

biochemical society

TRANSACTIONS

670th Meeting, University College Cork

abstracts

-
- *Biochemical Society Transactions* (ISSN 0300-5127) is published by Portland Press Ltd on behalf of the Biochemical Society. Three parts contain the lectures and colloquia presented at a meeting of the Biochemical Society or one of its constituent interest groups and, occasionally, the colloquia of other scientific meetings of biochemical interest held in the U.K. or elsewhere. Three parts contain abstracts of the presentations at the Biochemical Society's meetings. Submitted primary research papers are not published and authors are reminded that detailed presentation of new experimental data may prejudice its subsequent publication in precisely that same form elsewhere. Lectures and colloquium contributions are published subject to editorial acceptance and authors will be issued with instructions on the format of their article before the meeting. Authors intending to present posters at Society meetings should consult the instructions for authors which appear with the Society's membership journal, *The Biochemist*.
 - For information about the advantages of membership of the Biochemical Society, contact the Executive Secretary, The Biochemical Society, 59 Portland Place, London WIN 3AJ, U.K. (telephone 020 7580 5530).
 - Editorial and publishing office: *Biochemical Society Transactions*, 59 Portland Place, London WIN 3AJ, U.K. (telephone 020 7637 5873; fax 020 7323 1136; e-mail editorial@portlandpress.com).
 - Royal Mail International, c/o Yellowstone International, 87 Burlews Court, Hackensack, NJ 07061, U.S.A.
-

Subscription rates

- Subscriptions department: Portland Press, P.O. Box 32, Commerce Way, Colchester CO2 8HP, U.K. (telephone 01206 796351; fax 01206 799331; e-mail sales@portlandpress.com). Subscription rates for volume 28, parts 1–6 (2000):

	North America	Rest of world
Volume 28	\$305.00	£178.00
Single issues	\$80.00	£48.00

Subscribers to the *Biochemical Journal* may take a joint subscription to that journal and to *Biochemical Society Transactions*, saving \$26 (North America) or £16 (rest of world), or to *Biochemical Society Transactions* and *Biotechnology and Applied Biochemistry*, saving \$34 (North America) or £20 (rest of world). North American subscription rates include airfreight delivery, and those for Japan include Accelerated Surface Post; other overseas locations are serviced by surface mail. Air-speeded delivery is available at extra cost (please ask for details). Back issues are available.

- 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 form 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 the 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 0300-5127/2000/\$10.00+0.00. Inquiries concerning reproduction outside those terms should be sent to the publishers at the London 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 publisher nor the editor assume any responsibility for any errors or omissions herein contained.
 - Display advertising is accepted; information is available on request from the London office of Portland Press.
 - Periodicals postage paid at Rahway, NJ, and at additional mailing offices.
 - Postmaster: send address changes to *Biochemical Society Transactions*, c/o Mercury International, 365 Blair Street, Avenel, NJ 07001.
 - Printed in Great Britain by the University Press, Cambridge.
-

