

Biochemical Journal

The Biochemical Society, London © 2005

Volume 388, part 1

15 May 2005

<http://www.BiochemJ.org>

Editorial Board

Chair

G. Banting • Bristol

Vice Chair, The Americas

G. Salvesen • La Jolla

Reviews Editor

J. D. Scott • Portland, OR

Deputy Chairs

R. A. J. Challiss • Leicester

S. V. Graham • Glasgow

S. Gutteridge • Newark, DE

D. Hoekstra • Groningen

N. M. Hooper • Leeds

J. P. Kehrer • Austin

C. MacKintosh • Dundee

K. H. Mayo • Minneapolis

H. M. Wallace • Aberdeen

M. P. Walsh • Calgary

Publisher

P. J. Starley

Production Editor

M. D. Cunningham

Senior Staff Editor

S. M. Hobday

Staff Editors

L. Ball

E. A. G. Elloway

L. Johnson

J. W. Mockridge

M. R. Thorne

Administrative Editor, US Office

S. Schendel

D. R. Alessi (Dundee)

A. Baici (Zurich)

G. J. Barritt (Adelaide)

J. L. Blank (Cambridge, MA)

M. Blatt (Glasgow)

P. G. Board (Canberra)

M. Bogyo (Stanford, CA)

P. J. Booth (Bristol)

L. Bosca (Madrid)

B. Brüne (Kaiserslautern)

D. Carling (London)

A. Clerk (London)

I. Collinson (Bristol)

G. P. Côté (Kingston, Ont.)

J. R. Couchman (London)

D. M. Davis (London)

D. A. Day (Sydney)

C. S. Duckett (Ann Arbor)

B. Engelmann (Munich)

R. M. Epand (Hamilton, Ont.)

D. A. Fell (Oxford)

R. Ferraris (Newark, NJ)

B. Foxwell (London)

J.-M. Frère (Liège)

