

# The Journal of Hand Surgery

An International Journal Devoted  
to Surgery of the Upper Extremity



**ASSH**

American Society for  
Surgery of the Hand

## Editor-in-Chief

Brent Graham • Toronto, Ontario, Canada

## Deputy Editor of Methodology

Ryan Calfee • St. Louis, MO

## Deputy Editor of Review

David T. Netscher • Houston, TX

## Deputy Editor-in-Chief

Jennifer Moriatis Wolf • Chicago, IL

## Deputy Editor of Social Media

Raymond B. Raven • Burbank, CA

## Associate Editors

Reid A. Abrams, San Diego, CA  
Joshua M. Abzug, Timonium, MD  
Julie E. Adams, Minneapolis, MN  
Edward Akelman, Providence, RI  
Mark E. Baratz, Pittsburgh, PA  
Pedro K. Beredjikian, Philadelphia, PA  
Louis W. Catalano III, New York, NY  
Alphonsus K. Chong, Singapore  
Kevin C. Chung, Ann Arbor, MI  
Catherine Curtin, Palo Alto, CA  
Aaron Daluiski, New York, NY  
David G. Dennison, Rochester, MN  
Marybeth Ezaki, Dallas, TX  
Ali Ghiassi, Los Angeles, CA  
Charles A. Goldfarb, St. Louis, MO  
Ruby Grewal, London, Ontario, Canada  
Jerry I. Huang, Seattle, WA  
Jonathan E. Isaacs, Richmond, VA  
Peter J.L. Jebson, Grand Rapids, MI  
Wally Jones, Redmond, WA  
Ryan Katz, Baltimore, MD  
Stephen A. Kennedy, Seattle, WA  
Graham J.W. King, London,  
Ontario, Canada  
Jason H. Ko, Seattle, WA  
Lewis B. Lane, Manhasset, NY  
Fraser J. Leversedge, Durham, NC  
Scott D. Lifchez, Baltimore, MD  
John D. Lubahn, Erie, PA  
Michael McClinton, Baltimore, MD  
Gregory Merrell, Indianapolis, IN  
Scott Mitchell, Los Angeles, CA  
Peter M. Murray, Jacksonville, FL  
Nash Naam, Effingham, IL

Christine Novak, Toronto, Ontario,  
Canada

Jason A. Nydick, Tampa, FL  
Kerby C. Oberg, Loma Linda, CA  
Daniel A. Osei, St. Louis, MO  
Kagan Ozer, Ann Arbor, MI  
Rita Patterson, Fort Worth, TX  
Craig S. Phillips, Chicago, IL  
Douglas E. Pittner, Camp  
Lejeune, NC  
Jay F. Pomerance, New York, NY  
Lee M. Reichel, Houston, TX  
Tamara D. Rozental, Boston, MA  
Walter H. Short, Syracuse, NY  
Gordon M. Singer, Jerusalem, Israel  
Scott P. Steinmann, Rochester, MN  
John M. Stephenson, Little Rock, AR  
Robert J. Strauch, New York, NY  
Amir Taghinia, Boston, MA  
Jennifer F. Waljee, Ann Arbor, MI  
Lindley Wall, St. Louis, MO  
Dan A. Zlotolow, Philadelphia, PA

## ASSH Journal Advisory Group

Martin I. Boyer, St. Louis, MO  
Michelle G. Carlson, New York, NY  
James Chang, Palo Alto, CA

## Editorial Offices

The Journal of Hand Surgery  
American Society for Surgery  
of the Hand  
822 West Washington Boulevard  
Chicago, IL 60607  
Phone: (312) 880-1900  
Fax: (847) 384-1435

## EUROPEAN VOLUME

### Editor-in-Chief

Jin Bo Tang, Nantong

### Editors

Henk Coert, Rotterdam  
Tim Hems, Glasgow  
Geoff Hooper, Edinburgh  
Mike Rüttermann, Groningen and Oldenburg  
Rory Wetherell, Canterbury

### Assistant Editor

Roy Meals, Los Angeles

### Social Media Editor

Zaf Naqui, Salford

### Statistical Advisors

Paul Cool, Oswestry  
Martyn Hill, Southampton

### Editorial Board

Roberto Adani, Modena  
Mohammad Al-Qattan, Riyadh  
Rouin Amirfeyz, Bristol  
Sudhi Ankarath, Huddersfield  
Jorg Bahm, Aachen and Brussels  
Randip Bindra, Gold Coast  
Jeremy Bland, Canterbury  
Kevin Chung, Michigan  
Nicholas Downing, Nottingham  
Sue Fullilove, Plymouth  
Dominic Furniss, Oxford  
Boyd Goldie, London  
Carlos Heras-Palou, Derby  
James Hopkinson-Woolley, Cambridge  
Steven Hovius, Rotterdam  
Carlos Irisarri, Vigo  
Barbara Jemec, London  
Christina Jerosch-Herold, Norwich  
Wee Lam, Edinburgh  
Ian Leslie, Bristol  
Andrew Logan, Cardiff  
Jane McEachan, Dunfermline  
Charles Pailthorpe, Reading  
Alistair Ross, Bath  
Roberto Sanchez-Rosales, La Laguna, Tenerife  
Guillem Salva-Coll, Palma de Mallorca  
Andrew Smith, Margate  
Mike Solomons, Cape Town  
David Warwick, Southampton  
Paul Werker, Groningen