1. Policy of the Journal

1.1. Scope

Clinical Science publishes papers in the field of clinical investigation, provided they are of a suitable standard and contribute to the advancement of knowledge in this field. The term 'clinical investigation' is used in its broad sense to include studies in animals and the whole range of biochemical, physiological, immunological and other approaches that may have relevance to disease in man. Studies which are confined to normal subjects, or animals, or are purely methodological in nature may be acceptable. The material presented should permit conclusions to be drawn and should not be only of a preliminary nature. The journal publishes four types of manuscript, namely invited Editorial Reviews, Full Papers, Short Communications and Correspondence. In addition, Clinical Science publishes abstracts of the proceedings of the Medical Research Society and also that Society's Annual Guest Lecture.

1.2. The Editorial Board

The Board comprises Editors for the Medical Research Society and the Biochemical Society and a Chairman and Deputy Chairman who are drawn alternately from the two Societies. Members of the Board retire after a maximum of 5 years; the Chairman serves in his capacity for 2 years. The membership of the Board is designed to cover as wide a range of interests as possible.

The main function of the Board is to decide on the acceptability of submitted papers, but it also deals with general matters of editorial policy. Financial policy is dealt with separately by the Committee of Management.

1.3. The editorial process

A submitted paper is first read by the Chairman of the Editorial Board who then sends it to an Editor. The latter considers the paper in detail and sends it to one or more referees (who remain anonymous) from outside the membership of the Board. The Editor returns it with his recommendation to the Chairman who then writes formally to
the authors. The ultimate responsibility of acceptance for publication lies with the Chairman. If the Chairman is for any reason unavailable, the Deputy Chairman assumes this function.

1.4. Ethics of investigations on human subjects

Authors must state in the text of their paper the manner in which they have complied, where necessary, with the recommendations on human investigations published in the Medical Research Council report of 1962/63 [British Medical Journal (1964) ii, 178–180]. Consent must be obtained from each patient or subject after full explanation of the purpose, nature and risks of all procedures used and the fact that such consent has been given should be recorded in the paper. Papers should also state that the Ethical Committee of the Institution in which the work was performed has given approval to the protocol. The Editorial Board will not accept papers the ethical aspects of which are, in the Board's opinion, open to doubt.

1.5. Originality of papers

Submission of a paper to the Editorial Board is taken to imply that it reports unpublished work, that it is not under consideration for publication elsewhere and that, if accepted for publication by Clinical Science, it will not be published elsewhere in the same form, either in English or in any other language, without the consent of the Editorial Board. This does not usually apply to previous publication of oral communications in brief abstract form. In such cases authors should enclose copies of the abstracts. When a paper has been accepted for publication the author, or in the case of multiple authorship the author with whom correspondence has taken place, will be asked to sign a statement vesting the copyright in the Editorial Board. Requests for consent for reproduction of material published in Clinical Science should be addressed to the Chairman of the Editorial Board.

2. SUBMISSION OF MANUSCRIPTS: GENERAL INFORMATION AND FORMAT

2.1. General

Papers submitted for publication should be sent to the Chairman of the Editorial Board (Dr D. J. Galton, Department of Medicine, St Bartholomew's Hospital, West Smithfield, London EC1M 6BQ).

The submission should contain three copies (of which two may be photocopies) of the typescript, Tables, Figures etc. The authors should retain one copy of the paper. The Editorial Board does not accept responsibility for damage or loss of papers submitted, although great care is taken to ensure safety and confidentiality of the typescript during the editorial process. In the case of multiple authorship, the covering letter should indicate that the approval of all co-authors has been obtained.

Papers should be presented so that they are intelligible to the non-specialist reader of the journal. This is particularly important in highly specialized fields and a very brief résumé of the current state of knowledge is usually helpful. Certain types of material, e.g. mathematical formulations requiring more than trivial derivations, should be given in a separate Appendix.

Where the reader is referred to previous works by the same author(s) for important details relevant to the present work, it often speeds up assessment if reprints are enclosed with the typescript. This is of particular importance in relation to methodology.

The dates of receipt and acceptance of the paper will be published. If the paper has to be returned to the authors for revision and is not resubmitted within 1 month, the date of receipt will be revised accordingly. For Short Communications the published date will always be that of receipt of the final version. It is emphasized that badly presented or unduly long papers will be returned for revision and delays in publication will be inevitable. Similar delays will be incurred if the typescript is not prepared strictly in accordance with the instructions detailed below.

2.2. Full papers

The authors should refer to a current issue of Clinical Science to make themselves familiar with the general layout. Concise presentation is very important for rising costs are a severe constraint on space. The length of manuscript and the number of Figures and Tables must be kept to a minimum. Extensive Tables of data can be deposited with the Royal Society of Medicine (see 2.5). Guidance for Authors is usually published in the January issue of the journal, and revised periodically.

Typescripts should be, in general, arranged as follows:

(a) Title page. Title: this should be as informative as possible, since titles of papers are being increasingly used in indexing and coding for information storage and retrieval. The title should indicate the species in which the observations reported have been made. The numbering of parts in a series of papers is not permitted.
List of authors' names (degrees and appointments are not required). Laboratory or Institute of origin.

Key words: for indexing the subject of the paper; they should, if possible, be selected from the current issues of 'Medical Subject Headings' (MeSH), produced by the Index Medicus.

Short title: for use as a running heading in the printed text; it should not exceed forty-five characters and spaces.

Author for correspondence: the name and address of the author to whom queries and requests for reprints should be sent.

(b) Summary. This should be a brief statement arranged in numbered paragraphs of what was done, what was found and what was concluded and should rarely exceed 250 words. Contributors from non-English speaking countries are invited to include a translation of the summary in their own language. Abbreviations should be avoided as far as possible and must be defined. Statistical and methodological details including exact doses should also be avoided unless they are essential to the understanding of the summary.

(c) Introduction. This should contain a clear statement of the reason for doing the work, but should not include either the findings or the conclusions.

(d) Methods. The aim should be to give sufficient information in the text or by reference to permit the work to be repeated without the need to communicate with the author.

(e) Results. This section should not include material appropriate to the Discussion section.

(f) Discussion. This should not contain results and should be pertinent to the data presented.

(g) Acknowledgments. These should be as brief as possible.

(h) References. See p. v for the correct format.

(i) Figures and Tables. See p. iv.

2.3. Short Communications

The Short Communication should describe completed work, and should not be merely a preliminary communication. The format of Short Communications should be similar to that of Full Papers, but should not exceed 1200 words of text. One Figure or Table is allowed, but if neither is included the text may be expanded to 1400 words. The passage of Short Communications through the editorial process can frequently be expedited and contributors are encouraged to take advantage of these facilities when rapid publication is of importance and the material can be presented concisely. The paper should appear in print within 3 months of acceptance. When submitting Short Communications, authors should make it quite clear that the work is intended to be treated as a Short Communication.

2.4. Correspondence

Letters containing critical assessments of material published in Clinical Science, including Editorial Reviews, will be considered for the Correspondence section of the journal. Such letters should be sent to the Chairman of the Editorial Board within 6 months of the appearance of the article concerned. They will be sent to the authors for comment and both the letter and any reply by the author will be published together. Further correspondence arising therefrom will also be considered for publication. Consideration will also be given to publication of letters on ethical matters.

2.5. Arrangements for large amounts of information

It is impracticable to publish very large sets of individual values or very large numbers of diagrams, and under these circumstances a summary of the information only should be included in the paper. The information from which the summary was derived should be submitted with the typescript and, if the latter is accepted, the Editors may ask for a copy of the full information and diagrams to be deposited with the Librarian, the Royal Society of Medicine, 1 Wimpole Street, London W1M 8AE, who will issue copies on request. Experience has shown that such requests are frequently received.

2.6. Proof corrections

These are expensive and corrections of other than printers' errors may have to be charged to the author.

2.7. Offprints

Twenty-five offprints are supplied free and additional copies may be obtained at terms, based upon the cost of production, that will be given with the proofs. All offprints should be ordered when the proofs are returned.

2.8. Availability on MEDLINE

Summaries of papers in Clinical Science are available on-line on teleprinters participating in the MEDLINE system run by the National Library of Medicine, National Institutes of Health, Bethesda, Maryland, U.S.A.
3. MISCELLANEOUS NOTES

3.1. Abbreviations

Abbreviations should be avoided; if used they must be defined at the first mention; new abbreviations should be coined only for unwieldy names which occur frequently. Abbreviations should not appear in the title nor, if possible, in the Summary. A list of accepted abbreviations appears at the end of this document.

3.2. Anatomical nomenclature

This should follow the recommendations of the International Anatomical Nomenclature Committee (1966) *Nomina Anatomica*, 3rd edn, Excerpta Medica Foundation, Amsterdam.

3.3. Animals, plants and micro-organisms

The full binomial specific names should be given at first mention for all experimental animals other than common laboratory animals. The strain and, if possible, the source of laboratory animals should be stated. Thereafter in the text, single letter abbreviations may be given for the genus; if two genera with the same initial letter are studied, abbreviations such as *Staph.* and *Strep.* should be used.

3.4. Buffers and salts

The acidic and basic components should be given, together with the pH. Alternatively, a reference to the composition of the buffer should be given. Further details are provided in the *Biochemical Journal* (1978) *169*, 9.

When describing solutions containing organic anions and their parent acids, the salt designator (e.g. lactate, urate, oxalate) should be used in preference to the name of the acid (lactic, uric, oxalic) unless it is certain that virtually all of the acid is in the undissociated form.

The composition of incubation media should be described, or a reference to the composition should be given.

3.5. Doses

Doses of drugs should be expressed in mass terms, e.g. milligrams (mg) or grams (g), and also (in parentheses) in molar terms, e.g. mmol, mol, where this appears to be relevant. Molecular weights of many drugs may be found in *The Merck Index*, 8th edn, Merck and Co. Inc., N.J., U.S.A.