A. Galione (Oxford)

P. G. W. Gettins (Chicago)

D. A. F. Gillespie (Glasgow)

R. Golsteyn (Croissy-sur-Seine)

S. Goodbourn (London)

P. A. Grimaldi (Nice)

B. Hallberg (Umeå)

P. I. Haris (Leicester)

L. Hedstrom (Waltham, MA)

F. G. Hegardt (Barcelona)

S. High (Manchester)

I. B. Holland (Orsay)

J. Hsuan (London)

S. Huber (Urbana, IL)

R. Kalluri (Boston)

B. Kalyanaraman (Milwaukee)

M. G. Kazanietz (Philadelphia)

I. M. Kovach (Washington D.C.)

P. W. Kuchel (Sydney)

R. Leduc (Sherbrooke)

E. R. Levin (Long Beach, CA)

L. Machesky (Birmingham)

R. Marais (London)

P. Maurel (Montpellier)

M. Meisterernst (Munich)

H. Mellor (Bristol)

I. Morgan (Glasgow)

W. Müller-Esterl (Frankfurt)

B. Mulloy (South Mimms)

A. W. Munro (Leicester)

M. P. Murphy (Cambridge)

M. E. Noble (Oxford)

L. M. Obeid (Charleston)

M. Parenti (Monza)

M. A. J. Parry (Harpندن)

S. Patel (London)

G. Pavitt (Manchester)

M. Paulsson (Cologne)

L. Persson (Lund)

A. D. Postle (Southampton)

N. J. Pyne (Glasgow)

D. R. Richardson (Sydney)

S. Roberts (Manchester)

N. J. P. Ryba (Bethesda)

J. Sandy (Tampa)

J. R. Sayers (Sheffield)

S. C. Sealfon (New York)

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

P. R. Shepherd (Auckland)

A. Sim (Callaghan, NSW)

B. F. Sloane (Detroit)

E. Smythe (Sheffield)

C. W. Taylor (Cambridge)

M. Thumm (Goettingen)

M. A. Titheradge (Brighton)

A. B. Tobin (Leicester)

A. Toker (Boston)

S. A. Tooze (London)

M. Torti (Pavia)

C. Troy (New York)

D. M. F. van Aalten (Dundee)

M. van der Woude (York)

B. Vanhaesebroeck (London)

S. G. Ward (Bath)

M. Welham (Bath)

J. F. Woessner (Miami)

J. York (Durham, NC)

C. Zurzolo (Paris)



- The *Biochemical Journal* (ISSN 0264-6021 for print/online journal; ISSN 1470-8728 for online only journal) is published and distributed by Portland Press Ltd on behalf of the Biochemical Society (the owner), and appears twice monthly.
- **Editorial and publishing offices:** *Biochemical Journal*, Portland Press Ltd, Third Floor, Eagle House, 16 Procter Street, London WC1V 6NX, U.K.
- **Biochemical Journal**, c/o Mercury Airfreight International Ltd, 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 0264-6021/2005/\$40.00 + 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 Airfreight International Ltd, 365 Blair Road, Avenel, NJ 07001, U.S.A.
- **Cover illustration:** The clustering of GPI-anchored green fluorescent protein in the target cell at the human natural killer cell immune synapse. Image kindly supplied by Konstantina Eleme and Daniel M. Davis (Imperial College, London).

● **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 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 unreferenced 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. 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** 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 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 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.

● **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; email 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*, Portland Press Ltd, Third Floor, Eagle House, 16 Procter Street, London WC1V 6NX, U.K. (telephone +44 20 7280 4110; fax +44 20 7280 4169; email 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 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 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 2005 volumes 386–392 (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 2005 are shown below. Subscribers to the *Biochemical Journal* can subscribe additionally to *Biochemical Society Transactions* and *Biotechnology 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; subscribers in the EU may pay in £ sterling or Euros), or against pro forma invoice. Orders should be sent to the address shown, or through your usual agent.

	N. America	Rest of world	Euro price
One year (8 vols) Print and online	US\$2830	£1496	€2545
Online only	US\$2500	£1325	€2250
Single issues (print only)	US\$138.70	£73	€124.10

Overseas rates include airfreight delivery. Priority delivery is available at an additional cost of £61.80/€105.

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 8HP, Essex, U.K.
(telephone 01206 796351; fax 01206 799331;
email sales@portland-services.com).

● **Advertising** Enquiries about advertising should be addressed to: Nicky Peacock, Mainline Media Ltd, The Barn, Oakley Hay Lodge Business Park, Great Folds Road, Great Oakley, Corby, Northamptonshire NN18 9AS, U.K. (telephone 01536 747333; email Nickyppm@aol.com).

Accelerated Publication

Fibulin-5 interacts with fibrillin-1 molecules and microfibrils
 Published as *BJ Immediate Publication* 24 March 2005,
 DOI 10.1042/BJ20050368

L.J. Freeman, A. Lomas, N. Hodson, M.J. Sherratt,
 K.T. Mellody, A.S. Weiss, A. Shuttleworth and C.M. Kiely **1–5**

Online Commentary

Spotting new DNA damage-responsive chromatin-binding proteins
 Published on the Internet 10 May 2005,
 DOI 10.1042/BJ20050503
 (see accompanying paper pp. 7–15)

B.N. Wardleworth and J.A. Downs **e1–e2**

Research Papers

A proteomics approach for the identification of nucleophosmin and heterogeneous nuclear ribonucleoprotein C1/C2 as chromatin-binding proteins in response to DNA double-strand breaks
 Published as *BJ Immediate Publication* 1 March 2005,
 DOI 10.1042/BJ20042033

S.Y. Lee, J.-H. Park, S. Kim, E.-J. Park,
 Y. Yun and J. Kwon **7–15**



Interferon- γ -dependent tyrosine phosphorylation of MEKK4 via Pyk2 is regulated by annexin II and SHP2 in keratinocytes
 Published as *BJ Immediate Publication* 16 December 2004,
 DOI 10.1042/BJ20041236

