

# Edited for the British Pharmacological Society by

W. D. M. Paton (*Chairman*)

S. E. Smith (*Acting Secretary*)

P. A. Nasmith (*Press Editor*)

Jennifer MacLagan (*Assistant Press Editor*)

G. W. Ashcroft (co-opted)

H. W. Kosterlitz

R. B. Barlow

G. P. Lewis

J. M. Barnes

R. D. Lowe

J. W. Black

J. Maddox

W. C. Bowman

J. F. Mitchell

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

R. S. Stacey (co-opted)

J. R. Hodges

Hannah Steinberg

Margarethe Holzbauer

F. M. Sullivan

D. B. Hope

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. S. E. Smith, St. Thomas's Hospital Medical School, London S.E.1. 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; \$53.00 U.S.A. and \$57.50 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.

---

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.

# 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 $\mu$ mol
nanomole, picomole	nmol pmol
metre, centimetre, millimetre,	m cm mm
micrometre	$\mu$ 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)
millimetre 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 $\mu$ 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 ( $33 \times 20.5$  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 ( $33 \times 20.5$  cm) and may be in the form of original drawings, recorded tracings or high quality photographic prints made from them. Negative prints of 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:

$\times$   $+$   $\bullet$   $\blacksquare$   $\circ$   $\square$   $\triangle$   $\blacktriangle$   $\nabla$   $\blacktriangledown$   $\odot$   $\ominus$   $\diamond$

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.

**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.

Fifty 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

June 1971                      Volume 42                      Number 2

page

## Systematic Pharmacology

- 159 GRUNDY, H. F. Cardiovascular effects of morphine, pethidine, diamorphine and nalorphine on the cat and rabbit. (SP1)  
 179 NICHOLAS, T. E. Responses of mean arterial pressure to pressor agents and diuretics in renal hypertensive and salt hypertensive rats. (SP1)  
 193 PARRATT, J. R. and WINSLOW, EILEEN. Cardiovascular pharmacology of quazodine (MJ-1988), with particular reference to effects on myocardial blood flow and metabolic heat production. (SP1)  
 205 SHAW, GRAHAM G. Hypothermia produced in mice by histamine acting on the central nervous system. (SP2, AP2)  
 215 HOPKIN, JUDY and NEAL, M. J. Effect of electrical stimulation and high potassium concentrations on the efflux of [<sup>14</sup>C] glycine from slices of spinal cord. (SP2, PK3)  
 224 SIMMONDS, M. A. Inhibition by atropine of the increased turnover of noradrenaline in the hypothalamus of rats exposed to cold. (SP2, PK3, DM2)  
 230 SPARKES, C. G. and SPENCER, P. S. J. Antinociceptive activity of morphine after injection of biogenic amines in the cerebral ventricles of the conscious rat. (SP2, DM1)  
 242 DOGGETT, N. S. and SPENCER, P. S. J. Pharmacological properties of centrally administered ouabain and their modification by other drugs. (SP2, PP, DM1)

## Autopharmacology

- 254 HAMILTON, T. C. Modification of the vascular response to isoprenaline by cholinomimetic drugs. (AP1, SP1, PK3)  
 263 KNOLL, J. and VIZI, E. S. Effect of frequency of stimulation on the inhibition by noradrenaline of the acetylcholine output from parasympathetic nerve terminals. (AP1, DM2)

## Pharmacokinetics

- 273 BARTLET, A. L. 5-Hydroxytryptamine metabolism in sheep. (PK2, AP2)  
 281 BRUINVELS, J. Evidence for inhibition of the reuptake of 5-hydroxytryptamine and noradrenaline by tetrahydronaphthylamine in rat brain. (PK3, DM1)

## Drug Mechanisms

- 287 FOY, J. M. and FURMAN, B. L. Effect of diuretics on mouse blood sugar following single dose administration. (DM1)  
 298 SANTOLUCITO, J. A. and WHITCOMB, E. Effect of paraoxon on erythrocyte metabolism as measured by oxygen uptake *in vitro*. (DM1)

## SHORT COMMUNICATIONS

- 303 IGIĆ, R. Effect of oxotremorine on the acetylcholine content of whole brain and various brain regions in the pigeon. (SP2, AP1)  
 305 CAMARGO, A. and FERREIRA, S. H. Action of bradykinin potentiating factor (BPF) and dimer-caprol (BAL) on the responses to bradykinin of isolated preparations of rat intestines. (AP2, PK2)  
 308 LAYMAN, J. M. and MILTON, A. S. Distribution of tritium labelled  $\Delta^1$ -tetrahydrocannabinol in the rat brain following intraperitoneal administration. (PK1, SP2)  
 311 FLEISCH, J. H. Further studies on the effect of ageing on  $\beta$ -adrenoceptor activity of rat aorta. (DM1, SP1, AP1)

### 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 CT  
 Miscellaneous M

### 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