Contents:

The Journal of Cell Biology

Volume 115, Number 3, November 1991

Mini-review

577 Mitotic motors.

J. R. McIntosh, and C. M. Pfarr

Regular Articles

- 587 A conserved family of nuclear phosphoproteins localized to sites of polymerase II transcription.
 M. B. Roth, A. M. Zahler, and J. A. Stolk
- 597 Three-dimensional reconstruction of the 70S Escherichia coli ribosome in ice: the distribution of ribosomal RNA.
 - J. Frank, P. Penczek, R. Grassucci, and S. Srivastava
- An internal deletion in the cytoplasmic tail reverses the apical localization of human ngf receptor in transfected MDCK cells.

Le-Bivic, A., Y. Sambuy, A. Patzak, N. Patil, M. Chao, and M. Rodriguez-Boulan

- 619 Distinct intracellular fates of membrane and secretory immunoglobulin heavy chains in a pre-B cell line.
 - A. K. Bachhawat and S. Pillai
- Association of Rab3A with synaptic vesicles at late stages of the secretory pathway.

M. Matteoli, K. Takei, R. Cameron, P. Hurlbut, P. A. Johnston, T. C. Sudhof, R. Jahn, and P. De Camilli

- 635 Tubular early endosomal networks in AtT20 and other cells.
 - J. Tooze and M. Hollinshead
- 655 Embryonal carcinoma cells transfected with ZP3 genes differentially glycosylate similar polypeptides and secrete active mouse sperm receptor.

R. A. Kinloch, S. Mortillo, C. L. Stewart, and P. M. Wassarman

665 Primary structure and domain organization of human alpha and beta adducin.

R. Joshi, D. M. Gilligan, E. Otto, T. McLaughlin, and V. Bennett

- Kinetic analysis of F-actin depolymerization in polymorphonuclear leukocyte lysates indicates that chemoattractant stimulation increases actin filament number without altering the filament length distribution.
 - M. L. Cano, D. A. Lauffenburger, and S. H. Zigmond

689 The structural basis for the intrinsic disorder of the actin filament: the "lateral slipping" model.

A. Bremer, R. C. Millonig, R. Sütterlin, A. Engel.

A. Bremer, R. C. Millonig, R. Sütterlin, A. Engel, T. D. Pollard, and U. Aebi

705 Striated microtubule-associated fibers: identification of assemblin, a novel 34-kD protein that forms paracrystals of 2-nm filaments in vitro.

K.-F. Lechtreck and M. Melkonian

717 Tau protein binds to microtubules through a flexible array of distributed weak sites.

K. A. Butner and M. W. Kirschner

- 731 Developmentally and spatially regulated expression of HNK-1 carbohydrate antigen on a novel phosphatidylinositol-anchored glycoprotein in rat brain.
 - Y. Yoshihara, S. Oka, Y. Watanabe, and K. Mori
- 745 Phorbol esters selectively downregulate contractile protein gene expression in terminally differentiated myotubes through transcriptional repression and message destabilization.

Y.-Y. Zhu, R. J. Schwartz, and M. T. Crow

- 755 Acetylcholinesterase from the motor nerve terminal accumulates on the synaptic basal lamina of the myofiber.
 - L. Anglister
- 765 Effect of agrin on the distribution of acetylcholine receptors and sodium channels on adult skeletal muscle fibers in culture.

M. T. Lupa and J. H. Caldwell

779 Relationship between neuronal migration and cell-substratum adhesion: laminin and merosin promote olfactory neuronal migration but are anti-adhesive.

A. L. Calof, and A. D. Lander

Contents continued on reverse of this cover

Cover picture: Pseudocolor image of the nuclear region of a prometaphase PtK₁ cell. The condensed chromosomes appear dark blue and the light blue areas indicate binding of cytoplasmic dynein to the kinetochores and to the developing mitotic spindle. Photo by C. M. Pfarr, E. O'Toole, and K. McDonald. See the related article in this issue by McIntosh and Pfarr, 577-585.

- 795 Ras isoprenylation is required for ras-induced but not for NGF-induced neuronal differentiation of PC12 cells.
 - M.-S. Qiu, A. F. Pitts, T. R. Winters, and S. H. Green
- 809 Signal transduction by nerve growth factor and fibroblast growth factor in PC12 cells requires a sequence of Src and Ras actions.
 - N. E. Kremer, G. D'Arcangelo, S. M. Thomas, M. DeMarco, J. S. Brugge, and S. Halegoua
- 821 Evidence for nerve growth factor-mediated paracrine effects in human epidermis.
 M. Yaar, K. Grossman, M. Eller, and B. A. Gilchrest
- 829 Expression of β_1 , β_3 , β_4 , and β_5 integrins by human epidermal keratinocytes and non-differentiating keratinocytes.
 - J. C. Adams, and F. M. Watt

- The major laminin receptor of mouse embryonic stem cells is a novel isoform of the $\alpha_6\beta_1$ integrin.
 - H. M. Cooper, R. N. Tamura, and V. Quaranta
- Differences in the action and metabolism between retinol and retinoic acid in B lymphocytes.
 - J. Buck, A. Myc, A. Garbe, and G. Cathomas
- 861 Motility and ultrastructure of large granular lymphocytes on lipid bilayers reconstituted with adhesion receptors LFA-1, ICAM-1, and two isoforms of LFA-3.
 - O. Carpén, M. L. Dustin, T. A. Springer, J. A. Swafford, L. A. Smith, and J. P. Caulfield
- 873 Endothelins produced by endothelial cells promote collagen gell contraction by fibroblasts.C. Guidry and M. Hook
- 881 Correction