

**Review**

Signalling functions and biochemical properties of pertussis toxin-resistant G-proteins

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**Research Communications**

Rapid kinetic measurements of  $^{45}\text{Ca}^{2+}$  mobilization reveal that  $\text{Ins}(2,4,5)\text{P}_3$  is a partial agonist at hepatic  $\text{InsP}_3$  receptors

The human fertilin  $\alpha$  gene is non-functional: implications for its proposed role in fertilization

Analysis of glycosylation sites on gp91 $\text{phox}$ , the flavocytochrome of the NADPH oxidase, by site-directed mutagenesis and translation *in vitro*

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**Research Papers****Proteins**

One-electron oxidation pathway of peroxynitrite decomposition in human blood plasma: evidence for the formation of protein tryptophan-centred radicals

Influence of mutations in tissue factor on the fine specificity of macromolecular substrate activation

Identification of cell adhesive active sites in the N-terminal domain of thrombospondin-1

Utilization of troponin C as a model calcium-binding protein for mapping of the calmodulin-binding sites of caldesmon

Biochemical analysis of a bladder-cancer-associated mucin: structural features and epitope characterization

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**Enzymes**

PACE4: a subtilisin-like endoprotease with unique properties

Purification and characterization of paraoxon hydrolase from rat liver

Mutagenesis of charged residues in a conserved sequence in the 2-kinase domain of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase

Modelling the 2-kinase domain of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase on adenylate kinase

Site-directed mutagenesis of Lys-174, Asp-179 and Asp-191 in the 2-kinase domain of 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase

Sheep mast cell proteinase-1: characterization as a member of a new class of dual-specific ruminant chymases

Prothrombin kringle 1 domain interacts with factor Va during the assembly of prothrombinase complex

Effect of lipid composition on lipoprotein lipase activity measured by a continuous fluorescence assay: effect of cholesterol supports an interfacial surface penetration model

Interaction of human CYP17 ( $P$ -450 $_{17\alpha}$ ,  $17\alpha$ -hydroxylase-17,20-lyase) with cytochrome  $b_5$ : importance of the orientation of the hydrophobic domain of cytochrome  $b_5$

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**Carbohydrates and lipids**

Role of cholesterol synthesis and esterification in the growth of CEM and MOLT4 lymphoblastic cells

S. Dessi, B. Batetta, A. Pani, O. Spano, F. Sanna, M. Putzolu, R. Bonatesta, S. Piras and P. Pani

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Accumulation of glucosaminyl(acyl)phosphatidylinositol in an S3 HeLa subline expressing normal dolicholphosphomannose synthase activity

Structural analysis of the oligosaccharide-alditols released by reductive  $\beta$ -elimination from the jelly coat of *Rana utricularia* eggs

### Gene structure and expression

Transcriptional regulatory elements in the upstream and intron of the fibroin gene bind three specific factors POU-M1, Bm Fkh and FMBP-1

Rapid and transient induction of cyclo-oxygenase 2 by epidermal growth factor in human amnion-derived WISH cells

The pseudoazurin gene from *Thiosphaera pantotroph*: analysis of upstream putative regulatory sequences and overexpression in *Escherichia coli*

Adrenergic stimulation of lipoprotein lipase gene expression in rat brown adipocytes differentiated in culture: mediation via  $\beta_3$ - and  $\alpha_1$ -adrenergic receptors

Two variants of quantitative reverse transcriptase PCR used to show differential expression of  $\alpha$ -,  $\beta$ - and  $\gamma$ -fibrinogen genes in rat liver lobes

Activation of the NF- $\kappa$ B transcription factor in a T-lymphocytic cell line by hypochlorous acid

Stimulation of Sendai virus C' protein synthesis by cycloheximide

Electrical stimulation of C2C12 myotubes induces contractions and represses thyroid-hormone-dependent transcription of the fast-type sarcoplasmic-reticulum  $\text{Ca}^{2+}$ -ATPase gene

Identification of a receptor-type protein tyrosine phosphatase expressed in postmitotic maturing neurons: its structure and expression in the central nervous system

### Regulation of metabolism

Glucose transport and glucose transporter GLUT4 are regulated by product(s) of intermediary metabolism in cardiomyocytes

Effects of glucocorticoid excess on the sensitivity of glucose transport and metabolism to insulin in rat skeletal muscle

Fibronectin-fragment-induced cartilage chondrolysis is associated with release of catabolic cytokines

### Membranes and bioenergetics

Effects of pH on phosphorylation of the  $\text{Ca}^{2+}$ -ATPase of sarcoplasmic reticulum by inorganic phosphate

Osmoregulated taurine transport in H4IIE hepatoma cells and perfused rat liver

Partition of the organochlorine insecticide lindane into the human sperm surface induces membrane depolarization and  $\text{Ca}^{2+}$  influx

The mitochondrial carnitine carrier protein: cDNA cloning, primary structure and comparison with other mitochondrial transport proteins

### Receptors and signal transduction

Interactions of the  $\alpha_{2A}$ -adrenoceptor with multiple  $G_i$ -family G-proteins: studies with pertussis toxin-resistant G-protein mutants

High specificity of human secretory class II phospholipase  $A_2$  for phosphatidic acid

Differential regulation of extracellular signal-regulated protein kinase 1 and Jun N-terminal kinase 1 by  $\text{Ca}^{2+}$  and protein kinase C in endothelin-stimulated Rat-1 cells

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Differential regulation of phospholipase D and phospholipase A <sub>2</sub> by protein kinase C in P388D <sub>1</sub> macrophages	J. Balsinde, M.A. Balboa, P.A. Insel and E.A. Dennis	<b>805–809</b>
Molecular cloning and biochemical characterization of a <i>Drosophila</i> phosphatidylinositol-specific phosphoinositide 3-kinase	C. Linassier, L.K. MacDougall, J. Domin and M.D. Waterfield	<b>849–856</b>
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