

Editorial Board

Chair

P. R. Shepherd • Auckland

Vice Chair, The Americas

G. Salvesen • La Jolla, CA

Vice Chair, Asia-Pacific

T. Xu • Beijing

Vice Chair, Europe

D. R. Alessi • Dundee

Vice Chair Reviews

A. Toker • Boston, MA

Deputy Chairs

M. Blatt • Glasgow**J. F. Cáceres** • Edinburgh**D. Carling** • London**L. J. Goodyear** • Boston, MA**D. Hoekstra** • Groningen**S. Huber** • Urbana, IL**J. E. Ladbury** • Houston, TX**M. A. Lemmon** • Philadelphia, PA**C. MacKintosh** • Dundee**M. Murphy** • Cambridge**S. Roberts** • Buffalo, NY**M. A. Schwartz** • New Haven, CT**D. Tosh** • Bath**D. M. F. van Aalten** • Dundee**B. Vanhaesebroeck** • London**H. M. Wallace** • Aberdeen**M. F. White** • St Andrews

Publisher

P. J. Starley

Executive Editor

M. R. Thorne

Head of Production

M. D. Cunningham

Staff Editors

M. Banerjee**C. L. Curtis****E. A. G. Elloway****J. W. Mockridge****H. F. Roberts**

Editorial Assistant

P. D. Taylor

Administrative Editor, US Office

S. Schendel

Administrative Editor, China Office

L. Huo

S. M. Assmann (University Park, PA)

T. K. Attwood (Manchester)

J. M. Backer (Bronx, NY)

B. M. Baker (Notre Dame, IN)

J. E. Bear (Chapel Hill, NC)

J. L. Blank (Cambridge, MA)

M. A. Bogoyevitch (Melbourne)

L. H. Boise (Atlanta, GA)

J. Bolaños (Salamanca)

S. Bröer (Canberra)

P. S. Brookes (Rochester, NY)

N. J. Buckley (London)

D. Burger (Geneva)

M. Cascante (Barcelona)

R. A. Casero, Jr (Baltimore, MD)

Y.-G. Chen (Beijing)