3.6. Enzymes

Nomenclature should follow that given in *Enzyme Nomenclature* (1972), Elsevier Publishing Co., Amsterdam, and Enzyme Commission (EC) number should be quoted at the first mention. Where an enzyme has a commonly used informal name, this may be employed after the first formal identification. A unit of enzyme activity should preferably be expressed as that amount of material which will catalyse transformation of 1μmol of the substrate/min under defined conditions, including temperature and pH. Alternatively, or when the natural substrate has not been fully defined, activity should be expressed in terms of units of activity relative to that of a recognized reference preparation, assayed under identical conditions. Activities of enzymes should normally be expressed as units/ml or units/mg of protein.

3.7. Evaluation of measurement procedures

When a new measuring procedure has been used, or when an established procedure has been applied in a novel fashion, an estimate of the precision of the procedure should be given. This should, as far as possible, indicate what sources of variation have been included in this estimate, e.g. variation of immediate replication, variation within different times of day, or from day to day etc.

If the precision of measurement varies in proportion to the magnitude of the values obtained, it can best be expressed as the coefficient of variation; otherwise it should be expressed by an estimate of the (constant) standard error of a single observation, or by estimates at several points within the range of observed values.

When recovery experiments are described the approximate ratio of the amount added to the amount already present and the stage of the procedure at which the addition was made should be stated.

3.8. Figures and Tables

These are expensive to print and their number should be kept to a minimum. Their appropriate position in the paper should be indicated in the margin of the text. References to Figures and Tables should be in Arabic numerals, e.g. Fig. 3, and they should be numbered in order of appearance. In general, the same data should not be presented in both a Figure and a Table; simple histograms recording only a few values can more economically be replaced by a Table.

Figures, with captions attached, should be supplied as original drawings or matt photographs together with photocopies. All Figures should have their number and the authors' names written in pencil on the back; the top of the Figure should be
Guidance for Authors

indicated with a pencilled arrow. A horizontal or square layout is preferred to a vertical one. Acceptable symbols for experimental points are $\bullet$, $\Delta$, $\Box$, $\circ$, $\triangle$. The symbols $\times$ or $+$ must be avoided. The same symbols must not be used for two curves where the points might be confused. For scatter diagrams, solid symbols are preferred. The symbols $x$ or $+$ must be avoided. The same symbols must not be used for two curves where the points might be confused. For scatter diagrams, solid symbols are preferred.

Curves should not be drawn beyond the experimental points, neither should axes extend appreciably beyond the data. Only essential information that cannot readily be included in the legend should be written within the Figure.

Figures for half-tone reproduction should be submitted as glossy prints. They are particularly expensive to print and their use should be avoided as far as possible.

Tables should be typed separately from the text. They should have an underlined title followed by any legend.

Captions for the Figures, and titles and legends for the Tables, should make them readily understandable without reference to the text. Adequate statistical information, including that on regression lines, should be included in Figure captions where appropriate.

3.9. Footnotes

These should be avoided as far as possible but where they are used in Tables they should be identified by the symbols * † ‡ § ¶, in that order.

3.10. Isotope measurements

The information given should include (a) conditions of radioactivity counting, e.g. infinitely thick, infinitely thin; (b) the nature of the phosphor used in liquid-scintillation counting; (c) details of corrections made to the observed count rate, e.g. for ‘quenching’ or ‘cross-over’; (d) standard deviation of the results or a statement of the minimum total counts above background collected and the background value.

In general the specific radioactivity of the starting materials should be given, preferably in terms of curies per unit weight or, for stable isotopes, as atoms % excess.

Where possible, radioactivity should be expressed in terms of curies (Ci) or of disintegrations/s (d.p.s.).

3.11. Radionuclide applications in man

If new or modified radionuclide applications in man are described, an estimate of the maximal possible radiation dose to the body and critical organs should be given.

3.12. Methods

In describing certain techniques, namely centrifugation (when the conditions are critical), chromatography and electrophoresis, authors should follow the recommendations published by the Biochemical Society (currently, *Biochemical Journal* (1978) *169*, 1–21).

3.13. Nomenclature of disease

This should follow the *International Classification of Disease* (8th revision, World Health Organization, Geneva, 1969) as far as possible.


Care is needed where powers are used in Table headings and in Figures to avoid numbers with an inconvenient number of digits. For example: (i) an entry ‘2’ under the heading $10^3k$ means that the value of $k$ is 0.002; an entry ‘2’ under the heading $10^{-3}k$ means that the value of $k$ is 2000. (ii) A concentration 0.00015 mol/l may be expressed as 0.15 under the heading ‘concn. (mmol/l)’ or as 150 under the heading ‘concn. (pmol/l)’ or as 15 under the heading ‘$10^5 \times$ concn. (mol/l)’, but not as 15 under the heading ‘concn. (mol/l $\times 10^{-5}$)’.

3.15. References

These should be in alphabetical order of first authors. The full title of the paper, the journal and the first and last page numbers should be given, e.g.


When the quotation is from a book, the following format should be used, giving the relevant page or chapter number:


References in the text should follow the style: Clark, Freedman, Campbell & Winn (1969) on the first quotation and, if there are more than two authors, ‘Clark et al. (1969)’ or ‘(Clark et al., 1969)’ in subsequent quotations.

References to ‘personal communications’ and ‘unpublished work’ should appear in the text only and not in the list of references. The name and initials of the source of information should be
given. When the reference is to material that has been accepted for publication but has not yet been published, this should be indicated in the list of references by 'In press' together with the name of the relevant journal and, if possible, the expected date of publication. If such a citation is of major relevance to the manuscript submitted for publication authors are advised that the editorial process might be expedited by the inclusion of a copy of such work. In the case of quotations from personal communications the authors should state in the covering letter that permission for quotation has been obtained.

3.16. Solutions
Concentration of solutions should be described where possible in molar terms (mol/l and subunits thereof), stating the molecular particle weight if necessary. Values should not be expressed in terms of normality or equivalents. Mass concentration should be expressed as g/l or subunits thereof, for example mg/l or µg/l. For solutions of salts, molar concentration is always preferred to avoid ambiguity as to whether anhydrous or hydrated compounds are used. Concentrations of aqueous solutions should be given as mol/l or mol/kg (g/l or g/kg if not expressed in molar terms) rather than % (w/v) or % (w/w). It should always be made clear whether concentrations of components in a reaction mixture are final concentrations or the concentrations in solutions added.

3.17. Spectrophotometric data
The term ‘absorbance’ \([\log (I/I_0)]\) should be used rather than ‘optical density’ or ‘extinction’. The solvent, if other than water, should be specified. Symbols used are: \(A\), absorbance; \(a\), specific absorption coefficient (litre g\(^{-1}\) cm\(^{-1}\)) (alternatively use \(A_{1\text{cm}}\)); \(\varepsilon\), molar absorption coefficient (the absorbance of a molar solution in a 1 cm light-path) (litre mol\(^{-1}\) cm\(^{-1}\), not cm\(^2\) mol\(^{-1}\)).

3.18. Spelling
Clinical Science uses as standards for spelling the Concise or Shorter Oxford Dictionary of Current English (Clarendon Press, Oxford) and Butterworth’s Medical Dictionary (Butterworths, London).

3.19. Statistics
Papers are frequently returned for revision (and their publication consequently delayed) because the authors use inappropriate statistical methods. Two common errors are the use of means, standard deviations and standard errors in the description and interpretation of grossly non-normally distributed data and the application of \(t\)-tests for the significance of difference between means in similar circumstances, or when the variances of the two groups are non-homogeneous. In some circumstances it may be more appropriate to provide a ‘scattergram’ than a statistical summary.

A reference should be given for all methods used to assess the probability of a result being due to chance. The format for expressing mean values and standard deviations or standard errors of the mean is, for example: mean cardiac output 10.4 l/min (sd 1.2; \(n = 11\)). Degrees of freedom should be indicated where appropriate. Levels of significance are expressed in the form \(P < 0.01\).

3.20. Trade names
The name and address of the supplier of special apparatus and of biochemicals should be given. In the case of drugs, approved names should always be given with trade names and manufacturers in parentheses.

4. UNITS: THE SI SYSTEM
The recommended Système International (SI) units [see Quantities, Units and Symbols, 2nd edn (1975) The Royal Society, London] are used by Clinical Science. All papers submitted should use these units except for blood pressure values, which should be expressed in mmHg, or gas tensions, where values at the author’s discretion may be given as mmHg (with kPa in parentheses) or as kPa (with mmHg in parentheses) in the text and either as mmHg or as kPa in Figures, which (if practicable) should have scales in both units. Airways pressure should be expressed in kPa. Where molecular weight is known, the amount of a chemical or drug should be expressed in mol or in an appropriate subunit, e.g. mmol. Energy should be expressed in joules (J).

The basic SI units and their symbols are as follows:

<table>
<thead>
<tr>
<th>Physical quantity</th>
<th>Name</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>length</td>
<td>metre</td>
<td>m</td>
</tr>
<tr>
<td>mass</td>
<td>kilogram</td>
<td>kg</td>
</tr>
<tr>
<td>time</td>
<td>second</td>
<td>s</td>
</tr>
<tr>
<td>electric current</td>
<td>ampere</td>
<td>A</td>
</tr>
<tr>
<td>thermodynamic temperature</td>
<td>kelvin</td>
<td>K</td>
</tr>
<tr>
<td>luminous intensity</td>
<td>candela</td>
<td>cd</td>
</tr>
<tr>
<td>amounts of substance</td>
<td>mole</td>
<td>mol</td>
</tr>
</tbody>
</table>
The following are examples of derived SI units:

<table>
<thead>
<tr>
<th>Physical quantity</th>
<th>Name</th>
<th>Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>energy</td>
<td>joule</td>
<td>J</td>
<td>kg m$^2$s$^{-2}$</td>
</tr>
<tr>
<td>force</td>
<td>newton</td>
<td>N</td>
<td>kg m s$^{-2}$</td>
</tr>
<tr>
<td>power</td>
<td>watt</td>
<td>W</td>
<td>kg m$^2$s$^{-3}$</td>
</tr>
<tr>
<td>pressure</td>
<td>pascal</td>
<td>Pa</td>
<td>kg m$^{-1}$s$^{-2}$</td>
</tr>
<tr>
<td>electric charge</td>
<td>coulomb</td>
<td>C</td>
<td>As s$^{-1}$</td>
</tr>
<tr>
<td>electric potential difference</td>
<td>volt</td>
<td>V</td>
<td>kg m$^2$s$^{-2}$A$^{-1}$</td>
</tr>
<tr>
<td>electric resistance</td>
<td>ohm</td>
<td>Ω</td>
<td>kg m$^2$s$^{-3}$A$^{-2}$</td>
</tr>
<tr>
<td>electric conductance</td>
<td>siemens</td>
<td>S</td>
<td>kg$^{-1}$m$^3$s$^3$A$^2$</td>
</tr>
<tr>
<td>electric capacitance</td>
<td>farad</td>
<td>F</td>
<td>A$^2$s$^{-1}$kg$^{-1}$m$^{-2}$</td>
</tr>
<tr>
<td>frequency</td>
<td>hertz</td>
<td>Hz</td>
<td>s$^{-1}$</td>
</tr>
<tr>
<td>volume</td>
<td>litre</td>
<td>l</td>
<td>10$^{-3}$m$^3$</td>
</tr>
</tbody>
</table>

The word ‘litre’ has been accepted as a special name for cubic decimetre (1 litre = 1 dm$^3$).