U.M. Halfter, Z.E. Derbyshire and R.R. Vaillancourt **17–28**

Molecular, functional and structural properties of the prolyl oligopeptidase of *Trypanosoma cruzi* (POP Tc80), which is required for parasite entry into mammalian cells
 Published as *BJ Immediate Publication* 7 December 2004,
 DOI 10.1042/BJ20041049

I.M.D. Bastos, P. Grellier, N.F. Martins,
 G. Cadavid-Restrepo, M.R. de Souza-Ault,
 K. Augustyns, A.R.L. Teixeira, J. Schrével,
 B. Maigret, J.F. da Silveira and J.M. Santana **29–38**



Truncated human serum albumin retains general anaesthetic binding activity
 Published as *BJ Immediate Publication* 6 January 2005,
 DOI 10.1042/BJ20041224

R. Liu, J. Yang, C.-E. Ha, N.V. Bhagavan
 and R.G. Eckenhoff **39–45**

Subcellular distribution of GABA_B receptor homo- and hetero-dimers
 Published as *BJ Immediate Publication* 23 December 2004,
 DOI 10.1042/BJ20041435

J.-F. Villemure, L. Adam, N.J. Bevan, K. Gearing,
 S. Chénier and M. Bouvier **47–55**

Decreased lipid efflux and increased susceptibility to cholesterol-induced apoptosis in macrophages lacking phosphatidylcholine transfer protein
 Published as *BJ Immediate Publication* 4 January 2005,
 DOI 10.1042/BJ20041899

J.M. Baez, I. Tabas and D.E. Cohen **57–63**

Pi class glutathione S-transferase genes are regulated by Nrf2 through an evolutionarily conserved regulatory element in zebrafish
 Published as *BJ Immediate Publication* 17 January 2005,
 DOI 10.1042/BJ20041860

T. Suzuki, Y. Takagi, H. Osanai, L. Li, M. Takeuchi,
 Y. Katoh, M. Kobayashi and M. Yamamoto **65–73**

Self-assembly of SNARE fusion proteins into star-shaped oligomers
 Published on the Internet 10 May 2005,
 DOI 10.1042/BJ20041818

C. Rickman, K. Hu, J. Carroll and B. Davletov **75–79**



Plasmin alters the activity and quaternary structure of human plasma carboxypeptidase N
 Published as *BJ Immediate Publication* 23 December 2004,
 DOI 10.1042/BJ20041471

M.O. Quagraine, F. Tan, H. Tamei, E.G. Erdös
 and R.A. Skidgel **81–91**

Cellular factors required for protection from hyperoxia toxicity in *Saccharomyces cerevisiae*
 Published as *BJ Immediate Publication* 10 January 2005,
 DOI 10.1042/BJ20041914