L. Chernomordik (Bethesda, MD)

A. C. Clark (Raleigh, NC)

V. Darley-Usmar (Birmingham, AL)

M. J. Davies (Sydney)

B. Davis (Oxford)

L. A. Devi (New York, NY)

I. Dikic (Frankfurt)

R. Docampo (Athens, GA)

D. Doyle (Dublin)

C. S. Duckett (Ann Arbor, MI)

A. F. Dulhunty (Canberra)

S. Flitsch (Manchester)

P. G. W. Gettins (Chicago, IL)

B. Halliwell (Singapore)

J. A. Hardy (Amherst, MA)

J. M. Horowitz (Raleigh, NC)

E. Ikonen (Helsinki)

A. Imberty (Grenoble)

D. A. Jans (Monash)

P. A. Jeggo (Brighton)

D. Jordan (Peoria, IL)

M. G. Kazanietz (Philadelphia, PA)

Z. Knight (New York, NY)

D. Komander (Cambridge)

D. W. Laird (London, ON)

K. Lingelbach (Marburg)

D. W. Litchfield (London, ON)

B. Luisi (Cambridge)

B. D. Manning (Boston, MA)

M. McManus (Palmerston North)

G. Melino (Leicester)

J. Miernyk (Columbia, MO)

E. T. Morgan (Atlanta, GA)

M. Muckenthaler (Heidelberg)

B. Mulloy (South Mimms)

A. W. Munro (Manchester)

G. Murphy (Cambridge)

H. Y. Naim (Hannover)

J. H. Naismith (St Andrews)

A. R. Nebreda (Barcelona)

W. Ogawa (Kobe)

M. Okada (Osaka)

G. Panayotou (Vare)

D. Pei (Columbus, OH)

N. D. Perkins (Newcastle)

P. F. Pilch (Boston, MA)

W. C. Plaxton (Kingston, ON)

S. Ponnambalam (Leeds)

R. Y. Poon (Hong Kong)

B. V. L. Potter (Bath)

Z. Radić (La Jolla, CA)

K. Rittinger (London)

M. F. Roberts (Boston, MA)

J. M. Sanchez-Ruiz (Granada)

R. Sasisekharan (Cambridge, MA)

N. Savery (Bristol)

J. R. Sayers (Sheffield)

K. Schumacher (Heidelberg)

P. T. Schumacker (Chicago, IL)

F. J. Sharom (Guelph, ON)

R. J. Shaw (La Jolla, CA)

G. S. Shelness (Winston-Salem, NC)

H. Shimano (Tsukuba City)

J. Slack (Minneapolis, MN)

S. Spiegel (Richmond, VA)

W. M. Stark (Glasgow)

H. Stenmark (Oslo)

C. Tickle (Bath)

N. K. Tonks (Cold Spring Harbor, NY)

C. Tournier (Manchester)

C. Troy (New York, NY)

H. D. Ulrich (South Mimms)

A. J. Vidal-Puig (Cambridge)

H. J. Vogel (Calgary, AB)

S. P. Watson (Birmingham)

S. Whitney (Canberra)

C. Winterbourn (Christchurch, NZ)

D. Withers (London)

D. Wu (Guangzhou)

A. Xu (Hong Kong)

H.-W. Xue (Shanghai)

I. Zachary (London)

C. Zurzolo (Paris)



- Journal compilation © 2012 Biochemical Society
- The *Biochemical Journal* (ISSN 0264-6021 for print/online journal; ISSN 1470-8728 for online only journal) is published and distributed by Portland Press Limited on behalf of the Biochemical Society (the owner), and appears twice monthly (24 issues).
- **Editorial and publishing offices:** *Biochemical Journal*, Portland Press Limited, Third Floor, Charles Darwin House, 12 Roger Street, London WC1N 2JU, U.K.
- **US agent:** c/o Mercury International, 365 Blair Road, Avenel, NJ 07001, U.S.A.
- **Subscriptions department:** Portland Customer Services, P.O. Box 32, Commerce Way, Colchester CO2 8HP, U.K.
- All rights reserved. Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, this publication may be reproduced, stored or transmitted, in any forms or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction in accordance with the terms of permissions granted by copyright clearing houses such as the Copyright Licensing Agency (U.K.) or the Copyright Clearance Center (U.S.A.). The CCC item-fee code for this publication is 0264-6021/2012/\$50.00 + 0.00. Inquiries concerning reproduction outside those terms should be sent to the publishers at the above-mentioned address.
- Although, at the time of going to press, the information contained in this publication is believed to be correct, neither the authors nor the editors nor the publisher assume any responsibility for any errors or omissions herein contained. Opinions expressed in articles are not necessarily those of the editors, the publisher or the owner.
- Periodicals postage paid at Rahway, NJ, U.S.A.
- **Postmaster:** send address corrections to *Biochemical Journal*, c/o Mercury International, 365 Blair Road, Avenel, NJ 07001, U.S.A.
- **Cover design:** Angie Moyes (www.fuz.co.uk).
- **Cover image credits:** M. Sharon Stack, University of Missouri; Carmen A. Mannella, Research and Technology Wadsworth Center, Albany, NY; Nottingham *Arabidopsis* Stock Centre (NASC); G. P. Côté, Kingston, Ont.; G. Salvesen, La Jolla; Dr Gordon Beahes, Newcastle University.

● **General policy** The *Biochemical Journal* publishes papers in English in all fields of biochemistry and cellular and molecular biology, provided that they make a sufficient contribution to knowledge in these fields. 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, although these papers should also contain some experimental testing of the theory. 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 unrefereed 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 elsewhere in the same form, in any language, without the consent of the Society. Authors will be required to sign an undertaking to these effects.

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. Colour figures will be published free of charge in APs, provided the use of colour is deemed scientifically necessary by the reviewers.

Reviews will usually be solicited, although unsolicited reviews will be considered for publication. Prospective writers of reviews should first consult the Reviews Editor, via the editorial office, and should enclose a short (one 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 and the number of text words reduced accordingly.

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' must 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.

● **Submit manuscripts online** Authors should submit manuscripts electronically using the Online Submission and Review System available at <http://www.BiochemJ.org/submit/>

● **Immediate Publications** Manuscripts are 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.

● **Opt2Pay** Choose to make your paper freely available. For more information see www.biochemJ.org.

● **Queries and correspondence** Authors in the Americas should address all queries and correspondence about their submission to: Dr Sharon Schendel, BJ USA, The Sanford-Burnham Institute for Medical Research, 10901 N. Torrey Pines Road, La Jolla, CA 92037, U.S.A. (telephone +1 858 795 5283; fax +1 858 795 5284; email editorial@biochemjusa.org). Authors in China should contact: Dr Lin Huo, Institute of Biophysics, Chinese Academy of Sciences, Room 5202, 15 Datun Road, Chaoyang District, Beijing 100101 (telephone +86 10 64888573; email editorial@biochemj.cn). Authors in the U.K., the rest of Europe, Japan and the rest of the world should contact: The Publisher, *Biochemical Journal*, Portland Press Limited, Third Floor, Charles Darwin House, 12 Roger Street, London WC1N 2JL, U.K. (telephone +44 20 7685 2410; fax +44 20 7685 2469; email editorial@portlandpress.com).

