

# The Journal of Hygiene

Original reports and reviews  
on all aspects of infection  
of man and animals

5004  
PACIS9

Volume 95 Number 1 August 1985

Cambridge University Press

# The Journal of Hygiene

EDITED BY

J. R. Pattison

Professor of Medical Microbiology  
University College, London and the Middlesex Hospital Medical School

M. J. Lewis  
Director,  
Public Health Laboratory,  
Nottingham

C. R. Madeley  
Professor of Virology,  
University of Newcastle  
upon Tyne

W. C. Noble  
Professor of Microbiology,  
Institute of Dermatology,  
London

Assistant editor  
P. Morgan-Capner  
Consultant Virologist,  
Public Health Laboratory,  
Preston

IN CONJUNCTION WITH

M. J. Anderson (London)  
R. M. Anderson (London)  
R. D. Barry (Australia)  
P. S. Brachman (Atlanta)  
A. B. Christie (Liverpool)  
S. M. Feinstone (Bethesda)  
R. J. Gilbert (London)  
Anna Hambræus (Uppsala)  
O. M. Lidwell (London)

D. H. Lloyd (London)  
R. R. Marples (London)  
P. P. Mortimer (London)  
J. Nagington (Cambridge)  
J. S. Oxford (London)  
R. F. Sellers (Pirbright)  
M. B. Skirrow (Worcester)  
C. C. Spicer (Exeter)  
R. S. Tedder (London)

H. E. Tillett  
(London)  
D. van der Waaij  
(Groningen)  
A. T. Willis (Luton)  
H. Williams-Smith  
(Huntingdon)  
Sir Graham Wilson  
(London)

The *Journal of Hygiene* publishes reports of research and original findings in subjects related to infectious diseases. Particular emphasis is given to the epidemiology, prevention and control of such diseases, but the field covered is broad and includes the microbiological, virological, immunological, clinical and social aspects of infectious diseases of man and animals.

© Cambridge University Press 1985

## PERMISSIONS

### Copying

This journal is registered with the Copyright Clearance Center, 21 Congress Street, Salem, Mass. 01970. Organizations in the USA who are also registered with the 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 \$05.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0022-1724/85/2828-0001 \$05.00.

ISI Tear Service, 3501 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 the Cambridge or New York offices of the Cambridge University Press.

## SUBSCRIPTIONS

The *Journal of Hygiene* (ISSN 0022-1724) is published annually in two volumes of three parts.

The subscription price of volumes 94 and 95, 1985, is £39 net (USA and Canada US \$97.50) per volume (post free); single parts are available at £16 net (USA and Canada US \$41) plus postage. Back volumes are also available. Orders, which must be accompanied by payment, may be sent to any bookseller or subscription agent or to Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU, or in the USA and Canada to Cambridge University Press, 32 East 57th Street, New York, NY 10022. Second class postage paid at New York, NY, and at additional mailing offices. POSTMASTER: send address changes in USA and Canada to the *Journal of Hygiene*, Cambridge University Press, 32 East 57th Street, New York, NY 10022.

Claims for missing issues should be made immediately on receipt of the subsequent issue.