

Edited for the British Pharmacological Society by

W. D. M. Paton (*Chairman*) H. M. Adam (*Secretary*)
P. A. Nasmyth (*Press Editor*)
Jennifer MacLagan (*Assistant Press Editor*)

G. W. Ashcroft (co-opted)	D. B. Hope
R. B. Barlow	H. W. Kosterlitz
J. M. Barnes	G. P. Lewis
J. W. Black	R. D. Lowe
W. C. Bowman	J. Maddox
P. B. Bradley	J. F. Mitchell
A. W. Cuthbert	M. W. Parkes
C. T. Dollery	Mary Pickford
W. S. Feldberg	H. P. Rang
D. F. Hawkins	H. O. Schild
F. Hobbiger	D. F. Sharman
J. R. Hodges	Hannah Steinberg
Margarethe Holzbauer	F. M. Sullivan
J. R. Vane	

Editorial assistance is provided by the staff of Nature

Papers will be considered for publication on all aspects of drug action, including chemotherapy.

Manuscripts (two copies) should be sent to Dr. H. M. Adam, Department of Pharmacology, University of Edinburgh Medical School, 1 George Square, Edinburgh EH8 9JZ. Authors should consult the suggestions inside the back cover.

Subscriptions. Three volumes of the journal are published annually, each volume containing four numbers. The annual subscription rate is £18.50 in the United Kingdom and Republic of Ireland; \$55.50 U.S.A. and Canada (by air freight; second class postage paid at New York, N.Y.); £18.50 all other overseas countries. Subscriptions should be sent to: Subscriptions Department, Macmillan Journals Ltd., Brunel Road, Basingstoke, Hampshire, England. Alternatively, the journal can be ordered through a subscription agent or bookseller.

Advertisements: Applications for advertising space and rates should be sent to: J. Ashley-Brown, Advertisement Manager, *British Journal of Pharmacology*, Macmillan Journals Ltd., 4 Little Essex Street, London, WC2R 3LF, England. Tel: 01-836 6633. Direct line: 01-405 3013.

Copyright © 1971 by the *British Journal of Pharmacology*. All rights of reproduction are reserved in respect of all papers, articles, illustrations, etc., published in this journal in all countries of the world.



Pharmaceuticals Division

Pharmacologist

We are looking for a graduate Pharmacologist to join a team working on the control of gastric secretion. His or her main task will be to study drug induced effects on this mechanism. Previous experience in this field, in industry, would be an advantage. Facilities are available for such studies in a variety of species and encouragement is given to carry out and publish independent work within a multi-disciplinary project team.



THE QUEEN'S AWARD
TO INDUSTRY
1966 1967 1968 1969
1970

Our modern well-equipped Research Laboratories are conveniently situated in rural North Cheshire within easy reach of main road and rail routes. Career prospects and competitive conditions of service would be discussed at interview. Assistance towards moving house would be available to married men.

Applications, giving brief details of age, qualifications and experience, should be sent to:

P. M. J. Eyre,
Personnel Officer,
Imperial Chemical Industries Ltd,
Pharmaceuticals Division,
Mereside, Alderley Park,
Nr. Macclesfield, Cheshire.

BRITISH JOURNAL OF PHARMACOLOGY

Short Communications

Papers for consideration should be marked "Short Communication", and be submitted in duplicate to the Secretary of the Editorial Board. They must be less than 1,200 words in length and may contain one figure or one table. To reduce publication delay to a minimum (about 6 weeks), correspondence between author and editor must be avoided. Manuscripts should therefore be prepared with great care and the customary form used in the Journal strictly observed (see instructions on the inside covers of a recent issue of the Journal). Short Communications will be accepted on the understanding that if authors' proofs are not returned before the journal goes to press, the Communication will be published with the Press Editor's corrections only. Communications not accepted for publication will be returned in approximately 2 weeks.

BRITISH JOURNAL OF PHARMACOLOGY

THE INTERNATIONAL SYSTEM OF UNITS (SI)

The British Journal of Pharmacology uses the **symbols** recommended in the SI (Système Internationale) (see *Symbols, Signs and Abbreviations Recommended for British Scientific Publications* (1969) (London: The Royal Society: price 35p.)). It is the policy of the Editorial Board to adopt SI units, although the use of certain non-SI units will for the time being be permitted. Full details of the changes involved will be published in a forthcoming "Instructions to Authors". The following is a list (a) of some of the commoner units with their recommended symbols, (b) of some non-SI units which may still be used, and (c) of units which will no longer be acceptable.

