

**Review**

Damage to DNA by reactive oxygen and nitrogen species: role in inflammatory disease and progression to cancer  
by H. Wiseman and B. Halliwell

17–29

**Instructions to authors: 1996**

1–15

**Research Communications**

Brain accumulation of *myo*-inositol in the trisomy 16 mouse, an animal model of Down's Syndrome

H.U. Shetty, H.W. Holloway, L.D. Acevedo and Z. Galdzicki

31–33

A redox-based mechanism for induction of interleukin-1 production by nitric oxide in a human colonic epithelial cell line (HT29-CI.16E)

G. Vallette, A. Jarry, J.-E. Branka and C.L. Labois

35–38

**Research Papers****Proteins**

Annexin II up-regulates cellular levels of p11 protein by a post-translational mechanism

A. Puisieux, J. Ji and M. Ozturk

51–55

Rapid identification of compounds with enhanced antimicrobial activity by using conformationally defined combinatorial libraries

S.E. Blondelle, E. Takahashi, R.A. Houghten and E. Pérez-Payá

141–147

Electrospray mass spectrometric evidence for the occurrence of two major variants in native pig pepsin A

B.N. Green, A.T. Jones and N.B. Roberts

241–244

PEST motifs are not required for rapid calpain-mediated proteolysis of c-fos protein

S. Carillo, M. Pariat, A.-M. Steff, I. Jariel-Encontre, F. Poulat, P. Berta and M. Piechaczyk

245–251

Characterization of an insulin from the three-toed amphiuma (Amphibia: Urodela) with an N-terminally extended A-chain and high receptor-binding affinity

J.M. Conlon, E.S. Cavanaugh, D.C. Mynarcik and J. Whittaker

283–287

**Enzymes**

Expression of human dopamine  $\beta$ -hydroxylase in *Drosophila* Schneider 2 cells

B. Li, S. Tsing, A.H. Kosaka, B. Nguyen, E.G. Osen, C. Bach, H. Chan and J. Barnett

57–64

1,10-Phenanthroline stimulates internucleosomal DNA fragmentation in isolated rat-liver nuclei by promoting the redox activity of endogenous copper ions

M.J. Burkitt, L. Milne, P. Nicotera and S. Orrenius

163–169

ATP-regulated activity of the plasmin–streptokinase complex: a novel mechanism involving phosphorylation of streptokinase

R.L. Serrano, P. Rodriguez, S.V. Pizzo and M. Gonzalez-Gronow

171–177

Activation of human liver 3 $\alpha$ -hydroxysteroid dehydrogenase by sulphobromophthalein

K. Matsuura, Y. Tamada, Y. Deyashiki, Y. Miyabe, M. Nakanishi, I. Ohya and A. Hara

179–184

Purification and initial characterization of proline 4-hydroxylase from *Streptomyces griseoviridis* P8648: a 2-oxoacid, ferrous-dependent dioxygenase involved in etamycin biosynthesis

C.C. Lawrence, W.J. Sobey, R.A. Field, J.E. Baldwin and C.J. Schofield

185–191

Characterization of a membrane protease from rat submaxillary-gland mitochondria that possesses thrombin-like activity

M. Bharadwaj, D. Bharadwaj and R.N. Hati

193–199

Purification and characterization of prostaglandin-H E-isomerase, a sigma-class glutathione S-transferase, from *Ascaridia galli*

D.J. Meyer, R. Muimo, M. Thomas, D. Coates and R.E. Isaac

223–227

Glycine decarboxylase and pyruvate dehydrogenase complexes share the same dihydrolipoamide dehydrogenase in pea leaf mitochondria: evidence from mass spectrometry and primary-structure analysis

J. Bourguignon, V. Merand, S. Rawsthorne, E. Forest and R. Douce

229–234

Substitution of glycine for arginine-213 in extracellular-superoxide dismutase impairs affinity for heparin and endothelial cell surface

