Contents

Volume 3, Part 2, 1975

554TH MEETING, LONDON	PAGE
Colloquium: Carbohydrate Intolerance	
Intestinal digestion and absorption of sugars. By G. Semenza	221
Clinical studies of carbohydrate digestion and absorption. By H. B. McMichael	223
Specific disaccharidase deficiency in adults. By A. Dahlqvist & NG. Asp	227
Kinetic and immunological abnormalities of aldolase B in hereditary fructose intolerance. By F. Schapira	232
Galactosaemia and the problem of galactose toxicity. By V. Schwarz	234
Communications	
Immunological characterization of human α -D-mannosidases. By N. C. Phillips, D. Robinson & B. G. Winchester	238
Isoenzymes of human liver β -galactosidase. By P. S. J. Cheetham, N. Dance & D. Robinson	240
Isoelectric focusing of galactosylceramide β -galactosidase in cultured skin fibroblasts of patients with Krabbe's globoid-cell leucodystrophy. By G. T. N. Besley	241
An attempt to purify N -acetyl- β -hexosaminidases from crude extracts of human liver by affinity chromatography. By A. Koshy, D. Robinson & J. L. Stirling	244
Two forms of β -N-acetylhexosaminidase from Physarum polycephalum. By D. C. Kilpatrick & J. L. Stirling	246
Studies on hexosaminidase C in cultured skin fibroblasts from patients with Sandhoff's disease. By D. M. Broadhead & G. T. N. Besley	247
Turnover of lysosomal proteins and induction and distribution of rat liver proteinases, after treatment with Triton WR-1339. By R. T. Dean	250
The degradation of sulphated insulin by rat tissue preparations. By H. M. Hart & J. H. Thomas	252
Inhibition by iodoacetate of 'downhill' transport of sodium ions across isolated rat small intestine. By M. L. G. Gardner	255
Characteristics of intact lactose transport in the rat jejunum in vitro. By J. E. J. Oyesiku, D. P. R. Muller & J. T. Harries	256
Carbohydrate metabolism, placental lactogen and the control of the initiation of lactation. By D. P. Leader	257
Effects of prolactin withdrawal on activity of pyruvate dehydrogenase of rat mammary gland. By B. Field & H. G. Coore	258
Changes in monoamine-related enzymes in cobalt-induced epilepsy. By P. R. Clayton & P. C. Emson	261

