

Research Communications

- Involvement of the core protein in the first β -*N*-acetylgalactosamine transfer to the glycosaminoglycan–protein linkage-region tetrasaccharide and in the subsequent polymerization: the critical determining step for chondroitin sulphate biosynthesis
S. Nadanaka, H. Kitagawa, F. Goto, J.-i. Tamua, K.W. Neumann, T. Ogawa and K. Sugahara **353–357**
- Identification of centaurin- α , as a potential *in vivo* phosphatidylinositol 3,4,5-trisphosphate-binding protein that is functionally homologous to the yeast ADP-ribosylation factor (ARF) GTPase-activating protein, Gcs1
K. Venkateswarlu, P.B. Oatey, J.M. Tavaré, T.R. Jackson and P.J. Cullen **359–363**
- Signal transduction pathway regulating prostaglandin EP3 receptor-induced neurite retraction: requirement for two different tyrosine kinases
J. Aoki, H. Katoh, H. Yasui, Y. Yamaguchi, K. Nakamura, H. Hasegawa, A. Ichikawa and M. Negishi **365–369**
- The 5-lipoxygenase activating protein (FLAP) inhibitor, MK886, induces apoptosis independently of FLAP
K. Datta, S.S. Biswal and J.P. Kehrer **371–375**

**Research Papers****Proteins**

- Isolation and characterization of a novel antifreeze protein from carrot (*Daucus carota*)
M. Smallwood, D. Worrall, L. Byass, L. Elias, D. Ashford, C.J. Doucet, C. Holt, J. Telford, P. Lillford and D.J. Bowles **385–391**
- Involvement of Arg-328, Arg-334 and Arg-342 of DnaA protein in the functional interaction with acidic phospholipids
Y. Yamaguchi, M. Hase, M. Makise, S. Mima, T. Yoshimi, Y. Ishikawa, T. Tsuchiya and T. Mizushima **433–438**
- Hypochlorite-induced oxidation of proteins in plasma: formation of chloramines and nitrogen-centred radicals and their role in protein fragmentation
C.L. Hawkins and M.J. Davies **539–548**
- CAT2-mediated L-arginine transport and nitric oxide production in activated macrophages
D.K. Kakuda, M.J. Sweet, C.L. MacLeod, D.A. Hume and D. Markovich **549–553**
- Identification of peroxisomal proteins by using M13 phage protein VI phage display: molecular evidence that mammalian peroxisomes contain a 2,4-dienoyl-CoA reductase
M. Fransen, P.P. Van Veldhoven and S. Subramani **561–568**

Enzymes

- Glucuronidation of the environmental oestrogen bisphenol A by an isoform of UDP-glucuronosyltransferase, UGT2B1, in the rat liver
H. Yokota, H. Iwano, M. Endo, T. Kobayashi, H. Inoue, S.-i. Ikushiro and A. Yuasa **405–409**
- Relationship between cytochrome P450 catalytic cycling and stability: fast degradation of ethanol-inducible cytochrome P450 2E1 (CYP2E1) in hepatoma cells is abolished by inactivation of its electron donor NADPH–cytochrome P450 reductase
A. Zhukov and M. Ingelman-Sundberg **453–458**
- Insulin and dexamethasone stimulation of cardiac lipoprotein lipase activity involves the actin-based cytoskeleton
H.S. Ewart and D.L. Severson **485–490**