Both the basic and derived SI units, including the symbols of derived units that have special names, may be preceded by prefixes to indicate multiples and submultiples. The prefixes should be as follows:

<table>
<thead>
<tr>
<th>Multiple</th>
<th>Prefix</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>10$^6$</td>
<td>mega</td>
<td>M</td>
</tr>
<tr>
<td>10$^3$</td>
<td>kilo</td>
<td>k</td>
</tr>
<tr>
<td>10$^2$</td>
<td>hecto</td>
<td>h</td>
</tr>
<tr>
<td>10</td>
<td>deka</td>
<td>da</td>
</tr>
<tr>
<td>10$^{-1}$</td>
<td>deci</td>
<td>d</td>
</tr>
<tr>
<td>10$^{-2}$</td>
<td>centi</td>
<td>c</td>
</tr>
<tr>
<td>10$^{-3}$</td>
<td>milli</td>
<td>m</td>
</tr>
<tr>
<td>10$^{-6}$</td>
<td>micro</td>
<td>μ</td>
</tr>
<tr>
<td>10$^{-9}$</td>
<td>nano</td>
<td>n</td>
</tr>
<tr>
<td>10$^{-12}$</td>
<td>pico</td>
<td>p</td>
</tr>
<tr>
<td>10$^{-15}$</td>
<td>femto</td>
<td>f</td>
</tr>
</tbody>
</table>

* To be avoided where possible (except for cm).

Compound prefixes should not be used, e.g. 10$^{-9}$ m should be represented by 1 nm, not 1 μm.

Notes:
(i) Full stops are not used after symbols.
(ii) Minutes (min), hours (h), days and years will continue to be used in addition to the SI unit of time [the second (s)].
(iii) The solidus may be used in a unit as long as it does not have to be employed more than once, e.g. mmol/l is acceptable, but ml/min/kg is not, and should be replaced by ml min$^{-1}$ kg$^{-1}$.

5. ABBREVIATIONS, CONVENTIONS, DEFINITIONS, SYMBOLS AND SPECIAL COMMENTS

As well as standard symbols and abbreviations that have been accepted by international bodies, and which can be used without definition, this list shows selected abbreviations in the form of groups of capital letters (e.g. ALA, ECF, MCHC) which when used must be defined in the text as indicated on p. iv. The standard abbreviations for amino acids are only for use in Figures and Tables or for peptide sequences.

absorbance
acceleration due to gravity $A$ g
adenosine 3':5'-cyclic mono-phosphate AMP
adenosine 5'-phosphate ADP
adenosine 5'-pyrophosphate ATP
adenosine 5'-triphosphate ATPase
adenosine triphosphatase ACTH
adrenoreceptor (see also blocking agents) Alana
alternating current a.c.
alveolar minute ventilation $V_A$
arteriovenous a-v:
alveolar to arterial oxygen tension difference
arginine Arg
asparagine Asn
aspartic acid Asp
atmosphere (unit of pressure) not used; express in kPa (1 atmosphere = 101325 kPa)
at. wt. not used; express in mmHg
atomic weight e.g. β-adrenoreceptor antagonists preferred
blood pressure express in mmHg
blood urea nitrogen not used; recalculate as urea, express in mmol/l
body temperature and pressure, saturated not used; recalculate as kilojoules (1 ‘Calorie’ = 4.184 kJ)
British Pharmacopoeia

Notes:
(i) Full stops are not used after symbols.
(ii) Minutes (min), hours (h), days and years will continue to be used in addition to the SI unit of time (the second (s)).
(iii) The solidus may be used in a unit as long as it does not have to be employed more than once, e.g. mmol/l is acceptable, but ml/min/kg is not, and should be replaced by ml min$^{-1}$ kg$^{-1}$.

Notes:
(i) Full stops are not used after symbols.
(ii) Minutes (min), hours (h), days and years will continue to be used in addition to the SI unit of time (the second (s)).
(iii) The solidus may be used in a unit as long as it does not have to be employed more than once, e.g. mmol/l is acceptable, but ml/min/kg is not, and should be replaced by ml min$^{-1}$ kg$^{-1}$.
Guidance for Equivalents

<table>
<thead>
<tr>
<th>English Term</th>
<th>SI Unit</th>
<th>Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide output (in respiratory physiology)</td>
<td>STP/min</td>
<td>mI/min</td>
</tr>
<tr>
<td>Cardiac frequency</td>
<td>beats/min</td>
<td>1/min</td>
</tr>
<tr>
<td>Cardiac output</td>
<td>cm</td>
<td>l/min</td>
</tr>
<tr>
<td>Clearance of x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coenzyme A and its acyl derivatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compare</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complement fractions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance (respiratory physiology)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conductance (respiratory physiology)</td>
<td>s-1 kPa-1</td>
<td></td>
</tr>
<tr>
<td>Correlation coefficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counts/min, counts/s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cubic centimetres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cycle/s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cysteine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dead-space minute ventilation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dead-space volume</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degrees, Celsius or centigrade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deoxy (prefix)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deoxycorticosterone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deoxycorticosterone acetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deoxyribonucleic acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dialysate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diethylenemethoxyethylcellulose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differential of x with respect to time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,25-dihydroxycholecalciferol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dilute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,3-diphosphoglycerate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct current</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissociations/min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissociations/s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissociation constant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apparent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minus log of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyne</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elastance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrocardiogram</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrocencephalogram</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electromotive force</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electron spin resonance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronvolt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Guidance for Authors

i.u. (definition and reference should be given for uncommon or ambiguous applications, e.g. enzymes)

millimolar (concentration)

mmol/l; not mmol

IBC

ICF

ICFV

I

Ile

not used; specify composition of fluid, e.g. NaCl, 150 mmol/l e.g. [U-14C]glucose, [1-14C]glucose, sodium [1-14C]-acetate; use 1H-labelled albumin, not [1H]albumin, since native albumin does not contain iodine for simple molecules: 14CO2, 2H2O

mol

mole

molecular weight

nicotinamide–adenine dinucleotide

nicotinamide–adenine dinucleotide phosphate

normal

normal temperature and pressure

nuclear magnetic resonance number (in enumerations) observed

ohm

ornithine

orthophosphate (inorganic) osmolality

oxygen uptake per minute (in respiratory physiology) packed cell volume

paget, page, pages

para-para-aminophippurate

partial pressure

e.g. alveolar, of O2, arterial, of CO2, capillary, of O2, mixed venous, of CO2

pascal

per

per cent

Petroleum ether

phenylalanine

plasma renin activity

plasma volume

poise

potential difference

power output

precipitate

p.d.

kg

not used; 1 kilopond = 9.8067 N

LDH

Leu

express as 10^9 cells/l

HDL

LDL

VLDL

1 (write in full if confusion with the numeral 1 is possible)

MCH; express in pg

MCHC; express in g/dl

MCV; express in fl (1 mm^3 = 1 fl)

LD50

m.

m.p.

not methyl alcohol

Met

Km

µmol

mmol

mmol

mM

not used; give amount in mmol ml

mmHg; for blood pressure and, at authors’ discretion, for gas tensions: see p. vi (1 mmHg = 0.133 kPa)
Guidance for Authors

pressure

probability of an event being due to chance alone
due to chance alone
proline
protein-bound iodine
protein-bound iodine
(pulmonary capillary blood)
flow
(pyrophosphate (inorganic)
rad (radiation dose; $10^{-2}$ J
absorbed/g of material)
red blood cell
red cell mass
relative band speed (partition
chromatography)
renin
residual volume
resistance (rheological)
respiratory quotient (time-
averaged)
revolutions
rev./min
ribonucleic acid
röntgen
saturation

second (time)
serine
solvent systems

species
specific activity

specific conductance of
airways
standard deviation
standard error of the mean
standard temperature and
pressure

$p$; express in kPa
(except for blood
pressures); $1$ kPa = $7.5$ mmHg

$P$

$P$

$\dot{Q}_c$

not abbreviated

$\text{use erythrocyte; express counts as } 10^{12}$ cells/l

$\text{RCM}$

$R_f$

see plasma renin
activity

$\text{RV}$

$R_f$; express in kPa $l^{-1}$ s

$R$

$\text{rev.}$

$\text{not r.p.m.; use } g$ if
possible (see p. viii)

$\text{RNA}$

$S$, e.g. $Sa_O_2$ for arterial
oxygen saturation
(see partial pressure
for other analogous
abbreviations)

$s$

$\text{Ser}$

e.g. butanol/acetic acid/
water ($4:1:1$, by
vol.), butanol/
acetic acid ($4:1$, v/v)

$\text{sp.}$, plural spp.

