

biochemical society
TRANSACTIONS

636th Meeting Dublin

colloquia

Biosensors

Respiratory Burst Oxidase of the Neutrophil

Strategies for Studying Membrane Proteins of the Nervous System

Biochemical Mechanisms in Autoimmunity

Amine Oxidases: Structure, Function and Expression

communications

■ *Biochemical Society Transactions* (ISSN 0300-5127) is published by Portland Press Ltd on behalf of the Biochemical Society. Each issue contains the lectures, colloquia and communications presented at one of the Biochemical Society's meetings held in various parts of the U.K. and Ireland and, occasionally, in conjunction with other Societies, abroad. Submitted primary research papers are not published. Authors of lectures and colloquium contributions at Society meetings will receive instructions on the format of their article prior to the meeting; instructions for authors intending to present communications at Society meetings appear in the Society's membership journal, *The Biochemist*, and occasionally in this journal.

■ For information about the advantages of membership of the Biochemical Society, contact the Executive Secretary, The Biochemical Society, 59 Portland Place, London W1N 3AJ, U.K. (telephone 071-580 5530).

■ Editorial and publishing office: *Biochemical Society Transactions*, 59 Portland Place, London W1N 3AJ, U.K. (telephone 071-637 5873; facsimile 071-323 1136).

Subscription rates

■ Subscriptions department: Portland Press, P.O. Box 32, Commerce Way, Colchester CO2 8HP, U.K. (telephone 0206-46351; facsimile 0206-549331). *Biochemical Society Transactions* is published in February, May, August and November of each year. Subscription rates for volume 19, parts 1-4 (1991):

	North America	Rest of world
Volume 19	\$195.00	£105.00
Single issues	\$33.00	£18.00

Subscribers to the *Biochemical Journal* may take a joint subscription to that journal and to *Biochemical Society Transactions*, saving \$25 (North America) or £15 (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. Airmail delivery is available at extra cost. Back issues are available. Subscribers in Japan should send orders to Kinokuniya Company Ltd, Journal Department, P.O. Box 55, Chitose, Tokyo 156.

■ 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 licences issued by the Copyright Licensing Agency. Inquiries concerning reproduction outside those terms should be sent to the publishers at their London address.

■ Copies of articles in this journal may be made in the U.S.A. for personal or internal use, or for the personal or internal use of specific clients, on the condition, however, that the copier pay the stated per-copy fee through the Copyright Clearance Center Inc. (P.O. Box 765, Schenectady, NY 12301, U.S.A.) for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. The Copyright Clearance Center code for this journal is 0300-5127/91/\$02.00 + 0.00.

■ 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.

■ Second-class postage paid at Rahway, NJ, U.S.A.

■ U.S. Postmaster: send address changes to *Biochemical Society Transactions*, c/o Mercury Airfreight International Ltd, 2323 Randolph Avenue, Avenel, NJ 07001, U.S.A.

■ Typeset by Unicus Graphics Ltd, Horsham, and printed in Great Britain by Whitstable Litho Printers Ltd, Kent.

Abu Shanab, A. A. 13S
Afrasiabi, M. 34S
Aldalou, A. R. 12S, 31S
Allen, J. M. 13S, 31S
Amezaga, M. A. 63
Anand, R. 11S
Anderson, S. M. L. 48S, 60S
Andreasen, P. 44S
Ani, M. 67S
Araki, H. 224
Ashraf, G. 22S, 23S

Bacon, C. L. 35S
Baggiolini, M. 55
Bailey, C. J. 11S
Balsa, D. 21S
Bardeletti, G. 1
Bartlett, P. 36
Bateson, A. N. 4S, 9S
Batstone, F. R. 2S
Bazzoni, F. 63
Beattie, J. 33S
Beidler, D. 9S
Berns, G. J. 56S
Bernstein, R. M. 159
Biessen, E. A. L. 103
Biggart, J. D. 53S
Bilton, R. F. 52S, 64S
Blanchflower, W. J. 61S
Bloomfield, F. J. 73
Boog, C. J. P. 171
Bourke, A. C. M. 16S
Bridges, J. M. 34S
Budd, T. C. 143
Burlingame, R. W. 153
Busquets, M. 74S
Butler, M. E. 44
Byrne, D. 32S

Callingham, B. A. 228
Camp, R. D. R. 15S
Campbell, J. A. 53S
Carey, B. 26S
Carr, E. P. 71S
Casey, J. 17S
Cassatella, M. A. 63
Chappell, J. B. 67
Clynes, M. 26S
Coates, J. D. 70S
Colleran, E. 68S, 69S, 70S
Collins, P. B. 41S, 65S
Conroy, W. G. 11S
Cooke, A. 187