(a) SI units with recommended symbols

Unit	Correct symbol
kilogramme	kg
second, millisecond	s ms
mole, millimole, micromole, nanomole, picomole	mol mmol μ mol nmol pmol
metre, centimetre, millimetre, micrometre	m cm mm μ m
Hertz	Hz

(b) Some permitted non-SI units

ångström	Å (= 10^{-10} m = 0.1 nm)
gramme	g
minute	min
hour	h
molarity (mol/litre)	M
calorie	cal (4.184 J) (Conversion factor to be given as a footnote at first citation or in Methods)
millimetres of mercury	mmHg (1.333 mbar) (Conversion factor to be given as a footnote at first citation or in Methods)
millibar	mbar
poise	P
curie	Ci
litre	l. (where there is danger of confusion between the numeral '1' and the letter 'l', 'litre' should be written in full, and always at the end of a sentence)
millilitre, microlitre	ml μ l
degree Celsius	°C

(c) Units no longer acceptable

inch, foot, pound, pound per square inch, °F.

Expressions such as cycles per second (c/s) will no longer be accepted. Frequencies should be expressed in the appropriate approved symbols: thus a stimulation frequency should be given in Hz (irregular or occasional events should be given per unit time, e.g. s^{-1} , h^{-1}). When there is more than one solidus in an expression, parentheses should be used to eliminate ambiguity, e.g. (mg/kg)/day.

Instructions to Authors

1. **Manuscripts** (2 copies) should be typed in double spacing on one side of paper not larger than foolscap (33×20.5 cm). There should be a separate title page giving the names and addresses of the authors in alphabetical order. A short title containing not more than 40 letters should also be suggested.
2. A **short summary of results** and **conclusions** (arranged in numbered paragraphs), **tables and legends to figures** should be typed on separate sheets of paper.
3. **References** should be collected at the end of the paper. They should include the authors' names, year of publication, title of article, title of publication (abbreviated in accordance with the fourth edition of the *World List of Scientific Periodicals*), volume number and first and last page numbers. References to books should, in addition, include the names of editors, the edition number, where appropriate, and the town of origin and name of publisher.
4. **Figures** should NOT BE LARGER THAN FOOLSCAP (33×20.5 cm) and may be in the form of original drawings, recorded tracings or high quality photographic prints made from them. Negative prints of kymograph tracings (black on white) should be provided and both ordinates and abscissae should be calibrated.
5. **Lettering** on figures should be inserted in PENCIL. Symbols which are to appear in figures or legends should be chosen from the following:
 \times $+$ \bullet \blacksquare \circ \square \triangle \blacktriangle ∇ \blacktriangledown \odot \ominus \diamond
6. **Photographs and photomicrographs** should be printed on glossy paper and should be larger than the size required for reproduction.
7. **Tables** ideally should not have more than 84 characters to a line (counting spaces between columns as 4 characters) and certainly not more than 130 characters to a line, unless absolutely unavoidable.
8. An **abstract** of about 100 words suitable for inclusion in *International Abstracts of Biological Sciences* should be typed on a separate sheet, giving the author's name and address and the title of the paper.

General remarks. A recent issue of the journal is a good guide to style. Papers are accepted only if accompanied by a statement that they have not and will not be published in whole or in part in any other Journal.

Two page proofs will be supplied, one of which may be retained by the authors. The other should be corrected immediately and returned to the Press Editor. Corrections should be kept to a minimum.

Twenty-five reprints will be supplied to the authors free of charge. Additional reprints can be purchased. A reprint order form, which should be returned promptly, will be sent out with the proofs.