● **Colour figures** Colour figures are published free of charge provided that the corresponding author on the published paper has been a Full or Early Career member of the Biochemical Society for at least 2 years and that the use of colour is deemed scientifically necessary by the reviewers. Otherwise the charges are £550 for the first colour figure and £300 for each subsequent colour figure.

● **Multimedia adjuncts** The Biochemical Journal Online offers authors the opportunity to enhance their papers with multimedia adjuncts (e.g. time-lapse movies, three-dimensional structures, animated schemes). 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, PDB for structures and Flash for animated schemes. There is no extra charge associated with the publication of a multimedia adjunct online.

● **COPE** The *Biochemical Journal* is a member of the Committee on Publication Ethics and endorses its guidelines, which are available at <http://publicationethics.org.uk>

Other information

The *Biochemical Journal* is published and distributed by Portland Press Limited on behalf of the Biochemical Society. It is published twice monthly; in 2012 volumes 441–448 (three parts each) will appear. The subscription also includes an author and key-word index.

● **Abstracted by/indexed in:** BIOBASE, BIOSIS, CAB International, Chemical Abstracts Service, Current Contents, EMBASE, International Food Information Service, Medline/Index Medicus, Proquest Information & Learning, Science Citation Index.

● **Subscription rates** Institutional subscription rates for 2012 are shown below. Subscribers to the *Biochemical Journal* can subscribe additionally to *Biochemical Society Transactions* on a joint subscription at a reduced rate (see www.portlandpress.com for further details). Terms are cash with order (US\$ in N. America, £ sterling for rest of the world, or US\$ equivalent at current rate of exchange; subscribers in the EU may

pay in £ sterling or Euros), or against pro forma invoice. Orders should be sent to the address shown, to your usual agent or purchased online at www.portlandpress.com.

	N. America	Rest of world	Euro price
One year (8 vols)	US\$4529	£2530	€3830
Print and online	US\$4076	£2278	€3446
Online only	US\$256	£130	€220
Single issues (print only)			

Overseas rates include airfreight delivery. Airtpeeded delivery is available at an additional cost of £92.85/\$142/€115.

Value Added Tax (VAT) on online-only and 'combined' subscriptions is due on 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 102–408 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 8HP, Essex, U.K.
(telephone 01206 796351; fax 01206 799331;
email sales@portland-services.com).

● **Advertising** Enquiries about advertising should be addressed to marketing@portlandpress.com.

● The paper and cover-boards used in this journal are sourced from sustainable, managed and renewed commercial forests, and are fully recyclable. The bleaching process used for the pulp is 100% ECF (elemental chlorine free).

Editorial

How can we make publishing less painful?

doi:10.1042/BJ20120214

P.R. Shepherd

1

Reviews**Antioxidant and bioenergetic coupling between neurons and astrocytes***Published on the Internet 14 March 2012,**doi:10.1042/BJ20111943*

S. Fernandez-Fernandez, A. Almeida and J.P. Bolaños



3–12

Replication fork dynamics and the DNA damage response*Published on the Internet 14 March 2012,**doi:10.1042/BJ20112100*

R.M. Jones and E. Petermann

13–26

Research Papers*n*–3 polyunsaturated fatty acids suppress phosphatidylinositol 4,5-bisphosphate-dependent actin remodelling during CD4⁺ T-cell activation*Published as BJ Immediate Publication 18 January 2012,**doi:10.1042/BJ20111589*

T.Y. Hou, J.M. Monk, Y.-Y. Fan, R. Barhoumi, Y.Q. Chen, G.M. Rivera, D.N. McMurray and R.S. Chapkin



27–37

The crystal structure of the Sox4 HMG domain–DNA complex suggests a mechanism for positional interdependence in DNA recognition

*Published as BJ Immediate Publication 19 December 2011,**doi:10.1042/BJ20111768*

R. Jauch, C.K.L. Ng, K. Narasimhan and P.R. Kolatkar

39–47

Structure–function studies of a plant tyrosyl-DNA phosphodiesterase provide novel insights into DNA repair mechanisms of *Arabidopsis thaliana**Published as BJ Immediate Publication 3 January 2012,**doi:10.1042/BJ20111308*

H. Kim, S.H. Na, S.-Y. Lee, Y.-M. Jeong, H.-J. Hwang, J.Y. Hur, S.-H. Park, J.-C. Woo and S.-G. Kim



49–56

The anti-neurodegenerative agent clioquinol regulates the transcription factor FOXO1a

