

VOLUME 1, NO. 1

Reference
FEBRUARY 1960

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



PUBLISHED BY

CAMBRIDGE UNIVERSITY PRESS

Bentley House, 200 Euston Road, London, N.W. 1
American Branch: 32 East 57th Street, New York 22, N.Y.

PRICE 40s. net (U.S.A. \$7.00)

P.C. Lee

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 notes limited to 1500 words or the equivalent space including figures, etc., may be included if received 3 months before publication date.

EACH ANNUAL VOLUME will consist of three parts (to be published in February, July and November) 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 22, N.Y. The subscription price is £5 net (including postage) for an annual volume of three parts (\$17.50 in the U.S.A.), payable in advance; Separate parts 40s. or \$7.00 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 Submission of a paper or note will be taken to imply that it is unpublished and is not being considered for publication elsewhere.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. Attention to the following instructions will assist rapid publication.

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 will publish original papers, abstracts of Proceedings, and occasionally reviews and bibliographies dealing with the morphology, physiology, biochemistry and pathology of reproduction in man and other animals, and with the biological, medical and veterinary problems of fertility. Numbers will be issued quarterly to give one volume per year, until the flow of material necessitates greater frequency.

Vol. 1

FEBRUARY 1960

No. 1

CONTENTS

- A. S. PARKES. Foreword
P. E. LINDAHL. Some factors influencing the biological activity of sperm antagglutins
R. A. BEATTY. Fertility of mixed semen from different rabbits
E. F. HARTREE and T. MANN. Phospholipids in mammalian semen
P. E. LAKE. Studies on the dilution and storage of fowl semen
L. STUART SCOTT. Varicocele ligation with improved fertility
C. E. ADAMS. Prenatal mortality in the rabbit, *Oryctolagus cuniculus*
R. V. SHORT. Blood hormone levels in relation to parturition
J. PERRY. The incidence of embryonic mortality as a characteristic of the individual sow
CLARE HARVEY. The velocity of human spermatozoa and the effect on it of various diluents, with some preliminary observations on clinical material
H. M. BRUCE. A block to pregnancy in the mouse caused by proximity of strange males
Proceedings of the Society for the Study of Fertility: Annual Conference, Dublin, 1959
-

The subscription rate is 70s. per volume. U.S.A. and Canada \$12.

Dr. T. Mann, F.R.S., is Chairman and Dr. A. S. Parkes, C.B.E., F.R.S., Secretary of the Council of Management. Dr. C. R. Austin has been appointed Editor, and the Editorial Board includes Professor E. C. Amoroso, F.R.S., Dr. R. A. Beatty, Dr. P. M. F. Bishop, Dr. J. L. Hancock, Professor R. G. Harrison, Dr. Margaret Jackson, Professor J. A. Laing, Mr. L. E. Rowson, Dr. G. I. M. Swyer.

Editorial correspondence should be sent to Dr. C. R. Austin, National Institute for Medical Research, Mill Hill, London, N.W.7., and business correspondence to the publishers.

**BLACKWELL SCIENTIFIC PUBLICATIONS
OXFORD**

**INTRODUCTION TO
QUANTITATIVE GENETICS
D. S. Falconer**

This book provides a synthesis of much theoretical and experimental work not hitherto available in one volume. It fills a widely felt need for a not too advanced text-book developing the subject from first principles and covering all its major aspects without going deeply into inessential details or controversial topics.

Though much of the reasoning is necessarily mathematical in nature, the author has sought to make both the reasoning and the conclusions intelligible to biologists equipped with only an elementary knowledge of algebra, statistics, and Mendelian genetics.

The inheritance of quantitative differences between individuals—differences of degree rather than of kind—is where genetics has its most direct bearing on evolutionary theory and its most important application to practical problems of biological experimentation and of plant and animal improvement. This book will appeal to a wide range of biologists whose interests embrace the nature of biological variation. 364 pages, 35s.

OLIVER AND BOYD

Tweeddale Court, 14 High Street, Edinburgh

FULL PARTICULARS OF THE

JOURNALS

PUBLISHED BY THE

CAMBRIDGE UNIVERSITY PRESS

MAY BE HAD FROM

THE MANAGER, CAMBRIDGE UNIVERSITY PRESS

BENTLEY HOUSE, 200 EUSTON ROAD

LONDON, N.W.1

BLACKWELL SCIENTIFIC PUBLICATIONS

New and Standard Works on Genetics

THE CHEMISTRY OF HEREDITY

By S. ZAMENHOF, PH.D. 1959. 120 pages, 10 illustrations. 34s.

