

# CITATION REPORT

List of articles citing

## G proteins: transducers of receptor-generated signals

DOI: 10.1146/annurev.bi.56.070187.003151  
Annual Review of Biochemistry, 1987, 56, 615-49.

**Source:** <https://exaly.com/paper-pdf/19123911/citation-report.pdf>

**Version:** 2024-04-19

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

| #    | Paper  | IF | Citations |
|------|--|----|-----------|
| 2212 | ?-Adrenoceptor Signal Transduction. <b>1991</b> , 7, 67-104  |    | 2         |
| 2211 | How cells respond to signals. <b>1986</b> , 234, 286-8   |    | 13        |
| 2210 | Solubilization of receptors for thyrotropin-releasing hormone from GH4C1 rat pituitary cells: demonstration of guanyl nucleotide sensitivity. <b>1987</b> , 1, 889-98  |    | 8         |
| 2209 | A second form of the beta subunit of signal-transducing G proteins. <b>1987</b> , 84, 6122-5   |    | 108       |
| 2208 | How do receptors at the cell surface send signals to the cell interior?. <b>1987</b> , 295, 1320-3   |    | 13        |
| 2207 | Myristoylated alpha subunits of guanine nucleotide-binding regulatory proteins. <b>1987</b> , 84, 7493-7   |    | 277       |
| 2206 | A small multigene family encodes Gi signal-transduction proteins. <b>1987</b> , 84, 7886-90  |    | 76        |
| 2205 | Guanine nucleotide-binding regulatory proteins; mediators of transmembrane signaling. <b>1987</b> , 8, 478-481   |    | 93        |
| 2204 | Involvement of GTP-binding "G" proteins in transport through the Golgi stack. <b>1987</b> , 51, 1053-62  |    | 488       |
| 2203 | Receptor-mediated ADP-ribosylation of a phospholipase C-stimulating G protein. <b>1987</b> , 224, 219-23   |    | 85        |
| 2202 | Cloning, sequencing, and expression of the gene coding for the human platelet alpha 2-adrenergic receptor. <b>1987</b> , 238, 650-6  |    | 742       |
| 2201 | Reply from Annette Dolphin. <b>1987</b> , 10, 356-357  |    |           |
| 2200 | Differential sensitivity of arachidonic acid release and 1,2-diacylglycerol formation to pertussis toxin, GDP beta S and NaF in saponin-permeabilized human platelets: possible evidence for distinct GTP-binding proteins involving phospholipase C and A2 activation. <b>1987</b> , 148, 971-8 |    | 55        |
| 2199 | Evidence that guanine-nucleotide binding regulatory proteins couple cell-surface receptors to the breakdown of inositol-containing lipids during T-lymphocyte mitogenesis. <b>1987</b> , 148, 1223-31  |    | 27        |
| 2198 | The ras-related ypt protein is an ubiquitous eukaryotic protein: isolation and sequence analysis of mouse cDNA clones highly homologous to the yeast YPT1 gene.. <b>1987</b> , 6, 4049-4053  |    | 102       |
| 2197 | Major pertussis-toxin-sensitive GTP-binding protein of bovine lung. Purification, characterization and production of specific antibodies. <b>1988</b> , 174, 87-94   |    | 42        |
| 2196 | The role of nucleoside-diphosphate kinase reactions in G protein activation of NADPH oxidase by guanine and adenine nucleotides. <b>1988</b> , 175, 51-5   |    | 61        |

|      |   |     |
|------|---|-----|
| 2195 | Forskolin alters sensitivity of the cAMP-generating system to stimulatory as well as to inhibitory agonists. A study with intact human platelets and guinea pig myometrium. <b>1988</b> , 176, 131-7        | 11  |
| 2194 | Interaction of the beta-adrenergic receptor with G <sub>s</sub> following delipidation. Specific lipid requirements for G <sub>s</sub> activation and GTPase function. <b>1988</b> , 176, 649-54            | 24  |
| 2193 | Genes encoding novel GTP-binding proteins in Dictyostelium. <b>1988</b> , 9, 259-65   | 8   |
| 2192 | Characterization of a bombesin receptor on Swiss mouse 3T3 cells by affinity cross-linking. <b>1988</b> , 38, 237-49  | 27  |
| 2191 | Thrombin and histamine activate phospholipase C in human endothelial cells via a phorbol ester-sensitive pathway. <b>1988</b> , 136, 54-62  | 117 |
| 2190 | [Guanidine nucleotide binding proteins as membrane signal transduction components and regulators of enzymatic effectors]. <b>1988</b> , 66, 511-23  | 2   |
| 2189 | Calcium channels: molecular pharmacology, structure and regulation. <b>1988</b> , 104, 81-105   | 333 |
| 2188 | Activation of the neutrophil respiratory burst by chemoattractants: regulation of the N-formyl peptide receptor in the plasma membrane. <b>1988</b> , 20, 679-707   | 35  |
| 2187 | Membrane phospholipid polar heads influence the coupling of M2 muscarinic receptors to G proteins. <b>1988</b> , 13, 737-42   | 7   |
| 2186 | Distinct interactions between Ca <sup>2+</sup> /calmodulin and neurotransmitter stimulation of adenylate cyclase in striatum and hippocampus. <b>1988</b> , 8, 459-69                                       | 27  |
| 2185 | Photoactivation of intracellular guanosine triphosphate analogues reduces the amplitude and slows the kinetics of voltage-activated calcium channel currents in sensory neurones. <b>1988</b> , 411, 628-36 | 59  |
| 2184 | G protein-adrenergic interactions in the heart. <b>1988</b> , 82, 5-11  | 5   |
| 2183 | Lithium affects G-protein receptor coupling. <b>1988</b> , 331, 388   | 27  |
| 2182 | Lithium inhibits adrenergic and cholinergic increases in GTP binding in rat cortex. <b>1988</b> , 331, 440-2  | 447 |
| 2181 | Roles of G protein subunits in transmembrane signalling. <b>1988</b> , 333, 129-34  | 796 |
| 2180 | A mutation that prevents GTP-dependent activation of the alpha chain of G <sub>s</sub> . <b>1988</b> , 334, 712-5   | 161 |
| 2179 | The adenylate cyclase-cAMP-protein kinase A pathway and regulation of the immune response. <b>1988</b> , 9, 222-9   | 478 |
| 2178 | G protein regulation of receptor signalling. <b>1988</b> , 9, 315-20  | 52  |

|      |   |        |
|------|---|--------|
| 2177 | Calcium and abnormal reactivity of vascular smooth muscle in hypertension. <b>1988</b> , 9, 267-74  | 21     |
| 2176 | Biochemical markers of aging. <b>1988</b> , 23, 327-47  | 38     |
| 2175 | G-proteins and egg activation. <b>1988</b> , 25 Suppl, 15-8   | 17     |
| 2174 | Cancer metastasis: tumor cell and host organ properties important in metastasis to specific secondary sites. <b>1988</b> , 948, 175-224   | 149    |
| 2173 | GTP binding regulatory proteins of adenylate cyclase in <i>Schistosoma mansoni</i> at different stages of development. <b>1988</b> , 30, 67-75  | 13     |
| 2172 | Membrane receptors in the gastrointestinal tract. <i>Bioscience Reports</i> , <b>1988</b> , 8, 199-232  | 4.1 19 |
| 2171 | Signal transduction in hormone-dependent adenylate cyclase. <b>1988</b> , 12, 133-43  | 16     |
| 2170 | Chromium(III) beta, gamma-bidentate guanine nucleotide complexes as probes of the GTP-activated cGMP cascade of retinal rod outer segments. <b>1988</b> , 27, 8209-18                       | 10     |
| 2169 | Molecular analysis of signal transduction by growth factors. <b>1988</b> , 27, 3113-9   | 207    |
| 2168 | G protein multiplicity in eukaryotic signal transduction systems. <b>1988</b> , 27, 4957-65   | 256    |
| 2167 | Affinity labeling of the GDP/GTP binding site in <i>Thermus thermophilus</i> elongation factor Tu. <b>1988</b> , 27, 9132-9   | 39     |
| 2166 | Purification of heterotrimeric GTP-binding proteins from brain: identification of a novel form of Go. <b>1988</b> , 27, 7085-90   | 150    |
| 2165 | Purification and characterization of ADP-ribosylarginine hydrolase from turkey erythrocytes. <b>1988</b> , 27, 5819-23  | 46     |
| 2164 | Rapid binding of guanosine 5'-O-(3-thiotriphosphate) to an apparent complex of beta-adrenergic receptor and the GTP-binding regulatory protein Gs. <b>1988</b> , 27, 4888-93                | 31     |
| 2163 | Protein phosphorylation and the respiratory burst. <b>1988</b> , 264, 361-7   | 73     |
| 2162 | Role of dopamine and indolamine derivatives in the regulation of the sea urchin adenylate cyclase. <b>1988</b> , 154, 758-64  | 18     |
| 2161 | Muscarinic receptor-mediated increase in cAMP levels in SK-N-SH human neuroblastoma cells. <b>1988</b> , 154, 1137-43   | 55     |
| 2160 | Direct interaction between membrane-associated nucleoside diphosphate kinase and GTP-binding protein(Gs), and its regulation by hormones and guanine nucleotides. <b>1988</b> , 151, 248-56 | 46     |

|      |   |     |
|------|---|-----|
| 2159 | GTP gamma S-stimulated hydrolysis of phosphatidylinositol-4,5-bisphosphate soluble phospholipase C from human platelets requires soluble GTP-binding protein. <b>1988</b> , 154, 351-7  | 34  |
| 2158 | Fluoride can activate the respiratory burst independently of Ca <sup>2+</sup> , stimulation of phosphoinositide turnover and protein kinase C translocation in primed human neutrophils. <b>1988</b> , 150, 955-64  | 39  |
| 2157 | Subcellular distribution and isoelectric heterogeneity of the substrate for ADP-ribosyl transferase from <i>Clostridium botulinum</i> . <b>1988</b> , 150, 1122-30  | 18  |
| 2156 | Temperature effects on alpha 2-adrenergic receptor-Gi interactions. <b>1988</b> , 37, 2815-21   | 12  |
| 2155 | Alpha adrenoceptor sites in vascular smooth muscle. Differentiation by selective antagonist binding. <b>1988</b> , 37, 4055-61  | 11  |
| 2154 | Photoendocrine transduction in cultured chick pineal cells. II. Effects of forskolin, 8-bromocyclic AMP, and 8-bromocyclic GMP on the melatonin rhythm. <b>1988</b> , 453, 51-62  | 65  |
| 2153 | Two mechanisms of photoendocrine transduction in cultured chick pineal cells: pertussis toxin blocks the acute but not the phase-shifting effects of light on the melatonin rhythm. <b>1988</b> , 453, 63-71  | 78  |
| 2152 | Evidence for G protein mediation of serotonin- and GABAB-induced hyperpolarization of rat dorsal raphe neurons. <b>1988</b> , 459, 27-36  | 135 |
| 2151 | Pertussis toxin stimulates delayed-onset, Ca <sup>2+</sup> -dependent catecholamine release and the ADP-ribosylation of a 40 kDa protein in bovine adrenal chromaffin cells. <b>1988</b> , 234, 439-45  | 18  |
| 2150 | GTP-binding protein associated with amino acid binding proteins from olfactory epithelium of skate, <i>Dasyatis pastinaca</i> . <b>1988</b> , 234, 471-4  | 7   |
| 2149 | Guanine nucleotides stimulate hydrolysis of phosphatidylinositol and polyphosphoinositides in permeabilized Swiss 3T3 cells. <b>1988</b> , 237, 163-7   | 5   |
| 2148 | Differential sensitivity to pertussis toxin of 3T3 cells transformed with different oncogenes. <b>1988</b> , 237, 203-7   | 1   |
| 2147 | Adipocyte plasma membranes contain two Gi subtypes but are devoid of Go. <b>1988</b> , 238, 191-6   | 40  |
| 2146 | Analysis of guanine nucleotide bound to ras protein in PC12 cells. <b>1988</b> , 236, 185-9   | 36  |
| 2145 | Crystallization and preliminary X-ray diffraction studies of intact EF-Tu from <i>Thermus aquaticus</i> YT-1. <b>1988</b> , 240, 139-42   | 15  |
| 2144 | Pertussis toxin inhibits cAMP surface receptor-stimulated binding of [35S]GTP gamma S to <i>Dictyostelium discoideum</i> membranes. <b>1988</b> , 232, 148-52   | 19  |
| 2143 | Identification of three pertussis toxin substrates (41, 40 and 39 kDa proteins) in mammalian brain. Comparison of predicted amino acid sequences from G-protein alpha-subunit genes and cDNAs with partial amino acid sequences from purified proteins. <b>1988</b> , 230, 85-9 | 39  |
| 2142 | Cloning and characterization of the human gene for the alpha-subunit of Gi2, a GTP-binding signal transduction protein. <b>1988</b> , 232, 333-40   | 51  |

|      |   |     |
|------|---|-----|
| 2141 | Stimulation and inhibition of human platelet membrane high-affinity GTPase by neomycin. <b>1988</b> , 229, 49-53  | 20  |
| 2140 | In situ binding of a photo-affinity GTP analog to synaptic membrane G-proteins. Distribution of bound GTP analog reflects the status of adenylate cyclase. <b>1988</b> , 235, 201-6   | 20  |
| 2139 | Lateral mobility of proteins and lipids in the red cell membrane and the activation of adenylate cyclase by beta-adrenergic receptors. <b>1988</b> , 234, 1-7   | 65  |
| 2138 | Sub-second turnover of transducin GTPase in bovine rod outer segments. A light scattering study. <b>1988</b> , 234, 44-8  | 68  |
| 2137 | Identification of novel GTP-binding proteins in the human neutrophil. <b>1988</b> , 227, 66-70  | 55  |
| 2136 | Controlled manipulation of the cell interior by pore-forming proteins. <b>1988</b> , 9, 195-7   | 26  |
| 2135 | Permissive hormone regulation of hormone-sensitive effector systems. <b>1988</b> , 9, 33-6  | 93  |
| 2134 | Guanosine diphosphate binding, metabolism and regulation of follitropin-sensitive adenylate cyclase activity in Sertoli cell membranes. <b>1988</b> , 970, 343-54   |     |
| 2133 | Cholera toxin and pertussis toxin substrates and endogenous ADP-ribosyltransferase activity in <i>Drosophila melanogaster</i> . <b>1988</b> , 970, 355-62   | 28  |
| 2132 | Effect of pertussis toxin on the inhibition of secretory activity by prostaglandin E <sub>2</sub> , somatostatin, epidermal growth factor and 12-O-tetradecanoylphorbol 13-acetate in parietal cells from rat stomach. <b>1988</b> , 971, 282-8 | 5   |
| 2131 | The Croonian lecture, 1988. Inositol lipids and calcium signalling. <b>1988</b> , 234, 359-78   | 61  |
| 2130 | G-proteins, the inositol lipid signalling pathway, and secretion. <b>1988</b> , 320, 247-65   | 71  |
| 2129 | Spectroscopic and hydrodynamic studies reveal structural differences in normal and transforming H-ras gene products. <b>1988</b> , 27, 4735-40  | 19  |
| 2128 | A GTP-binding protein required for secretion rapidly associates with secretory vesicles and the plasma membrane in yeast. <b>1988</b> , 53, 753-68  | 563 |
| 2127 | Erratum. <b>1988</b> , 13, 301  |     |
| 2126 | Blockade of a late inhibitory postsynaptic potential in hippocampal CA3 neurons in vitro reveals a late depolarizing potential that is augmented by pentobarbital. <b>1988</b> , 95, 155-60   | 19  |
| 2125 | Three-dimensional structure of an oncogene protein: catalytic domain of human c-H-ras p21. <b>1988</b> , 239, 888-93  | 518 |
| 2124 | Cloning of the cDNA and genes for the hamster and human beta 2-adrenergic receptors. <b>1988</b> , 8, 7-21  | 13  |

|      |  |    |
|------|--|----|
| 2123 | Evidence for a GTP-binding protein involved in interferon-gamma transduction signal. <b>1988</b> , 8, 463-72   | 19 |
| 2122 | Effect of pertussis toxin on the inhibition of secretory activity by prostaglandin E2, somatostatin, epidermal growth factor and 12-O-tetradecanoylphorbol 13-acetate in parietal cells from rat stomach. <b>1988</b> , 971, 282-288 | 2  |
| 2121 | Adenosine inhibits phenylephrine activation of phospholipase A in hamster brown adipocytes. <b>1988</b> , 152, 886-92  | 7  |
| 2120 | Dopamine D1 receptors with enhanced agonist affinity and reduced antagonist affinity revealed by chemical modification. <b>1988</b> , 152, 933-9   | 5  |
| 2119 | Identification of a platelet Mr 22,000 GTP-binding protein as the novel smg-21 gene product having the same putative effector domain as the ras gene products. <b>1988</b> , 157, 670-6  | 52 |
| 2118 | Synaptosomal calcium influx is activated by sodium fluoride. <b>1988</b> , 151, 774-80   | 8  |
| 2117 | Separation of the 24 kDa substrate for botulinum C3 ADP-ribosyltransferase and the cholera toxin ADP-ribosylation factor. <b>1988</b> , 152, 957-61  | 8  |
| 2116 | Multiple species and isoforms of Bordetella pertussis toxin substrates. <b>1988</b> , 152, 1185-92   | 17 |
| 2115 | Myelin basic protein binds GTP at a single site in the N-terminus. <b>1988</b> , 152, 1468-73  | 30 |
| 2114 | The effects on tubulin polymerization and associated guanosine triphosphate hydrolysis of aluminum ion, fluoride and fluoroaluminate species. <b>1988</b> , 151, 1025-32   | 13 |
| 2113 | Fluoride inhibits agonist-induced formation of inositol phosphates in rat cortex. <b>1988</b> , 155, 664-9   | 28 |
| 2112 | Defective formation of inositol 1,4,5-trisphosphate in bradykinin-stimulated fibroblasts from progressive systemic sclerotic patients. <b>1988</b> , 156, 1077-82  | 36 |
| 2111 | Reconstitution of partially purified opioid receptors with a GTP-binding protein. <b>1988</b> , 156, 54-60   | 3  |
| 2110 | Prolactin differentially affects bacterial toxin-induced ADP-ribosylation of Nb2 lymphoma cell membrane proteins. <b>1988</b> , 156, 776-82  | 13 |
| 2109 | Tosyl-lysyl chloromethylketone detects conformational changes in the catalytic unit of adenylate cyclase induced by receptor and G-protein stimulation. <b>1988</b> , 156, 855-9   | 8  |
| 2108 | Small molecular weight GTP-binding proteins in human erythrocyte ghosts. <b>1988</b> , 156, 889-97   | 15 |
| 2107 | Identification of GTP-binding proteins in the plasma membrane of higher plants. <b>1988</b> , 156, 954-9   | 97 |
| 2106 | Phosphorylation by cyclic AMP-dependent protein kinase of a human platelet Mr 22,000 GTP-binding protein (smg p21) having the same putative effector domain as the ras gene products. <b>1988</b> , 157, 851-60                      | 80 |

|      |  |     |
|------|--|-----|
| 2105 | Multiple small molecular weight GTP-binding proteins in bovine brain cytosol. Purification and characterization of a 24KDa protein. <b>1988</b> , 155, 1284-92             | 24  |
| 2104 | Specific guanine nucleotide binding by membranes from Cucurbita pepo seedlings. <b>1988</b> , 155, 1478-84   | 62  |
| 2103 | A novel site of action of a high affinity A1 adenosine receptor antagonist. <b>1988</b> , 153, 939-44  | 12  |
| 2102 | Regulation of cardiac ion channels by catecholamines, acetylcholine and second messenger systems. <b>1988</b> , 52, 165-247  | 325 |
| 2101 | G proteins flex their muscles. <b>1988</b> , 11, 3-6   | 25  |
| 2100 | Is p21-ras a real G protein?. <b>1988</b> , 11, 287-91   | 9   |
| 2099 | Human beta 1- and beta 2-adrenergic receptors: structurally and functionally related receptors derived from distinct genes. <b>1988</b> , 11, 321-4                        | 34  |
| 2098 | Intracellular Ca <sup>2+</sup> activates phospholipase C. <b>1988</b> , 11, 517-20   | 222 |
| 2097 | An analogue of creatine increases TRH-stimulated prolactin secretion and phosphoinositide hydrolysis in rat pituitary tumor cells. <b>1988</b> , 58, 175-81                | 2   |
| 2096 | A deduced gene product from the Drosophila neurogenic locus, enhancer of split, shows homology to mammalian G-protein beta subunit. <b>1988</b> , 55, 785-95               | 195 |
| 2095 | How should one study brain adrenergic receptors in aging?. <b>1988</b> , 9, 64-6   | 1   |
| 2094 | Transmembrane signalling to adenylate cyclase in mammalian cells and in Saccharomyces cerevisiae. <b>1988</b> , 13, 298-301  | 29  |
| 2093 | The carboxy-terminal segment of the yeast alpha-factor receptor is a regulatory domain. <b>1988</b> , 55, 221-34   | 312 |
| 2092 | Activation of adenylate cyclase in rat fat cells promotes an increase in GTP content which controls the enzyme activity. <b>1988</b> , 55, 183-92                          | 1   |
| 2091 | Study of a temperature-sensitive mutant of the ras-related YPT1 gene product in yeast suggests a role in the regulation of intracellular calcium. <b>1988</b> , 53, 635-47 | 244 |
| 2090 | The yeast GTP-binding YPT1 protein and a mammalian counterpart are associated with the secretion machinery. <b>1988</b> , 52, 915-24                                       | 673 |
| 2089 | Two catalytic subunits of cAMP-dependent protein kinase generated by alternative RNA splicing are expressed in Aplysia neurons. <b>1988</b> , 1, 853-64                    | 48  |
| 2088 | Cell-membrane hormone receptors: some perspectives on their structure and function relationship. <b>1988</b> , 66, 549-56  | 5   |



|      |  |     |
|------|--|-----|
| 2087 | Newly identified brain potassium channels gated by the guanine nucleotide binding protein Go. <b>1988</b> , 242, 1433-7  | 231 |
| 2086 | Subcellular localization and quantitation of the major neutrophil pertussis toxin substrate, Gn. <b>1988</b> , 106, 1927-36  | 88  |
| 2085 | Activation of muscarinic potassium currents by ATP gamma S in atrial cells. <b>1988</b> , 242, 443-5   | 69  |
| 2084 | Fertilization events induced by neurotransmitters after injection of mRNA in Xenopus eggs. <b>1988</b> , 241, 464-7  | 121 |
| 2083 | Cone cell-specific genes expressed in retinoblastoma. <b>1988</b> , 240, 76-8  | 75  |
| 2082 | Requirement of one functional RAS gene and inability of an oncogenic ras variant to mediate the glucose-induced cyclic AMP signal in the yeast <i>Saccharomyces cerevisiae</i> . <b>1988</b> , 8, 3051-7 | 115 |
| 2081 | From epinephrine to cyclic AMP. <b>1988</b> , 241, 800-6   | 239 |
| 2080 | Site of G protein binding to rhodopsin mapped with synthetic peptides from the alpha subunit. <b>1988</b> , 241, 832-5   | 539 |
| 2079 | Chimeric alpha 2-,beta 2-adrenergic receptors: delineation of domains involved in effector coupling and ligand binding specificity. <b>1988</b> , 240, 1310-6  | 764 |
| 2078 | A new member of the ras gene superfamily identified in a rat liver cell line. <b>1988</b> , 16, 9979-93  | 48  |
| 2077 | Actions of pertussis toxin on the inhibitory effects of dopamine and somatostatin on prolactin and growth hormone release from ovine anterior pituitary cells. <b>1988</b> , 1, 179-86                   | 10  |
| 2076 | Fos-associated protein p39 is the product of the jun proto-oncogene. <b>1988</b> , 240, 1010-6   | 634 |
| 2075 | Carboxyl terminal domain of Gs alpha specifies coupling of receptors to stimulation of adenylyl cyclase. <b>1988</b> , 241, 448-51   | 162 |
| 2074 | G proteins and cardiovascular disease. <b>1988</b> , 78, 1511-3  | 60  |
| 2073 | [3H]-8-cyclopentyl-1,3-dipropylxanthine binding to A1 adenosine receptors of intact rat ventricular myocytes. <b>1988</b> , 63, 613-20   | 35  |
| 2072 | Sequence analysis of cDNA and genomic DNA for a putative pertussis toxin-insensitive guanine nucleotide-binding regulatory protein alpha subunit. <b>1988</b> , 85, 5384-8                               | 196 |
| 2071 | Cloning of a <i>Drosophila melanogaster</i> guanine nucleotide regulatory protein beta-subunit gene and characterization of its expression during development. <b>1988</b> , 85, 7134-8                  | 53  |
| 2070 | Cholera toxin potentiates IgE-coupled inositol phospholipid hydrolysis and mediator secretion by RBL-2H3 cells. <b>1988</b> , 85, 7260-4   | 40  |

|      |  |     |
|------|--|-----|
| 2069 | G protein mRNA mapped in rat brain by in situ hybridization. <b>1988</b> , 85, 2864-8  | 67  |
| 2068 | Relationship among guanine nucleotide exchange, GTP hydrolysis, and transforming potential of mutated ras proteins. <b>1988</b> , 8, 2472-8  | 199 |
| 2067 | STE2 protein of <i>Saccharomyces kluyveri</i> is a member of the rhodopsin/beta-adrenergic receptor family and is responsible for recognition of the peptide ligand alpha factor. <b>1988</b> , 85, 3855-9   | 61  |
| 2066 | Identification of cDNA encoding an additional alpha subunit of a human GTP-binding protein: expression of three alpha i subtypes in human tissues and cell lines. <b>1988</b> , 85, 4153-7   | 61  |
| 2065 | p21ras-induced responsiveness of phosphatidylinositol turnover to bradykinin is a receptor number effect. <b>1988</b> , 85, 5774-8   | 66  |
| 2064 | Antiserum raised against residues 159-168 of the guanine nucleotide-binding protein Gi3-alpha reacts with ependymal cells and some neurons in the rat brain containing cholecystokinin- or cholecystokinin- and tyrosine 3-hydroxylase-like immunoreactivities. <b>1988</b> , 85, 9351-5 | 17  |
| 2063 | Chromosomal localization of genes encoding guanine nucleotide-binding protein subunits in mouse and human. <b>1988</b> , 85, 7642-6  | 189 |
| 2062 | A Ca <sup>2+</sup> -linked increase in coupled cAMP synthesis and hydrolysis is an early event in cholinergic and beta-adrenergic stimulation of parotid secretion. <b>1988</b> , 85, 7867-71  | 11  |
| 2061 | Isolation and characterization of the human Gs alpha gene. <b>1988</b> , 85, 2081-5  | 353 |
| 2060 | Role of SGP2, a suppressor of a gpa1 mutation, in the mating-factor signaling pathway of <i>Saccharomyces cerevisiae</i> . <b>1988</b> , 8, 5410-6   | 26  |
| 2059 | Characterization of the rat mas oncogene and its high-level expression in the hippocampus and cerebral cortex of rat brain. <b>1988</b> , 85, 5339-42  | 91  |
| 2058 | Guanine nucleotide-binding proteins that enhance cholera toxin ADP-ribosyltransferase activity: nucleotide and deduced amino acid sequence of an ADP-ribosylation factor cDNA. <b>1988</b> , 85, 5488-91   | 96  |
| 2057 | Expression of a bovine rhodopsin gene in <i>Xenopus</i> oocytes: demonstration of light-dependent ionic currents. <b>1988</b> , 85, 7917-21  | 78  |
| 2056 | Beta gamma subunits of GTP-binding proteins inhibit muscarinic receptor stimulation of phospholipase C. <b>1988</b> , 85, 8865-9   | 62  |
| 2055 | Structural basis of beta-adrenergic receptor subtype specificity studied with chimeric beta 1/beta 2-adrenergic receptors. <b>1988</b> , 85, 9494-8  | 148 |
| 2054 | Identification of a GTP-binding protein alpha subunit that lacks an apparent ADP-ribosylation site for pertussis toxin. <b>1988</b> , 85, 3066-70  | 214 |
| 2053 | Guanosine 5'-triphosphate analogue activates potassium current modulated by neurotransmitters in <i>Aplysia</i> neurones. <b>1988</b> , 407, 15-40   | 26  |
| 2052 | G-protein involvement in central-nervous-system muscarinic-receptor-coupled polyphosphoinositide hydrolysis. <b>1988</b> , 256, 995-9  | 29  |

|      |   |     |
|------|---|-----|
| 2051 | Opioid peptides promote cholera-toxin-catalysed ADP-ribosylation of the inhibitory guanine-nucleotide-binding protein (Gi) in membranes of neuroblastoma x glioma hybrid cells. <b>1988</b> , 252, 369-73     | 42  |
| 2050 | Thrombin exerts a dual effect on stimulated adenylate cyclase in hamster fibroblasts, an inhibition via a GTP-binding protein and a potentiation via activation of protein kinase C. <b>1988</b> , 253, 711-9 | 74  |
| 2049 | Differential effects of fluoride on adenylate cyclase activity and guanine nucleotide regulation of agonist high-affinity receptor binding. <b>1988</b> , 254, 15-20  | 25  |
| 2048 | Guanine nucleotide-independent inhibition of adenylate cyclase by a stimulatory hormone. <b>1988</b> , 254, 27-31   | 5   |
| 2047 | G-proteins in skeletal muscle. Evidence for a 40 kDa pertussis-toxin substrate in purified transverse tubules. <b>1988</b> , 254, 405-9   | 26  |
| 2046 | Early events in inositol phosphate metabolism in longitudinal smooth muscle from guinea-pig intestine stimulated with carbachol. <b>1988</b> , 254, 553-7   | 22  |
| 2045 | Techniques used in the identification and analysis of function of pertussis toxin-sensitive guanine nucleotide binding proteins. <b>1988</b> , 255, 1-13  | 272 |
| 2044 | Modulation of bombesin-induced phosphatidylinositol hydrolysis in a small-cell lung-cancer cell line. <b>1988</b> , 255, 403-10   | 34  |
| 2043 | Polyamines inhibit phospholipase C-catalysed polyphosphoinositide hydrolysis. Studies with permeabilized GH3 cells. <b>1988</b> , 255, 1015-21  | 50  |
| 2042 | Effect of pertussis toxin and neomycin on G-protein-regulated polyphosphoinositide phosphodiesterase. A comparison between HL60 membranes and permeabilized HL60 cells. <b>1988</b> , 256, 343-50             | 39  |
| 2041 | Developmental changes in the levels of substrates for cholera toxin-catalyzed and pertussis toxin-catalyzed ADP-ribosylation in rat cardiac cell membranes. <b>1988</b> , 48, 23-30                           | 14  |
| 2040 | Molecular aspects of receptors and binding factors for IgE. <b>1988</b> , 43, 277-312   | 32  |
| 2039 | Chapter 23. Structure and Function of G-Protein Coupled Receptors. <b>1988</b> , 23, 221-233  | 23  |
| 2038 | Chapter 24. G-proteins as Receptor-Effector Couplers. <b>1988</b> , 235-242   | 4   |
| 2037 | Sequences of the bovine and yeast ADP-ribosylation factor and comparison to other GTP-binding proteins. <b>1988</b> , 85, 4620-4  | 193 |
| 2036 | Specificity of action of guanine nucleotide-binding regulatory protein subunits on the cardiac muscarinic K <sup>+</sup> channel. <b>1988</b> , 85, 5814-8  | 120 |
| 2035 | Autoregulation of rhodopsin synthesis in <i>Chlamydomonas reinhardtii</i> . <b>1988</b> , 85, 6379-83   | 43  |
| 2034 | Molecular cloning and expression of the cDNA for the hamster alpha 1-adrenergic receptor. <b>1988</b> , 85, 7159-63   | 450 |

|      |   |     |     |
|------|---|-----|-----|
| 2033 | Role of STE genes in the mating factor signaling pathway mediated by GPA1 in <i>Saccharomyces cerevisiae</i> . <b>1988</b> , 8, 3777-83   |     | 104 |
| 2032 | Inhibition of NIH 3T3 cell proliferation by a mutant ras protein with preferential affinity for GDP. <b>1988</b> , 8, 3235-43   |     | 788 |
| 2031 | Hormonal modulation of cytosolic free calcium. <b>1988</b> , 296, 246-8   |     | 5   |
| 2030 | Guanine nucleotide-binding protein Go-induced coupling of neuropeptide Y receptors to Ca <sup>2+</sup> channels in sensory neurons. <b>1988</b> , 85, 3633-7  |     | 197 |
| 2029 | Platelet cytosolic 44-kDa protein is a substrate of cholera toxin-induced ADP-ribosylation and is not recognized by antisera against the alpha subunit of the stimulatory guanine nucleotide-binding regulatory protein. <b>1988</b> , 85, 5899-902 |     | 15  |
| 2028 | Role of two different guanine nucleotide-binding proteins in the antagonistic modulation of the S-type K <sup>+</sup> channel by cAMP and arachidonic acid metabolites in <i>Aplysia</i> sensory neurons. <b>1988</b> , 85, 7810-4                  |     | 47  |
| 2027 | Second Messengers Involved in Superoxide Production by Neutrophils: Function and Metabolism. <b>1988</b> , 2, 185-200   |     | 23  |
| 2026 | GTP gamma S loading of endothelial cells stimulates phospholipase C and uncouples ATP receptors. <i>American Journal of Physiology - Cell Physiology</i> , <b>1988</b> , 255, C667-73   | 5-4 | 43  |
| 2025 | Abnormal regulation of cAMP accumulation in pancreatic islets of obese mice. <b>1988</b> , 255, E833-8  |     | 5   |
| 2024 | Neuropeptide Y mobilizes Ca <sup>2+</sup> and inhibits adenylate cyclase in human erythroleukemia cells. <b>1988</b> , 255, E880-5  |     | 27  |
| 2023 | The molecular genetics of Enhancer of split, a gene required for embryonic neural development in <i>Drosophila</i> .. <b>1988</b> , 7, 3917-3927  |     | 109 |
| 2022 | G-Proteins and the Regulation of Oocyte Maturation and Fertilization. <b>1989</b> , 297-318   |     | 7   |
| 2021 | Structural basis of beta-adrenergic receptor function. <b>1989</b> , 3, 1825-32   |     | 463 |
| 2020 | Association of two pertussis toxin-sensitive G-proteins with the D2-dopamine receptor from bovine striatum.. <b>1989</b> , 8, 2353-2357   |     | 23  |
| 2019 | Concanavalin A receptor(s) possibly interacts with at least two kinds of GTP-binding proteins in murine thymocytes. <b>1989</b> , 105, 4-9  |     | 7   |
| 2018 | Purification and partial amino acid sequences of a phospholipase C-associated GTP-binding protein from calf thymocytes. <b>1989</b> , 105, 461-6  |     | 15  |
| 2017 | Guanine nucleotide-dependent, pertussis toxin-insensitive regulation of phosphoinositide turnover by bradykinin in bovine pulmonary artery endothelial cells. <b>1989</b> , 3, 44-51  |     | 77  |
| 2016 | Enhanced erythropoietin secretion in hepatoblastoma cells in response to hypoxia. <i>American Journal of Physiology - Cell Physiology</i> , <b>1989</b> , 257, C743-9   | 5-4 | 35  |

|      |  |     |
|------|--|-----|
| 2015 | A1-adenosine receptor-mediated inhibition of adipocyte adenylate cyclase and lipolysis in Zucker rats. <b>1989</b> , 257, E871-8   | 20  |
| 2014 | G proteins couple alpha-adrenergic and GABA <sub>B</sub> receptors to inhibition of peptide secretion from peripheral sensory neurons. <b>1989</b> , 9, 657-66   | 89  |
| 2013 | Mutational analysis of SEC4 suggests a cyclical mechanism for the regulation of vesicular traffic.. <b>1989</b> , 8, 1685-1693   | 227 |
| 2012 | The ras-related mouse ypt1 protein can functionally replace the YPT1 gene product in yeast.. <b>1989</b> , 8, 1427-1432  | 94  |
| 2011 | Identification of a common signal associated with cellular proliferation stimulated by four haemopoietic growth factors in a highly enriched population of granulocyte/macrophage colony-forming cells.. <b>1989</b> , 8, 2967-2974  | 44  |
| 2010 | Proteins that interact with GTP during sporulation of Bacillus subtilis. <b>1989</b> , 171, 2915-8   | 16  |
| 2009 | Temperature-sensitive lethal mutant of era, a G protein in Escherichia coli. <b>1989</b> , 171, 5017-24  | 61  |
| 2008 | The adenylate cyclase-coupled vasopressin V2-receptor is highly laterally mobile in membranes of LLC-PK1 renal epithelial cells at physiological temperature.. <b>1989</b> , 8, 2481-2488  | 43  |
| 2007 | Agonist-induced vascular tone. <b>1989</b> , 13, 835-44  | 58  |
| 2006 | Insulin prevention of altered muscarinic receptor-G protein coupling in diabetic rat atria. <b>1989</b> , 38, 1611-6   | 22  |
| 2005 | Poration by alpha-toxin and streptolysin O: an approach to analyze intracellular processes. <b>1989</b> , 31, 63-90  | 109 |
| 2004 | GTP gamma S stimulation of endosome fusion suggests a role for a GTP-binding protein in the priming of vesicles before fusion. <b>1989</b> , 1, 113-24   | 65  |
| 2003 | Comparison of the computed structures for the phosphate-binding loop of the p21 protein containing the oncogenic site Gly 12 with the X-ray crystallographic structures for this region in the p21 protein and Eftu. A model for the structure of the p21 protein in its oncogenic form. <b>1989</b> , 6, 859-75 | 24  |
| 2002 | Physiology of the male reproductive system: endocrine, paracrine and autocrine regulation. <b>1989</b> , 17, 411-45  | 43  |
| 2001 | Regulation of chemoattractant receptor interaction with transducing proteins by organizational control in the plasma membrane of human neutrophils. <b>1989</b> , 109, 2783-90   | 57  |
| 2000 | Reconstitution of the ATP-sensitive potassium channel of skeletal muscle. Activation by a G protein-dependent process. <b>1989</b> , 94, 445-63  | 50  |
| 1999 | Calcium and GTP: essential components in vesicular trafficking between the endoplasmic reticulum and Golgi apparatus. <b>1989</b> , 108, 1245-56   | 333 |
| 1998 | Increased cyclic AMP content accelerates protein synthesis in rat heart. <b>1989</b> , 65, 647-56  | 72  |