C.E. Outten, R.L. Falk and V.C. Culotta **93–101**



Internalization and trafficking of guanylyl (guanylate) cyclase/natriuretic peptide receptor A is regulated by an acidic tyrosine-based cytoplasmic motif GDAY <i>Published as BJ Immediate Publication 1 December 2004, DOI 10.1042/BJ20041250</i>	K.N. Pandey, H.T. Nguyen, R. Garg, M.L. Khurana and J. Fink	103–113
N-linked oligosaccharides are required to produce and stabilize the active form of chondroitin 4-sulphotransferase-1 <i>Published as BJ Immediate Publication 4 January 2005, DOI 10.1042/BJ20041573</i>	A. Yusa, K. Kitajima and O. Habuchi	115–121
Kinetic isotope effects and ligand binding in PQQ-dependent methanol dehydrogenase <i>Published as BJ Immediate Publication 23 December 2004, DOI 10.1042/BJ20041731</i>	P. Hothi, M.J. Sutcliffe and N.S. Scrutton	123–133
Characterization of human SCD2, an oligomeric desaturase with improved stability and enzyme activity by cross-linking in intact cells <i>Published as BJ Immediate Publication 20 December 2004, DOI 10.1042/BJ20041554</i>	S. Zhang, Y. Yang and Y. Shi	135–142
IRP1 Ser-711 is a phosphorylation site, critical for regulation of RNA-binding and aconitase activities <i>Published as BJ Immediate Publication 7 January 2005, DOI 10.1042/BJ20041623</i>	C. Fillebeen, A. Caltagirone, A. Martelli, J.-M. Moulis and K. Pantopoulos	143–150
LEA proteins prevent protein aggregation due to water stress <i>Published as BJ Immediate Publication 4 January 2005, DOI 10.1042/BJ20041931</i>	K. Goyal, L.J. Walton and A. Tunnacliffe	151–157
Synthesis and assembly of thylakoid protein complexes: multiple assembly steps of photosystem II <i>Published as BJ Immediate Publication 7 January 2005, DOI 10.1042/BJ20042098</i>	A. Rokka, M. Suorsa, A. Saleem, N. Battchikova and E.-M. Aro	159–168
Inositol phosphoceramide synthase is a regulator of intracellular levels of diacylglycerol and ceramide during the G ₁ to S transition in <i>Saccharomyces cerevisiae</i> <i>Published as BJ Immediate Publication 24 November 2004, DOI 10.1042/BJ20040475</i>	J. Cerbón, A. Falcon, C. Hernández-Luna and D. Segura-Cobos	169–176
Interactions between Cdc42 and the scaffold protein Scd2: requirement of SH3 domains for GTPase binding <i>Published as BJ Immediate Publication 5 January 2005, DOI 10.1042/BJ20041838</i>	E. Wheatley and K. Rittinger	177–184
Growth-factor-dependent phosphorylation of Bim in mitosis <i>Published as BJ Immediate Publication 14 January 2005, DOI 10.1042/BJ20041385</i>	M. Grãos, A.D. Almeida and S. Chatterjee	185–194
Molecular and genetic characterization of the interactions between the <i>Drosophila</i> stoned-B protein and DAP-160 (intersectin) <i>Published as BJ Immediate Publication 4 January 2005, DOI 10.1042/BJ20041797</i>	L.E. Kelly and A.M. Phillips	195–204
Molecular evidence that melatonin is enzymatically oxidized in a different manner than tryptophan: investigations with both indoleamine 2,3-dioxygenase and myeloperoxidase <i>Published as BJ Immediate Publication 7 January 2005, DOI 10.1042/BJ20042075</i>	G. Ferry, C. Ubeaud, P.-H. Lambert, S. Bertin, F. Cogé, P. Chomarat, P. Delagrance, B. Serkiz, J.-P. Bouchet, R.J.W. Truscott and J.A. Boutin	205–215
The transcriptional co-activator TAZ interacts differentially with transcriptional enhancer factor-1 (TEF-1) family members <i>Published as BJ Immediate Publication 4 January 2005, DOI 10.1042/BJ20041434</i>	W.M. Mahoney, Jr, J.-H. Hong, M.B. Yaffe and I.K.G. Farrance	217–225
Regulatory sequence responsible for insulin destabilization of cytochrome P450 2B1 (CYP2B1) mRNA <i>Published as BJ Immediate Publication 23 December 2004, DOI 10.1042/BJ20041510</i>	N.-T. Truong, A. Moncion, R. Barouki, P. Beaune and I. de Waziers	227–235
Evidence against reciprocal regulation of Ca ²⁺ entry by vasopressin in A7r5 rat aortic smooth-muscle cells <i>Published as BJ Immediate Publication 17 December 2004, DOI 10.1042/BJ20041360</i>	L.I. Brueggemann, D.R. Markun, J.A. Barakat, H. Chen and K.L. Byron	237–244
A mammalian fatty acid hydroxylase responsible for the formation of α -hydroxylated galactosylceramide in myelin <i>Published as BJ Immediate Publication 20 January 2005, DOI 10.1042/BJ20041451</i>	M. Eckhardt, A. Yaghoofam, S.N. Fewou, I. Zöller and V. Gieselmann	245–254
Flexibility in substrate recognition by thimet oligopeptidase as revealed by denaturation studies <i>Published as BJ Immediate Publication 13 January 2005, DOI 10.1042/BJ20041481</i>	J.A. Sigman, T.H. Patwa, A.V. Tablante, C.D. Joseph, M.J. Glucksman and A.J. Wolfson	255–261



