

**Reviews**

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| <b>Neuropathy target esterase</b><br><i>by P. Glynn</i>                                    | 625–631 |
| <b>Polyamine transport in bacteria and yeast</b><br><i>by K. Igarashi and K. Kashiwagi</i> | 633–642 |

**Research Papers****Proteins**

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| Topology studies with biosynthetic fragments identify interacting transmembrane regions of the human red-cell anion exchanger (band 3; AE1)  | J.D. Groves and M.J.A. Tanner  | 687–697 |
| Structural model for the organization of the transmembrane spans of the human red-cell anion exchanger (band 3; AE1)   | J.D. Groves and M.J.A. Tanner  | 699–711 |
| Glyoxalase I is a novel nitric-oxide-responsive protein  | A. Mitsumoto, K.-R. Kim, G. Oshima, M. Kunimoto, K. Okawa, A. Iwamatsu and Y. Nakagawa | 837–844 |
| Identification of an anti-mycobacterial domain in NK-lysin and granulysin  | D. Andreu, C. Carreño, C. Linde, H.G. Boman and M. Andersson                           | 845–849 |
| [ <sup>13</sup> C]Methionine NMR and metal-binding studies of recombinant human transferrin N-lobe and five methionine mutants: conformational changes and increased sensitivity to chloride | Q.-Y. He, A.B. Mason, B.M. Tam, R.T.A. MacGillivray and R.C. Woodworth                 | 881–887 |

**Enzymes**

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| Biochemical and spectroscopic characterization of <i>Escherichia coli</i> aconitases (AcnA and AcnB)   | P.A. Jordan, Y. Tang, A.J. Bradbury, A.J. Thomson and J.R. Guest  | 739–746 |
| Models for enzyme superactivity in aqueous solutions of surfactants  | P. Viparelli, F. Alfani and M. Cantarella   | 765–773 |
| Molecular cloning and characterization of a novel dual-specificity protein phosphatase possibly involved in spermatogenesis  | K. Nakamura, H. Shima, M. Watanabe, T. Haneji and K. Kikuchi  | 819–825 |
| cDNA cloning, bacterial expression, <i>in vitro</i> renaturation and affinity purification of the zinc endopeptidase astacin   | S. Reyda, E. Jacob, R. Zwilling and W. Stöcker  | 851–857 |
| Function of human mitochondrial 2,4-dienoyl-CoA reductase and rat monofunctional $\Delta^3$ - $\Delta^2$ -enoyl-CoA isomerase in $\beta$ -oxidation of unsaturated fatty acids | A. Gurvitz, L. Wabnegger, A.I. Yagi, M. Binder, A. Hartig, H. Ruis, B. Hamilton, I.W. Dawes, J.K. Hiltunen and H. Rottensteiner | 903–914 |
| Acetylcholinesterase from <i>Schistosoma mansoni</i> : interaction of globular species with heparin  | R. Tarrab-Hazdai, L. Toker, I. Silman and R. Arnon  | 945–951 |

**Carbohydrates and lipids**

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| Protein specific N-glycosylation of tyrosinase and tyrosinase-related protein-1 in B16 mouse melanoma cells   | G. Negroiu, N. Branza-Nichita, A.J. Petrescu, R.A. Dwek and S.M. Petrescu                      | 659–665 |
| Purification and characterization of heparan sulphate proteoglycan from bovine brain  | Y. Park, G. Yu, N.S. Gunay and R.J. Linhardt   | 723–730 |
| Biosynthesis of glycosylphosphatidylinositols of <i>Plasmodium falciparum</i> in a cell-free incubation system: inositol acylation is needed for mannosylation of glycosylphosphatidylinositols | P. Gerold, N. Jung, N. Azzouz, N. Freiberg, S. Kobe and R.T. Schwarz                           | 731–738 |
| Synthesis of 8-epi-prostaglandin $F_{2\alpha}$ by human endothelial cells: role of prostaglandin $H_2$ synthase   | M.T. Watkins, G.M. Patton, H.M. Soler, H. Albadawi, D.E. Humphries, J.E. Evans and H. Kadowaki | 747–754 |

