Instructions to Authors

● General policy The Biochemical Journal publishes papers in English in all fields of biochemical, cellular and molecular biology, provided that they make a sufficient contribution to biochemical knowledge. Papers may include new results obtained experimentally, descriptions of new experimental methods of biochemical importance, or new interpretations of existing results. Novel theoretical contributions will be considered equally with papers dealing with experimental work. All work presented should have as its aim the development of biochemical concepts rather than the mere recording of facts. Preliminary, confirmatory or inconclusive work will not be published. The Biochemical Journal will not publish material that has been wholly or largely published elsewhere, even as a preliminary communication or in refereed symposium proceedings or on the World Wide Web (WWW); equally, fragmentation of research into the ‘least publishable unit’ is discouraged.

Submission of a paper implies that it has been approved by all the named authors, that all persons entitled to authorship have been so named, that it reports unpublished work that is not under consideration elsewhere, and that if the paper is accepted for publication the authors will transfer to the Biochemical Society the copyright in the paper, which will then not be published in the same form in any language, without the consent of the Society. Authors will be required to sign an undertaking to all users with Internet access.

Authors may suggest potential reviewers for their papers, but the journal is under no obligation to follow such suggestions. Authors may also specify the names of those they wish to be excluded from the review process, and such wishes are usually respected unless, in the opinion of the journal, such a request unreasonably excludes all the expertise available to it in that scientific area.

To allow the reviewers to assess possible overlap with previous work, all submitted papers must be accompanied by duplicate copies of the author’s relevant published work, including that on the WWW, and of all related papers in press or under editorial consideration in this or other journals.

The following types of paper are included in the journal.

Research Papers are the normal form of publication, and may be of any length that is justified by their content. However, because of pressure for space in the journal, no paper, whatever its scientific merits, will be accepted if it exceeds the minimum length required for precision in describing the experiments and clarity in interpreting them. As a guide, most Research Papers published in the Biochemical Journal are of between six and eight printed pages. A concise well-written paper tends to be published more rapidly.

Accelerated Publications (APs) are short (normally four printed pages) papers bringing particularly novel and significant findings to the attention of the research community. It is intended that a decision on acceptance or rejection will be made within 10 working days of receipt, and publication of accepted APs in an issue will follow within 2 months. APs receive full but accelerated reviewing. The criteria of ‘novelty and significance’ are strictly enforced, and papers may be rejected solely on the grounds of lack of novelty and significance. APs are not a path to accelerated publication of sound but non-urgent material. Authors must include in their letter of submission a brief statement of why they believe their AP merits accelerated treatment. Papers reporting nucleotide sequences only are not acceptable as APs. One colour figure will be published free of charge in APs; subsequent figures will cost £300 each.

Reviews Prospective writers of reviews should first consult the Reviews Editor, via the editorial office, and should enclose a short (one typed page) summary of the area they propose to cover.

Procedure for submission These instructions do not replace the official Biochemical Journal Instructions to Authors (http://www.BiochemJ.org). Authors are encouraged to refer to these for overall guidelines on submitting a paper. Before preparing papers for the journal, authors should consult a current issue to make themselves familiar with the general format, such as the use of cross-headings, layout of tables and figures and citation of references. A full page of text in the Biochemical Journal contains approximately 1200 words; when calculating the printed length of papers, allowance must be made for the space occupied by tables and figures: a concise paper may be shorter than would be predicted by this rule.

The numerical system of references must be used. A reference to ‘unpublished work’ must be accompanied by the names of all persons concerned: a reference to a ‘personal communication’ will be supported by written permission for the quotation from the person or persons concerned; both of these types of citation are permitted in the text only, not in the list of references.

● Microbiology (Micro) is published online in PDF format as soon as they are accepted, unless on submission the author requests that this not be done. Immediate Publications are listed in and accessible through Medline, and are freely available to anyone with Internet access.

● Queries and correspondence Authors in the Americas should address all queries and correspondence about their submission to: Dr Sharon Schendel, BJ USA, The Burnham Institute, 10901 N. Torrey Pines Road, La Jolla, CA 92037, U.S.A. (telephone +1 858 713 6283; fax +1 858 713 6284; e-mail editorial@biochemjusa.org), Authors in the U.K., the rest of Europe, Japan and the rest of the world should contact: The Publisher, Biochemical Journal, 59 Portland Place, London W1B 1QW, U.K. (telephone +44 20 7637 5873; fax +44 20 7323 1136; e-mail editorial@portlandpress.com).