$\text{sp. act.}$, Confusion
must be avoided
between e.g. specific
radioactivity and the
specific activity of an
enzyme

$sG_{aw}$; express in
$s^{-1}$ kPa$^{-1}$

$\text{SD}$

$\text{SEM}$

$\text{STP}$

steroid nomenclature

 sulphhydril
 sum
 Svedberg unit
 temperature (absolute)
 temperature, thermodynamic
 thin-layer chromatography
 threonine
 thyrotrophic hormone
 thyrotrophin releasing horm-
one
tidal volume
time (symbol)
time of day
torr
total lung capacity
tryptophan
tubular maximal reabsorptive
capacity for $x$
tyrosine
ultraviolet
urinary concentration of $x$
valine
variance ratio
vascular resistance

see Biochemical Journal
(1969) 113, 5-28;
(1972) 127, 613-617

$\Sigma$
$S$
$T$
$\theta K$
t.l.c.
Thr
TSH
TRH
$V_T$

t
\begin{align*}
\text{e.g. } 18.15 \text{ hours} \\
\text{not used; use kPa (1 torr = 0.133 kPa)}
\end{align*}

$\text{TLC}$

$\text{Trp}$

$\text{Tm}$

$\text{Tyr}$

u.v.

$\text{U}_x$

\begin{align*}
\text{e.g. } Fe^{2+}, \text{ not } Fe^{3+} \\
\text{Val}
\end{align*}

$F$

express in kPa $l^{-1}$ s (with
value in dyne cm$^{-2}$
in parentheses);
primary values of dif-
ferential vascular pres-
sure (mmHg) and
flow (l/min) should
always also be given
in Tables or text as
appropriate

$v_t$; express as m s$^{-1}$

$\dot{Q}_{va}$

\begin{align*}
\text{used only for buffer mix-
tures; otherwise use } S, S' \text{-diethylbarbituric} \\
\text{acid}
\end{align*}

$\eta$
$\nu$
$\text{VC}$
$\nu$
$\text{Q}$; use $\dot{Q}$ for blood flow
rate

$W$
$\lambda$
wt.

\begin{align*}
\text{use leucocyte; express}
\text{counts as } 10^9 \text{ cells/l}
\end{align*}
AUTHOR INDEX

ABER, M., see Al-Khader, A.A. et al.
AGGETT, P.J., see Atherton, D.J. et al.
ALBERTINI, R., ROSAS, R., CROXATTO, H.R. & ROBLERO, J. Kallikrein-kinin system in one- and two-kidney Goldblatt hypertensive rats 227
AL-KHADER, A.A., STEWART, C. & ABER, M. Pregnancy-associated disease of the renal microcirculation 189
ANDERSEN, R.B., see Sørensen, O.H. et al.
ARDAILLOU, R., see Lafontaine, J.J. et al.
ARROYO, V., see Wilkinson, S.P. et al.
ARRUDA, J.A.L., see Julka, N.K. et al.
ATHERTON, D.J., MULLER, D.P.R., AGGETT, P.J. & HARRIES, J.T. A defect in zinc uptake by jejunal biopsies in acrodermatitis enteropathica 505
AULD, C.D., LIGHT, I.M. & NORMAN, J.N. Accidental hypothermia and rewarming in dogs 601
AZAR, S., JOHNSON, M.A., SCHEINMAN, J., BRUNO, L. & TOBIAN, L. Regulation of glomerular capillary pressure and filtration rate in young Kyoto hypertensive rats 203
BALL, S. G., see Oates, N.S. et al.
BALLARD, F.J., TOMAS, F.M. & STERN, L.M. Increased turnover of muscle contractile proteins in Duchenne muscular dystrophy as assessed by 3-methylhistidine and creatinine excretion 347
BALLARD, F.J., see also Tomas, F.M. et al.
BAUEREISS, K., see Konrads, A. et al.
BARTON, R.N., see Stoner, H.B. et al.
BARTTER, F.C., see Düsing, R. et al.
BERGSTROM, J., see Möller, P. et al.
BERMAN, M. see Wajchenberg, B.L. et al.
BOBERG, J., see Oslund-Lindqvist, A.-M. & Boberg, J.
BOUCHER, B.J., see Yudkin, J.S. et al.
BOURKE, E., see Howie, M.B. & Bourke, E.
BRITTEN, K.E. Editorial Review: The measurement of intrarenal flow distribution in man 101
BROWN, J.I., see Fraser, R. et al.
BRUNO, L., see Azar, S. et al.
BUMPUS, F.M., see Sen, S. et al.
BURDEN, A.C. & THRUSTON, H. Plasma renin activity in diabetes mellitus 255
BURSTON, D., see Matthews, D.M. et al.; see also Schedl, H.P. et al.
CALVERT, G.D. & JAMES, H.M. Low-density lipoprotein turnover studies in man. Evaluation of the integrated rate equations method, use of a whole-body radioactivity counter, and the problem of partial denaturation 71
CAMPBELL, J.A., see Bass, N.M. et al.
CAMPBELL, I.W., see Hume, L. et al.
CAMPBELL, W.B., SCHMITZ, J.M. & ITSKOVITZ, H.D. Effect of sodium depletion on the steroidogenic and pressor actions of angiotensin in the rat 325
CAVILL, I., Ricketts, C. & Jacobs, A. Erythropoiesis, iron stores and tissue iron exchange in man 223
CAWTHORNE, M.A., see Ma, G.Y. et al.
CHAMULEAU, R.A.F.M., see Vahlkamp, T. et al.
CHU, P.K., see Ellis, W.R. et al.
CLARKE, B.F., see Hume, L. et al.
CONSTABLE, A.R., JOEKES, A.M., KASIDAS, G.P., O’REGAN, P. & ROSE, G.A. Plasma level and renal clearance of oxalate in normal subjects and in patients with primary hyperoxaluria or chronic renal failure or both 299
COOK, G.G., see Peters, T.J. et al.
CRAIG, S.J., see Worwood, M. et al.
CRANSTON, W.I., see Townsend, Y. & Cranston, W.I.
CROXATTO, H.R., see Albertini, R. et al.
DAVIES, M.R., LAMBERT, L.P. & MARSHALL, R.D. L-Asparaginyl-tRNA synthetase and L-asparagine synthetase activities of L-asparaginase-sensitive and -resistant forms of the mouse Gardner lymphoma 6C3HED 539

DAY, R.C., HARRY, D.S., OWEN, J.S., FOO, A.Y. & MCINTYRE, N. Lecithin–cholesterol acyltransferase and the lipoprotein abnormalities of parenchymal liver disease 575

DEANA, R., RIGONI, F. & GALZIGNA, L. Inhibition of rat liver mitochondrial 3-hydroxy-3-methylglutaryl-CoA lyase by succinyl-CoA 251


DIETERMANN, K.H., see Menge, H. et al.

DIETZ, R., see Mann, J.F.E. et al.

DORMANDY, T.L., see Lunec, J. & Dormandy, T.L.

DURRINGTON, P.N. Effect of phenobarbitone on plasma apolipoprotein B and plasma high-density-lipoprotein cholesterol in normal subjects 501

DUSING, R., see Kramer, H.J. et al.

EARL, C.J., see Bender, D.A. et al.

EARNshaw, M.J., see Henderson, R.G. et al.

EDWARDS, R.H.T., see Wiles, C.M. et al.

ELLIOTT, A.J., see Healy, J.K. et al.

ELLIS, W.R., CHU, P.K. & MURRAY-LYON, I.M. The influence of ammonia and octanoic acid on liver regeneration in the rat 95

ERIKSSON, S., see Möller, P. et al.

EWING, D.J., see Hume, L. et al.

FERREIRA, M.N.L., see Wajchenberg, B.L. et al.

FOO, A.Y., see Day, R.C. et al.

FORSLING, M.L., see Williams, E.S. et al.

FRANCE, M.W., see Yudkin, J.S. et al.


FRAYN, K.N., see Stoner, H.B. et al.

FRISK-HOLMBERG, M., see Juhlin-Dannfelt, A. et al.

FÜRST, P., see Möller, P. et al.

GALZIGNA, L., see Deana, R. et al.

GANDY, R.H., see Matthews, D.M. et al.

GANTEN, D., see Mann, J.F.E. et al.

GARDNER, M.L.G. & HEADING, R.C. Effect of "elemental" diets on absorptive and enzymic activities on 5-fluouracil toxicity in rat small intestine 243

GARRARD, C.S. & LANE, D.J. The pattern of breathing in patients with chronic airflow obstruction 215

GARST, J.B., KOLETSKY, S., WISENAUGH, P.E., HADADY, M. & MATTHEWS, D. Arterial wall renin and renal venous renin in the hypertensive rat 41

GILL, J.R., Jr, see Düsing, R. et al.

GOMEZ-SANCHEZ, C., see Holland, O.B. et al.

GOLDBERG, A., see McColl, K.E.L. et al.; see also Meredith, P.A. et al.

GOVE, C.D., see Ma, G.Y. et al.

GRACE, S.A., see Richards, H.K. et al.

GRAY, T.K., see Walton, J. & Gray, T.K.

GRIBBIN, B., PICKERING, T.G. & SLEIGHT, P. Arterial distensibility in normal and hypertensive man 413

GROSS, F., see Konrads, A. et al.

HADADY, M., see Garst, J.B. et al.

HARRIES, J.T., see Atherton, D.J. et al.

HARRY, D.S., see Day, R.C. et al.

HARTOG, M., see Clamp, J.R. et al.

HEADING, R.C., see Gardner, M.L.G. & Heading, R.C.

HEALEY, J.K., ELLIOTT, A.J. & OWECZKIN, I.J. Influence of angiotensin II, ouabain and hydrostatic pressure on insulin and electrolyte concentration of fluid perfusing pig carotid arteries in vivo 445

HEIGENHAUSER, G.J.F. & JONES, N.L. Comparison of two rebreathing methods for the determination of mixed venous partial pressure of carbon dioxide during exercise 433

HELLSTRÖM, K., see Möller, P. et al.

HEMS, D.A. Editorial Review: Rapid hormonal control of hepatic catabolism in health and disease 197

HEMS, D.A., see also Ma, G.Y. et al.


HILTON, P.J., see Jones, R.B. et al.

HJORTH, L., see Sørensen, O.H. et al.

