# Edited for the British Pharmacological Society by

W. D. M. Paton (Chairman) H. M. Adam (Secretary)

Margaret Day (Press Editor)

J. D. Stephenson (Assistant Press Editor)

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

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; \$58.20 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 © 1972 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.

## 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, mol mmol µmol nanomole, picomole nmol pmol

metre, centimetre, millimetre, m cm mm

 $\begin{array}{ll} \text{micrometre} & \mu m \\ \text{Hertz} & \text{Hz} \end{array}$ 

(b) Some permitted non-SI units

ångström  $Å(=10^{-10}m=0.1 \text{ nm})$ 

gramme g
minute min
hour h
molarity (mol/litre) M

cal (4.184 J) (Conversion factor to

be given as a footnote at first

citation or in Methods)

millimetres of mecury mmHg (1.333 mbar) (Conversion factor to be given as a footnote at

first citation or in Methods)

millibar mbar poise P Ci

litre 1. (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 µl
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<sup>-1</sup>, h<sup>-1</sup>. 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  $(33 \times 20.5 \text{ cm})$ . 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 ( $33 \times 20.5$  cm) and may be in the form of original drawings, recorded tracings or high quality photographic prints made from them. Negative prints of kymography 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:



- 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. No reprints of abstracts are supplied.

BRITISH JUL	IRNAL OF PH	ARMACOLOGY
June 1972	Volume 45	Number 2

#### Page Systematic Pharmacology

- BASU RAY, B. N., BOOKER, W. M., DUTTA, S. N. and PRADHAN, S. N. Effects of microinjection 197 of ouabain into the hypothalamus in cats.
- 207 FITZGERALD, J. D. and O'DONNELL, STELLA R. A comparison of the haemodynamic effects of propranolol, 4-hydroxypropranolol and practolol in anaesthetized dogs. (SP1)
- DUSTING, G. J. and RAND, M. J. Depressor responses to spinal stimulation in the pithed 218 (SP1, AP1)
- 229 MASSINGHAM, R. and NASMYTH, P. A. The nature of the positive inotropic response of the isolated frog heart to theophylline and to iminazole. (SP1, DM1)
- FENNESSY, M. R. and LEE, J. R. Comparison of the dose-response effects of morphine on brain 240 amines, analgesia and activity in mice. (SP2, AP1, PP)
- Moir, A. T. B. Interaction in the cerebral metabolism of the biogenic amines. Effects of 249 phenelzine on the cerebral metabolism of the 5-hydroxyindoles in dog brain. (SP2, PK1, PK2)
- 265 Moir, A. T. B. and YATES, CELIA M. Interaction in the cerebral metabolism of the biogenic amines. Effect of phenelzine on this interaction. (SP2, PK1, PK2)

#### Autopharmacology

- BURDEN, D. T. and PARKES, M. W. Assessment of the effectiveness of  $\beta$ -adrenoceptor blocking agents towards cardiac and bronchiolar responses of the pithed guinea-pig to electrical stimulation of the spinal outflow.
- 284 AARSEN, P. N. and ZEEGERS, A. Effects of histamine, 5-hydroxytryptamine and bradykinin on the vascular system of isolated lungs of the guinea-pig and the influence of phenylbutazone on these effects.
- 299 ALABASTER, VALERIE A. and BAKHLE, Y. S. The inactivation of bradykinin in the pulmonary circulation of isolated lungs. (AP2, PK2)
- 311 OKPAKO, D. T. A dual action of histamine on guinea-pig lung vessels. (AP2, DM2)
  322 Green, K. L. The anti-inflammatory effect of catecholamines in the peritoneal cavity and hind
- paw of the mouse. (AP2, DM2)
- ERSPAMER, V., FALCONIERI ERSPAMER, G., INSELVINI, M. and NEGRI, L. Occurrence of bombesin and alytesin in extracts of the skin of three European discoglossid frogs and pharmacological actions of bombesin on extravascular smooth muscle. (AP2, SP3)

#### **Pharmacokinetics**

349 Brown, D. A. and Halliwell, J. V. Intracellular pH in rat isolated superior cervical ganglia in relation to nicotine-depolarization and nicotine-uptake. (PKI, API)

#### Clinical Pharmacology

360 BALASUBRAMANIAM, K., MAWER, G. E., POHL, J. E. F. and SIMONS, P. J. G. Impairment of cognitive function associated with hydroxyamylobarbitone accumulation in patients with renal insufficiency. (CP, PP)

#### Toxicology

368 BAJGAR, J. Time course of acetylcholinesterase inhibition in the medulla oblongata of the rat by O-ethyl S-(2-dimethylaminoethyl) methylphosphonothioate in vivo. (TX, DM1)

#### SHORT COMMUNICATIONS

- 372 Bradley, P. B. and Dray, A. Short-latency excitation of brain stem neurones in the rat by acetylcholine. (SP2, AP1, DM2)
- Jones, G. and Pertwee, R. G. A metabolic interaction in vivo between cannabidiol and ∆¹-tetrahydrocannabinol. (PK2, SP2, PP)
- HALL, Moira T. Dependence of  $\beta$ -adrenoceptor mediated mechanical effects on the glycogen (DMI, API) concentration in the rabbit isolated small intestine.
- NAYLER, WINIFRED G. Comparative partial agonist activity of  $\beta$ -adrenoceptor antagonists. (DM2, SP1)

#### Systematic Pharmacology

Cardiovascular system SP1 Central nervous system SP2 Other physiological systems SP3

#### **Pharmacokinetics**

Storage, distribution, fate PK1 Synthesis, metabolism PK2 Uptake, release PK3

Clinical Pharmacology, Experimental Therapy CP Chemotherapy Miscellaneous

#### Autopharmacology

Adrenergic, cholinergic transmission AP1 Histamine, kinins, prostaglandins, etc. AP2 Hormones AP3

### Drug Mechanisms

Molecular, cellular, biochemical, biophysical DM1 Receptors, antagonism, potentiation, tolerance DM2

Pharmacometrics PM Psychopharmacology PP Toxicology TX