*Published as BJ Immediate Publication 16 January 2012,**doi:10.1042/BJ20112124*

A.R. Cameron, K. Wallace, L. Logie, A.R. Prescott, T.G. Unterman, J. Harthill and G. Rena

57–64

A proximal pair of positive charges provides the dominant ligand-binding contribution to complement-like domains from the LRP (low-density lipoprotein receptor-related protein)

*Published as BJ Immediate Publication 20 December 2011,**doi:10.1042/BJ20111867*

P.G.W. Gettins and K. Dolmer

65–73

Lipocalin-type prostaglandin D synthase protects against oxidative stress-induced neuronal cell death

*Published as BJ Immediate Publication 16 January 2012,**doi:10.1042/BJ20111889*

A. Fukuhara, M. Yamada, K. Fujimori, Y. Miyamoto, T. Kusumoto, H. Nakajima and T. Inui



75–84

Distinct roles in folding, CD81 receptor binding and viral entry for conserved histidine residues of hepatitis C virus glycoprotein E1 and E2

*Published as BJ Immediate Publication 12 January 2012,**doi:10.1042/BJ20110868*

I. Boo, K. teWierik, F. Douam, D. Lavillette, P. Poubourios and H.E. Drummer

85–94

Biochemical identification of the OsMKK6–OsMPK3 signalling pathway for chilling stress tolerance in rice






*Published as BJ Immediate Publication 16 January 2012,**doi:10.1042/BJ20111792*

G. Xie, H. Kato and R. Imai



95–102

Contents

- Serum copper as a novel biomarker for resistance to thyroid hormone
Published as BJ Immediate Publication 6 January 2012, doi:10.1042/BJ20111817
- Fructose 2,6-bisphosphate is essential for glucose-regulated gene transcription of glucose-6-phosphatase and other ChREBP target genes in hepatocytes
Published as BJ Immediate Publication 3 January 2012, doi:10.1042/BJ20111280
- Autoinhibition mechanism of the plasma membrane calcium pump isoforms 2 and 4 studied through lipid-protein interaction
Published as BJ Immediate Publication 4 January 2012, doi:10.1042/BJ20111035
- The Q43L mutant of neuregulin 2 β is a pan-ErbB receptor antagonist
Published as BJ Immediate Publication 5 January 2012, doi:10.1042/BJ20110921
- ROCKII Ser¹³⁶⁶ phosphorylation reflects the activation status
Published as BJ Immediate Publication 24 January 2012, doi:10.1042/BJ20111839
- Transcriptional regulation mechanisms of hypoxia-induced neuroglobin gene expression
Published as BJ Immediate Publication 13 January 2012, doi:10.1042/BJ20111856
- Activating transcription factor 4-dependent induction of FGF21 during amino acid deprivation
Published as BJ Immediate Publication 11 January 2012, doi:10.1042/BJ20111748
- The guanine-nucleotide-exchange factor P-Rex1 is activated by protein phosphatase 1 α
Published as BJ Immediate Publication 16 January 2012, doi:10.1042/BJ20112078
- Phosphate is not an absolute requirement for the inhibitory effects of cyclosporin A or cyclophilin D deletion on mitochondrial permeability transition
Published as BJ Immediate Publication 11 January 2012, doi:10.1042/BJ20111881
- AMP-activated protein kinase phosphorylates and inactivates liver glycogen synthase
Published as BJ Immediate Publication 11 January 2012, doi:10.1042/BJ20112026
- The yeast vacuolar Rab GTPase Ypt7p has an activity beyond membrane recruitment of the homotypic fusion and protein sorting-Class C Vps complex
Published as BJ Immediate Publication 16 December 2011, doi:10.1042/BJ20110687
- Transcriptional control of glyoxalase 1 by Nrf2 provides a stress-responsive defence against dicarbonyl glycation
Published as BJ Immediate Publication 22 December 2011, doi:10.1042/BJ20111648
- The importance of an asymmetric distribution of acidic lipids for synaptotagmin 1 function as a Ca²⁺ sensor
Published as BJ Immediate Publication 9 January 2012, doi:10.1042/BJ20112044
- New mimetic peptides of the kinase-inhibitory region (KIR) of SOCS1 through focused peptide libraries
Published as BJ Immediate Publication 14 December 2011, doi:10.1042/BJ20111647
- J. Mittag, T. Behrends, K. Nordström, J. Anselmo, B. Vennström and L. Schomburg
- C. Arden, S.J. Tudhope, J.L. Petrie, Z.H. Al-Oanzi, K.S. Cullen, A.J. Lange, H.C. Towle and L. Agius
- I.C. Mangialavori, G. Corradi, D.E. Rinaldi, M.C. de la Fuente, H.P. Adamo and J.P.F.C. Rossi
- K.J. Wilson, C.P. Mill, R.M. Gallo, E.M. Cameron, H. VanBrocklin, J. Settleman and D.J. Riese, II
- H.-H. Chuang, C.-H. Yang, Y.-G. Tsay, C.-Y. Hsu, L.-M. Tseng, Z.-F. Chang and H.-H. Lee
- N. Liu, Z. Yu, S. Xiang, S. Zhao, A. Tjärnlund-Wolf, C. Xing, J. Zhang and X. Wang
- A.L. De Sousa-Coelho, P.F. Marrero and D. Haro
- M.A. Barber, A. Hendrickx, M. Beullens, H. Ceulemans, D. Oxley, S. Thelen, M. Thelen, M. Bollen and H.C.E. Welch
- A.M. McGee and C.P. Baines
- L. Bultot, B. Guigas, A. Von Wilamowitz-Moellendorff, L. Maisin, D. Vertommen, N. Hussain, M. Beullens, J.J. Guinovart, M. Foretz, B. Viollet, K. Sakamoto, L. Hue and M.H. Rider
- C. Stroupe
- M. Xue, N. Rabbani, H. Momiji, P. Imbasi, M.M. Anwar, N. Kitteringham, B.K. Park, T. Souma, T. Moriguchi, M. Yamamoto and P.J. Thornalley
- Y. Lai and Y.-K. Shin
- N. Doti, P.L. Scognamiglio, S. Madonna, C. Scarponi, M. Ruvo, G. Perretta, C. Albanesi and D. Marasco
-  103–109
- 111–123
- 125–131
-  133–144
-  145–151
- 153–164
- 165–171
-  173–183
- 185–191
-  193–203
- 205–211
-  213–222
- 223–229
-  231–240