|      |   |     |
|------|---|-----|
| 1997 | Growth factors, signaling pathways, and the regulation of proliferation and differentiation in BC3H1 muscle cells. I. A pertussis toxin-sensitive pathway is involved. <b>1989</b> , 108, 159-67  | 37  |
| 1996 | A novel GTP-binding protein, Sar1p, is involved in transport from the endoplasmic reticulum to the Golgi apparatus. <b>1989</b> , 109, 2677-91  | 414 |
| 1995 | Neuronal expression of a newly identified <i>Drosophila melanogaster</i> G protein alpha 0 subunit. <b>1989</b> , 1, 125-34   | 38  |
| 1994 | Golf: an olfactory neuron specific-G protein involved in odorant signal transduction. <b>1989</b> , 244, 790-5  | 747 |
| 1993 | Growth factors, signaling pathways, and the regulation of proliferation and differentiation in BC3H1 muscle cells. II. Two signaling pathways distinguished by pertussis toxin and a potential role for the ras oncogene. <b>1989</b> , 108, 169-76 | 48  |
| 1992 | A specific interaction in vitro between pancreatic zymogen granules and plasma membranes: stimulation by G-protein activators but not by Ca <sup>2+</sup> . <b>1989</b> , 109, 2801-8   | 60  |
| 1991 | Characterization of phytochrome-regulated gene expression in a photoautotrophic cell suspension: possible role for calmodulin. <b>1989</b> , 9, 4819-23   | 68  |
| 1990 | The Molecular Biology of Medullary Thyroid Carcinoma. <b>1989</b> , 261, 3130   | 20  |
| 1989 | Adenylyl cyclase amino acid sequence: possible channel- or transporter-like structure. <b>1989</b> , 244, 1558-64   | 745 |
| 1988 | Enhanced responsiveness to angiotensin II in vascular smooth muscle cells from spontaneously hypertensive rats is not associated with alterations in protein kinase C. <b>1989</b> , 14, 293-303  | 46  |
| 1987 | Physiologic basis for the control of body fat distribution in humans. <b>1989</b> , 9, 417-43   | 135 |
| 1986 | G Proteins and Regulation of Adenylyl Cyclase. <b>1989</b> , 262, 1819  | 70  |
| 1985 | Neuropeptide Y and galanin in norepinephrine release in hypothalamic slices. <b>1989</b> , 14, 81-6   | 87  |
| 1984 | Site of pertussis toxin-induced ADP-ribosylation on Gi is critical for receptor modulation of GDP interaction with Gi. <b>1989</b> , 3, 315-24  | 7   |
| 1983 | Intracellular signalling and regulation of gastric acid secretion. <b>1989</b> , 74, 607-34   | 13  |
| 1982 | Properties of calcium stores and transient outward currents in single smooth muscle cells of rabbit intestine. <b>1989</b> , 409, 385-401   | 115 |
| 1981 | A G protein gamma subunit shares homology with ras proteins. <b>1989</b> , 244, 971-4   | 151 |
| 1980 | Regulatory role for GTP-binding proteins in endocytosis. <b>1989</b> , 244, 1475-7  | 137 |

|      |   |     |
|------|---|-----|
| 1979 | Intracellular calcium mobilization triggered by a glutamate receptor in rat cultured hippocampal cells. <b>1989</b> , 414, 539-48   | 64  |
| 1978 | Intestinal electrolyte transport and diarrheal disease (1). <b>1989</b> , 321, 800-6  | 222 |
| 1977 | Beta-adrenergic inhibition of cardiac sodium channels by dual G-protein pathways. <b>1989</b> , 245, 516-9  | 210 |
| 1976 | The insulin receptor: structure and function. <b>1989</b> , 24, 217-69  | 78  |
| 1975 | Muscarinic receptor subtypes. Physiology and clinical implications. <b>1989</b> , 321, 1022-9   | 223 |
| 1974 | Transforming growth factor-beta inhibits cellular adenylate cyclase activity in cultured human arterial endothelial cells. <b>1989</b> , 25, 101-4  | 4   |
| 1973 | Some properties of adenylate cyclase in the segmental ganglia of the leech <i>Hirudo medicinalis</i> . <b>1989</b> , 94, 635-640  |     |
| 1972 | Cross-talk between different receptor-effector systems in the mammalian CNS. <b>1989</b> , 1, 135-41  | 56  |
| 1971 | Transmembrane signalling in <i>Saccharomyces cerevisiae</i> . <b>1989</b> , 1, 1-7  | 32  |
| 1970 | Multiple defects occur in the guanine nucleotide regulatory protein system in liver plasma membranes of obese ( <i>fa/fa</i> ) but not lean ( <i>Fa/Fa</i> ) Zucker rats: loss of functional $G_i$ and abnormal $G_s$ function. <b>1989</b> , 1, 9-22 | 40  |
| 1969 | GTP causes calcium release from a plant microsomal fraction. <b>1989</b> , 1, 23-9  | 12  |
| 1968 | Foetal calf serum enhances cholera toxin-catalysed ADP-ribosylation of the pertussis toxin-sensitive guanine nucleotide binding protein, $G_{i2}$ , in rat glioma C6BU1 cells. <b>1989</b> , 1, 65-74   | 10  |
| 1967 | Ultrastructural localization of the GTP-binding protein $G_o$ in neurons. <b>1989</b> , 1, 107-23   | 45  |
| 1966 | Tissue distribution and subcellular location of guanine nucleotide binding proteins: implications for cellular signalling. <b>1989</b> , 1, 411-9   | 13  |
| 1965 | ADP-ribosylation of thylakoid membrane polypeptides by cholera toxin is correlated with inhibition of thylakoid GTPase activity and protein phosphorylation. <b>1989</b> , 1, 421-33  | 12  |
| 1964 | G-protein dependent potentiation of calcium release from sarcoplasmic reticulum of skeletal muscle. <b>1989</b> , 1, 493-506  | 12  |
| 1963 | Fibroblast growth factor potentiates receptor- and nonreceptor-mediated stimulation of adenylate cyclase in hamster fibroblasts. <b>1989</b> , 1, 507-17  | 12  |
| 1962 | Protein kinase C-mediated phosphorylation of retinal rod outer segment membrane proteins. <b>1989</b> , 1, 519-31   | 20  |

|      |   |     |
|------|---|-----|
| 1961 | Immunochemical comparison of pertussis toxin substrates in brain and peripheral tissues. <b>1989</b> , 1, 553-60  | 21  |
| 1960 | The E5 oncoprotein of bovine papillomavirus is oriented asymmetrically in Golgi and plasma membranes. <b>1989</b> , 170, 334-9  | 125 |
| 1959 | Cell-cell interactions in Dictyostelium development. <b>1989</b> , 5, 242-5   | 16  |
| 1958 | Oncogenes, growth factors and hematopoietic cell transformation. <b>1989</b> , 989, 179-208   | 9   |
| 1957 | Activation of cardiac G-proteins by muscarinic acetylcholine receptors: regulation by Mg <sup>2+</sup> and Na <sup>+</sup> ions. <b>1989</b> , 172, 155-63  | 35  |
| 1956 | Reconstitution of the solubilized mu-opioid receptor coupled to a GTP-binding protein. <b>1989</b> , 172, 347-56  | 8   |
| 1955 | Effect of aging on properties and function of beta-adrenoceptors in rat lung. <b>1989</b> , 172, 373-80   | 22  |
| 1954 | Forskolin inhibition of cyclic AMP generation in J774 macrophages. <b>1989</b> , 172, 385-95  | 3   |
| 1953 | Coupling of adenosine receptors to a pertussis toxin-sensitive G protein in the human heart. <b>1989</b> , 172, 407-11  | 8   |
| 1952 | Pertussis toxin treatment counteracts intramembrane interactions between neuropeptide Y receptors and alpha 2-adrenoceptors. <b>1989</b> , 172, 435-41  | 28  |
| 1951 | Mechanism of noradrenaline-induced heterologous desensitization of adenylate cyclase stimulation in rat heart muscle cells: increase in the level of inhibitory G-protein alpha-subunits. <b>1989</b> , 172, 211-21 | 114 |
| 1950 | In vivo pertussis toxin treatment attenuates some, but not all, adenosine A1 effects in slices of the rat hippocampus. <b>1989</b> , 172, 249-62  | 50  |
| 1949 | Inhibition of inositol phospholipid hydrolysis in endothelial cells by pentobarbital. <b>1989</b> , 172, 291-303  | 10  |
| 1948 | Differences in the GTP-regulation of membrane-bound and solubilized A1-adenosine receptors. <b>1989</b> , 340, 87-92  | 19  |
| 1947 | Elevated levels of the alpha subunit of GTP-binding protein G <sub>o</sub> in cerebrospinal fluid of patients with neurological disorders. <b>1989</b> , 1, 27-32   | 7   |
| 1946 | Mechanism of GM-CSF stimulation of neutrophils. <b>1989</b> , 8, 236-48   | 13  |
| 1945 | Long-term potentiation: studies in the hippocampal slice. <b>1989</b> , 28, 109-24  | 98  |
| 1944 | Ethanol and opioid receptor signalling. <b>1989</b> , 45, 418-28  | 47  |



|      |  |    |
|------|--|----|
| 1943 | Modulation of IL-1-induced collagenase production in articular chondrocytes by pertussis toxin. <b>1989</b> , 27, 242-4  |    |
| 1942 | Interaction of interferon with other cytokines. <b>1989</b> , 45, 513-20   | 24 |
| 1941 | Dual effects of pertussis toxin on in vitro invasive behavior of metastatic lymphoma variants. <b>1989</b> , 7, 541-55   | 11 |
| 1940 | Quantitation of a guanine nucleotide binding regulatory protein by an enzyme-linked immunosorbent competition assay. <b>1989</b> , 176, 185-90   | 15 |
| 1939 | Conditions that elevate intracellular cyclic AMP levels promote spore formation in Dictyostelium. <b>1989</b> , 41, 5-13   | 15 |
| 1938 | Intracellular localization of inositol-phospholipid-metabolizing enzymes in rabbit fast-twitch skeletal muscle. Can D-myo-inositol 1,4,5-trisphosphate play a role in excitation-contraction coupling?. <b>1989</b> , 179, 473-9 | 35 |
| 1937 | Purine and pyrimidine nucleotides potentiate activation of NADPH oxidase and degranulation by chemotactic peptides and induce aggregation of human neutrophils via G proteins. <b>1989</b> , 181, 277-85                         | 58 |
| 1936 | Structure-function relationships of elongation factor Tu. Isolation and activity of the guanine-nucleotide-binding domain. <b>1989</b> , 182, 247-55   | 34 |
| 1935 | Evidence for receptor-regulated phosphotransfer reactions involved in activation of the adenylate cyclase inhibitory G protein in human platelet membranes. <b>1989</b> , 183, 115-21  | 26 |
| 1934 | Substitution of Val20 by Gly in elongation factor Tu. Effects on the interaction with elongation factors Ts, aminoacyl-tRNA and ribosomes. <b>1989</b> , 185, 341-6  | 25 |
| 1933 | Neomycin induces high-affinity agonist binding of G-protein-coupled receptors. <b>1989</b> , 185, 677-83   | 12 |
| 1932 | Solubilization of somatostatin receptors in hamster pancreatic beta cells. Characterization as a glycoprotein interacting with a GTP-binding protein. <b>1989</b> , 186, 181-8   | 12 |
| 1931 | Correlation between ribosylation of pertussis toxin substrates and inhibition of peptidoglycan-, muramyl dipeptide- and lipopolysaccharide-induced mitogenic stimulation in B lymphocytes. <b>1989</b> , 19, 125-30              | 31 |
| 1930 | Co-cross-linking of surface immunoglobulin Fc gamma receptors on B lymphocytes uncouples the antigen receptors from their associated G protein. <b>1989</b> , 19, 481-5  | 47 |
| 1929 | Expression of the ras-related rap genes in human tumors. <b>1989</b> , 44, 990-4   | 20 |
| 1928 | Cholera toxin inhibits the increase in cytoplasmic free calcium induced via the CD2 pathway of human T-lymphocyte activation. <b>1989</b> , 39, 391-400  | 6  |
| 1927 | Interleukin 3-stimulated proliferation is sensitive to pertussis toxin: evidence for a guanyl nucleotide regulatory protein-mediated signal transduction mechanism. <b>1989</b> , 138, 273-80                                    | 15 |
| 1926 | Vasopressin rapidly stimulates protein kinase C in digitonin-permeabilized Swiss 3T3 cells: involvement of a pertussis toxin-insensitive guanine nucleotide binding protein. <b>1989</b> , 141, 253-61                           | 30 |

|      |  |     |
|------|--|-----|
| 1925 | Molecular genetics of Delta, a locus required for ectodermal differentiation in Drosophila. <b>1989</b> , 10, 261-72   | 20  |
| 1924 | Denervation and hyperinnervation in the nervous system of diabetic animals: III. Functional alterations of G proteins in diabetic encephalopathy. <b>1989</b> , 24, 517-23   | 26  |
| 1923 | Ca <sup>2+</sup> channel ligands: structure-function relationships of the 1,4-dihydropyridines. <b>1989</b> , 9, 123-80  | 248 |
| 1922 | Characterization of hormone-sensitive adenylate cyclase in rabbit gallbladder mucosa. <b>1989</b> , 21, 109-16   | 4   |
| 1921 | The polyprotein nature of substance P precursors. <b>1989</b> , 10, 62-9   | 57  |
| 1920 | How does a key fit a flexible lock? Structure and dynamics in receptor function. <b>1989</b> , 11, 136-41  | 11  |
| 1919 | Inositol phosphates and airway smooth muscle. <b>1989</b> , 2, 113-20  | 25  |
| 1918 | Anti-invasive activities of experimental chemotherapeutic agents. <b>1989</b> , 9, 263-303   | 9   |
| 1917 | G protein dependent alterations in [ <sup>125</sup> I]iodocyanopindolol and +/- cyanopindolol binding at 5-HT <sub>1B</sub> binding sites in rat brain membranes. <b>1989</b> , 14, 835-43   | 12  |
| 1916 | Supra-additive stimulation of adenylate cyclase activity by prostaglandin E <sub>2</sub> and D-Ala <sup>2</sup> -met-enkephalinamide in the guinea-pig superior cervical ganglion: role of Mg <sup>2+</sup> -ions. <b>1989</b> , 14, 1181-6      | 4   |
| 1915 | Excitatory amino acids: the involvement of second messengers in the signal transduction process. <b>1989</b> , 9, 193-206  | 44  |
| 1914 | Fluorinated Analogs of Ins(1,4,5)P <sub>3</sub> . <b>1989</b> , 30, 5401-5404  | 26  |
| 1913 | Direct modulation of voltage-dependent calcium channels by muscarinic activation of a pertussis toxin-sensitive G-protein in hippocampal neurons. <b>1989</b> , 415, 255-61  | 74  |
| 1912 | The role of neutrophils in vascular injury: a summary of signal transduction mechanisms in cell/cell interactions. <b>1989</b> , 11, 235-58  | 19  |
| 1911 | G-proteins of rat liver membranes. Subcellular compartmentation and disposition in the plasma membrane. <b>1989</b> , 91, 75-84  | 10  |
| 1910 | Muscarinic and quisqualate receptor-induced phosphoinositide hydrolysis in primary cultures of striatal and hippocampal neurons. Evidence for differential mechanisms of activation. <b>1989</b> , 53, 825-33                                    | 56  |
| 1909 | Homologies in the Structures of G-Binding Proteins: An Analysis Based on Elongation Factor EF-TU. <b>1989</b> , 7, 913-920   | 21  |
| 1908 | Activation of macrophages to express cytotoxic activity correlates with inhibition of their responsiveness to macrophage colony-stimulating factor (CSF-1): involvement of a pertussis toxin-sensitive reaction. <b>1989</b> , 67 ( Pt 4), 243-9 | 15  |

|      |  |      |
|------|--|------|
| 1907 | Cellular biology of the water channel. <b>1989</b> , 36, 497-506   | 5    |
| 1906 | Altered response of adenylate cyclase to parathyroid hormone during compensatory renal growth. <b>1989</b> , 36, 802-9   | 5    |
| 1905 | G-protein subunits. Who carries what message?. <b>1989</b> , 337, 504  | 53   |
| 1904 | G-protein beta gamma-subunits activate the cardiac muscarinic K <sup>+</sup> -channel via phospholipase A <sub>2</sub> . <b>1989</b> , 337, 557-60   | 407  |
| 1903 | A Drosophila tissue polarity locus encodes a protein containing seven potential transmembrane domains. <b>1989</b> , 338, 263-4  | 309  |
| 1902 | GTPase inhibiting mutations activate the alpha chain of G <sub>s</sub> and stimulate adenylyl cyclase in human pituitary tumours. <b>1989</b> , 340, 692-6   | 1439 |
| 1901 | Structure of the guanine-nucleotide-binding domain of the Ha-ras oncogene product p21 in the triphosphate conformation. <b>1989</b> , 341, 209-14  | 856  |
| 1900 | A G Protein Mediates the Inhibition of the Voltage-Dependent Potassium M Current by Muscarine, LHRH, Substance P and UTP in Bullfrog Sympathetic Neurons. <b>1989</b> , 1, 529-542   | 45   |
| 1899 | Phosphorylation of mu-opioid receptors--a putative mechanism of selective uncoupling of receptor--G <sub>i</sub> interaction, measured with low-K <sub>m</sub> GTPase and nucleotide-sensitive agonist binding. <b>1989</b> , 100, 221-6 | 31   |
| 1898 | Regulation of biological functions by insulin and insulin-like growth factor I via their own distinct receptors. <b>1989</b> , 7 Suppl 1, S15-20   | 2    |
| 1897 | Calcium and T lymphocyte activation. <b>1989</b> , 59, 15-20   | 231  |
| 1896 | Localization and subcellular distribution of cellular ras gene products in rat brain. <b>1989</b> , 5, 31-44   | 46   |
| 1895 | The STE4 and STE18 genes of yeast encode potential beta and gamma subunits of the mating factor receptor-coupled G protein. <b>1989</b> , 56, 467-77   | 504  |
| 1894 | Viral oncogenes and signal transduction. <b>1989</b> , 12, 251-82  | 4    |
| 1893 | Signal transduction and the ras gene family: molecular switches of unknown function. <b>1989</b> , 1, 26-30  | 8    |
| 1892 | Millimolar concentrations of free magnesium enhance exocytosis from permeabilized rat pheochromocytoma (PC 12) cells. <b>1989</b> , 106, 300-4   | 9    |
| 1891 | High-Affinity GTP-Binding on Microsomal Membranes. Prepared from Moss Protonema of Funaria hygrometrica. <b>1989</b> , 134, 639-641  | 18   |
| 1890 | Functionally distinct G proteins selectively couple different receptors to PI hydrolysis in the same cell. <b>1989</b> , 56, 487-93  | 265  |

|      |   |     |
|------|---|-----|
| 1889 | G protein linked signal transduction pathways in development: dictyostelium as an experimental system. <b>1989</b> , 58, 235-9  | 136 |
| 1888 | Proper function of the <i>Drosophila</i> trp gene product during pupal development is important for normal visual transduction in the adult. <b>1989</b> , 3, 81-94                   | 99  |
| 1887 | Signal sorting and amplification through G protein-coupled receptors. <b>1989</b> , 3, 141-52   | 333 |
| 1886 | Disruption of muscarinic receptor-G protein coupling is a general property of liquid volatile anesthetics. <b>1989</b> , 99, 191-6  | 41  |
| 1885 | Pertussis toxin treatment counteracts the cardiovascular effects of neuropeptide Y and clonidine in the awake unrestrained rat. <b>1989</b> , 101, 337-41                             | 22  |
| 1884 | Development of beta-adrenergic receptor and G protein messenger RNA in rat brain. <b>1989</b> , 5, 289-96   | 37  |
| 1883 | Involvement of postsynaptic alpha 2-adrenoceptors and guanine nucleotide-binding protein in guanabenz-induced cardiovascular suppressant effects in the rat. <b>1989</b> , 105, 183-8 | 9   |
| 1882 | The role of purines in nociception. <b>1989</b> , 32, 557-69  | 183 |
| 1881 | Receptor-effector coupling by G-proteins implications for endocrinology. <b>1989</b> , 1, 72-6  | 10  |
| 1880 | G-protein regulation of neuronal voltage-activated calcium currents. <b>1989</b> , 20, 715-20   | 9   |
| 1879 | Regulation and function of G alpha protein subunits in Dictyostelium. <b>1989</b> , 57, 265-75  | 217 |
| 1878 | Post-receptor signalling pathways. <b>1989</b> , 1, 765-8   | 25  |
| 1877 | Phosphorylation of proteins in rat ovarian plasma membranes by [ $\gamma$ - $^{32}$ P]GTP: evidence for the formation of a high energy phosphoprotein. <b>1989</b> , 63, 175-87       | 6   |
| 1876 | Chronic opiate receptor activation in vivo alters the level of G-protein subunits in guinea-pig myenteric plexus. <b>1989</b> , 32, 503-10  | 24  |
| 1875 | GTP-binding proteins as possible targets for protein kinase C action. <b>1989</b> , 14, 355-7   | 70  |
| 1874 | Constitutive mutants in the yeast pheromone response: ordered function of the gene products. <b>1989</b> , 56, 479-86   | 140 |
| 1873 | G-proteins and second messengers in mitogenesis. <b>1989</b> , 1, 161-77  | 3   |
| 1872 | Temporal relationship between A1 adenosine receptor upregulation and alterations in bicuculline seizure susceptibility in rats. <b>1989</b> , 101, 325-30                             | 22  |

|      |   |     |
|------|---|-----|
| 1871 | Metabolic control of glucose degradation in yeast and tumor cells. <b>1989</b> , 39, 1-28   | 16  |
| 1870 | Hormone and growth factor receptor-mediated regulation of phospholipase C activity. <b>1989</b> , 10, 360-4   | 61  |
| 1869 | Molecular pharmacology and drug action: structural information casts light on ligand binding. <b>1989</b> , 10, 207-12  | 9   |
| 1868 | The effects of p21N-ras expression in NIH-3T3 cells upon cyclic AMP metabolism. <b>1989</b> , 1013, 173-9   | 5   |
| 1867 | Stimulatory effects of atrial natriuretic factor on phosphoinositide hydrolysis in cultured bovine aortic smooth muscle cells. <b>1989</b> , 1010, 346-51   | 142 |
| 1866 | Rescue of the Li <sup>+</sup> -induced delay of embryonic myogenesis in vitro by added inositol. <b>1989</b> , 1013, 92-6   | 13  |
| 1865 | Involvement of a specific guanine nucleotide binding protein in receptor immunoglobulin stimulated inositol phospholipid hydrolysis. <b>1989</b> , 1013, 273-8  | 21  |
| 1864 | Crystallization and preliminary X-ray analysis of the human c-H-ras-oncogene product p21 complexed with GTP analogues. <b>1989</b> , 206, 257-9   | 46  |
| 1863 | Arachidonic acid analogues: an additional class of membrane--active agents with potential anticancer activity. <b>1989</b> , 35, 231-41   | 11  |
| 1862 | G protein-effector coupling: interactions of recombinant inhibitory gamma subunit with transducin and phosphodiesterase. <b>1989</b> , 28, 6145-50  | 12  |
| 1861 | Structural and dynamic differences between normal and transforming N-ras gene products: a 31P and isotope-edited 1H NMR study. <b>1989</b> , 28, 9478-84  | 24  |
| 1860 | Mutation of glycine 49 to valine in the alpha subunit of GS results in the constitutive elevation of cyclic AMP synthesis. <b>1989</b> , 28, 4547-51  | 24  |
| 1859 | Rapid kinetics of alpha 2-adrenergic inhibition of adenylate cyclase. Evidence for a distal rate-limiting step. <b>1989</b> , 28, 8778-86   | 26  |
| 1858 | Aging of rat heart myocytes disrupts muscarinic receptor coupling that leads to inhibition of cAMP accumulation and alters the pathway of muscarinic-stimulated phosphoinositide hydrolysis. <b>1989</b> , 28, 7130-7 | 23  |
| 1857 | Spin-labeling proton NMR study on aromatic amino acid residues in the guanine nucleotide binding site of human c-Ha-ras(1-171) protein. <b>1989</b> , 28, 9550-6  | 12  |
| 1856 | Crystallization of isoelectrically homogeneous cholera toxin. <b>1989</b> , 28, 1333-40   | 23  |
| 1855 | Identification of lung major GTP-binding protein as Gi2 and its distribution in various rat tissues determined by immunoassay. <b>1989</b> , 28, 4749-54  | 43  |
| 1854 | Follicle stimulating hormone (FSH) induces G protein dissociation from FSH receptor-G protein complexes in reconstituted proteoliposomes. <b>1989</b> , 162, 1214-21  | 6   |

|      |  |    |
|------|--|----|
| 1853 | GTP hydrolysis by guinea pig liver transglutaminase. <b>1989</b> , 162, 1370-5   | 95 |
| 1852 | Effects of bradykinin, GTP gamma S, R59022 and N-ethylmaleimide on inositol phosphate production in NG108-15 cells. <b>1989</b> , 165, 175-82  | 9  |
| 1851 | Insulin affects the ability of Gi to be ADP-ribosylated but does not elicit its phosphorylation in intact hepatocytes. <b>1989</b> , 165, 251-6  | 17 |
| 1850 | High-efficiency expression of mammalian beta-adrenergic receptors in baculovirus-infected insect cells. <b>1989</b> , 163, 1265-9  | 64 |
| 1849 | Rabbit intestine contains a protein that inhibits the dissociation of GDP from and the subsequent binding of GTP to rhoB p20, a ras p21-like GTP-binding protein. <b>1989</b> , 163, 1523-33 | 43 |
| 1848 | Differential expression of cytosolic activation factors for NADPH oxidase in HL-60 leukemic cells. <b>1989</b> , 161, 1109-17  | 8  |
| 1847 | Purification and identification of two pertussis-toxin-sensitive GTP-binding proteins of bovine spleen. <b>1989</b> , 161, 1280-5  | 20 |
| 1846 | Low Mr GTP-binding proteins in human platelets: cyclic AMP-dependent protein kinase phosphorylates m22KG(l) in membrane but not c21KG in cytosol. <b>1989</b> , 160, 235-42                  | 38 |
| 1845 | Membrane attachment of recombinant G-protein alpha-subunits in excess of beta gamma subunits in a eukaryotic expression system. <b>1989</b> , 164, 46-53                                     | 22 |
| 1844 | Demonstration of GTP-binding proteins and ADP-ribosylated proteins in rat liver Golgi fraction. <b>1989</b> , 164, 333-8   | 12 |
| 1843 | Evidence for a GTP-dependent increase in membrane permeability for calcium in NG108-15 microsomes. <b>1989</b> , 164, 1060-8   | 1  |
| 1842 | Kinetic analysis of the binding of guanine nucleotide to bovine brain smg p25A. <b>1989</b> , 162, 273-81  | 26 |
| 1841 | Guanine nucleotides stimulate hydrolysis of phosphatidyl inositol bis phosphate in human myelin membranes. <b>1989</b> , 162, 282-7  | 17 |
| 1840 | ras p21 and other Gn proteins are detected in mammalian cell lines by [ $\gamma$ -35S]GTP gamma S binding. <b>1989</b> , 159, 1269-74  | 10 |
| 1839 | GTPase activating proteins for the smg-21 GTP-binding protein having the same effector domain as the ras proteins in human platelets. <b>1989</b> , 159, 1411-9                              | 37 |
| 1838 | Kinetic analysis of the binding of guanine nucleotides to bovine brain rhoB p20, a ras p21-like GTP-binding protein. <b>1989</b> , 163, 674-81   | 15 |
| 1837 | "In situ" characterization of guanine nucleotide-binding properties of erythrocyte membranes. <b>1989</b> , 159, 41-7  | 2  |
| 1836 | Effect of guanine nucleotides on phospholipase C activity in permeabilized pituitary cells: possible involvement of an inhibitory GTP-binding protein. <b>1989</b> , 159, 209-15             | 25 |

|      |   |     |
|------|---|-----|
| 1835 | Interactions between adenylate cyclase inhibitors and beta-adrenoceptors in isolated human fat cells. <b>1989</b> , 161, 654-60   | 11  |
| 1834 | Ca <sup>2+</sup> influx stimulated by vasopressin is mediated by phosphoinositide hydrolysis in rat smooth muscle cells. <b>1989</b> , 161, 677-82  | 26  |
| 1833 | G-protein mRNA levels during adipocyte differentiation. <b>1989</b> , 165, 929-34   | 35  |
| 1832 | Binding to GDP-agarose identifies a novel 60kDa substrate for the insulin receptor tyrosyl kinase in mouse NIH-3T3 cells expressing high concentrations of the human insulin receptor. <b>1989</b> , 158, 743-8                         | 9   |
| 1831 | Structure and function of alpha-adrenergic receptors. <b>1989</b> , 87, 12S-18S   | 25  |
| 1830 | Activation of 5-lipoxygenase by guanosine 5'-O-(3-thiotriphosphate) and other nucleoside phosphorothioates: redox properties of thionucleotide analogs. <b>1989</b> , 273, 592-6  | 4   |
| 1829 | Reconstitution and characterization of the human neutrophil N-formyl peptide receptor and GTP binding proteins in phospholipid vesicles. <b>1989</b> , 982, 31-40   | 17  |
| 1828 | Pertussis toxin inhibits 1-methyladenine-induced maturation in starfish oocytes. <b>1989</b> , 133, 605-8   | 69  |
| 1827 | An adhesion-associated agonist from the zona pellucida activates G protein-promoted elevations of internal Ca <sup>2+</sup> and pH that mediate mammalian sperm acrosomal exocytosis. <b>1989</b> , 135, 133-46                         | 211 |
| 1826 | Small molecular weight GTP-binding proteins and signal transduction. <b>1989</b> , 185, 347-55  | 12  |
| 1825 | Variability in electrophoretic mobility of Gi-like proteins: effect of SDS. <b>1989</b> , 243, 409-12   | 12  |
| 1824 | Receptor-regulated formation of GTP[gamma S] with subsequent persistent Gs-protein activation in membranes of human platelets. <b>1989</b> , 245, 189-93  | 35  |
| 1823 | Stimulation of adenosine receptor enhances alpha 1-adrenergic receptor-mediated activation of phospholipase C and Ca <sup>2+</sup> mobilization in a pertussis toxin-sensitive manner in FRTL-5 thyroid cells. <b>1989</b> , 248, 145-9 | 51  |
| 1822 | A G-protein of sarcoplasmic reticulum of skeletal muscle is activated by caffeine or inositol trisphosphate. <b>1989</b> , 244, 283-6   | 5   |
| 1821 | Identification of both Gi2 and a novel, immunologically distinct, form of Go in rat myometrial membranes. <b>1989</b> , 244, 411-6  | 25  |
| 1820 | Nuclear GTP-binding proteins of Swiss 3T3 cells. <b>1989</b> , 244, 469-72  | 11  |
| 1819 | Subtype-specific increase in G-protein alpha-subunit mRNA by interleukin 1 beta. <b>1989</b> , 249, 139-42  | 18  |
| 1818 | Receptor and effector interactions of Gs. Functional studies with antibodies to the alpha s carboxyl-terminal decapeptide. <b>1989</b> , 249, 189-94  | 154 |

|      |  |     |
|------|--|-----|
| 1817 | Forskolin stimulates pinealocyte cGMP accumulation. Dramatic potentiation by an alpha 1-adrenergic---[Ca2+]i mechanism involving protein kinase C. <b>1989</b> , 249, 207-12   | 13  |
| 1816 | CD3/T-cell receptor coupling to a pertussis and cholera toxin-insensitive G-protein. <b>1989</b> , 250, 536-40   | 10  |
| 1815 | Radiation inactivation analysis of the A1 adenosine receptor of rat brain. Decrease in radiation inactivation size in the presence of guanine nucleotide. <b>1989</b> , 252, 125-8   | 5   |
| 1814 | Muscarinic agents modify kinetics properties of membrane-bound guanylyl cyclase activity. <b>1989</b> , 253, 16-22   | 10  |
| 1813 | Mu type opioid receptors in rat periaqueductal gray-enriched P2 membrane are coupled to G-protein-mediated inhibition of adenylyl cyclase. <b>1989</b> , 253, 23-7   | 10  |
| 1812 | P2-purinerbic agonists activate phospholipase C in a guanine nucleotide- and Ca2+-dependent manner in FRTL-5 thyroid cell membranes. <b>1989</b> , 253, 132-6  | 39  |
| 1811 | Molecular cloning and sequence determination of a cDNA coding for the alpha-subunit of a Go-type protein of <i>Xenopus laevis</i> oocytes. <b>1989</b> , 244, 188-92   | 54  |
| 1810 | Treatment of intact hepatocytes with either the phorbol ester TPA or glucagon elicits the phosphorylation and functional inactivation of the inhibitory guanine nucleotide regulatory protein Gi. <b>1989</b> , 243, 77-82 | 88  |
| 1809 | Detection of low molecular mass GTP-binding proteins in chromaffin granules and other subcellular fractions of chromaffin cells. <b>1989</b> , 247, 127-31   | 27  |
| 1808 | Identification of rho as a substrate for botulinum toxin C3-catalyzed ADP-ribosylation. <b>1989</b> , 247, 221-6   | 35  |
| 1807 | An analysis of the periodicity of conserved residues in sequence alignments of G-protein coupled receptors. Implications for the three-dimensional structure. <b>1989</b> , 251, 109-16                                    | 55  |
| 1806 | Reconstitution of cyc- S49 membranes by in vitro translated Gs alpha. Membrane anchorage and functional implications. <b>1989</b> , 251, 230-6   | 14  |
| 1805 | Histamine and bradykinin stimulate the phosphoinositide turnover in human umbilical vein endothelial cells via different G-proteins. <b>1989</b> , 259, 67-70  | 22  |
| 1804 | Activation of protein kinase C alters the interaction of alpha 2-adrenoceptors and the inhibitory GTP-binding protein (Gi) in human platelets. <b>1989</b> , 257, 427-30   | 15  |
| 1803 | The new biology of drug receptors. <b>1989</b> , 38, 2941-8  | 31  |
| 1802 | Magnesium ions in cardiac function. Regulator of ion channels and second messengers. <b>1989</b> , 38, 859-67  | 193 |
| 1801 | Modulation of adenylyl cyclase activity in cultured bovine pulmonary arterial endothelial cells. Effects of adenosine and derivatives. <b>1989</b> , 38, 423-30  | 22  |
| 1800 | Sodium and potassium regulation of guanine nucleotide-stimulated adenylyl cyclase in brain. <b>1989</b> , 38, 1909-14  | 15  |



|      |   |     |
|------|---|-----|
| 1799 | Guanine nucleotide-mediated inhibition of opioid agonist binding. Modulatory effects of ions and of receptor occupancy. <b>1989</b> , 38, 1931-9  | 11  |
| 1798 | Regulation of adenylate cyclase by cannabinoid drugs. Insights based on thermodynamic studies. <b>1989</b> , 38, 3297-304   | 33  |
| 1797 | Excitation of locus coeruleus neurons by vasoactive intestinal peptide: evidence for a G-protein-mediated inward current. <b>1989</b> , 500, 107-18   | 26  |
| 1796 | Guanosine-5'-O-thiodiphosphate functions as a partial agonist for the receptor-independent stimulation of neural adenylate cyclase. <b>1989</b> , 488, 105-13                                   | 20  |
| 1795 | Contribution of guanine nucleotide regulatory proteins to prostaglandin hyperalgesia in the rat. <b>1989</b> , 492, 400-3   | 46  |
| 1794 | Modulation of the voltage-dependent sodium channel by agents affecting G-proteins: a study in <i>Xenopus</i> oocytes injected with brain RNA. <b>1989</b> , 496, 197-203                        | 17  |
| 1793 | G proteins in <i>Aplysia</i> : biochemical characterization and regional and subcellular distribution. <b>1989</b> , 478, 281-92  | 12  |
| 1792 | Mu-type opioid receptors in rat periaqueductal gray-enriched P2 membrane are coupled to guanine nucleotide binding proteins. <b>1989</b> , 476, 102-9   | 17  |
| 1791 | Induction of the differentiation of synchronized HL-60 leukemia cells by tiazofurin. <b>1989</b> , 182, 234-41  | 8   |
| 1790 | Molecular characterization of the <i>Drosophila</i> trp locus: a putative integral membrane protein required for phototransduction. <b>1989</b> , 2, 1313-23                                    | 846 |
| 1789 | G protein regulation of phospholipase A2. <b>1989</b> , 3, 155-71   | 59  |
| 1788 | Tissue-specific expression of a novel GTP-binding protein (smg p25A) mRNA and its increase by nerve growth factor and cyclic AMP in rat pheochromocytoma PC-12 cells. <b>1989</b> , 158, 377-85 | 79  |
| 1787 | Activation of platelet phospholipase C by fluoride is inhibited by elevation of cyclic AMP. <b>1989</b> , 158, 440-4  | 50  |
| 1786 | Evidence for a membrane-associated GTP-binding protein in <i>Stigmatella aurantiaca</i> , a prokaryotic cell. <b>1989</b> , 158, 562-8  | 13  |
| 1785 | The rho gene product expressed in <i>E. coli</i> is a substrate of botulinum ADP-ribosyltransferase C3. <b>1989</b> , 158, 209-13   | 245 |
| 1784 | Molecular cardiology: new avenues for the diagnosis and treatment of cardiovascular disease. <b>1989</b> , 13, 265-82   | 24  |
| 1783 | Regulation by chronic clonidine of adenylate cyclase and cyclic AMP-dependent protein kinase in the rat locus coeruleus. <b>1989</b> , 45, 1073-80  | 18  |
| 1782 | Molecular pharmacology of muscarinic receptor heterogeneity. <b>1989</b> , 45, 1831-51  | 93  |

