# A comprehensive, up-to-date work also covering all clinical aspects

H. Mehlhorn, Bochum (Ed.)

## Parasitology in Focus

#### **Facts and Trends**

1988. Approx. 405 figures. Approx. 800 pages. Hard cover DM 298,-. ISBN 3-540-17838-4

"Parasitology in Focus" is a readily comprehensible overview of established knowledge and the latest findings in human and veterinary parasitology. In addition to basic information about development cycles, reproduction, morphology, genetics, host specific and immune response full details of the clinical symptoms and identification of both human and veterinary parasitic infections are given. Other main topics discussed are methods for culturing parasites and serologic and immunodiagnostic techniques. Prophylactic and therapeutic measures used against parasites are also dealt with in detail. The large number of illustrations gives the book some of the characteristics of a parasitologic atlas. It is highly relevant to parasitologic pratice, giving information about geographic distributions, resistance problems, and strategic programs for the control and eradication of parasites. The clear layout, readily understandable language, and topicality and current relevance of the book will make it of great use to students, lecturers, and researchers.

#### Contributors:

D. Bunnag, Thailand; E. Curio, Germany; J. F. Dubremetz, France; B. Enders, Germany; M. Franz, Germany; M. Franz, Germany; M. Gustafsson, Frinland; W. Haas, Germany; K. T. Harinasuta, Thailand; H. G. Heidrich, Germany; E. R. James, USA; P. Köhler, Switzerland; W. Kunz, Germany; S. Lloyd, England; H. Mehlhorn, Germany; W. Peters, Germany; W. Peters, Germany; W. Peters, Germany; W. Peters, Germany; H. Taraschewsky, Germany; H. Taraschewsky, Germany; R. C. A. Thompson, Australia; J. Vercruysse, Belgium; W. P. Voigt, Kenia; D. Wakelin, England; V. Walldorf, Germany; W. P. Voigt, Kenia; D. Wakelin, England; V. Walldorf, Germany; W. H. Wernsdorfer, Switzerland

Heinz Mehlhorn (Ed)

## Parasitology in Focus

Facts and Trends



Springer-Verlag Berlin Heidelberg New York London Paris Tokyo Heidelberger Platz 3, D-1000 Berlin 33 - 175 Fifth Ave., New York, NY 10010, USA - 28, Lurke Street, Bedford MK40 3HU, England - 26, rue des Carmes, F-75005 Paris 37-3, Hongo 3-chome, Bunkyo-ku, Tokyo 113, Japan



tm.4384/SI

## CAMBRIDGE =

### **Numerical Recipes**

The Art of Scientific Computing

Numerical Recipes WILLIAM PRESS, BRIAN P. FLANNERY, SAUL TEUKOLSKY and WILLIAM T. VETTERLING

'Numerical Recipes is exciting and informative, and I wish it every success. It will give guidance and Richard L. Garwin, IBM Research Centre pleasure to novice and expert alike."

Numerical Recipes seems to match the needs of students and professional scientists far better than any other text I have seen'. Richard Muller, Professor of Physics, University of California

'Any technology company that doesn't have a few copies of this work and the accompanying diskettes is wasting the precious time of its best researchers. Both would be bargains at twice their price. Dr Srully Blotnick, Forbes Magazine

'Numerical Recipes is an instant 'classic', a book that should be purchased and read by anyone who uses numerical methods.' American Journal of Physics

'The authors are to be congratulated for providing the scientific community with a valuable The Scientist

Numerical Recipes provides a practical reference and textbook for anyone doing numerical analysis. It is not only a list of every numerical technique developed, but also a guide to those that work! The authors provide the techniques and computer programs needed for analysis and also advise on their applications. They show that the practical methods of numerical computation can be simultaneously efficient, clever, and

The authors assume that the reader is mathematically literate and familiar with FORTRAN or PASCAL programming languages, but no prior experience with numerical analysis or numerical methods is assumed. The programs in the book are in ANSI- standard FORTRAN-77 for the main text, and are repeated in UCSD-PASCAL Workbooks providing sample programs that illustrate the use of each subroutine and procedure are available and the listed programs can be obtained in several machine-readable formats and programming

The diskettes listed below are published by Cambridge University Press. All are 51/4" double-sided doubledensity floppy diskettes. They operate on DOS 2.0/3.0 on IBM-PC, XT, AT or IBM compatible personal computers. Technical questions, corrections and requests for information on other available formats and software products, should be directed to Numerical Recipes Software, PO Box 243, Cambridge, MA 02238, USA

818 pp. 1986 0 521 308119 £27.50 net

#### Recipe Diskettes

0 521 309557 (UCSD-PASCAL) £17.50 + VAT in UK 0 521 30958 1 (FORTRAN-77) £17.50 + VAT in UK

#### Workbooks

236 pp. 0 521 30956 5 (UCSD-PASCAL) Paperback £17.50 net 178 pp. 0 521 31330 9 (FORTRAN-77) Paperback £17.50 net

#### **Example Diskettes**

0 521 30954 9 (UCSD-PASCAL) £17.50 + VAT in UK 0 521 30957 5 (FORTRAN-77) £17.50 + VAT in UK Full details of the books and diskettes may be obtained by writing to Sally Seed at the Cambridge address or Clay Gordon in New York

#### **Cambridge University Press**

The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU, England 32 East 57 Street, New York, New York 10022, USA.



IUBS IUPS IUB IUPAB IUPHAR IUNS IUIS IUMS COGENE IBM

**BioEssays** brings you news and reviews on the latest advances in molecular, cellular and developmental biology. Each monthly issue keeps you up to date with developments in your field.