AUTHOR INDEX

- | | | |
|--------------------------------------|---------------------------|-----------------------------|
| Adrian, C. 28 | Cass, A.E.G. 44 | Engel, P.C. 2 |
| Akbar, A.N. 4 | Chapman, S.C. 36 | Ennis, O. 30 |
| Allsop, D. 14 | Chothia, C. 23 | Evan, G. 12 |
| Anderson, H.M. 28 | Clarke, E. 32, 34 | Evans, A.T. 43 |
| Anderton, B.H. 15, 32, 33, 36,
37 | Claxton, A. 32, 46 | Evans, R.D. 9 |
| Andrews, A.-L. 39 | Clive, C. 36 | Everall, I.P. 37 |
| Antoniw, J.F. 40, 42 | Cogan, T. 25 | Faehnrich, K. 45 |
| Aplin, J.D. 19 | Cohen, R.D. 25 | Fanning, L.J. 42 |
| Aspinall, R. 4 | Coleman, R. 10 | Faragher, R.G.A. 2 |
| Barnes, J.C. 17 | Collins, J.K. 29 | Fastbom, J. 38 |
| Barton, G.J. 22 | Collins, P.B. 25 | Faulkner, A. 26 |
| Beher, D. 32, 34 | Condon, S. 25 | Fitzgerald, K. 35 |
| Berengena, M. 39 | Connell, J.W. 37 | Flanagan, A.F. 46 |
| Bermingham, J. 47 | Connolly, E. 25 | Flynn, J. 38 |
| Berrow, N.S. 43 | Conroy, S. 27, 31 | Fothergill-Gilmore, L.A. 12 |
| Berry, C.B. 38 | Cook, S.J. 3 | Fraser, P.E. 16 |
| Berry, M.N. 9 | Cooper, C.E. 9 | Frobert, Y. 35 |
| Betts, V. 25 | Costello, E. 41 | Galvin, L. 40 |
| Bingham, S. 7 | Cotter, T.G. 27, 29 | Gambetti, P. 36 |
| Blacque, O.E. 31 | Cowburn, R.F. 17, 38 | Gardiner, T. 24 |
| Bodles, A.M. 34 | Creagh, E.M. 27 | Gellerich, F.N. 11 |
| Bogdonovic, N. 38 | Creighton, P. 40, 41 | Ghibelli, L. 12 |
| Bond, U. 41 | Culligan, K. 31 | Ghindilis, A.L. 22 |
| Bonkale, W.L. 38 | Cutler, P. 28 | Gibb, G.M. 37 |
| Bradley, C.P. 1 | Daniel, S.E. 33 | Gibson, T.J. 23 |
| Breen, K.C. 14 | Davies, R.J.H. 24 | Gilardi, G. 44 |
| Brion, J.P. 15, 37 | Davis, J.B. 28 | Gillet, S. 33 |
| Britland, S.T. 43 | Dayanandan, R. 37 | Glatt, H.R. 6 |
| Brown, D.R. 36 | Denyer, M.C.T. 43 | Goedert, M. 15 |
| Buckley, A. 41 | Devery, S. 39 | Gow, I.F. 26 |
| Buckley, D. 29, 43 | Dive, C. 13 | Gower, E. 36 |
| Burns, S.P. 25 | Dockery, P. 19 | Graham, I.A. 8 |
| Burton, D.R. 36 | Dolphin, A.C. 43 | Gray, J. 28 |
| Byrne, P. 31 | Donaldson, E. 24 | Green, I.C. 27 |
| Campbell, P. 34 | Donlon, J. 25, 40, 41, 46 | Grootveld, M. 32, 45, 46 |
| Campbell, S. 41 | Doyle, B. 41 | Guilbault, G.G. 20, 44, 45 |
| Canet-Aviles, R.M. 33 | Doyle, S. 30 | Guthrie, D.J.S. 34 |
| Carmody, M. 38 | Duff, K. 18 | Halestrap, A.P. 11 |
| Casey, A. 42 | Durrant, J.R. 44 | Hall, E.A.H. 21 |
| Caspersen, C. 33 | Eaton, S. 11, 26 | Halliday, M.I. 41 |
| | Elliott, K.R.F. 26 | |

Author Index (continued)

