

Review

- Recognition of DNA alterations by the mismatch repair system** 1–13
by G. Marra and P. Schär

Research Papers

- Synthesis and characterization of bactericidal oligopeptides designed on the basis of an insect anti-bacterial peptide H. Saido-Sakanaka, J. Ishibashi, A. Sagisaka, E. Momotani and M. Yamakawa 29–33
- Incorporation of iron by the unusual dodecameric ferritin from *Listeria innocua* S. Stefanini, S. Cavallo, B. Montagnini and E. Chiancone 71–75
- The major phosphorylation site of the NADPH oxidase component p67^{phox} is Thr²³³ L.V. Forbes, O. Truong, F.B. Wientjes, S.J. Moss and A.W. Segal 99–105
- Presence of enolase in the M-band of skeletal muscle and possible indirect interaction with the cytosolic muscle isoform of creatine kinase G. Foucault, M. Vacher, T. Merkulova, A. Keller and M. Arrio-Dupont 115–121
- Characterization of the 70 kDa polypeptide of the Na/Ca exchanger R.I. Saba, A. Bollen and A. Herchuelz 139–145
- Biochemical characterization of *Bacillus thuringiensis* cytolytic toxins in association with a phospholipid bilayer J. Du, B.H. Knowles, J. Li and D.J. Ellar 185–193
- The folding and assembly of the dodecameric type II dehydroquinases N.C. Price, D.J. Boam, S.M. Kelly, D. Duncan, T. Krell, D.G. Gourley, J.R. Coggins, R. Virden and A.R. Hawkins 195–202
- Purification, characterization and molecular cloning of trichoanguin, a novel type I ribosome-inactivating protein from the seeds of *Trichosanthes anguina* L.-P. Chow, M.-H. Chou, C.-Y. Ho, C.-C. Chuang, F.-M. Pan, S.-H. Wu and J.-Y. Lin 211–219

Enzymes

- Activity of human 11-*cis*-retinol dehydrogenase (Rdh5) with steroids and retinoids and expression of its mRNA in extra-ocular human tissue J. Wang, X. Chai, U. Eriksson and J.L. Napoli 23–27
- 6-Phosphogluconate dehydrogenase from *Lactococcus lactis*: a role for arginine residues in binding substrate and coenzyme E. Tetaud, S. Hanau, J.M. Wells, R.W.F. Le Page, M.J. Adams, S. Arkison and M.P. Barrett 55–60
- Inhibition of proprotein convertases-1, -7 and furin by diterpenes of *Andrographis paniculata* and their succinoyl esters A. Basak, S. Cooper, A.G. Roberge, U.K. Banik, M. Chrétien and N.G. Seidah 107–113
- Hydrogen bonding and protein perturbation in β -lactam acyl-enzymes of *Streptococcus pneumoniae* penicillin-binding protein PBP2x R.S. Chittock, S. Ward, A.-S. Wilkinson, P. Caspers, B. Mensch, M.G.P. Page and C.W. Wharton 153–159
- Spontaneous activation of NADPH oxidase in a cell-free system: unexpected multiple effects of magnesium ion concentrations A.R. Cross, R.W. Erickson, B.A. Ellis and J.T. Curnutte 229–233
- The kinetics of acylation and deacylation of penicillin acylase from *Escherichia coli* ATCC 11105: evidence for lowered pK_a values of groups near the catalytic centre M. Morillas, M.L. Goble and R. Virden 235–239

Carbohydrates and lipids

- Predominance of the acylation route in the metabolic processing of exogenous sphingosine in neural and extraneural cells in culture L. Riboni, R. Bassi, A. Prinetti, P. Viani and G. Tettamanti 147–151

Gene structure and expression

- Alternatively spliced mRNA variants of chloroplast ascorbate peroxidase isoenzymes in spinach leaves K. Yoshimura, Y. Yabuta, M. Tamoi, T. Ishikawa and S. Shigeoka **41–48**
- Regulation of the gene for human dipeptidyl peptidase IV by hepatocyte nuclear factor 1 α R.H. Erickson, J.R. Gum, C.D. Lotterman, J.W. Hicks, R.S. Lai and Y.S. Kim **91–97**
- Control of sarcoplasmic/endoplasmic-reticulum Ca²⁺ pump expression in cardiac and smooth muscle C.M. Misquitta, A. Sing and A.K. Grover **167–173**

Membranes and bioenergetics

- Expression and purification of the first nucleotide-binding domain and linker region of human multidrug resistance gene product: comparison of fusions to glutathione S-transferase, thioredoxin and maltose-binding protein C. Wang, A.F. Castro, D.M. Wilkes and G.A. Altenberg **77–81**
- Brain spectrin (fodrin) interacts with phospholipids as revealed by intrinsic fluorescence quenching and monolayer experiments W. Diakowski, A. Prychidny, M. Świstak, M. Nietubyc, K. Białkowska, J. Szopa and A.F. Sikorski **83–90**
- Photodynamic action of porphyrin on Ca²⁺ influx in endoplasmic reticulum: a comparison with mitochondria F. Ricchelli, P. Barbato, M. Milani, S. Gobbo, C. Salet and G. Moreno **221–227**

Receptors and signal transduction

- Rat-2 fibroblasts express specific adrenomedullin receptors, but not calcitonin-gene-related-peptide receptors, which mediate increased intracellular cAMP and inhibit mitogen-activated protein kinase activity H.A. Coppock, A.A. Owji, C. Austin, P.D. Upton, M.L. Jackson, J.V. Gardiner, M.A. Ghatei, S.R. Bloom and D.M. Smith **15–22**
- Tyrosine phosphatase SHP-2 dephosphorylates the platelet-derived-growth-factor receptor but enhances its downstream signalling R. Zhao and Z.J. Zhao **35–39**
- Transforming mutation enhances the activity of the c-Kit soluble tyrosine kinase domain L.P.Y. Lam, R.Y.K. Chow and S.A. Berger **131–138**
- Activation of caspase-3-like proteases in apoptosis induced by sphingosine and other long-chain bases in Hep3B hepatoma cells W.-C. Hung, H.-C. Chang and L.-Y. Chuang **161–166**
- Agonist-induced desensitization and phosphorylation of m1-muscarinic receptors M.G. Waugh, R.A.J. Challiss, G. Berstein, S.R. Nahorski and A.B. Tobin **175–183**
- Evidence for the involvement of p59^{lyn} and p53/56^{lyn} in collagen receptor signalling in human platelets S.J. Briddon and S.P. Watson **203–209**

Cell biology and development

- Cell-cycle-regulated phosphorylation of cAMP response element-binding protein: identification of novel phosphorylation sites K. Saeki, A. Yuo and F. Takaku **49–54**
- Transmembrane 4 superfamily protein CD151 (PETA-3) associates with β_1 and $\alpha_{IIb}\beta_3$ integrins in haemopoietic cell lines and modulates cell–cell adhesion S. Fitter, P.M. Sincock, C.N. Jolliffe and L.K. Ashman **61–70**
- Purification of intracellular compartments involved in antigen processing: a new method based on magnetic sorting L.A. Perrin-cocon, P.N. Marche and C.L. Villiers **123–130**