HOFBAUER, K.G., see Konrads, A. et al.
Author Index

Holland, O.B., Gomez-Sanchez, C. & Ziegler, T. Hypertension with mineralocorticoid administration to the Long–Evans rat 109

Hopkins, J.M.P. & Peters, T.J. Subcellular distribution of radio-labelled iron during intestinal absorption in guinea-pig enterocytes with special reference to the mitochondrial localization of the iron 179

Hopwood, J.J., Muller, V. & Pollard, A.C. Post- and pre-natal assessment of α-L-iduronidase deficiency with a radiolabelled substrate 591

Howdle, P.D., see King, R.F.G.J. et al.

Howie, M.B. & Bourke, E. Metabolism of p-aminohippuric acid in the perfused liver of chronically uraemic rats 9

Hubbard, J.I., see Sirett, N.E. et al.

Hume, L., Ewing, D.J., Campbell, I.W., Reuben, S.R. & Clarke, B.F. Heart-rate response to sustained hand grip: comparison of the effects of cardiac autonomic blockade and diabetic autonomic neuropathy 287

Itskovitz, H.D., see Campbell, W.B. et al.

Jacobs, A., see Cavill, I. et al.; see also Worwood, M. et al.

James, H.M., see Calvert, G.D. & James, H.M.

Joeckes, A.M., see Constable, A.R. et al.

Johns, E.J. Action of angiotensin I converting enzyme inhibitor on the control of renal function in the cat 365

Johnson, M.A. see Azar, S. et al.

Johnson, V.E., see Jones, R.B. et al.

Jones, D.A., see Wiles, C.M. et al.

Jones, N.L., see Heigenhauser, G.J.F. & Jones, N.L.; see also Ryan, W.J. et al.

Jones, P.E., see Peters, T.J. et al.

Jones, R.B., Johnson, V.E., Patrick, J. & Hilton, P.J. Effect of acid–base changes on the intracellular sodium, potassium and water content of human leucocytes in vitro 385

Jowett, T.P., see Wilkinson, S.P. et al.

Juhlin-Dannfelt, A., Frisk-Holmberg, M., Karlsson, J. & Tesch, P. Central and peripheral circulation in relation to muscle-fibre composition in normo- and hyper-tensive man 335

Julka, N.K., Arruda, J.A.L. & Kurtzman, N.A. The mechanism of amphotericin-induced distal acidification defect in rats 555

Karlsson, J., see Juhlin-Dannfelt, A. et al.

Kasidas, G.P., see Constable, A.R. et al.

Kelleher, J., see King, R.F.G.J. et al.

King, R.F.G.J., Howdle, P.D., Kelleher, J. & Losowsky, M.S. Synthetic detergents in bile-salt-deficient steatorrhoea 273

Kirsch, R.E., see Bass, N.M. et al.

Kohn, R., see Menge, H. et al.

Koletsky, S., see Garst, J.B. et al.

Konrads, A., Hofbauer, K.G., Bauereiss, K., Mohring, J. & Gross, F. Glycerol-induced acute renal failure in Brattleboro rats with hypothalamic diabetes insipidus 133

Kramer, H.J., Moch, T., von Sichener, L. & Düsing, R. Effects of aprotinin on renal function and urinary prostaglandin excretion in conscious rats after acute salt loading 547

Kurtzman, N.A. see Julka, N.K., et al.

Lafontaine, J.J., Nivez, M.P. & Ardaillou, R. Hepatic binding sites for angiotensin II in the rat 33

Lambert, L.P., see Davies, M.R. et al.

Lane, D.J., see Garrard, C.S. & Lane, D.J.

Ledingham, J.G.G., see Henderson, R.G. et al.

Lee, M.R., see Oates, N.S. et al.

Lee, S.P., Lim, T.H. & Scott, A.J. Carbohydrate moieties of glycoproteins in human hepatic and gall-bladder bile, gall-bladder mucosa and gall stones 533

Lees, A.J., see Bender, D.A. et al.

Leine, P.R., see Wajchenberg, B.L. et al.

Lever, A.F., see Fraser, R. et al.

Light, I.M., see Auld, C.D. et al.

Lim, T.H., see Lee, S.P. et al.

Little, R.A., see Stoner, H.B. et al.

Llaurado, J.G., see Madden, J.A. et al.

Lorenz-Meyer, H., see Menge, H. et al.

Losowsky, M.S., see King, R.F.G.J. et al.

Lund, Bl., see Sørensen, O.H. et al.

Lund, Bj., see Sørensen, O.H. et al.

Lunec, J. & Dormandy, T.L. Fluorescent lipid-peroxidation products in synovial fluid 53

Ma, G.Y., Gove, C.D., Cawthorne, M.A. & Hems, D.A. Catabolic effects of adrenaline and angiotensin II in the perfused liver of normal and genetically obese (ob/ob) mice 493

Madden, J.A., Smith, G.A. & Llaurado, J.G. Sodium distribution in mesenteric arterial wall of rats with hypertension induced by drinking saline 471

Mancini, M., see Balasubramaniam, S. et al.

Man in 't Veld, A.J., see Derkx et al.
MANN, J.F.E., RASCHER, W., DIETZ, R., SCHÖMIG, A. & GANTEN, D. Effects of an orally active converting-enzyme inhibitor, SQ 14225, on pressor responses to angiotensin administered into the brain ventricles of spontaneously hypertensive rats 585

MARCHALL, R.D., see Davies, M.R. et al.

MARTIN, G.M. & NESTEL, P. Changes in cholesterol metabolism with dietary cholesterol in children with familial hypercholesterolaemia 377

MASON, P.A., see Fraser, R. et al.

MATTHEWS, D., see Garst, J.B. et al.

MATTHEWS, D.M., GANDY, R.H., TAYLOR, E. & BURSTON, D. Influx of two dipeptides, glycylsarcosine and l-glutamyl-l-glutamic acid, into hamster jejunum in vitro 15

MATTHEWS, D.M., see also Schedl, H.P. et al.

MAXWELL, D.R., see Szwed, J.J. & Maxwell, D.R.

MCINTYRE, N., see Day, R.C. et al.

MCCLL, K.E.L., WHITING, B., MOORE, M.R. & GOLDBERG, A. Correlation of ethanol concentrations in blood and saliva 283

MEIJER, A.J., see Vahlkamp, T. et al.

MELSEN, F., see Sørensen, O.H. et al.


MERRICK, P.A., MOORE, M.R. & GOLDBERG, A. Erythrocyte-aminolaevulinic acid dehydratase activity and blood protoporphyrin concentrations as indices of lead exposure and altered haem biosynthesis 61

MIDDLEG, J.S., see Williams, E.S. et al.

MITROPoulos, K.A., see Balasubramaniam, S. et al.

MOCH, T., see Kramer, H.J. et al.

MODESTO FILHO, J., see Wajchenberg, B.L. et al.

MOHRING, J., see Konrads, A. et al.

MÖLLER, P., BERGSTRÖM, J., ERIKSSON, S., FÜRST, P. & HELSTRÖM, K. Effect of aging on free amino acids and electrolytes in leg skeletal muscle 427

MOODIE, H., see Wilkinson, S.P. et al.

MOORE, M.R., see McColl, K.E.L. et al.; see also Meredith, P.A. et al.


MORRIS, A.J.R., see Siafakas, N. et al.

MOSEKILDE, L., see Sørensen, O.H. et al.

MULLER, D.P.R., see Atherton, D.J. et al.

MULLER, V., see Hopwood, J.J. et al.

MULLER, J.F.E., RASCHER, W., see Konrads, A.

MULLER, M., see Hopwood, J.J.

MULLER, D.P.R., see Atherton, D.J. et al.

MURRAY-LYON, I.M., see Ellis, W.R. et al.

MUNDAY, K.A., see Richards, H.K. et al.

MYANT, N.B., see Balasubramaniam, S. et al.

NESTEL, P., see Martin, G.M. & Nestel, P.

NÍVEZ, M.P., see Lafontaine, J.J. et al.

NOBLE, A.R., see Richards, H.K. et al.

NORMAN, J.N., see Auld, C.D. et al.

OATES, N.S., BALL, S.G., PERKINS, C.M. & LEE, M.R. Plasma and urine dopamine in man given sodium chloride in the diet 261

OLDER, M.W.J., see Williams, E.S. et al.

OLIVER, D.O., see Henderson, R.G. et al.

O'REGAN, P., see Constable, A.R. et al.


OWECZKIN, I.J., see Healy, J.K. et al.

OWEN, J.S., see Day, R.C. et al.

OWENS, C.W.I. & PADOVAN, W. Faecal methylamine in normal and uraemic subjects 509

PADOVAN, W., see Owens, C.W.I. & Pavovan, W.

PATRICK, J., see Jones, R.B. et al.

PERKINS, C.M., see Oates, N.S. et al.

PETERS, T.J., JONES, P.E., WELLS, G. & COOK, G.G. Sequential enzyme and subcellular fractionation studies on jejunal biopsy specimens from patients with post-infective tropical malabsorption 479

PETERS, T.J., see also Hopkins, J.M.P. & Peters, T.J.

PICKERING, T.G., see Gribbin, B. et al.

PIERONI, R.R., see Wajchenberg, B.L. et al.

POLLARD, A.C., see Hopwood, J.J. et al.

POPE, L.M., see Tomas, F.M. et al.

POSTIGLIONE, A., see Balasubramaniam, S. et al.

POSTON, L., see Wilkinson, S.P. et al.

PRIME, F.J., see Siafakas, N. et al.

RASCHER, W., see Mann, J.F.E. et al.

REEVE, J., see Wise, M.E. et al.

REUBEN, S.R., see Hume, L.


RICKETTS, C., see Cavill, I. et al.

RIECKEN, E.O., see Menge, H. et al.

RIGONI, F., see Deana, R. et al.

ROBERTSON, J.I.S., see Fraser, R. et al.

ROBisher, J., see Albertini, R. et al.

ROBISO, J., see Albertini, R. et al.

ROBERTSON, J.I.S., see Fraser, R. et al.

SIAFAKAS, N., see MANN, J.F.E.

