

Cellular Aspects

Contents of Volume 156, No. 2, 1976

FULL PAPERS

	PAGE		PAGE
Biosynthesis and Degradation			
The purification and biological properties of pancreatic big glucagon. By K. J. O'Connor & N. R. Lazarus	265	The effects of proteolytic digestion by trypsin on the structure and catalytic properties of reduced nicotinamide-adenine dinucleotide dehydrogenase from bovine heart mitochondria. By C. I. Ragan	367
Studies on the biosynthesis of pancreatic glucagon in the pigeon (<i>Columba livia</i>). By K. J. O'Connor & N. R. Lazarus	279	Role of ubiquinone in the mitochondrial generation of hydrogen peroxide. By A. Boveris, E. Cadenas & A. O. M. Stoppani	435
Synthesis of bile acid monosulphates by the isolated perfused rat kidney. By J. A. Summerfield, J. L. Gollan & B. H. Billing	339	Subcellular Structures	
Studies on the purification and properties of UDP-galactose-glycoprotein galactosyltransferase from rat liver and serum. By I. H. Fraser & S. Mookerjea	347	Further characterization of rat liver mitochondrial fractions. Lipid composition and synthesis, and protein profiles. By J. G. Satav, S. S. Katyare, P. Fatterpaker & A. Sreenivasan	215
Lipid metabolism and mobilization in the guinea pig during pregnancy. By C. T. Jones	357	Isolation of a Golgi-apparatus-enriched fraction from leukaemic cells. By A. Warley & G. M. W. Cook	245
16 β -Hydroxylation of dehydroepiandrosterone sulphate by homogenates of human foetal liver. By K. N. Wynne & A. G. C. Renwick	419	Phospholipid composition of the plasma membrane of the green alga, <i>Hydrodictyon africanum</i> . By D. S. Bailey & D. H. Northcote	295
Effects of clofibrate on some microsomal hydroxylations involved in the formation and metabolism of bile acids in rat liver. By B. Angelin, I. Björkhem & K. Einarsson	445	The subcellular localization and properties of the ferrochelataase of etiolated barley. By H. N. Little & O. T. G. Jones	309
Bacterial catabolism of threonine. Threonine degradation initiated by L-threonine-NAD ⁺ oxidoreductase. By S. C. Bell & J. M. Turner	449	Cellular Interactions and Control Processes	
Bioenergetics			
Synthesis of adenosine triphosphate during release of intravesicular and membrane-bound calcium ions from passively loaded sarcoplasmic reticulum. By M. G. P. Vale, V. R. Osório e Castro & A. P. Carvalho	239	Transport of pyruvate and lactate into human erythrocytes. Evidence for the involvement of the chloride carrier and a chloride-independent carrier. By A. P. Halestrap	193
Effects of triphenylsulphonium ions on mitochondria. Inhibition of adenosine triphosphatase activity. By R. H. Barrett & M. J. Selwyn	315	The dissociation of exocytosis and respiratory stimulation in leucocytes by ionophores. By G. Zabucchi & D. Romeo	209
Glutamate metabolism and transport in rat brain mitochondria. By S. C. Dennis, J. M. Land & J. B. Clark	323	Production of 1,2-diacylglycerol and phosphatidate in human erythrocytes treated with calcium and ionophore A23187. By D. Allan, R. Watts & R. H. Michell	225
		The androgenic regulation of prostate proteins with a high affinity for deoxyribonucleic acid. Evidence for a prostate deoxyribonucleic acid-unwinding protein. By W. I. P. Mainwaring, P. S. Rennie & J. Keen	253