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| Proteophosphoglycans of <i>Leishmania mexicana</i> . Identification, purification, structural and ultrastructural characterization of the secreted promastigote proteophosphoglycan pPPG2, a stage-specific glycoisoform of amastigote aPPG  | C. Klein, U. Göpfert, N. Goehring, Y.-D. Stierhof and T. Ilg                                     | 775–786 |
| Proteophosphoglycans of <i>Leishmania mexicana</i> . Molecular cloning and characterization of the <i>Leishmania mexicana ppg2</i> gene encoding the proteophosphoglycans aPPG and pPPG2 that are secreted by amastigotes and promastigotes  | U. Göpfert, N. Goehring, C. Klein and T. Ilg   | 787–795 |
| <b>Gene structure and expression</b>   |  |         |
| Gene structure of mouse BIT/SHPS-1   | S.-i. Sano, H. Ohnishi and M. Kubota   | 667–675 |
| Characterization of a novel transcript of prostaglandin endoperoxide H synthase 1 with a tissue-specific profile of expression   | M.H. Plant and O. Laneuville   | 677–685 |
| Functional analysis of the promoter region of the human phosphotyrosine phosphatase activator gene: Yin Yang 1 is essential for core promoter activity   | V. Janssens, C. Van Hoof, I. De Baere, W. Merlevede and J. Goris                                 | 755–763 |
| Interferon- $\gamma$ -dependent stimulation of human involucrin gene expression: STAT1 (signal transduction and activators of transcription 1) protein activates involucrin promoter activity  | H. Takahashi, K. Asano, S. Nakamura, A. Ishida-Yamamoto and H. Iizuka                            | 797–802 |
| Immunosuppressants FK506 and rapamycin have different effects on the biosynthesis of cytoplasmic actin during the early period of T cell activation  | S. Miyamoto and B. Safer   | 803–812 |
| Insulin stimulates pancreatic-duodenal homoeobox factor-1 (PDX1) DNA-binding activity and insulin promoter activity in pancreatic $\beta$ cells  | H. Wu, W.M. Macfarlane, M. Tadayyon, J.R.S. Arch, R.F.L. James and K. Docherty                   | 813–818 |
| Transcription from the P2 promoter of the growth hormone receptor gene involves members of the Sp transcription factor family  | T.E. Adams   | 867–872 |
| Functional antagonism between inhibitor of DNA binding (Id) and adipocyte determination and differentiation factor 1/sterol regulatory element-binding protein-1c (ADD1/SREBP-1c) <i>trans</i> -factors for the regulation of fatty acid synthase promoter in adipocytes             | M. Moldes, M. Boizard, X. Le Liepvre, B. Fève, I. Dugail and J. Pairault                         | 873–880 |
| Expression of glypican-4 in haematopoietic-progenitor and bone-marrow-stromal cells  | B. Siebertz, G. Stöcker, Z. Drzeniek, S. Handt, U. Just and H.-D. Haubeck                        | 937–943 |
| Organization and sequence of the gene for the human mitochondrial dicarboxylate carrier: evolution of the carrier family   | G. Fiermonte, V. Dolce, R. Arrigoni, M.J. Runswick, J.E. Walker and F. Palmieri                  | 953–960 |
| E-box motifs within the human vasopressin gene promoter contribute to a major enhancer in small-cell lung cancer   | J.M. Coulson, C.E. Fiskerstrand, P.J. Woll and J.P. Quinn  | 961–970 |
| <b>Regulation of metabolism</b>  |  |         |
| The <i>in vitro</i> manipulation of carbohydrate metabolism: a new strategy for deciphering the cellular defence mechanisms against nitric oxide attack  | C. Le Goffe, G. Vallette, A. Jarry, C. Bou-Hanna and C.L. Laboisie                               | 643–648 |
| Metabolism, mitochondrial uptake and toxicity of 2',3'-dideoxycytidine   | L. Rossi, S. Serafini, G.F. Schiavano, A. Casabianca, G. Vallanti, L. Chiarantini and M. Magnani | 915–920 |
| <b>Receptors and signal transduction</b>   |  |         |
| Stimulation of pancreatic $\beta$ -cell proliferation by growth hormone is glucose-dependent: signal transduction via Janus kinase 2 (JAK2)/signal transducer and activator of transcription 5 (STAT5) with no crosstalk to insulin receptor substrate-mediated mitogenic signalling | S.P. Cousin, S.R. Hügl, M.G. Myers, Jr., M.F. White, A. Reifel-Miller and C.J. Rhodes            | 649–658 |

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| Identification of betacellulin as a major peptide growth factor in milk: purification, characterization and molecular cloning of bovine betacellulin  | A.J. Dunbar, I.K. Priebe, D.A. Belford and C. Goddard   | <b>713–721</b> |
| Decorin endocytosis: structural features of heparin and heparan sulphate oligosaccharides interfering with receptor binding and endocytosis   | H. Hausser and H. Kresse  | <b>827–835</b> |
| Direct interaction between p47 <sup>phox</sup> and protein kinase C: evidence for targeting of protein kinase C by p47 <sup>phox</sup> in neutrophils   | E.P. Reeves, L.V. Dekker, L.V. Forbes, F.B. Wientjes, A. Grogan, D.J.C. Pappin and A.W. Segal | <b>859–866</b> |
| Activation of tyrosine kinases by $\alpha_{1A}$ -adrenergic and growth factor receptors in transfected PC12 cells   | H. Zhong and K.P. Minneman  | <b>889–894</b> |
| Role of Janus kinase-2 in insulin-mediated phosphorylation and inactivation of protein phosphatase-2A and its impact on upstream insulin signalling components  | N. Begum and L. Ragolia   | <b>895–901</b> |
| Different roles of protein kinase C $\alpha$ and $\delta$ isoforms in the regulation of neutral sphingomyelinase activity in HL-60 cells  | D. Višnjić, D. Batinić and H. Banfić  | <b>921–928</b> |
| The pleckstrin homology domains of protein kinase B and GRP1 (general receptor for phosphoinositides-1) are sensitive and selective probes for the cellular detection of phosphatidylinositol 3,4-bisphosphate and/or phosphatidylinositol 3,4,5-trisphosphate <i>in vivo</i> | A. Gray, J. Van der Kaay and C.P. Downes  | <b>929–936</b> |
| Phosphorylation of P20 is associated with the actions of insulin in rat skeletal and smooth muscle  | Y. Wang, A. Xu and G.J.S. Cooper  | <b>971–976</b> |