|      |   |     |
|------|---|-----|
| 1781 | G regulatory proteins and muscarinic receptor signal transduction in mucous acini of rat submandibular gland. <b>1989</b> , 44, 1027-35   | 18  |
| 1780 | Nucleoside and nucleotide modulation of genetic expression--a new approach to chemotherapy. <b>1989</b> , 29, 97-121  | 9   |
| 1779 | Photoaffinity labeling of the choriogonadotropin receptor. <b>1989</b> , 43, 333-43   | 2   |
| 1778 | Thromboxane A2: its generation and role in platelet activation. <b>1989</b> , 28, 273-301   | 154 |
| 1777 | Muscarinic receptor subclassification and G-proteins: significance for lithium action in affective disorders and for the treatment of the extrapyramidal side effects of neuroleptics. <b>1989</b> , 26, 113-30                         | 66  |
| 1776 | Decreased arterial responsiveness to multiple cyclic AMP-generating receptor agonists in spontaneously hypertensive rats. <b>1989</b> , 96, 227-35  | 19  |
| 1775 | Effect of phorbol ester and pertussis toxin on the enhancement of noradrenaline release by angiotensin II in mouse atria. <b>1989</b> , 96, 609-16  | 22  |
| 1774 | Elevation of intracellular cyclic AMP concentration fails to inhibit adrenaline-induced hyperpolarization in amphibian sympathetic neurons. <b>1989</b> , 96, 779-84  | 4   |
| 1773 | An investigation into the mechanisms of inhibition of calcium channel currents in cultured sensory neurones of the rat by guanine nucleotide analogues and (-)-baclofen. <b>1989</b> , 97, 263-73                                       | 63  |
| 1772 | Differential G protein-mediated coupling of neurotransmitter receptors to Ca <sup>2+</sup> channels in rat dorsal root ganglion neurons in vitro. <b>1989</b> , 2, 1185-93  | 162 |
| 1771 | Intrasynaptosomal distribution of the ras, rho and smg-25A GTP-binding proteins in bovine brain. <b>1989</b> , 6, 167-76  | 39  |
| 1770 | Alpha transducin is present in blue-, green-, and red-sensitive cone photoreceptors in the human retina. <b>1989</b> , 3, 367-76  | 109 |
| 1769 | Chromosome mapping of the human ras-related rab3A gene to 19p13.2. <b>1989</b> , 5, 694-8   | 7   |
| 1768 | Muscarinic-agonist and guanine nucleotide stimulation of myo-inositol trisphosphate formation in membranes isolated from bovine iris sphincter smooth muscle: effects of short-term cholinergic desensitization. <b>1989</b> , 8, 39-59 | 10  |
| 1767 | Rapid beta-adrenergic modulation of cardiac calcium channel currents by a fast G protein pathway. <b>1989</b> , 245, 71-4   | 282 |
| 1766 | Isolation and immunological properties of adenosine kinase. <b>1989</b> , 19, 351-61  | 1   |
| 1765 | Guanine nucleotide-binding protein regulation of melatonin receptors in lizard brain. <b>1989</b> , 86, 3882-6  | 64  |
| 1764 | Stimulation of beta-adrenergic receptors of S49 lymphoma cells redistributes the alpha subunit of the stimulatory G protein between cytosol and membranes. <b>1989</b> , 86, 7900-3   | 133 |

|      |   |     |
|------|---|-----|
| 1763 | Link between D1 and D2 dopamine receptors is reduced in schizophrenia and Huntington diseased brain. <b>1989</b> , 86, 10156-60   | 155 |
| 1762 | Pertussis toxin induces structural changes in G alpha proteins independently of ADP-ribosylation. <b>1989</b> , 86, 2577-81   | 49  |
| 1761 | Dominant yeast and mammalian RAS mutants that interfere with the CDC25-dependent activation of wild-type RAS in <i>Saccharomyces cerevisiae</i> . <b>1989</b> , 9, 390-5        | 184 |
| 1760 | Adenylate cyclases in yeast: a comparison of the genes from <i>Schizosaccharomyces pombe</i> and <i>Saccharomyces cerevisiae</i> . <b>1989</b> , 86, 5693-7                     | 116 |
| 1759 | MSI1, a negative regulator of the RAS-cAMP pathway in <i>Saccharomyces cerevisiae</i> . <b>1989</b> , 86, 8778-82   | 109 |
| 1758 | Iloprost-induced translocation of a 23-kDa protein that is recognized by a Gs alpha antiserum. <b>1989</b> , 86, 868-70   | 8   |
| 1757 | Solubilization and hydrodynamic characterization of guanine nucleotide sensitive vasoactive intestinal peptide-receptor complexes from rat intestine. <b>1989</b> , 28, 1667-72 | 17  |
| 1756 | Rhodopsin-G-protein interactions monitored by resonance energy transfer. <b>1989</b> , 28, 1711-8   | 16  |
| 1755 | Glucocorticoids modulate mRNA levels for G-protein beta-subunits. <b>1989</b> , 260, 271-5  | 32  |
| 1754 | The fat cell. <b>1989</b> , 73, 83-96   | 53  |
| 1753 | A pertussis toxin-sensitive G protein in hippocampal long-term potentiation. <b>1989</b> , 244, 980-3   | 111 |
| 1752 | Somatostatin blocks a calcium current in rat sympathetic ganglion neurones. <b>1989</b> , 409, 221-40   | 147 |
| 1751 | Characteristics of a 5-hydroxytryptamine-sensitive adenylate cyclase in intact and intracellularly perfused squid axons. <b>1989</b> , 415, 1-18                                | 3   |
| 1750 | On the transduction mechanism for muscarine-induced inhibition of M-current in cultured rat sympathetic neurones. <b>1989</b> , 413, 469-88                                     | 87  |
| 1749 | Membrane currents elicited by divalent cations in <i>Xenopus</i> oocytes. <b>1989</b> , 417, 173-95   | 48  |
| 1748 | Interactive effects of isoprenaline, forskolin and acetylcholine on Ca <sup>2+</sup> current in frog ventricular myocytes. <b>1989</b> , 417, 213-39                            | 46  |
| 1747 | Interaction between calcium channel ligands and guanine nucleotides in cultured rat sensory and sympathetic neurones. <b>1989</b> , 413, 271-88                                 | 42  |
| 1746 | Evidence that monensin inhibits vasopressin-stimulated water flow at an early step in the receptor-adenylate cyclase sequence. <b>1989</b> , 66, 19-22                          | 1   |

|      |   |     |
|------|---|-----|
| 1745 | The G protein alpha o subunit alters morphology, growth kinetics, and phospholipid metabolism of somatic cells. <b>1989</b> , 9, 5434-9                                     | 19  |
| 1744 | Lymphocyte-specific Ca <sup>2+</sup> -binding protein LSP1 is associated with the cytoplasmic face of the plasma membrane. <b>1989</b> , 9, 3043-8                          | 36  |
| 1743 | Mapping the functional domains of the beta-adrenergic receptor. <b>1989</b> , 1, 81-6   | 44  |
| 1742 | GPA1Val-50 mutation in the mating-factor signaling pathway in <i>Saccharomyces cerevisiae</i> . <b>1989</b> , 9, 2289-97  | 68  |
| 1741 | GTP gamma S increases thrombin-mediated inositol trisphosphate accumulation in permeabilized human endothelial cells. <b>1989</b> , 140, 1121-5                             | 32  |
| 1740 | Transmembrane signal transduction in bacterial chemotaxis involves ligand-dependent activation of phosphate group transfer. <b>1989</b> , 86, 1208-12                       | 280 |
| 1739 | Ion channels and G proteins. <b>1989</b> , 24, 189-93, 198, 202-4   | 1   |
| 1738 | The yeast G-protein homolog is involved in the mating pheromone signal transduction system. <b>1989</b> , 9, 152-8  | 20  |
| 1737 | GDP stimulates the phosphorylation of a 36-kDa membrane protein in <i>Dictyostelium discoideum</i> . <b>1989</b> , 86, 3665-8   | 11  |
| 1736 | Corticosterone differentially regulates the expression of Gs alpha and Gi alpha messenger RNA and protein in rat cerebral cortex. <b>1989</b> , 86, 3906-10                 | 113 |
| 1735 | Antagonists with negative intrinsic activity at delta opioid receptors coupled to GTP-binding proteins. <b>1989</b> , 86, 7321-5  | 454 |
| 1734 | Gi2 mediates alpha 2-adrenergic inhibition of adenylyl cyclase in platelet membranes: in situ identification with G alpha C-terminal antibodies. <b>1989</b> , 86, 7809-13  | 350 |
| 1733 | Isolation of the alpha subunits of GTP-binding regulatory proteins by affinity chromatography with immobilized beta gamma subunits. <b>1989</b> , 86, 7814-8                | 68  |
| 1732 | The adenylyl cyclase gene from <i>Schizosaccharomyces pombe</i> . <b>1989</b> , 86, 7989-93   | 87  |
| 1731 | Gamma-aminobutyrate type B receptor modulation of L-type calcium channel current at bipolar cell terminals in the retina of the tiger salamander. <b>1989</b> , 86, 10144-7 | 95  |
| 1730 | Identification of a protein associated with p21ras by chemical crosslinking. <b>1989</b> , 86, 4007-11  | 42  |
| 1729 | The <i>Drosophila</i> gene coding for the alpha subunit of a stimulatory G protein is preferentially expressed in the nervous system. <b>1989</b> , 86, 4321-5              | 59  |
| 1728 | Diversity of the G-protein family: sequences from five additional alpha subunits in the mouse. <b>1989</b> , 86, 7407-9   | 166 |

|      |   |     |
|------|---|-----|
| 1727 | Molecular model of the G protein alpha subunit based on the crystal structure of the HRAS protein. <b>1989</b> , 86, 1751-5   | 73  |
| 1726 | Molecular cloning of plant transcripts encoding protein kinase homologs. <b>1989</b> , 86, 3140-4   | 144 |
| 1725 | Liver Receptors for Regulatory Peptides. <b>1989</b> , 245-280  |     |
| 1724 | Pseudohypoparathyroidism: current concepts. <b>1989</b> , 298, 130-40   | 47  |
| 1723 | Genetic analysis of the rnc operon of Escherichia coli. <b>1989</b> , 171, 2581-90  | 157 |
| 1722 | Oncogenes, protooncogenes, and signal transduction: toward a unified theory?. <b>1989</b> , 37, 1-34  | 7   |
| 1721 | Evidence that guanosine 5'-[gamma-thio]triphosphate stimulates plasma membrane Ca <sup>2+</sup> inflow when introduced into hepatocytes. <b>1989</b> , 257, 591-8   | 11  |
| 1720 | Evidence for altered expression of the GTP-dependent regulatory proteins, G <sub>s</sub> and G <sub>i</sub> , in adipocytes from aged rats. <b>1989</b> , 258, 607-10   | 17  |
| 1719 | Effects of Bordetella pertussis toxin on catecholamine inhibition of insulin release from intact and electrically permeabilized rat islets. <b>1989</b> , 258, 669-75   | 39  |
| 1718 | Aluminofluoride action on G-proteins of the adenylate cyclase system is not different from that on transducin. <b>1989</b> , 258, 931-2   | 15  |
| 1717 | Fluoride interaction with G-proteins. <b>1989</b> , 258, 932-3  | 7   |
| 1716 | Glucagon desensitization of adenylate cyclase and stimulation of inositol phospholipid metabolism does not involve the inhibitory guanine nucleotide regulatory protein G <sub>i</sub> , which is inactivated upon challenge of hepatocytes with glucagon. <b>1989</b> , 259, 191-7 | 23  |
| 1715 | Purification and characterization of predominant G-protein from bovine lung membranes. Biochemical and immunochemical comparison with G <sub>i1</sub> and G <sub>o</sub> purified from brain. <b>1989</b> , 259, 499-506  | 10  |
| 1714 | Activation of NADPH oxidase by purine and pyrimidine nucleotides involves G proteins and is potentiated by chemotactic peptides. <b>1989</b> , 259, 813-9   | 70  |
| 1713 | The adipocyte G <sub>o</sub> alpha-immunoreactive polypeptide is different from the alpha subunit of the brain G <sub>o</sub> protein. <b>1989</b> , 260, 307-10  | 33  |
| 1712 | The detergent Solulan C-24 reveals properties of the olfactory adenylate cyclase system. <b>1989</b> , 260, 683-7   | 2   |
| 1711 | Persistent activation of the alpha subunit of G <sub>s</sub> promotes its removal from the plasma membrane. <b>1989</b> , 260, 837-41   | 71  |
| 1710 | Guanine-nucleotide-binding proteins G <sub>i</sub> and G <sub>s</sub> in fat-cells from normal, hypothyroid and obese human subjects. <b>1989</b> , 260, 843-7  | 23  |

|      |   |     |
|------|---|-----|
| 1709 | Carbachol and histamine stimulation of guanine-nucleotide-dependent phosphoinositide hydrolysis in rat brain cortical membranes. <b>1989</b> , 261, 29-35   | 54  |
| 1708 | Effect of propan-2-ol on enzymic and structural properties of elongation factor G. <b>1989</b> , 261, 725-31  | 8   |
| 1707 | Transforming growth factor beta 1 treatment of AKR-2B cells is coupled through a pertussis-toxin-sensitive G-protein(s). <b>1989</b> , 261, 879-86  | 50  |
| 1706 | Distribution of G-proteins in rat liver plasma-membrane domains and endocytic pathways. <b>1989</b> , 261, 905-12   | 49  |
| 1705 | Cholera toxin treatment produces down-regulation of the alpha-subunit of the stimulatory guanine-nucleotide-binding protein (Gs). <b>1989</b> , 262, 643-9  | 71  |
| 1704 | Indirect immunofluorescence localization of beta-adrenergic receptors and G-proteins in human A431 cells. <b>1989</b> , 263, 519-32   | 44  |
| 1703 | Role of guanine nucleotide regulatory proteins in insulin stimulation of glucose transport in rat adipocytes. Influence of bacterial toxins. <b>1989</b> , 264, 389-96  | 37  |
| 1702 | Epidermal growth factor stimulates rat cardiac adenylate cyclase through a GTP-binding regulatory protein. <b>1989</b> , 264, 563-71  | 57  |
| 1701 | Endothelial inositol phosphate generation and prostacyclin production in response to G-protein activation by AIF4-. <b>1989</b> , 264, 703-11   | 33  |
| 1700 | Guanine nucleotides mediate stimulatory and inhibitory effects on cerebral-cortical membrane phospholipase C activity. <b>1989</b> , 261, 245-51  | 34  |
| 1699 | The effect of iloprost on the ADP-ribosylation of Gs alpha (the alpha-subunit of Gs). <b>1989</b> , 261, 841-5  | 38  |
| 1698 | The local anaesthetic benzyl alcohol attenuates the alpha 2-adrenoceptor-mediated inhibition of human platelet adenylate cyclase activity when stimulated by prostaglandin E1, but not that stimulated by forskolin. <b>1989</b> , 264, 483-8 | 12  |
| 1697 | Modulation of adenylate cyclase activity in bovine lens epithelial cells. <b>1989</b> , 21, 167-74  | 1   |
| 1696 | Characterization of receptors to the anaphylatoxins on isolated cells. <b>1989</b> , 179 Suppl 1, 35-40   | 4   |
| 1695 | Refined crystal structure of the triphosphate conformation of H-ras p21 at 1.35 A resolution: implications for the mechanism of GTP hydrolysis.. <b>1990</b> , 9, 2351-2359   | 829 |
| 1694 | Overexpression of the STE4 gene leads to mating response in haploid <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 10, 217-22  | 146 |
| 1693 | Two forms of <i>Drosophila melanogaster</i> Gs alpha are produced by alternate splicing involving an unusual splice site. <b>1990</b> , 10, 910-7   | 40  |
| 1692 | Effects of prolonged hypoxia on adenylate cyclase activity and beta-adrenergic receptors in pulmonary and systemic arteries of the rat. <b>1990</b> , 66, 1526-34   | 28  |

|      |   |      |
|------|---|------|
| 1691 | Proximal tubular epithelial cells possess a novel 42-kilodalton guanine nucleotide-binding regulatory protein. <b>1990</b> , 87, 7532-5   | 24   |
| 1690 | Myristoylation of an inhibitory GTP-binding protein alpha subunit is essential for its membrane attachment. <b>1990</b> , 87, 568-72  | 227  |
| 1689 | Expression of a gene family in the dimorphic fungus <i>Mucor racemosus</i> which exhibits striking similarity to human ras genes. <b>1990</b> , 10, 6654-63   | 19   |
| 1688 | Density-dependent nerve growth factor regulation of Gs-alpha RNA in pheochromocytoma 12 cells. <b>1990</b> , 10, 3277-9   | 4    |
| 1687 | Molecular cloning and characterization of a novel type of regulatory protein (GDI) for smg p25A, a ras p21-like GTP-binding protein. <b>1990</b> , 10, 4116-22  | 154  |
| 1686 | Amplified RNA synthesized from limited quantities of heterogeneous cDNA. <b>1990</b> , 87, 1663-7   | 1086 |
| 1685 | G protein mutations that alter the pheromone response in <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 10, 4439-46  | 47   |
| 1684 | Increase of Gi alpha in human hearts with dilated but not ischemic cardiomyopathy. <b>1990</b> , 82, 1249-65  | 297  |
| 1683 | Intracellular regulation of enzyme secretion from rat osteoclasts and evidence for a functional role in bone resorption. <b>1990</b> , 429, 29-45   | 92   |
| 1682 | Stoichiometry of G protein subunits affects the <i>Saccharomyces cerevisiae</i> mating pheromone signal transduction pathway. <b>1990</b> , 10, 510-7   | 148  |
| 1681 | Role of phosphatidylinositide metabolism in ras-induced <i>Xenopus</i> oocyte maturation. <b>1990</b> , 10, 923-9   | 36   |
| 1680 | c-Ha-ras down regulates the alpha-fetoprotein gene but not the albumin gene in human hepatoma cells. <b>1990</b> , 10, 1461-9   | 26   |
| 1679 | Glucagon and p21 ras enhance the phosphorylation of the same 38-kilodalton membrane protein from rat liver cells. <b>1990</b> , 10, 2468-74   | 12   |
| 1678 | Regulation of protein kinase C activity in neuronal differentiation induced by the N-ras oncogene in PC-12 cells. <b>1990</b> , 10, 2983-90   | 28   |
| 1677 | G-protein alpha-subunit expression, myristoylation, and membrane association in COS cells. <b>1990</b> , 87, 728-32   | 264  |
| 1676 | Hydrolysis of GTP by p21NRAS, the NRAS protooncogene product, is accompanied by a conformational change in the wild-type protein: use of a single fluorescent probe at the catalytic site. <b>1990</b> , 87, 3562-5 | 111  |
| 1675 | Molecules, cancer, and the surgeon. A review of molecular biology and its implications for surgical oncology. <b>1990</b> , 212, 3-13   | 8    |
| 1674 | Adenylate cyclase in <i>Saccharomyces cerevisiae</i> is a peripheral membrane protein. <b>1990</b> , 10, 3873-83  | 39   |

|      |  |     |
|------|--|-----|
| 1673 | Unique guanine nucleotide binding properties of the human placental GTP-binding protein Gp. <b>1990</b> , 29, 6947-54  | 7   |
| 1672 | Oncogene N-ras mediates selective inhibition of c-fos induction by nerve growth factor and basic fibroblast growth factor in a PC12 cell line. <b>1990</b> , 10, 1556-63                         | 24  |
| 1671 | Biochemical characterization of baculovirus-expressed rap1A/Krev-1 and its regulation by GTPase-activating proteins. <b>1990</b> , 10, 2901-8  | 60  |
| 1670 | Alterations of G-protein coupling function in phosphoinositide signaling pathways of cells transformed by ras and other membrane-associated and cytoplasmic oncogenes. <b>1990</b> , 10, 3117-24 | 16  |
| 1669 | Thrombolamban, the 22-kDa platelet substrate of cyclic AMP-dependent protein kinase, is immunologically homologous with the Ras family of GTP-binding proteins. <b>1990</b> , 87, 758-62         | 37  |
| 1668 | rab3 is a small GTP-binding protein exclusively localized to synaptic vesicles. <b>1990</b> , 87, 1988-92  | 393 |
| 1667 | Mechanisms of signal transduction to the cell nucleus. <b>1990</b> , 55, 271-310   | 76  |
| 1666 | Molecular events mediating T cell activation. <b>1990</b> , 48, 227-360  | 241 |
| 1665 | GTP-binding proteins mediate noradrenaline effects on calcium and chloride currents in rat portal vein myocytes. <b>1990</b> , 428, 517-29   | 59  |
| 1664 | Subcellular distribution of GTP-binding proteins, Go and Gi2, in rat cerebral cortex. <b>1990</b> , 107, 694-8   | 13  |
| 1663 | Two distinct types of inwardly rectifying K <sup>+</sup> channels in bull-frog atrial myocytes. <b>1990</b> , 424, 229-51  | 28  |
| 1662 | Effects of muscarine and adrenaline on neurones from Rana pipiens sympathetic ganglia. <b>1990</b> , 425, 471-500  | 48  |
| 1661 | Muscarinic modulation of calcium current in neurones from the interatrial septum of bull-frog heart. <b>1990</b> , 427, 127-49   | 20  |
| 1660 | Intracellular mechanisms for alpha 1-adrenergic regulation of the transient outward current in rabbit atrial myocytes. <b>1990</b> , 431, 689-712  | 53  |
| 1659 | Whole-cell calcium current in guinea-pig ventricular myocytes dialysed with guanine nucleotides. <b>1990</b> , 424, 205-28   | 41  |
| 1658 | ATP regulates muscarine-sensitive potassium current in dissociated bull-frog primary afferent neurones. <b>1990</b> , 426, 241-64  | 59  |
| 1657 | G protein complement of SV40-transformed ciliary epithelial cells. <b>1990</b> , 9, 493-9  | 5   |
| 1656 | Guanine nucleotide regulation of inositol phospholipid hydrolysis and CD3-antigen phosphorylation in permeabilized T lymphocytes. <b>1990</b> , 265, 407-13                                      | 24  |



|      |   |     |
|------|---|-----|
| 1655 | Stimulated cholesterol-enriched platelets display increased cytosolic Ca <sup>2+</sup> and phospholipase A activity independent of changes in inositol trisphosphates and agonist/receptor binding. <b>1990</b> , 265, 747-54               | 26  |
| 1654 | Subcellular distribution of alpha 2-adrenergic receptors, pertussis-toxin substrate and adenylate cyclase in human platelets. <b>1990</b> , 265, 755-62   | 5   |
| 1653 | Cholera toxin modulation of angiotensin II-stimulated inositol phosphate production in cultured vascular smooth muscle cells. <b>1990</b> , 265, 799-807  | 36  |
| 1652 | Diabetes abolishes the GTP-dependent, but not the receptor-dependent inhibitory function of the inhibitory guanine-nucleotide-binding regulatory protein (Gi) on adipocyte adenylate cyclase activity. <b>1990</b> , 266, 521-6             | 61  |
| 1651 | Inhibition of mink lung epithelial cell proliferation by transforming growth factor-beta is coupled through a pertussis-toxin-sensitive substrate. <b>1990</b> , 266, 537-43  | 32  |
| 1650 | Evidence that the inositol phospholipids are necessary for exocytosis. Loss of inositol phospholipids and inhibition of secretion in permeabilized cells caused by a bacterial phospholipase C and removal of ATP. <b>1990</b> , 268, 15-25 | 211 |
| 1649 | Quantification of the alpha and beta subunits of the transducing elements (Gs and Gi) of adenylate cyclase in adipocyte membranes from lean and obese (ob/ob) mice. <b>1990</b> , 268, 83-9   | 33  |
| 1648 | Hormonal regulation of Gi2 alpha-subunit phosphorylation in intact hepatocytes. <b>1990</b> , 268, 449-57   | 122 |
| 1647 | Regulation of bombesin-stimulated inositol 1,4,5-trisphosphate generation in Swiss 3T3 fibroblasts by a guanine-nucleotide-binding protein. <b>1990</b> , 268, 605-10   | 39  |
| 1646 | Insulin receptor function is inhibited by guanosine 5'-[gamma-thio]triphosphate (GTP[S]). <b>1990</b> , 270, 401-7  | 25  |
| 1645 | Concurrent up-regulation of guanine-nucleotide-binding proteins Gi1 alpha, Gi2 alpha and Gi3 alpha in adipocytes of hypothyroid rats. <b>1990</b> , 270, 765-9  | 31  |
| 1644 | Distribution of polypeptides binding guanosine 5'-[gamma-[ <sup>35</sup> S]thio]triphosphate and anti-(ras protein) antibodies in liver subcellular fractions. Evidence for endosome-specific components. <b>1990</b> , 271, 179-83         | 16  |
| 1643 | GTP analogues cause preferential translocation of an 18 kDa cytosolic G-protein to the membrane fraction in the ZR-75-1 human breast-cancer cell line. <b>1990</b> , 271, 223-9   | 4   |
| 1642 | Diabetes-induced alterations in the expression, functioning and phosphorylation state of the inhibitory guanine nucleotide regulatory protein Gi-2 in hepatocytes. <b>1990</b> , 271, 365-72  | 95  |
| 1641 | The role of G proteins in transmembrane signalling. <b>1990</b> , 272, 1-13   | 232 |
| 1640 | Dual modulation of chloride conductance by nucleotides in pancreatic and parotid zymogen granules. <b>1990</b> , 272, 119-26  | 30  |
| 1639 | Coupling of muscarinic receptors to the mobilization of intracellular Ca <sup>2+</sup> stores in permeabilized SH-SY5Y human neuroblastoma cells. <b>1990</b> , 272, 269-72   | 23  |
| 1638 | A novel 100 kDa protein, localized to receptor-enriched endosomes, is immunologically related to the signal-transducing guanine-nucleotide-binding proteins Gt and Gi. <b>1990</b> , 272, 453-8   | 12  |

|      |   |     |
|------|---|-----|
| 1637 | G-protein-mediated regulation of the insulin-responsive glucose transporter in isolated cardiac myocytes. <b>1990</b> , 272, 691-6  | 43  |
| 1636 | The relationship between glucocorticoid receptor binding to Hsp90 and receptor function. <b>1990</b> , 66, 1185-97  | 7   |
| 1635 | Alcohol and membrane-associated signal transduction. <b>1990</b> , 25, 143-56   | 102 |
| 1634 | Sex difference in adrenergic receptor-mediated glycogenolysis in rat livers. <b>1990</b> , 54, 365-74   | 8   |
| 1633 | Chapter 3 Involvement of GTP-Binding Proteins in T- and B-Lymphocyte Activation Signaling. <b>1990</b> , 35, 45-63  | 3   |
| 1632 | Chapter 4 Signal Transduction by GTP Binding Proteins during Leukocyte Activation: Phagocytic Cells. <b>1990</b> , 65-101   | 12  |
| 1631 | Chapter 11 Phosphoinositide Metabolism in Lymphocyte Activation. <b>1990</b> , 249-302  | 1   |
| 1630 | Chapter 11 G Protein-Coupled Receptors: Structure and Function of Signal-Transducing Proteins. <b>1990</b> , 131-144  | 7   |
| 1629 | Regulation of membrane fusion during exocytosis. <b>1989</b> , 119, 197-286   | 54  |
| 1628 | Structure and function of muscarinic receptors. <b>1990</b> , 84, 11-9  | 3   |
| 1627 | Growth factors and growth factor receptors in the hippocampus. Role in plasticity and response to injury. <b>1990</b> , 83, 341-55  | 15  |
| 1626 | Receptor-effector coupling by G-proteins: implications for neuronal plasticity. <b>1990</b> , 86, 269-76  | 3   |
| 1625 | Gonadotropin-releasing hormone and thyrotropin-releasing hormone regulation of g protein function in the rat anterior pituitary lobe. <b>1990</b> , 2, 593-9  | 4   |
| 1624 | Regulation of muscarinic agonist-induced activation of phosphoinositidase C in electrically permeabilized SH-SY5Y human neuroblastoma cells by guanine nucleotides. <b>1990</b> , 54, 676-85                            | 34  |
| 1623 | Identification of two distinct isoforms of the guanine nucleotide binding protein G0 in neuroblastoma X glioma hybrid cells: independent regulation during cyclic AMP-induced differentiation. <b>1990</b> , 55, 1890-8 | 50  |
| 1622 | Arachidonic acid cascade and signal transduction. <b>1990</b> , 55, 1-15  | 552 |
| 1621 | G-proteins and exocytotic secretion in phagocytic cells. <b>1990</b> , 2, 3-8   | 1   |
| 1620 | Interpretation of relative potencies, relative efficacies and apparent affinity constants of agonist drugs estimated from concentration-response curves. <b>1990</b> , 142, 415-27                                      | 14  |

|      |  |      |
|------|--|------|
| 1619 | Go protein as signal transducer in the pertussis toxin-sensitive phosphatidylinositol pathway. <b>1990</b> , 343, 79-82  | 181  |
| 1618 | G0 is a major growth cone protein subject to regulation by GAP-43. <b>1990</b> , 344, 836-41   | 407  |
| 1617 | Time-resolved X-ray crystallographic study of the conformational change in Ha-Ras p21 protein on GTP hydrolysis. <b>1990</b> , 345, 309-15   | 475  |
| 1616 | Stimulation of protein tyrosine phosphorylation by the B-lymphocyte antigen receptor. <b>1990</b> , 345, 810-3   | 309  |
| 1615 | Molecular cloning of the microtubule-associated mechanochemical enzyme dynamin reveals homology with a new family of GTP-binding proteins. <b>1990</b> , 347, 256-61   | 336  |
| 1614 | The GTPase superfamily: a conserved switch for diverse cell functions. <b>1990</b> , 348, 125-32   | 2238 |
| 1613 | Pertussis toxin and H-7 distinguish mechanisms involved in eicosanoid release from lipopolysaccharide-primed macrophages. Eicosanoid release from lipopolysaccharide-primed macrophages. <b>1990</b> , 187, 599-603  | 6    |
| 1612 | Purification and characterization of five different alpha subunits of guanine-nucleotide-binding proteins in bovine brain membranes. Their physiological properties concerning the activities of adenylate cyclase and atrial muscarinic K <sup>+</sup> channels. <b>1990</b> , 191, 499-506 | 62   |
| 1611 | Biologically active products of stimulated liver macrophages (Kupffer cells). <b>1990</b> , 192, 245-61  | 684  |
| 1610 | Inhibition of inositol 1,4,5-trisphosphate metabolism in permeabilised SH-SY5Y human neuroblastoma cells by a phosphorothioate-containing analogue of inositol 1,4,5-trisphosphate. <b>1990</b> , 192, 459-67  | 9    |
| 1609 | Changes in the phosphorylation state of the inhibitory guanine-nucleotide-binding protein Gi-2 in hepatocytes from lean (Fa/Fa) and obese (fa/fa) Zucker rats. <b>1990</b> , 192, 537-42   | 33   |
| 1608 | Diabetes-induced changes in guanine-nucleotide-regulatory-protein mRNA detected using synthetic oligonucleotide probes. <b>1990</b> , 193, 367-74  | 36   |
| 1607 | Possible interaction of alpha 1-adrenergic receptor with pertussis-toxin-sensitive guanine-nucleotide-binding regulatory proteins (G proteins) responsible for phospholipase C activation in rat liver plasma membranes. <b>1990</b> , 194, 81-7   | 6    |
| 1606 | Involvement of pertussis-toxin-sensitive G protein in muscarinic-receptor-mediated inhibition of K <sup>(+)</sup> -activated 4-nitrophenylphosphatase activity of cardiac sarcolemma. <b>1990</b> , 194, 155-60  | 8    |
| 1605 | The functional and structural roles of residues Gln114 and Glu117 in elongation factor Tu. <b>1990</b> , 194, 731-7  | 8    |
| 1604 | Beta adrenoceptors and m-cholinoceptors in myocardium of hearts with coronary artery disease or idiopathic dilated cardiomyopathy removed at cardiac transplantation. <b>1990</b> , 66, 880-2  | 20   |
| 1603 | Effects of modulators of adenylyl cyclase on interleukin-2 production, cytosolic Ca <sup>2+</sup> elevation, and K <sup>+</sup> channel activity in Jurkat T cells. <b>1990</b> , 128, 385-9   | 26   |
| 1602 | Characterization of functional GTP binding proteins in Jurkat T cell mutants lacking either CD3-Ti or CD2 surface receptors. <b>1990</b> , 128, 578-88   | 4    |

|      |   |     |
|------|---|-----|
| 1601 | Pharmacological and molecular basis for dopamine D-2 receptor diversity. <b>1990</b> , 4, 181-96  | 9   |
| 1600 | Comparison of [35S]GTP $\gamma$ S binding to plasma membranes and endomembranes prepared from soybean and rat. <b>1990</b> , 154, 74-79   | 14  |
| 1599 | Carbohydrates and fertilization in animals. <b>1990</b> , 26, 184-98  | 114 |
| 1598 | Positive coupling of cholinergic muscarinic receptors to adenylate cyclase activity in membranes of rat olfactory bulb. <b>1990</b> , 342, 107-9  | 9   |
| 1597 | Chronic exposure of rat glioma C6 cells to cholera toxin induces loss of the alpha-subunit of the stimulatory guanine nucleotide-binding protein (Gs). <b>1990</b> , 188, 203-9   | 17  |
| 1596 | Single apomorphine pretreatment results in a rapid decline in high-affinity dopamine binding to the striatal dopamine D-2 receptor. <b>1990</b> , 188, 283-6  | 2   |
| 1595 | Stimulation of the T-cell receptors CD3 and CD2 with OKT3 and OKT11 antibodies activates a common pertussis toxin-insensitive G-protein. <b>1990</b> , 189, 363-72  | 3   |
| 1594 | Regulation by Na <sup>+</sup> ions and GppNHp of the interaction between a G protein and the amphibian type of opioid receptor. <b>1990</b> , 189, 393-7  |     |
| 1593 | Apparent precoupling of kappa- but not mu-opioid receptors with a G protein in the absence of agonist. <b>1990</b> , 189, 1-9   | 8   |
| 1592 | Carbamazepine and electroconvulsive shock attenuate beta-adrenoceptor and muscarinic cholinergic coupling to G proteins in rat cortex. <b>1990</b> , 189, 99-103  | 27  |
| 1591 | Nucleoside diphosphate kinase from <i>Xenopus</i> oocytes; partial purification and characterization. <b>1990</b> , 1041, 296-304   | 15  |
| 1590 | Guanine nucleotide binding proteins activate adenylate cyclase from sea urchin sperm. <b>1990</b> , 97, 339-342   | 1   |
| 1589 | Comparative studies on G-proteins in the nervous tissue of invertebrates. <b>1990</b> , 95, 861-864   | 1   |
| 1588 | Action of glucagon and glucagon-like peptide on glycogen metabolism of trout isolated hepatocytes. <b>1990</b> , 96, 387-391  | 3   |
| 1587 | Receptor-effector coupling by G proteins. <b>1990</b> , 1031, 163-224   | 898 |
| 1586 | Biphasic regulation of adenylate cyclase by cholera toxin in neuroblastoma x glioma hybrid cells is due to the activation and subsequent loss of the alpha subunit of the stimulatory GTP binding protein (GS). <b>1990</b> , 2, 139-51 | 17  |
| 1585 | Effect of H-ras proteins on the activity of polyphosphoinositide phospholipase C in HL60 membranes. <b>1990</b> , 2, 227-34   | 8   |
| 1584 | Molecular cloning, sequencing and expression of cDNA encoding a G $\alpha$ -protein from insect. <b>1990</b> , 2, 311-21  | 20  |

|      |   |     |
|------|---|-----|
| 1583 | Effect of sodium fluoride on cytosolic free Ca <sup>2+</sup> (+)-concentrations and cGMP-levels in endothelial cells. <b>1990</b> , 2, 369-75   | 37  |
| 1582 | Selective coupling of purified alpha-subunits of pertussis toxin-substrate GTP-binding proteins to endogenous receptors in rat brain membranes treated with N-ethylmaleimide. <b>1990</b> , 2, 403-14 | 10  |
| 1581 | Inosine monophosphate dehydrogenase inhibitors. Probes for investigations of the functions of guanine nucleotide binding proteins in intact cells. <b>1990</b> , 2, 509-19                            | 11  |
| 1580 | Requirement for G protein activity at a specific time during embryonic chick myogenesis. <b>1990</b> , 29, 13-20  | 3   |
| 1579 | Inhibition of lymphocyte activation in splenic and gut-associated lymphoid tissues following oral exposure of mice to 7,12-dimethylbenz[a]anthracene. <b>1990</b> , 105, 434-42                       | 33  |
| 1578 | Mutational analysis of the HIV nef protein. <b>1990</b> , 176, 413-25   | 106 |
| 1577 | GTP binding proteins and signal transduction in the human neutrophil. <b>1990</b> , 26, 1-6   | 14  |
| 1576 | Insulin sensitizes a cultured rat osteogenic sarcoma cell line to hormones which activate adenylate cyclase. <b>1990</b> , 46, 401-5  | 13  |
| 1575 | G protein mRNA expression in immunohistochemically identified dopaminergic and noradrenergic neurons in the rat brain. <b>1990</b> , 6, 23-32   | 11  |
| 1574 | Alteration of the GTP-dependent inhibitory pathway of rat striatal adenylate cyclase by phorbol esters. <b>1990</b> , 15, 1109-14   | 2   |
| 1573 | Supra-additive activation of guinea-pig superior cervical ganglion adenylate cyclase by PGE <sub>2</sub> and D-Ala <sup>2</sup> -Met-enkephalinamide: role of GTP. <b>1990</b> , 15, 785-9            | 4   |
| 1572 | Solubilization and reconstitution of dopamine D1 receptor from bovine striatal membranes: effects of agonist and antagonist pretreatment. <b>1990</b> , 15, 647-57                                    | 4   |
| 1571 | Régulation hormonale de la lipolyse adipocytaire: Un bon exemple des mécanismes impliqués dans les processus dépendant de l'AMP cyclique. <b>1990</b> , 4, 139-149                                    | 1   |
| 1570 | A Chlamydomonas gene encodes a G protein beta subunit-like polypeptide. <b>1990</b> , 221, 443-52   | 135 |
| 1569 | Phosphatidyl inositol metabolism and its role in signal transduction in growing plants. <b>1990</b> , 15, 647-58  | 34  |
| 1568 | Inhibitory guanine nucleotide binding protein in pig epidermis: regulation of epidermal adenylate cyclase. <b>1990</b> , 282, 469-74  | 4   |
| 1567 | Effects of purinergic stimulation on the Ca current in single frog cardiac cells. <b>1990</b> , 416, 189-95   | 35  |
| 1566 | ATP-dependent activation of atrial muscarinic K <sup>+</sup> channels in the absence of agonist and G-nucleotides. <b>1990</b> , 416, 213-5   | 38  |