SCHÖMIG, A. & GANTEN, D. Effects of an orally active converting-enzyme inhibitor, SQ 14225, on pressor responses to angiotensin administered into the brain ventricles of spontaneously hypertensive rats 585

SOK, A. et al.
ROSE, G.A., see Constable, A.R. et al.
ROSS, B.D., see Tannen, R.L. & Ross, B.D.
RUSSELL, R.G.G., see Henderson, R.G. et al.
RYAN, W.J., SUTTON, J.R., TOEWS, C.J. & JONES, N.L. Metabolism of infused L(+) lactate during exercise 139
SALTIN, B., see Sørensen, O.H. et al.
SAUNDERS, J.S., see Bass, N.M. et al.
SCHALEKAMP, M.A.D.H., see Derkx, et al.; see also van Brummelen, P. et al.
SCHEDL, H.P., BURSTON, D., TAYLOR, E. & MATTHEWS, D.M. Kinetics of mucosal influx of glycylsarcosine, glycine and leucine into hamster jejunum and ileum in vitro 25
SCHEDL, H.P., BURSTON, D., TAYLOR, E. & MATTHEWS, D.M. Kinetics of uptake of an amino acid and a dipeptide into hamster jejunum and ileum: the effect of semi-starvation and starvation 487
SCHERER, B. & WEBER, P.C. Time-dependent changes in prostaglandin excretion in response to frusemide in man 77
SCHMITZ, J. M., see Campbell, W.B. et al.
SCHOMIG, A., see Mann, J.F.E. et al.
SCHEDL, H.P., BURSTON, D., TAYLOR, E. & MATTHEWS, D.M. Kinetics of uptake of an amino acid and a dipeptide into hamster jejunum and ileum: the effect of semi-starvation and starvation 487
SCHINMAN, J., see Azar, S. et al.
SCHERER, B. & WEBER, P.C. Time-dependent changes in prostaglandin excretion in response to frusemide in man 77
SCHMITZ, J. M., see Campbell, W.B. et al.
SCHÖMIG, A., see Mann, J.F.E. et al.
SCOTT, A.J., see Lee, S.P. et al.
SCRATCHARD, T. Editorial Review: Two of the newer ‘gastrointestinal hormones’ 1
SEN, S., TARAZI, R.C. & BUMPUS, F.M. Cardiac effects of angiotensin antagonists in normotensive rats 439
SHELLEY, J.H., see Clamp, J.R. et al.
SIAFAKAS, N., MORRIS, A.J.R. & PRIME, F.J. The rate of change of mouth occlusion pressure during exercise 455
SIRETT, N.E., THORNTON, S.N. & HUBBARD, J.I. Brain angiotensin II binding and central [Sar¹, Ala⁴] angiotensin responses in normal rats and the New Zealand strain of genetically hypertensive rats 607
SLATER, J.D.H., see Wilkinson, S.P. et al.
SLEIGHT, P., see Gribbin, B. et al.
SMITH, G.A., see Madden, J.A. et al.
SMITH, I.K., see Wilkinson, S.P. et al.
SMITS, J.P., see Struyker-Boudier, H.A.J. et al.
STERN, L.M., see Ballard, F.J. et al.
STEWART, C., see Al-Khader, A.A. et al.
STONER, H.B., FRAYN, K.N., BARTON, R.N., THRELFAHL, C.J. & LITTLE, R.A. The relationships between plasma substrates and hormones and the severity of injury in 277 recently injured patients 563
SUTTON, J.R., see Ryan, W.J. et al.
SWALES, J.D. Editorial Review: Arterial wall or plasma renin in hypertension? 293
SWINDLEHURST, C., see Yudkin, J.S. et al.
SZWED, J.J. & MAXWELL, D.R. Diuretics, hepatic and thoracic duct lymph flows in the dog 211
TANNEN, R.L. & ROSS, B.D. Ammoniagenesis by the isolated perfused rat kidney: the critical role of urinary acidification 353
TARAZI, R.C., see Sen, S. et al.
TAYLOR, E., see Matthews, D.M. et al.; see also Schedl, H.P. et al.
TESCH, P., see Juhlin-Dannfelt, A. et al.
THOMAS, T.H., see Morgan, D.B.
THOMSON, N.S. The effect of different pharmacological agents on respiratory reflexes in normal and asthmatic subjects 235
THORNTON, S.N., see Sirett, N.E. et al.
THRELFAHL, C.J., see Stoner, H.B. et al.
THURSTON, H., see Burden, A.C. & Thurston, H.
TOBIAN, L., see Azar, S. et al.
TOEWS, C.J., see Ryan, W.J. et al.
TOMAS, F.M., BALLARD, F.J. & POPE, L.M. Age-dependent changes in the rate of myofibrillar protein degradation in humans as assessed by 3-methylhistidine and creatinine excretion 341
TOMAS, F.M., see also Ballard, F.J. et al.
TOWNSEND, Y. & CRANSTON, W.I. Sites of clearance of leucocyte pyrogen in the rabbit 265
TUFF, S.A., see Bass, N.M. et al.
VAHLKAMP, T., MEIJER, A.J., WILMS, J. & CHAMULEAU, R.A.F.M. Inhibition of mitochondrial electron transfer in rats by ethanethiol and methanethiol 147
Author Index

VAN ESSEN, H., see Struyker-Boudier, H.A.J. et al.
VEALL, N., see Wise, M.E. et al.
VERHOEVEN, R.P., see Derkx, F.H.M. et al.
VON SICHERER, L., see Kramer, H.J. et al.

WAGSTAFF, M., see Worwood, M. et al.
WAJCHENBERG, B.L., LEME, P.R., FERREIRA, M.N.L., MODESTO FILHO, J., PIERONI, R.R.
& BERMAN, M. Analysis of ⁴⁰Ca kinetics in normal subjects by means of a compartmental model with a non-exchangeable plasma calcium fraction 523

WARD, M.P., see Williams, E.S. et al.
WEBER, P.C., see Scherer, B. & Weber, P.C.
WELCH, S.G., see Yudkin, J.S. et al.
WELLS, G., see Peters, T.J. et al.
WENTING, G.J., see Derkx, F.H.M. et al.
WHITING, B., see McColl, K.E.L. et al.
WILES, C.M., YOUNG, A., JONES, D.A. & EDWARDS, R.H.T. Relaxation rate of constituent muscle-fibre types in human quadriceps 47
WILKINSON, S.P., SMITH, I.K., MOODIE, H., POSTON, L. & WILLIAMS, R. Studies on mineralocorticoid 'escape' in cirrhosis 401
WILMS, J., see Vahlkamp, T. et al.
WILLIAMS, E.S., WARD, M.P., MILLEDGE, J.S., WITHEY, W.R., OLDER, M.W.J. & FORSLING, M.L. Effect of the exercise of seven consecutive days hill-walking on fluid homeostasis 305
WILLIAMS, R., see Wilkinson, S.P. et al.
WISE, M.E., REEVE, J., VEALL, N. & WOOTTON, R. Correspondence section: Fitting and interpreting dynamic tracer data 513
WISENBAUGH, P.E., see Garst, J.B. et al.
WITHEY, W.R., see Williams, E.S. et al.
WOERLEE, M. see Van Brummelen, P. et al.
WOODS, C.G., see Henderson, R.G. et al.
WOOTTON, R. see Wise, M.E. et al.
WORWOOD, M., CRAGG, S.J., WAGSTAFF, M. & JACOBS, A. Binding of human serum ferritin to concanavalin A 83
YOUNG, A., see Wiles, C.M. et al.
YUDKIN, J.S., BOUCHER, B.J., FRANCE, M.W., WELCH, S.G. & SWINDLEHURST, C. The relationship between concentrations of glycosylated haemoglobins and of serum high-density-lipoprotein cholesterol in diabetic patients 269
ZIEGLER, T., see Holland, O.B. et al.
Absorption, intestinal
  amino acids 25–31
  competition 15–23
  dipeptides 15–23, 487–492
  fat 273–281
  glucose 243–249
  iron 179–188
  kinetics 15–23, 487–492
  phosphate 407–412
  starvation 487–492
  water 243–249
  Absorption kinetics, jejunal 15–23, 487–492
  Acetoacetate, succinyl-coenzyme A 251–254
  Acid–base changes, leucocytes 385–388
  Acrodermatitis enteropathica 505–507
  Acyl-coenzyme A–cholesterol acyltransferase, liver 373–375
  Adrenaline, catabolic effect in perfused liver 493–499
  Adrenocorticotrophic hormone 389–399*
  /β-Adrenoreceptor, kidney renin activation 115–120
  Age
  muscle amino acids and electrolytes 427–432
  rate of myofibrillar protein degradation 341–346
  Airway conductance, pharmacological aerosols 235–241
  Airway obstruction, breathing pattern 215–221
  Albumin, serum, bovine, apolipoprotein-CII 99–100
  Aldosterone
    angiotensin 325–333
    control of secretion 389–399*
    prolactin 381–383
    sodium retention in cirrhosis 169–177
  Amino acids
    absorption 487–492
    injury and plasma concentration 563–573
    jejunal absorption in vitro 25–31
    muscle and ageing 427–432
    p-Aminobenzoic acid metabolism in uraemic liver 9–14
  p-Aminobenzoylglycine production from uraemic liver 9–14
  p-Aminohippuric acid production from uraemic liver 9–14
  δ-Aminolaevulinate dehydratase, erythrocyte
    haem biosynthesis 61–69
    lead exposure 61–69
  δ-Aminolaevulinate synthase, erythrocyte
    haem biosynthesis 61–69
    lead exposure 61–69
  Ammonia, effect on liver regeneration 95–97
  Angiotensin, converting enzyme inhibitor SQ 14225 on brain binding 585–589
  Angiotensin I converting enzyme inhibitor, renal function 365–371
  Angiotensin II
    aldosterone regulation 389–399*
    analogues and sodium depletion 325–333
    antagonists 439–443, 607–611
    brain ventricles 607–611
    carotid artery perfusion 445–453
    catabolism, perfused liver 493–499
    hypertension 293–298*
    liver binding sites 33–40
    sodium depletion 325–333
  Angiotensin III, sodium depletion 325–333
  Angiotensinases
    inhibitors 33–40
    liver 33–40
  Apolipoprotein-CII in albumin fractions 99–100
  Aprotinin, renal function and prostaglandin excretion 547–553
  Arterial pressure
    angiotensin 325–333
    angiotensin antagonists 439–443
    hydrochlorothiazide 463–469
    slow-twitch muscle fibres 335–340
  Artery
    carotid, perfusion 445–453
    distensibility 413–417
    mesenteric, sodium 471–478
    renin in wall 41–46, 293–298*
Subject Index