● Colour figures The first colour figure is published at no charge provided that one author has been a member of the Biochemical Society for at least 2 years and that the use of colour is deemed scientifically necessary by the reviewers. Subsequent colour figures in the same paper cost £300 each.

● Multimedia adjuncts The Biochemical Journal Online is now able to offer authors the opportunity to enhance their papers with multimedia adjuncts (e.g. time-lapse movies, three-dimensional structures). These will be submitted to peer review alongside the manuscript. To submit a paper with a multimedia adjunct, please attach the file when you submit your manuscript electronically. Preferred formats are QuickTime for time-lapse movies and PDB for structures. There is no extra charge associated with the publication of a multimedia adjunct online.

Other information

The Biochemical Journal is published and distributed by Portland Press Ltd on behalf of the Biochemical Society. It is published twice monthly; in 2003 volumes 369–376 (three parts each) will appear. The subscription also includes an author and key-word index.

● Subscription rates Institutional subscription rates for 2003 are shown below. Subscribers to the Biochemical Journal can subscribe additionally to Biochemical Society Transactions and Biochemical Journal (Online and Applied Biochemistry) on a joint subscription at a reduced rate. Terms are cash with order (US$ in N. America, £ sterling for rest of the world, or US$ equivalent at current rate of exchange) subject to payment in the currency in which the order is placed (e.g. £ sterling or Euros), or against pro forma invoice. Orders should be sent to the address below, or through your usual agent.

| One year (8 vols) | N. America | US$2299 | £1307 | €2223 |
| Print and online | US$2115 | £1202 | €2044 |
| Online only | US$2226 | £1271 | €2156 |
| Single issues (print only) | US$110 | £64 | €105 |

Overseas rates include airfreight delivery. Priority delivery is available at an additional cost of £50/€95.

VAT is due on some supplies to subscribers within the UK, and to non-registered subscribers elsewhere in the EU. If in the EU please state your VAT number otherwise VAT may be charged at the appropriate national rate.

● Electronic back archive This is freely available to all users with Internet access.

● Microfiche and back issues Volumes 102-336 of the Biochemical Journal are available on microfiche. Back issues are also available. Further details may be obtained from the address below.

● Subscription Department Portland Customer Services P.O. Box 32, Commerce Way Colchester CO2 8NP, Essex, U.K. (telephone 01206 796351; fax 01206-799331; e-mail sales@portland-services.com).

● Advertising Enquiries about advertising in this journal should be addressed to Mark White or Philip Northcott, PRN Media, Suite 8 & 9, West Street, Coggeshall, Essex CO6 1NT, U.K., tel: 01376 563811; fax: 01376 562453; e-mail: sales@prnmediasales.co.uk; ISSN: 01376 562673.
<table>
<thead>
<tr>
<th>Article Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modulation of spontaneous transmitter release from the frog neuromuscular</td>
<td>E. Brailoiu, S. Patel and N.J. Dun</td>
<td>313–318</td>
</tr>
<tr>
<td>junction by interacting intracellular Ca&lt;sup&gt;2+&lt;/sup&gt; stores: critical role</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for nicotinic acid–adenine dinucleotide phosphate (NAADP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 16 May 2003, DOI 10.1042/BJ20030472</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure of xylose reductase bound to NAD&lt;sup&gt;+&lt;/sup&gt; and the basis for</td>
<td>K.L. Kavanagh, M. Klimacek, B. Nidetzky and D.K. Wilson</td>
<td>319–326</td>
</tr>
<tr>
<td>single and dual co-substrate specificity in family 2 aldo-keto reductases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 6 May 2003, DOI 10.1042/BJ20030258</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence that TRPC1 (transient receptor potential canonical 1) forms a Ca&lt;sup&gt;2+&lt;/sup&gt;-permeable channel linked to the regulation of cell volume in liver cells obtained using small interfering RNA targeted against TRPC1</td>
<td>J. Chen and G.J. Barritt</td>
<td>327–336</td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 29 April 2003, DOI 10.1042/BJ20031904</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of calcium ions on the irreversible denaturation of a recombinant Bacillus halmapalus α-amylase: a calorimetric investigation</td>
<td>A.D. Nielsen, C.C. Fuglsang and P. Westh</td>
<td>337–343</td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 11 April 2003, DOI 10.1042/BJ20021220</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Induction of glycosylation in human C-reactive protein under different pathological conditions</td>
<td>T. Das, A. Sen, T. Kempf, S.R. Pramanik, C. Mandal and C. Mandal</td>
<td>345–355</td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20031701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinctive properties and expression profiles of glutamine synthetase from a plant symbiotic fungus</td>
<td>B. Montanini, M. Betti, A.J. Márquez, R. Balestrini, P. Bonfante and S. Ottonello</td>
<td>357–368</td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 8 April 2003, DOI 10.1042/BJ20030152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 4 April 2003, DOI 10.1042/BJ20021892</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 25 April 2003, DOI 10.1042/BJ20021958</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A novel strategy for the development of selective active-site inhibitors of the protein tyrosine phosphatase-like proteins islet-cell antigen 512 (IA-2) and phogrin (IA-2β)</td>
<td>P.G. Drake, G.H. Peters, H.S. Andersen, W. Hendriks and N.P.H. Møller</td>
<td>393–401</td>
</tr>
<tr>
<td>Published as BJ Immediate Publication 15 April 2003, DOI 10.1042/BJ20021851</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A colourless green fluorescent protein homologue from the non-fluorescent hydromedusa *Aequorea coerulescens* and its fluorescent mutants
Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20021966