T. Adachi, H. Yamada, Y. Yamada, N. Morihara, N. Yamazaki, T. Murakami, A. Futenma, K. Kato and K. Hirano

235–239

Inducible UDP-glucose dehydrogenase from French bean (*Phaseolus vulgaris* L.) locates to vascular tissue and has alcohol dehydrogenase activity

D. Robertson, C. Smith and G.P. Bolwell

311–317

Biosynthesis of vitamin B<sub>12</sub>: the preparative multi-enzyme synthesis of precorrin-3A and 20-methylsirohhydrochlorin (a 2,7,20-trimethylisobacteriochlorin)

N.P.J. Stamford, J. Crouzet, B. Cameron, A.I.D. Alanine, A.R. Pitt, A.A. Yeliseev and A.R. Battersby

335–342

## Carbohydrates and lipids

- Isolation and characterization of a Chinese hamster ovary (CHO) mutant defective in the second step of glycosylphosphatidylinositol biosynthesis V.L. Stevens, H. Zhang and M. Harreman **253–258**
- The mechanism of human plasma phospholipid transfer protein-induced enlargement of high-density lipoprotein particles: evidence for particle fusion S. Lusa, M. Jauhiainen, J. Metso, P. Somerharju and C. Ehnholm **275–282**

## Gene structure and expression

- Transcriptional activation of the chicken lysozyme gene by NF- $\kappa$ Bp65 (RelA) and c-Rel, but not by NF- $\kappa$ Bp50 L. Phi Van **39–44**
- A single gene encodes two different transcripts for the ADP-glucose pyrophosphorylase small subunit from barley (*Hordeum vulgare*) T. Thorbjørnsen, P. Villand, L.A. Kleczkowski and O.-A. Olsen **149–154**
- The organization of the human GSTP1-1 gene promoter and its response to retinoic acid and cellular redox status C. Xia, J. Hu, B. Ketterer and J.B. Taylor **155–161**
- Specific co-ordinated regulation of PC3 and PC2 gene expression with that of preproinsulin in insulin-producing  $\beta$ TC3 cells G.T. Schupp and C.J. Rhodes **259–268**
- A synthetic oestrogen antagonist, tamoxifen, inhibits oestrogen-induced transcriptional, but not post-transcriptional, regulation of gene expression Y. Arao, E. Yamamoto, N. Miyatake, Y. Ninomiya, T. Umehara, H. Kawashima, S. Masushige, T. Hasegawa and S. Kato **269–274**

## Regulation of metabolism

- Tumour growth results in changes in placental amino acid transport in the rat: a tumour necrosis factor  $\alpha$ -mediated effect N. Carbó, F.J. López-Soriano, W. Fiers and J.M. Argilés **77–82**
- Oxygen and pH regulation of protein synthesis in mitochondria from *Artemia franciscana* embryos K.E. Kwast and S.C. Hand **207–213**
- Sphingomyelinase stimulates 2-deoxyglucose uptake by skeletal muscle J. Turinsky, G.W. Nagel, J.S. Elmendorf, A. Damrau-Abney and T.R. Smith **215–222**

## Membranes and bioenergetics

- Glucose transport and GLUT4 protein distribution in skeletal muscle of GLUT4 transgenic mice J.T. Brozinick, Jr., B.B. Yaspelkis, III, C.M. Wilson, K.E. Grant, E.M. Gibbs, S.W. Cushman and J.L. Ivy **133–140**
- The specificity of mitochondrial complex I for ubiquinones M. Degli Esposti, A. Ngo, G.L. McMullen, A. Ghelli, F. Sparla, B. Benelli, M. Ratta and A.W. Linnane **327–334**

