

---

# Biology Open

Volume 5 (2) February 2016

## Editor-in-Chief

Jordan W. Raff (University of Oxford, UK)

## Deputy Editors-in-Chief

John R. Speakman (University of Aberdeen, UK)  
Anna-Katerina Hadjantonakis (Memorial Sloan-Kettering  
Cancer Center, New York, USA)

## Monitoring Editors

Daniel Durocher (University of Toronto, Canada)  
Fanni Gergely (University of Cambridge, UK)  
Jack P. Hayes (University of Nevada, USA)  
Catherine L. Jackson (Institute Jacques Monod, France)  
Yishi Jin (University of California San Diego, USA)  
Patricia J. Keely (University of Wisconsin-Madison, USA)  
Steven Kelly (University of Oxford, UK)  
Jennifer Nichols (University of Cambridge, UK)  
Luca Scorrano (University of Padua, Italy)

## Managing Editor

Rachel Hackett

## Editorial Assistant

Derah Saward-Arav

## Editorial Administrator

Sue Chamberlain

## Editorial Advisory Board

**Kathryn V. Anderson** (Memorial Sloan-Kettering Cancer Center,  
New York, USA)  
**M. Madan Babu** (MRC-LMB, Cambridge, UK)  
**Ben Barres** (Stanford University, USA)  
**Alexander D. Bershadsky** (Weizmann Institute of Science, Israel and  
Mechanobiology Institute, NUS, Singapore)  
**Wendy Bickmore** (MRC IGMM, University of Edinburgh, UK)  
**Mina Bissell** (Lawrence Berkeley National Laboratory, University of  
California, USA)  
**Julio E. Celis** (Danish Cancer Society Research Center, Copenhagen,  
Denmark)  
**Stephen C. Ekker** (Mayo Clinic, USA)  
**Gillian Griffiths** (University of Cambridge, UK)  
**Sarah C. Hake** (University of California, Berkeley, USA)  
**James W. Hicks** (University of California, Irvine, USA)  
**Justin P. Kumar** (Indiana University, USA)  
**Jane Langdale** (University of Oxford, UK)  
**Laura Machesky** (The Beatson Institute for Cancer Research,  
Glasgow, UK)  
**Alfonso Martinez-Arias** (University of Cambridge, UK)  
**J. Richard McIntosh** (University of Colorado, Boulder, USA)  
**Ira Mellman** (Genentech, USA)  
**Andrea Musacchio** (Max-Planck Institute of Molecular Physiology,  
Dortmund, Germany)  
**Philip Munday** (James Cook University, Townsville, Australia)  
**Sudipto Roy** (A\*Star Institute of Molecular and Cell Biology, Singapore)  
**Stephen M. Secor** (University of Alabama, USA)  
**Ben Zion Shilo** (Weizmann Institute of Science, Israel)  
**Rick Shine** (University of Sydney, Australia)  
**Kai Simons** (Max-Planck Institute of Molecular Cell Biology and  
Genetics, Dresden, Germany)  
**Claudio Stern** (UCL, London, UK)  
**Pavel Tomancak** (Max-Planck Institute of Molecular Cell Biology and  
Genetics, Dresden, Germany)  
**Miguel Torres** (CNIC, Madrid, Spain)  
**Jessica E. Treisman** (Skirball Institute of Biomolecular Medicine,  
New York, USA)  
**Michael D. Tyers** (University of Edinburgh, UK)  
**Graham Warren** (Max F. Perutz Laboratories, Vienna, Austria)  
**Ting Xie** (Stowers Institute for Medical Research, USA)  
**Yongbiao Xue** (Chinese Academy of Sciences, Beijing, China)

## About the Publisher

The Company of Biologists is a not-for-profit publishing organisation dedicated to supporting and inspiring the biological community. The Company publishes five specialist peer-reviewed journals: *Development*, *Journal of Cell Science*, *Journal of Experimental Biology*, *Disease Models & Mechanisms* and *Biology Open*. It offers further support to the biological community by facilitating scientific meetings, providing travel grants for researchers and supporting research societies.  
[www.biologists.com](http://www.biologists.com)

## Biology Open

The Company of Biologists Limited, Bidder Building,  
Station Road, Histon, Cambridge, CB24 9LF, UK.  
Tel: +44 (0)1223 632871  
Fax: +44 (0)1223 632876  
[bio@biologists.com](mailto:bio@biologists.com)