

THE JOURNAL OF CELL BIOLOGY • CONTENTS
VOLUME 89 NUMBER 3 JUNE 1981

Regular Articles

- 389 W. J. Wasserman and L. D. Smith. Calmodulin triggers the resumption of meiosis in amphibian oocytes
- 395 B. F. Sloat, A. Adams, and J. R. Pringle. Roles of the *CDC24* gene product in cellular morphogenesis during the *Saccharomyces cerevisiae* cell cycle
- 406 M. K. Reddy, S. A. Qureshi, P. F. Hollenberg, and J. K. Reddy. Immunochemical identity of peroxisomal enoyl-CoA hydratase with the peroxisome-proliferation-associated 80,000 mol wt polypeptide in rat liver
- 418 J. B. Olmsted. Tubulin pools in differentiating neuroblastoma cells
- 424 D. E. Larson and A. D. Dingle. Isolation, ultrastructure, and protein composition of the flagellar rootlet of *Naegleria gruberi*
- 433 D. J. Grab, R. K. Carlin, and P. Siekevitz. Function of calmodulin in postsynaptic densities. I. Presence of a calmodulin-activatable cyclic nucleotide phosphodiesterase activity
- 440 D. J. Grab, R. K. Carlin, and P. Siekevitz. Function of calmodulin in postsynaptic densities. II. Presence of a calmodulin-activatable protein kinase activity
- 449 R. K. Carlin, D. J. Grab, and P. Siekevitz. Function of calmodulin in postsynaptic densities. III. Calmodulin-binding proteins of the postsynaptic density
- 456 M. Wibo, D. Thinès-Sempoux, A. Amar-Costesec, H. Beaufay, and D. Godelaine. Analytical study of microsomes and isolated subcellular membranes from rat liver. VIII. Subfractionation of preparations enriched with plasma membranes, outer mitochondrial membranes, or Golgi complex membranes
- 475 C. Granzow, M. Kopun, and H.-P. Zimmermann. Role of nuclear glycogen synthase and cytoplasmic UDP glucose pyrophosphorylase in the biosynthesis of nuclear glycogen in HD33 Ehrlich-Lettré ascites tumor cells
- 485 W. W. Franke, H. W. Heid, C. Grund, S. Winter, C. Freudenstein, E. Schmid, E.-D. Jarasch, and T. W. Keenan. Antibodies to the major insoluble milk fat globule membrane-associated protein: specific location in apical regions of lactating epithelial cells
- 495 S. L. Tamm and S. Tamm. Ciliary reversal without rotation of axonemal structures in ctenophore comb plates
- 510 L. M. Ingraham, C. P. Burns, L. A. Boxer, R. L. Baehner, and R. A. Haak. Fluidity properties and lipid composition of erythrocyte membranes in Chediak-Higashi syndrome
- 517 P. O'Connor and B. Burnside. Actin-dependent cell elongation in teleost retinal rods: requirement for actin filament assembly
- 525 K. Shriver and L. Rohrschneider. Organization of pp60^{src} and selected cytoskeletal proteins within adhesion plaques and junctions of Rous sarcoma virus-transformed rat cells
- 536 K. H. Pfenninger and M.-F. Maylié-Pfenninger. Lectin labeling of sprouting neurons. I. Regional distribution of surface glycoconjugates
- 547 K. H. Pfenninger and M.-F. Maylié-Pfenninger. Lectin labeling of sprouting neurons. II. Relative movement and appearance of glycoconjugates during plasmalemmal expansion
- 560 H. M. Moon, T. Wisniewski, P. Merz, J. De Martini, and H. M. Wisniewski. Partial purification of neurofilament subunits from bovine brains and studies on neurofilament assembly
- 568 D. Gospodarowicz, K. Hirabayashi, L. Giguère, and J.-P. Tauber. Factors controlling the proliferative rate, final cell density, and life span of bovine vascular smooth muscle cells in culture
- 579 W. D. Blaker, J. F. Goodrum, and P. Morell. Axonal transport of the mitochondria-specific lipid, diphosphatidylglycerol, in the rat visual system
- 585 S. H. Zigmond, H. I. Levitsky, and B. J. Kreel. Cell polarity: an examination of its behavioral expression and its consequences for polymorphonuclear leukocyte chemotaxis
- 593 V. Raghavan. Distribution of poly(A)-containing RNA during normal pollen development and during induced pollen embryogenesis in *Hyoscyamus niger*
- 607 S. T. Brady, M. Tytell, K. Heriot, and R. J. Lasek. Axonal transport of calmodulin: a physiologic approach to identification of long-term associations between proteins
- 615 J. Stadler. Absence of sugars in electrophoretically purified cytochrome *b₅* demonstrated by combined gas chromatography-mass spectrometry
- 621 C. Lingwood and H. Schachter. Localization of sulfatoygalactosylalkylglycerol at the surface of rat testicular germinal cells by immunocytochemical techniques: pH dependence of a nonimmunological reaction between immunoglobulin and germinal cells
- 631 C. J. Hollingshead, D. L. D. Caspar, V. Melchior, and D. A. Kirschner. Compaction and particle segregation in myelin membrane arrays