The author brings together the results, as far as they concern the mechanism of heredity, of the different disciplines of genetics, microbiology, medicine, biochemistry and biophysics.

THE ABO BLOOD GROUPS

By A. E. MOURANT, M.A., D.PHIL., D.M., M.R.C.P., et al. 1958. 284 pages. 42s.

'Dr. Mourant and his collaborators have made a most important contribution, not only to haematology and anthropology, but also to human genetics. This well-produced volume will become a reference work of great importance.'—*Eugenics Review*.

THE DISTRIBUTION OF THE HUMAN BLOOD GROUPS

By A. E. MOURANT, M.A., D.PHIL., D.M., M.R.C.P. 1954. 460 pages. 42s.

'For the research worker this book is a unique compilation of facts, with their probable interpretation and value; it is full of pointers to future work, an indispensable reference book.'—*The Lancet*.

BLOOD GROUPS IN MAN

By R. R. RACE, PH.D., M.R.C.S., F.R.S., and RUTH SANGER, PH.D., B.SC. *Third Edition*, 1958. 400 pages, 35 illustrations. 42s.

'The appearance of a new edition of "Race and Sanger" is . . . an important event for all who are interested in human genetics or in eugenics. This book, from its first appearance, has been the standard work on all aspects of the subject of its title, but especially on the genetical aspect.'—*Eugenics Review*.

GENETICS AND THE RACES OF MAN

By WILLIAM C. BOYD. 1950. 470 pages, 52 illustrations. 50s.

'The text will undoubtedly prove valuable to students of both anthropology and genetics; but even those who know little about either subject will find it a stimulating introduction to both.'—*The Lancet*.

READINGS ON RACE

Edited by S. M. GARN, PH.D. 1960. 304 pages, 14 illustrations. 54s.

In this work physicians, physiologists, population geneticists, serologists and biochemists join with physical anthropologists to present the latest developments in the study of human races.

The latest volume (II.2.) of *SELECTED SCIENTIFIC PAPERS FROM THE ISTITUTO SUPERIORE DI SANITA* contains important new work on the morphology and genetics of various moulds and streptomycetes, particularly *Penicillium Chrysogenum*. Edited by E. B. CHAIN, F.R.S., it is just published at 57s. 6d. Full details of contents will be sent on request.

24-25 BROAD STREET · OXFORD

Human Biochemical Genetics

H. HARRIS

An account of the inborn differences between human beings which can be formulated in biochemical terms. For geneticists, biochemists and medical research workers. There is a foreword by Professor L. S. Penrose.

37s. 6d. net

The Application of Genetics to Cotton Improvement

SIR JOSEPH HUTCHINSON

An account of the application of genetic and physiological studies to the problems of a commercial crop by the Drapers Professor of Agriculture in the University of Cambridge.

15s. net

CAMBRIDGE UNIVERSITY PRESS

H. GRAHAM CANNON, F.R.S.
Lamarck and Modern Genetics

To mark the 150th anniversary of Lamarck's *Philosophie Zoologique* Professor Cannon traces the achievements of Lamarck, shows how he has been misrepresented by his detractors, and challenges modern orthodox theorists to answer a number of fundamental questions which he poses on evolution.

'Professor Cannon has certainly shown that Lamarck cannot be dismissed as a charlatan or a nonentity.'—*Times Literary Supplement*.

Crown 8vo. 12s. 6d. net

by the same author

The Evolution of Living Things

'This book should be taken seriously and not only by laymen. The difficulties Cannon finds in accepting a theory of evolution by natural selection in which small variations are inherited according to Mendelian laws will find echoes in many quarters.'—*Nature*.

'A challenging book which should be given serious attention.'—*The Humanist*.

'Professor Cannon has slumbered very long. And he seems to have slumbered in the luggage van of the train. For when he rubs his eyes all he finds in focus is the giant figure of Lamarck so long misunderstood.'—C.D.D. in the *Journal of Heredity*.

'Professor Cannon, whose biological competence is unquestionable, has produced a devastating criticism of orthodoxy and a reasoned development of the kind of theory Lamarck was trying to express. Only a very long review can do more than hint at the general line of argument of this book, for the arguments have to be considered in detail for their force to be appreciated. If the orthodox have a reply to make to his attack they must produce it, and produce it pretty quickly, or natural selection will deal with their orthodoxy as it dealt long ago with *Diplodocus*.'—*Times Educational Supplement*.

Crown 8vo. 12s. 6d. net

MANCHESTER UNIVERSITY PRESS
316-324 OXFORD ROAD, MANCHESTER, 13