An unusual fold for potassium channel blockers: NMR structure of three toxins from the scorpion <i>Opisthacanthus madagascariensis</i> <i>Published as BJ Immediate Publication 5 January 2005, DOI 10.1042/BJ20041705</i>	B. Chagot, C. Pimentel, L. Dai, J. Pil, J. Tytgat, T. Nakajima, G. Corzo, H. Darbon and G. Ferrat	263–271
Muscle endopin 1, a muscle intracellular serpin which strongly inhibits elastase: purification, characterization, cellular localization and tissue distribution <i>Published as BJ Immediate Publication 13 January 2005, DOI 10.1042/BJ20041921</i>	C. Tassy, C.H. Herrera-Mendez, M.A. Sentandreu, L. Aubry, L. Brémaud, P. Pélissier, D. Delourme, M. Brillard, F. Gauthier, H. Levézuel and A. Ouali	273–280
Characterization of two novel pacifastin-like peptide precursor isoforms in the desert locust (<i>Schistocerca gregaria</i>): cDNA cloning, functional analysis and real-time RT-PCR gene expression studies <i>Published as BJ Immediate Publication 4 January 2005, DOI 10.1042/BJ20041414</i>	G. Simonet, B. Breugelmanns, P. Proost, I. Claeys, J. Van Damme, A. De Loof and J. Vanden Broeck	281–289
Role of <i>cis</i> -acting elements in the control of SERCA2b Ca ²⁺ pump mRNA decay by nuclear proteins <i>Published as BJ Immediate Publication 19 January 2005, DOI 10.1042/BJ20041568</i>	C.M. Misquitta, P. Ghosh, J. Mwanjewe and A.K. Grover	291–297
A new class of glutathione S-transferase from the hepatopancreas of the red sea bream <i>Pagrus major</i> <i>Published as BJ Immediate Publication 20 December 2004, DOI 10.1042/BJ20041578</i>	T. Konishi, K. Kato, T. Araki, K. Shiraki, M. Takagi and Y. Tamaru	299–307
Sodium-coupled and electrogenic transport of B-complex vitamin nicotinic acid by slc5a8, a member of the Na/glucose co-transporter gene family <i>Published as BJ Immediate Publication 14 January 2005, DOI 10.1042/BJ20041916</i>	E. Gopal, Y.-J. Fei, S. Miyauchi, L. Zhuang, P.D. Prasad and V. Ganapathy	309–316
Role of the ERC motif in the proximal part of the second intracellular loop and the C-terminal domain of the human prostaglandin F _{2α} receptor (hFP-R) in G-protein coupling control <i>Published as BJ Immediate Publication 14 January 2005, DOI 10.1042/BJ20041321</i>	A. Pathe-Neuschäfer-Rube, F. Neuschäfer-Rube and G.P. Püschel	317–324
Negative autoregulation of HNF-4α gene expression by HNF-4α1 <i>Published as BJ Immediate Publication 14 January 2005, DOI 10.1042/BJ20041802</i>	J. Magenheim, R. Hertz, I. Berman, J. Noursbeck and J. Bar-Tana	325–332
Cyclic nucleotide phosphodiesterases in <i>Drosophila melanogaster</i> <i>Published as BJ Immediate Publication 27 January 2005, DOI 10.1042/BJ20050057</i>	J.P. Day, J.A.T. Dow, M.D. Houslay and S.-A. Davies	333–342
Identification and characterization of a second 4,4'-dibenzamido-2,2'-stilbenedisulphonate (DBDS)-binding site on band 3 and its relationship with the anion/proton co-transport function <i>Published as BJ Immediate Publication 13 January 2005, DOI 10.1042/BJ20041211</i>	J.M. Salhany, K.S. Cordes and R.L. Sloan	343–353
Amino acids in the pore region of Kv1 potassium channels dictate cell-surface protein levels: a possible trafficking code in the Kv1 subfamily <i>Published as BJ Immediate Publication 7 January 2005, DOI 10.1042/BJ20041447</i>	J. Zhu, B. Gomez, I. Watanabe and W.B. Thornhill	355–362
Quantification of endogenous retinoic acid in limited biological samples by LC/MS/MS <i>Published as BJ Immediate Publication 4 January 2005, DOI 10.1042/BJ20041867</i>	M.A. Kane, N. Chen, S. Sparks and J.L. Napoli	363–369
Separation of native prion protein (PrP) glycoforms by copper-binding using immobilized metal affinity chromatography (IMAC) <i>Published as BJ Immediate Publication 19 January 2005, DOI 10.1042/BJ20041291</i>	H. Müller, A. Strom, G. Hunsmann and A.W. Stuke	371–378
Arginine methylation regulates IL-2 gene expression: a role for protein arginine methyltransferase 5 (PRMT5) <i>Published as BJ Immediate Publication 18 January 2005, DOI 10.1042/BJ20040373</i>	S. Richard, M. Morel and P. Cléroux	379–386
Residue 234 in glutathione transferase T1-1 plays a pivotal role in the catalytic activity and the selectivity against alternative substrates <i>Published as BJ Immediate Publication 31 January 2005, DOI 10.1042/BJ20042064</i>	A. Shokeer, A.-K. Larsson and B. Mannervik	387–392