Cookman, G. 36S
Cortes, A. 73S, 74S
Costigan, D. C. 63S
Coughlan, M. F. 68S, 70S
Coughlan, M. P. 25S
Coulet, P. R. 1
Couraud, P. O. 147
Crook, M. 47S
Cross, A. R. 70
Crossey, P. J. 30S
Curtain, D. 27S
Curtis, C. A. M. 133

Dalton, J. P. 27S, 39S
Danielsson, B. 26
Darlison, M. G. 4S, 9S
Das, M. 11S
Dempsey, M. 28S
Deranleau, D. A. 5S
Desai, M. 11
Devery, R. 55S
Dewald, B. 5S
Docherty, M. 87
Dodd, G. 36
Donlon, B. 69S
Donovan, S. 39S
Doonan, S. 18S, 45S
Dostert, P. 207
Downs, M. E. A. 39
Doyle, V. 55S
Druce, I. R. 143
Duffy, M. J. 44S
Dunlop, J. 3S, 5S

Egan, D. A. 57S
Eklund, E. A. 51
Elder, G. E. 3S
Elliott, J. 228
Elliott, R. J. 48S, 53S, 54S
Elmore, M. 36S
Ennis, K. T. 29S, 58S
Ennis, M. P. 30S
Erlanger, B. F. 139
Ervens, J. 59
Esnaud, H. 99

Fanning, S. 19S
Fernandez-Alvarez, E. 21S
Filho, E. X. F. 25S
Fischer-Colbrie, R. 79
Fitzgerald, M. X. 62S
Flint, D. J. 33S
Fogarty, W. M. 16S

Gabig, T. G. 51
Gaisford, W. C. 15
Gardner, J. 36
Gelpi, J. L. 73S
Giafri, S. 42S
Gillian, C. M. 46S
Glencorse, T. A. 4S
Gotto, G. 224
Gracia, V. 73S
Graham, D. 99
Graham, D. L. V. 52S
Gray, W. R. 72S
Gregory, B. 26S
Grey, S. R. 2S
Grieve, A. 3S, 5S
Griffiths, R. 3S, 5S
Guthrie, D. J. S. 12S, 13S

Haggett, B. G. D. 15
Hancock, J. T. 70
Hankey, D. P. 59S
Harshak, S. 224
Heffernan, M. 27S
Heffron, J. J. A. 46S
Henderson, L. M. 67, 70
Hill, S. J. 6S
Hogervorst, E. J. M. 171
Holt, A. 228
Horn, A. S. 103
Howell, S. 1S
Hughes, A. E. 58S, 59S
Hulme, E. C. 133
Humphreys, C. J. 9S
Hussell, T. 187
Hussey, C. 32S
Hutchings, P. 187

Ikeda, H. 8S
Imperial, S. 74S
Iredale, P. A. 6S
Irvine, A. I. 29S
Irvine, G. B. 12S, 13S, 30S, 31S

Jackson, J. 176
James, P. 57S
James, S. 33, 7S
Javed, M. H. 21S, 22S, 23S
Jenkins, H. G. 8S
Jennings, P. V. 35S
Johnson, A. H. 41S, 65S
Jones, O. T. G. 70

Kaler, B. S. 8S
Kanner, B. I. 92

Kapelari, S. 79
Kelling, P. W. N. 71S
Kelly, C. T. 16S
Kelton, J. G. 183
Kendall, D. A. 6S
Kenna, J. G. 191
Kennedy, D. G. 61S
Kennedy, S. 61S
Kenny, A. J. 1S
Kernen, P. 5S
Khan, N. 21S
Kinsella, V. A. 56S
Kirkness, E. F. 124
Koochaki, Z. 11
Kurtenbach, E. 133

Langa, F. 73S
Langer, S. Z. 99
Lappin, T. R. J. 34S
Larkin, S. 43S
Lasham, A. 9S
Leahy, M. 19S
Lehane, M. 46S
Lindstrom, J. 11S
Lowe, G. M. 52S