EWI-2 is a new component of the tetraspanin web in hepatocytes and lymphoid cells
Published as BJ Immediate Publication 23 April 2003, DOI 10.1042/BJ20030343

Biochemical characterization of the active heterodimer form of human heparanase (*Hpa1*) protein expressed in insect cells
Published as BJ Immediate Publication 25 April 2003, DOI 10.1042/BJ20030316

Structural and functional characterization of recombinant mouse annexin A11: influence of calcium binding
Published as BJ Immediate Publication 11 April 2003, DOI 10.1042/BJ20021721

A computational model on the modulation of mitogen-activated protein kinase (MAPK) and Akt pathways in heregulin-induced ErbB signalling
Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20030284

Transposon-5 mutagenesis transforms *Corynebacterium matruchotii* to synthesize novel hybrid fatty acids that functionally replace corynomycolic acid
Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20030248
K. Takayama, B. Hayes, M.M. Vestling and R.J. Massey 465–474

Processing of α4 integrin by the proprotein convertases: histidine at position P6 regulates cleavage
Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20021630
E. Bergeron, A. Basak, E. Decroly and N.G. Seidah 475–484

Stability and conformational properties of doppel, a prion-like protein, and its single-disulphide mutant
Published as BJ Immediate Publication 28 March 2003, DOI 10.1042/BJ20021911

Characterization of XYN10B, a modular xylanase from the ruminal protozoan *Polyplostron multivesiculatum*, with a family 22 carbohydrate-binding module that binds to cellulose
Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20021784

Okadaic acid-induced, naringin-sensitive phosphorylation of glycine N-methyltransferase in isolated rat hepatocytes
Published as BJ Immediate Publication 16 April 2003, DOI 10.1042/BJ20030562
M.T.N. Müller, H.R. Samari, M. Fengsrudd, P.E. Stromhaug, A.C. Østvold and P.O. Seglen 505–513

Relationship between bacterial virulence and nucleotide metabolism: a mutation in the adenylate kinase gene renders *Yersinia pestis* avirulent
Published as BJ Immediate Publication 15 April 2003, DOI 10.1042/BJ20030284

Identification of a quinoxaline derivative that is a potent telomerase inhibitor leading to cellular senescence of human cancer cells
Published as BJ Immediate Publication 10 April 2003, DOI 10.1042/BJ20030363

