

VOLUME 10, NO. 1

AUGUST 1967

# GENETICAL RESEARCH

EDITORIAL BOARD

C. H. WADDINGTON (*Chairman*)  
CHARLOTTE AUERBACH    D. LEWIS  
H. GRÜNEBERG    G. PONTECORVO  
W. HAYES    A. ROBERTSON

EXECUTIVE EDITOR

E. C. R. REEVE

ASSISTANT EXECUTIVE EDITOR

J. O. BISHOP



PUBLISHED BY

CAMBRIDGE UNIVERSITY PRESS

Bentley House, 200 Euston Road, London, N.W. 1  
American Branch: 32 East 57th Street, New York, N.Y. 10022

SUBSCRIPTION £5 net (U.S.A. \$18.50) per volume

SINGLE PARTS 45s. net (U.S.A. \$7.50)

# GENETICAL RESEARCH

---

GENETICAL RESEARCH publishes original work on all aspects of genetics, or in any field of research which has an important bearing on genetics. Papers will be submitted to referees before acceptance. They will generally be printed in order of acceptance. In addition, Short Papers (see below) may be included if received 3 months before publication date.

TWO VOLUMES are published per year each consisting of three parts plus an index.

SUBSCRIPTIONS may be sent to any bookseller or to the Cambridge University Press, 200 Euston Road, London, N.W. 1. Subscriptions in the U.S.A. should be sent to the American Branch of the Press, 32 East 57th Street, New York, N.Y. 10022. The subscription price is £5 net (including postage) for a volume of three parts (\$18.50 in the U.S.A.), payable in advance; Separate parts 45s. or \$7.50 each (plus postage).

## NOTES FOR CONTRIBUTORS

CONTRIBUTIONS will be welcomed from scientists of all nationalities, but must be written in English, with an English summary. An additional summary in French, German, Russian or Italian will be accepted. Papers should be sent to the Executive Editor, Dr. E. C. R. Reeve, Institute of Animal Genetics, West Mains Road, Edinburgh 9.

GENERAL. Submission of a paper will be taken to imply that it is unpublished and is not being considered for publication elsewhere. Papers published in *Genetical Research* may not be reprinted or published in translation without permission from the Editorial Board. Papers should be as concise as clarity permits, and illustrations kept as few as possible.

SHORT PAPERS. This category is designed for concisely written reports of work for which rapid publication is considered desirable. Such papers will normally be published within three months of receipt in acceptable form. They should not exceed 6 pages of print in length.

TYPESCRIPTS. A top copy and one carbon copy should be submitted. They should be typed with double-spacing, on one side of the paper, leaving margins of about 1½ inches at the left-hand side and head of each sheet. Quarto is preferred to foolscap paper. Heavily corrected typescripts may have to be returned to the author for retyping. Papers should state the name and address of the author (or his proxy) to whom proofs are to be sent. The address of the laboratory at which the work was carried out will be printed with the authors' names at the head of the paper, and changes of address and sources of financial support may be added in footnotes.

A short title should be supplied for running headlines; this must not exceed 50 characters, counting each letter and space as one character.

*(continued inside back of cover)*

# JOURNAL OF REPRODUCTION AND FERTILITY

The Journal publishes original papers, abstracts of Proceedings, and occasionally reviews and bibliographies, dealing with the morphology, physiology, biochemistry and pathology of reproduction in man and animals, and with the biological, medical and veterinary problems of fertility and lactation. Numbers are issued bimonthly to give two volumes a year.

*Papers to appear during 1967 include:*

- S. SHAHANI and A. CHIKLIKAR. Effect of Sc. 11800 (Ethinodiol diacetate) on the genital tract of women
- B. E. ELEFThERIOU and A. J. ZOLOVICK. Effect of amygdaloid lesions on plasma and pituitary levels of luteinizing hormone
- S. P. KALRA, and M. R. N. PRASAD. Effect of clomophene on fertility in male rats
- H. W. HAWK. Investigations into the anti-fertility effect of intra-uterine devices in the ewe
- S. D. PARSONS and G. L. HUNTER. Effect of the ram on duration of oestrus in the ewe
- J. P. HOLLAND, J. M. DORSEY, Jr., N. N. HARRIS and F. L. JOHNSON. Effect of thyroid activity upon delayed implantation of blastocysts in the rat
- L. BJERSING and H. CARSTENSEN. Biosynthesis of steroids by granulosa cells of the porcine ovary *in vitro*
- S. A. ASDELL, H. DOORNENBAL, S. R. JOSHI and G. A. SPERLING. The effects of sex steroid hormones upon longevity in rats
- D. AMIR and H. SCHINDLER. Influence of lactate on the rates of fructolysis and respiration in ram spermatozoa
- G. B. SHARMAN and M. J. CLARK. Inhibition of ovulation by the corpus luteum in the red kangaroo, *Megaleia rufa*
- B. FJALLBRANT. Fertility in a man auto-immunized to spermatozoa
- J. R. BATTISTO, M. PINTO and S. JOSEPH. Disturbance of oestrous cycles in rats following administration of Freund's complete adjuvant
- J. M. BEDFORD and A.-M. BIBEAU. Failure of sperm sedimentation to influence the sex ratio of rabbits
- J. N. SHELTON and N. W. MOORE. The response of the ewe to pregnant mare serum and to horse anterior pituitary extract

---

Editorial correspondence should be sent to the Executive Editor, Journal of Reproduction and Fertility, 8 Jesus Lane, Cambridge, England, and business correspondence to the publishers.

