

# MCP MOLECULAR AND CELLULAR PROTEOMICS

## Co-editors

Ralph A. Bradshaw  
University of California, San Francisco

Alma L. Burlingame  
University of California, San Francisco

## Associate Editors

Ruedi Aebersold, Institute for Molecular Systems Biology, Federal Institute of Technology (ETH) Zürich, Faculty of Natural Sciences, University of Zürich, Zürich and Institute for Systems Biology, Seattle

Steven P. Briggs, University of California, San Diego

Steven A. Carr, Broad Institute, Cambridge

Julio E. Celis, Institute of Cancer Biology and DCTB, Copenhagen

Anne-Claude Gavin, EMBL, Heidelberg

Gerald W. Hart, Johns Hopkins University Medical School, Baltimore

Elizabeth A. Komives, University of California, San Diego

Michael Snyder, Stanford University School of Medicine, Stanford

John T. Stults, Genentech, Inc., South San Francisco

## Editorial Board Members

Natalie G. Ahn  
Brenda Andrews  
Terri Attwood  
Tony Bacic  
Nuno Bandeira  
Catherine Bazemore-Walker  
Ronald Beavis  
Laura Beretta  
John J. M. Bergeron  
Matthew Bogyo  
Carl Borrebaeck  
Nils Brunner  
Wengang Chai  
Robert Chalkley  
Mark Chance  
Andrew Chantry  
Jyoti Choudhary  
Karl R. Clauser  
Tom Conrads  
Ileana Cristea  
Richard D. Cummings  
James De Voss  
Eric Deutsch  
Bruno Domon  
Joshua Elias  
Andrew Emili  
Virginia Espina  
Mike Fainzilber  
Ian Fearnley  
Stanley Fields  
Daniel Figey  
William M. Gallagher

Jerome Garin  
Simon J. Gaskell  
Robert L. Geahlen  
Robert E. Gerstein  
Brad W. Gibson  
Anne-Claude Gingras  
Jeffrey J. Gorman  
Shenheng Guan  
Brian Haab  
Murray Hackett  
Albert J. R. Heck  
Darren Hodgson  
Hubert Hondermarck  
Andrew Hoofnagle  
Lan Huang  
Toshiaki Isobe  
Ole N. Jensen  
Connie Jimenez  
Dominique Job  
Richard Johnson  
Peter Juhasz  
Eugene A. Kapp  
Barry Karger  
Elise C. Kohn  
Harley Kornblum  
Bernhard Küster  
Doug Lauffenburger  
Carlito B. Lebrilla  
Dan Liebler  
Bin Liu  
Michael MacCoss  
D. R. Mani

Matthias Mann  
Peter McPherson  
Katalin F. Medzihradszky  
Bernard Monsarrat  
Jose Moreira  
David Muddiman  
Al Nesvizhskii  
Ann L. Oberg  
Yoshiya Oda  
Gilbert Omenn  
Torben Ørntoft  
Jun Qin  
Akhilesh Pandey  
Amanda Paulovich  
Eric M. Phizicky  
Thierry Rabilloud  
David Rocke  
Peter Roepstorff  
Andrej Sali  
Ralf Schoepfer  
John Scott  
Waltraud Schulze  
Andrej Shevchenko  
Kai Simons  
A. Ian Smith  
Richard Smith  
Kenneth G. Standing  
Elaine Stephens  
Marc E. Surette  
Pierre Thibault  
Jonathan Trinidad  
Jeff Twiss

Henning Urlaub  
Jan Van Oostrum  
Zhi-Yong Wang  
Michael Washburn  
Klaas Van Wijk

Marc Vidal  
Kenneth W. Walker  
Lance Wells  
Anthony Whetton  
Julian P. Whitelegge

Michael B. Yaffe  
Rong Zeng  
Hongyu Zhao  
Heng Zhu  
Roman A. Zubarev

## Editorial Office

Barbara Gordon, *Executive Director*  
Nancy J. Rodnan, *Director of Publications*  
Mary L. Chang, *Coordinating Journal Manager*  
American Society for Biochemistry and  
Molecular Biology  
11200 Rockville Pike, Suite 302  
Rockville, MD 20852-3110  
Phone: (240) 283-6620  
Fax: (301) 881-2573  
E-mail: [mcp@asbmb.org](mailto:mcp@asbmb.org)