Subcellular localization of methionine sulfoxide reductase A (MsrA): evidence for mitochondrial and cytosolic isoforms in rat liver cells
Published as BJ Immediate Publication 14 April 2003, DOI 10.1042/BJ20030443
S. Vougier, J. Mary and B. Friguet 531–537
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A novel amphibian Pi-class glutathione transferase isoenzyme from <em>Xenopus laevis</em>: importance of phenylalanine 111 in the H-site</td>
<td>A. De Luca, B. Favaloro, E. Carletti, P. Sacchetta and C. Di Ilio</td>
<td>539–545</td>
</tr>
<tr>
<td>Biochemical and genetic characterization of a murine class Kappa glutathione S-transferase</td>
<td>I.R. Jowsey, R.E. Thomson, T.C. Orton, C.R. Elcombe and J.D. Hayes</td>
<td>559–569</td>
</tr>
<tr>
<td>Inhibition of protein kinase C catalytic activity by additional regions within the human protein kinase Cα-regulatory domain lying outside of the pseudosubstrate sequence</td>
<td>A.F. Kirwan, A.C. Bibby, T. Mvilongo, H. Riedel, T. Burke, S.Z. Millis and A.M. Parissenti</td>
<td>571–581</td>
</tr>
<tr>
<td>Mutational analysis of ribosomal S6 kinase 2 shows differential regulation of its kinase activity from that of ribosomal S6 kinase 1</td>
<td>S. Phin, D. Kupferwasser, J. Lam and K.K. Lee-Fruman</td>
<td>583–591</td>
</tr>
<tr>
<td>Interaction of the 268–282 region of glycoprotein Ibα with the heparin-binding site of thrombin inhibits the enzyme activation of factor VIII</td>
<td>R. De Cristofaro and V. De Filippis</td>
<td>593–601</td>
</tr>
<tr>
<td>Ca²⁺-independent protein kinase C activity is required for α₁-adrenergic-receptor-mediated regulation of ribosomal protein S6 kinases in adult cardiomyocytes</td>
<td>L. Wang, M. Rolfe and C.G. Proud</td>
<td>603–611</td>
</tr>
<tr>
<td>C-terminal fragment of tetanus toxin heavy chain activates Akt and MEK/ERK signalling pathways in a Trk receptor-dependent manner in cultured cortical neurons</td>
<td>C. Gil, I. Chaib-Oukadour and J. Aguilera</td>
<td>613–620</td>
</tr>
<tr>
<td>Adenosine-5'-O-phosphorylated and adenosine-5'-O-phosphorothioylated polyols as strong inhibitors of (symmetrical) and (asymmetrical) dinucleoside tetraphosphatases</td>
<td>A. Guranson, E. Starzynska, A.G. McLennan, J. Baraniak and W.J. Stec</td>
<td>635–640</td>
</tr>
</tbody>
</table>
EDITORIAL ADVISORY PANEL (continued)

