Biochemical Journal Volume 302, part 1 15 August 1994

Research Communications		
The role of lysine-67 in a class C β -lactamase is mainly electrostatic	D. Monnaie, A. Dubus and JM. Frère	1–4
Receptor-mediated Mn ²⁺ influx in rat hepatocytes: comparison of cells loaded with Fura-2 ester and cells microinjected with Fura-2 salt	G.E.N. Kass, DL. Webb, S.C. Chow, J. Llopis, PO. Berggren	59
Cloning of cDNA encoding the bifunctional dehydroquinase shikimate dehydrogenase of aromatic-amino-acid biosynthesis in <i>Nicotiana tabacum</i>	C.A. Bonner and R.A. Jensen	11–14
Research Papers		
Proteins		
Glomerular mesangial cells <i>in vitro</i> synthesize an aggregating proteoglycan immunologically related to versican	G.J. Thomas, M.T. Bayliss, K. Harper, R.M. Mason and M. Davies	49–56
Characterization of discrete classes of binding sites of human serum albumin by application of thermodynamic principles	S. Urien, P. Nguyen, S. Berlioz, F. Brée, F. Vacherot and JP. Tillement	69–72
Effects of mutating Asn-52 to isoleucine on the haem-linked properties of cytochrome <i>c</i>	A. Schejter, T.I. Koshy, T.L. Luntz, R. Sanishvili, I. Vig and E. Margoliash	95–101
Modulation of crystal formation by bone phosphoproteins: role of glutamic acid-rich sequences in the nucleation of hydroxyapatite by bone sialoprotein	G.K. Hunter and H.A. Goldberg	175–179
Binding of recombinant annexin V to endothelial cells: effect of annexin V binding on endothelial-cell-mediated thrombin formation	W.L. van Heerde, S. Poort, C. van 't Veer, C.P.M. Reutelingsperger and P.G. de Groot	305–312
Enzymes		
Characterization of two membrane-associated β -glucosidases from maize ($\it Zea\ mays\ L.$) coleoptiles	J. Feldwisch, A. Vente, R. Zettl, L. Bako, N. Campos and K. Palme	15–21
Binding to thermolysin of phenolate-containing inhibitors necessitates a revised mechanism of catalysis	W.L. Mock and M. Aksamawati	57–68
Acetylation with succinimidyl acetate affects both the catalytic site and the regulation of the erythrocyte Ca ²⁺ pump	C. Donnet, A.J. Caride, H.N. Fernández and J.P.F.C. Rossi	133–140
Purification of acetaldehyde dehydrogenase and alcohol dehydrogenases from <i>Thermoanaerobacter ethanolicus</i> 39E and characterization of the secondary-alcohol dehydrogenase (2° Adh) as a bifuctional alcohol dehydrogenase—acetyl-CoA reductive thioesterase	D. Burdette and J.G. Zeikus	163–170
Human GTP cyclohydrolase I: only one out of three cDNA isoforms gives rise to the active enzyme	M. Gütlich, E. Jaeger, K.P. Rücknagel, T. Werner, W. Rödl, I. Ziegler and A. Bacher	215–221
Interaction between glycine decarboxylase, serine hydroxymethyltransferase and tetrahydrofolate polyglutamates in pea leaf mitochondria	F. Rebeille, M. Neuburger and R. Douce	223–227
Purification of enzymes of the kallikrein gene family (rK8 and rK9) from the rat prostate	H. Schøyen, I. Wassdal, K. Toft, M. Almendingen and T. Berg	229–235
Kinetic studies with N ² -phenylguanines and with L-thymidine indicate that Herpes simplex virus type-1 thymidine kinase and thymidylate kinase share a common active site	G. Maga, F. Focher, G.E. Wright, M. Capobianco, A. Garbesi, A. Bendiscioli and S. Spadari	279–282
Identification of two acidic residues involved in the catalysis of xylanase A from Streptomyces lividans	A. Moreau, M. Roberge, C. Manin, F. Shareck, D. Kluepfel and R. Morosoli	291–295
Carbohydrates and lipids		
Synthesis and secretion of mucin by the human colonic tumour cell line LS180	D.J. McCool, J.F. Forstner and G.G. Forstner	111–118
Oxidation of low-density lipoprotein by hypochlorite causes aggregation that is mediated by modification of lysine residues rather than lipid oxidation	L.J. Hazell, J.J.M. van den Berg and R. Stocker	297–304

(iii)