3-Nitropropionic acid oxidase from horseshoe vetch (<i>Hippocrepis comosa</i>): a novel plant enzyme	C.R. Hipkin, M.A. Salem, D. Simpson and S.J. Wainwright	491–495
Sepiapterin reductase producing L-threo-dihydrobiopterin from <i>Chlorobium tepidum</i>	S.-H. Cho, J.-U. Na, H. Youn, C.-S. Hwang, C.-H. Lee and S.-O. Kang	497–503
Chemical rescue of the catalytically disabled clostridial glutamate dehydrogenase mutant D165S by fluoride ion	B.M. Hayden, J.L.E. Dean, S.R. Martin and P.C. Engel	555–560
Carbohydrates and lipids		
Contribution of copper binding to the inhibition of lipid oxidation by plasmalogen phospholipids	D. Hahnel, T. Huber, V. Kurze, K. Beyer and B. Engelmann	377–383
Partial replacement of bile salts causes marked changes of cholesterol crystallization in supersaturated model bile systems	T. Nishioka, S. Azuma, G. Yamashita and G. Kajiyama	445–451
Gene structure and expression		
Cationic liposome-encapsulated antisense oligonucleotide mediates efficient killing of intracellular <i>Leishmania</i>	R. Chakraborty, D. Dasgupta, S. Adhya and M.K. Basu	393–396
Mechanism of ubiquitous expression of mouse uncoupling protein 2 mRNA: control by <i>cis</i> -acting DNA element in 5'-flanking region	H. Yoshitomi, K. Yamazaki and I. Tanaka	397–404
Expression of the rat liver carnitine palmitoyltransferase I (<i>CPT-1α</i>) gene is regulated by Sp1 and nuclear factor Y: chromosomal localization and promoter characterization	M.L. Steffen, W.R. Harrison, F.F.B. Elder, G.A. Cook and E.A. Park	425–432
Functional expression of rat thioredoxin reductase: selenocysteine insertion sequence element is essential for the active enzyme	N. Fujiwara, T. Fujii, J. Fujii and N. Taniguchi	439–444
Stable expression of protective protein/cathepsin A-green fluorescent protein fusion genes in a fibroblastic cell line from a galactosialidosis patient. Model system for revealing the intracellular transport of normal and mutated lysosomal enzymes	Y. Naganawa, K. Itoh, M. Shimmoto, S. Kamei, K. Takiguchi, H. Doi and H. Sakuraba	467–474
Neuronal expression of the rat <i>M₁</i> muscarinic acetylcholine receptor gene is regulated by elements in the first exon	I.C. Wood, M. Garriga Canut, C.L. Palmer, S. Pepitoni and N.J. Buckley	475–483
Unique distance- and DNA-turn-dependent interactions in the human protein C gene promoter confer submaximal transcriptional activity	C.A. Spek, R.M. Bertina and P.H. Reitsma	513–518
Regulation of metabolism		
Expression of hormone-sensitive lipase and its regulation by adrenaline in skeletal muscle	J. Langfort, T. Ploug, J. Ihlemann, M. Saldo, C. Holm and H. Galbo	459–465
Membranes of bioenergetics		
Mapping of a palmitoylatable band 3-binding domain of human erythrocyte membrane protein 4.2	R. Bhattacharyya, A.K. Das, P.K. Moitra, B. Pal, I. Mandal and J. Basu	505–512
Receptors and signal transduction		
Structural elements within the methylation loop (residues 112–117) and EF hands III and IV of calmodulin are required for Lys ¹¹⁵ trimethylation	J.A. Cobb, C.R. Han, D.M. Wills and D.M. Roberts	417–424
Ryanodine and inositol trisphosphate receptors are differentially distributed and expressed in rat parotid gland	X. Zhang, J. Wen, K.R. Bidasee, H.R. Besch, Jr., R.J.H. Wojcikiewicz, B. Lee and R.P. Rubin	519–527

Visualization of distinct patterns of subcellular redistribution of the thyrotropin-releasing hormone receptor-1 and $G_q\alpha/G_{11}\alpha$ induced by agonist stimulation

T. Drmota, J. Novotny, G.W. Gould, P. Svoboda and G. Milligan



529–538

Cell biology and development

Apoptosis via microtubule disassembly by an antitumour compound, pironetin

M. Kondoh, T. Usui, T. Nishikiori, T. Mayumi and H. Osada

411–416