"Every month BioEssays will bring you reviews on issues of current interest that are concise and comprehensible, a service . . . applauded by busy scientists." LANCET

**BioEssays** is the broadest current awareness monthly in contemporary biology. An important part of the scientific literature,

**BioEssays** will be a welcome source of teaching materials.

"The style is lively, the articles informative and not too long, and the whole is eminently readable. It should become very useful in the teaching of many aspects of biology, especially in making recent advances accessible to students." TIMES HIGHER EDUCATION SUPPLEMENT.

One issue per volume is devoted to a special subject; themes for 1988 special issues are **Protein Engineering** and the **Eukaryotic Nucleus.** 

#### Subscriptions for 1988

£85.00 for UK institutions; £95.00 (\$175) for institutions elsewhere; £38.00 (\$60) for individuals; single parts £6.00 (\$13); airmail £24.00 extra per year. Dollar price includes air freight to the US.

#### To order your copy send payment to

The Journals Subscriptions Manager, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU, England **or** The Journals Subscription Manager, Cambridge University Press, 32 East 57th Street, New York, NY 10022, USA.



#### PARASITOLOGY

BACK VOLUMES. Vols. 1-71: Inquiries should be addressed to Wm. Dawson & Sons Ltd, Cannon House, Folkestone, Kent. Vols. 72 onwards: quotations for parts still in print may be obtained from Cambridge or the American Branch of Cambridge University Press.

COPYING. This journal is registered with the Copyright Clearance Center, 27 Congress Street, Salem, Mass, 01970. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to C.C.C. of the per-copy fee of \$5.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0031–1820/88 \$5.00 + .00.

ISI TEAR SHEET SERVICE, 3051 Market Street, Philadelphia, Pennsylvania 19104, USA, is authorized to supply single copies of separate articles for private use only.

FOR ALL OTHER USE, permission should be sought from Cambridge or the American Branch of Cambridge University Press.

CLAIMS for missing issues can only be considered if made immediately after receipt of the subsequent issue.

ADVERTISING. Details of advertising in *Parasitology* may be obtained from the publisher.

#### **PARASITOLOGY**

Volume 96, Part 2, April 1988

#### CONTENTS

	PAGE
MITCHELL, G. H., JOHNSTON, D. A., NAYLOR, B. A., KNIGHT, A. M. and WEDDERBURN, N. <i>Plasmodium virax</i> malaria in the common marmoset, <i>Callithrix jacchus</i> ; adaptation and host response to infection	241
Graves, P. M., Burkot, T. R., Carter, R., Cattani, J. A., Lagog, M., Parker, J., Brabin, B. J., Gibson, F. D., Bradley, D. J. and Alpers, M. P. Measurement of malarial infectivity of human populations to mosquitoes in the Madang area, Papua New Guinea	251
Park. Chai Bix Microfilaria density distribution in the human population and its infectivity index for the mosquito population	265
Hamilton, A. J., Davies, C. S. and Sinden, R. E. Expression of circumsporozoite proteins revealed in situ in the mosquito stages of Plasmodium berghei by the Lowicrylimmunogold technique	273
Nakamura, T., Konishi, T., Kawaguchi, H. and Hayashi, Y. Glucose phosphate isomerase isozymes as genetic markers for lines of <i>Eimeria tenella</i>	281
Rabinovitch, M. and Zilberfarb, V. Destruction of intracellular and isolated <i>Leishmania mexicana amazonensis</i> amastigotes by amino acid amides	289
Alexander, J. Sex differences and cross-immunity in DBA/2 mice injected with $L.\ mexicana$ and $L.\ major$	297
Cibulskis, R. E. Origins and organization of genetic diversity in natural populations of $Trypanosoma\ brucei$	303
RICHARDS, K. SYLVIA, MORRIS, D. L., DANIELS, D. and RILEY, E. M. Echinococcus granulosus: the effects of praziquantel, in vivo and in vitro, on the ultrastructure of equine strain murine cysts	323
Rees, F. Gwendolen. The muscle, nervous and excretory systems of the plerocercoid of Callitetrarhynchus gracilis (Rud., 1819) (Pinter 1931) (Cestoda: Trypanorhyncha) from Bermuda fishes	337
Zervos, S. Population dynamics of a thelastomatid nematode of cockroaches	353
Zervos, S. Evidence for population self-regulation, reproductive competition and arrhenotoky in a thelastomatid nematode of cockroaches	369
CAMERON, M. L., LEVY, P., NUTMAN, T., VANAMALA, C.R., NARAYANAN, P. R. and RAJAN, T. V. Use of restriction fragment length polymorphisms (RFLPs) to distinguish between nematodes of pathogenic significance	381
Mutugi, J. J., Young, A. S., Maritim, A. C., Linyonyi, A., Mbogo, S. K. and Leitch, B. L. Immunization of cattle using varying infective doses of <i>Theileria parva lawrencei</i> sporozoites derived from an African buffalo ( <i>Syncerus caffer</i> ) and treatment with buparvaquone	391
Trends and Perspectives	
Young, A. S., Groocock, C. M. and Kariuki, D. P. Integrated control of ticks and tick-borne diseases of cattle in Africa	403

© Cambridge University Press 1988

The Pitt Building, Trumpington Street, Cambridge CB2 1RP 32 East 57th Street, New York, NY 10022, USA 10 Stamford Road, Oakleigh, Melbourne 3166, Australia

Printed in Great Britain by the University Press, Cambridge