Biochemical Journal

The Biochemical Society, London © 2005

Volume 388, 2005

Editorial Board

Chair

G. Banting • Bristol

Vice Chair, The Americas

G. Salvesen • La Jolla

Reviews Editor

J. D. Scott • Portland, OR

Deputy Chairs

R. A. J. Challiss • Leicester

S. V. Graham • Glasgow

S. Gutteridge • Newark, DE

D. Hoekstra • Groningen

N. M. Hooper • Leeds

J. P. Kehrer • Austin

C. MacKintosh • Dundee

K. H. Mayo • Minneapolis

H. M. Wallace • Aberdeen

M. P. Walsh • Calgary

Publisher

P. J. Starley

Production Editor

M. D. Cunningham

Senior Staff Editor

S. M. Hobday

Staff Editors

L. Ball

E. A. G. Elloway

L. Johnson

J. W. Mockridge

M. R. Thorne

Administrative Editor, US Office

S. Schendel

D. R. Alessi (Dundee)

A. Baici (Zurich)

G. J. Barritt (Adelaide)

J. L. Blank (Cambridge, MA)

M. Blatt (Glasgow)

P. G. Board (Canberra)

M. Bogoyo (Stanford, CA)

P. J. Booth (Bristol)

L. Bosca (Madrid)

B. Brüne (Kaiserslautern)

D. Carling (London)

A. Clerk (London)

I. Collinson (Bristol)

G. P. Côté (Kingston, Ont.)

J. R. Couchman (London)

D. M. Davis (London)

D. A. Day (Sydney)

C. S. Duckett (Ann Arbor)

B. Engelmann (Munich)

R. M. Epand (Hamilton, Ont.)

D. A. Fell (Oxford)

R. Ferraris (Newark, NJ)

B. Foxwell (London)

J.-M. Frère (Liège)