- 645 **M. J. Geisow, P. D'Arcy Hart, and M. R. Young.** Temporal changes of lysosome and phagosome pH during phagolysosome formation in macrophages: studies by fluorescence spectroscopy
- 653 **H. J. Geuze, J. W. Slot, P. A. van der Ley, and R. C. T. Scheffer.** Use of colloidal gold particles in double-labeling immunoelectron microscopy of ultrathin frozen tissue sections
- 666 **B. J. Atkinson.** Synthesis of heat-shock proteins by cells undergoing myogenesis
- 674 **J. White, K. Matlin, and A. Helenius.** Cell fusion by Semliki Forest, influenza, and vesicular stomatitis viruses
- 680 **R. F. Ludueña, A. Fellous, J. Francon, J. Nunez, and L. McManus.** Effect of tau on the vinblastine-induced aggregation of tubulin

Rapid Communications

- 685 **S. M. Wick, R. W. Seagull, M. Osborn, K. Weber, and B. E. S. Gunning.** Immunofluorescence microscopy of organized microtubule arrays in structurally stabilized meristematic plant cells
- 691 **K. W. Lanks and N. W. Chin.** Identification of cytoskeletal components involved in attachment of L929 cells and macrophages to polystyrene
- 695 **N. J. Mairle, J. R. Dedman, A. R. Means, J. G. Chafouleas, and B. H. Satir.** Presence and indirect immunofluorescent localization of calmodulin in *Paramecium tetraurelia*
- 700 **F. B. Alonso and R. W. Compans.** Differential effect of monensin on enveloped viruses that form at distinct plasma membrane domains
- 706 **L. Fésüs, A. Falus, A. Erdei, and K. Laki.** Human β_2 -microglobulin is a substrate of tissue transglutaminase: polymerization in solution and on the cell surface
- 711 ACKNOWLEDGMENT OF THE REVIEWERS
- 713 INDEXES TO VOLUME 89

INFORMATION FOR SUBSCRIBERS

SUBSCRIPTIONS—The basic subscription price per year (four volumes, three issues each) for institutions and individuals is \$160. Members of The American Society for Cell Biology and students are eligible for the reduced rate of \$80. (Please add \$26 for airmail surcharge to all European subscriptions.) Single copies are sold at \$13.50. Subscriptions, payable in advance, start with the first issue of the calendar year.

Payments and inquiries about membership in the American Society for Cell Biology should be addressed to Dr. Emma Shelton, Secretary, The American Society for Cell Biology, 4326 Montgomery Avenue, Bethesda, Md. 20014.

All other inquiries about subscriptions and back issues should be addressed to the Order Service of The Rockefeller University Press, 1230 York Avenue, New York 10021.

Remittances should be made by check or money order payable to The Rockefeller University Press and addressed to Post Office Box 5108, Church Street Station, New York 10249. All checks *must* be drawn on U. S. banks.

Claims for nonreceipt of issues will be honored when received within 3 months of mailing for U. S. A. subscribers, 6 months for foreign subscribers.

MICROFORM—Subscriptions and back copies from Vol. 1 on, are available in microfiche and microfilm through University Microfilms, 300 North Zeeb Road, Ann Arbor, Mich. 48106.