|      |  |    |
|------|--|----|
| 1565 | Positive cooperativity in activation of the cardiac muscarinic K <sup>+</sup> channel by intracellular GTP. <b>1990</b> , 416, 216-8   | 30 |
| 1564 | Adenosine-5'-triphosphate-induced sinus tachycardia mediated by prostaglandin synthesis via phospholipase C in the rabbit heart. <b>1990</b> , 417, 13-20  | 20 |
| 1563 | Expression of guanine nucleotide binding proteins, G <sub>s</sub> and G <sub>i</sub> , in mRNAs in epidermal keratinocytes. <b>1990</b> , 282, 392-6   | 8  |
| 1562 | Pertussis toxin inhibits cAMP-induced desensitization of adenylate cyclase in Dictyostelium discoideum. <b>1990</b> , 92, 177-89   | 15 |
| 1561 | Muscarinic cholinergic receptor mediated inhibitory transduction of adenylate cyclase activity in subcellular fractions from rat heart: improved detection in sodium phosphate buffer. <b>1990</b> , 93, 35-45                                   | 1  |
| 1560 | No evidence for the mutation of ras gene in psoriatic epidermis. <b>1990</b> , 282, 8-11   | 4  |
| 1559 | The G protein coupling T cell antigen receptor/CD3-complex and phospholipase C in the human T cell lymphoma Jurkat is not a target for cholera toxin. <b>1990</b> , 20, 1881-6   | 19 |
| 1558 | Transmembrane cytoskeletal modulation in preterminal growing axons: I. Arrest of bulk and organelle transport in goldfish retinal ganglion cell axons regenerating in vitro by lectins binding to sialoglycoconjugates. <b>1990</b> , 17, 106-17 | 8  |
| 1557 | ras-transformation of MDCK cells alters responses to phorbol ester without altering responses to bradykinin. <b>1990</b> , 42, 59-70   | 6  |
| 1556 | Thrombin-induced prostacyclin biosynthesis in human endothelium: role of guanine nucleotide regulatory proteins in stimulus/coupling responses. <b>1990</b> , 142, 186-93  | 51 |
| 1555 | Transforming growth factor beta enhances parathyroid hormone stimulation of adenylate cyclase in clonal osteoblast-like cells. <b>1990</b> , 144, 438-47   | 17 |
| 1554 | Clonal variation of adenyl cyclase activity in a rat tumor cell line caused by change in G protein-catalytic unit interaction. <b>1990</b> , 144, 448-56   | 1  |
| 1553 | Pertussis toxin catalyzed ADP-ribosylation of a 41 kDa G-protein impairs insulin-stimulated glucose metabolism in BC3H-1 myocytes. <b>1990</b> , 144, 538-45   | 14 |
| 1552 | Evidence for a role of the Na <sup>+</sup> /H <sup>+</sup> exchanger in the colony-stimulating-factor-induced ornithine decarboxylase activity and proliferation of the human cell line M-07e. <b>1990</b> , 145, 147-54                         | 8  |
| 1551 | Identification of GTP-binding proteins in myelin and oligodendrocyte membranes. <b>1990</b> , 26, 16-23  | 42 |
| 1550 | Differential effect of mu, delta, and kappa ligands on G protein alpha subunits in cultured brain cells. <b>1990</b> , 27, 106-11  | 30 |
| 1549 | A review of echinoderm oogenesis. <b>1990</b> , 16, 93-114   | 35 |
| 1548 | Novel phenotype of C3H 10T1/2 fibroblasts cotransfected with the c-Ha-ras and adenovirus 5 E1A oncogenes. <b>1990</b> , 3, 83-92   | 8  |

|      |  |        |
|------|--|--------|
| 1547 | Bradykinin receptor antagonists. <b>1990</b> , 10, 237-69  | 120    |
| 1546 | Guanine nucleotide binding proteins in neuroblastoma x glioma hybrid, NG108-15, cells. Regulation of expression and function. <b>1990</b> , 22, 701-7  | 10     |
| 1545 | Guanine nucleotides have a direct inhibitory effect on polyphosphoinositide turnover in rat cortical synaptosomes. <b>1990</b> , 22, 507-11  | 2      |
| 1544 | Development of a high-performance liquid chromatography assay method and characterization of adenosine diphosphate-ribosylarginine hydrolase in skeletal muscle. <b>1990</b> , 187, 251-7  | 9      |
| 1543 | Phospholipases in biology and medicine. <b>1990</b> , 23, 349-70   | 64     |
| 1542 | Interference of deoxyadenosine with transmembrane signaling events in human T lymphocytes. <b>1990</b> , 12, 113-20  | 7      |
| 1541 | Activation of the respiratory burst in murine phagocytes by certain guanine ribonucleosides modified at the 7 and 8 positions: possible involvement of a pertussis toxin-sensitive G-protein. <b>1990</b> , 23, 173-8                                      | 15     |
| 1540 | Pregnancy suppresses G protein coupling to phosphoinositide hydrolysis in guinea pig myometrium. <b>1990</b> , 259, E57-65   | 4      |
| 1539 | G Proteins in Yeast <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 571-599  | 2      |
| 1538 | Multiple GTP-binding proteins from cholinergic synaptic vesicles. <b>1990</b> , 10, 317-22   | 31     |
| 1537 | Lateral mobility of the phospholipase C-activating vasopressin V1-type receptor in A7r5 smooth muscle cells: a comparison with the adenylate cyclase-coupled V2-receptor.. <b>1990</b> , 9, 2693-2699  | 29     |
| 1536 | Rapid activation of alternative second messenger pathways in olfactory cilia from rats by different odorants.. <b>1990</b> , 9, 2453-2458  | 201    |
| 1535 | Distinct sequence elements control the specificity of G protein activation by muscarinic acetylcholine receptor subtypes.. <b>1990</b> , 9, 4381-4390  | 148    |
| 1534 | Regulation of the yeast pheromone response pathway by G protein subunits.. <b>1990</b> , 9, 691-696  | 80     |
| 1533 | The <i>ryh1</i> gene in the fission yeast <i>Schizosaccharomyces pombe</i> encoding a GTP-binding protein related to <i>ras</i> , <i>rho</i> and <i>ypt</i> : structure, expression and identification of its human homologue.. <b>1990</b> , 9, 1949-1955 | 48     |
| 1532 | Ligand binding and G protein coupling of muscarinic receptors in airway smooth muscle. <i>American Journal of Physiology - Cell Physiology</i> , <b>1990</b> , 258, C730-8   | 5-4 43 |
| 1531 | A Go-like protein in <i>Drosophila melanogaster</i> and its expression in memory mutants.. <b>1990</b> , 9, 1449-1455  | 27     |
| 1530 | In vitro reconstitution of <i>cdc25</i> regulated <i>S. cerevisiae</i> adenylyl cyclase and its kinetic properties.. <b>1990</b> , 9, 641-651  | 38     |

|      |   |     |
|------|---|-----|
| 1529 | Dissection of thymocyte signaling pathways by in vivo expression of pertussis toxin ADP-ribosyltransferase.. <b>1990</b> , 9, 3821-3829                                   | 178 |
| 1528 | Signal transduction mechanisms involved in hormonal Ca <sup>2+</sup> fluxes. <b>1990</b> , 84, 121-36   | 6   |
| 1527 | Inositol phosphate formation and its relationship to calcium signaling. <b>1990</b> , 84, 141-7   | 26  |
| 1526 | Receptor Modulation of Phospholipase C Activity. <b>1990</b> , 453-477  | 1   |
| 1525 | Signal Transduction in Olfaction and Taste. <b>1990</b> , 411-428   |     |
| 1524 | Structure and Function of G-Protein $\beta$ Chains. <b>1990</b> , 17-40   | 8   |
| 1523 | G protein-dependent regulation of phospholipase C by cell surface receptors. <b>1990</b> , 141, S119-22   | 18  |
| 1522 | G proteins and the mechanism of action of hormones, neurotransmitters, and autocrine and paracrine regulatory factors. <b>1990</b> , 141, S106-14                         | 38  |
| 1521 | Decreased levels of guanyl nucleotide-binding regulatory protein alpha-subunits in Y1 adrenocortical tumor cell mutants resistant to forskolin. <b>1990</b> , 4, 1698-703 | 9   |
| 1520 | Distribution of the stimulatory GTP-binding proteins, G <sub>s</sub> and G <sub>olf</sub> , within olfactory neuroepithelium. <b>1990</b> , 15, 333-340                   | 15  |
| 1519 | Characterization of the promoter of the human G <sub>i2</sub> alpha-subunit gene. <b>1990</b> , 4, 958-64   | 14  |
| 1518 | Molecular properties of calcium channels. <b>1990</b> , 114, 1-105  | 160 |
| 1517 | G protein gamma subunits contain a 20-carbon isoprenoid. <b>1990</b> , 87, 5873-7   | 243 |
| 1516 | Platelet-derived growth factor stimulates formation of active p21ras.GTP complex in Swiss mouse 3T3 cells. <b>1990</b> , 87, 5993-7                                       | 270 |
| 1515 | The carboxy-terminal domain of G <sub>s</sub> alpha is necessary for anchorage of the activated form in the plasma membrane. <b>1990</b> , 111, 1427-35                   | 27  |
| 1514 | CDC36 and CDC39 are negative elements in the signal transduction pathway of yeast. <b>1990</b> , 1, 391-401   | 34  |
| 1513 | Molecular biology and respiratory disease. 5. Molecular biology of receptors: implications for lung disease. <b>1990</b> , 45, 482-8                                      | 7   |
| 1512 | Molecular cloning and characterization of GPA1, a G protein alpha subunit gene from Arabidopsis thaliana. <b>1990</b> , 87, 3821-5  | 324 |



|      |   |     |
|------|---|-----|
| 1511 | Regulation of anaphase chromosome motion in Tradescantia stamen hair cells by calcium and related signaling agents. <b>1990</b> , 111, 171-82   | 48  |
| 1510 | Beta-carotene induces morphological differentiation and decreases adenylate cyclase activity in melanoma cells in culture. <b>1990</b> , 9, 143-9   | 68  |
| 1509 | GTP-dependent regulation of myometrial KCa channels incorporated into lipid bilayers. <b>1990</b> , 96, 373-94  | 79  |
| 1508 | Pertussis toxin treatment of whole blood. A novel approach to assess G protein function in congestive heart failure. <b>1990</b> , 81, 1198-204   | 27  |
| 1507 | Mutation of the Gs protein alpha subunit NH2 terminus relieves an attenuator function, resulting in constitutive adenylyl cyclase stimulation. <b>1990</b> , 10, 2931-40  | 32  |
| 1506 | Rhodopsin expressed in Chinese hamster ovary cells regulates adenylyl cyclase activity. <b>1990</b> , 4, 71-9   | 10  |
| 1505 | Mitogenic signaling pathways of growth factors can be distinguished by the involvement of pertussis toxin-sensitive guanosine triphosphate-binding protein and of protein kinase C. <b>1990</b> , 1, 747-61                                   | 26  |
| 1504 | Norepinephrine release and neuropeptide Y in medulla oblongata of spontaneously hypertensive rats. <b>1990</b> , 15, 784-90   | 35  |
| 1503 | N-ethylmaleimide uncouples muscarinic receptors from acetylcholine-sensitive potassium channels in bullfrog atrium. <b>1990</b> , 96, 887-903   | 38  |
| 1502 | In vivo monitoring of a cAMP-stimulated DNA-binding activity. <b>1990</b> , 4, 1437-49  | 82  |
| 1501 | Brain G protein gamma subunits contain an all-trans-geranylgeranyl cysteine methyl ester at their carboxyl termini. <b>1990</b> , 87, 5868-72   | 244 |
| 1500 | Octyl glucoside extracts GTP-binding regulatory proteins from rat brain "synaptoneurosomes" as large, polydisperse structures devoid of beta gamma complexes and sensitive to disaggregation by guanine nucleotides. <b>1990</b> , 87, 6413-7 | 42  |
| 1499 | Mutations of the Gs alpha-subunit gene in Albright hereditary osteodystrophy detected by denaturing gradient gel electrophoresis. <b>1990</b> , 87, 8287-90   | 224 |
| 1498 | Involvement of GTP-binding proteins in actin polymerization in human neutrophils. <b>1990</b> , 87, 2921-5  | 73  |
| 1497 | Chromosomal organization of adrenergic receptor genes. <b>1990</b> , 87, 1516-20  | 107 |
| 1496 | Production of a non-functional nef protein in human immunodeficiency virus type 1-infected CEM cells. <b>1990</b> , 71 ( Pt 10), 2273-81  | 30  |
| 1495 | Inhibition of GTPase activating protein stimulation of Ras-p21 GTPase by the Krev-1 gene product. <b>1990</b> , 249, 169-71   | 247 |
| 1494 | Overexpression of c-src enhances beta-adrenergic-induced cAMP accumulation. <b>1990</b> , 87, 7462-6  | 36  |

|      |   |     |
|------|---|-----|
| 1493 | Exocytosis in mast cells by basic secretagogues: evidence for direct activation of GTP-binding proteins. <b>1990</b> , 111, 909-17  | 165 |
| 1492 | Visual pigments, blue cone monochromasy, and retinitis pigmentosa. <b>1990</b> , 108, 935-6   | 7   |
| 1491 | Protein Design and the Development of New Therapeutics and Vaccines. <b>1990</b> ,  |     |
| 1490 | SAS1 and SAS2, GTP-binding protein genes in Dictyostelium discoideum with sequence similarities to essential genes in Saccharomyces cerevisiae. <b>1990</b> , 10, 2367-78   | 22  |
| 1489 | Symposium 8: Inter- and Intracellular Signal Systems I. <b>1990</b> , 50, 123-138   | 1   |
| 1488 | Synergistic activation by serotonin and GTP analogue and inhibition by phorbol ester of cyclic Ca <sup>2+</sup> rises in hamster eggs. <b>1990</b> , 426, 209-27  | 36  |
| 1487 | Common modifications of trimeric G proteins and ras protein: involvement of polyisoprenylation. <b>1990</b> , 249, 165-9  | 111 |
| 1486 | Heart rate regulation by G proteins acting on the cardiac pacemaker channel. <b>1990</b> , 249, 1163-6  | 88  |
| 1485 | GTP-GDP exchange proteins. <b>1990</b> , 248, 794   | 6   |
| 1484 | Enhancement of the GDP-GTP exchange of RAS proteins by the carboxyl-terminal domain of SCD25. <b>1990</b> , 248, 866-8  | 151 |
| 1483 | A G protein mutant that inhibits thrombin and purinergic receptor activation of phospholipase A <sub>2</sub> . <b>1990</b> , 249, 662-6   | 106 |
| 1482 | Effect of ovine prolactin on tubulin function in the anterior pituitary lobe of the lactating rat. <b>1990</b> , 127, 1748-54   | 7   |
| 1481 | Immunochemical analysis of the alpha-subunit of the stimulatory G-protein of adenylyl cyclase in patients with Albright's hereditary osteodystrophy. <b>1990</b> , 71, 1208-14  | 49  |
| 1480 | Clinical, biochemical, and morphological correlates in patients bearing growth hormone-secreting pituitary tumors with or without constitutively active adenylyl cyclase. <b>1990</b> , 71, 1421-6  | 231 |
| 1479 | Studies with insulin and insulin-like growth factor-I show that the increased labeling of phosphatidylinositol-3,4-bisphosphate is not sufficient to elicit the diverse actions of epidermal growth factor on MA-10 Leydig tumor cells. <b>1990</b> , 4, 758-65 | 18  |
| 1478 | Purification of a factor capable of stimulating the guanine nucleotide exchange reaction of ras proteins and its effect on ras-related small molecular mass G proteins. <b>1990</b> , 87, 8008-12   | 70  |
| 1477 | Accumulation of p21ras.GTP in response to stimulation with epidermal growth factor and oncogene products with tyrosine kinase activity. <b>1990</b> , 87, 7926-9  | 262 |
| 1476 | Expressions of some molecular cancer risk factors and their modification by vitamins. <b>1990</b> , 9, 28-34  | 19  |

|      |  |     |
|------|--|-----|
| 1475 | Adenylyl cyclase is dispensable for vegetative cell growth in the fission yeast <i>Schizosaccharomyces pombe</i> . <b>1990</b> , 87, 7814-8  | 125 |
| 1474 | Membrane localization of the pertussis toxin-sensitive G-protein subunits alpha i-2 and alpha i-3 and expression of a metallothionein-alpha i-2 fusion gene in LLC-PK1 cells. <b>1990</b> , 87, 4635-9   | 113 |
| 1473 | Identification of a nucleotide exchange-promoting activity for p21ras. <b>1990</b> , 87, 5998-6002   | 144 |
| 1472 | The gene <i>Serrate</i> encodes a putative EGF-like transmembrane protein essential for proper ectodermal development in <i>Drosophila melanogaster</i> . <b>1990</b> , 4, 2188-201  | 177 |
| 1471 | Multiple stores of calcium are released in the sea urchin egg during fertilization. <b>1990</b> , 87, 9285-9   | 59  |
| 1470 | Microsomal and cytosolic fractions of guinea pig hepatocytes contain 100-kilodalton GTP-binding proteins reactive with antisera against alpha subunits of stimulatory and inhibitory heterotrimeric GTP-binding proteins. <b>1990</b> , 87, 6321-5 | 20  |
| 1469 | Circadian rhythms in <i>Neurospora crassa</i> : biochemistry and genetics. <b>1990</b> , 17, 365-416   | 116 |
| 1468 | G protein mediated regulation of K <sup>+</sup> channels in heart. <b>1990</b> , 52, 293-305   | 46  |
| 1467 | Effect of botulinum D toxin on human neutrophilic leukocytes and localization of its substrates. <b>1990</b> , 9, 203-14   | 1   |
| 1466 | Mechanisms of chemosensory transduction in taste cells. <b>1990</b> , 32, 241-79   | 12  |
| 1465 | Beta-adrenergic regulation of the muscarinic-gated K <sup>+</sup> channel via cyclic AMP-dependent protein kinase in atrial cells. <b>1990</b> , 67, 1292-8  | 28  |
| 1464 | Interaction of the isolated domain II/III of <i>Thermus thermophilus</i> elongation factor Tu with the nucleotide exchange factor EF-Ts. <b>1990</b> , 18, 6889-93   | 34  |
| 1463 | Structural resemblance between the families of bacterial signal-transduction proteins and of G proteins revealed by graph theoretical techniques. <b>1990</b> , 4, 39-43   | 58  |
| 1462 | Glucocorticoids regulate the amount of G proteins in rat aorta. <b>1990</b> , 5, 185-8   | 29  |
| 1461 | Effect of glucocorticoids on alpha 1-adrenergic receptor binding in rat vascular smooth muscle. <b>1990</b> , 5, 41-8  | 38  |
| 1460 | Evidence for differential effects of noradrenaline and somatostatin on intracellular messenger systems in rat islets of Langerhans. <b>1990</b> , 4, 231-7   | 17  |
| 1459 | Crystal structure of an active form of RAS protein, a complex of a GTP analog and the HRAS p21 catalytic domain. <b>1990</b> , 87, 4849-53   | 102 |
| 1458 | GTP-binding Proteins in Human Platelets. <b>1990</b> , 1, 67-79  | 15  |

|      |   |     |
|------|---|-----|
| 1457 | Two G protein oncogenes in human endocrine tumors. <b>1990</b> , 249, 655-9   | 918 |
| 1456 | Regulation of proliferation by the budding yeast <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 68, 427-35   | 5   |
| 1455 | G protein diversity: a distinct class of alpha subunits is present in vertebrates and invertebrates. <b>1990</b> , 87, 9113-7   | 423 |
| 1454 | The cellular functions of small GTP-binding proteins. <b>1990</b> , 249, 635-40   | 834 |
| 1453 | Rhodopsin-stimulated activation-deactivation cycle of transducin: kinetics of the intrinsic fluorescence response of the alpha subunit. <b>1990</b> , 29, 6954-64           | 40  |
| 1452 | Multiple forms of <i>Go</i> alpha mRNA: analysis of the 3'-untranslated regions. <b>1990</b> , 29, 5069-76  | 17  |
| 1451 | Mapping the effector region in <i>Thermus thermophilus</i> elongation factor Tu. <b>1990</b> , 29, 2876-84  | 46  |
| 1450 | Interconversion of metarhodopsins I and II: a branched photointermediate decay model. <b>1990</b> , 29, 9135-42   | 159 |
| 1449 | Purified internal G-domain of translational initiation factor IF-2 displays guanine nucleotide binding properties. <b>1990</b> , 29, 9728-33                                | 13  |
| 1448 | Immunoprecipitation of adenylate cyclase with an antibody to a carboxyl-terminal peptide from <i>Gs</i> alpha. <b>1990</b> , 29, 9079-84                                    | 19  |
| 1447 | Guanine nucleotide binding characteristics of transducin: essential role of rhodopsin for rapid exchange of guanine nucleotides. <b>1990</b> , 29, 3804-12                  | 70  |
| 1446 | Small GTP-binding proteins in vesicular transport. <b>1990</b> , 15, 473-7  | 361 |
| 1445 | Involvement of N-ethylmaleimide-sensitive G proteins in the modulation of evoked [(3)H]noradrenaline release from rabbit hippocampus synaptosomes. <b>1990</b> , 17, 149-55 | 11  |
| 1444 | Guanine nucleotides and pertussis toxin alter agonist binding to rat septal V(1)-vasopressin receptors. <b>1990</b> , 1, 117-20   | 6   |
| 1443 | Somatostatin-14 and somatostatin-28 inhibit calcium currents in rat neocortical neurons. <b>1990</b> , 38, 335-42   | 69  |
| 1442 | Signal transducing GTP-binding proteins in olfaction. <b>1990</b> , 95, 27-9  | 8   |
| 1441 | Quisqualate receptor-mediated depression of calcium currents in hippocampal neurons. <b>1990</b> , 4, 741-9   | 164 |
| 1440 | Analysis of the human, bovine and rat 33-kDa proteins and cDNA in retina and pineal gland. <b>1990</b> , 91, 209-15   | 38  |

|      |  |     |
|------|--|-----|
| 1439 | Stimulation of hypothalamic opioid peptide release by lithium is mediated by opioid autoreceptors: evidence from a combined in vitro, ex vivo study. <b>1990</b> , 36, 691-7   | 14  |
| 1438 | Localization of G-protein in rat occipital cerebral cortex. <b>1990</b> , 25, 155-8  | 5   |
| 1437 | Effects of dopamine autoreceptor stimulation on the release of colocalized transmitters: in vivo release of dopamine and neurotensin from rat prefrontal cortex. <b>1990</b> , 108, 143-8  | 39  |
| 1436 | Alpha-bag cell peptide inhibits bag cell adenylate cyclase via a GTP-dependent mechanism. <b>1990</b> , 8, 99-103  | 5   |
| 1435 | Aluminofluoride and beryllofluoride complexes: a new phosphate analogs in enzymology. <b>1990</b> , 15, 6-10   | 258 |
| 1434 | Increased forskolin binding in the left parahippocampal gyrus and CA1 region in post mortem schizophrenic brain determined by quantitative autoradiography. <b>1990</b> , 118, 164-8   | 26  |
| 1433 | Is deglycosylated human chorionic gonadotropin an antagonist to human chorionic gonadotropin? Characterization of deglycosylated human chorionic gonadotropin action in two testicular interstitial cell fractions. <b>1990</b> , 1033, 226-34 | 5   |
| 1432 | REGULATING ras. <b>1990</b> , 336, 1291-1292   | 3   |
| 1431 | Chromosomal localization of the genes encoding two forms of the G protein beta polypeptide, beta 1 and beta 3, in man. <b>1990</b> , 8, 380-6  | 69  |
| 1430 | Differential coupling with pertussis toxin-sensitive G proteins of dopamine and somatostatin receptors involved in regulation of adenohipophyseal secretion. <b>1990</b> , 73, 1-10  | 35  |
| 1429 | Reconstitution of protein N-myristoylation in. <b>1990</b> , 1, 253-263  | 39  |
| 1428 | Two mechanisms of inhibition by prostaglandin E2 of hormone-dependent cell cAMP in the rat collecting tubule. <b>1990</b> , 73, 111-21   | 13  |
| 1427 | Intracellular regulation of ion channels in cell membranes. <b>1990</b> , 65, 1127-43  | 12  |
| 1426 | Lipopolysaccharide/lipid A receptors on lymphocytes and macrophages. <b>1990</b> , 6, 223-35   | 23  |
| 1425 | A model of the muscarinic receptor-induced changes in K(+)-current and action potentials in the bullfrog atrial cell. <b>1990</b> , 57, 567-76   | 11  |
| 1424 | Characterization of a G-protein beta-subunit gene from the nematode <i>Caenorhabditis elegans</i> . <b>1990</b> , 213, 17-26   | 48  |
| 1423 | Characterization of a G-protein alpha-subunit gene from the nematode <i>Caenorhabditis elegans</i> . <b>1990</b> , 215, 483-7  | 28  |
| 1422 | Lithium-selective alteration of the function of brain versus cardiac Gs protein. <b>1990</b> , 29, 1067-71   | 23  |

|      |   |     |
|------|---|-----|
| 1421 | Receptor-dependent and -independent protein phosphorylation in platelets of spontaneously hypertensive rats. <b>1990</b> , 59, 475-87   | 5   |
| 1420 | ADP-ribosylation of cerebrocortical synaptosomal proteins by cholera, pertussis and botulinum toxins. <b>1990</b> , 28, 963-73  | 5   |
| 1419 | Chapter 3 Agonist-stimulated inositol phospholipid hydrolysis in the mammalian retina. <b>1990</b> , 9, 101-134   | 9   |
| 1418 | Identification of a prostacyclin receptor coupled to the adenylate cyclase system via a stimulatory GTP-binding protein in mouse mastocytoma P-815 cells. <b>1990</b> , 40, 491-505     | 45  |
| 1417 | A simple structure encodes G protein-activating function of the IGF-II/mannose 6-phosphate receptor. <b>1990</b> , 62, 709-17   | 274 |
| 1416 | G alpha i-G alpha s chimeras define the function of alpha chain domains in control of G protein activation and beta gamma subunit complex interactions. <b>1990</b> , 63, 697-706       | 96  |
| 1415 | ras p21 and GAP inhibit coupling of muscarinic receptors to atrial K <sup>+</sup> channels. <b>1990</b> , 61, 769-76  | 235 |
| 1414 | The dynamics of protein phosphorylation in bacterial chemotaxis. <b>1990</b> , 63, 1339-48  | 172 |
| 1413 | Role of phosphorylation in desensitization of the beta-adrenoceptor. <b>1990</b> , 11, 190-4  | 281 |
| 1412 | Binding of periodate-oxidized guanine nucleotides to eukaryotic elongation factor 2. <b>1990</b> , 1048, 217-22   | 2   |
| 1411 | Structural determination of the functional sites of E. coli elongation factor Tu. <b>1990</b> , 1050, 203-8   | 47  |
| 1410 | Mutagenesis of the NH <sub>2</sub> -terminal domain of elongation factor Tu. <b>1990</b> , 1050, 215-21   | 16  |
| 1409 | Evidence against a role for a pertussis toxin-sensitive G protein in Ca <sup>2+</sup> mobilization in rat parotid acinar cells. <b>1990</b> , 1055, 259-64                              | 14  |
| 1408 | Involvement of a pertussis toxin-sensitive G protein in the action of gastrin on gastric parietal cells. <b>1990</b> , 1055, 287-94   | 28  |
| 1407 | Whole-cell K <sup>+</sup> currents in type II pneumocytes freshly isolated from rat lung: pharmacological evidence for two subpopulations of cells. <b>1990</b> , 1052, 113-8           | 22  |
| 1406 | Two distinct light regulated G-proteins in octopus photoreceptors. <b>1990</b> , 1052, 204-10   | 17  |
| 1405 | Multiple pathways for signal transduction in the regulation of arachidonic acid metabolism in rat peritoneal macrophages. <b>1990</b> , 1054, 326-32                                    | 18  |
| 1404 | Pertussis toxin pretreatment reveals differential effects of adenosine analogs on IgE-dependent histamine and peptidoleukotriene release from RBL-2H3 cells. <b>1990</b> , 1052, 467-74 | 11  |

|      |  |     |
|------|--|-----|
| 1403 | Stimulus-response coupling in FMLP-stimulated U937 monocytes: effect of differentiation on Gi2 expression. <b>1990</b> , 1051, 71-7  | 13  |
| 1402 | G-protein subunit mRNA levels in rat heart, liver, and adipose tissues: analysis by DNA-excess solution hybridization. <b>1990</b> , 1052, 348-50  | 10  |
| 1401 | Fluoride-mediated activation of the respiratory burst in electropermeabilized neutrophils. <b>1990</b> , 1054, 176-80  | 18  |
| 1400 | The p38 and p34 polypeptides of growth cone particle membranes are the alpha- and beta-subunits of G proteins. <b>1990</b> , 56, 131-6   | 16  |
| 1399 | Immunohistochemical localization of guanine nucleotide-binding proteins in rat olfactory epithelium during development. <b>1990</b> , 51, 103-12   | 26  |
| 1398 | Occurrence, quaternary structure and function of G protein subunits in an insect endocrine gland. <b>1990</b> , 74, 133-41   | 10  |
| 1397 | Purification and characterization from bovine brain membranes of a GTP-binding protein with a Mr of 21,000, ADP-ribosylated by an ADP-ribosyltransferase contaminated in botulinum toxin type C1--identification as the rhoA gene product. <b>1990</b> , 7, 9-16 | 40  |
| 1396 | Adrenergic receptors. Models for regulation of signal transduction processes. <b>1990</b> , 15, 119-31   | 81  |
| 1395 | Signal transduction for chemotaxis and haptotaxis by matrix molecules in tumor cells. <b>1990</b> , 110, 1427-38   | 262 |
| 1394 | Molecular switch for signal transduction: structural differences between active and inactive forms of protooncogenic ras proteins. <b>1990</b> , 247, 939-45   | 940 |
| 1393 | Preliminary Evidence for Involvement of GTP-Binding Protein(s) in Auxin Signal Transduction in Rice ( <i>Oryza sativa</i> L.) Coleoptile. <b>1990</b> , 136, 653-658   | 47  |
| 1392 | New developments in the role of $\beta$ -adrenergic receptors in cardiovascular disease. <b>1990</b> , 119, 655-662  | 3   |
| 1391 | Direct coupling of the somatostatin receptor to potassium channels by a G protein. <b>1990</b> , 39, 91-5  | 28  |
| 1390 | Cardiovascular responses to milrinone in pertussis toxin-pretreated pithed rats. <b>1990</b> , 191, 197-204  | 1   |
| 1389 | Stimulatory effects of prostaglandin D2 analogues on adenylate cyclase in rabbit iris-ciliary body membrane fractions. <b>1990</b> , 51, 585-90  | 12  |
| 1388 | Differential regulation of G protein subunit expression in mouse oocytes, eggs, and early embryos. <b>1990</b> , 142, 129-37   | 13  |
| 1387 | Pertussis toxin-catalyzed ADP-ribosylation of a G protein in mouse oocytes, eggs, and preimplantation embryos: developmental changes and possible functional roles. <b>1990</b> , 139, 250-62  | 18  |
| 1386 | Differential coupling between muscarinic receptors and G-proteins in regions of the rat brain. <b>1990</b> , 39, 1385-91   | 19  |

|      |  |     |
|------|--|-----|
| 1385 | Arachidonic acid and its metabolites in the regulation of G-protein gated K <sup>+</sup> channels in atrial myocytes. <b>1990</b> , 39, 813-5  | 16  |
| 1384 | Studies of cellular mechanisms for the generation of superoxide by guinea-pig eosinophils and its dissociation from granule peroxidase release. <b>1990</b> , 40, 2013-21  | 14  |
| 1383 | Analysis and functional characteristics of dihydropyridine-sensitive and -insensitive calcium channel proteins. <b>1990</b> , 40, 1171-8   | 16  |
| 1382 | Transphosphorylation and G protein activation. <b>1990</b> , 39, 1399-404  | 113 |
| 1381 | Depressive effects of lipid peroxides mediated via a purine receptor. Effect of lipid peroxide on the cortical synaptosomal GTPase activity. <b>1990</b> , 40, 1463-7  | 4   |
| 1380 | Effects of adenosine and analogs on adenylate cyclase activity in cultured bovine aortic endothelial cells. <b>1990</b> , 40, 1103-9   | 7   |
| 1379 | Pertussis toxin in the analysis of receptor mechanisms. <b>1990</b> , 39, 1499-504   | 56  |
| 1378 | Influence of anti-tubulin antibodies on muscarinic receptor modulation of G protein GTPase activity in rat striatum. <b>1990</b> , 40, 457-63  | 14  |
| 1377 | Antagonism by the diacylglycerol kinase inhibitor R59 022 of muscarinic receptor-mediated cyclic GMP formation and binding of [3H]N-methylscopolamine. <b>1990</b> , 39, 221-2   | 4   |
| 1376 | Halothane disruption of alpha 2-adrenergic receptor-mediated inhibition of adenylate cyclase and receptor G-protein coupling in rat brain. <b>1990</b> , 39, 223-5   | 7   |
| 1375 | Pertussis toxin inhibits alpha 2-adrenoceptor-mediated inhibition of adenylate cyclase without affecting muscarinic regulation of [Ca <sup>2+</sup> ] <sub>i</sub> or inositol phosphate generation in SH-SY5Y human neuroblastoma cells. <b>1990</b> , 40, 2291-5 | 21  |
| 1374 | Effects of tumor promoters on adenylate cyclase activity in melanoma cells in culture. <b>1990</b> , 40, 2377-80   | 2   |
| 1373 | A guanine nucleotide-binding protein mediates the inhibition of voltage-dependent calcium currents by dopamine in rat lactotrophs. <b>1990</b> , 528, 143-7  | 21  |
| 1372 | Behavioral sensitization following subchronic apomorphine treatment--possible neurochemical basis. <b>1990</b> , 526, 37-44  | 21  |
| 1371 | Characterization of synaptophysin and G proteins in synaptic vesicles and plasma membrane of <i>Aplysia californica</i> . <b>1990</b> , 508, 265-72  | 15  |
| 1370 | Differential effects of olfactory bulbectomy on beta-adrenoceptors in rat amygdala, hippocampus and cerebral cortex. <b>1990</b> , 531, 269-75   | 18  |
| 1369 | Blockade of morphine analgesia by both pertussis and cholera toxins in the periaqueductal gray and locus coeruleus. <b>1990</b> , 529, 324-8   | 32  |
| 1368 | Differential expression of low molecular weight form of Gs-alpha in neostriatum and cerebellum: correlation with expression of calmodulin-independent adenylyl cyclase. <b>1990</b> , 523, 143-6   | 26  |



|      |  |     |
|------|--|-----|
| 1367 | Electrostatic coupling between membrane proteins. <b>1990</b> , 260, 1-5   | 15  |
| 1366 | Carbamylcholine inhibits beta-adrenergic receptor-coupled Gs protein function proximal to adenylate cyclase. <b>1990</b> , 260, 95-7   | 7   |
| 1365 | Mastoparan, a peptide toxin from wasp venom, stimulates glycogenolysis mediated by an increase of the cytosolic free Ca <sup>2+</sup> concentration but not by an increase of cAMP in rat hepatocytes. <b>1990</b> , 260, 179-82                   | 18  |
| 1364 | The gamma subunit of brain G-proteins is methyl esterified at a C-terminal cysteine. <b>1990</b> , 260, 313-7  | 55  |
| 1363 | Molecular cloning of a human thyrotropin receptor cDNA fragment. Use of highly degenerate, inosine containing primers derived from aligned amino acid sequences of a homologous family of glycoprotein hormone receptors. <b>1990</b> , 264, 193-7 | 14  |
| 1362 | Molecular cloning of a novel G protein-coupled receptor that may belong to the neuropeptide receptor family. <b>1990</b> , 271, 81-4   | 211 |
| 1361 | Identification of sites for alkylation by N-ethylmaleimide and pertussis toxin-catalyzed ADP-ribosylation on GTP-binding proteins. <b>1990</b> , 276, 227-31   | 49  |
| 1360 | Calcium-permeable channels activated via guanine nucleotide-dependent mechanism in human carcinoma cells. <b>1990</b> , 277, 227-9   | 6   |
| 1359 | Inositol 1,4,5-trisphosphate activates two types of Ca <sup>2+</sup> (+)-permeable channels in human carcinoma cells. <b>1990</b> , 277, 233-4   | 36  |
| 1358 | Regulation of phosphoinositide hydrolysis induced by histamine and guanine nucleotides in human HeLa carcinoma cells. Calcium and pH dependence and inhibitory role of protein kinase C. <b>1990</b> , 265, 80-4                                   | 18  |
| 1357 | Dual regulation by G proteins of agonist-dependent phosphorylation of muscarinic acetylcholine receptors. <b>1990</b> , 268, 43-7  | 71  |
| 1356 | GTP gamma S inhibits early c-myc protein accumulation but not DNA synthesis in Swiss 3T3 fibroblasts. <b>1990</b> , 273, 243-7   | 2   |
| 1355 | The sequence of the hemoregulatory peptide is present in Gi alpha proteins. <b>1990</b> , 269, 11-4  | 17  |
| 1354 | Interaction of small G proteins with photoexcited rhodopsin. <b>1990</b> , 263, 195-8  | 21  |
| 1353 | Botulinum ADP-ribosyltransferase activity as affected by detergents and phospholipids. <b>1990</b> , 263, 376-80   | 11  |
| 1352 | Separation of two beta gamma subunit complexes of brain GTP-binding proteins composed of distinct gamma subunits. <b>1990</b> , 266, 41-4  | 9   |
| 1351 | Evidence for receptor-mediated inhibition of intrinsic activity of GTP-binding protein, Gi1 and Gi2, but not G0 in reconstitution experiments. <b>1990</b> , 266, 178-82   | 22  |
| 1350 | Molecular heterogeneity of the subclasses of islet-activating protein (pertussis toxin)-sensitive GTP-binding proteins in porcine thyroid tissue. <b>1990</b> , 281, 298-304   | 7   |