*The subscription rate for 1967 is £6 per volume or £12 per year (two volumes). U.S.A. and Canada \$20.00 per volume or \$40.00 per year.*

**BLACKWELL SCIENTIFIC PUBLICATIONS**  
**5 ALFRED STREET, OXFORD**

# ANIMAL BREEDING ABSTRACTS

is such an invaluable guide to the latest literature on livestock breeding and genetics that we can hardly believe you have not heard of it,\* BUT do you know about our

## ANNOTATED BIBLIOGRAPHIES

The following titles may be of interest to you:

Number	Subject	Period covered	Number of references	Price
35	Albinism in farm animals	1957-64	8	6s.
41	The effect of heterozygosity in rodents	1945-66	5	6s.
42	Theoretical aspects of heterozygosity	1955-64	26	6s.
43	Theoretical aspects of ageing	1962-66	5	6s.
44	The effect of ageing in mice and rats	1947-66	46	12s.
49	Twinning in cattle	1955-67	68	18s.
50	Inheritance of black coat colour in sheep	1956-65	8	6s.
52	Heritability of udder conformation	1952-66	51	12s.

These are duplicates of bibliographies prepared on request at the Commonwealth Bureau of Animal Breeding and Genetics, Edinburgh. In addition to the full title reference, the abstract published in *Animal Breeding Abstracts* is reproduced. They can be obtained on application to the Director of the Bureau, The King's Buildings, West Mains Road, Edinburgh, 9. The prices quoted include postage by ordinary mail, and the remittance should be sent with the order *unless you want it posted by air mail*. If the material is to be sent by air mail, do not send money with your request. You will receive an invoice which includes air mail postage.

\* *Animal Breeding Abstracts* can be ordered through any bookseller or direct from Commonwealth Agricultural Bureaux, Farnham House, Farnham Royal, Bucks., England. The subscription is 110s. annually, or 210s. if you live outside the British Commonwealth.

## The Journal of General Microbiology

Edited by B. C. J. G. KNIGHT and A. F. B. STANDFAST

Volume 48, Part 1. July 1967

45s. net (\$7.50). Annual Subscription £20 (\$70.00) for twelve issues.

- K. A. WRIGHT & H. V. WYATT. Alkali metal ions in relation to the growth of *Escherichia coli*: a comparison with *Staphylococcus aureus*.
- S. O. STANLEY & A. H. ROSE. On the clumping of *Corynebacterium xerosis* as affected by temperature.
- K. A. BISSET. Ultrastructure of cell envelopes of large cells, small cells and cysts of *Azotobacter chroococcum*.
- K. A. BISSET & C. M. F. HALE-MCCAUGHEY. Gonidium production in *Azotobacter chroococcum*.
- M. J. DILWORTH & D. C. WILLIAMS. Nucleic acid changes in bacteroids of *Rhizobium lupini* during nodule development.
- E. D. SINGER, LEA GRUNDMAN & FANY CROITORU. Increased toxin titres obtained by the addition of selected carbon sources to shaken cultures of *Corynebacterium diphtheriae*.
- ELLEN S. VITETTA & HELENE N. GUTTMAN. Immunological relationships among the lower trypanosomatidae.
- S. ROTTEM & S. RUZIN. Uptake and utilization of acetate by *Mycoplasma*.
- R. MARCHANT & MONICA F. WHITE. The carbon metabolism and swelling of *Fusarium culmorum* conidia.
- L. V. KALAKOUTSKII, IRENE P. KIRILLOVA & N. A. KRASSILNIKOV. A new genus of the Actinomycetales—*Intra-sporangium* gen.nov.
- AILSA B. VISE & JUNE LASCELLES. Some properties of a mutant strain of *Escherichia coli* which requires lysine and methionine or lipoic acid for growth.
- D. VAN EDELEN. The antigens of *Pseudomonas aeruginosa* studied by the Ouchterlony technique and immunoelectrophoresis.
- C. A. FEWSON. The identity of the Gram-negative Bacterium NCIB 8250 ('Vibrio 01').
- VIORICA Bogdanescu & R. RACOTTA. Identification of mycobacteria by overall similarity analysis.
- K. H. GOULDING & M. J. MERRETT. The photo-assimilation of acetate by *Pyrobolrys (Chlamydothrys) stellata*.
- ANNA BODDY, PATRICIA H. CLARKE, MARGARET A. HOULDSWORTH & M. D. LILLY. Regulation of amidase synthesis by *Pseudomonas aeruginosa* 8602 in continuous culture.
- E. SOMERS & D. J. FISHER. Effect of dodine acetate on the electrophoretic mobility of *Neurospora crassa* conidia.
- P. R. PAINTER & A. G. MARR. Inequality of mean interdivision time and doubling time.

# CAMBRIDGE UNIVERSITY PRESS