	PAGE		PAGE
Prevention, by ribosome-bound nascent poly-phenylalanine chains, of the functional interaction of T-2 toxin with its receptor site. By M. Cannon, K. E. Smith & C. J. Carter	289	Nuclear binding of progesterone in hen oviduct. Role of acidic chromatin proteins in high-affinity binding. By R. A. Webster, G. M. Pikler & T. C. Spelsberg	409
Effect of pent-4-enoic acid, propionic acid and other short-chain fatty acids on citrulline synthesis in rat liver mitochondria. By A. M. Glasgow & H. P. Chase	301	Equilibrium-dialysis studies of the interaction between cholic acid and 100000g-supernatant preparations from the rat liver. By R. C. Strange, I. A. Nimmo & I. W. Percy-Robb	427
Control of rat mammary-gland pyruvate dehydrogenase by insulin and prolactin. By B. Field & H. G. Coore	333		
The regulation of rat liver tryptophan pyrrolase activity by reduced nicotinamide-adenine dinucleotide (phosphate). Experiments with glucose and nicotinamide. By A. A.-B. Badawy & M. Evans	381	Metabolism in Whole Organisms	
Nuclear binding of progesterone in chick oviduct. Multiple binding sites <i>in vivo</i> and transcriptional response. By T. C. Spelsberg	391	Effect of ischaemic limb injury on the rates of metabolism of ketone bodies in starved rats. By R. N. Barton	233
Nuclear binding of progesterone in hen oviduct. Binding to multiple sites <i>in vitro</i> . By G. M. Pikler, R. A. Webster & T. C. Spelsberg	399	Studies on the metabolic role of <i>myo</i> -inositol. Distribution of radioactive <i>myo</i> -inositol in the male rat. By L. M. Lewin, Y. Y. S. Sulimovici & P. F. Kraicer	375

RAPID PAPERS

	PAGE		PAGE
Biosynthesis and Degradation		Cellular Interactions and Control Processes	
The existence of a glyconeogenic pathway in rat skin. By R. F. Peters & A. M. White	465	Long-term effects of a high glucose concentration on cyclic nucleotide phosphodiesterase activity in mouse pancreatic islets maintained in tissue culture. By C. Berne & A. Andersson	461
Deoxyribonucleoside triphosphate pools in vitamin B-12-deficient <i>Euglena gracilis</i> . By E. F. Carell & G. H. Goetz	473		
Subcellular Structures		Metabolism in Whole Organisms	
The development of the intense circular-dichroic signal during granum formation in greening etiolated maize. By S. Demeter, L. Mustardy, E. Machowicz & R. P. F. Gregory	469	Glucose transport as rate-limiting step in the growth of <i>Escherichia coli</i> on glucose. By D. Herbert & H. L. Kornberg	477