|      |   |     |
|------|---|-----|
| 1349 | Effects of domain-specific erythrocyte membrane modulators on acetylcholinesterase and NADH:cytochrome b5 reductase activities. <b>1990</b> , 280, 224-8  | 5   |
| 1348 | Rubisco activase. <b>1990</b> , 1015, 15-28   | 90  |
| 1347 | Interaction of wasp venom mastoparan with biomembranes. <b>1990</b> , 1027, 185-90  | 49  |
| 1346 | Vasopressin and norepinephrine stimulation of inositol phosphate accumulation in rat hepatocytes are modified differently by protein f1nase C and protein kinase A. <b>1990</b> , 1043, 211-7                                       | 16  |
| 1345 | Effects of insulin on inositol phosphate production in cultured rat hepatocytes. <b>1990</b> , 1043, 218-24   | 9   |
| 1344 | Partial purification and characterization of GDP dissociation stimulator (GDS) for the rho proteins from bovine brain cytosol. <b>1990</b> , 169, 652-9   | 41  |
| 1343 | Purification and characterization of a novel GTP-binding protein with a Mr value of 24,000 from rat liver. <b>1990</b> , 169, 816-23  | 16  |
| 1342 | A guanine nucleotide-sensitive, glucagon-stimulated adenylyl cyclase in <i>Candida albicans</i> : effect of glucagon on cell morphology. <b>1990</b> , 167, 1177-83   | 12  |
| 1341 | Pertussis toxin inhibits EGF-, phorbol ester- and insulin-stimulated DNA synthesis in BALB/c3T3 cells: evidence for post-receptor activation of Gi alpha. <b>1990</b> , 167, 1369-76  | 31  |
| 1340 | Development-dependent expression of low molecular weight GTP-binding proteins in embryonic chicken brain. <b>1990</b> , 172, 633-7  | 1   |
| 1339 | Involvement of pertussis toxin-sensitive GTP-binding protein in prostaglandin F2 alpha- induced phosphoinositide hydrolysis in osteoblast-like cells. <b>1990</b> , 171, 1229-35  | 47  |
| 1338 | Autocrine motility factor stimulates a three-fold increase in inositol trisphosphate in human melanoma cells. <b>1990</b> , 166, 757-64   | 54  |
| 1337 | Increased mitogenic responsiveness of Swiss 3T3 cells expressing constitutively active Gs alpha. <b>1990</b> , 168, 1184-93   | 65  |
| 1336 | Insulin-like growth factor-II/mannose 6-phosphate receptor is incapable of activating GTP-binding proteins in response to mannose 6-phosphate, but capable in response to insulin-like growth factor-II. <b>1990</b> , 168, 1201-10 | 40  |
| 1335 | Isoprenylation of the low molecular mass GTP-binding proteins rac 1 and rac 2: possible role in membrane localization. <b>1990</b> , 171, 804-12  | 48  |
| 1334 | A unique mRNA species for the alpha subunit of Gs is present in rat haploid germ cells. <b>1990</b> , 168, 91-8   | 7   |
| 1333 | ADP-ribosylation of the rho/rac proteins induces growth inhibition, neurite outgrowth and acetylcholine esterase in cultured PC-12 cells. <b>1990</b> , 167, 265-72   | 118 |
| 1332 | Interleukin (IL)-8-induced in vitro human lymphocyte migration is inhibited by cholera and pertussis toxins and inhibitors of protein kinase C. <b>1990</b> , 169, 1099-104   | 46  |

|      |   |     |
|------|---|-----|
| 1331 | Detection of novel guanine nucleotide binding proteins in bovine retinal rod outer segments. <b>1990</b> , 170, 719-25  | 4   |
| 1330 | Vasopressin dependent tyrosine phosphorylation of a 38 kDa protein in human platelets. <b>1990</b> , 168, 566-73  | 29  |
| 1329 | Physiology and pharmacology of cardiovascular catecholamine receptors: implications for treatment of chronic heart failure. <b>1990</b> , 120, 1565-72  | 41  |
| 1328 | GTP-binding proteins are restricted to signal transduction sites. <b>1990</b> , 173, 388-95   | 6   |
| 1327 | Regulation of phosphoinositide-specific phospholipase C. <b>1990</b> , 1053, 81-8   | 96  |
| 1326 | Fatty acylated proteins as components of intracellular signaling pathways. <b>1990</b> , 29, 2623-34  | 198 |
| 1325 | The anti-adrenergic effect of adenosine and its blockade by pertussis toxin: a comparative study in myocytes isolated from guinea-pig, rat and failing human hearts. <b>1990</b> , 101, 484-8 | 36  |
| 1324 | Effects of cyclic AMP-affecting agents on contractile reactivity of isolated mesenteric and renal resistance arteries of the rat. <b>1990</b> , 101, 859-64                                   | 22  |
| 1323 | Segregation of discrete GS alpha-mediated responses that accompany homologous or heterologous desensitization in two related somatic hybrids. <b>1990</b> , 99, 309-16                        | 40  |
| 1322 | NaF and guanine nucleotides modulate adenylate cyclase activity in NG108-15 cells by interacting with both Gs and Gi. <b>1990</b> , 100, 223-30   | 14  |
| 1321 | Endothelium-dependent and BRL 34915-induced vasodilatation in rat isolated perfused mesenteric arteries: role of G-proteins, K <sup>+</sup> and calcium channels. <b>1990</b> , 100, 427-34   | 30  |
| 1320 | Modulation of fluoroaluminate-induced inositol phosphate formation by increases in tissue cyclic AMP content in bovine tracheal smooth muscle. <b>1990</b> , 100, 646-50                      | 37  |
| 1319 | Evidence for complex formation between GTP binding protein(Gs) and membrane-associated nucleoside diphosphate kinase. <b>1990</b> , 168, 99-106   | 80  |
| 1318 | Interaction of atrial muscarinic receptors with three kinds of GTP-binding proteins. <b>1990</b> , 22, 343-51   | 23  |
| 1317 | BCL-2 alpha encodes a novel small molecular weight GTP binding protein. <b>1990</b> , 30, 145-53  | 3   |
| 1316 | Adrenoceptors in airway smooth muscle. <b>1990</b> , 48, 295-322  | 22  |
| 1315 | Cyclic AMP and mechanisms of vasodilation. <b>1990</b> , 47, 329-45   | 150 |
| 1314 | Lipid metabolism and signal transduction in endothelial cells. <b>1990</b> , 29, 45-63  | 48  |

|      |   |    |
|------|---|----|
| 1313 | The G protein-channel connection. <b>1990</b> , 13, 122-6   | 78 |
| 1312 | Watching G proteins at work. <b>1990</b> , 13, 64-70  | 62 |
| 1311 | Alpha-adrenergic inhibition of rat pancreatic beta-cell replication and insulin secretion is mediated through a pertussis toxin-sensitive G-protein regulating islet cAMP content. <b>1991</b> , 180, 152-5 | 21 |
| 1310 | Developmental change in calcium-activated chloride current during the differentiation of <i>Xenopus</i> spinal neurons in culture. <b>1991</b> , 147, 225-38  | 17 |
| 1309 | Molecular basis of new approaches to the therapy of rheumatoid arthritis. <b>1991</b> , 12, 395-473   | 5  |
| 1308 | The regulation of adenylyl cyclase by receptor-operated G proteins. <b>1991</b> , 50, 271-83  | 40 |
| 1307 | Guanylyl cyclase-linked receptors. <b>1991</b> , 50, 337-45   | 29 |
| 1306 | Structure and function of G protein coupled receptors. <b>1991</b> , 50, 425-42   | 56 |
| 1305 | Receptor regulation of phosphoinositidase C. <b>1991</b> , 49, 329-45   | 24 |
| 1304 | Structure and function of G proteins. <b>1991</b> , 51, 403-19  | 14 |
| 1303 | Antagonism of the morphine-induced locomotor activation of mice by fructose: comparison with other opiates and sugars, and sugar effects on brain morphine. <b>1991</b> , 49, 727-34                        | 8  |
| 1302 | Inhibition of hepatic adenylyl cyclase by NADH. <b>1991</b> , 49, 915-23  | 2  |
| 1301 | Cholera toxin and pertussis toxin on opioid- and alpha 2-mediated supraspinal analgesia in mice. <b>1991</b> , 48, 1721-7   | 43 |
| 1300 | Interaction of receptors for prostaglandin E1/prostacyclin and insulin in human erythrocytes and platelets. <b>1991</b> , 49, 1129-39   | 38 |
| 1299 | Identification and characterization of histamine H1- and H2-receptors in guinea-pig left atrial membranes by [3H]-mepyramine and [3H]-tiotidine binding. <b>1991</b> , 103, 1573-9                          | 16 |
| 1298 | Inhibition by cations of antagonist binding to histamine H1-receptors: differential effect of sodium ions on the binding of two radioligands. <b>1991</b> , 103, 1745-51                                    | 10 |
| 1297 | Alkylation with beta-funaltrexamine suggests differences between mu-opioid receptor systems in guinea-pig brain and myenteric-plexus. <b>1991</b> , 102, 718-22   | 14 |
| 1296 | Theophylline therapy inhibits neutrophil and mononuclear cell chemotaxis from chronic asthmatic children. <b>1991</b> , 32, 557-61  | 25 |

|      |  |     |
|------|--|-----|
| 1295 | The 1990 Lilly Prize Lecture. A way of looking at agonism and antagonism: lessons from salbutamol, salmeterol and other beta-adrenoceptor agonists. <b>1991</b> , 31, 501-14   | 70  |
| 1294 | Modulation of receptor-mediated inositol phospholipid breakdown in the brain. <b>1991</b> , 19, 171-206  | 38  |
| 1293 | Lithium sensitive G protein hyperfunction: a dynamic model for the pathogenesis of bipolar affective disorder. <b>1991</b> , 35, 237-43  | 30  |
| 1292 | Autoradiographic analysis of second-messenger systems in the gerbil hippocampus following repeated brief ischemic insults. <b>1991</b> , 27, 759-65  | 17  |
| 1291 | Twelve of fourteen surface epitopes of receptor-bound human chorionic gonadotropin (hCG) being antibody-inaccessible suggest an extensive involvement of the long extracellular domain of the hCG receptor. <b>1991</b> , 82, 71-9         | 6   |
| 1290 | Effect of pertussis toxin on islet insulin secretion in obese (fa/fa) Zucker rats. <b>1991</b> , 75, 197-204   | 14  |
| 1289 | Overproduction of the <i>Thermus thermophilus</i> elongation factor Tu in <i>Escherichia coli</i> . <b>1991</b> , 73, 1037-43  | 21  |
| 1288 | Activation of the Egg by the Sperm. <b>1991</b> , 41, 89-95  | 2   |
| 1287 | Morphological, biochemical, and electrophysiological characterization of a clonal cell (H9c2) line from rat heart. <b>1991</b> , 69, 1476-86   | 391 |
| 1286 | Properties of solubilized and reconstituted A1 adenosine receptors from bovine brain. <b>1991</b> , 24, 15-23  |     |
| 1285 | Dopaminergic regulation of dopamine release from PC12 cells via a pertussis toxin-sensitive G protein. <b>1991</b> , 122, 261-4  | 23  |
| 1284 | Cholera toxin-mediated inhibition of signalling in Jurkat cells is followed by, but not due to a loss of T cell receptor complex. <b>1991</b> , 182, 266-76  | 5   |
| 1283 | Determination of G-protein levels, ADP-ribosylation by cholera and pertussis toxins and the regulation of adenylyl cyclase activity in liver plasma membranes from lean and genetically diabetic (db/db) mice. <b>1991</b> , 1097, 193-204 | 11  |
| 1282 | Alzheimer's disease: specific increases in a G protein subunit (Gs alpha) mRNA in hippocampal and cortical neurons. <b>1991</b> , 10, 71-81  | 54  |
| 1281 | Human choriogonadotropin-induced coupling of receptor and Gs protein and the effect of hormone deglycosylation. <b>1991</b> , 80, 105-14   | 5   |
| 1280 | Role of inhibitory G protein alpha-subunits in adenylyl cyclase desensitization. <b>1991</b> , 82, C215-21   | 17  |
| 1279 | Bradykinin modulates the electrophysiology of cultured rat sensory neurons through a pertussis toxin-insensitive G protein. <b>1991</b> , 2, 21-30   | 24  |
| 1278 | Lithium administered by eye drops: a better treatment for bipolar affective disorder?. <b>1991</b> , 15, 315-21  | 2   |

|      |   |     |
|------|---|-----|
| 1277 | Ontogeny of beta-adrenergic receptor-mediated cyclic AMP generating system in primary cultured neurons. <b>1991</b> , 9, 347-56   | 8   |
| 1276 | Mutations in the alpha subunit of the stimulatory regulatory protein of adenylyl cyclase (Gs) in human GH-secreting pituitary adenomas. Biochemical, clinical, and morphological aspects. <b>1991</b> , 187, 567-70                           | 10  |
| 1275 | Endothelin receptor binding and cellular signal transduction in neurohybrid NG108-15 cells. <b>1991</b> , 44, 215-22  | 23  |
| 1274 | Altered G-protein expression and adenylate cyclase activity in platelets of non-insulin-dependent diabetic (NIDDM) male subjects. <b>1991</b> , 1096, 127-33  | 37  |
| 1273 | Differential effects of dietary fats on aggregation of platelets from rats. <b>1991</b> , 11, 479-489   | 1   |
| 1272 | Distinct cellular expression of pertussis toxin-sensitive GTP-binding proteins in rat cerebellum. <b>1991</b> , 124, 133-6  | 4   |
| 1271 | Characterization of partially purified prostaglandin E2 receptor from the canine renal medulla: evidence for physical association of the receptor protein with the inhibitory guanine nucleotide-binding protein. <b>1991</b> , 1074, 398-405 | 12  |
| 1270 | Inhibitory modulation of fast and slow Ca(2+)-currents in neuroblastoma x glioma cells during differentiation. <b>1991</b> , 129, 123-6   | 11  |
| 1269 | Signal transduction in olfactory neurons. <b>1991</b> , 39, 633-7   | 83  |
| 1268 | Structure-function relationships of elongation factor Tu as studied by mutagenesis. <b>1991</b> , 73, 1051-9  | 11  |
| 1267 | Isolation and sequence analysis of TGA1 cDNAs encoding a tomato G protein alpha subunit. <b>1991</b> , 107, 189-95  | 85  |
| 1266 | G(olf) in the basal ganglia. <b>1991</b> , 2, 66-70   | 47  |
| 1265 | Characterization and regional distribution of adenylyl cyclase activity from human brain. <b>1991</b> , 18, 389-98  | 12  |
| 1264 | Preservation of 5-hydroxytryptamine1A receptor-G protein interactions in the cerebral cortex of patients with Alzheimer's disease. <b>1991</b> , 133, 15-9  | 36  |
| 1263 | Regulation of polyphosphoinositide-specific phospholipase C activity by purified Gq. <b>1991</b> , 251, 804-7   | 840 |
| 1262 | Nucleotide exchange and cGMP phosphodiesterase activation by pertussis toxin inactivated transducin. <b>1991</b> , 30, 11637-45   | 45  |
| 1261 | Neoglycolipid analogues of ganglioside GM1 as functional receptors of cholera toxin. <b>1991</b> , 30, 2563-70  | 47  |
| 1260 | Guanine nucleotide dependent formation of a complex between cholera toxin (cholera toxin) a subunit and bovine brain ADP-ribosylation factor. <b>1991</b> , 30, 3697-703  | 17  |

|      |   |    |
|------|---|----|
| 1259 | G-protein beta gamma forms: identity of beta and diversity of gamma subunits. <b>1991</b> , 30, 3929-36   | 35 |
| 1258 | Purification and characterization from rat liver cytosol of a GDP dissociation inhibitor (GDI) for liver 24K G, a ras p21-like GTP-binding protein, with properties similar to those of smg p25A GDI. <b>1991</b> , 30, 909-17  | 45 |
| 1257 | Resonance energy transfer as a direct monitor of GTP-binding protein-effector interactions: activated alpha-transducin binding to the cGMP phosphodiesterase in the bovine phototransduction cascade. <b>1991</b> , 30, 7112-8  | 20 |
| 1256 | Selectivity of the beta-adrenergic receptor among Gs, Gi's, and Go: assay using recombinant alpha subunits in reconstituted phospholipid vesicles. <b>1991</b> , 30, 10769-77   | 65 |
| 1255 | Thiophosphoryl guanine nucleotide analogues inhibit the (Na+,K+)-ATPase. <b>1991</b> , 30, 6727-34  |    |
| 1254 | Functional interactions of recombinant alpha 2 adrenergic receptor subtypes and G proteins in reconstituted phospholipid vesicles. <b>1991</b> , 30, 3335-41  | 90 |
| 1253 | Solubilization of human placental tumor necrosis factor receptors as a complex with a guanine nucleotide-binding protein. <b>1991</b> , 286, 323-9  | 13 |
| 1252 | Purification and characterization of a GTP-binding protein serving as pertussis toxin substrate in starfish oocytes. <b>1991</b> , 290, 411-7   | 28 |
| 1251 | Platelet glycoprotein IIb-IIIa is associated with 21-kDa GTP-binding protein. <b>1991</b> , 1070, 20-6  | 18 |
| 1250 | Phospholipid-mediated signaling in receptor activation of human platelets. <b>1991</b> , 1082, 219-38   | 71 |
| 1249 | Regulation of arachidonic acid metabolism by phenylarsine oxide. <b>1991</b> , 178, 641-7   | 1  |
| 1248 | Homologous structures of nuclear and GTPase-linked plasma membrane receptors suggest analogous mechanisms of action. <b>1991</b> , 176, 343-8   | 4  |
| 1247 | Distinct mode of G protein activation due to single residue substitution of active IGF-II receptor peptide Arg2410-Lys2423: evidence for stimulation acceptor region other than C-terminus of Gi alpha. <b>1991</b> , 179, 10-6 | 25 |
| 1246 | Evidence that the signal-initiating membrane protein CD9 is associated with small GTP-binding proteins. <b>1991</b> , 179, 401-6  | 45 |
| 1245 | Sequence of a human brain adenylyl cyclase partial cDNA: evidence for a consensus cyclase specific domain. <b>1991</b> , 179, 455-62  | 36 |
| 1244 | Signal transduction in <i>Coprinus congregatus</i> : evidence for the involvement of G proteins in blue light photomorphogenesis. <b>1991</b> , 179, 1225-31  | 18 |
| 1243 | Direct activation of GTP-binding proteins by venom peptides that contain cationic clusters within their alpha-helical structures. <b>1991</b> , 178, 400-6  | 29 |
| 1242 | Muscarinic receptor antagonist effects in parotid acini and M1-CHO cells: evidence of G protein involvement. <b>1991</b> , 177, 784-9   | 5  |

|      |   |     |
|------|---|-----|
| 1241 | Pertussis toxin inhibits autophosphorylation and activation of the insulin receptor kinase. <b>1991</b> , 181, 1479-85  | 23  |
| 1240 | Differentiation of neuroblastoma cells: a useful model for neurobiology and cancer. <b>1991</b> , 66, 431-51  | 47  |
| 1239 | The uterotonic action of the aqueous extract of <i>Bridelia atroviridis</i> in the rat. <b>1991</b> , 5, 319-29   | 4   |
| 1238 | Signal transduction by P2-purinergic receptors for extracellular ATP. <b>1991</b> , 4, 295-300  | 169 |
| 1237 | Examination of elongation factor Tu for aluminum fluoride binding sites using fluorescence and 19F-NMR methodologies. <b>1991</b> , 278, 225-8  | 7   |
| 1236 | Specific activation of Gs by synthetic peptides corresponding to an intracellular loop of the beta-adrenergic receptor. <b>1991</b> , 279, 277-80   | 93  |
| 1235 | Activation of protein kinase C inhibits hormonal stimulation of the GTPase activity of Gi in human platelets. <b>1991</b> , 279, 316-8  | 5   |
| 1234 | High affinity quinuclidinyl benzilate binding to rat parotid membranes requires muscarinic receptor. G protein interactions. <b>1991</b> , 282, 289-92  | 5   |
| 1233 | G-proteins in etiolated <i>Avena</i> seedlings. Possible phytochrome regulation. <b>1991</b> , 282, 341-6   | 67  |
| 1232 | Protein phosphorylation in isolated nuclei from etiolated <i>Avena</i> seedlings. Effects of red/far-red light and cholera toxin. <b>1991</b> , 282, 347-50   | 33  |
| 1231 | Chemical and functional analysis of components of adenylyl cyclase from human platelets treated with phorbol esters. <b>1991</b> , 285, 99-103  | 25  |
| 1230 | Yeast alpha-mating factor receptor-linked G-protein signal transduction suppresses Ras-dependent activity. <b>1991</b> , 284, 123-8   | 22  |
| 1229 | Biogenesis of secretory granules. Implications arising from the immature secretory granule in the regulated pathway of secretion. <b>1991</b> , 285, 220-4  | 73  |
| 1228 | Developmental expression of G proteins that differentially modulate adenylyl cyclase activity in mouse brain. <b>1991</b> , 288, 51-4   | 22  |
| 1227 | Platelet-activating factor activates cardiac GK via arachidonic acid metabolites. <b>1991</b> , 289, 239-43   | 26  |
| 1226 | Inhibition of fetal rat pancreatic beta-cell replication by interleukin-1 beta in vitro is not mediated through pertussis toxin-sensitive G-proteins, a decrease in cyclic AMP, or protease activation. <b>1991</b> , 289, 249-52 | 17  |
| 1225 | Purification and subunit composition of a GTP-binding protein from maize root plasma membranes. <b>1991</b> , 291, 219-21   | 20  |
| 1224 | Molecular cloning and sequence analysis of cDNA and genomic DNA for the human cone transducin alpha subunit. <b>1991</b> , 291, 245-8   | 11  |



|      |  |    |
|------|--|----|
| 1223 | Interaction of mastoparan with the low molecular mass GTP-binding proteins rho/rac. <b>1991</b> , 291, 336-40  | 55 |
| 1222 | Trimeric G-proteins of the trans-Golgi network are involved in the formation of constitutive secretory vesicles and immature secretory granules. <b>1991</b> , 294, 239-43                                     | 86 |
| 1221 | Cholera toxin and Gs protein modulation of synaptic transmission in guinea pig mesenteric artery. <b>1991</b> , 197, 57-62   | 10 |
| 1220 | Intracerebroventricular pertussis toxin enhances sensitivity to N-methyl-D-aspartate-induced seizures in mice. <b>1991</b> , 197, 209-11   | 10 |
| 1219 | Characterization of rat intestinal angiotensin II receptors. <b>1991</b> , 204, 165-70   | 26 |
| 1218 | Pertussis toxin attenuates postsynaptic actions of neuropeptide Y on the guinea-pig uterine artery. <b>1991</b> , 203, 275-81  | 5  |
| 1217 | Glucose transport stimulation by bradykinin in Swiss 3T3 fibroblasts: a pertussis toxin-sensitive mechanism operates without involvement of arachidonic acid and cyclic AMP. <b>1991</b> , 192, 67-74          | 8  |
| 1216 | Leishmania donovani: characterization of a 38-kDa membrane protein that cross-reacts with the mammalian G-protein transducin. <b>1991</b> , 72, 411-7  | 9  |
| 1215 | Evidence for the involvement of a pertussis toxin-insensitive G-protein in egg activation of the frog, <i>Xenopus laevis</i> . <b>1991</b> , 143, 218-29   | 72 |
| 1214 | Expression of the guanine nucleotide-binding protein G <sub>o</sub> correlates with the state of neural competence in the amphibian embryo. <b>1991</b> , 145, 311-22  | 20 |
| 1213 | Changes in temporal and spatial patterns of G <sub>i</sub> protein expression in postimplantation mouse embryos. <b>1991</b> , 145, 128-38   | 11 |
| 1212 | Extracellular Mg <sup>2+</sup> induces a loss of microvilli, membrane retrieval, and the subsequent cortical reaction, in the oocyte of the prawn <i>Palaemon serratus</i> . <b>1991</b> , 148, 31-50          | 16 |
| 1211 | Non-steroidal anti-inflammatory drugs: effects on a GTP binding protein within the neutrophil plasma membrane. <b>1991</b> , 41, 1567-73   | 41 |
| 1210 | Epidermal growth factor activation of rat parotid gland adenylate cyclase and mediation by a GTP-binding regulatory protein. <b>1991</b> , 42, 2333-40   | 39 |
| 1209 | Gs alpha availability to cholera toxin-catalysed ADP-ribosylation is decreased in membranes of retinoic acid-treated leukemic cell lines HL-60 and THP-1. A posttranslational effect. <b>1991</b> , 42, 2141-6 | 10 |
| 1208 | Magnesium reversal of lithium inhibition of beta-adrenergic and muscarinic receptor coupling to G proteins. <b>1991</b> , 41, 171-5  | 52 |
| 1207 | Unexpected plasticity at autonomic junctions. Environmental regulation of neurotransmitter phenotype and receptor expression. <b>1991</b> , 41, 323-31   | 5  |
| 1206 | Functional consequences of lipid-mediated protein-membrane interactions. <b>1991</b> , 42, 1-11  | 21 |

|      |   |     |
|------|---|-----|
| 1205 | Assay of a phosphatidylinositol bisphosphate phospholipase C activity in postmortem human brain. <b>1991</b> , 543, 307-14  | 24  |
| 1204 | Modification of morphine-induced analgesia and toxicity by pertussis toxin. <b>1991</b> , 544, 191-5  | 17  |
| 1203 | Inhibition of cAMP production by alpha 2-adrenoceptor stimulation in rabbit retina. <b>1991</b> , 553, 84-8   | 21  |
| 1202 | Modification of [3H]inositoltrisphosphate binding in kainic acid-lesioned and postischemic rat hippocampus. <b>1991</b> , 538, 246-50   | 12  |
| 1201 | Guanine nucleotide binding proteins and the regulation of cyclic AMP synthesis in NS20Y neuroblastoma cells: role of D1 dopamine and muscarinic receptors. <b>1991</b> , 556, 101-7 | 7   |
| 1200 | Postmortem cerebral cortex Gs alpha-subunit levels are elevated in bipolar affective disorder. <b>1991</b> , 553, 323-6   | 109 |
| 1199 | Intrathecal coadministration of clonidine with serotonin receptor agonists produces supra-additive visceral antinociception in the rat. <b>1991</b> , 555, 35-42                    | 24  |
| 1198 | Ultradian and circadian changes in the cAMP concentration in the preoptic region of the rat. <b>1991</b> , 551, 132-5   | 12  |
| 1197 | Receptor regulation of the glutamate, GABA and taurine high-affinity uptake into astrocytes in primary culture. <b>1991</b> , 548, 215-21   | 67  |
| 1196 | Coupling of human brain cerebral cortical alpha 2-adrenoceptors to GTP-binding proteins in Alzheimer's disease. <b>1991</b> , 563, 39-43  | 25  |
| 1195 | Cyclic AMP modulates sensory-neural communication at the vestibular end organ. <b>1991</b> , 565, 78-84   | 12  |
| 1194 | Maturation and aging effects on guanine nucleotide binding protein immunoreactivity in human brain. <b>1991</b> , 61, 243-8   | 47  |
| 1193 | Identification of a Gs activator region of the beta 2-adrenergic receptor that is autoregulated via protein kinase A-dependent phosphorylation. <b>1991</b> , 67, 723-30            | 263 |
| 1192 | SGV1 encodes a CDC28/cdc2-related kinase required for a G alpha subunit-mediated adaptive response to pheromone in <i>S. cerevisiae</i> . <b>1991</b> , 65, 785-95                  | 76  |
| 1191 | Pheromone-induced phosphorylation of a G protein beta subunit in <i>S. cerevisiae</i> is associated with an adaptive response to mating pheromone. <b>1991</b> , 64, 703-16         | 99  |
| 1190 | The <i>Drosophila</i> gastrulation gene <i>concertina</i> encodes a G alpha-like protein. <b>1991</b> , 64, 447-58  | 280 |
| 1189 | Biophysical and genetic analysis of the ligand-binding site of the beta-adrenoceptor. <b>1991</b> , 12, 4-6   | 52  |
| 1188 | Immunological approaches for probing receptor structure and function. <b>1991</b> , 12, 338-43  | 21  |

|      |   |     |
|------|---|-----|
| 1187 | Testing models of agonism for G protein-coupled receptors. <b>1991</b> , 12, 371-4  | 18  |
| 1186 | Cell-type-specific transcription in yeast. <b>1991</b> , 1088, 155-69   | 102 |
| 1185 | Molecular basis of signal integration in phosphorylase kinase. <b>1991</b> , 1094, 168-74   | 58  |
| 1184 | Analysis by mRNA levels of the expression of six G protein alpha-subunit genes in mammalian cells and tissues. <b>1991</b> , 1094, 193-9  | 41  |
| 1183 | A guanine nucleotide-binding protein mediates 1,25-dihydroxy-vitamin D-3-dependent rapid stimulation of Ca <sup>2+</sup> uptake in skeletal muscle. <b>1991</b> , 1094, 238-42        | 11  |
| 1182 | Apparent activation of rabbit lung membrane adenylate cyclase by cytosolic proteins possessing adenylate kinase activity. <b>1991</b> , 1091, 213-21                                  | 1   |
| 1181 | Prostaglandin E1 receptor from mouse mastocytoma P-815 cells couples to 60 kDa GTP-binding protein. <b>1991</b> , 1095, 140-4   | 3   |
| 1180 | Characterization of cytosolic pertussis toxin-sensitive GTP-binding protein in mastocytoma P-815 cells. <b>1991</b> , 1093, 207-15  | 2   |
| 1179 | Ca <sup>2+</sup> regulation of phosphatidylinositol turnover in the plasma membrane of tobacco suspension culture cells. <b>1991</b> , 1093, 72-9                                     | 33  |
| 1178 | Desensitization of the epidermal adenylate cyclase system: agonists and phorbol esters desensitize by independent mechanisms. <b>1991</b> , 1093, 95-101                              | 2   |
| 1177 | Stimulation of lipid peroxidation increases the intracellular calcium content of isolated hepatocytes. <b>1991</b> , 1091, 310-6  | 54  |
| 1176 | Regulation of calcium channel activity by GTP binding proteins and second messengers. <b>1991</b> , 1091, 68-80   | 61  |
| 1175 | Pertussis toxin reduces the day-night rhythm of nociception and mu and kappa opioid peptide-mediated antinociception in the snail, <i>Cepaea nemoralis</i> . <b>1991</b> , 12, 877-81 | 8   |
| 1174 | Role of signal transduction in anesthetic action. Alpha 2 adrenergic agonists. <b>1991</b> , 625, 409-22  | 20  |
| 1173 | Reaction rate and collisional efficiency of the rhodopsin-transducin system in intact retinal rods. <b>1991</b> , 59, 375-86  | 159 |
| 1172 | Characterization of high affinity GTPase activity correlated to beta-adrenergic receptor stimulation of adenylate cyclase in rat parotid membranes. <b>1991</b> , 1092, 391-6         | 2   |
| 1171 | Crystal structures at 2.2 Å resolution of the catalytic domains of normal ras protein and an oncogenic mutant complexed with GDP. <b>1991</b> , 217, 503-16                           | 246 |
| 1170 | Binding of a photoreactive pyrethroid to $\beta$ subunit of GTP-binding proteins. <b>1991</b> , 41, 121-131   | 10  |

|      |  |      |      |
|------|--|------|------|
| 1169 | The lymphocytosis promoting action of pertussis toxin can be mimicked in vitro. Holotoxin but not the B subunit inhibits invasion of human T lymphoma cells through fibroblast monolayers. <b>1991</b> , 144, 231-40 |      | 6    |
| 1168 | Hyperfunctional G proteins in mononuclear leukocytes of patients with mania. <b>1991</b> , 29, 273-80  |      | 120  |
| 1167 | Genetically acquired diabetes: adipocyte guanine nucleotide regulatory protein expression and adenylate cyclase regulation. <b>1991</b> , 1096, 121-6  |      | 15   |
| 1166 | Is arachidonic acid a second messenger in signal transduction?. <b>1991</b> , 80, C181-6   |      | 89   |
| 1165 | Enhanced arterial contractility to noradrenaline in diabetic rats is associated with increased phosphoinositide metabolism. <b>1991</b> , 69, 355-61   |      | 40   |
| 1164 | Transducin activation by rhodopsin without a covalent bond to the 11-cis-retinal chromophore. <b>1991</b> , 251, 558-60  |      | 125  |
| 1163 | Activation of the sensory current in salamander olfactory receptor neurons depends on a G protein-mediated cAMP second messenger system. <b>1991</b> , 6, 825-35   |      | 155  |
| 1162 | Diversity of G proteins in signal transduction. <b>1991</b> , 252, 802-8   |      | 1838 |
| 1161 | Localization of the membrane binding sites of Era in Escherichia coli. <b>1991</b> , 142, 301-7  |      | 21   |
| 1160 | Structure and function of signal-transducing GTP-binding proteins. <i>Annual Review of Biochemistry</i> , <b>1991</b> , 60, 349-400  | 29.1 | 612  |
| 1159 | Effect of calcium and cAMP on Go alpha expression in neonatal rat cardiac myocytes. <b>1991</b> , 261, 15-20   |      | 2    |
| 1158 | Three-dimensional structure of p21 in the active conformation and analysis of an oncogenic mutant. <b>1991</b> , 93, 11-5  |      | 24   |
| 1157 | NaF-induced amylase release from rat parotid cells is mediated by PI breakdown leading to Ca <sup>2+</sup> mobilization. <i>American Journal of Physiology - Cell Physiology</i> , <b>1991</b> , 260, C194-200       | 5.4  | 31   |
| 1156 | Smooth muscle adenosine A1 receptors couple to disparate effectors by distinct G proteins in pregnant myometrium. <b>1991</b> , 261, E141-50   |      | 5    |
| 1155 | Modulation of Gs activity by phorbol myristate acetate in rat hepatocytes. <i>American Journal of Physiology - Cell Physiology</i> , <b>1991</b> , 260, C259-65  | 5.4  | 15   |
| 1154 | Gonadotropins. <b>1991</b> , 25-80   |      | 8    |
| 1153 | The Rubicon Hypothesis: a quantal framework for understanding the molecular pathway of cell activation and injury. <b>1991</b> , 189-217   |      | 3    |
| 1152 | EVOLUTION OF THE MONOAMINE HYPOTHESES OF DEPRESSION. <b>1991</b> , 77-94   |      | 9    |

|      |  |     |     |
|------|--|-----|-----|
| 1151 | Mitogen-induced early increase in cytosolic free Mg <sup>2+</sup> concentration in single Swiss 3T3 fibroblasts. <i>American Journal of Physiology - Cell Physiology</i> , <b>1991</b> , 261, C1074-80 | 5-4 | 32  |
| 1150 | Mechanisms of NE-induced reduction of Ca current in single smooth muscle cells from guinea pig vas deferens. <i>American Journal of Physiology - Cell Physiology</i> , <b>1991</b> , 260, C17-25       | 5-4 | 49  |
| 1149 | Characterization of G-protein alpha subunits in the Gq class: expression in murine tissues and in stromal and hematopoietic cell lines. <b>1991</b> , 88, 10049-53                                     |     | 247 |
| 1148 | New antibiotic that acts specifically on the GTP-bound form of elongation factor Tu.. <b>1991</b> , 10, 779-784  |     | 72  |
| 1147 | Identification of Dictyostelium G alpha genes expressed during multicellular development. <b>1991</b> , 88, 8213-7   |     | 59  |
| 1146 | Effects of pertussis toxin on the erythropoietin-stimulated proliferation and differentiation of erythroid-responsive cells. <b>1991</b> , 60, 371-6   |     | 6   |
| 1145 | The orphan receptor cDNA RDC7 encodes an A1 adenosine receptor.. <b>1991</b> , 10, 1677-1682   |     | 147 |
| 1144 | Chapter 6 Ion Transport and Adenylyl Cyclase System in Red Blood Cells. <b>1991</b> , 39, 181-225  |     | 2   |
| 1143 | Chapter 12 Development of Epithelial Na <sup>+</sup> Channels and Regulation by Guanine Nucleotide Regulatory (G) Proteins and Phospholipids. <b>1991</b> , 395-436                                    |     | 1   |
| 1142 | Preparation of guanine nucleotide-free G proteins. <b>1991</b> , 195, 188-92   |     | 10  |
| 1141 | Purification of recombinant Gs alpha. <b>1991</b> , 195, 192-202   |     | 20  |
| 1140 | Synthetic peptide antisera with determined specificity for G protein alpha or beta subunits. <b>1991</b> , 195, 215-33   |     | 101 |
| 1139 | Soluble guanine nucleotide-dependent ADP-ribosylation factors in activation of adenylyl cyclase by cholera toxin. <b>1991</b> , 195, 243-56  |     | 11  |
| 1138 | ADP-ribosylation of G proteins with pertussis toxin. <b>1991</b> , 195, 257-66   |     | 44  |
| 1137 | Photoaffinity labeling of GTP-binding proteins. <b>1991</b> , 195, 280-6   |     | 10  |
| 1136 | Tryptophan fluorescence of G proteins: analysis of guanine nucleotide binding and hydrolysis. <b>1991</b> , 195, 321-8   |     | 8   |
| 1135 | Chapter 26. Regulation of the ras GTPase Cycle. <b>1991</b> , 26, 249-258  |     |     |
| 1134 | How do sperm activate eggs?. <b>1991</b> , 25, 1-16  |     | 78  |

|      |  |     |
|------|--|-----|
| 1133 | Regulation of adenylyl cyclase by noradrenaline and tumour necrosis factor alpha in rat cardiomyocytes. <b>1991</b> , 12 Suppl F, 139-42   | 23  |
| 1132 | Purification of the active C5a receptor from human polymorphonuclear leukocytes as a receptor-Gi complex. <b>1991</b> , 88, 971-5  | 69  |
| 1131 | Pertussis toxin-sensitive G proteins are transported toward synaptic terminals by fast axonal transport. <b>1991</b> , 88, 1775-8  | 10  |
| 1130 | Mas oncogene receptor coupling and peptide specificity in Balb 3T3 and vascular smooth muscle cells. <b>1991</b> , 302, 329-34   | 1   |
| 1129 | Different G proteins mediate the opioid inhibition or enhancement of evoked [5-methionine]enkephalin release. <b>1991</b> , 88, 4741-5   | 70  |
| 1128 | Tonic inhibition and rebound facilitation of a neuronal calcium channel by a GTP-binding protein. <b>1991</b> , 88, 8855-9   | 63  |
| 1127 | Guanosine 5'-[beta-thio]triphosphate selectively activates calcium signaling in mast cells. <b>1991</b> , 88, 926-30   | 21  |
| 1126 | The beta-adrenergic signaling pathway in the heart. <b>1991</b> , 26, 43-50  | 6   |
| 1125 | Cholera toxin induces expression of the immediate-early response gene JE via a cyclic AMP-independent signaling pathway. <b>1991</b> , 11, 102-7   | 19  |
| 1124 | Analysis of stimulation-G protein subunit coupling by using active insulin-like growth factor II receptor peptide. <b>1991</b> , 88, 8020-3  | 45  |
| 1123 | Amino acids 367-376 of the Gs alpha subunit induce membrane association when fused to soluble amino-terminal deleted Gi1 alpha subunit. <b>1991</b> , 88, 10054-8  | 14  |
| 1122 | Cloning and expression of a widely distributed (type IV) adenylyl cyclase. <b>1991</b> , 88, 10178-82  | 314 |
| 1121 | Drosophila stimulatory G protein alpha subunit activates mammalian adenylyl cyclase but interacts poorly with mammalian receptors: implications for receptor-G protein interaction. <b>1991</b> , 88, 1898-902                             | 35  |
| 1120 | Extracellular signal-regulated kinases: ERKs in progress. <b>1991</b> , 2, 965-78  | 510 |
| 1119 | The CDC25 protein of <i>Saccharomyces cerevisiae</i> promotes exchange of guanine nucleotides bound to ras. <b>1991</b> , 11, 2641-6   | 187 |
| 1118 | Molecular cloning of the cDNA for stimulatory GDP/GTP exchange protein for smg p21s (ras p21-like small GTP-binding proteins) and characterization of stimulatory GDP/GTP exchange protein. <b>1991</b> , 11, 2873-80                      | 104 |
| 1117 | AAR1/TUP1 protein, with a structure similar to that of the beta subunit of G proteins, is required for $\alpha$ 1- $\alpha$ 2 and $\alpha$ 2 repression in cell type control of <i>Saccharomyces cerevisiae</i> . <b>1991</b> , 11, 3773-9 | 95  |
| 1116 | Colchicine inhibits acetylcholine receptor stimulation of G protein GTPase activity in rat striatum. <b>1991</b> , 69, 259-62  | 5   |