The human gene <i>SLC25A17</i> encodes a peroxisomal transporter of coenzyme A, FAD and NAD ⁺ <i>Published as BJ Immediate Publication 21 December 2011, doi:10.1042/BJ20111420</i>	G. Agrimi, A. Russo, P. Scarcia and F. Palmieri	241–247
Angiotensin II-dependent phosphorylation at Ser ¹¹ /Ser ¹⁸ and Ser ⁹³⁸ shifts the E ₂ conformations of rat kidney Na ⁺ /K ⁺ -ATPase <i>Published as BJ Immediate Publication 1 December 2011, doi:10.1042/BJ20111398</i>	K.J. Massey, Q. Li, N.F. Rossi, R.R. Mattingly and D.R. Yingst	249–258
Caveolae optimize tissue factor–Factor VIIa inhibitory activity of cell-surface-associated tissue factor pathway inhibitor <i>Published as BJ Immediate Publication 12 January 2012, doi:10.1042/BJ20111994</i>	S.A. Maroney, P.E. Ellery, J.P. Wood, J.P. Ferrel, C.E. Bonesho and A.E. Mast	259–266
Novel sterol metabolic network of <i>Trypanosoma brucei</i> procyclic and bloodstream forms <i>Published as BJ Immediate Publication 19 December 2011, doi:10.1042/BJ20111849</i>	C.R. Nes, U.K. Singha, J. Liu, K. Ganapathy, F. Villalta, M.R. Waterman, G.I. Lepesheva, M. Chaudhuri and W.D. Nes	267–277
Catalytic residues and a predicted structure of tetrahydrobiopterin-dependent alkylglycerol mono-oxygenase <i>Published as BJ Immediate Publication 6 January 2012, doi:10.1042/BJ20111509</i>	K. Watschinger, J.E. Fuchs, V. Yarov-Yarovoy, M.A. Keller, G. Golderer, A. Hermetter, G. Werner-Felmayer, N. Hulo and E.R. Werner	279–286
Mechanism and specificity of the human paracaspase MALT1 <i>Published as BJ Immediate Publication 6 February 2012, doi:10.1042/BJ20120035</i>	J. Hachmann, S.J. Snipas, B.J. van Raam, E.M. Cancino, E.J. Houlihan, M. Poreba, P. Kasperkiewicz, M. Drag and G.S. Salvesen	287–295
Epithelial–mesenchymal interaction during UVB-induced up-regulation of neutral endopeptidase <i>Published on the Internet 14 March 2012, doi:10.1042/BJ20111876</i>	H. Nakajima, Y. Ezaki, T. Nagai, R. Yoshioka and G. Imokawa	297–305
Pentosan polysulfate increases affinity between ADAMTS-5 and TIMP-3 through formation of an electrostatically driven trimolecular complex <i>Published as BJ Immediate Publication 3 February 2012, doi:10.1042/BJ20112159</i>	L. Troeberg, B. Mulloy, P. Ghosh, M.-H. Lee, G. Murphy and H. Nagase	307–315
A critical tyrosine residue determines the uncoupling protein-like activity of the yeast mitochondrial oxaloacetate carrier <i>Published as BJ Immediate Publication 11 January 2012, doi:10.1042/BJ20110992</i>	L.A. Luévano-Martínez, C. Barba-Ostria, D. Araiza-Olivera, N. Chiquete-Félix, S. Guerrero-Castillo, E. Rial, D. Georgellis and S. Uribe-Carvajal	317–325