Gene structure and expression		
Stabilization of the mRNA for the uncoupling protein thermogenin by transcriptional/translational blockade and by noradrenaline in brown adipocytes differentiated in culture: a degradation factor induced by cessation of stimulation?	C. Picó, D. Herron, A. Palou, A. Jacobsson, B. Cannon and J. Nedergaard	81–86
Identification of two elements involved in regulating expression of the murine leukaemia inhibitory factor gene	LW. Hsu and J.K. Heath	103–110
Regulation of mammalian ribonucleotide reductase R1 mRNA stability is mediated by a ribonucleotide reductase R1 mRNA 3'-untranslated region <i>cis-trans</i> interaction through a protein kinase C-controlled pathway	F.Y. Chen, F.M. Amara and J.A. Wright	125–132
Structure and expression of the <i>Drosophila</i> ubiquitin-80-amino-acid fusion-protein gene	R. Barrio, A. del Arco, H.L. Cabrera and C. Arribas	237–244
Regulation of metabolism		•
Estimation of peroxisomal β -oxidation in rat heart by a direct assay of acyl-CoA oxidase	C. Chu, LF. Mao and H. Schulz	23–29
Measurement of pentose phosphate-pathway activity in a single incubation with [1,6-13C2,6,6-2H2]glucose	B.D. Ross, P.B. Kingsley and O. Ben-Yoseph	31–38
Medium-chain fatty acids as short-term regulators of hepatic lipogenesis	M.J.H. Geelen	141–146
The kinetic basis of threshold effects observed in mitochondrial diseases: a systemic approach	T. Letellier, R. Heinrich, M. Malgat and JP. Mazat	171–174
Application of simultaneous spleen and liver perfusion to the study of reverse cholesterol transport	M.A. Mindham and P.A. Mayes	207–213
Membranes and bioenergetics		
On the interactions of Ca ²⁺ and cyclosporin A with a mitochondrial inner membrane pore: a study using cobaltammine complex inhibitors of the Ca ²⁺ uniporter	M. Crompton and L. Andreeva	181–185
Asparagine-linked oligosaccharides are localized to single extracytosolic segments in multi-span membrane glycoproteins	C. Landolt-Marticorena and R.A.F. Reithmeier	253–260
Carrier-mediated transport of intact UDP-glucuronic acid into the lumen of endoplasmic-reticulum-derived vesicles from rat liver	X. Bossuyt and N. Blanckaert	261–269
Receptors and signal transduction		
Molecular cloning and expression of a unique receptor-like protein- tyrosine-phosphatase in the leucocyte-common-antigen-related phosphatase family	WR. Zhang, N. Hashimoto, F. Ahmad, W. Ding and B.J. Goldstein	3 9–4 7
Cytosolic calcium pre-elevation amplifies agonist-induced calcium release in human leukaemic HL-60 cells	YM. Leung, CY. Kwan and TT. Loh	87–94
Inhibition of L-type calcium-channel activity by thapsigargin and 2,5-t-butylhydroquinine, but not by cyclopiazonic acid	E.J. Nelson, C.CR. Li, R. Bangalore, T. Benson, R.S. Kass and P.M. Hinkle	147–154
Rapid heparin-sensitive Ca ²⁺ release following Ca ²⁺ -ATPase inhibition in intact HL-60 granulocytes. Evidence for Ins(1,4,5) <i>P</i> ₃ -dependent Ca ²⁺ cycling across the membrane of Ca ²⁺ stores	C.J. Favre, D.P. Lew and KH. Krause	155–162
Pharmacology of a Ca ²⁺ -influx pathway activated by emptying the intracellular Ca ²⁺ stores in HL-60 cells: evidence that a cytochrome <i>P</i> -450 is not involved	B.D. Koch, G.F. Faurot, M.V. Kopanitsa and D.C. Swinney	187–190
Differential intracellular localization of human mineralocorticosteroid receptor on binding of agonists and antagonists	M. Lombès, N. Binart, F. Delahaye, E.E. Baulieu and ME. Rafestin-Oblin	191–197
Solubilization and purification of the retinol-binding protein receptor from human placental membranes	A. Sivaprasadarao, M. Boudjelal and J.B.C. Findlay	245–251
Staurosporine inhibits phorbol 12-myristate 13-acetate- and insulin- stimulated translocation of GLUT1 and GLUT4 glucose transporters in rat adipose cells	H. Nishimura and I.A. Simpson	271–277

cell

Contents