

**BIOCHEMICAL
SOCIETY**
TRANSACTIONS



1982

Volume 10

Managing Editor D. C. WATTS

London: The Biochemical Society © 1982

THE BIOCHEMICAL SOCIETY, 7, WARWICK COURT, LONDON WC1R 5DP

ISSN: 0300-5127

This journal contains unedited reports of the formal presentations of data and comments communicated to the Biochemical Society at Meetings and Colloquia organized by the Society or by Groups of the Society.

Printed in Great Britain by Spottiswoode Ballantyne Ltd., Colchester and London

INDEX OF AUTHORS

- Austen, B. M. 46
 Ayling, C. M. 31
- Bailey, C. J. 28, 29
 Ball, S. J. 30
 Barbero, M. C. 43
 Beaumont, J. M. 50
 Beesley, P. W. 56
 Booth, R. F. G. 20
 Brophy, P. J. 40
 Butt, N. M. 23
- Campbell, A. K. 45
 Carruthers, A. 10
 Caygill, C. P. J. 31
 Coleman, R. 36
 Contractor, S. F. 39
 Craik, J. D. 12
 Cropper, G. P. 48
- Dandona, P. 31
 Das, I. 39
 Debage, P. L. 38
 Delaey, B. 51
 Docherty, K. 14
 Dreyfus, H. 54
 Durand, M. 54
- Easom, R. A. 40
 Edwards, J. C. 22
 Elliott, K. R. F. 12
 Evered, D. F. 25
- Flatt, P. R. 28, 29
 Frauli, M. 60
 Freshney, R. I. 53
- Galanopoulou, D. G. 20
 Garnett, M. C. 17, 18
 Gliemann, J. 7
 Goñi, F. M. 43
 Goodwin, G. C. 47
 Graham, D. I. 53
 Gurtabay, J. I. G. 43
- Hales, C. N. 14
 Hall, C. 56
 Hallett, M. B. 45
 Hammond, K. 47
 Hargreaves, A. J. 58, 59
 Harrison, F. A. 33
 Heading, C. E. 27, 30
 Heald, B. 35
 Hermon-Taylor, J. 46
 Heyns, W. 51
 Horsnell, J. M. 33
 Howell, R. M. 48, 49
 Huggins, A. K. 17, 18
- Jarvis, S. M. 24
 Johnson, M. H. 32
 Jones, M. N. 5, 47
 Jordan, F. 49
- Keir, G. 32
 Knowler, J. T. 50
 Kono, T. 9
 Kuhn, N. J. 15
- Laker, M. E. 19
 Lau, S.-K. 56
 Leake, D. S. 35
 Lim, L. 56
 Louis, J. C. 54
 Lowe, P. J. 36
- Lunec, J. 21
 Lyle, I. 47
- Macarulla, J. M. 42, 43
 Maguire, G. A. 14
 Mahadevan, L. 56
 Mandel, P. 60
 Mangan, J. L. 33
 Massarelli, R. 54
 Mayes, P. A. 19
 McLean, W. G. 58, 59
 McNamee, H. B. 53
 Meade, H. M. 30
 Morris, W. B. 41
 Moses, M. A. 55
 Mous, J. 51
 Murphy, G. M. 27
- Nickson, J. K. 5
 Noble, R. C. 34
- Oakey, M. P. 39
 O'Dell, D. S. 38
 Opara, E. C. 26
- Peeters, B. 51
 Perry, M. C. 26
 Peters, T. J. 35, 41
 Prado, A. 42
- Quinn, P. J. 20, 22
- Reichert, P. 59
 Rial, E. 43
 Ridd, D. H. 46
 Rodriguez-Arrondo, J. L. 42
 Rombauts, W. 51
 Ryan, C. M. 56
- Saeed, S. A. 23
 Salman, T. D. 25
 Salmon, D. M. 52
 Schulster, D. 52
 Sehmi, D. 37
 Semenza, G. 7
 Sensenbrenner, M. 54
 Shand, J. H. 34
 Smith, G. P. 41
 Snell, C. R. 55
 Snell, P. H. 55
 Southern, E. M. 1
 Spankie, R. S. 40
- Thompson, E. J. 32
 Threadgold, L. C. 15
 Trought, Y. M. 25
- Urban, P. F. 59, 60
- Vaja, S. G. 27
 Vaughan, P. F. T. 53
 Villaláin, J. 42
 Vincendon, G. 54, 60
 Volckaert, G. 51
- Wagstaff, H. 34
 Walker, R. W. H. 32
 West, D. W. 40
 West, G. M. 53
 Whatley, S. A. 56
 White, M. D. 15
 Williams, D. J. 37, 38
 Williams, L. G. 37, 38
 Wilson, C. 52
 Wrigglesworth, J. M. 26
- Young, J. D. 24