Artery (continued)
  smooth muscle, angiotensin 445–453
  sodium in wall 471–478
Asthma, bronchial responses to pharmacological
  aerosols 235–241
Auto-analyser methods 445–453
Autonomic blockade, heart rate response to sustained hand grip 287–291
L-Asparaginase, mouse Gardner lymphoma
  6C3HED sensitivity 539–545
Asparagine synthetase, mouse Gardner lymphoma
  6C3HED 539–545
L-Asparaginyl-tRNA synthetase, mouse Gardner lymphoma 6C3HED 539–545
Baroreceptor reflex, propranolol 163–167
Benserazide, niacin depletion 89–93
Bile
  acids, intestinal mucosa 121–131
  salts deficiency steatorrhoea, synthetic detergents therapy 273–281
Binding sites, angiotensin II in liver 33–40
Biomedical engineering 471–478
Blood and saliva ethanol concentrations 283–286
Blood flow
  muscle-fibre composition 335–340
  renal distribution 101–104*
Blood pressure, see Arterial pressure, Hypertension
Blood volume, experimental renal hypertension 227–233
Bone disease
  osteopenia, senile 157–161
  osteoporosis, haemodialysis 317–324
  renal osteodystrophy 317–324
Bone loss
  ageing 157–161
  haemodialysis 317–324
  1α-hydroxycholecalciferol 157–161
Brain ventricles, angiotensin injection 585–589
Breathing pattern, chronic airflow obstruction 215–221
Bromhexine on carbohydrate urinary excretion 193–196
Brush border, jejunal, tropical malabsorption 479–486
Bupivacaine aerosol on bronchi 235–241
Calcium, bone
  ageing 157–161
  haemodialysis 317–324
  kinetic studies 523–532
Cardiac hypertrophy, angiotensin antagonists 439–443
Carotid artery perfusion, angiotensin II 445–453
Catecholamines, cardiac hypertrophy 439–443
Central inspiratory drive 455–461
Chlorothiazide on lymph flow 211–214
Cholelithiasis, bile glycoproteins 533–538
Cholesterol, high-density lipoprotein, in diabetes mellitus 269–272
Cholesterol metabolism in familial hypercholesterolaemia 377–383
Cholesteryl esters in liver 373–375
Cirrhosis
  9α-fluorohydrocortisone 401–406
  renal sodium retention 169–177
Clearance sites for infused leucocyte pyrogen 265–268
Cohn fraction V, apolipoprotein-CII 99–100
Colon transposition into jejunum 121–131
Compartmental analysis, calcium kinetics 523–532
Compound SQ 14225, converting enzyme inhibitor 585–589
Computer simulation, sodium distribution 471–478
Concanavalin A binding of serum ferritin 83–87
Converting enzyme inhibitor
  angiotensin response 585–589
  renal function 365–371
Cortisol in injury 563–573
Creatinine
  faecal excretion in uraemia 509–512
  myofibrillar protein degradation 341–346, 347–352
Cromoglycate, sodium, on bronchi 235–241
Deoxycorticosterone acetate hypertension 109–113
Detergents, synthetic, therapy in steatorrhoea 273–281
Diabetes insipidus, hypothalamic 133–138
Diabetes mellitus
  autonomic neuropathy 287–291
  carbohydrate excretion 193–196
  glycosylated haemoglobins 269–272
  high-density lipoprotein cholesterol 269–272
  plasma renin activity 255–259
  streptozotocin 251–254
Diazoxide on kidney activation of renin 115–120
Diffusion
  intestinal influx of amino acids 25–31
  intestinal influx of dipeptides 15–23
Dipeptide absorption
  mechanism 15–23
  starvation 487–492
Distal acidification and amphotericin 555–562
Diuretics on hepatic and thoracic duct lymph flow 211–214
DOCA see Deoxycorticosterone acetate
L-Dopa and niacin depletion 89–93
Dopamine, sodium chloride intake 261–264
Dynamic tracer data (Correspondence) 513–515
Electrolytes
exercise 305–316
muscle and ageing 427–432
‘Elemental’ diets 243–249
Enterocyte subcellular distribution of iron during absorption 179–188
Erythrocytes
  δ-aminolaevulinate dehydratase in lead exposure 61–69
  δ-aminolaevulinate synthase in lead exposure 61–69
Erythropoiesis, iron exchanges 223–226
Escape, mineralocorticoid, in cirrhosis 401–406
Ethacrynic acid on lymph flow 211–214
Ethanethiol inhibition of mitochondrial electron transfer 147–156
Ethanol in blood and saliva 283–286
Ethanol in injury 563–573
Exercise
  fluid homeostasis 305–316
  hand, heart rate 287–291
  metabolism of induced L(+)-lactate 139–146
  mouth occlusion pressure 455–461
Extracellular fluid, aprotinin 547–553
Faeces, methylamine and creatinine excretion 509–512
Familial hypercholesterolaemia 377–383
Fat absorption, synthetic detergents in steatorrhoea 273–281
Fatty acids
  in injury 563–573
  metabolism, liver, hormones 493–499
Ferritin, serum, binding to concanavalin A 83–87
Fibrinolysis in pregnancy-associated renal vascular disease 189–192
Fluid homeostasis 305–316
Fluorescence of lipid-peroxidation products in synovial fluid 53–59
9α-Fluorohydrocortisone in cirrhosis 401–406
5-Fluorouracil, water absorption 243–249
Furosemide
  lymph flow 211–214
  prostaglandin excretion 77–81
Gall bladder, mucosal glycoproteins 533–538
Gall stones, glycoproteins 533–538
Gardner lymphoma 6C3HED enzymes 539–545
Gastric inhibitory polypeptide 1–7*
Gastrointestinal hormones
  gastric inhibitory polypeptide 1–7*
  vasoactive intestinal polypeptide 1–7*
Giardia lamblia infection, tropical malabsorption 479–486
Giardiasis, tropical malabsorption 479–486
Glomerular filtration rate
  converting enzyme inhibition 365–371
  hypertension 203–209
Glomerulosclerosis, urinary carbohydrate excretion 193–196
Glucose in injury 563–573
L-Glutamyl-L-glutamic acid absorption in jejunum in vitro 15–23, 25–31
Glutathione S-transferase 419–426
Glycerol in injury 563–573
Glycogen metabolism, liver, hormones 493–499
Glycoproteins
  biliary, carbohydrate moiety 533–538
  diabetic microangiopathy 193–196
Glycosylation, serum ferritin binding to concanavalin A 83–87
Gut hormones see Gastrointestinal hormones
Haem, erythrocyte enzyme activities and biosynthesis of 61–69
Haemochromatosis, binding of serum ferritin to concanavalin A 83–87
Haemodialysis bone loss 317–324
Haemodynamics
  acute renal failure 133–138
  hydrochlorothiazide 463–469
  muscle-fibre composition 335–340
  renal 365–371, 463–469
  vasopressin 133–138
Haemoglobin, glycosylated, in diabetes mellitus 269–272
Haemorrhage, plasma renin activity and 105–108
Hand grip, sustained, heart-rate response 287–291
Heart rate response to sustained hand grip 287–291
Heat production after hypothermia 601–606
Heparin and bone loss 317–324
Heterozygote detection in mucopolysaccharidosis 591–599
Hormones
  adrenaline 493-499
  adrenocorticotrophin 389-399*
  aldosterone 169-177, 381-383
  angiotensin 197-202*, 493-499
  catecholamines 197-202*
  cortisol 563-573
  gastrointestinal 1-7*
  glucagon 197-202*
  insulin 197-202*, 563-573
  prolactin 381-383
  vasopressin 133-138, 197-202*, 305-316, 517-522*
Hurler syndrome 591-599
Hydrochlorothiazide, renal haemodynamics 463-469
3-Hydroxy-3-methylglutaryl-coenzyme A lyase, mitochondrial, inhibition by succinyl-coenzyme A 251-254
Hypercholesterolaemia 377-383
Hyperoxaluria, primary, oxalate clearance 299-304
Hypertension
  aldosterone 389-399*
  arterial distensibility 413-417
  sodium distribution 471-478
Hypertension, essential
  hydrochlorothiazide 493-469
  kidney activation of renin 115-120
  slow-twitch muscle fibres 335-340
Hypertension, experimental
  adrenal regeneration 109-113
  deoxycorticosterone acetate 109-113
  kallikrein–kinin system 227-233
  Long–Evans rats 109-113
  mineralocorticoid 109-113
  renal, Goldblatt one-kidney 227-233
  renal, Goldblatt two-kidney 41-46, 227-233
  salt 203-209, 471-478
Hypertension, renovascular
  diabetes mellitus 255-259
  kallikrein–kinin system 227-233
  kidney activation of renin 115-120
  plasma renin activity 255-259, 293-298*
  pregnancy-associated 189-192
Hypertension, spontaneous
  angiotensin and converting enzyme inhibitor SQ14225 585-589
  angiotensin antagonist central responses 607-611
  arterial wall renin 41-46
  baroreceptor reflex and propranolol 163-167
  glomerular filtration 203-209
  propranolol 163-167
  renal renin 41-46
Hyponatraemia and water balance 517-522*
Hypothalamic diabetes insipidus 133-138
Hypothermia 601-606
α-L-Iduronidase, pre- and post-natal assessment 591-599
Ileum inorganic phosphate absorption 407-412
Injury Severity Score 563-573
Insulin in injury 563-573
Integrated rate equation method for turnover studies 71-76
Intestine
  amino acids absorption 25-31
  acrodermatitis enteropathica 505-507
  blind loops, self-filling 121-131
  colon transposition 121-131
  dipeptides absorption 15-23, 25-31
  mucosal hyperplasia 121-131
  phosphate absorption 407-412
  stasis 121-131
  subcellular fractionation 179-188, 479-486
  three-dimensional structure 121-131
  transport 15-23, 25-31, 121-131
  tropical malabsorption 479-486
Ipratropium bromide on bronchi 235-241
Iron
  enterocyte content 179-188
  intestinal absorption 179-188
  overload and ferritin 83-87
  stores 223-226
  turnover 223-226
Isoelectric focusing, heterogeneity of serum ferritin 83-87
Jejunum
  amino acids influx 25-31
  dipeptides influx 15-23, 25-31
  iron absorption 179-188
  phosphate absorption 407-412
  subcellular fractionation 179-188, 479-486
  tropical malabsorption 479-486
  zinc and acrodermatitis enteropathica 505-507
Juxtamedullary nephron blood flow 101-104*
Ketone bodies in injury 563-573
Kidney
  acute failure 133-138
  ammoniagenesis 353-364
  aprotinin and salt-loading 547-553
  arteriolar resistance 203-209
  blood-flow distribution 101-104*
  chronic failure 299-304
  converting enzyme inhibitor 365-371
  dopamine 261-264
Subject Index

