

# JCB

THE JOURNAL OF CELL BIOLOGY

## EDITOR-IN-CHIEF

IRA MELLMAN

## EDITORS

DON W. CLEVELAND  
ELAINE FUCHS  
ALAN HALL  
LOUIS F. REICHARDT  
RANDY SCHEKMAN  
KENNETH M. YAMADA  
JUNYING YUAN

## NEWS EDITORS

NICOLE LEBRASSEUR  
WILLIAM A. WELLS

## REVIEWS EDITORS

KAREN DELL  
LOUIS F. REICHARDT

## EDITORIAL BOARD

NORMA ANDREWS  
BEN BARRES  
HUGO BELLEN  
ANDREW BELMONT  
VANN BENNETT  
JEFFREY BENOVIC  
JUAN BONIFACINO  
TONY BRETSCHER  
MARIANNE BRONNER-FRASER  
ERIC J. BROWN  
KEVIN P. CAMPBELL  
LEWIS CANTLEY  
KENNETH CLINE  
KATHLEEN COLLINS  
PASCALE COSSART  
CAROLINE DAMSKY  
PIETRO DE CAMILLI  
ELISABETTA DEJANA  
RAY DESHAIES  
PIER PAOLO DI FIORE  
DAVID DRUBIN  
WILLIAM EARNSHAW  
ROBERT EISENMAN  
SCOTT EMR  
WERNER FRANKE

LARRY GERACE  
LARRY GOLDSTEIN  
ULRICH HARTL  
REBECCA HEALD  
NOBUTAKA HIROKAWA  
ARTHUR HORWICH  
ALAN RICK HORWITZ  
M. ANDREW HOYT  
MARTIN HUMPHRIES  
ED HURT  
KENNETH JACOBSON  
RUDY JULIANO  
GERARD KARSENTY  
HYNDA KLEINMAN  
DOUGLAS KOSHLAND  
TEYMURAS KURZCHALIA  
ARTHUR D. LANDER  
JEANNE LAWRENCE  
YURI LAZEBNIK  
LESLIE LEINWAND  
RICHARD LEWIS  
LAURA MACHESKY  
JOAN MASSAGUE  
JACOPO MELDOLESI  
TOM MISTELI

TIMOTHY J. MITCHISON  
RANDALL T. MOON  
SEAN MUNRO  
ANDRÉ NUSSENZWEIG  
LESLIE PARISE  
MARK PEIFER  
TOM A. RAPOPORT  
ANNE RIDLEY  
CONLY RIEDER  
DANIEL B. RIFKIN  
DAVID RON  
MICHAEL RUDNICKI  
JOSHUA SANES  
TRINA SCHROER  
MARTIN SCHWARTZ  
JEAN SCHWARZBAUER  
SHOICHIRO TSUKITA  
RON VALE  
DAVID L. VAUX  
GRAHAM WARREN  
COLIN WATTS  
JUDITH WHITE  
TIM YEN  
MARINO ZERIAL

## MANAGING EDITOR

MIKE ROSSNER

Phone: 212-327-8881  
Fax: 212-327-8576  
email: rossner@rockefeller.edu

## EDITORIAL ASSISTANTS

AUSTEN GESS  
SATI MOTIERAM  
EMILY TAYLOR  
HEATHER VLACH

Phone: 212-327-8581  
Fax: 212-327-8576  
email: jcellbiol@rockefeller.edu

## COPYEDITING AND PRODUCTION

email: jcb@rockefeller.edu

## PREFLIGHT COORDINATOR

LAURA SMITH

## COPY EDITORS

JENNIFER M. HETTINGER  
MARY VASQUEZ

## ASST. PRODUCTION EDITOR

GREGORY E. KOUTROUBY

## PRODUCTION EDITOR

GREG S. BOUSTEAD

## COPY EDITING COORDINATOR

AISHA CARUTH

## PRODUCTION COORDINATOR

ERINN A. GRADY

## PRODUCTION DIRECTOR

ROBERT J. O'DONNELL



THE APPEARANCE OF THE CODE AT THE BOTTOM OF THE FIRST PAGE OF AN ARTICLE IN THIS JOURNAL INDICATES THAT THE PUBLISHER GIVES CONSENT FOR INDIVIDUAL COPIES OF THAT ARTICLE TO BE MADE FOR PERSONAL OR INTERNAL USE. THIS CONSENT IS GIVEN ON THE CONDITION, HOWEVER, THAT—FOR COPYING BEYOND THE LIMITED QUANTITIES PERMITTED UNDER SECTIONS 107 OR 108 OF THE U.S. COPYRIGHT LAW—THE COPIER PAY THE STATED PER-COPY FEE, FOR THIS JOURNAL \$8.00 PER ARTICLE, THROUGH THE COPYRIGHT CLEARANCE CENTER, INC., 222 ROSEWOOD DRIVE, DANVERS, MA 01923, PHONE: 978-750-8400, A NONPROFIT ORGANIZATION. THIS CONSENT DOES NOT EXTEND TO OTHER KINDS OF COPYING, SUCH AS COPYING FOR GENERAL DISTRIBUTION, FOR ADVERTISING OR PROMOTIONAL PURPOSES, FOR CREATING NEW COLLECTIVE WORKS, OR FOR RESALE.

COPYRIGHT © 2005 BY THE ROCKEFELLER UNIVERSITY PRESS, 1114 FIRST AVENUE, NEW YORK, NY 10021-8325.

PRINT ISSN: 0021-9525 ONLINE ISSN: 1540-8140

WWW.JCB.ORG