Corrections

Structural stabilization of protein 4.1R FERM domain upon binding to apo-calmodulin: novel insights into the biological significance of the calcium-independent binding of calmodulin to protein 4.1R	W. Nunomura, D. Sasakura, K. Shiba, S. Nakamura, S.-i. Kidokoro, Y. Takakuwa	327
Interfacial water molecules in SH3 interactions: a revised paradigm for polyproline recognition	J. Martin-Garcia, J. Ruiz-Sanz and I. Luque	328
Identification of autophosphorylation sites in eukaryotic elongation factor-2 kinase	S. Pyr Dit Ruys, X. Wang, E.M. Smith, G. Herinckx, N. Hussain, M.H. Rider, D. Vertommen and C.G. Proud	328

Editorial Board

Chair

P. R. Shepherd • Auckland

Vice Chair, The Americas

G. Salvesen • La Jolla, CA

Vice Chair, Asia-Pacific

T. Xu • Beijing

Vice Chair, Europe

D. R. Alessi • Dundee

Vice Chair Reviews

A. Toker • Boston, MA

Deputy Chairs

M. Blatt • Glasgow**J. F. Cáceres** • Edinburgh**D. Carling** • London**L. J. Goodyear** • Boston, MA**D. Hoekstra** • Groningen**S. Huber** • Urbana, IL**J. E. Ladbury** • Houston, TX**M. A. Lemmon** • Philadelphia, PA**C. MacKintosh** • Dundee**M. Murphy** • Cambridge**S. Roberts** • Buffalo, NY**M. A. Schwartz** • New Haven, CT**D. Tosh** • Bath**D. M. F. van Aalten** • Dundee**B. Vanhaesebroeck** • London**H. M. Wallace** • Aberdeen**M. F. White** • St Andrews

Publisher

P. J. Starley

Executive Editor

M. R. Thorne

Head of Production

M. D. Cunningham

Staff Editors

M. Banerjee**C. L. Curtis****E. A. G. Elloway****J. W. Mockridge****H. F. Roberts**

Editorial Assistant

P. D. Taylor

Administrative Editor, US Office

S. Schendel

Administrative Editor, China Office

L. Huo

S. M. Assmann (University Park, PA)

T. K. Attwood (Manchester)

J. M. Backer (Bronx, NY)

B. M. Baker (Notre Dame, IN)

J. E. Bear (Chapel Hill, NC)

J. L. Blank (Cambridge, MA)

M. A. Bogoyevitch (Melbourne)

L. H. Boise (Atlanta, GA)

J. Bolaños (Salamanca)

S. Bröer (Canberra)

P. S. Brookes (Rochester, NY)

N. J. Buckley (London)

D. Burger (Geneva)

M. Cascante (Barcelona)

R. A. Casero, Jr (Baltimore, MD)

Y.-G. Chen (Beijing)

