

# The Journal of Neuroscience

## EDITOR-IN-CHIEF

John H.R. Maunsell  
Aparna Paul, Assistant

## SENIOR EDITORS

Mark Bothwell  
Valina Dawson  
Nancy Ip  
Sabine Kastner  
Chris McBain  
Serge Przedborski  
Matthew Rushworth  
Yavin Shaham

## REVIEWING EDITORS

Dora Angelaki  
Tracy L. Bale  
Deanna Benson  
Christophe Bernard  
Jeffrey Diamond  
Ray Dolan  
Timothy Ebner  
Mark Farrant  
Alyson Fournier  
Vittorio Gallo  
Michael Gold  
Constantino Iadecola  
Paul J. Kenny  
Eric Klann  
James Knierim  
Gary E. Landreth  
Daeyeol Lee  
Diane Merry  
Farzan Nadim  
Jeanne Nerbonne  
David Perkel  
Sam Pleasure  
Charan Ranganath  
Rajiv Ratan  
Dan H. Sanes  
Charles Schroeder  
Felix Schweizer  
Jane Taylor  
Ivan Toni  
W. Martin Usrey

## ASSOCIATE EDITORS

### Behavioral/Systems/Cognitive

Michele A. Basso  
Mark Baxter  
Kent Berridge  
James Bisley  
Ed Callaway  
Matteo Carandini  
Leonardo Cohen  
Laura Colgin  
J. Douglas Crawford  
Bruce Cumming  
Jonathan Domb  
Ralph Dileone  
Vincent Ferrera  
Stan Floresco  
Karl Friston  
Patricia Gaspar  
Asif Ghazanfar  
Geoffrey Ghose  
Jacqueline Gottlieb  
Patrice Guyenet  
Michael Hasselmo  
David Heeger  
Bruce Hope  
Dieter Jaeger  
J. David Jentsch  
Christoph Kayser  
Andrew King  
George Koob  
Richard Krauzlis  
Roger Lemon  
Anita Lüthi  
Julio Martinez-Trujillo  
Margaret McCarthy  
Tirin Moore

Micah Murray  
Uta Noppeney  
Guy Orban  
Adrian Owen  
Richard Palmiter  
Anitha Pasupathy  
Paul Phillips  
Greg Quirk  
Gregg Recanzone  
Dorit Ron  
Glenn E. Schafe  
Geoffrey Schoenbaum  
Tracey Shors  
Gordon Shulman  
Hans Straka  
Alessandro Treves  
Doris Tsao  
Leslie Vosshall  
Rachel I. Wilson  
Marina Wolf  
Catherine Woolley  
Steven Yantis

### Cellular/Molecular

Laszlo Acsady  
Heinz Beck  
Larry I. Benowitz  
Antonello Bonci  
Paul Buckmaster  
Patrizia Casaccia-Bonneli  
Pablo Castillo  
Michael Caterina  
Lu Chen  
Anis Contractor  
Cindy Czajkowski  
Liset M. de la Prida  
Sulayman Dib-Hajj  
Cheryl Dreyfus  
Michael Friedlander  
Lisa Goodrich  
Robert Greene  
Helmut Haas  
Yasunori Hayashi  
Dax Hoffman  
John Isaac  
Ege T. Kavalali  
Kamran Khodakhah  
Carl Lupica  
Olivier Manzoni  
BethAnn McLaughlin  
Lin Mei  
Bernd Nilius  
Linda Overstreet-Wadiche  
Jelena Radulovic  
William Ross  
Bernardo Sabatini  
Pankaj Sah  
Steven Scherer  
Laura Schrader  
Mark Shapiro  
Joshua Singer  
Ivan Soltesz  
Ben Strowbridge  
Ling-Gang Wu  
Gerald Zamponi

### Development/Plasticity/Repair

Stewart A. Anderson  
Ottavio Arancio  
Heather Cameron  
Jonah Chan  
Jean-François Cloutier  
Donna Fekete  
Laura Feltri  
Charles French-Constant  
Wilma Friedman  
Nicolas Gaiano  
Roman Giger  
Magdalena Götz  
Zhiqiang He  
Robert Hevner  
Kozo Kaibuchi

Katherine Kalil  
Matthew Kelley  
Dimitri Krainc  
Joseph Lo Turco  
Wendy Macklin  
Kim McAllister  
Keith Murai  
Michael A. Nitsch  
Denis Pare  
Serge Rivest  
Todd Sacktor  
Helen E. Scharfman  
Jorg B. Schulz  
Michael Sendtner  
Deanna Smith  
Michael Sofroniew  
Hongjun Song  
Terrence Town

