



ANNUAL REVIEW OF GENETICS

VOLUME 32, 1998

ALLAN CAMPBELL, *Editor*
Stanford University, Stanford

WYATT W. ANDERSON, *Associate Editor*
University of Georgia, Athens

ELIZABETH W. JONES, *Associate Editor*
Carnegie Mellon University, Pittsburgh



CONTENTS

ALFRED D. HERSEY, Allan Campbell and Franklin W. Stahl	1
THE ROLE OF THE <i>FHIT/FRA3B</i> LOCUS IN CANCER, Kay Huebner, Preston N. Garrison, Larry D. Barnes, and Carlo M. Croce	7
REGULATION OF SYMBIOTIC ROOT NODULE DEVELOPMENT, <i>M. Schultze and Adam Kondorosi</i>	33
TARGETING AND ASSEMBLY OF PERiplasmic AND OUTER-MEMBRANE PROTEINS IN <i>ESCHERICHIA COLI</i> , <i>Paul N. Danese and Thomas J. Silhavy</i>	59
THE GENETICS OF BREAST CANCER SUSCEPTIBILITY, <i>Nazneen Rahman and Michael R. Stratton</i>	95
NONSEGMENTED NEGATIVE-STRAND RNA VIRUSES: GENETICS AND MANIPULATION OF VIRAL GENOMES, <i>Karl-Klaus Conzelmann</i>	123
THE GENETICS OF DISULFIDE BOND METABOLISM, <i>Arne Rietsch and Jonathan Beckwith</i>	163
COMPARATIVE DNA ANALYSIS ACROSS DIVERSE GENOMES, <i>Samuel Karlin, Allan M. Campbell, and Jan Mrázek</i>	185
THE ETHYLENE GAS SIGNAL TRANSDUCTION PATHWAY: A MOLECULAR PERSPECTIVE, <i>Phoebe R. Johnson and Joseph R. Ecker</i>	227
MOLECULAR MECHANISMS OF BACTERIOCIN EVOLUTION, <i>Margaret A. Riley</i>	255
ALTERNATIVE SPLICING OF PRE-mRNA: DEVELOPMENTAL CONSEQUENCES AND MECHANISMS OF REGULATION, <i>A. Javier Lopez</i>	279
KINETOCORES AND THE CHECKPOINT MECHANISM THAT MONITORS FOR DEFECTS IN THE CHROMOSOME SEGREGATION MACHINERY, <i>Robert V. Skibbens and Philip Hieter</i>	307
THE DIVERSE AND DYNAMIC STRUCTURE OF BACTERIAL GENOMES, <i>Sherwood Casjens</i>	339

RECOMBINATION AND RECOMBINATION-DEPENDENT DNA REPLICATION IN BACTERIOPHAGE T4, <i>Gisela Mosig</i>	379
NATURAL SELECTION AT MAJOR HISTOCOMPATIBILITY COMPLEX LOCI OF VERTEBRATES, <i>Austin L. Hughes and Meredith Yeager</i>	415
EVOLUTION AND MECHANISM OF TRANSLATION IN CHLOROPLASTS, <i>Masahiro Sugiura, Tetsuro Hirose, and Mamoru Sugita</i>	437
ALZHEIMER'S DISEASE: GENETIC STUDIES AND TRANSGENIC MODELS, <i>Donald L. Price, Rudolph E. Tanzi, David R. Borchelt, and Sangram S. Sisodia</i>	461
THE CRITICAL ROLE OF CHROMOSOME TRANSLOCATIONS IN HUMAN LEUKEMIAS, <i>Janet D. Rowley</i>	495
EARLY PATTERNING OF THE <i>C. ELEGANS</i> EMBRYO, <i>Lesilee S. Rose and Kenneth J. Kemphues</i>	521
GENETIC COUNSELING: CLINICAL AND ETHICAL CHALLENGES, <i>M. B. Mahowald, M. S. Verp, and R. R. Anderson</i>	547
MATING-TYPE GENE SWITCHING IN <i>SACCHAROMYCES CEREVISIAE</i> , <i>James E. Haber</i>	561
EPITOPE TAGGING, <i>Jonathan W. Jarvik and Cherly A. Telmer</i>	601
THE LEPTOTENE-ZYGOTENE TRANSITION OF MEIOSIS, <i>D. Zickler and N. Kleckner</i>	619
INDEXES	
Subject Index	698
Cumulative Index of Contributing Authors, Volumes 28-32	729
Cumulative Index of Chapter Titles, Volumes 28-32	731