haemodynamics 203–209, 365–371, 463–469
kininogenase 227–233
leucocyte pyrogen clearance 265–268
ligandin excretion 419–426
renin activation 115–120
sodium chloride 261–264
vascular resistance 133–138
Kidney disease
acute failure 133–138
bone loss 317–324
necrosis 419–426
uraemia 509–512
Kininogen in experimental renal hypertension 227–233
Kinogenase, kidney, in experimental renal hypertension 227–233
Kinogen synthesis and aprotinin 547–553
Kynurenine excretion in dopa treatment 89–93
Lactate in injury 563–573
L(+)-Lactate metabolism, exercise 139–146
Lead exposure, erythrocyte enzyme activity and blood protoporphyrin 61–69
Lecithin–cholesterol acyltransferase, abnormal lipoproteins in parenchymal liver disease 575–583
Leucine absorption in jejunum in vitro 25–31, 487–492
Leucocyte intracellular sodium, potassium and water 385–388
Leucocyte pyrogen, infused, clearance 265–268
Ligandin, urinary excretion 419–426
Lipid peroxidation products in synovial fluid 53–59
Lipoproteins
abnormalities in parenchymal liver disease 575–583
low-density, turnover rate 71–76
Liver
acyl-coenzyme A–cholesterol acyltransferase 373–375
ammonia and regeneration 95–97
angiotensin II binding sites 33–40
hormones and metabolism 197–202*
lymph flow 211–214
membrane angiotensin II binding sites 33–40
regeneration 95–97
Liver disease
cirrhosis 169–177, 401–406
coma 147–156
fulminant hepatic failure 95–97
necrosis 83–87
obesity 493–499
parenchymal 575–583
serum ferritin 83–87
Liver, perfused
adrenaline 493–499
angiotensin II 493–499
p-aminobenzoic acid metabolism in uraemia 9–14
p-aminobenzoic acid production in uraemia 9–14
p-aminohippuric acid production in uraemia 9–14
Lung volume 215–221
Lung airflow obstruction, chronic 215–221
Lymph flow, effect of diuretics 211–214
Lymphoma 6C3HED, Gardner, enzymes 539–545
Mannitol on lymph flow 211–214
Mercaptans inhibition of mitochondrial electron transfer 147–156
Mercuric chloride and urinary ligandin excretion 419–426
Metabolic acidosis, ammoniagenesis 353–364
Metabolism
exercise 139–146
L(+)-lactate infusion 139–146
liver 197–202*
obesity 197–202*
Metacarpal morphometry 317–324
Methanethiol inhibition of mitochondrial electron transfer 147–156
Methylamine, faecal excretion in uraemia 509–512
3-Methylhistidine excretion, myofibrillar protein degradation 341–346, 347–352
Mineralocorticoid
‘escape’ in cirrhosis 401–406
hypertension 109–113
Mitochondria
3-hydroxy-3-methylglutaryl-CoA lyase 251–254
iron 179–188
Monosaccharides of biliary glycoproteins 533–538
Mouth occlusion pressure in exercise 455–461
Mucopolysaccharidosis type I, α-L-iduronidase assay 591–599
Muscle disease
Duchenne muscular dystrophy 347–352
myopathy in bone loss of ageing 157–161
Muscle, skeletal
amino acids and age 427–432
bone loss 157–161
electrolytes and age 427–432
fibre types 47–52, 157–161, 335–340
myofibrillar protein degradation 341–346, 347–352
Muscle, skeletal (continued)  
quadriceps, human 47–52  
relaxation rate 47–52  
slow-twitch fibres 335–340
Muscle, smooth, angiotensin II 445–453
Myopathy in bone loss of ageing 157–161
Nephron, sodium reabsorption 169–177
Nephrotoxin, urinary ligandin excretion after 419–426
Niacin, Parkinson’s disease 89–93
Non-esterified fatty acids in injury 563–573
Obesity, hepatic metabolism 197–202, 493–499
Octanoic acid, effect on liver regeneration 95–97
Oedema in continuous exercise 305–316
Osteodystrophy in renal disease 317–324
Osteopenia, senile 157–161
Osteoporosis in renal disease 317–324
Ouabain, carotid artery perfusion 445–453
Oxalate clearance 299–304
Oxygen uptake, \( \text{L}(+)-\text{lactate infusion and exercise} \) 139–146
Parathyroid activity and bone loss 317–324
Parenchymal liver disease lipoprotein abnormalities 575–583
Parkinson’s disease, niacin depletion 89–93
Pellagra 89–93
Peptidase, intestinal, ‘elemental’ diet and 243–249
Peptide absorption in jejunum in vitro 15–23, 25–31
Peroxidation, lipid, fluorescent products 53–59
pH, urine, kidney ammoniagenesis 353–364
Phenylalanine uptake by jejunal blind loops 121–131
Phosphate, inorganic, intestinal absorption 407–412
Plasma renin activity  
diabetes mellitus 255–259  
diazoxide 115–120  
haemorrhage 105–108  
hypertension 41–46  
propranolol 115–120
Plasma volume, hydrochlorothiazide 463–469
Platelet factor 3 survival in pregnancy-associated hypertension 189–192
Potassium  
aldosterone 389–399*  
angiotensin and carotid artery perfusion 445–453  
intracellular, leucocyte 385–388
Pregnancy disease of renal microcirculation 189–192
Prenatal diagnosis 591–599
Prolactin in primary aldosteronism 381–383
Propranolol  
baroreceptor reflex 163–167  
kidney activation of renin 115–120
Prostaglandins  
aprotinin and urinary excretion 547–553  
bronchial response 235–241  
frusemide and urinary excretion 77–81  
urinary excretion 77–81, 547–553
Protein, muscle, degradation 341–346, 347–352
Protoporphyrin, blood  
haem biosynthesis 61–69  
lead exposure 61–69
Pulse-wave velocity 413–417
Radioactivity, whole-body counter 71–76
Radioimmunoassay of urinary ligandin excretion 419–426
Relaxation rate, quadriceps muscle 47–52
Renal hypertension see Hypertension, renovascular
Renin  
artrial wall 41–46, 293–298*  
hydrochlorothiazide 463–469  
plasma 41–46, 105–108, 293–298*  
renal 41–46
Renin–angiotensin system in acute renal failure 133–138
Respiratory exchange ratio and infused \( \text{L}(+)-\text{lactate during exercise} \) 139–146
Respiratory reflexes, pharmacological aerosols 235–241
Saliva and blood ethanol concentration 283–286
Salt loading, aprotinin and renal function 547–553
Scheie syndrome 591–599
Subject Index

Shivering after hypothermia 601–606
'Sick cell' hyponatraemia 517–522*
Skeletal muscle see Muscle
Smooth muscle see Muscle
Sodium
  aldosterone 169–177, 381–383
  angiotensin, carotid artery perfusion 445–453
  angiotensin receptors 293–298*
  aprotinin 547–553
  converting enzyme inhibition 365–371
  depletion and angiotensin 325–333
  distribution in artery wall 471–478
  dopamine 261–264
  9α-fluorohydrocortisone 401–406
  leucocyte 385–388
  prolactin 381–383
  renal retention, cirrhosis 169–177
  water balance 517–522*
Starvation, intestinal absorption 487–492
Steatorrhoea, synthetic detergents therapy 273–281
Subcellular fractionation, enterocytes 179–188, 479–486
Succinyl-coenzyme A, mitochondrial 3-hydroxy-3-methylglutaryl-coenzyme A lyase inhibition 251–254
Synovial fluid, fluorescent lipid peroxidation products in 53–59

Transcapillary movements with diuretics 211–214
Transport, intestinal
  amino acids 25–31, 121–131
  dipeptides 15–23
  iron 179–188

Trauma, plasma substrates and hormones 563–573
Tropical malabsorption 479–486
Uraemia
  liver metabolism of p-aminobenzoic acid 9–14
  liver metabolism of p-aminobenzoylglycine 9–14
Urea, plasma experimental renal hypertension 227–233
Ureogenesis and ethanethiol 147–156
Urine
  ligandin radioimmunoassay 419–426
  PCO₂ 555–562
  pH and kidney ammoniagenesis 353–364
Vanillylmandelic acid, urinary, hydrochlorothiazide 463–469
Vascular resistance and muscle fibre composition 335–340
Vasoactive intestinal polypeptide 1–7*
Vasopressin
  acute renal failure 133–138
  exercise 305–316
  fluid homeostasis 305–316
  hyponatraemia and water balance 517–522*
Vitamin B₆ deficiency in dopa treatment 89–93
Water balance and hyponatraemia 517–522*
Water, leucocyte, acid–base changes 385–388
Whole-body radioactivity counter 71–76
Work, metabolism of infused L(+)lactate 139–146
Zinc absorption, acrodermatitis enteropathica 505–507