

GENETICAL RESEARCH

EDITORIAL BOARD

CHARLOTTE AUERBACH ARTHUR CHOVNICK W. HAYES
BRUCE HOLLOWAY D. ISH-HOROWICZ MARY F. LYON
ANNE McLAREN M. VAN MONTAGU R. NÖTHIGER J. PAUL
W. J. PEACOCK PETER A. PETERSON R. H. PRITCHARD
R. RILEY A. ROBERTSON N. S. WILLETTTS

EXECUTIVE EDITOR

E. C. R. REEVE

ASSISTANT EXECUTIVE EDITORS

DAVID J. FINNEGAN
TRUDY F. C. MACKAY

Volume 41. 1983



CAMBRIDGE UNIVERSITY PRESS
CAMBRIDGE
LONDON NEW YORK NEW ROCHELLE
MELBOURNE SYDNEY

PUBLISHED BY
THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE

The Pitt Building, Trumpington Street, Cambridge CB2 1RP
32 East 57th Street, New York, N.Y. 10022

© Cambridge University Press, 1983

Printed in Great Britain at the University Press, Cambridge

CONTENTS

No. 1 (February 1983)

OHTA, TOMOKO. Theoretical study on the accumulation of selfish DNA	<i>page</i> 1
FALK, RAPHAEL. The effect of an unusual chromosome architecture on disjunction and non-disjunction in <i>Drosophila</i>	17
BENNETT, DOROTHEA, ALTON, ALTHEA K. and ARTZT, KAREN. Genetic analysis of transmission ratio distortion by <i>t</i> -haplotypes in the mouse	29
OHTA, TOMOKO. Time until fixation of a mutant belonging to a multigene family	47
KOORNNEEF, M., VAN EDEN, J., HANHART, C. J. and DE JONGH, A. M. M. Genetic fine-structure of the <i>GA-1</i> locus in the higher plant <i>Arabidopsis thaliana</i> (L.) Heynh	57
McMAHON, A. and MONK, M. X-chromosome activity in female mouse embryos heterozygous for <i>Pgk-1</i> and Searle's translocation, T(X; 16) 16H	69
BROOK, J. D. X-chromosome segregation, maternal age and aneuploidy in the <i>XO</i> mouse	85
TOWNER, K. J. Transposon-directed mutagenesis and Chromosome Mobilization in <i>Acinetobacter calcoaceticus</i> EBF65/65	97
ERRATUM	103
BOOK REVIEWS	105

No. 2 (April 1983)

HARBERD, N. P. and EDWARDS, K. J. R. Further studies on the alcohol dehydrogenases in barley: evidence for a third alcohol dehydrogenase locus and data on the effect of an <i>alcohol dehydrogenase - 1</i> null mutation in homozygous and in heterozygous condition	109
ADOLPH, SABINE and KLEIN, JAN. Genetic variation of wild mouse populations in southern Germany. I. Cytogenetic study	117
FIGUEROA, FELIPE, ZALESKA-RUTCZYNSKA, ZOFIA, ADOLPH, SABINE, NADEAU, JOSEPH H. and KLEIN, JAN. Genetic variation of wild mouse populations in southern Germany. II. Serological study	135
TOUSSAINT, ARIANE and SCHOONEJANS, ERIC. Production and modification of Mu(G-) phage particles in <i>E. coli</i> K12 and <i>Erwinia</i>	145
MACDONALD, MARY V. and WHITEHOUSE, HAROLD L. K. A <i>buff</i> spore colour mutant in <i>Sordaria brevicollis</i> showing high-frequency conversion. Loss of the high-frequency conversion	155

