia Nizam
 E: production.jim@bmj.com

Publisher & Supplement Enquiries

Kathy Lyons
BMJ Publishing Group Ltd
2 Hudson Place, 3rd Floor,
Hoboken, NJ 07030
 Email: klyons@bmj.com
 Tel: +1-507-788-0836

American Federation for Medical Research
500 Cummings Center,
Suite 4400,
Beverly, MA 01915, USA
 T: 978-927-8330
www.afmr.org

Customer support

For general queries and support with existing and new subscriptions:
 W: support.bmj.com
 T: +44 (0)20 7111 1105
 E: support@bmj.com

Self-archiving and permissions

W: bmj.com/company/products-services/rights-and-licensing/
 E: bmj.permissions@bmj.com

Advertising

W: bmj.com/company/for-advertisers-and-sponsor/

Display Advertising ROW

Sophie Fitzsimmons
 T: +44 (0)20 3655 5612
 E: sfitzsimmons@bmj.com

Online Advertising ROW

Marc Clifford
 T: +44 (0)20 3655 5610
 E: mclifford@bmj.com

Display & Online Advertising Americas

American Medical Communications (AMC)
 T: +1 973 214 4374
 E: rgordon@americanmedicalcomm.com

Reprints

Author Reprints
 BMJ Reprints Team
 E: admin.reprints@bmj.com

Commercial Reprints ROW

Nadia Gurney-Randall
 M: +44 (0)7866 262 344
 E: ngurneyrandall@bmj.com

Commercial Reprints Americas

Ray Thibodeau
 T: +1 267 895 1758
 M: +1 215 933 8484
 E: ray.thibodeau@contentednet.com

For all other JIM queries:

<http://jim.bmj.com/content/contact-us>

Subscription Information

JIM is published eight times a year (subscribers receive all supplements)
 ISSN 1081-5589 (print)
 ISSN 1708-8267 (digital)

Institutional Rates 2020

Print

Institutional

Extra Small \$1,391
 Print Only \$1,391

Small \$1,391
 Print Only \$1,391

Medium \$1,391
 Print Only \$1,391

Large \$1,391
 Print Only \$1,391

Extra Large \$1,391
 Print Only \$1,391

OA Article Publication Charges
 OA APC **CC-BY-NC** \$2000
 OA APC **CC-BY** \$2,580

Online

Site licenses are priced on FTE basis and allow access by the whole institution.