A. Galione (Oxford)

P. G. W. Gettins (Chicago)

D. A. F. Gillespie (Glasgow)

R. Golsteyn (Croissy-sur-Seine)

S. Goodbourn (London)

P. A. Grimaldi (Nice)

B. Hallberg (Umeå)

P. I. Haris (Leicester)

L. Hedstrom (Waltham, MA)

F. G. Hegardt (Barcelona)

S. High (Manchester)

I. B. Holland (Orsay)

J. Hsuan (London)

S. Huber (Urbana, IL)

R. Kalluri (Boston)

B. Kalyanaraman (Milwaukee)

M. G. Kazanietz (Philadelphia)

I. M. Kovach (Washington D.C.)

P. W. Kuchel (Sydney)

R. Leduc (Sherbrooke)

E. R. Levin (Long Beach, CA)

L. Machesky (Birmingham)

R. Marais (London)

P. Maurel (Montpellier)

M. Meisterernst (Munich)

H. Mellor (Bristol)

I. Morgan (Glasgow)

W. Müller-Esterl (Frankfurt)

B. Mulloy (South Mimms)

A. W. Munro (Leicester)

M. P. Murphy (Cambridge)

M. E. Noble (Oxford)

L. M. Obeid (Charleston)

M. Parenti (Monza)

M. A. J. Parry (Harpenden)

S. Patel (London)

G. Pavitt (Manchester)

M. Paulsson (Cologne)

L. Persson (Lund)

A. D. Postle (Southampton)

N. J. Pyne (Glasgow)

D. R. Richardson (Sydney)

S. Roberts (Manchester)

N. J. P. Ryba (Bethesda)

J. Sandy (Tampa)

J. R. Sayers (Sheffield)

S. C. Sealfon (New York)

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

P. R. Shepherd (Auckland)

A. Sim (Callaghan, NSW)

B. F. Sloane (Detroit)

E. Smythe (Sheffield)

C. W. Taylor (Cambridge)

M. Thumm (Goettingen)

M. A. Titheradge (Brighton)

A. B. Tobin (Leicester)

A. Toker (Boston)

S. A. Tooze (London)

M. Torti (Pavia)

C. Troy (New York)

D. M. F. van Aalten (Dundee)

M. van der Woude (York)

B. Vanhaesebroeck (London)

S. G. Ward (Bath)

M. Welham (Bath)

J. F. Woessner (Miami)

J. York (Durham, NC)

C. Zurzolo (Paris)

PORTLAND PRESS Ltd

Third Floor, Eagle House
16 Procter Street
London WC1V 6NX, U.K.



