Methods in Yeast Genetics

By Chris Kaiser, Massachusetts Institute of Technology; Susan Michaelis, Johns Hopkins Medical School; Aaron Mitchell, Columbia University College of Physicians & Surgeons

The Cold Spring Harbor Yeast Genetics Course, founded in 1970, evolves continuously to present a combination of standard methods and the latest techniques in yeast biology. This is the latest edition of the course manual, which incorporates a variety of new techniques with revised experiments and the essential elements from the 1987 and 1990 publications. The book remains the primary source of technical guidance for anyone using yeast, either as a newcomer or as an established investigator.

CONTENTS
Introduction
Genetic Nomenclature
Experiments
Looking at Yeast Cells; I. Isolation and Characterization of Auxotrophic, Temperature-sensitive, and UV-sensitive Mutants; II. Meiotic Mapping; III. Mitotic Recombination: Loss of Heterozygosity and Mitotic Mapping; IV. Transformation of Yeast; V. Complementation and Random Spore Analysis of Histidine Auxotrophs; VI. Gene Replacement; VII. Isolation of ras2 Suppressors; VIII. The Formation of Zygotes: Mating and Karyogamy; IX. Cloning of Yeast Genes by Complementation; X. lacZ Gene Fusion Expression in Yeast; XI. Immunofluorescent Staining of Yeast Cells; XII. Electrophoretic Karyotyping and Gene Mapping Using Pulsed-field Gel Electrophoresis

Techniques and Protocols

Appendices
A. Media; B. Stock Preservation; C. Yeast Genetic Map; D. Grids; E. Electrophoretic Karyotypes of Strains for Southern Blot Mapping; F. Strains

1994, 202 pp., illus., appendices ISBN 0-87969-451-3

Plastic comb binding $49

To order, or request additional information
Call: 1-800-843-4388 (Continental U.S. and Canada) 516-349-1930 (All other locations)
FAX: 516-349-1946
E-MAIL: cshpress@cshl.org at World Wide Web Site http://www.cshl.org/
Write: CSHL Press, 10 Skyline Drive, Plainview, NY 11803-2500
Contents

Research papers

Growth suppression by p18, a p16^{INK4A/MTS1}- and p14^{INK4B/MTS2}-related CDK6 inhibitor, correlates with wild-type pRb function
Kun-Liang Guan, Christopher W. Jenkins, Yan Li, Michael A. Nichols, Xiaoyu Wu, Christine L. O'Keefe, A. Gregory Matera, and Yue Xiong 2939

Loss of the imprinted IGF2/cation-independent mannose 6-phosphate receptor results in fetal overgrowth and perinatal lethality
Michele M.H. Lau, Claire E.H. Stewart, Ziyong Liu, Harshida Bhatt, Peter Rotwein, and Colin L. Stewart 2953

Colorectal hyperplasia and inflammation in keratin 8-deficient FVB/N mice
Hélène Baribault, Jocelyn Penner, Renato V. Iozzo, and Marcia Wilson-Heiner 2964

Elements of a single MAP kinase cascade in Saccharomyces cerevisiae mediate two developmental programs in the same cell type: mating and invasive growth
Radclyffe L. Roberts and Gerald R. Fink 2974

RNA localization along the anteroposterior axis of the Drosophila oocyte requires PKA-mediated signal transduction to direct normal microtubule organization
Mary Ellen Lane and Daniel Kalderon 2986

JNK2 contains a specificity-determining region responsible for efficient c-Jun binding and phosphorylation
Tuula Kallunki, Bing Su, Igor Tsigelny, Hayla K. Sluss, Benoit Dérijard, George Moore, Roger Davis, and Michael Karin 2996

Dynamic association of proteins with the pre-mRNA branch region
Andrew M. MacMillan, Charles C. Query, Charles R. Allerson, Swaine Chen, Gregory L. Verdine, and Phillip A. Sharp 3008

Ribonuclease E provides substrates for ribonuclease P-dependent processing of a polycistronic mRNA
Pietro Alifano, Flavia Rivellini, Claudia Piscitelli, Cecilia M. Arraiano, Carmelo B. Bruni, and M. Stella Carlomagno 3021

fgf-1 is required for embryonic growth and mesodermal patterning during mouse gastrulation
Terry P. Yamaguchi, Kendraprasad Harpal, Mark Henkemeyer, and Janet Rossant 3032

Murine FGFR-1 is required for early postimplantation growth and axial organization
Chu-Xia Deng, Anthony Wynshaw-Boris, Michael M. Shen, Cathie Daugherty, David M. Ornitz, and Philip Leder 3045

(continued)
Location, structure, and function of the target of a transcriptional activator protein
Hong Tang, Konstantine Severinov, Alex Goldfarb, David Fenyo, Brian Chait, and
Richard H. Ebright

Retinoid-dependent in vitro transcription mediated by the RXR/RAR heterodimer
Rafael Valcárcel, Herbert Holz, Custodia García Jiménez, Domingo Barettino, and
Hendrik G. Stunnenberg

Reviewers, Volume 8

Advertisers, Volume 8

Author Index, Volume 8

Subject Index, Volume 8