Z. Radić (La Jolla)
S. Rahman (London)
D. P. Ramji (Cardiff)
M. Rattray (London)
F. X. Real (Barcelona)
C. C. Reddy (University Park, PA)
C. P. F. Redfern (Newcastle upon Tyne)
R. J. Reece (Manchester)
R. A. F. Reithmeier (Toronto)
P. S. Rennie (Vancouver)
P. J. Richardson (Cambridge)
C. C. Rider (Egham)
M. H. Rider (Brussels)
L. Rönnstrand (Malmo)
H. Rosen (La Jolla)
G. Rotilio (Rome)
F. Russo-Marie (Paris)
K. S. Sakariassen (Uppsala)
J. P. Salier (Rouen)
J. Savill (Edinburgh)
J. R. Sayers (Sheffield)
M. F. G. Schmidt (Berlin)
N. S. Scruton (Leicester)
M. C. Seabra (London)
K. Seedorf (Hamburg)
A. W. Segal (London)
L. M. Shantz (Hershey)
S. D. Shapiro (Boston)
M. Shearman (Harlow)
S. B. Shears
(Research Triangle Park, NC)
D. Sheehan (Cork)
P. R. Shepherd (London)
Y. Shimomura (Nagoya)
K. Siddle (Cambridge)
H. Sies (Dusseldorf)
H. Sjöström (Copenhagen)
F. M. Sladek (Riverside, CA)
D. M. Smith (Macclesfield)
S. Spadari (Pavia)
F. Spener (Münster)
A. K. Stobart (Bristol)
W. Stocker (Münster)
G. J. Strous (Utrecht)
T. W. Sturgill (Charlottesville)
K. E. Suckling (Stevenage)
B. Svensson (Copenhagen)
C. W. Taylor (Cambridge)
A. Tepikin (Liverpool)
M. Thelen (Bellinzona)
N. S. B. Thomas (London)
D. Thornton (Manchester)
C. Tickle (Dundee)
D. Tosh (Bath)
P. Trayhurn (Liverpool)
C. M. Troy (New York)
A. J. Trewavas (Edinburgh)
J. T. Trifft (Oxford)
G. C. Tsokos
(Silver Spring, MD)
J. Turnbull (Birmingham)
B. M. Turner (Birmingham)
B. Ullman (Portland, OR)
L. M. G. van Golde (Utrecht)
S. van Heyningen (Leicester)
M. C. Seabra (London)
K. Seedorf (Hamburg)
A. W. Segal (London)
L. M. Shantz (Hershey)
S. D. Shapiro (Boston)
M. Shearman (Harlow)
S. B. Shears
(Research Triangle Park, NC)
D. Sheehan (Cork)
P. R. Shepherd (London)
Y. Shimomura (Nagoya)
K. Siddle (Cambridge)
H. Sies (Dusseldorf)
H. Sjöström (Copenhagen)
F. M. Sladek (Riverside, CA)
D. M. Smith (Macclesfield)
S. Spadari (Pavia)
F. Spener (Münster)
A. K. Stobart (Bristol)
W. Stocker (Münster)
G. J. Strous (Utrecht)
T. W. Sturgill (Charlottesville)
K. E. Suckling (Stevenage)
B. Svensson (Copenhagen)
C. W. Taylor (Cambridge)
A. Tepikin (Liverpool)
M. Thelen (Bellinzona)
N. S. B. Thomas (London)
D. Thornton (Manchester)
C. Tickle (Dundee)
D. Tosh (Bath)
P. Trayhurn (Liverpool)
C. M. Troy (New York)
A. J. Trewavas (Edinburgh)
J. T. Trifft (Oxford)
G. C. Tsokos
(Silver Spring, MD)
J. Turnbull (Birmingham)
B. M. Turner (Birmingham)
B. Ullman (Portland, OR)
L. M. G. van Golde (Utrecht)
S. van Heyningen (Leicester)
M. C. Seabra (London)
K. Seedorf (Hamburg)
A. W. Segal (London)
L. M. Shantz (Hershey)
S. D. Shapiro (Boston)
M. Shearman (Harlow)
S. B. Shears
(Research Triangle Park, NC)
D. Sheehan (Cork)
P. R. Shepherd (London)
Y. Shimomura (Nagoya)
K. Siddle (Cambridge)
H. Sies (Dusseldorf)
H. Sjöström (Copenhagen)
F. M. Sladek (Riverside, CA)
D. M. Smith (Macclesfield)
S. Spadari (Pavia)
F. Spener (Münster)
A. K. Stobart (Bristol)
W. Stocker (Münster)
G. J. Strous (Utrecht)
T. W. Sturgill (Charlottesville)
K. E. Suckling (Stevenage)
B. Svensson (Copenhagen)
C. W. Taylor (Cambridge)
A. Tepikin (Liverpool)
M. Thelen (Bellinzona)
N. S. B. Thomas (London)
D. Thornton (Manchester)
C. Tickle (Dundee)
D. Tosh (Bath)
P. Trayhurn (Liverpool)
C. M. Troy (New York)
A. J. Trewavas (Edinburgh)
J. T. Trifft (Oxford)
G. C. Tsokos
(Silver Spring, MD)
J. Turnbull (Birmingham)
B. M. Turner (Birmingham)
B. Ullman (Portland, OR)
L. M. G. van Golde (Utrecht)
S. van Heyningen (Leicester)
M. C. Seabra (London)
K. Seedorf (Hamburg)
A. W. Segal (London)
L. M. Shantz (Hershey)
S. D. Shapiro (Boston)
M. Shearman (Harlow)
S. B. Shears
(Research Triangle Park, NC)
D. Sheehan (Cork)
P. R. Shepherd (London)
Y. Shimomura (Nagoya)
K. Siddle (Cambridge)
H. Sies (Dusseldorf)
H. Sjöström (Copenhagen)
F. M. Sladek (Riverside, CA)
D. M. Smith (Macclesfield)
S. Spadari (Pavia)
F. Spener (Münster)
A. K. Stobart (Bristol)
W. Stocker (Münster)
G. J. Strous (Utrecht)
T. W. Sturgill (Charlottesville)
K. E. Suckling (Stevenage)
B. Svensson (Copenhagen)
C. W. Taylor (Cambridge)
A. Tepikin (Liverpool)
M. Thelen (Bellinzona)
N. S. B. Thomas (London)
D. Thornton (Manchester)
C. Tickle (Dundee)