## Receptors and signal transduction

- Multiple mechanisms for the phosphorylation of C-terminal regulatory sites in rabbit muscle glycogen synthase expressed in COS cells A.V. Skurat and P.J. Roach **45–50**
- A role for protein phosphorylation in modulating  $\text{Ca}^{2+}$  elevation in rabbit platelets treated with thapsigargin C.T. Murphy, A.J. Bullock and J. Westwick **83–89**
- Maximal epidermal growth-factor-induced cytosolic phospholipase  $\text{A}_2$  activation *in vivo* requires phosphorylation followed by an increased intracellular calcium concentration C.G. Schalkwijk, M.A.G. van der Heijden, G. Bunt, R. Maas, L.G.J. Tertoolen, P.M.P. van Bergen en Henegouwen, A.J. Verkleij, H. van den Bosch and J. Boonstra **91–96**
- A novel regulatory mechanism for trimeric GTP-binding proteins in the membrane and secretory granule fractions of human and rodent  $\beta$  cells A. Kowluru, S.E. Seavey, C.J. Rhodes and S.A. Metz **97–107**
- Dual bradykinin  $\text{B}_2$  receptor signalling in A431 human epidermoid carcinoma cells: activation of protein kinase C is counteracted by a  $\text{G}_s$ -mediated stimulation of the cyclic AMP pathway C. Liebmann, A. Graness, B. Ludwig, A. Adomeit, A. Boehmer, F.-D. Boehmer, B. Nürnberg and R. Wetzker **109–118**
- The mitogen-activated protein kinase pathway in rat islets of Langerhans: studies on the regulation of insulin secretion S.J. Persaud, C.P.D. Wheeler-Jones and P.M. Jones **119–124**
- Phosphatidylinositol 3-kinase acts at an intracellular membrane site to enhance GLUT4 exocytosis in 3T3-L1 cells J. Yang, J.F. Clarke, C.J. Ester, P.W. Young, M. Kasuga and G.D. Holman **125–131**
- Recognition of lactoferrin and aminopeptidase M-modified lactoferrin by the liver: involvement of proteoglycans and the remnant receptor G.J. Ziere, J.K. Kruijt, M.K. Bijsterbosch and T.J.C. van Berkel **289–295**

|   |   |                |
|---|---|----------------|
| Analysis of the role of N-glycosylation in cell-surface expression and binding properties of angiotensin II type-2 receptor of rat pheochromocytoma cells | G. Servant, D.T. Dudley, E. Escher and G. Guillemette   | <b>297–304</b> |
| Transglutaminase induced by epidermal growth factor negatively regulates the growth signal in primary cultured hepatocytes                                | S. Katoh, N. Nakagawa, Y. Yano, K. Satoh, H. Kohno and Y. Ohkubo                              | <b>304–309</b> |
| A new inositol 1,4,5-trisphosphate binding protein similar to phospholipase C- $\delta_1$   | T. Kanematsu, Y. Misumi, Y. Watanabe, S. Ozaki, T. Koga, S. Iwanaga, Y. Ikehara and M. Hirata | <b>319–325</b> |
| Structural characterization of the latent complex between transforming growth factor $\beta 1$ and $\beta 1$ -latency-associated peptide                  | G.A. McMahon, J.D. Dignam and L.E. Gentry   | <b>343–351</b> |
| <b>Cell biology and development</b>   |   |                |
| Inhibition of mitogen-induced DNA synthesis by bafilomycin A <sub>1</sub> in Swiss 3T3 fibroblasts  | A.J. Saurin, J. Hamlett, M.J. Clague and S.R. Pennington                                      | <b>65–70</b>   |
| The low-density-lipoprotein receptor-related protein (LRP) is processed by furin <i>in vivo</i> and <i>in vitro</i>                                       | T.E. Willnow, J.M. Moehring, N.M. Inocencio, T.J. Moehring and J. Herz                        | <b>71–76</b>   |
| The role of cell adhesion in retinoic acid-induced modulation of chondrocyte phenotype  | M. Sanchez, A. Arcella, G. Pontarelli and E. Gionti   | <b>201–206</b> |