COMMUNICATIONS

Effects of prostaglandin inhibitors on chronic hyperoxia in mice <i>in vivo</i>	M. C. GARNETT & A. K. HUGGINS	17
Effect of chronic hyperoxia on plasma retinol levels of rats <i>in vivo</i>	M. C. GARNETT & A. K. HUGGINS	18
Oxygen availability and liver metabolism	M. E. LAKER & P. A. MAYES	19
Protection by ubiquinone against lipid peroxidation	D. G. GALANOPOULOU, R. F. G. BOOTH & P. J. QUINN	20
Fluorescence: A marker of the free-radical damage induced in human γ -globulin	J. LUNEC	21
Oxidation of unsaturated lipids in aqueous systems depends on the structure of the dispersion	J. C. EDWARDS & P. J. QUINN	22
Differential inhibitory effects of foetal-calf and bovine sera on lipid peroxidation and prostaglandin biosynthesis	N. M. BUTT & S. A. SAEED	23
Glucose transport in erythrocytes from adult and new-born sheep: Evidence that the glucose transporter is a Band-4.5 polypeptide	S. M. JARVIS & J. D. YOUNG	24
Inhibition of monosaccharide absorption from the human mouth	D. F. EVERED, T. D. SALMAN & Y. M. TROUGHT	25
Time course of reversal of insulin-stimulated glucose uptake by anti-insulin antibody	E. C. OPARA, J. M. WRIGGLESWORTH & M. C. PERRY	26
Indices of intestinal structure and function after proximal resection in the rat	S. G. VAJA, C. E. HEADING & G. M. MURPHY	27
Characterization of the insulin-secretory defect adult Aston <i>ob/ob</i> mice: Lack of effect of glibenclamide	C. J. BAILEY & P. R. FLATT	28
Effect of age and glucose priming on the insulin-secretory response to glucose in fed obese hyperglycaemic (<i>ob/ob</i>) mice	P. R. FLATT & C. J. BAILEY	29
Glycine absorption in rats infected with <i>Eimeria nieschulzi</i>	H. M. MEADE, S. J. BALL & C. E. HEADING	30
Immunoreactive insulin concentration and biologically active insulin in serum after an intravenous insulin injection	P. DANDONA, C. P. J. CAYGILL & C. M. AYLING	31
A new method for identification of proteins separated in polyacrylamide gels	M. H. JOHNSON, R. W. H. WALKER, G. KEIR & E. J. THOMPSON	32
Crossed immunoelectrophoresis of leaf proteins of lucerne (<i>Medicago sativa</i> L.) in ruminant digestion	J. M. HORSNELL, F. A. HARRISON & J. L. MANGAN	33
A thermostable scintillation 'cocktail' for counting of radioactivity of heterogeneous media	R. C. NOBLE, J. H. SHAND & H. WAGSTAFF	34
A large proportion of the acid phosphatase activity in arterial smooth-muscle cells is associated with the plasma membrane	D. S. LEAKE, B. HEALD & T. J. PETERS	35
'Fluidity' of rat liver plasma-membrane subfractions	P. J. LOWE & R. COLEMAN	36
Removal of plasma-membrane fragments from rat liver microsomal preparations by agarose-bound concanavalin A	D. SEHMI, L. G. WILLIAMS & D. J. WILLIAMS	37
Binding of concanavalin A and ricin 120 to parenchymal and non-parenchymal cells of rat liver	L. G. WILLIAMS, D. J. WILLIAMS, D. S. O'DELL & P. L. DEBAGE	38
Separation and characterization of different areas constituting the syncytiotrophoblast membrane	S. F. CONTRACTOR, I. DAS & M. P. OAKEY	39
ATPase activity associated with Golgi vesicles isolated from lactating rat mammary glands	R. A. EASOM & D. W. WEST	40
The use of myelin vesicles for studying myelin membrane structure	R. S. SPANKIE & P. J. BROPHY	40
Subcellular localization of rat liver adenosine diphosphatase activity by microanalytical countercurrent partition	W. B. MORRIS, G. P. SMITH & T. J. PETERS	41
The mechanism of sarcoplasmic-reticulum solubilization by Triton X-100	A. PRADO, J. VILLALÁIN, J. L. RODRÍGUEZ-ARRONDO & J. M. MACARULLA	42
Mitochondrial oxidation of succinate in the presence of Triton X-100	J. I. G. GURTUBAY, M. C. BARBERO, E. RIAL, F. M. GOÑI & J. M. MACARULLA	43
Introduction of an indicator of free Ca^{2+} into polymorphonuclear leucocytes by cell fusion	M. B. HALLETT & A. K. CAMPBELL	45
Enterokinase as a model for co-translational processing	D. H. RIDD, J. HERMON-TAYLOR & B. M. AUSTEN	46
The incorporation of glycoporphin into phospholipid liposomes: effect of acyl chain length on lectin agglutination	G. C. GOODWIN, K. HAMMOND, I. LYLE & M. N. JONES	47
Studies on lipid peroxidation and its effect on the clotting activity of a commercial preparation of thromboplastin	G. P. CROPPER & R. M. HOWELL	48
Lipid peroxidation of rat liver microsomal membranes in relation to Factor III activity	F. JORDAN & R. H. HOWELL	49