ISSN 0264-6021

Index of Authors

	PAGE		PAGE		PAGE		PAGE
Adam, L.	47	Eckenhoff, R. G.	39	Levéziel, H.	273	Serkiz, B.	205
Almeida, A. D.	185	Eckhardt, M.	245	Li, L.	65	Sherratt, M. J.	1
Araki, T.	299	Erdős, E. G.	81	Liu, R.	39	Shi, Y.	135
Aro, E.-M.	159			Lomas, A.	1	Shiraki, K.	299
Aubry, L.	273	Falcon, A.	169			Shokeer, A.	387
Augustyns, K.	29	Falk, R. L.	93	Magenheim, J.	325	Shuttleworth, A.	1
		Farrance, I. K. G.	217	Mahoney, Jr, W. M.	217	Sigman, J. A.	255
Baez, J. M.	57	Fei, Y.-J.	309	Maigret, B.	29	Simonet, G.	281
Barakat, J. A.	237	Ferrat, G.	263	Mannervik, B.	387	Skidgel, R. A.	81
Barouki, R.	227	Ferry, G.	205	Markun, D. R.	237	Sloan, R. L.	343
Bar-Tana, J.	325	Fewou, S. N.	245	Martelli, A.	143	Sparks, S.	363
Bastos, I. M. D.	29	Fillebeen, C.	143	Martins, N. F.	29	Strom, A.	371
Battchikova, N.	159	Fink, J.	103	Mellody, K. T.	1	Stuke, A. W.	371
Beaune, P.	227	Freeman, L. J.	1	Misquitta, C. M.	291	Suorsa, M.	159
Berman, I.	325			Miyauchi, S.	309	Sutcliffe, M. J.	123
Bertin, S.	205	Ganapathy, V.	309	Moncion, A.	227	Suzuki, T.	65
Bevan, N. J.	47	Garg, R.	103	Morel, M.	379		
Bhagavan, N. V.	39	Gauthier, F.	273	Moulis, J.-M.	143	Tabas, I.	57
Bouchet, J.-P.	205	Gearing, K.	47	Müller, H.	371	Tablante, A. V.	255
Boutin, J. A.	205	Ghosh, P.	291	Mwanjewe, J.	291	Takagi, M.	299
Bouvier, M.	47	Gieselmann, V.	245			Takagi, Y.	65
Brémaud, L.	273	Glucksman, M. J.	255	Nakajima, T.	263	Takeuchi, M.	65
Breugelmans, B.	281	Gomez, B.	355	Napoli, J. L.	363	Tamaru, Y.	299
Brillard, M.	273	Gopal, E.	309	Neuschäfer-Rube, F.	317	Tamei, H.	81
Brueggemann, L. I.	237	Goyal, K.	151	Nguyen, H. T.	103	Tan, F.	81
Byron, K. L.	237	Grãos, M.	185	Nousbeck, J.	325	Tassy, C.	273
		Grellier, P.	29			Teixeira, A. R. L.	29
		Grover, A. K.	291	Osanai, H.	65	Thornhill, W. B.	355
Cadavid-Restrepo, G.	29			Ouali, A.	273	Truong, N.-T.	227
Caltagirone, A.	143	Ha, C.-E.	39	Outten, C. E.	93	Truscott, R. J. W.	205
Carroll, J.	75	Habuchi, O.	115			Tunnacliffe, A.	151
Cerbón, J.	169	Halfter, U. M.	17	Pandey, K. N.	103	Tytgat, J.	263
Chagot, B.	263	Hernández-Luna, C.	169	Pantopoulos, K.	143		
Chatterjee, S.	185	Herrera-Mendez, C. H.	273	Park, E.-J.	7	Ubeaud, C.	205
Chen, H.	237	Hertz, R.	325	Park, J.-H.	7		
Chen, N.	363	Hodson, N.	1	Pathe-Neuschäfer-Rube, A.	317	Vaillancourt, R. R.	17
Chénier, S.	47	Hong, J.-H.	217	Patwa, T. H.	255	Van Damme, J.	281
Chomarat, P.	205	Hothi, P.	123	Pélicier, P.	273	Vanden Broeck, J.	281
Claeys, I.	281	Houslay, M. D.	333	Phillips, A. M.	195	Villemure, J.-F.	47
Cléroux, P.	379	Hu, K.	75	Pil, J.	263		
Cogé, F.	205	Hunsmann, G.	371	Pimentel, C.	263	Walton, L. J.	151
Cohen, D. E.	57			Prasad, P. D.	309	Wardleworth, B. N.	e1
Cordes, K. S.	343	Joseph, C. D.	255	Proost, P.	281	Watanabe, I.	355
Corzo, G.	263			Püschel, G. P.	317	Weiss, A. S.	1
Culotta, V. C.	93	Kane, M. A.	363			Wheatley, E.	177
		Kato, K.	299	Quagraine, M. O.	81	Wolfson, A. J.	255
Dai, L.	263	Kato, Y.	65				
Darbon, H.	263	Kelly, L. E.	195	Richard, S.	379	Yaffe, M. B.	217
da Silveira, J. F.	29	Khurana, M. L.	103	Rickman, C.	75	Yaghootfam, A.	245
Davies, S.-A.	333	Kielty, C. M.	1	Rittinger, K.	177	Yamamoto, M.	65
Davletov, B.	75	Kim, S.	7	Rokka, A.	159	Yang, J.	39
Day, J. P.	333	Kitajima, K.	115			Yang, Y.	135
Delagrangé, P.	205	Kobayashi, M.	65	Saleem, A.	159	Yun, Y.	7
De Loof, A.	281	Konishi, T.	299	Salhany, J. M.	343	Yusa, A.	115
Delourme, D.	273	Kwon, J.	7	Santana, J. M.	29		
Derbyshire, Z. E.	17			Schrével, J.	29	Zhang, S.	135
de Souza-Ault, M. R.	29	Lambert, P.-H.	205	Scrutton, N. S.	123	Zhu, J.	355
de Waziers, I.	227	Larsson, A.-K.	387	Segura-Cobos, D.	169	Zhuang, L.	309
Dow, J. A. T.	333	Lee, S. Y.	7	Sentandreu, M. A.	273	Zöller, I.	245
Downs, J. A.	e1						