

Contents:

The Journal of Cell Biology

Volume 108, Number 2, February 1989

Mini-Reviews

- 223 The transport and assembly of the axonal cytoskeleton. P. J. Hollenbeck
229 The scanning model for translation: an update. M. Kozak

Regular Articles

- 243 Essential roles for the RNA polymerase I largest subunit and DNA topoisomerases in the formation of fission yeast nucleolus. T. Hirano, G. Konoha, T. Toda, and M. Yanagida
255 Interconversion of *Drosophila* nuclear lamin isoforms during oogenesis, early embryogenesis, and upon entry of cultured cells into mitosis. D. E. Smith and P. A. Fisher
267 Carcinoembryonic antigens: alternative splicing accounts for the multiple mRNAs that code for novel members of the carcinoembryonic antigen family. T. R. Barnett, A. Kretschmer, D. A. Austen, S. J. Goebel, J. T. Hart, J. J. Elting, and M. E. Kamarck
277 The dynamic nature of the Golgi complex. G. Griffiths, S. D. Fuller, R. Back, M. Hollinshead, S. Pfeiffer, and K. Simons
299 Access of proteinase K to partially translocated nascent polypeptides in intact and detergent-solubilized membranes. T. Connolly, P. Collins, and R. Gilmore
309 Processing pathway for protease B of *Saccharomyces cerevisiae*. C. M. Moehle, C. K. Dixon, and E. W. Jones
327 Transport of the proteins to the plant vacuole is not by bulk flow through the secretory system, and requires positive sorting information. C. Dorel, T. A. Voelker, E. M. Herman, M. J. Chrispeels
339 Isolation of Chinese hamster ovary cell lines temperature conditional for the cell-surface expression of integral membrane glycoproteins. J. Hearing, E. Hunter, L. Rodgers, M.-J. Gething, and J. Sambrook
355 Addition of truncated oligosaccharides to influenza virus hemagglutinin results in its temperature-conditional cell-surface expression. J. Hearing, M.-J. Gething, and J. Sambrook
367 Identification of rat testis galactosyl receptor using antibodies to liver asialoglycoprotein receptor: purification and localization on surfaces of spermatogenic cells and sperm. M. Abdullah and A. L. Kierszenbaum
377 Low cytoplasmic pH inhibits endocytosis and transport from the *trans*-Golgi network to the cell surface. P. Cosson, I. de Curtis, J. Pouysségur, G. Griffiths, and J. Davoust
389 Hypertonic media inhibit receptor-mediated endocytosis by blocking clathrin-coated pit formation. J. E. Heuser and R. G. W. Anderson
401 Effects of cytoplasmic acidification on clathrin lattice morphology. J. Heuser
413 Cell cycle-dependent association of HSP70 with specific cellular proteins. K. L. Milarski, W. J. Welch, and R. I. Morimoto
425 The intracellular location of yeast heat-shock protein 26 varies with metabolism. J. M. Rossi and S. Lindquist
441 Membrane-cytoskeleton dynamics in rat parietal cells: mobilization of actin and spectrin upon stimulation of gastric acid secretion. F. Mercier, H. Reggio, G. Devilliers, D. Bataille, and P. Mangeat
455 Ankyrin links fodrin to the alpha subunit of Na,K-ATPase in Madin-Darby canine kidney cells and in intact renal tubule cells. J. S. Morrow, C. D. Cianci, T. Ardito, A. S. Mann, and M. Kashgarian
467 Association of gelsolin with actin filaments and cell membranes of macrophages and platelets. J. H. Hartwig, K. A. Chambers, and T. P. Stossel
481 An unusual β -spectrin associated with clustered acetylcholine receptors. R. J. Bloch and J. S. Morrow
495 Reassociation of microvillar core proteins: making a microvillar core in vitro. L. M. Coluccio and A. Bretscher