L. Chernomordik (Bethesda, MD)

A. C. Clark (Raleigh, NC)

V. Darley-Usmar (Birmingham, AL)

M. J. Davies (Sydney)

B. Davis (Oxford)

L. A. Devi (New York, NY)

I. Dikic (Frankfurt)

R. Docampo (Athens, GA)

D. Doyle (Dublin)

C. S. Duckett (Ann Arbor, MI)

A. F. Dulhunty (Canberra)

S. Flitsch (Manchester)

P. G. W. Gettins (Chicago, IL)

B. Halliwell (Singapore)

J. A. Hardy (Amherst, MA)

J. M. Horowitz (Raleigh, NC)

E. Ikonen (Helsinki)

A. Imberly (Grenoble)

D. A. Jans (Monash)

P. A. Jeggo (Brighton)

D. Jordan (Peoria, IL)

M. G. Kazanietz (Philadelphia, PA)

Z. Knight (New York, NY)

D. Komander (Cambridge)

D. W. Laird (London, ON)

K. Lingelbach (Marburg)

D. W. Litchfield (London, ON)

B. Luisi (Cambridge)

B. D. Manning (Boston, MA)

M. McManus (Palmerston North)

G. Melino (Leicester)

J. Miernyk (Columbia, MO)

E. T. Morgan (Atlanta, GA)

M. Muckenthaler (Heidelberg)

B. Mulloy (South Mimms)

A. W. Munro (Manchester)

G. Murphy (Cambridge)

H. Y. Naim (Hannover)

J. H. Naismith (St Andrews)

A. R. Nebreda (Barcelona)

W. Ogawa (Kobe)

M. Okada (Osaka)

G. Panayotou (Varese)

D. Pei (Columbus, OH)

N. D. Perkins (Newcastle)

P. F. Pilch (Boston, MA)

W. C. Plaxton (Kingston, ON)

S. Ponnambalam (Leeds)

R. Y. Poon (Hong Kong)

B. V. L. Potter (Bath)

Z. Radić (La Jolla, CA)

K. Rittinger (London)

M. F. Roberts (Boston, MA)

J. M. Sanchez-Ruiz (Granada)

R. Sasisekharan (Cambridge, MA)

N. Savery (Bristol)

J. R. Sayers (Sheffield)

K. Schumacher (Heidelberg)

P. T. Schumacker (Chicago, IL)

F. J. Sharom (Guelph, ON)

R. J. Shaw (La Jolla, CA)

G. S. Shelness (Winston-Salem, NC)

H. Shimano (Tsukuba City)

J. Slack (Minneapolis, MN)

S. Spiegel (Richmond, VA)

W. M. Stark (Glasgow)

H. Stenmark (Oslo)

C. Tickle (Bath)

N. K. Tonks (Cold Spring Harbor, NY)

C. Tournier (Manchester)

C. Troy (New York, NY)

H. D. Ulrich (South Mimms)

A. J. Vidal-Puig (Cambridge)

H. J. Vogel (Calgary, AB)

S. P. Watson (Birmingham)

S. Whitney (Canberra)

C. Winterbourn (Christchurch, NZ)

D. Withers (London)

D. Wu (Guangzhou)

A. Xu (Hong Kong)

H.-W. Xue (Shanghai)

I. Zachary (London)

C. Zurzolo (Paris)

PORTLAND PRESS Ltd

Third Floor, Charles Darwin House
12 Roger Street
London WC1N 2JU, U.K.