|      |  |     |
|------|--|-----|
| 1115 | Purification and characterization of a new GTP-binding protein of Mr 24,000 in bovine brain membranes. <b>1991</b> , 109, 428-35   | 1   |
| 1114 | Regulation of Ca <sup>2+</sup> current in frog ventricular cardiomyocytes by 5'-guanylylimidodiphosphate and acetylcholine. <b>1991</b> , 432, 593-620   | 15  |
| 1113 | Muscarinic receptor is coupled with a cation channel through a GTP-binding protein in guinea-pig chromaffin cells. <b>1991</b> , 436, 511-29   | 52  |
| 1112 | Possible Coupling of Prostaglandin E2 Receptor with Pertussis Toxin-Sensitive Guanine Nucleotide-Binding Protein in Osteoblast-Like Cells1. <b>1991</b> ,  |     |
| 1111 | The CDC20 gene product of <i>Saccharomyces cerevisiae</i> , a beta-transducin homolog, is required for a subset of microtubule-dependent cellular processes. <b>1991</b> , 11, 5592-602                      | 100 |
| 1110 | Beta-adrenergic and muscarinic regulation of the chloride current in guinea-pig ventricular cells. <b>1991</b> , 440, 225-41   | 49  |
| 1109 | Calcium release induced by inositol 1,4,5-trisphosphate in single rabbit intestinal smooth muscle cells. <b>1991</b> , 433, 495-517  | 94  |
| 1108 | Regulation of spontaneous opening of muscarinic K <sup>+</sup> channels in rabbit atrium. <b>1991</b> , 433, 589-613   | 73  |
| 1107 | Modulation of acetylcholine-activated K <sup>+</sup> channel function in rat atrial cells by phosphorylation. <b>1991</b> , 437, 133-55  | 59  |
| 1106 | Double-pulse calcium channel current facilitation in adult rat sympathetic neurones. <b>1991</b> , 439, 181-214  | 217 |
| 1105 | Biochemical and biophysical analysis of cell-to-cell channels and regulation of gap junctional permeability. <b>1991</b> , 118, 1-47   | 29  |
| 1104 | The biochemical basis of relapse and drug response in schizophrenia: review and hypothesis. <b>1991</b> , 21, 881-95   | 28  |
| 1103 | Molecular biology of adrenergic receptors: model systems for the study of G-protein-mediated signal transduction. <b>1991</b> , 28, 93-103   | 2   |
| 1102 | The biochemistry of ras p21. <b>1991</b> , 279 ( Pt 3), 609-31   | 163 |
| 1101 | Okadaic acid identifies a phosphorylation/dephosphorylation cycle controlling the inhibitory guanine-nucleotide-binding regulatory protein Gi2. <b>1991</b> , 274 ( Pt 2), 317-21                            | 37  |
| 1100 | A pertussis-toxin-sensitive protein controls exocytosis in chromaffin cells at a step distal to the generation of second messengers. <b>1991</b> , 274 ( Pt 2), 339-47                                       | 57  |
| 1099 | Ontogeny of guanine-nucleotide-binding regulatory proteins in rabbit liver. <b>1991</b> , 274 ( Pt 2), 439-44  | 20  |
| 1098 | Inhibition of luteinizing-hormone exocytosis by guanosine 5'-[gamma-thio]triphosphate reveals involvement of a GTP-binding protein distal to second-messenger generation. <b>1991</b> , 275 ( Pt 2), 399-405 | 9   |

|      |  |    |
|------|--|----|
| 1097 | Redistribution of ADP-ribosylation factor during stimulation of permeabilized cells with GTP analogues. <b>1991</b> , 275 ( Pt 3), 639-44  | 54 |
| 1096 | Interactions of purified bovine brain A1-adenosine receptors with G-proteins. Reciprocal modulation of agonist and antagonist binding. <b>1991</b> , 275 ( Pt 3), 651-6  | 66 |
| 1095 | Insulin activates GTP binding to a 40 kDa protein in fat cells. <b>1991</b> , 276 ( Pt 1), 103-8   | 28 |
| 1094 | Bradykinin recognizes different molecular forms of the B2 kinin receptor in the presence and absence of guanine nucleotides. <b>1991</b> , 276 ( Pt 1), 141-7  | 10 |
| 1093 | Alterations in G-protein expression and the hormonal regulation of adenylate cyclase in the adipocytes of obese (fa/fa) Zucker rats. <b>1991</b> , 276 ( Pt 1), 197-202  | 29 |
| 1092 | Evidence for regulation of human platelet adenylate cyclase by phosphorylation. Inhibition by ATP and guanosine 5'-[beta-thio]diphosphate occur by distinct mechanisms. <b>1991</b> , 276 ( Pt 3), 621-30  | 9  |
| 1091 | The significance of functional receptor heterogeneity in the biological responses of the rabbit neutrophil to stimulation by chemotactic formyl peptides. <b>1991</b> , 276 ( Pt 3), 715-23  | 5  |
| 1090 | Failure of [32P]ADP-ribosylation by pertussis toxin to determine Gi alpha content in membranes from various human tissues. Improved radioimmunological quantification using the 125I-labelled C-terminal decapeptide of retinal transducin. <b>1991</b> , 277 ( Pt 1), 223-9 | 36 |
| 1089 | Guanine-nucleotide- and adenine-nucleotide-dependent regulation of phospholipase D in electropermeabilized HL-60 granulocytes. <b>1991</b> , 278 ( Pt 1), 81-9   | 64 |
| 1088 | Does cyclic guanosine monophosphate mediate noradrenaline-induced inhibition of islet insulin secretion stimulated by glucose and palmitate?. <b>1991</b> , 278 ( Pt 1), 243-8   | 19 |
| 1087 | Asymmetrical distribution of G-proteins among the apical and basolateral membranes of rat enterocytes. <b>1991</b> , 278 ( Pt 2), 565-71   | 25 |
| 1086 | Attenuated adenosine-sensitivity and decreased adenosine-receptor number in adipocyte plasma membranes in human obesity. <b>1991</b> , 279 ( Pt 1), 17-22  | 47 |
| 1085 | The identification and purification of the heterotrimeric GTP-binding protein from squid ( <i>Loligo forbesi</i> ) photoreceptors. <b>1991</b> , 279 ( Pt 1), 323-6  | 33 |
| 1084 | Aluminofluorides and beryllifluorides as inhibitors of sulphatases. Analogues of hydrogen sulphate?. <b>1991</b> , 279 ( Pt 2), 361-5  | 1  |
| 1083 | Thrombin inhibits the pertussis-toxin-dependent ADP-ribosylation of a novel soluble Gi-protein in human platelets. <b>1991</b> , 279 ( Pt 3), 643-50   | 13 |
| 1082 | Bombesin, neuromedin B and neuromedin C interact with a common rat pancreatic phosphoinositide-coupled receptor, but are differentially regulated by guanine nucleotides. <b>1991</b> , 280 ( Pt 1), 163-9   | 16 |
| 1081 | Inhibition of subunit dissociation and release of the stimulatory G-protein, Gs, by beta gamma-subunits and somatostatin in S49 lymphoma cell membranes. <b>1991</b> , 280 ( Pt 2), 303-7  | 12 |
| 1080 | Inhibition by pertussis toxin of the activation of Na(+)-dependent uridine transport in dimethyl-sulphoxide-induced HL-60 leukaemia cells. <b>1991</b> , 280 ( Pt 2), 515-9  | 14 |



|      |  |     |
|------|--|-----|
| 1079 | Human myocardial cytosolic Ca(2+)-independent phospholipase A2 is modulated by ATP. Concordant ATP-induced alterations in enzyme kinetics and mechanism-based inhibition. <b>1991</b> , 280 ( Pt 3), 581-7 | 53  |
| 1078 | Differences in the regulation of endothelin-1- and lysophosphatidic-acid-stimulated Ins(1,4,5)P3 formation in rat-1 fibroblasts. <b>1991</b> , 280 ( Pt 3), 609-15   | 48  |
| 1077 | Phospholipase C-beta 1 is regulated by a pertussis toxin-insensitive G-protein. <b>1991</b> , 280 ( Pt 3), 753-60  | 22  |
| 1076 | Signal transduction by the human thyrotropin receptor: studies on the role of individual amino acid residues in the carboxyl terminal region of the third cytoplasmic loop. <b>1991</b> , 5, 1523-6        | 20  |
| 1075 | Purification of recombinant Gi alpha and Go alpha proteins from Escherichia coli. <b>1991</b> , 195, 202-15  | 17  |
| 1074 | Pseudo-grafting of polyacrylamide onto hind III restriction fragments of DNA. <b>1991</b> , 15, 103-109  | 2   |
| 1073 | Kinetics of the dual-action mechanism of narcotic substances: conditions for conservative functioning of enzyme-receptor systems. <b>1991</b> , 25, 193-203  | 3   |
| 1072 | Modulation of the elicitation response in cultured french bean cells and its implication for the mechanism of signal transduction. <b>1991</b> , 30, 397-405   | 34  |
| 1071 | Interaction of salmon glucagon, glucagon-like peptide, and epinephrine in the stimulation of phosphorylase a activity in fish isolated hepatocytes. <b>1991</b> , 82, 131-9                                | 24  |
| 1070 | Adrenergic receptor responsiveness and congestive heart failure. <b>1991</b> , 67, 13C-17C   | 13  |
| 1069 | Characterization of the 3',5'-cyclic adenosine monophosphate-mediated regulation of IL2 production by T cells and Jurkat cells. <b>1991</b> , 135, 285-98  | 30  |
| 1068 | Expression of GTP-binding proteins and prostaglandin E2 receptors during human T cell activation. <b>1991</b> , 134, 287-95  | 20  |
| 1067 | Effects of guanine nucleotides on kainic acid binding and on adenylate cyclase in chick optic tectum and cerebellum. <b>1991</b> , 3, 39-45  | 61  |
| 1066 | Role of the growth-associated protein B-50/GAP-43 in neuronal plasticity. <b>1991</b> , 5, 61-85   | 143 |
| 1065 | PAF effects on transmembrane signaling pathways in rat Kupffer cells. <b>1991</b> , 26, 1038-43  | 11  |
| 1064 | Bioactions of 5-hydroxyicosatetraenoate and its interaction with platelet-activating factor. <b>1991</b> , 26, 1184-8  | 16  |
| 1063 | Plasmodium falciparum-infected erythrocytes contain an adenylate cyclase with properties which differ from those of the host enzyme. <b>1991</b> , 45, 109-19  | 27  |
| 1062 | Adenine nucleotide regulation of particulate guanylate cyclase from rat lung. <b>1991</b> , 1077, 99-106   | 31  |

|      |  |    |
|------|--|----|
| 1061 | Lithium decreases Gs, Gi-1 and Gi-2 alpha-subunit mRNA levels in rat cortex. <b>1991</b> , 206, 165-6  | 61 |
| 1060 | Norepinephrine inhibits a Ca <sup>2+</sup> current in rat sympathetic neurons via a G-protein. <b>1991</b> , 207, 195-207  | 34 |
| 1059 | Characterization of L-[ <sup>3</sup> H]glutamate binding sites in bovine brain coated vesicles. <b>1991</b> , 207, 215-24  | 8  |
| 1058 | Tumor necrosis factor alpha up-regulates Gi alpha and G beta proteins and adenylyl cyclase responsiveness in rat cardiomyocytes. <b>1991</b> , 206, 53-60  | 59 |
| 1057 | Multiple molecular actions for steroids in the regulation of reproductive behaviors. <b>1991</b> , 3, 489-496  | 22 |
| 1056 | G proteins and low-molecular-weight GTP-binding proteins in platelets. <b>1991</b> , 1, 92-8   | 5  |
| 1055 | Attenuation of central alpha 2 adrenergic action in diabetic rats. <b>1991</b> , 39, 383-7   | 12 |
| 1054 | Dissociation of opioid receptor upregulation and functional supersensitivity. <b>1991</b> , 38, 853-9  | 23 |
| 1053 | Barbiturates inhibit intracellular Ca <sup>2+</sup> rise induced by thrombin in rat platelets. <b>1991</b> , 12, 645-54  | 10 |
| 1052 | Expression of memory to the terminal differentiation inducing activity of tiazofurin in HL-60 leukemia cells. <b>1991</b> , 15, 395-402  | 1  |
| 1051 | Multiple opioid receptors and GTP-binding proteins. <b>1991</b> , 98, 157-169  | 3  |
| 1050 | Properties of sympathetic neuromuscular transmission and smooth muscle cell membranes in vascular beds. <b>1991</b> , 98, 181-92   | 1  |
| 1049 | In vivo adaptive control of beta-receptors and adenylate cyclase during short-term heat exposure in rat parotid glands. <b>1991</b> , 98, 411-6  | 1  |
| 1048 | Gi-2 is at the centre of an active phosphorylation/dephosphorylation cycle in hepatocytes: the fine-tuning of stimulatory and inhibitory inputs into adenylate cyclase in normal and diabetic states. <b>1991</b> , 3, 1-9 | 28 |
| 1047 | Pertussis toxin-sensitive G-proteins are not involved in activation of T-lymphocytes. <b>1991</b> , 3, 25-33   | 8  |
| 1046 | Activation of phospholipase C is not correlated to the formation of prostaglandins and superoxide in cultured rat liver macrophages. <b>1991</b> , 3, 65-71  | 14 |
| 1045 | Dual coupling of the cloned 5-HT <sub>1A</sub> receptor to both adenylyl cyclase and phospholipase C is mediated via the same Gi protein. <b>1991</b> , 3, 547-57  | 63 |
| 1044 | Evidence for the simultaneous translocation of muscarinic acetylcholine receptor and G protein by carbachol. <b>1991</b> , 3, 587-98   | 8  |

|      |  |     |      |
|------|--|-----|------|
| 1043 | The ras superfamily of molecular switches. <b>1991</b> , 3, 179-87   |     | 21   |
| 1042 | Characterization of multiple forms of phosphoinositide-specific phospholipase C from bovine aorta. <b>1991</b> , 3, 305-10   |     | 9    |
| 1041 | The transduction signalling protein Go during embryonic development of <i>Drosophila melanogaster</i> . <b>1991</b> , 3, 341-52  |     | 13   |
| 1040 | Effects of calcium on light-activated GTP-binding proteins in squid photoreceptor membranes. <b>1991</b> , 98, 215-21  |     | 5    |
| 1039 | The hydrolysis of phosphatidylinositol 4-phosphate in membranes of <i>Xenopus laevis</i> oocytes: characteristics of a phosphomonoesterase. <b>1991</b> , 100, 809-16            |     |      |
| 1038 | Ribosomal and chromosomal protein cDNA clones of <i>Xenopus laevis</i> thymus isolated with differential screening. <b>1991</b> , 98, 127-33                                     |     |      |
| 1037 | Reconstitution of receptor/GTP-binding protein interactions. <b>1991</b> , 1071, 473-501   |     | 23   |
| 1036 | Ras p21: effects and regulation. <b>1991</b> , 1072, 215-29  |     | 23   |
| 1035 | Biochemical topology: from vectorial metabolism to morphogenesis. <i>Bioscience Reports</i> , <b>1991</b> , 11, 347-82; discussion 382-5   | 4.1 | 25   |
| 1034 | Terminal serotonin autoreceptor function in the rat hippocampus is not modified by pertussis and cholera toxins. <b>1991</b> , 344, 160-6  |     | 19   |
| 1033 | Interactions of intracerebroventricular pertussis toxin treatment with the ataxic and hypothermic effects of ethanol. <b>1991</b> , 344, 252-8                                   |     | 7    |
| 1032 | G-protein coupling and signalling of Y1-like neuropeptide Y receptors in SK-N-MC cells. <b>1991</b> , 344, 1-7   |     | 36   |
| 1031 | Role of a pertussis toxin sensitive G-protein in mediating the effects of phorbol esters on receptor activated cyclic AMP accumulation in Jurkat cells. <b>1991</b> , 344, 611-7 |     | 5    |
| 1030 | Inhibition of the muscarinic receptor-activated K <sup>+</sup> current by N-ethylmaleimide in rabbit heart. <b>1991</b> , 343, 14-9  |     | 4    |
| 1029 | Phosphate and thiophosphate group donating adenine and guanine nucleotides inhibit glibenclamide binding to membranes from pancreatic islets. <b>1991</b> , 343, 83-9            |     | 50   |
| 1028 | Action of a nonhydrolyzable guanosine triphosphate analog on modulation of calcium current by dopamine in <i>Lymnaea stagnalis</i> neuron. <b>1991</b> , 23, 36-39               |     |      |
| 1027 | The GTPase superfamily: conserved structure and molecular mechanism. <b>1991</b> , 349, 117-27   |     | 3046 |
| 1026 | Mutant alpha subunits of Gi2 inhibit cyclic AMP accumulation. <b>1991</b> , 351, 63-5  |     | 230  |

|      |   |     |
|------|---|-----|
| 1025 | Thrombin receptor. Variations on a theme. <b>1991</b> , 351, 353-4  | 21  |
| 1024 | Muscarinic cholinergic stimulation of exogenous phosphatidylinositol hydrolysis is regulated by guanine nucleotides in rabbit brain cortical membranes. <b>1991</b> , 56, 1616-22   | 11  |
| 1023 | Neurotensin decreases the affinity of dopamine D2 agonist binding by a G protein-independent mechanism. <b>1991</b> , 56, 178-83  | 52  |
| 1022 | Diurnal differences and adrenal involvement in calmodulin stimulation of hippocampal adenylate cyclase activity. <b>1991</b> , 3, 37-43   | 9   |
| 1021 | Bradykinin receptors of cerebral microvessels stimulate phosphoinositide turnover. <b>1991</b> , 11, 557-66   | 22  |
| 1020 | Ischemia of rat brain decreases pertussis toxin-catalyzed [32P]ADP ribosylation of GTP-binding proteins (Gi1 and G0) in membranes. <b>1991</b> , 11, 155-60   | 5   |
| 1019 | Molecular mechanisms of tubulointerstitial hypertrophy and hyperplasia. <b>1991</b> , 39, 401-20  | 81  |
| 1018 | Transmembrane signalling through G proteins. <b>1991</b> , 39, 421-9  | 6   |
| 1017 | Growth stimulation of human keratinocytes by tissue inhibitor of metalloproteinases. <b>1991</b> , 97, 679-85   | 178 |
| 1016 | Angiotensin II receptors in the rat lung are of the All-1 subtype. <b>1991</b> , 206, 237-41  | 42  |
| 1015 | High-affinity bradykinin receptor-catalyzed G protein activation in rat myometrium. <b>1991</b> , 207, 67-71  | 12  |
| 1014 | Activation of a pertussis-toxin-sensitive guanine-nucleotide-binding regulatory protein during desensitization of Dictyostelium discoideum cells to chemotactic signals. <b>1991</b> , 195, 715-21  | 8   |
| 1013 | Treatment of intact striatal neurones with cholera toxin or 8-bromoadenosine 3',5'-(cyclic)phosphate decreases the ability of pertussis toxin to ADP-ribosylate the alpha-subunits of inhibitory and other guanine-nucleotide-binding regulatory proteins, Gi and Go. Evidence for two distinct mechanisms. <b>1991</b> , 196, 313-20 | 5   |
| 1012 | Activation of signal-transducing guanine-nucleotide-binding regulatory proteins by guanosine 5'-[gamma-thio]triphosphate. Information transfer by intermediately thiophosphorylated beta gamma subunits. <b>1991</b> , 196, 707-16  | 46  |
| 1011 | Signal amplification in HL-60 granulocytes. Evidence that the chemotactic peptide receptor catalytically activates guanine-nucleotide-binding regulatory proteins in native plasma membranes. <b>1991</b> , 197, 725-32   | 72  |
| 1010 | Multisite contacts involved in coupling of the beta-adrenergic receptor with the stimulatory guanine-nucleotide-binding regulatory protein. Structural and functional studies by beta-receptor-site-specific synthetic peptides. <b>1991</b> , 198, 357-64  | 80  |
| 1009 | Structural heterogeneity of membrane receptors and GTP-binding proteins and its functional consequences for signal transduction. <b>1991</b> , 199, 1-15  | 38  |
| 1008 | Ca <sup>2+</sup> ionophore A23187 and thrombin inhibit the pertussis-toxin-induced ADP-ribosylation of the alpha-subunit of the inhibitory guanine-nucleotide-binding protein and other proteins in human platelets. <b>1991</b> , 202, 145-50  | 7   |

|      |  |     |
|------|--|-----|
| 1007 | Functional modification by cholera-toxin-catalyzed ADP-ribosylation of a guanine-nucleotide-binding regulatory protein serving as the substrate of pertussis toxin. <b>1991</b> , 202, 635-41  | 13  |
| 1006 | Evidence for the endogenous GTP-dependent ADP-ribosylation of the alpha-subunit of the stimulatory guanyl-nucleotide-binding protein concomitant with an increase in basal adenylyl cyclase activity in chicken spleen cell membrane. <b>1991</b> , 200, 75-80 | 31  |
| 1005 | Different metabolic regulation by adenosine in omental and subcutaneous adipose tissue. <b>1991</b> , 142, 405-10  | 9   |
| 1004 | Regulation of G protein mRNA levels by thyroliberin, vasoactive intestinal peptide and somatostatin in prolactin-producing rat pituitary adenoma cells. <b>1991</b> , 143, 195-201   | 14  |
| 1003 | Diversity in receptor signalling: cellular individuality and the search for selective drugs. <b>1991</b> , 229, 391-406  | 4   |
| 1002 | Aluminofluoride- and epidermal growth factor-stimulated DNA synthesis in MOB 3-4-F2 cells. <b>1991</b> , 69, 330-7   | 8   |
| 1001 | Lithium does not alter ADP-ribosylation of Gi/Go catalyzed by pertussis toxin in rat brain. <b>1991</b> , 69, 355-60   | 5   |
| 1000 | Long time incubation of monocytic U 937 cells with LDL increases specific paf-acether binding and the cellular acetylhydrolase activity. <b>1991</b> , 59, 207-13  | 15  |
| 999  | On the principles of functional ordering in biological membranes. <b>1991</b> , 57, 375-99   | 190 |
| 998  | beta-Phosphorothioate analogs of nucleotide sugars are resistant to hydrolytic degradation and utilized efficiently by glycosyltransferases. <b>1991</b> , 197, 40-6   | 3   |
| 997  | The biology of beta-adrenergic receptors: analysis in human epidermoid carcinoma A431 cells. <b>1991</b> , 23, 7-20  | 17  |
| 996  | Genetic and structural analysis of G protein alpha subunit regulatory domains. <b>1991</b> , 47, 136-46  | 19  |
| 995  | The NH2-terminal alpha subunit attenuator domain confers regulation of G protein activation by beta gamma complexes. <b>1991</b> , 47, 352-8   | 8   |
| 994  | Activating mutations in the NH2- and COOH-terminal moieties of the Gs alpha subunit have dominant phenotypes and distinguishable kinetics of adenylyl cyclase stimulation. <b>1991</b> , 47, 359-68  | 5   |
| 993  | Effect of bacterial toxins on human B cell activation. II. Mitogenic activity of the B subunit of cholera toxin. <b>1991</b> , 21, 495-500   | 14  |
| 992  | A pertussis toxin-sensitive process controls thymocyte emigration. <b>1991</b> , 21, 2565-73   | 133 |
| 991  | An autocrine motility factor secreted by the Dunning R-3327 rat prostatic adenocarcinoma cell subtype AT2.1. <b>1991</b> , 49, 109-13  | 41  |
| 990  | Comparison of autocrine mechanisms promoting motility in two metastatic cell lines: human melanoma and ras-transfected NIH3T3 cells. <b>1991</b> , 49, 717-20  | 16  |

|     |  |    |
|-----|--|----|
| 989 | Ras-related genes in Dictyostelium discoideum. <b>1991</b> , 12, 147-53  | 7  |
| 988 | The neuronal growth cone as a specialized transduction system. <b>1991</b> , 13, 127-34  | 63 |
| 987 | Die Medizinische Chemie im Goldenen Zeitalter der Biologie: Lehren aus der Steroid- und Peptidforschung. <b>1991</b> , 103, 1305-1330                          | 43 |
| 986 | Elevation of glucose transporter, c-myc, and transin RNA levels by Ha-rasT24 is independent of its effect on the cell cycle. <b>1991</b> , 4, 275-85           | 11 |
| 985 | Multiple intracellular signals coordinate structural dynamics in the sea urchin egg cortex at fertilization. <b>1991</b> , 17, 266-93                          | 26 |
| 984 | Early alterations of Gi/Go protein-dependent transductional processes in the retina of diabetic animals. <b>1991</b> , 29, 196-200                             | 10 |
| 983 | A radiochemical enzymatic endpoint assay for GTP and GDP. <b>1991</b> , 192, 197-202   | 7  |
| 982 | The role of G-proteins in transduction of the beta-adrenergic response in heart failure. <b>1991</b> , 6, 3-5  | 3  |
| 981 | Variety of Ca(2+)-permeable channels in human carcinoma A431 cells. <b>1991</b> , 124, 113-26  | 32 |
| 980 | The 5-HT receptor--G-protein--effector system complex in depression. I. Effect of glucocorticoids. <b>1991</b> , 84, 3-18                                      | 46 |
| 979 | Purification and characterization of G proteins from human brain: modification of GTPase activity upon phosphorylation. <b>1991</b> , 107, 65-77               | 7  |
| 978 | Some aspects of heart beta adrenoceptor function. <b>1991</b> , 5, 549-60  | 12 |
| 977 | Cytochemical localization of adenylate cyclase activity in rat olfactory cells. <b>1991</b> , 23, 83-90  | 22 |
| 976 | Modulation of muscarinic receptor-mediated adenylate cyclase and phospholipase C responses in rat retina. <b>1991</b> , 11, 455-62                             |    |
| 975 | Molecular interactions between the photoreceptor G protein and rhodopsin. <b>1991</b> , 11, 563-78   | 27 |
| 974 | Calcium-activated K <sup>+</sup> channels: metabolic regulation. <b>1991</b> , 23, 561-76  | 36 |
| 973 | The putative molecular mechanism(s) responsible for the enhanced inositol phosphate synthesis by excitatory amino acids: an overview. <b>1991</b> , 16, 659-68 | 2  |
| 972 | Dual role of GDP in the regulation of the levels of p36 phosphorylation in Dictyostelium discoideum. <b>1991</b> , 10, 391-401                                 | 5  |

|     |   |     |
|-----|---|-----|
| 971 | Biotinylation of transducin and G0 from bovine brain. <b>1991</b> , 10, 325-32  | 2   |
| 970 | Calcitonin-gene-related peptide activates the muscarinic-gated K <sup>+</sup> current in atrial cells. <b>1991</b> , 418, 338-45  | 26  |
| 969 | Contraluminal p-aminohippurate transport in the proximal tubule of the rat kidney. VII. Specificity: cyclic nucleotides, eicosanoids. <b>1991</b> , 418, 360-70                                     | 24  |
| 968 | Activation of adenylate cyclase during swelling of S49 cells in hypotonic medium is not involved in subsequent volume regulation. <b>1991</b> , 104, 51-6   | 3   |
| 967 | The adenylyl cyclase family. <b>1991</b> , 104, 73-9  | 42  |
| 966 | Activation of the inositol trisphosphate second messenger system by cAMP in a mouse fibroblast cell line. <b>1991</b> , 101, 43-9   | 2   |
| 965 | Comparison of the biological activity of fusicoccin in higher plants with its binding to plasma membranes. <b>1991</b> , 183, 315-20  | 12  |
| 964 | Effects of calcitonin gene-related peptide on membrane currents in mammalian cardiac myocytes. <b>1991</b> , 419, 644-50  | 14  |
| 963 | Role of the GTP-binding protein Gs in the beta-adrenergic modulation of cardiac Ca channels. <b>1991</b> , 419, 433-43  | 43  |
| 962 | Differential expression of novel Gs alpha signal transduction protein cDNA species. <b>1991</b> , 19, 4725-9  | 70  |
| 961 | Light and norepinephrine similarly prevent damping of the melatonin rhythm in cultured chick pineal cells: regulation of coupling between the pacemaker and overt rhythms?. <b>1991</b> , 6, 137-47 | 19  |
| 960 | Ganglioside-binding proteins in skeletal and cardiac muscle. <b>1991</b> , 1, 193-203   | 25  |
| 959 | Transcription of the muscle regulatory gene Myf4 is regulated by serum components, peptide growth factors and signaling pathways involving G proteins. <b>1991</b> , 115, 905-17                    | 72  |
| 958 | 42Sp48 in previtellogenic <i>Xenopus</i> oocytes is structurally homologous to EF-1 alpha and may be a stage-specific elongation factor. <b>1991</b> , 112, 237-43                                  | 19  |
| 957 | G protein-mediated inhibition of myosin light-chain phosphatase in vascular smooth muscle. <b>1991</b> , 88, 9307-10  | 293 |
| 956 | On the mechanism of basal and agonist-induced activation of the G protein-gated muscarinic K <sup>+</sup> channel in atrial myocytes of guinea pig heart. <b>1991</b> , 98, 517-33                  | 68  |
| 955 | Effects of Inhibitors of Protein Synthesis on Transmembrane Auxin Transport in <i>Cucurbita pepo</i> L. Hypocotyl Segments. <b>1991</b> , 42, 773-783   | 55  |
| 954 | Homologous and unique G protein alpha subunits in the nematode <i>Caenorhabditis elegans</i> . <b>1991</b> , 2, 135-54  | 76  |

|     |   |     |
|-----|---|-----|
| 953 | Guanosine 5'-thiotriphosphate may stimulate phosphoinositide messenger production in sea urchin eggs by a different route than the fertilizing sperm. <b>1991</b> , 2, 121-33                 | 68  |
| 952 | The nature and origin of spontaneous noise in G protein-gated ion channels. <b>1991</b> , 97, 1279-93   | 45  |
| 951 | Evidence for G-Protein Regulation of Inward K <sup>+</sup> Channel Current in Guard Cells of Fava Bean. <b>1991</b> , 3, 1037-1044  | 102 |
| 950 | Isolation and characterization of a gene encoding a G-protein alpha subunit from <i>Schizosaccharomyces pombe</i> : involvement in mating and sporulation pathways. <b>1991</b> , 88, 5877-81 | 143 |
| 949 | Experimental issues in assessment of G protein function in cardiac disease. <b>1991</b> , 84, 1852-61   | 39  |
| 948 | The carboxyl terminus of Scg1, the G alpha subunit involved in yeast mating, is implicated in interactions with the pheromone receptors. <b>1991</b> , 5, 467-74                              | 38  |
| 947 | Mechanisms of altered adrenergic modulation of the cardiovascular system with aging. <b>1991</b> , 1, 309-322   | 13  |
| 946 | A heterotrimeric G protein, G alpha i-3, on Golgi membranes regulates the secretion of a heparan sulfate proteoglycan in LLC-PK1 epithelial cells. <b>1991</b> , 114, 1113-24                 | 297 |
| 945 | Characteristics of binding of endothelin-1 and endothelin-3 to rat hearts. Developmental changes in mechanical responses and receptor subtypes. <b>1991</b> , 69, 918-26                      | 41  |
| 944 | Glucagon induces disaggregation of polymer-like structures of the alpha subunit of the stimulatory G protein in liver membranes. <b>1991</b> , 88, 7150-4                                     | 29  |
| 943 | Subcellular distribution of low molecular weight guanosine triphosphate-binding proteins in adipocytes: colocalization with the glucose transporter Glut 4. <b>1991</b> , 129, 3343-50        | 52  |
| 942 | Bacterial ADP-ribosylating toxins: molecular structures and signal transducing functions. <b>1991</b> , 35, 349-59  | 5   |
| 941 | Regulators and effectors of ras proteins. <b>1991</b> , 7, 601-32   | 272 |
| 940 | Beta-adrenergic receptor regulation in the heart in pathophysiologic states: abnormal adrenergic responsiveness in cardiac disease. <b>1991</b> , 53, 137-59                                  | 105 |
| 939 | Phosphorylation of a Ras-related GTP-binding protein, Rap-1b, by a neuronal Ca <sup>2+</sup> /calmodulin-dependent protein kinase, CaM kinase Gr. <b>1991</b> , 88, 2643-7                    | 65  |
| 938 | Transcription mediated by a cAMP-responsive promoter element is reduced upon activation of dopamine D2 receptors. <b>1991</b> , 88, 3135-9  | 98  |
| 937 | Type-specific regulation of adenylyl cyclase by G protein beta gamma subunits. <b>1991</b> , 254, 1500-3  | 943 |
| 936 | Single K <sup>+</sup> channels in membrane patches of arterial chemoreceptor cells are modulated by O <sub>2</sub> tension. <b>1991</b> , 88, 2927-30   | 144 |



|     |  |     |
|-----|--|-----|
| 935 | Structure of the human gene and two rat cDNAs encoding the alpha chain of GTP-binding regulatory protein Go: two different mRNAs are generated by alternative splicing. <b>1991</b> , 88, 2974-8   | 81  |
| 934 | N-myristoylation is required for function of the pheromone-responsive G alpha protein of yeast: conditional activation of the pheromone response by a temperature-sensitive N-myristoyl transferase. <b>1991</b> , 5, 1969-81                          | 75  |
| 933 | Embryonic stem cells lacking a functional inhibitory G-protein subunit (alpha i2) produced by gene targeting of both alleles. <b>1991</b> , 88, 7036-40  | 87  |
| 932 | Guanine nucleotide-binding regulatory proteins in retinal pigment epithelial cells. <b>1991</b> , 88, 3907-11  | 29  |
| 931 | Atypical $\beta$ and $\alpha_2$ -adrenoceptor Activation, Dibutyryl cAMP and Iloprost Stimulate $^{45}\text{Ca}^{2+}$ Uptake by Human Platelets. <b>1991</b> , 2, 93-8   | 8   |
| 930 | Adenosine receptors and signaling in the kidney. <b>1991</b> , 17, 117-30  | 169 |
| 929 | Signaling for Infection Structure Formation in Fungi. <b>1991</b> , 25-46  | 43  |
| 928 | The Sicilian gambit. A new approach to the classification of antiarrhythmic drugs based on their actions on arrhythmogenic mechanisms. Task Force of the Working Group on Arrhythmias of the European Society of Cardiology. <b>1991</b> , 84, 1831-51 | 409 |
| 927 | Involvement of a GTP-binding protein in stimulating action of angiotensin II on calcium channels in vascular smooth muscle cells. <b>1991</b> , 68, 763-71   | 68  |
| 926 | Beta-adrenergic receptors and the Gs protein in myocardial ischemia and injury. <b>1990</b> , 85 Suppl 1, 47-56  | 5   |
| 925 | Inhibition of wheat embryo calcium-dependent protein kinase and avian myosin light chain kinase by flavonoids and related compounds. <b>1991</b> , 372, 819-27   | 30  |
| 924 | G protein-mediated ion channel activation. <b>1991</b> , 17, 684-92  | 26  |
| 923 | A blue-light-activated GTP-binding protein in the plasma membranes of etiolated peas. <b>1991</b> , 88, 8925-9   | 172 |
| 922 | A mutant alpha subunit of Gi2 induces neoplastic transformation of Rat-1 cells. <b>1991</b> , 88, 7031-5   | 129 |
| 921 | G alpha 12 and G alpha 13 subunits define a fourth class of G protein alpha subunits. <b>1991</b> , 88, 5582-6   | 217 |
| 920 | G alpha 16, a G protein alpha subunit specifically expressed in hematopoietic cells. <b>1991</b> , 88, 5587-91   | 243 |
| 919 | A small region of the beta-adrenergic receptor is selectively involved in its rapid regulation. <b>1991</b> , 88, 2979-83  | 158 |
| 918 | Guanine nucleotides modulate the effects of brefeldin A in semipermeable cells: regulation of the association of a 110-kD peripheral membrane protein with the Golgi apparatus. <b>1991</b> , 112, 579-88  | 178 |

|     |  |     |
|-----|--|-----|
| 917 | The radiosensitivity of human keratinocytes: influence of activated c-H-ras oncogene expression and tumorigenicity. <b>1991</b> , 59, 1195-206   | 22  |
| 916 | Cellular and Molecular Basis of Synaptic Transmission. <b>1991</b> , 133-154   |     |
| 915 | Mastoparan, a novel mitogen for Swiss 3T3 cells, stimulates pertussis toxin-sensitive arachidonic acid release without inositol phosphate accumulation. <b>1991</b> , 113, 943-50  | 64  |
| 914 | Sodium fluoride induces phosphoinositide hydrolysis, Ca <sup>2+</sup> mobilization, and prostacyclin synthesis in cultured human endothelium: further evidence for regulation by a pertussis toxin-insensitive guanine nucleotide-binding protein. <b>1991</b> , 5, 113-24 | 25  |
| 913 | A specific, high-affinity binding site for the hepta-beta-glucoside elicitor exists in soybean membranes. <b>1991</b> , 3, 137-47  | 163 |
| 912 | Evidence for G-Protein Regulation of Inward K <sup>+</sup> Channel Current in Guard Cells of Fava Bean. <b>1991</b> , 3, 1037  | 68  |
| 911 | A Specific, High-Affinity Binding Site for the Hepta-b-Glucoside Elicitor Exists in Soybean Membranes. <b>1991</b> , 3, 137  | 77  |
| 910 | Stimulation of cAMP and phosphomonoester production by melanotropin in melanoma cells: 31P NMR studies. <b>1991</b> , 88, 1506-10  | 26  |
| 909 | Binding of ARF and beta-COP to Golgi membranes: possible regulation by a trimeric G protein. <b>1991</b> , 254, 1197-9   | 342 |
| 908 | Second messengers mediating activation of chloride current by intracellular GTP gamma S in bovine chromaffin cells. <b>1991</b> , 436, 725-38  | 33  |
| 907 | A 32-kD GTP-binding protein associated with the CD4-p56lck and CD8-p56lck T cell receptor complexes. <b>1991</b> , 254, 439-41   | 61  |
| 906 | Different types of glutamate receptors in isolated and identified neurones of the mollusc <i>Planorbarius corneus</i> . <b>1991</b> , 439, 15-35   | 49  |
| 905 | Interferon-dependent tyrosine phosphorylation of a latent cytoplasmic transcription factor. <b>1992</b> , 257, 809-13  | 816 |
| 904 | Deactivation of visual transduction without guanosine triphosphate hydrolysis by G protein. <b>1992</b> , 257, 1255-8  | 133 |
| 903 | Signal transduction in pulmonary endothelium. Implications for lung vascular dysfunction. <b>1992</b> , 102, 592-607   | 19  |
| 902 | Interaction of antibipolar and antidepressant treatments with receptor-coupled G proteins. <b>1992</b> , 25, 44-50   | 35  |
| 901 | Differential effects of the 3',5'-cyclic adenosine monophosphate and protein kinase C pathways on the response of isolated rat osteoclasts to calcitonin. <b>1992</b> , 131, 1497-502  | 68  |
| 900 | Isolation and mode of action of rabbit corticostatic (antiadrenocorticotropin) peptides. <b>1992</b> , 130, 1413-23  | 43  |