The following papers appeared in the last issue of the *Biochemical Journal*

Molecular Aspects
Contents of Volume 155, No. 2, 1976

FULL PAPERS

	PAGE		PAGE
Proteins			
Mouse haemoglobin beta chains. Sequence data on embryonic γ chain and genetic linkage of the γ -chain locus to the adult β -chain locus <i>Hbb</i> . By J. G. Gilman	231	Preparation of the 3-monosulphates of cholic acid, chenodeoxycholic acid and deoxycholic acid. By E. S. Haslewood & G. A. D. Haslewood	401
The actin of muscle and fibroblasts. By P. J. Anderson	297	Carbohydrates	
A comparison of the properties of renin isolated from pig and rat kidney. By M. Lauritzen, J. J. Damsgaard, I. Rubin & E. Lauritzen	317	The structures of the carbohydrate moieties of the α subunit of human chorionic gonadotrophin. By J. F. Kennedy & M. F. Chaplin	303
The mechanism of folding of globular proteins. Suitability of a penicillinase from <i>Staphylococcus aureus</i> as a model for refolding studies. By B. Robson & R. H. Pain	325	Small Molecules	
The mechanism of folding of globular proteins. Equilibria and kinetics of conformational transitions of penicillinase from <i>Staphylococcus aureus</i> involving a state of intermediate conformation. By B. Robson & R. H. Pain	331	Bilirubin conjugates in bile of man, rat and dog. Semi-quantitative analysis of bile composition by thin-layer chromatography. By B. A. Noir	365
Active fragments obtained by cyanogen bromide cleavage of ovomucoid. By J. G. Beeley	345	Synthesis and separation by thin-layer chromatography of bilirubin-IX isomers. Their identification as tetrapyrroles and dipyrrolic ethyl anthranilate azo derivatives. By N. Blanckaert, K. P. M. Heirwegh & F. Compernelle	405
The molybdenum-iron protein of <i>Klebsiella pneumoniae</i> nitrogenase. Evidence for non-identical subunits from peptide 'mapping'. By C. Kennedy, R. R. Eady, E. Kondorosi & D. K. Rekosh	383	Enzymology	
Nucleic Acids			
The circular dichroism of ribosomal ribonucleic acids. By R. A. Cox, W. Hirst, E. Godwin & I. Kaiser	279	A cyanogen bromide fragment of β -galactosidase from <i>Escherichia coli</i> with α -donor activity in complementation of the enzyme from mutant M15. By D. V. Marinkovic & J. N. Marinkovic	209
<i>Appendix</i> : Calculation of the circular dichroism of bihelical ribonucleic acids as a function of nucleotide composition. By R. A. Cox & W. Hirst	292	Isolation and properties of α -D-mannosidase from human kidney. By D. V. Marinkovic & J. N. Marinkovic	217
Lipids			
Polar-group behaviour in mixed monolayers of phospholipids and fusogenic lipids. By B. Maggio & J. A. Lucy	353	The concerted inactivation of <i>Escherichia coli</i> uridine diphosphate galactose 4-epimerase by sugar nucleotide together with a free sugar. By P. Blackburn & W. Ferdinand	225
		The purification of human enterokinase by affinity chromatography and immunoadsorption. Some observations on its molecular characteristics and comparisons with the pig enzyme. By D. A. W. Grant & J. Hermon-Taylor	243

(continued overleaf)

(continued from preceding page)

	PAGE		PAGE
Neutral proteinases of human spleen. Purification and criteria for homogeneity of elastase and cathepsin G. By P. M. Starkey & A. J. Barrett	255	Selective inactivation of the transacylase components of the 2-oxo acid dehydrogenase multienzyme complexes of <i>Escherichia coli</i> . By J. P. Brown & R. N. Perham	419
Human lysosomal elastase. Catalytic and immunological properties. By P. M. Starkey & A. J. Barrett	265	Spin-label study of the mobility of enzyme-bound lipoic acid in the pyruvate dehydrogenase multienzyme complex of <i>Escherichia coli</i> . By M. C. Ambrose & R. N. Perham	429
Human cathepsin G. Catalytic and immunological properties. By P. M. Starkey & A. J. Barrett	273	Phosphonomethyl analogues of hexose phosphates. By D. Webster, W. R. Jondorf & H. B. F. Dixon	433
Separation of rat muscle aminopeptidases. By M. E. Parsons & R. J. T. Pennington	375	<i>Appendix: A simplified preparation of 2-hydroxy-4-phosphonobutyric acid.</i> By H. B. F. Dixon & M. J. Sparkes	440
Observations on the different substrate behaviour of tropocollagen molecules in solution and intermolecularly cross-linked tropocollagen within insoluble polymeric collagen fibrils. By F. S. Steven	391		

RAPID PAPERS

	PAGE		PAGE
Proteins		The computation of hyperbolic dependences in enzyme kinetics. By R. K. Airas	449
The use of ninhydrin as a reagent for the reversible modification of arginine residues in proteins. By M. F. Chaplin	457	Kinetic studies on the binding of cyanide to oxygenated cytochrome <i>c</i> oxidase. By T. Brittain & C. Greenwood	453
Enzymology		Preferential inhibition by poly(adenylic acid) of minus-strand synthesis by bacteriophage Q β ribonucleic acid replicase. By M. Kondo	461
The effect of some analogues of disulfiram on the aldehyde dehydrogenases of sheep liver. By T. M. Kitson	445		