Mascini, M. 5
Maher, W. J. 10S
Mangan, D. J. 18S
Mantle, T. 63S
Marks, A. 46S
Martin, F. 42S, 43S
Martin, K. F. 6S
Maynagh, P. N. 11S
Mazo, A. 73S
McCarthy, T. V. 46S
McDonnell, S. 27S
McElreavey, K. D. 29S
McFadden, J. P. 15S
McGlinchey, E. 26S
McKenna, K. T. 60S
McLean, W. H. I. 29S, 48S, 58S, 59S, 60S
McLoughlin, A. J. 32S
McLoughlin, D. M. 73
McNally, J. 39S
Meade, G. A. 38S
Moloney, D. B. 62S
Moore, U. M. 65S
Moscone, D. 5
Moshtaghie, A. A. 67S
Moynagh, P. N. 11S
Mukai, Y. 224
Murphy, W. G. 183
Murray, H. 1S

Nelson, J. 12S, 31S
 Nevin, N. C. 58S, 60S
 Nic A Bhaird, N. 20S
 Nicholas, P. C. 49S, 50S, 51S
 Nicholson, B. H. 24S
 Ni Fhaolain, I. 35S
 O'Connell, J. 45S
 O'Connor, B. 26S
 O'Connor, C. M. 28S, 62S
 O'Cuinn, G. 35S, 36S, 37S
 O'Donnell, L. 41S
 O'Donnell, V. B. 70
 O'Donovan, S. 39S
 O'Flaherty, M. R. 44
 O'Gara, F. 19S
 O'Gara, P. 69S
 O'Kennedy, R. 56S, 57S, 66S
 O'Leary, R. O. 26S
 O'Reilly, L. 187
 O'Sullivan, N. M. 18S
 O'Toole, A. 26S
 Owens, D. 41S
 Palleschi, G. 5
 Pethig, R. 21
 Phillips, O. M. 112, 10S
 Phipps, D. A. 52S
 Powell, J. F. 199
 Pratt, I. 28S
 Puls, J. 25S

Quinn, D. G. 15S
 Quiroga, C. 74S
 Ramsay, R. R. 211, 219
 Rawson, D. M. 15
 Reach, G. 9
 Regan, C. 36S
 Reilly, D. 44S
 Reville, W. J. 38S
 Richardson, N. J. 15
 Richardson, P. J. 83, 143, 2S, 7S
 Robillard, G. T. 103
 Robinson, G. A. 18
 Rossi, F. 63
 Rowell, F. J. 32
 Rubin, R. L. 153
 Ruck, A. 6S
 Rudnick, G. 9S
 Rutherford, A. J. 64S
 Ryan, J. 27S
 Ryan, J. 63S
 Ryan, J. P. 72S
 Saedi, M. S. 11S
 Saini, S. 28
 Scally, C. M. 40S
 Schoepfer, R. 11S
 Schousboe, A. 3S, 5S
 Schmidle, T. 79
 Schultz, G. 59
 Scott, D. A. 14S
 Segal, A. W. 49

Seifert, R. 59
 Shalloe, F. 17S
 Shaw, C. 12S, 31S
 Sheehan, D. 17S, 19S
 Sheehan, H. 66S
 Sieghart, W. 129
 Silverman, R. B. 201
 Sim, E. 164
 Simpson, E. 187
 Singer, T. P. 211, 219
 Skillen, A. W. 14S
 Sloan, R. 54S
 Smith, A. 27S
 Smith, E. B. 23S
 Smyth, M. 36S, 37S
 Somasundaram, M. 14S
 Stapleton, P. P. 73
 Strolin Benedetti, M. 207
 Strosberg, A. D. 147

Taher, M. 67S
 Tait, S. 43S
 Thévenot, D. R. 9
 Thomas, D. L. 49S, 50S, 51S
 Tipton, K. F. 21S, 20S, 71S
 Tomkin, G. H. 41S, 65S
 Treloar, P. 11
 Tuohy, M. G. 25S
 Turner, A. J. 1S, 124
 Turner, A. P. F. 28

I Unzeta, M. 21S

Vadgama, P. 11
 van Eden, W. 171
 van der Zee, R. 171
 Varey, A.-M. 187
 Vincent, A. 180

Waldmann, H. 187
 Walker, B. 12S, 13S, 31S
 Walsh, D. M. 61S
 Walton, P. W. 44
 Waqar, M. A. 21S, 22S, 23S
 Wauben, M. H. M. 171
 Whiting, P. 11S
 Widdows, K. B. 124
 Wilkinson, Y. 68S
 Williams, C. H. 30S
 Williams, D. 64S
 Williams, D. C. 112, 10S, 11S
 Wilson, G. S. 9
 Winder, F. G. 40S
 Winkler, H. 79
 Wonnacott, S. 121

I Xuereb, J. H. 7S

Yeaman, S. J. 196
 Youdin, M. B. H. 224
 Yoshioka, M. 224