|     |  |     |
|-----|--|-----|
| 899 | Characterization of a fission yeast gene, <i>gpa2</i> , that encodes a G alpha subunit involved in the monitoring of nutrition. <b>1992</b> , 6, 2455-62   | 135 |
| 898 | Signal transduction by G proteins in cardiac tissues. <b>1992</b> , 85, 420-33   | 137 |
| 897 | Angiotensin II-induced changes in guanine nucleotide binding and regulatory proteins. <b>1992</b> , 19, 146-52   | 17  |
| 896 | Immunological characterization of the guanine-nucleotide binding proteins <i>Gi</i> and <i>Go</i> in rat islets of Langerhans. <b>1992</b> , 8, 103-8  | 19  |
| 895 | Aberrant splicing of <i>Gs</i> alpha transcript in transformed human astroglial and glioblastoma cell lines. <b>1992</b> , 20, 4263-7  | 7   |
| 894 | Characterization of the human rod transducin alpha-subunit gene. <b>1992</b> , 20, 2865-70   | 12  |
| 893 | Amino- and carboxy-terminal deletion mutants of <i>Gs</i> alpha are localized to the particulate fraction of transfected COS cells. <b>1992</b> , 119, 523-30  | 21  |
| 892 | GTP hydrolysis is required for vesicle fusion during nuclear envelope assembly in vitro. <b>1992</b> , 116, 281-94   | 112 |
| 891 | Multiple cyclic AMP receptors are linked to adenylyl cyclase in <i>Dictyostelium</i> . <b>1992</b> , 3, 1229-34  | 56  |
| 890 | Developmental changes in the beta-adrenergic modulation of calcium currents in rabbit ventricular cells. <b>1992</b> , 70, 104-15  | 51  |
| 889 | On the mechanism of G protein beta gamma subunit activation of the muscarinic K <sup>+</sup> channel in guinea pig atrial cell membrane. Comparison with the ATP-sensitive K <sup>+</sup> channel. <b>1992</b> , 99, 961-83        | 184 |
| 888 | Regulation of adenylyl cyclase from <i>Paramecium</i> by an intrinsic potassium conductance. <b>1992</b> , 255, 600-3  | 141 |
| 887 | Pertussis toxin-sensitive G protein participating in starfish oocyte maturation induced by 1-methyladenine. <b>1992</b> , 22, 1-9  | 8   |
| 886 | P2-purinoceptor activation stimulates phosphoinositide hydrolysis and inhibits accumulation of cAMP in cultured ventricular myocytes. <b>1992</b> , 70, 477-85   | 62  |
| 885 | Amino acid substitutions in the <i>Dictyostelium</i> G alpha subunit G alpha 2 produce dominant negative phenotypes and inhibit the activation of adenylyl cyclase, guanylyl cyclase, and phospholipase C. <b>1992</b> , 3, 735-47 | 52  |
| 884 | Potassium channel types in arterial chemoreceptor cells and their selective modulation by oxygen. <b>1992</b> , 100, 401-26  | 103 |
| 883 | The RAS-adenylate cyclase pathway and cell cycle control in <i>Saccharomyces cerevisiae</i> . <b>1992</b> , 109-130  | 1   |
| 882 | A GTPase controls cell-substrate adhesion in <i>Xenopus</i> XTC fibroblasts. <b>1992</b> , 118, 1235-44  | 16  |

|     |   |     |
|-----|---|-----|
| 881 | Calcitonin gene-related peptide in noradrenergic transmission in rat hypothalamus. <b>1992</b> , 19, 639-42   | 17  |
| 880 | Guanine-nucleotide binding regulatory proteins as targets for novel drugs. <b>1992</b> , 99, 27-36  | 1   |
| 879 | Inhibition of rat liver cyclic AMP-dependent protein kinase by flavonoids. <b>1992</b> , 373, 205-11  | 28  |
| 878 | Modulation of norepinephrine release by galanin in rat medulla oblongata. <b>1992</b> , 20, 361-6   | 41  |
| 877 | Effects of anions on the G protein-mediated activation of the muscarinic K <sup>+</sup> channel in the cardiac atrial cell membrane. Intracellular chloride inhibition of the GTPase activity of GK. <b>1992</b> , 99, 665-82 | 67  |
| 876 | Evidence of a role for heterotrimeric GTP-binding proteins in endosome fusion. <b>1992</b> , 255, 1695-7  | 135 |
| 875 | Phospholipase C responses in cells from spontaneously hypertensive rats. <b>1992</b> , 19, 446-55   | 46  |
| 874 | Desensitization of adenylate cyclase and increase of Gi alpha in cardiac hypertrophy due to acquired hypertension. <b>1992</b> , 20, 103-12   | 78  |
| 873 | Purification and Characterization of Phosphatidylinositol-specific Phospholipase C in Suspension-cultured Cells of Rice ( <i>Oryza sativa</i> L.). <b>1992</b> , 56, 1247-1251  | 18  |
| 872 | The effects of expression of an activated rasG mutation on the differentiation of <i>Dictyostelium</i> . <b>1992</b> , 70, 1193-9   | 11  |
| 871 | Association of protein-tyrosine kinase with phospholipase C-gamma 1 in bone marrow-derived mouse mast cells. <b>1992</b> , 89, 9524-8   | 35  |
| 870 | A Gs protein couples P2-purinergetic stimulation to cardiac Ca channels without cyclic AMP production. <b>1992</b> , 100, 675-701   | 54  |
| 869 | Defective guanyl nucleotide-binding protein beta gamma subunits in a forskolin-resistant mutant of the Y1 adrenocortical cell line. <b>1992</b> , 89, 8933-7  | 13  |
| 868 | Chemosensory transduction in eukaryotic microorganisms. <b>1992</b> , 54, 639-63  | 37  |
| 867 | Guanylyl cyclase-linked receptors. <b>1992</b> , 15, 193-225  | 104 |
| 866 | Guanyl nucleotides modulate binding to steroid receptors in neuronal membranes. <b>1992</b> , 89, 3830-4  | 130 |
| 865 | Bibliographie. <b>1992</b> , 100, T167-T182   |     |
| 864 | Occurrence and biochemical characterization of GTP-binding proteins in <i>Candida albicans</i> . <b>1992</b> , 30, 105-14   | 2   |

- 863 Influence of gamma subunit prenylation on association of guanine nucleotide-binding regulatory proteins with membranes. **1992**, 3, 49-61 144
- 862 Order of action of components in the yeast pheromone response pathway revealed with a dominant allele of the STE11 kinase and the multiple phosphorylation of the STE7 kinase. **1992**, 6, 1305-18 165
- 861 Myristoylation of the G alpha i2 polypeptide, a G protein alpha subunit, is required for its signaling and transformation functions. **1992**, 89, 9695-9 43
- 860 Coupling of a purified goldfish brain kainate receptor with a pertussis toxin-sensitive G protein. **1992**, 89, 4134-8 27
- 859 Principles of Electrolyte Transport Across Plasma Membranes of Renal Tubular Cells. **1992**, 639-657
- 858 Muscarinic blockade of beta-adrenoceptor-stimulated adenylyl cyclase: the role of stimulatory and inhibitory guanine-nucleotide binding regulatory proteins (Gs and Gi). **1992**, 107, 881-7 36
- 857 Secretory pathway function in *Saccharomyces cerevisiae*. **1992**, 33, 73-144 20
- 856 Molecular biology of G-protein-coupled receptors. **1992**, 92, 201-14 7
- 855 In vitro mutagenesis and the search for structure-function relationships among G protein-coupled receptors. **1992**, 283 ( Pt 1), 1-19 452
- 854 Regulation of cardiac adenylate cyclase activity in rodent models of obesity. **1992**, 283 ( Pt 1), 203-8 22
- 853 Beta-adrenergic-receptor-mediated dissociation and membrane release of the Gs protein in S49 lymphoma-cell membranes. Dependence on Mg<sup>2+</sup> and GTP. **1992**, 283 ( Pt 2), 519-24 22
- 852 Dual regulation of cyclic AMP formation by thrombin in HEL cells, a leukaemic cell line with megakaryocytic properties. **1992**, 281 ( Pt 1), 73-80 28
- 851 Epoxyeicosatrienoic acid stimulates ADP-ribosylation of a 52 kDa protein in rat liver cytosol. **1992**, 281 ( Pt 1), 185-90 31
- 850 Effects of insulin and guanosine 5'-[gamma-thio]triphosphate on fatty acid synthesis and lipolysis within electropermeabilized fat-cells. **1992**, 281 ( Pt 2), 431-5 17
- 849 A comparative study of endothelin- and platelet-activating-factor-mediated signal transduction and prostaglandin synthesis in rat Kupffer cells. **1992**, 281 ( Pt 2), 485-92 62
- 848 Guanosine nucleotides regulate hormone binding of insulin receptors. **1992**, 281 ( Pt 3), 735-43 6
- 847 Levels of G-proteins in liver and brain of lean and obese (ob/ob) mice. **1992**, 282 ( Pt 1), 15-23 12
- 846 Inhibition of human platelet adenylate cyclase by collagen fibres. Effect of collagen is additive with that of adrenaline, but interactive with that of thrombin. **1992**, 282 ( Pt 1), 25-32 15

|     |   |     |
|-----|---|-----|
| 845 | Interactions of the ras-like protein p25rab3A with Mg <sup>2+</sup> and guanine nucleotides. <b>1992</b> , 282 ( Pt 2), 387-92  | 39  |
| 844 | Activation of human neutrophils by mastoparan. Reorganization of the cytoskeleton, formation of phosphatidylinositol 3,4,5-trisphosphate, secretion up-regulation of complement receptor type 3 and superoxide anion production are stimulated by mastoparan. <b>1992</b> , 282 ( Pt 2), 393-7  | 38  |
| 843 | Calmodulin binding distinguishes between beta gamma subunits of activated G proteins and transducin. <b>1992</b> , 283 ( Pt 3), 683-90  | 8   |
| 842 | G-protein-mediated activation of turkey erythrocyte phospholipase C by beta-adrenergic and P2y-purinergic receptors. <b>1992</b> , 284 ( Pt 3), 917-22  | 38  |
| 841 | Phosphorylation of the spliced variant forms of the recombinant stimulatory guanine-nucleotide-binding regulatory protein (Gs alpha) by protein kinase C. <b>1992</b> , 285 ( Pt 1), 333-8  | 46  |
| 840 | Concurrent down-regulation of IP prostanoid receptors and the alpha-subunit of the stimulatory guanine-nucleotide-binding protein (Gs) during prolonged exposure of neuroblastoma x glioma cells to prostanoid agonists. Quantification and functional implications. <b>1992</b> , 285 ( Pt 2), 529-36  | 59  |
| 839 | Identification of rab2 as a tubulovesicle-membrane-associated protein in rabbit gastric parietal cells. <b>1992</b> , 285 ( Pt 3), 715-9  | 26  |
| 838 | Production, processing and partial purification of functional G protein beta gamma subunits in baculovirus-infected insect cells. <b>1992</b> , 286 ( Pt 3), 677-80   | 27  |
| 837 | Ethanol increases receptor-dependent cyclic AMP production in cultured hepatocytes by decreasing G(i)-mediated inhibition. <b>1992</b> , 286 ( Pt 3), 681-6   | 42  |
| 836 | Hepatic effects of endothelin. Receptor characterization and endothelin-induced signal transduction in hepatocytes. <b>1992</b> , 287 ( Pt 3), 897-904  | 69  |
| 835 | Gs alpha is a substrate for mono(ADP-ribosyl)transferase of NG108-15 cells. ADP-ribosylation regulates Gs alpha activity and abundance. <b>1992</b> , 288 ( Pt 1), 331-6  | 31  |
| 834 | The effect of mevalonic acid deprivation on enzymes of DNA replication in cells emerging from quiescence. <b>1992</b> , 288 ( Pt 3), 883-9  | 7   |
| 833 | Formyl peptides and ATP stimulate Ca <sup>2+</sup> and Na <sup>+</sup> inward currents through non-selective cation channels via G-proteins in dibutyryl cyclic AMP-differentiated HL-60 cells. Involvement of Ca <sup>2+</sup> and Na <sup>+</sup> in the activation of beta-glucuronidase release and superoxide production. <b>1992</b> , 288 ( Pt 3), 1025-35 | 52  |
| 832 | Effects of chronic treatment of haloperidol and clozapine on levels of G-protein subunits in rat striatum. <b>1992</b> , 3, 197-201   | 24  |
| 831 | A review of factors that could influence membrane potentials of ovarian follicular cells during mammalian ovulation. <b>1992</b> , 126 Suppl 2, 1-31  | 2   |
| 830 | Signal transduction mechanisms involved in salivary gland regulated exocytosis. <b>1992</b> , 3, 83-107   | 53  |
| 829 | Small GTP-binding proteins. <b>1992</b> , 133, 187-230  | 333 |
| 828 | Olfaction. <b>1992</b> , 33, 1-53   | 4   |

|     |   |     |
|-----|---|-----|
| 827 | Receptor and effector mechanisms in the pineal organ. <b>1992</b> , 91, 285-97  | 4   |
| 826 | ADP-ribosylation factor, a small GTP-binding protein, is required for binding of the coatmer protein beta-COP to Golgi membranes. <b>1992</b> , 89, 6408-12   | 421 |
| 825 | Endothelin regulation of neuropeptide release from nerve endings of the posterior pituitary. <b>1992</b> , 89, 8371-5   | 34  |
| 824 | Dopamine receptor subtypes colocalize in rat striatonigral neurons. <b>1992</b> , 89, 10178-82  | 315 |
| 823 | Retinal rods and cones have distinct G protein beta and gamma subunits. <b>1992</b> , 89, 10882-6   | 184 |
| 822 | Activation of Guinea Pig Atrial Muscarinic K <sup>+</sup> Channels by Nucleoside Triphosphates in the Absence of Acetylcholine. <b>1992</b> , 3, 457-473  | 6   |
| 821 | A G-protein alpha subunit from asexual <i>Candida albicans</i> functions in the mating signal transduction pathway of <i>Saccharomyces cerevisiae</i> and is regulated by the a1-alpha 2 repressor. <b>1992</b> , 12, 1977-85 | 70  |
| 820 | Interaction between G-protein beta and gamma subunit types is selective. <b>1992</b> , 89, 6220-4   | 148 |
| 819 | Stimulatory and inhibitory regulation of calcium-activated potassium channels by guanine nucleotide-binding proteins. <b>1992</b> , 89, 11051-5   | 140 |
| 818 | GTP-binding protein involvement in membrane currents evoked by carbachol and histamine in guinea-pig ileal muscle. <b>1992</b> , 450, 105-26  | 106 |
| 817 | An interaction between p21ras and heat shock protein hsp60, a chaperonin. <b>1992</b> , 89, 2012-6  | 60  |
| 816 | Analysis of the fibroblast transformation potential of GTPase-deficient gip2 oncogenes. <b>1992</b> , 12, 190-7   | 93  |
| 815 | A Raf-1-related p110 polypeptide associates with the CD4-p56lck complex in T cells. <b>1992</b> , 12, 5260-7  | 23  |
| 814 | Heterotrimeric G proteins in synaptoneurosome membranes are crosslinked by p-phenylenedimaleimide, yielding structures comparable in size to crosslinked tubulin and F-actin. <b>1992</b> , 89, 5842-6                        | 37  |
| 813 | Characterization of a guanine nucleotide-releasing factor and a GTPase-activating protein that are specific for the ras-related protein p25rab3A. <b>1992</b> , 89, 1154-8  | 81  |
| 812 | Role of heterotrimeric G proteins in membrane traffic. <b>1992</b> , 3, 1317-28   | 195 |
| 811 | Characterization of the cDNA and genomic sequence of a G protein gamma subunit (gamma 5). <b>1992</b> , 12, 1585-91   | 67  |
| 810 | Beta-adrenergic neuroeffector abnormalities in the failing human heart are produced by local rather than systemic mechanisms. <b>1992</b> , 89, 803-15  | 235 |

|     |   |     |
|-----|---|-----|
| 809 | Inositol Triphosphate Receptors and Intracellular Calcium. <b>1992</b> , 79-128   |     |
| 808 | Molecular analysis of plant signaling elements: relevance of eukaryotic signal transduction models. <b>1992</b> , 132, 223-83   | 37  |
| 807 | Selective amplification and partial sequencing of cDNAs encoding G protein alpha subunits from cochlear tissues. <b>1992</b> , 62, 82-8   | 18  |
| 806 | Glutathione: new candidate neuropeptide in the central nervous system. <b>1992</b> , 51, 835-42   | 55  |
| 805 | Receptor-coupled uptake of valproate in rat astroglial primary cultures. <b>1992</b> , 136, 83-6  | 6   |
| 804 | Effect of beta-endorphin on cAMP accumulation in rat luteal cells. <b>1992</b> , 62, 19-24  | 1   |
| 803 | Occurrence of the alpha subunits of G proteins in cerebral cortex synaptic membrane and postsynaptic density fractions: modulation of ADP-ribosylation by Ca <sup>2+</sup> /calmodulin. <b>1992</b> , 89, 8686-90     | 13  |
| 802 | Desensitization of the isolated beta 2-adrenergic receptor by beta-adrenergic receptor kinase, cAMP-dependent protein kinase, and protein kinase C occurs via distinct molecular mechanisms. <b>1992</b> , 31, 3193-7 | 162 |
| 801 | Cyclic guanosine monophosphate analogs do not reverse bacterial toxin modulation of lactogen-stimulated NB2 cell mitogenesis. <b>1992</b> , 18, 31-40   | 1   |
| 800 | [Cellular mechanism of muscle contraction of bronchial smooth muscle]. <b>1992</b> , 100, A27-40  | 3   |
| 799 | Direct relationship between intracellular calcium mobilization and phospholipase D activation in prostaglandin E-stimulated human erythroleukemia cells. <b>1992</b> , 31, 3370-7                                     | 33  |
| 798 | A monoclonal antibody directed against the catalytic site of Bacillus anthracis adenyl cyclase identifies a novel mammalian brain catalytic subunit. <b>1992</b> , 31, 3215-22  | 10  |
| 797 | Intoxication of cultured cells by cholera toxin: evidence for different pathways when bound to ganglioside GM1 or neoganglioproteins. <b>1992</b> , 31, 4773-8  | 13  |
| 796 | Guinea-pig treatment with pertussis toxin suppresses macrophage-dependent bronchoconstriction by fMLP and fails to inhibit the effects of PAF. <b>1992</b> , 107, 1029-36   | 4   |
| 795 | Adenosine receptors in rat basophilic leukaemia cells: transductional mechanisms and effects on 5-hydroxytryptamine release. <b>1992</b> , 105, 405-11  | 9   |
| 794 | 4-Aminopyridine and low Ca <sup>2+</sup> differentiate presynaptic inhibition mediated by neuropeptide Y, baclofen and 2-chloroadenosine in rat hippocampal CA1 in vitro. <b>1992</b> , 105, 470-4                    | 52  |
| 793 | Strychnine-induced potassium current in CA1 pyramidal neurones of the rat hippocampus. <b>1992</b> , 106, 823-7   | 10  |
| 792 | Extracellular signals and transduction mechanisms in target cells: A review. <b>1992</b> , 13, 39-54  |     |



|     |   |     |
|-----|---|-----|
| 791 | Yeast alpha-mating factor receptor and G-protein-linked adenylyl cyclase inhibition requires RAS2 and GPA2 activities. <b>1992</b> , 184, 1378-85   | 31  |
| 790 | Biosynthesis of paf-acether in cultured-mouse mast cells: the role of calcium and G proteins. <b>1992</b> , 184, 1425-31  | 2   |
| 789 | Posttranslational isoprenylation of rho protein is a prerequisite for its interaction with mastoparan and other amphiphilic agents. <b>1992</b> , 186, 448-54                                     | 13  |
| 788 | Augmentation of transient low-threshold Ca <sup>2+</sup> current induced by GTP-binding protein signal transduction system in GH3 pituitary cells. <b>1992</b> , 187, 529-36                      | 1   |
| 787 | Lithium administration modulates platelet Gi in humans. <b>1992</b> , 50, 227-33  | 25  |
| 786 | Purification of opioid receptor in the presence of sodium ions. <b>1992</b> , 51, 1177-85   | 6   |
| 785 | Pertussis-toxin insensitive enkephalin inhibition of adenylyl cyclase in lacrimal acinar cells. <b>1992</b> , 50, PL19-24   |     |
| 784 | Stimulatory effects of quinpirole hydrochloride, D2-dopamine receptor agonist, at low concentrations on prolactin release in female rats in vitro. <b>1992</b> , 51, 727-32                       | 11  |
| 783 | Quantitative determination of pertussis toxin-sensitive G proteins using [ <sup>32</sup> P]ADP-ribosylation in human platelet membranes: negative correlation with ages. <b>1992</b> , 50, 1851-7 | 4   |
| 782 | Further characterization of alpha N-acetyl beta-endorphin-(1-31) regulatory activity, I: Effect on opioid- and alpha 2-mediated supraspinal antinociception in mice. <b>1992</b> , 50, 2083-97    | 4   |
| 781 | alpha N-acetyl human beta-endorphin-(1-31) alleviates the morphine withdrawal syndrome in rodents: a comparative study with clonidine. <b>1992</b> , 50, 2099-109                                 | 7   |
| 780 | Membrane structure, toxins and phospholipase A2 activity. <b>1992</b> , 54, 269-95  | 49  |
| 779 | Participation of pertussis toxin-sensitive GTP-binding regulatory proteins in the suppression of baroreceptor reflex by neurotensin in the rat. <b>1992</b> , 37, 167-80                          | 9   |
| 778 | G proteins. <b>1992</b> , 17, 383-7   | 909 |
| 777 | Phosphotyrosine localization in the mature rat brain. <b>1992</b> , 26, 271-83  | 1   |
| 776 | Release of angiotensin in response to ionic stimulation: a possible role for calmodulin in the secretory event. <b>1992</b> , 28, 551-5   | 2   |
| 775 | G protein activation of cardiac muscarinic K <sup>+</sup> channels. <b>1992</b> , 39, 229-46  | 81  |
| 774 | Enkephalin induces Ca <sup>2+</sup> mobilization in single cells of bradykinin-sensitized differentiated neuroblastoma hybridoma (NG108-15) cells. <b>1992</b> , 148, 93-6                        | 19  |

|     |  |     |
|-----|--|-----|
| 773 | Constitutively active mutants of rhodopsin. <b>1992</b> , 9, 719-25  | 535 |
| 772 | Kinetics of G protein-mediated modulation of the potassium M-current in bullfrog sympathetic neurons. <b>1992</b> , 8, 725-36  | 27  |
| 771 | The yptV1 gene encodes a small G-protein in the green alga <i>Volvox carter</i> : gene structure and properties of the gene product. <b>1992</b> , 118, 153-62                   | 22  |
| 770 | Pertussis toxin administration increases the expression of proneurotensin and preproenkephalin A mRNAs in rat striatum. <b>1992</b> , 47, 317-24                                 | 7   |
| 769 | The existence of distinct classes of prostaglandin E2 receptors mediating adenylate cyclase and phospholipase C pathways in osteoblastic clone MC3T3-E1. <b>1992</b> , 46, 15-20 | 15  |
| 768 | Muscarinic desensitization after septal lesions in rat hippocampus: evidence for the involvement of G-proteins. <b>1992</b> , 47, 95-103   | 11  |
| 767 | Hormonal desensitization: Comparison of the gonadotropin-hormone-releasing-hormone and beta-Adrenergic receptor- effector systems. <b>1992</b> , 3, 91-105                       | 1   |
| 766 | G protein oncogenes in pituitary tumors. <b>1992</b> , 3, 355-60   | 45  |
| 765 | Preservation of Gi-protein inhibited adenylyl cyclase activity in the brains of patients with Alzheimer's disease. <b>1992</b> , 141, 16-20                                      | 42  |
| 764 | Ultrastructural localization of olfactory transduction components: the G protein subunit Golf alpha and type III adenylyl cyclase. <b>1992</b> , 8, 441-53                       | 113 |
| 763 | Neuropeptide Y interaction with the adrenergic transmission line: a study of its effect on alpha-2 adrenergic receptors. <b>1992</b> , 25, 203-15                                | 13  |
| 762 | Clinical interactions with alpha-2-adrenergic agonists in anesthetic practice. <b>1992</b> , 4, 164-72   | 24  |
| 761 | Differential G protein-mediated coupling of D2 dopamine receptors to K <sup>+</sup> and Ca <sup>2+</sup> currents in rat anterior pituitary cells. <b>1992</b> , 8, 455-63       | 210 |
| 760 | Mechanism of prostaglandin E2-induced arachidonic acid release in osteoblast-like cells: independence from phosphoinositide hydrolysis. <b>1992</b> , 46, 291-5                  | 7   |
| 759 | Localization of hypoxanthine-guanine phosphoribosyltransferase mRNA in the mouse brain by in situ hybridization. <b>1992</b> , 3, 64-78  | 21  |
| 758 | Proliferative effect of PGD2 on osteoblast-like cells; independent activation of pertussis toxin-sensitive GTP-binding protein from PGE2 or PGF2 alpha. <b>1992</b> , 45, 267-74 | 13  |
| 757 | G-protein mediating the slow depolarization induced by FMRFamide in the ganglion cells of <i>Aplysia</i> . <b>1992</b> , 15, 255-64  | 12  |
| 756 | Molecular cloning of a G protein-coupled receptor that is highly expressed in lymphocytes and proliferative areas of developing brain. <b>1992</b> , 3, 206-14                   | 8   |

|     |   |     |
|-----|---|-----|
| 755 | Guanine nucleotide modulation of high affinity gonadotropin-releasing hormone receptors in rat mammary tumors. <b>1992</b> , 85, 109-16   | 11  |
| 754 | Inhibition of the omega-conotoxin-sensitive calcium current by distinct G proteins. <b>1992</b> , 8, 799-809  | 127 |
| 753 | Intracerebroventricularly administered pertussis toxin blocks the central vasopressor action of neuropeptide Y(13-36) in the awake unrestrained male rat. <b>1992</b> , 140, 273-6                      | 10  |
| 752 | Cell response kinetics: the phenomenon of supercooperativity in aggregation of human platelets. <b>1992</b> , 66, 537-47  | 5   |
| 751 | Ziskind-Somerfeld research Award. The involvement of guanine nucleotide binding proteins in the pathogenesis and treatment of affective disorders. <b>1992</b> , 31, 435-59                             | 98  |
| 750 | Molecular mechanisms of chemosensory transduction: gustation and olfaction. <b>1992</b> , 126-149   | 6   |
| 749 | Signal transduction from the extracellular matrix: the integrin-tyrosine kinase connection. <b>1992</b> , 13, 93-5  | 39  |
| 748 | Three types of Gi alpha protein of the guinea-pig lung: cDNA cloning and analysis of their tissue distribution. <b>1992</b> , 1175, 61-6  | 1   |
| 747 | Involvement of protein kinase C in thrombin-induced translocation of Gi2 alpha from the membrane to the cytosol in mouse mastocytoma P-815 cells. <b>1992</b> , 1134, 17-24                             | 5   |
| 746 | Platelet-activating factor-mediated synthesis of prostaglandins in rat Kupffer cells. <b>1992</b> , 1136, 68-74   | 14  |
| 745 | Characterization of ATP receptor which mediates norepinephrine release in PC12 cells. <b>1992</b> , 1136, 283-9   | 37  |
| 744 | Guanine nucleotide regulatory protein levels and function in spontaneously hypertensive rat vascular smooth-muscle cells. <b>1992</b> , 1136, 290-6   | 25  |
| 743 | Guanine nucleotide stimulation of norepinephrine secretion from permeabilized PC12 cells: effects of Mg <sup>2+</sup> , other nucleotide triphosphates and N-ethylmaleimide. <b>1992</b> , 1134, 285-91 | 4   |
| 742 | Guanine nucleotides stimulate carboxyl methylation of kidney cytosolic proteins. <b>1992</b> , 1136, 150-4  | 5   |
| 741 | Inhibitory effect of 17 beta -estradiol on prostaglandin E2-induced phosphoinositide hydrolysis in osteoblast-like cells. <b>1992</b> , 43, 271-80  | 2   |
| 740 | Identification of effector-activating residues of Gs alpha. <b>1992</b> , 68, 911-22  | 175 |
| 739 | Phospholipase C-beta 1 is a GTPase-activating protein for Gq/11, its physiologic regulator. <b>1992</b> , 70, 411-8   | 406 |
| 738 | Adenylyl cyclases. <b>1992</b> , 70, 869-72   | 440 |

|     |  |     |
|-----|--|-----|
| 737 | Structurally distinct and stage-specific adenylyl cyclase genes play different roles in Dictyostelium development. <b>1992</b> , 69, 305-15  | 291 |
| 736 | Molecular cloning of cDNAs encoding the GAP-associated protein p190: implications for a signaling pathway from ras to the nucleus. <b>1992</b> , 69, 539-49  | 323 |
| 735 | CNTF and LIF act on neuronal cells via shared signaling pathways that involve the IL-6 signal transducing receptor component gp130. <b>1992</b> , 69, 1121-32  | 675 |
| 734 | Distribution and expression of G-protein in rat cerebral cortical cells. I. Intact tissue. <b>1992</b> , 67, 1-10  | 4   |
| 733 | Distribution and expression of G-protein in rat cerebral cortical cells. II. Primary tissue culture. <b>1992</b> , 67, 11-8  | 2   |
| 732 | Hypothesis for the molecular physiology of the Romano-Ward long QT syndrome. <b>1992</b> , 20, 500-3   | 32  |
| 731 | The long QT syndrome: a G or not a G?. <b>1992</b> , 20, 504-5   | 4   |
| 730 | Hormone signalling via G-protein: regulation of phosphatidylinositol 4,5-bisphosphate hydrolysis by Gq. <b>1992</b> , 336, 35-41; discussion 41-2  | 22  |
| 729 | Stimulation of the type III olfactory adenylyl cyclase by calcium and calmodulin. <b>1992</b> , 31, 6492-8   | 301 |
| 728 | Neural Control of Renal Function. <b>1992</b> , 1061-1128  | 1   |
| 727 | Effects of magnesium ion on the interaction of atrial muscarinic acetylcholine receptors and GTP-binding regulatory proteins. <b>1992</b> , 31, 10634-42   | 47  |
| 726 | Effects of adenylyl nucleotides and carbachol on cooperative interactions among G proteins. <b>1992</b> , 31, 10908-21   | 37  |
| 725 | Nucleotide binding and GTP hydrolysis by elongation factor Tu from Thermus thermophilus as monitored by proton NMR. <b>1992</b> , 31, 2970-7   | 37  |
| 724 | Membrane-bound conformation of mastoparan-X, a G-protein-activating peptide. <b>1992</b> , 31, 5654-60   | 116 |
| 723 | Mechanism of activation and inactivation of opsin: role of Glu113 and Lys296. <b>1992</b> , 31, 12592-601  | 175 |
| 722 | Physical training increases beta-adrenoceptor density and adenylyl cyclase activity in high-oxidative skeletal muscle of diabetic rats. <b>1992</b> , 41, 1331-5   | 5   |
| 721 | Arachidonic acid metabolism in isolated pancreatic islets. VI. Carbohydrate insulin secretagogues must be metabolized to induce eicosanoid release. <b>1992</b> , 1125, 280-91   | 21  |
| 720 | Phosphorylation of the recombinant spliced variants of the alpha-sub-unit of the stimulatory guanine-nucleotide binding regulatory protein (Gs) by the catalytic sub-unit of protein kinase A. <b>1992</b> , 186, 1081-6 | 26  |

|     |  |     |
|-----|--|-----|
| 719 | cAMP induces up-regulation of ETA receptor mRNA and increases responsiveness to endothelin-1 of rat aortic smooth muscle cells in primary culture. <b>1992</b> , 188, 719-26   | 47  |
| 718 | Two gamma-subunits, gamma-I and gamma-II, complex with the same beta-subunits in bovine brain G-proteins (Gi/o). <b>1992</b> , 184, 175-82   | 4   |
| 717 | ATP-induced Ca <sup>2+</sup> influx is regulated via a pertussis toxin-sensitive mechanism in a PC12 cell clone. <b>1992</b> , 188, 1184-90  | 11  |
| 716 | Characterization of a Gly19-->Val mutant of ram p25, a low Mr GTP-binding protein: loss of GTP/GDP-binding activity in the mutated ram p25. <b>1992</b> , 189, 330-5   | 2   |
| 715 | Diversity among the beta subunits of heterotrimeric GTP-binding proteins: characterization of a novel beta-subunit cDNA. <b>1992</b> , 183, 350-6  | 98  |
| 714 | Glucose regulates the expression of Gi-proteins in cultured BC3H-1 myocytes. <b>1992</b> , 182, 1193-200   | 3   |
| 713 | Regulation of cell magnesium. <b>1992</b> , 298, 1-12  | 314 |
| 712 | Epidermal growth factor potentiates cyclic AMP accumulation in A-431 cells.. <b>1990</b> , 265, 12836-12845  | 40  |
| 711 | Beta gamma dimers of G proteins inhibit atrial muscarinic K <sup>+</sup> channels.. <b>1990</b> , 265, 12854-12858   | 38  |
| 710 | Sites of interaction in the complex between beta- and gamma-subunits of transducin.. <b>1990</b> , 265, 12995-12999  | 54  |
| 709 | Effect of protein kinase A on inositide metabolism and rap 1 G-protein in human erythroleukemia cells.. <b>1990</b> , 265, 13118-13123   | 36  |
| 708 | Characterization of the human gene for Gx alpha, a pertussis toxin-insensitive regulatory GTP-binding protein.. <b>1990</b> , 265, 13215-13220   | 29  |
| 707 | Transmembrane signaling in P815 mastocytoma cells by transfected IgE receptors.. <b>1990</b> , 265, 12444-12453  | 18  |
| 706 | Interactions between the subunits of transducin and cyclic GMP phosphodiesterase in Rana catesbiana rod photoreceptors.. <b>1990</b> , 265, 11539-11548  | 95  |
| 705 | Guanosine 5'-O-(3-thiotriphosphate) and guanosine 5'-O-(2-thiodiphosphate) activate G proteins and potentiate fibroblast growth factor-induced DNA synthesis in hamster fibroblasts.. <b>1990</b> , 265, 11567-11575 | 12  |
| 704 | Mastoparan interacts with the carboxyl terminus of the alpha subunit of Gi.. <b>1990</b> , 265, 11044-11049  | 110 |
| 703 | Hormone inhibition of adenylyl cyclase. Differences in the mechanisms for inhibition by hormones and G protein beta gamma.. <b>1990</b> , 265, 9825-9830   | 30  |
| 702 | Beta subunit copurifies with GppNHp-activated adenylyl cyclase.. <b>1990</b> , 265, 9999-10004   | 28  |

|     |  |      |
|-----|--|------|
| 701 | Functional cloning of a nucleoside diphosphate kinase from Dictyostelium discoideum.. <b>1990</b> , 265, 10012-10018   | 1803 |
| 700 | Binding and hydrolysis of guanine nucleotides by Sec4p, a yeast protein involved in the regulation of vesicular traffic.. <b>1990</b> , 265, 9366-9372   | 69   |
| 699 | Purification and characterization from bovine brain cytosol of a novel regulatory protein inhibiting the dissociation of GDP from and the subsequent binding of GTP to rhoB p20, a ras p21-like GTP-binding protein.. <b>1990</b> , 265, 9373-9380 | 208  |
| 698 | Alternative promoter and 5' exon generate a novel Gs alpha mRNA.. <b>1990</b> , 265, 8458-8462   | 85   |
| 697 | A prostaglandin E receptor coupled to a pertussis toxin-sensitive guanine nucleotide regulatory protein in rabbit cortical collecting tubule cells.. <b>1990</b> , 265, 8479-8483  | 50   |
| 696 | Regulation of the expression of the regulatory subunit of cAMP-dependent protein kinase II beta in Friend erythroleukemic cells. Evidence for posttranscriptional control and a central role for the C subunit.. <b>1990</b> , 265, 8152-8158      | 19   |
| 695 | Molecular cloning and expression of the cDNA for a novel alpha 1-adrenergic receptor subtype.. <b>1990</b> , 265, 8183-8189  | 325  |
| 694 | Purification and characterization of Go alpha and three types of Gi alpha after expression in Escherichia coli.. <b>1990</b> , 265, 8243-8251  | 151  |
| 693 | Direct stimulation of adenylate cyclase by mechanical forces in S49 mouse lymphoma cells during hyposmotic swelling.. <b>1990</b> , 265, 6569-6575   | 57   |
| 692 | Positive and negative regulation of a tumor necrosis factor response in melanoma cells.. <b>1990</b> , 265, 6642-6649  | 11   |
| 691 | Substitution of proline 82 by threonine induces autophosphorylating activity in GTP-binding domain of elongation factor Tu.. <b>1990</b> , 265, 6744-6749  | 21   |
| 690 | The identification and characterization of an epidermal growth factor-stimulated phosphorylation of a specific low molecular weight GTP-binding protein in a reconstituted phospholipid vesicle system.. <b>1990</b> , 265, 5990-6001              | 52   |
| 689 | The epidermal growth factor receptor is coupled to a phospholipase A2-specific pertussis toxin-inhibitable guanine nucleotide-binding regulatory protein in cultured rat inner medullary collecting tubule cells.. <b>1990</b> , 265, 4218-4222    | 50   |
| 688 | Specificity of receptor-G protein interactions. Discrimination of Gi subtypes by the D2 dopamine receptor in a reconstituted system.. <b>1990</b> , 265, 4507-4514   | 131  |
| 687 | The activation of human platelets mediated by anti-human platelet p24/CD9 monoclonal antibodies.. <b>1990</b> , 265, 3815-3822   | 88   |
| 686 | Differential degradation rates of the G protein alpha o in cultured cardiac and pituitary cells.. <b>1990</b> , 265, 3102-3105   | 22   |
| 685 | Interleukin-1 signal transduction. Increased GTP binding and hydrolysis in membranes of a murine thymoma line (EL4).. <b>1990</b> , 265, 3146-3152   | 50   |
| 684 | Cloning, structure, and expression of the gene for a novel regulatory subunit of cAMP-dependent protein kinase in Caenorhabditis elegans.. <b>1990</b> , 265, 3293-3303  | 56   |

