Mini-review
1 A new role for motor proteins as couplers to depolymerizing microtubules.
A. Desai and T. J. Mitchison

Regular Articles
5 Depletion of calcium from the lumen of endoplasmic reticulum reversibly inhibits passive diffusion and signal-mediated transport into the nucleus.
U. F. Greber and L. Gerace
15 Nuclear spreads: I. Visualization of bipartite ribosomal RNA domains.
M. A. García-Blanco, D. D. Miller, and M. P. Sheetz
29 Calnexin and BiP act as sequential molecular chaperones during thyroglobulin folding in the endoplasmic reticulum.
P. S. Kim and P. Arvan
A. Chang and G. R. Fink
51 Sequence and domain organization of scruin, an actin-cross-linking protein in the acrosomal process of Limulus sperm.
61 Inhibition of CapZ during myofibrillogenesis alters assembly of actin filaments.
D. A. Schafer, C. Hug, and J. A. Cooper
71 Drosophila development requires spectrin network formation.
H. Deng, J. K. Lee, L. S. B. Goldstein, and D. Branton
81 The anatomy of flagellar microtubules: Polarity, seam, junctions, and lattice.
Y.-H. Song and E. Mandelkow
95 Identification and partial characterization of mitotic centromere-associated kinesin, a kinesin-related protein that associates with centromeres during mitosis.
L. Wordeman and T. J. Mitchison
107 Antibodies to the kinesin motor domain and CENP-E inhibit microtubule depolymerization–dependent motion of chromosomes in vitro.
V. A. Lombillo, C. Nislow, T. J. Yen, V. I. Gelfand, and J. R. McIntosh
117 Structural changes accompanying GTP hydrolysis in microtubules: Information from a slowly hydrolyzable analogue guanylyl-(α,β)-methylene-diphosphonate.
A. A. Hyman, D. Chrétien, I. Arnal, and R. H. Wade
127 The role of microtubule dynamics in growth cone motility and axonal growth.
E. Tanaka, T. Ho, and M. W. Kirschner
139 The role of microtubules in growth cone turning at substrate boundaries.
E. Tanaka and M. W. Kirschner
157 Expression of an epidermal keratin protein in liver of transgenic mice causes structural and functional abnormalities.
171 Roles of hepatocyte growth factor/scatter factor and the met receptor in the early development of the metanephros.
185 Identification of brain-derived neurotrophic factor promoter regions mediating tissue-specific, axotomy-, and neuronal activity–induced expression in transgenic mice.
T. Timmusk, U. Lendahl, H. Funakoshi, E. Arenas, H. Persson, and M. Metsis

Contents continued

Cover picture: Spread nucleoli shown in Fig. 9 D of García-Blanco et al. in this issue, pp. 15–27, showing overlap of fluoresceine staining for BrU (rRNA synthesis), rhodamine staining for fibrillarin (rRNA processing), and Hoechst staining of DNA. Areas of RNA synthesis appear white because of the signals for DNA, fibrillarin, and nascent transcripts.
Viral proteins EIB19K and p35 protect sympathetic neurons from cell death induced by NGF deprivation.
I. Martinou, P.-A. Fernandez, M. Missotten, E. White, B. Allet, R. Sadoul, and J.-C. Martinou

NCAM polypeptides in heart development: Association with Z Discs of forms that contain the muscle-specific domain.
M. K. Byeon, Y. Sugi, R. R. Markwald, and S. Hoffman

Human COL2A1-directed SV40 T antigen expression in transgenic and chimeric mice results in abnormal skeletal development.

Type X collagen gene expression in mouse chondrocytes immortalized by a temperature-sensitive simian virus 40 large tumor antigen.
V. Lefebvre, S. Garofalo, and B. de Crombrugghe