- | | | |
|--------------------------|--------------------------|----------------------------|
| Hanger, D.P. 33 | Kunz, W.S. 11 | Mudher, A.K. 36 |
| Hanlon, M.R. 43 | Lannfelt, L. 33 | Mullan, B.M. 42 |
| Haran, M. 28 | Lau, K.-F. 37 | Mullins, J.G.L. 40, 42 |
| Hardy, J. 15 | Le Bouteiller, P. 19 | Murphy, B.J. 30 |
| Harriott, P. 34 | Lennon, N. 32 | Murphy, H.C. 25 |
| Harrison, D. 6 | Lewis, H.D. 32, 34 | Nally, K. 29 |
| Haswell, S. 36 | Lian, L.Y. 5 | Nelson, J. 24, 39 |
| Hayes, J.D. 5 | Lindsay, A.J. 41 | Neve, R.L. 14 |
| Heffron, J.J.A. 46 | Ljungberg, M.C. 37 | New, K.J. 26 |
| Henderson, C.J. 6 | Loke, Y.W. 19 | Newsholme, P. 27, 31 |
| Hickey, G.I. 40 | Lovestone, S. 16, 36, 37 | Nitsch, R.M. 17 |
| Hooper, N.M. 33 | Lutz, J. 13 | Nye, K.E. 30 |
| Horan, I. 46 | Lynch, C. 39 | O'Brien, M. 47 |
| Hutchinson, O.C. 40 | Lynch, E. 32, 45, 46 | O'Brien, N.M. 7 |
| Hutton, M. 37 | MacEwan, D.J. 28 | O'Connell, J. 29 |
| Iles, R.A. 25 | Malarczyk, E. 24 | O'Connell, P.J. 44 |
| Irvine, G.B. 34 | Manson, M. 7 | O'Connor, R. 13, 29, 43 |
| Irving, N. 37 | Mantle, T. 5 | O'Donovan, C.N. 27 |
| Jarosz-Wilkolazka, A. 24 | Martens, U.M. 3 | O'Gorman, D. 27 |
| Jenkins, D. 47 | Martin, S.J. 28 | O'Neill, C. 18, 35, 36, 38 |
| Jennings, R. 35 | Mata, A.M. 39 | O'Neill, R.M. 30 |
| Jensen, M. 33 | Mattson, M.P. 17 | O'Riordan, T. 43 |
| Johnson, P.M. 18 | McBean, G.J. 38 | O'Sullivan, A. 28 |
| Johnston, J.A. 33 | McCaffrey, M.M. 35, 41 | O'Sullivan, C.K. 44, 45 |
| Jones, I.M. 36 | McCarthy, T. 20, 47 | O'Sullivan, G. 29 |
| Jupp, O.J. 28 | McDonnell, S. 39 | O'Sullivan, S. 25 |
| Kalaria, R. 34 | McFarlane, S.M. 28 | Offenhausen, A. 43 |
| Kane, M. 46 | McFerran, N.V. 41 | Ohlendieck, K. 31, 32 |
| Kearns, P. 26 | McGahon, A. 27 | Ohm, T.G. 16, 38 |
| Kelley, L.P. 34 | McIntosh, J.M. 46 | Orengo, C.A. 22 |
| Kelliher, M. 35, 38 | McKenna, S. 27 | |
| Kelly, T.A. 28 | McKinley, M.C. 26 | Palmer, R. 46 |
| Kemp, G.J. 8 | McLoughlin, D.M. 37 | Papkovsky, D.B. 21, 43 |
| Kenny, M. 36 | McNulty, H. 26 | Parkinson, E.K. 3 |
| Kenny-Walsh, E. 42 | McPartlin, J. 26 | Pearce, J. 37 |
| Keppler, D. 6 | McVeigh, E. 2 | Phoenix, D.A. 30 |
| Kinsella, B.T. 34 | Miller, C.C.J. 37 | Pickett, C.B. 5 |
| Knight, G.L. 40, 42 | Miller, R.A. 3 | Pollard, C.L. 36 |
| Knoll, W. 43 | Mills, B. 45 | Prendergast, D.P. 41 |
| Knox, K. 27 | Mills, K.H.G. 31 | Qin, W. 39 |
| Kreuzer, M.P. 44 | Morgan, J. 29 | Quant, P.A. 26 |
| | Motherway, M. 35 | |

Author Index (continued)

Quinn, T. 26	Silwood, C. 32, 45, 46	Vaughan, R.D. 44
Raff, M. 13	Sim, E. 43	Vernon, R.G. 9
Ramsay, R.R. 12	Smyth, M.R. 22	Wainwright, M. 30
Reen, D. 30	Soboll, S. 8	Walker, B. 33
Revesz, T. 33	Soden, P. 36	Walker, J.E. 1
Reville, W.J. 2	Soini, E. 21	Wallace, A. 41
Rice, L. 30	Southan, C. 40	Wallace, B.A. 43
Richardson, J. 36	Spellacy, N. 29	Walsh, G. 42
Romagnani, S. 20	Spitz, L. 26	Walsh, M. 29
Rupniak, H.T.R. 36	Standen, C. 37	Walsh, P.T. 29
Ryan, E.J. 31	Starrings, S. 24	Wanders, R.J.A. 10
Ryan, J.P. 26	Strain, J.J. 26	Weir, D.G. 26
Salvador, J.M. 39	Strange, R.C. 4	Williams, C. 33
Sarakinou, K.S. 40, 42	Strittmatter, W.J. 16	Williamson, G. 7
Scheller, F.W. 20	Sy, M.-S. 36	Williamson, R. 37
Schneider, K. 28	Taylor, W. 23	Williamson, R.A. 36
Schubert, T.E.O. 32, 36, 37	Thomas, N. 34	Winchester, B. 10
Scott, J.M. 26	Tomkins, P.T. 39, 46	Wisdom, G.B. 40
Scott, W. 24	Topoglidis, E. 44	Wolfe, K.H. 23
Scrutton, N.S. 1	Treiman, M. 33	Wong, B.-S. 36
Selwood, S.P. 10	Trench, B. 1	Worrall, D.M. 31
Sepúlveda, M.R. 39	Tucker, S.J. 28	
Shanahan, C. 35	Turner, A.J. 33	Yan, S.D. 14
Shanahan, F.L. 29, 42	Upton, A. 43	Yeung, C.K. 43
Sharp, P.M. 24	Van Leuven, F. 18	Yevdokimov, Y.M. 21
Shearman, M.S. 32, 34	Varndell, I.M. 36	Zammit, V.A. 8
Sheehan, D. 4, 25	Vaughan, P.F.T. 33	Zheng, R.Q. 30