

A Journal of
Surgical Basic Science,
Clinical Investigation,
Outcome Studies and
Education Research

JSR *Journal of*
Surgical Research

Official Publication of the Association for Academic Surgery

Volume 188, Number 1, May 1, 2014

Editors

David W. McFadden
University of Connecticut

Wiley W. Souba
Dartmouth University

Associate Editors

Malcolm Brock
The Johns Hopkins Hospital

Timothy W. King
University of Wisconsin

Craig Selzman
University of Utah

Herbert Chen
University of Wisconsin

James Mezhir
University of Iowa Hospitals and Clinics

Julie Ann Sosa
Duke University

Alan Dardik
Yale University School of Medicine

Tim Pawlik
Johns Hopkins University

Matthias Stelzner
University of California, Los Angeles

David G. Greenhalgh
*Shriner's Hospital for Children,
Sacramento*

Timothy Pritts
University of Cincinnati

Christoph Troppmann
University of California, Davis

Melina R. Kibbe
Northwestern University

Association for Academic Surgery Representative to JSR

Faisal Bakaeen
Baylor College of Medicine

Managing Editor

Susan Newcombe
Stellar Medical Publications

Editorial Board

Aaron M. Abarbanell
Indiana University School of Medicine

Luis Fernandez
University of Wisconsin

Donald Laub, Jr.
*University of Vermont College
of Medicine*

Rebecca Sippel
University of Wisconsin

Suresh Agarwal
Boston University

Thomas Ferry
Indiana University

Harold Lovvorn III
*Vanderbilt University Children's
Hospital*

Kristan Staudenmayer
Stanford University

Nita Ahuja
John Hopkins University

Anne Crowe Fischer
*University of Texas Southwestern
Medical School*

Hsu Ma
Veterans General Hospital-Taipei

Daniel H. Teitelbaum
*University of Michigan
Hospitals*

Daniel Anaya
Baylor College of Medicine

Marco Fisichella
Loyola University Medical Center

Mariuxi Manukyan
Indiana University School of Medicine

Luis H. Toledo-Pereyra
*Michigan State University,
Kalamazoo*

Carlton C. Barnett, Jr.
University of Colorado

Robert Galiano
Northwestern University Medical School

Julie Margenthaler
*Washington University School
of Medicine*

Omaida Velazquez
The University of Miami

David Bentrem
*Northwestern University
Medical School*

Philip Goodney MD
*Dartmouth Hitchcock Department
of Surgery*

Troy Markel
*Indiana University School of
Medicine*

Meijing Wang
*Indiana University School of
Medicine*

David Berger
Houston VA Medical Center

Weidun Alan Guo
State University of New York at Buffalo

Haggi Mazeh
University of Wisconsin

Brent R. Weil
*Indiana University School of
Medicine*

John C. Byrn
University of Iowa

David Hackam
*Children's Hospital of Pittsburgh,
University of Pittsburgh*

Brad McDowell
University of Iowa

Rebekah White
Duke University Medical Center

Rajiv Chandawarkar
University of Connecticut

Zane Hammoud
Henry Ford Health System

Nathan Novotny
Indiana University

Christopher Wolfgang
Johns Hopkins University

Clifford Cho
University of Wisconsin

Heithem T. Hassoun
Johns Hopkins University

Dennis P. Orgill
*Brigham and Women's
Hospital*

James Yoo
UCLA

Joseph C. Cleveland, Jr.
University of Colorado at Denver

Jeremy L. Herrmann
Indiana University School of Medicine

Jeffrey Poynter
Indiana University School of Medicine

Michael Zimmerman
*University of Colorado Health
Sciences Center*

Craig Coopersmith
*Emory University School
of Medicine*

Jussuf Kaifi
Penn State Hershey Cancer Institute

John Scarborough
Duke University Medical Center

Brian Zuckerbraun
*University of Pittsburgh School
of Medicine*

Juan A. Crestanello
Ohio State University

Steven Katz
Roger Williams Hospital

David Schneider
University of Wisconsin

Paul R. Crisostomo
Indiana University

Greg Kennedy
University of Wisconsin

Craig H. Selzman
University of Utah

Joseph Cullen
University of Iowa Hospitals & Clinics

Alexander Sasha Krupnick
*Washington University School of
Medicine, St. Louis*

Markus Selzner
Toronto General Hospital

John Daller
Temple University

Tim Lahm
Indiana University School of Medicine

Editors Emeriti: George D. Zuidema, David B. Skinner, Christopher K. Zarins, Bruce L. Gewertz