Contents continued on reverse of this cover

- 503 Detection of a specific isoform of alpha-actinin with antisera directed against dystrophin. E. P. Hoffman, S. C. Watkins, H. S. Slayter, and L. M. Kunkel
- 511 Effect of Ca^{2+} on the dimeric structure of scallop sarcoplasmic reticulum. L. Castellani, P. M. D. Hardwicke, and C. Franzini-Armstrong
- 521 Characterization of the gene for mp20: a *Drosophila* muscle protein that is not found in asynchronous oscillatory flight muscle. A. Ayme-Southgate, P. Lasko, C. French, and M. L. Pardue
- 533 Distribution of fast myosin heavy chain isoforms in thick filaments of developing chicken pectoral muscle. L. D. Taylor and E. Bandman
- 543 Posttranslational modification of distinct microtubule subpopulations during cell polarization and differentiation in the mouse preimplantation embryo. E. Houliston and B. Maro
- 553 Isolation and characterization of protein kinase C from Y-1 adrenal cell cytoskeleton. V. Papadopoulos and P. F. Hall
- 569 Isolation of a new member of the S100 protein family: amino acid sequence, tissue, and subcellular distribution. J. R. Glenney, Jr., M. S. Kindy, and L. Zokas
- 579 Expression of NF-L and NF-M in fibroblasts reveals coassembly of neurofilament and vimentin subunits. M. J. Monteiro and D. W. Cleveland
- 595 Antisera directed against connexin43 peptides react with a 43-kD protein localized to gap junctions in myocardium and other tissues. E. C. Beyer, J. Kistler, D. L. Paul, and D. A. Goodenough
- 607 Cerebellar granule cells contain a membrane mitogen for cultured Schwann cells. P. W. Mason, J. W. Bigbee, and G. H. DeVries
- 613 Posttranslational membrane attachment and dynamic fatty acylation of a neuronal growth cone protein, GAP-43. J. H. P. Skene and I. Virág
- 625 Expression of cytactin in the normal and regenerating neuromuscular system. J. K. Daniloff, K. L. Crossin, M. Pinçon-Raymond, M. Murawsky, F. Rieger, and G. M. Edelman
- 637 Identification of a novel nicotinic acetylcholine receptor structural subunit expressed in goldfish retina. K. Cauley, B. W. Agranoff, and D. Goldman
- 647 Degradation rate of acetylcholine receptors inserted into denervated vertebrate neuromuscular junctions. S.-L. Shyng and M. M. Salpeter
- 653 Transforming growth factor- β 1: histochemical localization with antibodies to different epitopes. K. C. Flanders, N. L. Thompson, D. S. Cissel, E. Van Obberghen-Schilling, C. C. Baker, M. E. Kass, L. R. Ellingsworth, A. B. Roberts, and M. B. Sporn
- 661 Expression of transforming growth factor- β 1 in specific cells and tissues of adult and neonatal mice. N. L. Thompson, K. C. Flanders, J. M. Smith, L. R. Ellingsworth, A. B. Roberts, and M. B. Sporn
- 671 In vitro angiogenesis on the human amniotic membrane: requirement for basic fibroblast growth factor-induced proteinases. P. Mignatti, R. Tsuboi, E. Robbins, and D. B. Rifkin
- 683 Dissociation of inositol triphosphate from diacylglycerol production in Rous sarcoma virus-transformed fibroblasts. T. J. Martins, Y. Sugimoto, and R. L. Erikson
- 693 Regulation of urokinase receptor in monocyte-like U937 cells by phorbol ester phorbol myristate acetate. R. Picone, E. L. Kajtaniak, L. S. Nielsen, N. Behrendt, M. R. Mastronicola, M. V. Cubellis, M. P. Stoppelli, S. Pedersen, K. Danø, and F. Blasi
- 703 Primary structure of leukocyte function-associated molecule-1 α subunit: an integrin with an embedded domain defining a protein superfamily. R. S. Larson, A. L. Corbi, L. Berman, and T. Springer
- 713 Transcriptional regulation of osteopontin production in rat osteoblast-like cells by parathyroid hormone. M. Noda and G. Rodan
- 719 Thrombospondin is an osteoblast-derived component of mineralized extracellular matrix. P. Gehron Robey, M. F. Young, L. W. Fisher, and T. D. McClain
- 729 Complete thrombospondin mRNA sequence includes potential regulatory sites in the 3' untranslated region. S. W. Hennessy, B. A. Frazier, D. D. Kim, T. L. Deckwerth, D. M. Baumgartel, P. Rotwein, and W. A. Frazier
- 737 Procyclin gene expression and loss of the variant surface glycoprotein during differentiation of *Trypanosoma brucei*. I. Roditi, H. Schwarz, T. W. Pearson, R. P. Beecroft, M. K. Liu, J. P. Richardson, H.-J. Bühring, J. Pleiss, R. Bülow, R. O. Williams, and P. Overath
- 747 Correction

Cover picture: The cover demonstrates the change in surface protein composition during differentiation of *Trypanosoma brucei* from bloodstream forms to procyclic forms. The variant surface glycoprotein characteristic for bloodstream forms is revealed by a fluorescein-labeled antibody (*green, left*) and procyclin, a major surface protein of procyclic forms, by rhodamine-labeled antibodies (*red, right*). The population contains bloodstream forms (only green fluorescence), procyclic forms (only red fluorescence), and intermediate stages (pair in center) which carry both surface proteins. For further details, see article in this issue by Roditi et al., pp. 737-746.