Contents

Commentary

Applying genetics to the splicing problem
Jonathan R. Warner

Studying plant development: an alternative to “spray and pray”
Cris Kuhlemeier and Pam Green

Research papers

Splicing of yeast nuclear pre-mRNA in vitro requires functional 40S spliceosome and several extrinsic factors
Ren-Jang Lin, Arthur J. Lustig, and John Abelson

The invected gene of Drosophila: sequence analysis and expression studies reveal a close kinship to the engrailed gene
Kevin G. Coleman, Stephen J. Poole, Michael P. Weir, Walter C. Soeller, and Thomas Kornberg

En-1 and En-2, two mouse genes with sequence homology to the Drosophila engrailed gene: expression during embryogenesis
Alexandra L. Joyner and Gail R. Martin

Differential accumulation of U1 and U4 small nuclear RNAs during Xenopus development
Elsebet Lund and James E. Dahlberg

The transcription of Xenopus laevis embryonic U1 snRNA genes changes when oocytes mature into eggs
Elsebet Lund, Christopher J. Bostock, and James E. Dahlberg

Induction of the heat shock response of E. coli through stabilization of α32 by the phage λ cIII protein
Hubert Bahl, Harrison Echols, David B. Straus, Donald Court, Robert Crowl, and Costa P. Georgopoulos

The SV40 enhancer can be dissected into multiple segments, each with a different cell type specificity
Sabine Schirm, Josef Jiricny, and Walter Schaffner

Lineage and fate of each blastomere of the eight-cell sea urchin embryo
R. Andrew Cameron, Barbara R. Hough-Evans, Roy J. Britten, and Eric H. Davidson

The effects of overproduction of two Agrobacterium tumefaciens T-DNA auxin biosynthetic gene products in transgenic petunia plants
Harry J. Klee, Robert B. Horsch, Maud A. Hinchee, Mich B. Hein, and Nancy L. Hoffmann

Cloning of nucleoplasmin from Xenopus laevis oocytes and analysis of its developmental expression
Thomas R. Bürglin, Iain W. Mattaj, Donald D. Newmeyer, Rolf Zeller, and Eddy M. De Robertis

Cover VA pattern of fluorescein-stained cells in normally developing, labeled sea urchin pluteus-stage embryo. (See Cameron et al., this issue, for details.)