

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

Editor-in-Chief

Richard W. McCallum, MD,
 Gastroenterology, El Paso, TX

Editor Emeritus

Michael McPhaul, MD
 Endocrinology, Dana Point, CA

Associate Editors

Michael S. Bronze, MD
 Infectious Disease, Oklahoma City, OK
Paul Casner, MD
 Geriatrics, El Paso, TX
David P. Cistola, MD, PhD
 Endocrinology, El Paso, TX
Ricardo Correa, MD
 Endocrinology, Phoenix, AZ
Samrat U. Das, MD
 Pediatrics, Durham, NC
Patrice Delafontaine, MD, FACC, FACP, FAHA, FESC;
 Cardiology New Orleans, LA
Alok Dwivedi, PhD
 Biostatistics & Epidemiology, El Paso, TX
James M. Fleckenstein, MD
 Infectious Disease, St. Louis, MO
Ghazala Hayat, MD
 Neurology, St. Louis, MO
Octavian C. Ioachimescu, MD, PhD
 Pulmonary, Allergy, Critical Care, Sleep Medicine &
 Health Outcomes Decatur, GA
Richard A. Lange, MD, MBA
 Cardiology, El Paso, TX
Joshua De Leon, MD
 Cardiology, Mineola, NY
Robert T. Means, Jr., MD
 Hematology/Oncology, Johnson City, TN
MingMing Ning, MD, MMSc
 Neurology, Boston, MA
Don C. Rockey, MD
 Hepatology, Charleston, SC
Ralf Thiele, MD
 Rheumatology, Rochester, NY
Peter Thompson, MD, MS
 Psychiatry, El Paso, TX
Karina Torralba, MD
 Rheumatology, Loma Linda, CA
Peter N. Van Buren, MD
 Nephrology, Dallas, TX
G. Nicholas Verne, MD
 Gastroenterology, Memphis, TN
Peter H. Wiernik, MD
 Hematology/Oncology, Chappaqua, NY
Amir A. Zeki, MD, MAS
 Pulmonology, Davis, CA
Yutong Zhao, MD, PhD
 Biomedical Research, Columbus, OH

Social Media Editor

Amit Dey, MD
 Bethesda, MD

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.

***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

Sushila Arya, MD, MS, FACOG
 Oklahoma City, Oklahoma
Area of expertise: Obstetrics and Gynecology
Stephanie L. Baer, MD
 Augusta, Georgia
Area of expertise: Infectious Disease
Dawn B. Davis, MD, PhD
 Madison, Wisconsin
Area of expertise: Endocrinology
Janice P. Dutcher, MD
 The Bronx, New York
Area of expertise: Oncology
Vijay Gayam, MD
 Brooklyn, New York
Area of expertise: Gastroenterology
Elvira Gosmanova, MD
 Albany, New York
Area of expertise: Nephrology
L. Parker Gregg, MD
 Dallas, Texas
Area of expertise: Nephrology
Lei Huang, PhD, MD
 Hefei, China
Area of expertise: Oncology
Prashant Joshi, MD
 El Paso, Texas
Area of expertise: Pediatrics
Darine Kassar, MD
 El Paso, Texas
Area of expertise: Neurology
Armand A. Krikorian, MD, FACE
 Oak Lawn, Illinois
Area of expertise: Endocrinology
Suthat Liangpunsakul, MD, MPH
 Westfield, Indiana
Area of expertise: Gastroenterology - Liver

Shu-Yi Liao, MD
 Aurora, Colorado
Area of expertise: Genetics
Marco Marcelli, MD
 Houston, Texas
Area of expertise: Endocrinology
Allison B. Reiss, MD
 Mineola, New York
Area of expertise: Cardiovascular
Florence Rothenberg, MS, MD
 Cincinnati, Ohio
Area of expertise: Cardiovascular
Leticia M. Ryan, MD, MPH
 Baltimore, Maryland
Michael Schivo, MD, MAS
 Sacramento, California
Area of expertise: Pulmonology
Attaya Suvannasankha, MD
 Indianapolis, Indiana
Area of expertise: Hematology
Abraham Thomas, MD, MPH
 Springfield, Massachusetts
Area of expertise: Endocrinology
Kristina Utschneider, MD
 Seattle, Washington
Area of expertise: Endocrinology
Gloria Lena Vega, MD
 Dallas, Texas
Area of expertise: Endocrinology
Cherry Wongtrakool, MD
 Decatur, Georgia
Area of expertise: Pulmonology

AFMR National Council

President

Janice P. Dutcher, MD
 Bronx, NY

President-Elect

Samrat U. Das, MD
 Durham, NC

Immediate Past President

Leticia M. Ryan, MD, MPH
 Baltimore, MD

Past President

Suthat Liangpunsakul, MD, MPH
 Westfield, IN

Secretary-Treasurer

Peter H. Wiernik, MD
 Chappaqua, NY

VP of Meetings & Programs

Cherry Wongtrakool, MD
 Decatur, GA

Membership Committee Chair

Shireen M. Atabaki, MD, MPH
 Washington, DC

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

Amit Dey, MD
 Washington, DC

Allison B. Reiss, MD
 Mineola, NY

Eastern Section Chair

Theo Trandafirescu, MD
 Bayside, NY

Eastern Section Chair-Elect

Lora Kasselmann, PhD, MD
 Mineola, NY

Eastern Section Secretary-Treasurer

Joshua DeLeon, MD
 Mineola, NY

Midwestern Section Chair

Attaya Suvannasankha, MD
 Indianapolis, IN

Midwestern Section Chair-Elect

Sidharth Mahapatra, MD, PhD
 Omaha, NE

Midwestern Section Secretary-Treasurer

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

Southern Section Chair

Viranuj Sueblingvong, MD
 Decatur, GA

Southern Section Chair-Elect

Alexander Philipovskiy, MD
 El Paso, TX

Southern Section Secretary-Treasurer

Stephanie L. Baer, MD
 Augusta, GA

Western Section Chair

Everardo Cobos, MD
 Bakersfield, CA

Western Section Chair-Elect

Melanie Cree-Green, MD, PhD
 Aurora, CO

Western Section Secretary-Treasurer

Ricardo Correa, MD
 Phoenix, AZ

Contact Details

Editorial Office

Chloe Tuck and Rachel Wright

T: +1 919 240 5000

E: info.jim@bmj.com

Assistant to the Editor-in-Chief

Karina Espino

E: karina.espino@ttuhsc.edu

Production Editor

Hannah Martin

E: production.jim@bmj.com

Publisher & Supplement Enquiries

Kathy Lyons

BMJ Publishing Group Ltd

2 Hudson Place, 3rd Floor,

Hoboken, NJ 07030

E: klyons@bmj.com

T: +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

AFMR Membership Inquiries

Aurelie Alger

E: aalger@prii.com

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: sfzsimmons@bmj.com

Online Advertising ROW

Marc Clifford

T: +44 (0)20 3655 5610

E: mclifford@bmj.com

Display & Online Advertising Americas

Cunningham Associates

T: +1 201 767 4170

E: jcunningham@cunnasso.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>