# **Contents:**

# The Journal of Cell Biology

Volume 146, Number 1, July 12, 1999

#### In Brief

New visual screen uncovers novel nuclear envelope protein. Recycling of cell surface cadherin. New family of dynein proteins. Spindle assembly in meiosis. DAP-Kinase in apoptosis pathways.

A.W. Dove

### Regular Articles

- 1 Kinetochore fibers are not involved in the formation of the first meiotic spindle in mouse oocytes, but control the exit from the first meiotic M phase.
  - S. Brunet, A. Santa Maria, P. Guillaud, D. Dujardin, J.Z. Kubiak, and B. Maro
- 13 Mutations in the essential spindle checkpoint gene *bub1* cause chromosome missegregation and fail to block apoptosis in *Drosophila*.
  - J. Basu, H. Bousbaa, E. Logarinho, Z. Li, B.C. Williams, C. Lopes, C.E. Sunkel, and M.L. Goldberg
- 29 A visual screen of a GFP-fusion library identifies a new type of nuclear envelope membrane protein.
  - M.M. Rolls, P.A. Stein, S.S. Taylor, E. Ha, F. McKeon, and T.A. Rapoport
- 45 Component specificity for the thylakoidal Sec and Delta pH-dependent protein transport pathways.
  - H. Mori, E.J. Summer, X. Ma, and K. Cline
- 57 A role for the vesicle tethering protein, p115, in the post-mitotic stacking of reassembling Golgi cisternae in a cell-free system.
  - J. Shorter and G. Warren
- 71 GBF1: A novel Golgi-associated BFA-resistant guanine nucleotide exchange factor that displays specificity for ADP-ribosylation factor 5.
  - A. Claude, B.-P. Zhao, C.E. Kuziemsky, S. Dahan, S.J. Berger, J.-P. Yan, A.D. Armold, E.M. Sullivan, and P. Melançon
- 85 A cell-free assay allows reconstitution of Vps33p-dependent transport to the yeast vacuole/lysosome.
  - T. Vida and B. Gerhardt
- 99 Pex22p of *Pichia pastoris*, essential for peroxisomal matrix protein import, anchors the ubiquitin-conjugating enzyme, Pex4p, on the peroxisomal membrane.
  - A. Koller, W.B. Snyder, K.N. Faber, T.J. Wenzel, L. Rangell, G.A. Keller, and S. Subramani

- 113 Intracellular localization of proteasomal degradation of a viral antigen.
  - L.C. Antón, U. Schubert, I. Bacík, M.F. Princiotta, P.A. Wearsch, J. Gibbs, P.M. Day, C. Realini, M.C. Rechsteiner, J.R. Bennink, and J.W. Yewdell
- 125 Yeast homologues of tomosyn and *lethal giant larvae* function in exocytosis and are associated with the plasma membrane SNARE, Sec9.
  - K. Lehman, G. Rossi, J.E. Adamo, and P. Brennwald
- 141 DAP-Kinase participates in TNF-α- and Fas-induced apoptosis and its function requires the death domain.
  - O. Cohen, B. Inbal, J.L. Kissil, T. Raveh, H. Berissi, T. Spivak-Kroizaman, E. Feinstein, and A. Kimchi
- 149 Myosin light chain kinase functions downstream of Ras/ERK to promote migration of urokinase-type plasminogen activator-stimulated cells in an integrin-selective manner.
  - D.H.D. Nguyen, A.D. Catling, D.J. Webb, M. Sankovic, L.A. Walker, A.V. Somlyo, M.J. Weber, and S.L. Gonias
- 165 Drosophila roadblock and Chlamydomonas LC7: A conserved family of dynein-associated proteins involved in axonal transport, flagellar motility, and mitosis.
  - A.B. Bowman, R.S. Patel-King, S.E. Benashski, J.M. McCaffery, L.S.B. Goldstein, and S.M. King
- Age-related atrophy of motor axons in mice deficient in the mid-sized neurofilament subunit.
  - G.A. Elder, V.L. Friedrich, Jr., A. Margita, and R.A. Lazzarini
- 193 Genomic organization, expression, and analysis of the troponin C gene *pat-10* of *Caenorhabditis elegans*.
  - H. Terami, B.D. Williams, S.-i. Kitamura, Y. Sakube, S. Matsumoto, S. Doi, T. Obinata, and H. Kagawa
- 203 α-Bungarotoxin receptors contain α7 subunits in two different disulfide-bonded conformations.
  - S. Rakhilin, R.C. Drisdel, D. Sagher, D.S. McGehee, Y. Vallejo, and W.N. Green

#### Contents continued

Cover picture: A composite of fluorescence images of cells transfected with clones isolated in a visual screen of a GFP-cDNA expression library (green) and immunofluorescence staining of untransfected cells with an antibody directed against a protein identified in the screen (red). This protein, nurim, is a novel membrane protein that is targeted to the nuclear envelope, but not the peripheral ER. See structure quiz on inside front cover and related article in this issue by Rolls et al., 29–43.

- 219 Recycling of E-cadherin: A potential mechanism for regulating cadherin dynamics.
  - T.L. Le, A.S. Yap, and J.L. Stow
- 233 Neuropilin-1 mediates collapsin-1/semaphorin III inhibition of endothelial cell motility: Functional competition of collapsin-1 and vascular endothelial growth factor-165.
  - H.-Q. Miao, S. Soker, L. Feiner, J.L. Alonso, J.A. Raper, and M. Klagsbrun
- 243 IP-10 inhibits epidermal growth factor–induced motility by decreasing epidermal growth factor receptor–mediated calpain activity.
  - H. Shiraha, A. Glading, K. Gupta, and A. Wells

- 255 Glypican-3-deficient mice exhibit developmental overgrowth and some of the abnormalities typical of Simpson-Golabi-Behmel syndrome.
  - D.F. Cano-Gauci, H.H. Song, H. Yang, C. McKerlie, B. Choo, W. Shi, R. Pullano, T.D. Piscione, S. Grisaru, S. Soon, L. Sedlackova, A.K. Tanswell, T.W. Mak, H. Yeger, G.A. Lockwood, N.D. Rosenblum, and J. Filmus

## 265 ADDITIONS AND CORRECTIONS