

# JNeurosci

THE JOURNAL OF NEUROSCIENCE

## EDITOR-IN-CHIEF

Marina Picciotto

## SENIOR EDITORS

Greg DeAngelis  
Jeffrey Diamond  
Jay A. Gottfried  
Gavan McNally  
Dan H. Sanes  
Ruth S. Slack  
Ivan Toni  
Catherine S. Woolley

## REVIEWING EDITORS

Bruno Averbeck  
James Bisley  
Farran Briggs  
Jonah Chan  
Roshan Cools  
Jonathan Demb  
Ruth Anne Eatock  
Paul Frankland  
Fabrizio Gabbiani  
Aidan Horner  
Jenny Hsieh  
Patricia Janak  
Artur Kania  
Christoph Kayser  
Jon D. Levine  
Anita Luthi  
Pieter Medendorp  
Suzanne M. Moenter  
Ralph A. Nixon  
Jonas Obleser  
Hans Op de Beeck  
Linda Overstreet-Wadiche  
Daniela Schiller  
Kevin J. Staley  
Mark Stopfer  
Kate Wassum

## ASSOCIATE EDITORS

Woo-Young Ahn  
Regina Armstrong  
Mark Baccèi  
Bernard Balleine  
Michael Beauchamp  
Til Ole Bergmann  
H. Tad Blair  
Stephanie Borgland  
Laura Bradfield  
Andreas Burkhalter  
Erin Calipari  
Donna Calu  
Jianhua Cang  
Yu-Qing Cao  
Manuel Castro-Alamancos  
Joseph F. Cheer  
Marlene Cohen  
Michael Cohen  
Joanne Conover  
Carsten Culmsee  
Mauricio R. Delgado  
Hanneke den Ouden  
Mingzhou Ding  
Yan Dong  
Julie Duque  
Gregory Dussor  
Joseph El Khoury  
James Fawcett  
Marla Feller  
Lesley K. Fellows  
Antonio Ferrer-Montiel  
Alfredo Fontanini  
Alex Fornito  
Christie D. Fowler  
Michael J. Frank

Rita Fuchs

Nicholas Furl  
Gianluca Gallo  
Lindsey Glickfeld  
Jonathan Godbout  
Shannon Gourley  
Christina Gremel  
Saskia Haegens  
Simon Hanslmayr  
Gesa Hartwigsen  
Yu Hayashi  
Matthew R. Hayes  
Biyu He  
Mary Heinricher  
Molly Henry  
Jens-Max Hopf  
Susan Ingram  
Mihaela Iordanova  
Ru-Rong Ji  
Bong-Kiun Kaang  
Thorsten Kahnt  
Josef Kapfhammer  
Bradley Kerr  
Baljit Khakh  
Satoshi Kida  
Hackjin Kim  
Conny Kopp-Scheinflug  
Rohini Kuner  
Mark Laubach  
Michael S. Levine  
Ifat Levy  
Angelika Lingnau  
David M. Lovinger  
Arianna Maffei  
Nathan Marchant  
Lori McMahon  
Hugo Merchant  
Courtney Miller  
Marisela Morales  
Maria Concetta Morrone  
John Murray  
Vishnu Murty  
Nandakumar Narayanan  
John O'Doherty  
Christopher Pack  
Marius Peelen  
Markus Ploner  
Gabriela Popescu  
Theodore Price  
Margaret E. Rice  
Erin Rich  
Jocelyn Richard  
Peter Rudebeck  
Jorg B. Schulz  
Hyojung Seo  
Barry Setlow  
Thomas A. Stalnaker  
Carla Tavecchia  
Kuei Y. Tseng  
Anastassios Tzingsounis  
Rufin VanRullen  
Felix Viana  
Timothy J. Vickery  
Rufin Vogels  
Kaspar Vogt  
Henrique Von Gersdorff  
Lu-Yang Wang  
Michael Wegner  
Nicole Wenderoth  
Donna M. Wilcock  
Catharine Antonia Winstanley  
Teresa L. Wood  
Geoffrey Woodman  
Lawrence Wrabetz  
Hanns Ulrich Zeilhofer  
Hui Zheng  
Ying Zhang  
Ulf Ziemann

## FEATURES EDITOR

Teresa Esch

## EDITORIAL STAFF

Kelly Newton  
Blythe Alexander  
Zachary Dourafei  
Elizabeth Griffith  
Vicente Carmona  
Mary Collins  
Lesley Hillis  
Eric Hoffmaster  
Kara O'Leary  
Krystin Ventura

*JNeurosci* is an official journal of the Society for Neuroscience (SfN). It is published weekly by the Society, 50 weeks a year, one volume a year. Email: [JN@sfn.org](mailto:JN@sfn.org).

Print ISSN: 0270-6474

Online ISSN: 1529-2401

**Subscriptions** are on a volume basis beginning with the first issue of the year. 2020 institutional subscription rates are available online at <https://jneurosci.org/content/subscriptions/cost>. Institutional subscribers should direct subscription orders, back issue requests, claims, and changes of address to [subscriptions@sfn.org](mailto:subscriptions@sfn.org). Claims will be honored if received within four months of the month of issue. A maximum of three single-issue claims will be honored per volume per subscriber.

**Advertising** inquiries should be addressed to [adsales@sfn.org](mailto:adsales@sfn.org).

**Copyright:** of all individual articles published in *JNeurosci* remains with the authors. Six months after issue publication, articles become available to the public to copy, distribute, or display under a [Creative Commons Attribution 4.0 International \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/) license. *JNeurosci* as a collective work is copyright © 2020 Society for Neuroscience. All rights reserved.

**Permissions:** Questions or requests for general distribution, resale, advertising, and promotional purposes, or for creating new works of non-CC BY content should be directed to Journal Permissions at [jnpermissions@sfn.org](mailto:jnpermissions@sfn.org).

**Photocopies:** *JNeurosci* is registered with the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, or [www.copyright.com](http://www.copyright.com). Authorization to photocopy items for the internal or personal use of specific clients is granted by SfN provided that the copier pay the appropriate fee directly to the CCC.

**Postmaster:** Send address changes to *JNeurosci*, 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.

*JNeurosci* is indexed by BIOSIS, Chemical Abstracts Service, Current Contents, Embase, Index Medicus/Medline, PubMed, PubMed Central, and PsycINFO.

*JNeurosci* is printed on acid-free paper.

The ideas and opinions expressed in *JNeurosci* do not necessarily reflect those of SfN or the *JNeurosci* Editorial Board. Publication of an advertisement or other product mention in *JNeurosci* should not be construed as an endorsement of the manufacturer's claims. SfN 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 *JNeurosci*.