Contents

FULTON, A. M. and BOND, D. J. An investigation into the origins of meiotic aneuploidy using ascus analysis	165
HART, GARY E. and TULEEN, NEAL A. Chromosomal locations of eleven <i>Elytrigia elongata</i> (= <i>Agropyron elongatum</i>) isozyme structural genes	181
SHORT PAPERS	
POMBEIRO, SANDRA R. C., MARTINEZ-ROSSI, NILCE, M. and ROSSI, ANTONIO. Nitrite toxicity in <i>Aspergillus nidulans</i> : a new locus in a <i>proA1 pabaA6 yA2</i> strain	203
KOEBCER, R. M. D. and SHEPHERD, K. W. Shikimate dehydrogenase – a biochemical marker for group 5 chromosomes in Triticinae	209
BOOK REVIEWS	
BOOKS RECEIVED	215
BOOKS RECEIVED	219
No. 3 (June 1983)	
CHOJECKI, A. J. S., GALE, M. D., HOLT, LINDA M. and PAYNE, P. I. The intrachromosomal mapping of a glucose phosphate isomerase structural gene, using allelic variation among stocks of Chinese Spring wheat	221
BARANOV, V. S. Chromosomal control of early embryonic development in mice. II. Experiments on embryos with structural aberrations of autosomes 7, 9, 14 and 17	227
WALLIS, GRAHAM P., TABACHNICK, WALTER J. and POWELL, JEFFREY R. Macrogeographic genetic variation in a human commensal: <i>Aedes aegypti</i> , the yellow fever mosquito	241
ZOUROS, E., SINGH, SHIVA M., FOLTZ, DAVID W. and MALLET, ANDRE L. Post-settlement viability in the American oyster (<i>Crassostrea virginica</i>): an overdominant phenotype	259
FORSTHOEFEL, A. M. & MISHRA, N. C. Biochemical genetics of <i>Neurospora</i> nuclease. I. Isolation and characterization of nuclease (<i>nuc</i>) mutants	271
MISHRA, N. C. & FORSTHOEFEL, A. M. Biochemical genetics of <i>Neurospora</i> nuclease. II. Mutagen sensitivity and other characteristics of the nuclease mutants	287
SHORT PAPER	
LAM, S. T. S., POLANI, P. E. and FENSOM, A. H. Steroid sulphatase in the mouse	299
ABSTRACTS	
BOOK REVIEWS	303
BOOKS RECEIVED	321
INDEX	325
INDEX	327

Copying

This journal is registered with the Copyright Clearance Center, 21 Congress St., Salem, Mass. 01970. Organizations in the U.S.A. who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of U.S. copyright law) subject to payment to C.C.C. of the per-copy fee of \$05.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0016-6723/83/2828-0001 \$05.00.

ISI Tear Service, 3501 Market Street, Philadelphia, Pennsylvania 19104, U.S.A., is authorized to supply single copies of separate articles for private use only.

For all other use, permission should be sought from the Cambridge or New York offices of the Cambridge University Press.

GENETICAL RESEARCH

VOLUME 41, NUMBER 3, JUNE 1983

CONTENTS

CHOJECKI, A. J. S., GALE, M. D., HOLT, LINDA M. and PAYNE, P. I. The intrachromosomal mapping of a glucose phosphate isomerase structural gene, using allelic variation among stocks of Chinese Spring wheat	page 221
BARANOV, V. S. Chromosomal control of early embryonic development in mice. II. Experiments on embryos with structural aberrations of autosomes 7, 9, 14 and 17	227
WALLIS, GRAHAM P., TABACHNICK, WALTER J. and POWELL, JEFFREY R. Macrogeographic genetic variation in a human commensal: <i>Aedes aegypti</i> , the yellow fever mosquito	241
ZOUROS, E., SINGH, SHIVA M., FOLTZ, DAVID W. and MALLET, ANDRE L. Post-settlement viability in the American oyster (<i>Crassostrea virginica</i>): an overdominant phenotype	259
FORSTHOEFEL, A. M. and MISHRA, N. C. Biochemical genetics of <i>Neurospora</i> nuclease. I. Isolation and characterization of nuclease (<i>nuc</i>) mutants	271
MISHRA, N. C. and FORSTHOEFEL, A. M. Biochemical genetics of <i>Neurospora</i> nuclease. II. Mutagen sensitivity and other characteristics of the nuclease mutants	287
SHORT PAPERS	
LAM, S. T. S., POLANI, P. E. and FENSOM, A. H. Steroid sulphatase in the mouse	299
ABSTRACTS	
BOOK REVIEWS	303
BOOKS RECEIVED	321
INDEX	325
INDEX	327

© Cambridge University Press 1983

CAMBRIDGE UNIVERSITY PRESS

The Pitt Building, Trumpington Street, Cambridge CB2 1RP
32 East 57th Street, New York, N.Y. 10022

Printed in Great Britain at the University Press, Cambridge