The effects of oestradiol-17 β on protein synthesis in the uterus of the immature rat	J. M. BEAUMONT & J. T. KNOWLER	50
Identification of a complementary-DNA clone containing part of the sequence information for the C ₁ -polypeptide of rat prostatic binding protein	B. DELAEY, W. ROMBAUTS, G. VOLCKAERT, B. PEETERS, J. MOUS & W. HEYNS	51
Transfer of nucleotide regulatory protein from human erythrocytes to desensitized turkey erythrocytes by cell fusion restores β -catecholamine responsiveness	D. M. SALMON, C. WILSON & D. SCHULSTER	52
Isolation of primary cultures from post-mortem samples of human brain	G. M. WEST, P. F. T. VAUGHAN, R. I. FRESHNEY, H. B. MCNAMEE & D. I. GRAHAM	53
Studies on the deamination of biogenic amines in pure cultures of glial and neuronal cells	M. DURAND, H. DREYFUŚ, R. MASSARELLI, M. SENSENBRENNER, G. VINCENDON & J. C. LOUIS	54
The binding of [³ H]adenosine to cells of the 108CC15 neuroblastoma \times glioma hybrid line	P. H. SNELL, M. A. MOSES & C. R. SNELL	55
Synthesis <i>in vitro</i> of the rat myelin basic proteins as products of poly(A)-containing RNA isolated from free and membrane-bound rat forebrain polyribosomes	C. HALL, L. MAHADEVAN, S. A. WHATLEY & L. LIM	56
Changes in polypeptide composition and synthesis in developing rat brain	S.-K. LAU, C. M. RYAN & P. W. BEESLEY	56
An interaction between brain microtubules and smooth endoplasmic reticulum <i>in vitro</i>	A. J. HARGREAVES & W. G. MCLEAN	58
Analysis of phospholipids associated with pig brain microtubules	A. J. HARGREAVES & W. G. MCLEAN	59
Purification and properties of specific cysteine sulphinate decarboxylase (EC 4.1.1.29) from rat brain	P. F. URBAN & P. REICHERT	59
Study <i>in vitro</i> on the effects of α -amino adipate and its homologues on the electroretinogram of the isolated frog retina	P. F. URBAN, M. FRAULI, P. MANDEL & G. VINCENDON	60