BRITISH JOURNAL OF PHARMACOLOGY

November 1971 Volume 43 Number 3

page

Systematic Pharmacology

- 483 KENNEDY, BARBARA L., NOOKHWUN, CHONGKOL, SADAVONGVIVAD, CHIRAVAT and TANCHAJA, S. Inotropic actions of lignocaine and phenytoin. (SP1)
 497 DHAWAN, B. N. and DUA, P. R. Evidence for the presence of α -adrenoceptors in the central thermoregulatory mechanism of rabbits. (SP2, AP1)
 504 HUTCHINS, D. A. and ROGERS, K. J. Effect of receptor blocking drugs on the depletion of brain glycogen by amphetamine. (SP2, DM2)
 514 BONTA, I. L., DE VOS, C. J., GRIJSEN, H., HILLEN, F. C., NOACH, E. L. and SIM, A. W. 1-Hydroxy-3-amino-pyrrolidone-2 (HA-966): a new GABA-like compound, with potential use in extra-pyramidal diseases. (SP2, PP)

Autopharmacology

- 536 RAND, M. J. and VARMA, B. Effects of the muscarinic agonist McN-A-343 on responses to sympathetic nerve stimulation in the rabbit ear artery. (AP1, SP1, PK3)
 543 FELDBERG, W. and SAXENA, P. N. Effects of adrenoceptor blocking agents on body temperature. (AP1, SP2, DM2)
 555 GRAHAM, J. D. P., IVENS, CAROLINE, JOÓ, F., LEVER, J. D., MOTTRAM, D. R. and SPRIGGS, T. L. B. ^3H -Noradrenaline-accumulating ability of cholinergic nerve terminals in cat sympathetic ganglia. (AP1, PK1)
 560 HOLZBAUER, MARGARETHE. *In vivo* production of steroids with central depressant actions by the ovary of the rat. (AP3)

Pharmacokinetics

- 570 COSTA, E., NAIMZADA, K. M. and REVUELTA, A. Effect of phenmetrazine, aminorex and (\pm) *p*-chloramphetamine on the motor activity and turnover rate of brain catecholamines. (PK2, PP)

Drug Mechanisms

- 580 BEGENT, NICOLA A. and BORN, G. V. R. Comparison of the effects of drugs on the aggregation of hamster platelets *in vivo* and *in vitro*. (DM1)
 593 WESTON, A. H. Effects of isoprenaline and phenylephrine on energy-rich phosphate compounds and glucose-6 phosphate in smooth and cardiac muscle. (DM1, DM2, AP1)
 604 MITTAG, T. W. and TORMAY, ANNE. Effects of isoxazolium cations on some isolated muscle preparations. (DM2)
 612 PARRATT, J. R. and WINSLOW, EILEEN. Actions of quazodine (MJ1988) on smooth muscle. (DM2)
 624 DALY, M. J., FARMER, J. B. and LEVY, G. P. Comparison of the bronchodilator and cardiovascular actions of salbutamol, isoprenaline and orciprenaline in guinea-pigs and dogs. (DM2, SP1, SP3)

Clinical Pharmacology, Experimental Therapy

- 639 CUTHBERT, M. F. and OWUSU-ANKOMAH, K. Effect of M & B 17803A, a new β -adrenoceptor blocking agent, on the cardiovascular responses to tilting and to isoprenaline in man. (CP, AP1, SP1)

Chemotherapy

- 649 CHYLIŃSKA, J. B., JANOWIEC, M. and URBAŃSKI, T. Antibacterial activity of dihydro-1,3-oxazine derivatives condensed with aromatic rings in positions 5, 6. (CT)

Psychopharmacology

- 658 CHRISTIE, JANICE E. and CROW, T. J. Turning behaviour as an index of the action of amphetamines and ephedrine on central dopamine-containing neurones. (PP, SP1, AP1)

SHORT COMMUNICATIONS

- 668 OWEN, D. A. A. Responses to pressor substances in conscious and anaesthetized cats. (SP1)
 671 BREESE, G. R. and HOWARD, J. L. Effect of central catecholamine alterations on the hypothermic response to 6-hydroxydopamine in desipramine-treated rats. (SP2, AP1)
 675 CHIBA, S., HASHIMOTO, K., KUBOTA, K. and SATOH, S. Blocking effect of McN-A-343 on cardiac slowing produced by vagal stimulation. (AP1, SP1)
 677 COHEN, J. L., JAO, J. Y. and JUSKO, W. J. Pharmacokinetics of cyclophosphamide in man. (PK1, PK2)
 681 EVANS, M. H. Comparison of the actions of saxitoxin and tetrodotoxin on the motor end-plate of frog muscle. (TX, SP3, DM2)

For an explanation of the classification, see p. iii.