## Office of the Co-Editors

Ralph Bradshaw, Editor  
Erin A. Schalles, Manager  
E-mail: [eschalles@asbmb.org](mailto:eschalles@asbmb.org)

A.L. Burlingame, Editor  
Kris Casler, Manager  
E-mail: [kcasler@asbmb.org](mailto:kcasler@asbmb.org)  
University of California, San Francisco  
Department of Pharmaceutical Chemistry  
San Francisco, CA 94143-2240  
Phone: 415-476-4893  
Fax: 415-502-1655

## Clinical Proteomics Advisory Committee

Julio E. Celis (Chair)

Institute of Cancer Biology and DCTB, Copenhagen  
[jec@cancer.dk](mailto:jec@cancer.dk)

Steven A. Carr (Deputy Chair)  
The Broad Institute, Cambridge

Nils Brunner  
Royal Veterinary & Agriculture University,  
Denmark

Robert E. Gerszten  
Massachusetts General Hospital, Boston

Darren Hodgson  
AstraZeneca, Cheshire, UK

Elise C. Kohn  
National Institutes of Health, Bethesda

David F. Ransohoff  
University of North Carolina, Chapel Hill

P. H. Riegman  
Erasmus Medical Center, Rotterdam

Ralph A. Bradshaw (Ex-Officio)  
University of California, San Francisco

Alma L. Burlingame (Ex-Officio)  
University of California, San Francisco

## GENERAL INFORMATION

Molecular and Cellular Proteomics, ISSN 1535-9484 (electronic) and ISSN 1535-9476 (print), is published monthly by the American Society of Biochemistry and Molecular Biology. This publication is available exclusively on line at <http://www.mcponline.org>. For subscription information, please visit our website at [www.mcponline.org/site/subscriptions](http://www.mcponline.org/site/subscriptions).

Submit all manuscripts via the web to: [www.mcponline.org/submit](http://www.mcponline.org/submit). All correspondence should be addressed to:

**Editor, Molecular & Cellular Proteomics**  
**11200 Rockville Pike, Suite 302**  
**Rockville, MD 20852-3110, U.S.A.**

Accepted manuscripts will be published with the implicit understanding that the author(s) will pay a \$65 charge per page. Under exceptional circumstances, when no source of grant or other support exists, the author(s) may apply, at the time of submission, for a grant-in-aid to Chairman, Publications Committee, American Society for Biochemistry and Molecular Biology, Inc., 11200 Rockville Pike, Suite 302 Rockville, MD 20852-3110. All such applications must be countersigned by an appropriate institutional official stating that no funds are available for page charges.

Queries on matters of general editorial policy should be directed to the Journal Editorial Office in Rockville, telephone 240-283-6620;

fax 301-881-2573; E-mail [mcp@asbmb.org](mailto:mcp@asbmb.org). *Molecular & Cellular Proteomics* publishes papers on a broad range of topics of interest to scientists working in the field of proteomics. The views expressed are those of the author(s) and not of *Molecular & Cellular Proteomics* or the American Society for Biochemistry and Molecular Biology.

*Molecular & Cellular Proteomics* is copyrighted by the American Society for Biochemistry and Molecular Biology, Inc. ASBMB grants use without requiring your copyright permission request for: original authors wanting to reproduce up to two figures or tables from their own work to publish in not-for-profit formats or venues, provided that full acknowledgment of the source is provided in the new work. For all other permissions to photocopy or use material electronically from *Molecular & Cellular Proteomics*, ISSN 1535-9484 (electronic) or ISSN 1535-9476 (print), please access [www.copyright.com](http://www.copyright.com) or contact Copyright Clearance Center, Inc. (CCC) 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. CCC is a not-for-profit organization that provides licenses and registration for a variety of users.

*Molecular & Cellular Proteomics* (ISSN 1535-9476) is published monthly by the American Society for Biochemistry and Molecular Biology, 11200 Rockville Pike, Suite 302, Rockville, MD 20852-3110.