### Neurobiology of Disease

Josef Anrather  
Karen Ashe  
Douglas Bayliss  
Paolo Calabresi  
Alain Chedotal  
Jun Chen  
Mark Cookson  
Douglas Coulter  
William Dauer  
Patrick Dougherty  
Karen Duff  
David Eidelberg  
Frank M. Faraci  
Mel Feany  
Bonnie Lynne Firestein  
Robert Friedlander  
Todd Golde  
Christian Haass  
Giles Hardingham  
Markus Heilig  
Eric Huang  
Frances Jensen  
Robert Kalb  
Michael K. Lee  
David Lynch  
Elior Peles  
Leonard Petrucelli  
David Pleasure  
Jochen Prehn  
Leonidas Stefanis  
Miquel Vila

### FEATURES EDITOR

Teresa Esch

### EDITORIAL STAFF

Zachary Dourafei  
Dante Graves  
Jacqueline Perry  
Nicole Power  
Suzanne Rosenzweig  
Christian Vazquez  
Sola Yu

*The Journal of Neuroscience* (ISSN-0270-6474) is the official journal of the Society for Neuroscience, 1121 14th Street, NW, Suite 1010, Washington, DC 20005. It is published weekly by the Society, fifty weeks a year, one volume a year.

**Subscriptions** are on a volume basis beginning with the January 4 issue. The Volume 32 (2012) Institutional rate information is available on the website: <http://www.jneurosci.org/subscriptions/cost.dtl>. Single copies for the U.S. are \$65, \$85 elsewhere. Institutional subscribers should direct subscription orders, back issue requests, claims, and changes of address to *The Journal of Neuroscience*, Subscription Services, 1121 14th St., NW, Suite 1010, Washington, DC 20005, [subs@sfn.org](mailto:subs@sfn.org). Claims will be honored if received within three (3) months of the month of issue. A maximum of three (3) single-issue claims will be honored per volume per subscriber. Society for Neuroscience members interested in subscribing to the *Journal* at a reduced rate should contact the Society's Membership Department (phone 202-962-4000, [memb@sfn.org](mailto:memb@sfn.org)). Society members should also direct back issue requests to [subs@sfn.org](mailto:subs@sfn.org).

**Advertising** inquiries should be addressed to Marci Leach, The Society for Neuroscience, 1121 14th St., NW, Suite 1010, Washington, DC 20005, phone 202-962-4000, [mleach@sfn.org](mailto:mleach@sfn.org).

**Reprints** of a single copy of an individual article are available from Infotrieve at <http://www.infotrieve.com>.

**Photocopies:** The *Journal* is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Authorization to photocopy items for the internal or personal use of specific clients is granted by the Society for Neuroscience provided that the copier pay to the Center the \$15.00 copy fee stated in the code on the first page of each article. Special requests, such as for general distribution, resale, advertising, and promotional purposes or for creating new works, should be directed to Journal Permissions, Society for Neuroscience, 1121 14th St., NW, Suite 1010, Washington, DC 20005, [jnpermissions@sfn.org](mailto:jnpermissions@sfn.org).

**Postmaster:** Send address changes to *The Journal of Neuroscience*, Society for Neuroscience Membership Department, 1121 14th St., NW, Suite 1010, Washington, DC 20005. Periodicals postage paid at Washington, DC, and additional mailing offices. Canada Post International Publications Mail (Canadian Distribution) Sales Agreement No. 0895369. *The Journal of Neuroscience* is indexed by BIOSIS, Brain Information Service, Chemical Abstracts, Current Contents EMBASE/Excerpta Medica, FISHLIJ; Index Medicus, Index to Scientific Reviews, Psychological Abstracts, PsycINFO, and PsycLIT. © The *Journal* is printed on acid-free paper that meets the minimum requirements of ANSI Standard Z39.48-1984 (Permanence of Paper). Copyright © 2012 Society for Neuroscience. All rights reserved.

The ideas and opinions expressed in *The Journal of Neuroscience* do not necessarily reflect those of the Society for Neuroscience or the Editors of *The Journal of Neuroscience*. Publication of an advertisement or other product mention in *The Journal of Neuroscience* should not be construed as an endorsement of the manufacturer's claims. The Society for Neuroscience does not assume any responsibility for any injury and/or damage to persons or property arising from or related to any use of any material contained in *The Journal of Neuroscience*.