ISSN 0264-6021

Index of Authors

	PAGE		PAGE		PAGE		PAGE
Adamo, H. P.	125	Guerrero-Castillo, S.	317	Mattingly, R. R.	249	Shepherd, P. R.	1
Agius, L.	111	Guigas, B.	193	McGee, A. M.	185	Shiba, K.	327
Agrimi, G.	241	Guinovart, J. J.	193	McMurray, D. N.	27	Shin, Y.-K.	223
Albanesi, C.	231			Mill, C. P.	133	Singha, U. K.	267
Almeida, A.	3	Hachmann, J.	287	Mittag, J.	103	Smith, E. M.	328
Al-Oanzi, Z. H.	111	Haro, D.	165	Miyamoto, Y.	75	Snipas, S. J.	287
Anselmo, J.	103	Harthill, J.	57	Momiji, H.	213	Souma, T.	213
Anwar, M. M.	213	Hendrickx, A.	173	Monk, J. M.	27	Stroupe, C.	205
Araiza-Olivera, D.	317	Hermetter, A.	279	Moriguchi, T.	213		
Arden, C.	111	Herinckx, G.	328	Mulloy, B.	307	Takakuwa, Y.	327
		Hou, T. Y.	27	Murphy, G.	307	teWierik, K.	85
Baines, C. P.	185	Houlihan, E. J.	287			Thelen, M.	173
Barba-Ostria, C.	317	Hsu, C.-Y.	145	Na, S. H.	49	Thelen, S.	173
Barber, M. A.	173	Hue, L.	193	Nagai, T.	297	Thornalley, P. J.	213
Barhoumi, R.	27	Hulo, N.	279	Nagase, H.	307	Tjárnlund-Wolf, A.	153
Behrends, T.	103	Hur, J. Y.	49	Nakajima, Hidemitsu	75	Towle, H. C.	111
Beullens, M.	173, 193	Hussain, N.	193, 328	Nakajima, Hiroaki	297	Troeberg, L.	307
Bolaños, J. P.	3	Hwang, H.-J.	49	Nakamura, S.	327	Tsay, Y.-G.	145
Bollen, M.	173			Narasimhan, K.	39	Tseng, L.-M.	145
Bonesho, C. E.	259	Imai, R.	95	Nes, C. R.	267	Tudhope, S. J.	111
Boo, I.	85	Imbasi, P.	213	Nes, W. D.	267		
Bultot, L.	193	Imokawa, G.	297	Ng, C. K. L.	39	Unterman, T. G.	57
		Inui, T.	75	Nordström, K.	103	Uribe-Carvajal, S.	317
				Nunomura, W.	327		
Cameron, A. R.	57	Jauch, R.	39			VanBrocklin, H.	133
Cameron, E. M.	133	Jeong, Y.-M.	49	Oxley, D.	173	van Raam, B. J.	287
Cancino, E. M.	287	Jones, R. M.	13			Vennström, B.	103
Ceulemans, H.	173			Palmieri, F.	241	Vertommen, D.	193, 328
Chang, Z.-F.	145	Kasperkiewicz, P.	287	Park, B. K.	213	Villalta, F.	267
Chapkin, R. S.	27	Kato, H.	95	Park, S.-H.	49	Viollet, B.	193
Chaudhuri, M.	267	Keller, M. A.	279	Perretta, G.	231	Von Wilamowitz-Moellendorff, A.	193
Chen, Y. Q.	27	Kidokoro, S.-i.	327	Petermann, E.	13		
Chiquete-Félix, N.	317	Kim, H.	49	Petrie, J. L.	111	Wallace, K.	57
Chuang, H.-H.	145	Kim, S.-G.	49	Pyr Dit Ruys, S.	328	Wang, Xiaoying	153
Corradi, G.	125	Kitteringham, N.	213	Poreba, M.	287	Wang, Xuemin	328
Cullen, K. S.	111	Kolatkar, P. R.	39	Poumbourios, P.	85	Waterman, M. R.	267
		Kusumoto, T.	75	Prescott, A. R.	57	Watschinger, K.	279
				Proud, C. G.	328	Welch, H. C. E.	173
de la Fuente, M. C.	125	Lai, Y.	223			Werner, E. R.	279
De Sousa-Coelho, A. L.	165	Lange, A. J.	111	Rabbani, N.	213	Werner-Felmayer, G.	279
Dolmer, K.	65	Lavillette, D.	85	Rena, G.	57	Wilson, K. J.	133
Doti, N.	231	Lee, H.-H.	145	Rial, E.	317	Woo, J.-C.	49
Douam, F.	85	Lee, M.-H.	307	Rider, M. H.	193, 328	Wood, J. P.	259
Drag, M.	287	Lee, S.-Y.	49	Riese, II, D. J.	133		
Drummer, H. E.	85	Lepesheva, G. I.	267	Rinaldi, D. E.	125	Xiang, S.	153
		Li, Q.	249	Rivera, G. M.	27	Xie, G.	95
Ellery, P. E.	259	Liu, J.	267	Rossi, J. P. F. C.	125	Xing, C.	153
Ezaki, Y.	297	Liu, N.	153	Rossi, N. F.	249	Xue, M.	213
		Logie, L.	57	Ruiz-Sanz, J.	327		
Fan, Y.-Y.	27	Luévano-Martínez, L. A.	317	Russo, A.	241	Yamada, M.	75
Fernandez-Fernandez, S.	3	Luque, I.	327	Ruvo, M.	231	Yamamoto, M.	213
Ferrel, J. P.	259	Madonna, S.	231			Yang, C.-H.	145
Foretz, M.	193	Maisin, L.	193	Sakamoto, K.	193	Yarov-Yarovoy, V.	279
Fuchs, J. E.	279	Mangialavori, I. C.	125	Salvesen, G. S.	287	Yingst, D. R.	249
Fujimori, K.	75	Marasco, D.	231	Sasakura, D.	327	Yoshioka, R.	297
Fukuhara, A.	75	Maroney, S. A.	259	Scarcia, P.	241	Yu, Z.	153
		Marrero, P. F.	165	Scarponi, C.	231		
Gallo, R. M.	133	Martin-Garcia, J.	327	Schomburg, L.	103	Zhang, J.	153
Ganapathy, K.	267	Massey, K. J.	249	Scognamiglio, P. L.	231	Zhao, S.	153
Georgellis, D.	317	Mast, A. E.	259	Settleman, J.	133		
Gettins, P. G. W.	65						
Ghosh, P.	307						
Golderer, G.	279						