vi CONTENTS

	PAGE
The effect of neurotransmitter release upon phospholipid composition and fatty acid turnover in synaptic vesicles of <i>Torpedo marmorata</i> electric organ and guinea-pig cerebral cortex <i>By</i> R. R. Baker, M. J. Dowdall & V. P. Whittaker	263
Adenosine 3':5'-cyclic monophosphate phosphodiesterase activity in the dystrophic rat retina. By A. J. Dewar, G. Barron & J. Richmond	265
A classification of barium sulphates, used as clotting-factor adsorbents, based on their affinity for anionic dyes. By S. L. M. Deacon & R. M. Howell	268
The significance of crystal structure and charge of clotting-factor adsorbents. By R. M. Howell, S. L. M. Deacon & R. J. Dupe	270
Ornithine decarboxylase in the isolated perfused rat heart. By P. Antony, K. l. Gibson & P. Harris	272
Biochemical and morphological changes in the subcellular fractions during myelination of rat brain. By M. I. Sabri, C. Tremblay, N. L. Banik, T. Scott, K. Gohil & A. N. Davison	275
Relationship of cytochrome P -450 to growth phase of brewer's yeast in 1%-or 20%-glucose medium. By A. Wiseman, TK. Lim & C. McCloud	276
4'-Hydroxylation of biphenyl by yeast containing cytochrome P -450: radiation and thermal stability, comparisons with liver enzyme (oxidized and reduced forms). By A. Wiseman, J. A. Gondal & P. Sims	278
A comparison of the properties in vitro of biphenyl 2- and 4-hydroxylase in the mesocarp from avocado pear (<i>Persea americana</i>) and Syrian-hamster hepatic tissue. By F. J. McPherson, A. Markham, J. W. Bridges, G. C. Hartman & D. V. Parke	281
Effects of preincubation in vitro with 3,4-benzopyrene and phenobarbital on the drug-metabolism systems present in the microsomal and soluble fractions of the avocado pear (<i>Persea americana</i>). By F. J. McPherson, A. Markham, J. W. Bridges, G. C. Hartman & D. V. Parke	
Studies on the metabolism of diethylnitrosamine in the rat. By J. C. Phillips, B. G. Lake, M. J. Minski, S. D. Gangolli & A. G. Lloyd	285
Studies on the role of cytosol in the hepatic metabolism of dimethylnitrosamine. By B. G. Lake, M. J. Minski, J. C. Phillips, S. D. Gangolli & A. G. Lloyd	287
The fate of lysergic acid di[14C]ethylamide ([14C]LSD) in the rat. By Z. H. Siddik, R. D. Barnes, L. G. Dring, R. L. Smith & R. T. Williams	290
Biochemical basis of liver necrosis caused by pyrrolizidine alkaloids and certain other hepatotoxins. By R. Schoental	292
The effect of mercuric chloride on rat kidney cortical plasma membranes. By R. G. Price & S. A. Kempson	.294
Lipid and protein composition of the mammary tumour virus and the milk fat- globule membrane isolated from the milk of infected mice. By CM. Calberg- Bacq, C. François, L. Gosselin, P. M. Osterrieth & F. Rentier-Delrue	296
The coupling of anaerobic steroid dehydrogenation to nitrate reduction in <i>Pseudomonas</i> N.C.I.B. 10590 and <i>Clostridium paraputrificum</i> . By P. J. Barnes, R. F. Bilton, A. N. Mason, F. Fernandez & M. J. Hill	
Specificity of antisera raised by steroid ring-B oxime-bovine serum albumin conjugates. By D. Exley & T. S. Baker	301
Isolation and characterization of isocitrate lyase and malate synthase from Bacillus stearothermophilus. By R. M. Chell & T. K. Sundaram	303

CONTENTS vii

	PAGE
Mutants of <i>Bacillus stearothermophilus</i> de-repressed for isocitrate lyase and malate synthase. <i>By R. M. Chell & T. K. Sundaram</i>	306
Pyruvate carboxylase from <i>Bacillus stearotherophilus</i> : molecular size, biotin content and subunit constitution. <i>By S. Libor</i> , R. Warwick & T. K. Sundaram	309
A kinetic analysis of rabbit muscle pyruvate kinase in the reverse direction. By I. G. Giles, P. C. Poat & K. A. Munday	312
Enzyme inhibition by sodium alkyl sulphates. By J. C. Marsden	314
Inhibition of cytochrome c oxidase by sulphate. By P. Nicholls	316
Transient water free radicals in oxidation-reduction reactions. By S. Lewin	319
Proton movements and adenosine triphosphate synthesis in rat liver mitochondria. By G. P. R. Archbold, C. L. Farrington & F. H. Malpress	321
Reduced glutathione regeneration in glutathione-deficient erythrocytes from Finnish landrace sheep. By J. D. Young, S. A. Thompson & I. A. Nimmo	324
The effect of ethylene on the synthesis of endoplasmic reticulum in etiolated pea stems. By R. F. Irvine & D. J. Osborne	326
Bovine serum albumin activation of ox liver butyryl-coenzyme A synthetase. By H. Osmundsen & M. V. Park	327
The effect of pent-4-enoate and methylenecyclopropylacetate on some enzymes of β -oxidation in extracts of liver mitochondria. By H. Osmundsen, H. S. A. Sherratt	330
The effects of pent-4-enoate and methylenecyclopropylacetate on some enzymes of β -oxidation in rat liver mitochondria in vivo and in vitro. By H. Osmundsen, D. Billington & H. S. A. Sherratt	331
Inhibition by diphenyleneiodonium and by some of its substituted derivatives of gluconeogenesis in isolated rat hepatocytes. By S. J. Gatley, S. S. Al-Bassam, J. R. Taylor & H. S. A. Sherratt	333
553RD MEETING, LONDON	
A debranching enzyme in <i>Escherichia coli</i> . By R. Jeanningros, N. Creuzet, C. Frixon & J. Cattaneo	336
BOOK REVIEWS	339