|     |  |     |
|-----|--|-----|
| 683 | Influence of thyroid hormone status on expression of genes encoding G protein subunits in the rat heart.. <b>1990</b> , 265, 3553-3560   | 57  |
| 682 | Biochemical characterization of three stimulatory GTP-binding proteins. The large and small forms of Gs and the olfactory-specific G-protein, Golf.. <b>1990</b> , 265, 2671-2676  | 104 |
| 681 | Inhibition of the signaling pathways for macrophage proliferation by cyclic AMP. Lack of effect on early responses to colony stimulating factor-1.. <b>1990</b> , 265, 2692-2701   | 56  |
| 680 | Expression and characterization of RNase III and Era proteins. Products of the rnc operon of Escherichia coli.. <b>1990</b> , 265, 2888-2895   | 70  |
| 679 | Purification and characterization from bovine brain cytosol of a protein that inhibits the dissociation of GDP from and the subsequent binding of GTP to smg p25A, a ras p21-like GTP-binding protein.. <b>1990</b> , 265, 2333-2337   | 217 |
| 678 | Gz, a guanine nucleotide-binding protein with unique biochemical properties.. <b>1990</b> , 265, 2383-2390   | 213 |
| 677 | Mechanism of cyclic GMP inhibition of inositol phosphate formation in rat aorta segments and cultured bovine aortic smooth muscle cells.. <b>1990</b> , 265, 1268-1273   | 166 |
| 676 | A mutation of the beta 2-adrenergic receptor impairs agonist activation of adenylyl cyclase without affecting high affinity agonist binding. Distinct molecular determinants of the receptor are involved in physical coupling to and functional activation of Gs.. <b>1990</b> , 265, 1388-1393 | 107 |
| 675 | Different kinetic properties of the two mutants, RAS2Ile152 and RAS2Val19, that suppress the CDC25 requirement in RAS/adenylate cyclase pathway in Saccharomyces cerevisiae.. <b>1990</b> , 265, 1563-1568   | 33  |
| 674 | Activation of phospholipase C via adenosine receptors provides synergistic signals for secretion in antigen-stimulated RBL-2H3 cells. Evidence for a novel adenosine receptor.. <b>1990</b> , 265, 745-753   | 139 |
| 673 | Lipopolysaccharide response is linked to the GTP binding protein, Gi2, in the promonocytic cell line U937. <b>1989</b> , 264, 20240-20247  | 81  |
| 672 | G protein subunit interactions. <b>1989</b> , 264, 20688-20696   | 35  |
| 671 | Plasmids encoding PKI(1B1), a specific inhibitor of cAMP-stimulated gene expression, inhibit the basal transcriptional activity of some but not all cAMP-regulated DNA response elements in JEG-3 cells. <b>1989</b> , 264, 19506-19513  | 29  |
| 670 | Agonist-induced desensitization of a P2Y-purinergic receptor-regulated phospholipase C. <b>1989</b> , 264, 19535-19539   | 30  |
| 669 | Receptor-stimulated phospholipase A2 activation is coupled to influx of external calcium and not to mobilization of intracellular calcium in C62B glioma cells. <b>1989</b> , 264, 20147-20153   | 70  |
| 668 | Identification of low molecular weight GTP-binding proteins and their sites of interaction in subcellular fractions from skeletal muscle.. <b>1991</b> , 266, 17613-17620  | 20  |
| 667 | Activation of a Gi protein in mouse sperm membranes by solubilized proteins of the zona pellucida, the egg's extracellular matrix.. <b>1992</b> , 267, 14061-14067   | 67  |
| 666 | Cloning and characterization of a cDNA coding for the alpha-subunit of a stimulatory G protein from Schistosoma mansoni.. <b>1992</b> , 267, 14504-14508   | 13  |



|     |   |     |
|-----|---|-----|
| 665 | Peroxides of vanadate induce activation of phospholipase D in HL-60 cells. Role of tyrosine phosphorylation.. <b>1992</b> , 267, 11908-11916  | 103 |
| 664 | Nonselective utilization of the endomannosidase pathway for processing glycoproteins by human hepatoma (HepG2) cells.. <b>1992</b> , 267, 11573-11578   | 40  |
| 663 | Human growth hormone enhances pertussis toxin-stimulated ADP-ribosylation of Gi in Nb2 cell membrane.. <b>1992</b> , 267, 10583-10587   | 7   |
| 662 | Factors determining the specificity of signal transduction by guanine nucleotide-binding protein-coupled receptors. I. Coupling of alpha 2-adrenergic receptor subtypes to distinct G-proteins.. <b>1992</b> , 267, 9844-9851 | 51  |
| 661 | Involvement of rho p21 in the GTP-enhanced calcium ion sensitivity of smooth muscle contraction.. <b>1992</b> , 267, 8719-8722  | 343 |
| 660 | Characterization of a phospholipase C activity regulated by the purified Gh in reconstitution systems.. <b>1992</b> , 267, 8887-8894  | 17  |
| 659 | Evidence for the formation of a functional complex between vasoactive intestinal peptide, its receptor, and Gs in lung membranes.. <b>1992</b> , 267, 3382-3388   | 21  |
| 658 | The phosphorylation state of phosducin determines its ability to block transducin subunit interactions and inhibit transducin binding to activated rhodopsin.. <b>1994</b> , 269, 24050-24057                                 | 134 |
| 657 | Characterization of the cyclic AMP-independent actions of somatostatin in GH cells. II. An increase in potassium conductance initiates somatostatin-induced inhibition of prolactin secretion.. <b>1988</b> , 263, 226-234    | 45  |
| 656 | Functional Coupling of Human B-Adrenoreceptors to the KvLQT1/MinK Potassium Channel. <b>2000</b> , 275, 26743-26747   | 21  |
| 655 | Molecular Determinants of Tuberoinfundibular Peptide of 39 Residues (TIP39) Selectivity for the Parathyroid Hormone-2 (PTH2) Receptor. <b>2000</b> , 275, 27274-27283   | 47  |
| 654 | Random chimeragenesis of G-protein-coupled receptors. Mapping the affinity of the cAMP chemoattractant receptors in Dictyostelium.. <b>1994</b> , 269, 28724-28731  | 27  |
| 653 | G-protein beta gamma dimers. Membrane targeting requires subunit coexpression and intact gamma C-A-A-X domain.. <b>1991</b> , 266, 5363-5366  | 165 |
| 652 | Cytosol promotes the guanine nucleotide-induced release of the alpha subunit of Gi2 from the membrane of mouse mastocytoma P-815 cells.. <b>1991</b> , 266, 5367-5370   | 11  |
| 651 | Mutational analysis of antigen receptor regulation of B lymphocyte growth. Evidence for involvement of the phosphoinositide signaling pathway.. <b>1991</b> , 266, 5563-5574  | 18  |
| 650 | A dominant negative G alpha s mutant is rescued by secondary mutation of the alpha chain amino terminus.. <b>1991</b> , 266, 4673-4676  | 34  |
| 649 | G protein regulation of phospholipase C activity in a membrane-solubilized system occurs through a Mg2(+)- and time-dependent mechanism.. <b>1991</b> , 266, 4764-4771  | 20  |
| 648 | 19F and 31P NMR spectroscopy of G protein alpha subunits. Mechanism of activation by Al3+ and F-. <b>1991</b> , 266, 3396-3401  | 59  |



|     |  |     |
|-----|--|-----|
| 647 | Structural and functional studies of cross-linked Go protein subunits. <b>1991</b> , 266, 3900-3906  | 38  |
| 646 | Further characterization of ribosome releasing factor and evidence that it prevents ribosomes from reading through a termination codon.. <b>1981</b> , 256, 5798-5801  | 27  |
| 645 | Beta gamma-subunit activation of G-protein-regulated phospholipase C.. <b>1992</b> , 267, 25451-25456  | 145 |
| 644 | Evidence that the Gh protein is a signal mediator from alpha 1-adrenoceptor to a phospholipase C. I. Identification of alpha 1-adrenoceptor-coupled Gh family and purification of Gh7 from bovine heart.. <b>1993</b> , 268, 27390-27397 | 42  |
| 643 | Opposite coupling of prostaglandin E receptor EP3C with Gs and G(o). Stimulation of Gs and inhibition of G(o).. <b>1993</b> , 268, 26067-26070   | 44  |
| 642 | The regulation of store-dependent Ca <sup>2+</sup> influx in HL-60 granulocytes involves GTP-sensitive elements.. <b>1993</b> , 268, 26075-26078   | 41  |
| 641 | Possible role of both the alpha and beta gamma subunits of the heterotrimeric G protein, Gs, in transcytosis of the polymeric immunoglobulin receptor.. <b>1993</b> , 268, 25824-25835   | 51  |
| 640 | Specific interaction with rhodopsin is dependent on the gamma subunit type in a G protein.. <b>1993</b> , 268, 24519-24522   | 77  |
| 639 | GK* and brain G beta gamma activate muscarinic K <sup>+</sup> channel through the same mechanism.. <b>1993</b> , 268, 24551-24554  | 27  |
| 638 | cAMP regulates G-protein alpha i-2 subunit gene transcription in polarized LLC-PK1 cells by induction of a CCAAT box nuclear binding factor.. <b>1993</b> , 268, 24669-24676   | 28  |
| 637 | Quantitation of the guanine nucleotide binding regulatory protein Gs in S49 cell membranes using anti-peptide antibodies to alpha s.. <b>1988</b> , 263, 9482-9485   | 59  |
| 636 | Cholera toxin increases the rate of antigen-stimulated calcium influx in rat basophilic leukemia cells.. <b>1988</b> , 263, 19626-19632  | 43  |
| 635 | Kinetic analysis of the hydrolysis of GTP by p21N-ras. The basal GTPase mechanism.. <b>1988</b> , 263, 19718-19722   | 94  |
| 634 | Fluorescent labeling of signal-transducing G-proteins. Pertussis toxin-catalyzed etheno-ADP ribosylation of transducin.. <b>1988</b> , 263, 19804-19808  | 19  |
| 633 | Subunit dissociation is the mechanism for hormonal activation of the Gs protein in native membranes.. <b>1988</b> , 263, 17239-17242   | 57  |
| 632 | Purification of a phospholipase C from rat liver cytosol that acts on phosphatidylinositol 4,5-bisphosphate and phosphatidylinositol 4-phosphate.. <b>1988</b> , 263, 17730-17737  | 45  |
| 631 | Chromatographic resolution and immunologic identification of the alpha 40 and alpha 41 subunits of guanine nucleotide-binding regulatory proteins from bovine brain.. <b>1988</b> , 263, 2020-2026                                       | 108 |
| 630 | Molecular cloning and biological activity of a novel developmentally regulated gene encoding a protein with beta-transducin-like structure. <b>1994</b> , 269, 11318-11326   | 19  |

- 629 Mapping of the carboxyl terminus within the tertiary structure of transducin's alpha subunit using the heterobifunctional cross-linking reagent, 125I-N-(3-iodo-4-azidophenylpropionamido-S-(2-thiopyridyl) cysteine.. **1988**, 263, 17942-17950 27
- 628 5'-Guanylylimidodiphosphate decreases affinity for agonists and apparent molecular size of a frog brain opioid receptor in digitonin solution.. **1988**, 263, 18003-18008 14
- 627 Activation of inositol phospholipid breakdown in HL60 cells by P2-purinergic receptors for extracellular ATP. Evidence for mediation by both pertussis toxin-sensitive and pertussis toxin-insensitive mechanisms.. **1988**, 263, 18108-18117 116
- 626 Purification and characterization of a GTP-binding protein with a molecular weight of 20,000 in bovine brain membranes. Identification as the rho gene product.. **1988**, 263, 9926-9932 72
- 625 Polyphosphoinositides Produced by Phosphatidylinositol 3-Kinase Are Poor Substrates for Phospholipases C from Rat Liver and Bovine Brain. **1989**, 264, 17809-17815 179
- 624 rac, a novel ras-related family of proteins that are botulinum toxin substrates. **1989**, 264, 16378-16382 403
- 623 Identification of the ral and rac1 Gene Products, Low Molecular Mass GTP-binding Proteins from Human Platelets. **1989**, 264, 16383-16389 76
- 622 An Antibody-induced Enhancement of the Transducin-stimulated Cyclic GMP Phosphodiesterase Activity. **1989**, 264, 16679-16688 31
- 621 Mutations in the GTP-binding site of Gs $\beta$  alter stimulation of adenylyl cyclase. **1989**, 264, 15467-15474 153
- 620 Synthesis in Escherichia coli of GTPase-deficient mutants of Gs $\beta$ . **1989**, 264, 15475-15482 176
- 619 Phosphorylation of smg p21, a ras p21-like GTP-binding Protein, by Cyclic AMP-dependent Protein Kinase in a Cell-free System and in Response to Prostaglandin E1 in Intact Human Platelets. **1989**, 264, 15688-15695 83
- 618 The kyotorphin (Tyrosine-Arginine) Receptor and a Selective Reconstitution with Purified Gi, Measured with GTPase and Phospholipase C Assays. **1989**, 264, 3732-3741 69
- 617 Mechanisms of muscarinic receptor action on Go in reconstituted phospholipid vesicles. **1989**, 264, 3909-3915 145
- 616 Prostaglandin E receptors in bovine adrenal medulla are coupled to adenylate cyclase via Gi and to phosphoinositide metabolism in a pertussis toxin-insensitive manner. **1989**, 264, 3916-3923 81
- 615 Pertussis Toxin Treatment in Vivo Is Associated with a Decline in G-protein  $\beta$ Subunits. **1989**, 264, 4186-4194 33
- 614 ADP-ribosylation of 24-26-kDa GTP-binding Proteins Localized in Neuronal and Non-neuronal Cells by Botulinum Neurotoxin D. **1989**, 264, 706-712 15
- 613 Kinetics of Activation of Phospholipase C by P2Y Purinergic Receptor Agonists and Guanine Nucleotides. **1989**, 264, 884-890 154
- 612 Evidence for participation of GTP-binding proteins in elicitation of the rapid oxidative burst in cultured soybean cells.. **1992**, 267, 20140-20147 124

|     |  |     |
|-----|--|-----|
| 611 | A G-protein beta gamma-subunit-responsive phosphoinositide 3-kinase activity in human platelet cytosol. <b>1994</b> , 269, 16525-16528   | 108 |
| 610 | Identification of chemoattractant receptors and G-proteins in the vomeronasal system of garter snakes. <b>1994</b> , 269, 16867-16877  | 52  |
| 609 | Insulin and nonhydrolyzable GTP analogs induce translocation of GLUT 4 to the plasma membrane in alpha-toxin-permeabilized rat adipose cells. <b>1991</b> , 266, 4037-4040                                       | 92  |
| 608 | Adenine nucleotides are required for activation of rat atrial natriuretic peptide receptor/guanylyl cyclase expressed in a baculovirus system. <b>1991</b> , 266, 4088-4093                                      | 119 |
| 607 | The product of the rap2 gene, member of the ras superfamily. <b>1991</b> , 266, 4315-4321  | 26  |
| 606 | Antisera specific for rap 1 proteins distinguish between processed and nonprocessed rap 1b. <b>1991</b> , 266, 4375-4380   | 13  |
| 605 | Carboxyl methylation of platelet rap1 proteins is stimulated by guanosine 5'-(3-O-thio)triphosphate. <b>1991</b> , 266, 4387-4391  | 34  |
| 604 | In vitro synthesis of G protein dimers. <b>1991</b> , 266, 4538-4544   | 75  |
| 603 | Inhibition of thapsigargin-induced calcium entry by microinjected guanine nucleotide analogues. Evidence for the involvement of a small G-protein in capacitative calcium entry.. <b>1993</b> , 268, 21486-21488 | 142 |
| 602 | Random mutagenesis of G protein alpha subunit G(o)alpha. Mutations altering nucleotide binding.. <b>1993</b> , 268, 21889-21894  | 41  |
| 601 | Purification of four forms of the beta gamma subunit complex of G proteins containing different gamma subunits.. <b>1993</b> , 268, 20512-20519  | 32  |
| 600 | Evidence of GTP-binding protein regulation of phospholipase A2 activity in isolated human platelet membranes. <b>1989</b> , 264, 21466-21469   | 47  |
| 599 | Two distinct Gi-proteins mediate formyl peptide receptor signal transduction in human leukemia (HL-60) cells. <b>1989</b> , 264, 21470-21473   | 134 |
| 598 | Pharmacological and Biochemical Characterization of Complexes of Muscarinic Acetylcholine Receptor and Guanine Nucleotide-Binding Protein. <b>1989</b> , 264, 21638-21645  | 39  |
| 597 | Muscarinic acetylcholine receptor regulates phosphatidylcholine phospholipase D in canine brain. <b>1989</b> , 264, 21720-21724  | 76  |
| 596 | Mutations of Gs Designed to Alter the Reactivity of the Protein with Bacterial Toxins. <b>1989</b> , 264, 21907-21914  | 134 |
| 595 | A 28,000-Da GDP/GTP-binding protein specific to the nuclear envelope.. <b>1991</b> , 266, 7602-7608  | 20  |
| 594 | Evidence that insulin plus ATP may induce a conformational change in the beta subunit of the insulin receptor without inducing receptor autophosphorylation.. <b>1991</b> , 266, 6731-6736                       | 38  |

|     |  |     |
|-----|--|-----|
| 593 | Stress-induced alteration in the lipolytic response to $\beta$ -adrenoceptor agonists in rat white adipocytes. <b>1999</b> , 40, 1719-1727   | 15  |
| 592 | Oxidized low density lipoprotein-mediated activation of phospholipase D in smooth muscle cells: a possible role in cell proliferation and atherogenesis.. <b>1995</b> , 36, 2005-2016                      | 69  |
| 591 | The Chemotactic Peptide Receptor: A Model for Future Understanding of Chemotactic Disorders. <b>1988</b> , 2, 33-59  | 17  |
| 590 | Chemoattractant receptor signaling: G protein-dependent and -independent pathways. <b>1997</b> , 31, 83-104  | 14  |
| 589 | L-type calcium channel modulation. <b>1999</b> , 33, 153-77  | 37  |
| 588 | Isolation of a Miller-Dicker lissencephaly gene containing G protein $\beta$ -subunit-like repeats.  | 1   |
| 587 | G protein alpha s.   | 10  |
| 586 | G protein alpha 15.  | 11  |
| 585 | G protein alpha o.   | 10  |
| 584 | G protein alpha q.   | 11  |
| 583 | Chapter 8:Uncovering GPCR and G Protein Function by Protein Structure Network Analysis. 198-220  | 1   |
| 582 | Signal transduction by a nondissociable heterotrimeric yeast G protein. <b>2000</b> , 97, 3219-23  | 43  |
| 581 | Molecular cloning of beta 3 subunit, a third form of the G protein beta-subunit polypeptide. <b>1990</b> , 87, 2329-33   | 115 |
| 580 | A molecular mechanism for signaling between seven-transmembrane receptors: evidence for a redistribution of G proteins. <b>1998</b> , 95, 10944-8  | 16  |
| 579 | Different Effects of Gs $\beta$ Splice Variants on $\beta$ -Adrenoreceptor-mediated Signaling. <b>1998</b> , 273, 5109   | 111 |
| 578 | Molecular structure of frizzled, a Drosophila tissue polarity gene. <b>1990</b> , 126, 401-16  | 65  |
| 577 | Glucose repression of fbp1 transcription of Schizosaccharomyces pombe is partially regulated by adenylate cyclase activation by a G protein alpha subunit encoded by gpa2 (git8). <b>1994</b> , 138, 39-45 | 53  |
| 576 | Control of adaptation to mating pheromone by G protein beta subunits of Saccharomyces cerevisiae. <b>1994</b> , 138, 1081-92   | 16  |

|     |  |    |
|-----|--|----|
| 575 | The fission yeast <i>git5</i> gene encodes a Gbeta subunit required for glucose-triggered adenylate cyclase activation. <b>2000</b> , 154, 1463-71   | 44 |
| 574 | The <i>git5</i> Gbeta and <i>git11</i> Ggamma form an atypical Gbetagamma dimer acting in the fission yeast glucose/cAMP pathway. <b>2001</b> , 157, 1159-68                                     | 51 |
| 573 | Analysis of the expression of seven G protein alpha subunit genes in hematopoietic cells. <b>1993</b> , 306, 89-93   | 6  |
| 572 | Negative inotropic effect of methylecgonidine, a major product of cocaine base pyrolysis, on ferret and human myocardium. <b>1997</b> , 30, 352-9  | 13 |
| 571 | Biphasic inotropic effects of methamphetamine and methylphenidate on ferret papillary muscles. <b>1997</b> , 30, 744-9   | 4  |
| 570 | Cardioprotective effect of diadenosine tetraphosphate (AP4A) preservation in hypothermic storage and its relation with mitochondrial ATP-sensitive potassium channels. <b>2000</b> , 69, 16-20   | 6  |
| 569 | Involvement of the CDC25 gene product in the signal transmission pathway of the glucose-induced RAS-mediated cAMP signal in the yeast <i>Saccharomyces cerevisiae</i> . <b>1991</b> , 137, 341-9 | 51 |
| 568 | Design: An assay based on single-polypeptide-chain heterodimeric A2AR/D2R and non-oligomerized fusions for in vivo analysis of their allosteric receptor-receptor interactions.                  | 0  |
| 567 | Analyzing kinetic signaling data for G-protein-coupled receptors.  | 1  |
| 566 | The palmitoyl acyltransferase DHHC5 mediates beta-adrenergic signaling in the heart by targeting Gβ proteins and G protein-coupled receptor kinase 2.  | 0  |
| 565 | G protein-assisted optimization of GPCR-activation based (GRAB) sensors. <b>2019</b> ,   | 2  |
| 564 | Signaling Pathways in the Dimorphic Human Fungal Pathogen <i>Penicillium marneffei</i> . 441-454   | 4  |
| 563 | Type IV Secretion Machinery. 179-221   | 3  |
| 562 | Modulation of leukotriene generation by pertussis toxin. <b>1989</b> , 57, 3165-71   | 5  |
| 561 | Binding of pertussis toxin to eucaryotic cells and glycoproteins. <b>1989</b> , 57, 3324-30  | 95 |
| 560 | Failure of pertussis toxin to inhibit activation of guanylate cyclase by the heat-stable enterotoxin of <i>Escherichia coli</i> (STa) in the T84 cell line. <b>1989</b> , 57, 1186-91            | 12 |
| 559 | Stimulatory effect of staphylococcal leukocidin on phosphoinositide metabolism in rabbit polymorphonuclear leukocytes. <b>1990</b> , 58, 2745-9  | 7  |
| 558 | Contribution of the B oligomer to the protective activity of genetically attenuated pertussis toxin. <b>1991</b> , 59, 3407-10   | 15 |

|     |   |    |
|-----|---|----|
| 557 | Roles of human peripheral blood leukocyte protein kinase C and G proteins in inflammatory mediator release by isogenic <i>Escherichia coli</i> strains. <b>1991</b> , 59, 3801-10   | 11 |
| 556 | Activation of particulate guanylate cyclase by <i>Escherichia coli</i> heat-stable enterotoxin is regulated by adenine nucleotides. <b>1991</b> , 59, 1552-7  | 35 |
| 555 | Regulation of leukotriene B4 generation from human polymorphonuclear granulocytes after stimulation with formyl-methionyl-leucyl phenylalanine: effects of pertussis and cholera toxins. <b>1991</b> , 59, 3046-52                            | 3  |
| 554 | Roles of protein kinase C and G proteins in activation of murine resting B lymphocytes by endotoxin-associated protein. <b>1992</b> , 60, 231-6   | 7  |
| 553 | Induction of inflammatory mediator release (serotonin and 12-hydroxyeicosatetraenoic acid) from human platelets by <i>Pseudomonas aeruginosa</i> glycolipid. <b>1992</b> , 60, 3150-5   | 16 |
| 552 | <i>Staphylococcus aureus</i> toxic shock syndrome toxin 1 and <i>Streptococcus pyogenes</i> erythrogenic toxin A modulate inflammatory mediator release from human neutrophils. <b>1993</b> , 61, 1055-61                                     | 23 |
| 551 | Importance of ADP-ribosylation in the morphological changes of PC12 cells induced by cholera toxin. <b>1994</b> , 62, 4176-85   | 12 |
| 550 | GTP-binding proteins are involved in the modulated activity of human neutrophils treated with the Panton-Valentine leukocidin from <i>Staphylococcus aureus</i> . <b>1994</b> , 62, 5281-9  | 17 |
| 549 | Cloning of a <i>Cryptococcus neoformans</i> gene, GPA1, encoding a G-protein alpha-subunit homolog. <b>1994</b> , 62, 2849-56   | 53 |
| 548 | Response of the human T-cell leukemia virus type 1 long terminal repeat to cyclic AMP. <b>1989</b> , 63, 1604-11  | 70 |
| 547 | Cloning and sequence analyses of cDNAs for interferon- and virus-induced human Mx proteins reveal that they contain putative guanine nucleotide-binding sites: functional study of the corresponding gene promoter. <b>1990</b> , 64, 1171-81 | 97 |
| 546 | Overexpression of the STE4 gene leads to mating response in haploid <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 10, 217-222   | 91 |
| 545 | Stoichiometry of G protein subunits affects the <i>Saccharomyces cerevisiae</i> mating pheromone signal transduction pathway. <b>1990</b> , 10, 510-517   | 87 |
| 544 | Adenylate cyclase in <i>Saccharomyces cerevisiae</i> is a peripheral membrane protein. <b>1990</b> , 10, 3873-3883  | 22 |
| 543 | Molecular cloning and characterization of a novel type of regulatory protein (GDI) for smg p25A, a ras p21-like GTP-binding protein. <b>1990</b> , 10, 4116-4122  | 58 |
| 542 | G protein mutations that alter the pheromone response in <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 10, 4439-4446  | 22 |
| 541 | The CDC20 gene product of <i>Saccharomyces cerevisiae</i> , a beta-transducin homolog, is required for a subset of microtubule-dependent cellular processes. <b>1991</b> , 11, 5592-5602  | 60 |
| 540 | AAR1/TUP1 protein, with a structure similar to that of the beta subunit of G proteins, is required for $\alpha$ 1- $\alpha$ 2 and $\alpha$ 2 repression in cell type control of <i>Saccharomyces cerevisiae</i> . <b>1991</b> , 11, 3773-3779 | 48 |

- 539 Analysis of the fibroblast transformation potential of GTPase-deficient *gip2* oncogenes. **1992**, 12, 190-197 28
- 538 A Raf-1-related p110 polypeptide associates with the CD4-p56lck complex in T cells. **1992**, 12, 5260-5267 12
- 537 Characterization of the cDNA and genomic sequence of a G protein gamma subunit (gamma 5). **1992**, 12, 1585-1591 15
- 536 A G-protein alpha subunit from asexual *Candida albicans* functions in the mating signal transduction pathway of *Saccharomyces cerevisiae* and is regulated by the  $\alpha 1$ -alpha 2 repressor. **1992**, 12, 1977-1985 23
- 535 Interactions among the subunits of the G protein involved in *Saccharomyces cerevisiae* mating. **1993**, 13, 1-8 27
- 534 The sites of phosphorylation by protein kinase C and an intact SH2 domain are required for the enhanced response to beta-adrenergic agonists in cells overexpressing *c-src*. **1993**, 13, 2391-2400 22
- 533 Evidence that v-Src-induced phospholipase D activity is mediated by a G protein. **1994**, 14, 3676-3682 6
- 532 Biochemical and genetic analysis of dominant-negative mutations affecting a yeast G-protein gamma subunit. **1994**, 14, 4571-4578 16
- 531 Requirement of one functional RAS gene and inability of an oncogenic ras variant to mediate the glucose-induced cyclic AMP signal in the yeast *Saccharomyces cerevisiae*. **1988**, 8, 3051-3057 47
- 530 Inhibition of NIH 3T3 cell proliferation by a mutant ras protein with preferential affinity for GDP. **1988**, 8, 3235-3243 323
- 529 Role of STE genes in the mating factor signaling pathway mediated by GPA1 in *Saccharomyces cerevisiae*. **1988**, 8, 3777-3783 59
- 528 Dominant yeast and mammalian RAS mutants that interfere with the CDC25-dependent activation of wild-type RAS in *Saccharomyces cerevisiae*. **1989**, 9, 390-395 92
- 527 GPA1Val-50 mutation in the mating-factor signaling pathway in *Saccharomyces cerevisiae*. **1989**, 9, 2289-2297 33
- 526 The ras oncogene--an important regulatory element in lower eucaryotic organisms. **1989**, 53, 171-85 177
- 525 Virulence factors of the family Legionellaceae. **1992**, 56, 32-60 112
- 524 Structure and function of cholera toxin and the related *Escherichia coli* heat-labile enterotoxin. **1992**, 56, 622-47 674
- 523 Genetic networks that regulate development in *Dictyostelium* cells. **1996**, 60, 135-50 54
- 522 Recent advances in the social and developmental biology of the myxobacteria. **1996**, 60, 70-102 253

|     |  |     |
|-----|--|-----|
| 521 | Activation mechanism of a neuromodulator-gated pacemaker ionic current. <b>2017</b> , 118, 595-609   | 9   |
| 520 | Mechanism of repetitive monomorphic ventricular tachycardia. <b>1995</b> , 92, 421-9   | 185 |
| 519 | Angiotensin II inhibits protein kinase A-dependent chloride conductance in heart via pertussis toxin-sensitive G proteins. <b>1997</b> , 95, 197-204   | 10  |
| 518 | 'Cross talk' between opioid peptide and adrenergic receptor signaling in isolated rat heart. <b>1997</b> , 95, 2122-9  | 54  |
| 517 | Effect of circulating epinephrine on platelet function and hematocrit. <b>1995</b> , 25, 1096-105  | 31  |
| 516 | Treatment in hypertensive cardiac hypertrophy, II. Postreceptor events. <b>1995</b> , 25, 962-70   | 6   |
| 515 | Aberrant adenylyl cyclase/cAMP signal transduction and G protein levels in platelets from hypertensive patients improve with antihypertensive drug therapy. <b>1996</b> , 28, 83-90  | 24  |
| 514 | Binding of A1 adenosine receptor ligand [3H]8-cyclopentyl-1,3-dipropylxanthine in coronary smooth muscle. <b>1995</b> , 77, 194-8  | 28  |
| 513 | Mechanisms of coronary microvascular dilation induced by the activation of pertussis toxin-sensitive G proteins are vessel-size dependent. Heterogeneous involvement of nitric oxide pathway and ATP-sensitive K <sup>+</sup> channels. <b>1997</b> , 80, 1-10 | 27  |
| 512 | Bacterial toxins affect early events of T lymphocyte activation. <b>1989</b> , 83, 234-42  | 37  |
| 511 | Decreased bioactivity of the guanine nucleotide-binding protein that stimulates adenylyl cyclase in hearts from cardiomyopathic Syrian hamsters. <b>1989</b> , 84, 244-52  | 44  |
| 510 | Mechanisms underlying regional differences in lipolysis in human adipose tissue. <b>1989</b> , 84, 458-67  | 179 |
| 509 | Endothelin-induced increases in vascular smooth muscle Ca <sup>2+</sup> do not depend on dihydropyridine-sensitive Ca <sup>2+</sup> channels. <b>1989</b> , 84, 635-9  | 52  |
| 508 | Epidermal growth factor-stimulated phosphoinositide hydrolysis in cultured rat inner medullary collecting tubule cells. Regulation by G protein, calcium, and protein kinase C. <b>1990</b> , 85, 1044-50  | 34  |
| 507 | Effect of thrombin on calcium homeostasis in chick embryonic heart cells. Receptor-operated calcium entry with inositol trisphosphate and a pertussis toxin-sensitive G protein as second messengers. <b>1990</b> , 85, 1436-43                                | 31  |
| 506 | Increased endothelial albumin permeability mediated by protein kinase C activation. <b>1990</b> , 85, 1991-8   | 217 |
| 505 | Decreased Gs alpha mRNA levels accompany the fall in Gs and adenylyl cyclase activities in compensated left ventricular hypertrophy. In heart failure, only the impairment in adenylyl cyclase activation progresses. <b>1991</b> , 87, 293-8                  | 50  |
| 504 | A potential role for guanine nucleotide-binding protein in the regulation of endosomal proton transport. <b>1991</b> , 87, 1547-52   | 12  |



|     |  |     |
|-----|--|-----|
| 503 | Activation of Escherichia coli heat-labile enterotoxins by native and recombinant adenosine diphosphate-ribosylation factors, 20-kD guanine nucleotide-binding proteins. <b>1991</b> , 87, 1780-6            | 48  |
| 502 | Characterization of rabbit ileal receptors for Clostridium difficile toxin A. Evidence for a receptor-coupled G protein. <b>1991</b> , 88, 119-25  | 64  |
| 501 | Receptor guanylyl cyclases. <b>1992</b> , 90, 299-305  | 95  |
| 500 | Beta-adrenergic agonists regulate KCa channels in airway smooth muscle by cAMP-dependent and -independent mechanisms. <b>1994</b> , 93, 371-9  | 190 |
| 499 | Regulation of hormone-sensitive calcium influx by the adenylyl cyclase system in renal epithelial cells. <b>1994</b> , 94, 328-36  | 14  |
| 498 | FMLP activates Ras and Raf in human neutrophils. Potential role in activation of MAP kinase. <b>1994</b> , 94, 815-23  | 144 |
| 497 | The expression and function of G-proteins in experimental intimal hyperplasia. <b>1994</b> , 94, 1680-9  | 22  |
| 496 | Overexpression of Gs alpha protein in the hearts of transgenic mice. <b>1995</b> , 95, 1676-83   | 110 |
| 495 | Vasopressin resistance in chronic renal failure. Evidence for the role of decreased V2 receptor mRNA. <b>1995</b> , 96, 378-85   | 57  |
| 494 | G-protein alpha subunit Gi(alpha)2 mediates erythropoietin signal transduction in human erythroid precursors. <b>1996</b> , 98, 1728-36  | 18  |
| 493 | Expression of the Gs protein alpha-subunit disrupts the normal program of differentiation in cultured murine myogenic cells. <b>1997</b> , 99, 67-76   | 12  |
| 492 | cGMP-stimulated cyclic nucleotide phosphodiesterase regulates the basal calcium current in human atrial myocytes. <b>1997</b> , 99, 2710-8   | 91  |
| 491 | Glucose activates the carboxyl methylation of gamma subunits of trimeric GTP-binding proteins in pancreatic beta cells. Modulation in vivo by calcium, GTP, and pertussis toxin. <b>1997</b> , 100, 1596-610 | 43  |
| 490 | RGS4 causes increased mortality and reduced cardiac hypertrophy in response to pressure overload. <b>1999</b> , 104, 567-76  | 150 |
| 489 | Systems pharmacology identifies drug targets for Stargardt disease-associated retinal degeneration. <b>2013</b> , 123, 5119-34   | 52  |
| 488 | Regulation of nuclear factor B activation by G-protein-coupled receptors. <b>2001</b> , 70, 839-848  | 24  |
| 487 | Mechanisms underlying reduced responsiveness of neonatal neutrophils to distinct chemoattractants. <b>2001</b> , 70, 969-976   | 7   |
| 486 | Structural and Chemical Organization of the Autonomic Neuroeffector System. <b>2002</b> , 1-53   | 4   |

|     |   |     |
|-----|---|-----|
| 485 | Oxytocin, Dopamine, and Opioid Interactions Underlying Pair Bonding: Highlighting a Potential Role for Microglia. <b>2021</b> , 162,  | 17  |
| 484 | Cloning and characterization of a myoblast cell surface antigen defined by 24.1D5 monoclonal antibody. <b>1989</b> , 105, 723-731   | 10  |
| 483 | Complex spatio-temporal accumulation of alternative transcripts from the neurogenic gene Delta during <i>Drosophila</i> embryogenesis. <b>1989</b> , 107, 623-636   | 34  |
| 482 | Profile of a mammalian sperm receptor. <b>1990</b> , 108, 1-17  | 241 |
| 481 | Calcium and cell cycle control. <b>1990</b> , 108, 525-542  | 288 |
| 480 | Lighting the fuse at fertilization. <b>1993</b> , 117, 1-12   | 231 |
| 479 | Signal transduction during shrimp oocyte activation by extracellular Mg <sup>2+</sup> : roles of inositol 1,4,5-trisphosphate, tyrosine kinases and G-proteins. <b>1994</b> , 120, 3463-3472                                | 14  |
| 478 | Developmental expression of G proteins in a migratory population of embryonic neurons. <b>1994</b> , 120, 729-742   | 13  |
| 477 | The <i>Drosophila</i> G-protein-coupled receptor kinase homologue Gprk2 is required for egg morphogenesis. <b>1997</b> , 124, 2591-2602   | 30  |
| 476 | RGS proteins inhibit Xwnt-8 signaling in <i>Xenopus</i> embryonic development. <b>2000</b> , 127, 2773-2784   | 30  |
| 475 | 5-HT causes an increase in cAMP that stimulates, rather than inhibits, oocyte maturation in marine nemertean worms. <b>2001</b> , 128, 1415-1427  | 49  |
| 474 | Binding of the cytosolic p200 protein to Golgi membranes is regulated by heterotrimeric G proteins. <b>1993</b> , 106, 1239-1248  | 22  |
| 473 | An amino-terminal domain of the growth-associated protein GAP-43 mediates its effects on filopodial formation and cell spreading. <b>1994</b> , 107, 195-204  | 33  |
| 472 | Targeting of chimeric G alpha i proteins to specific membrane domains. <b>1994</b> , 107, 507-515   | 28  |
| 471 | Brefeldin A causes structural and functional alterations of the trans-Golgi network of MDCK cells. <b>1994</b> , 107, 933-943   | 40  |
| 470 | Polarized exocytosis in MDCK cells is regulated by phosphorylation. <b>1995</b> , 108, 789-796  | 21  |
| 469 | Trimeric G proteins regulate the cytosol-induced redistribution of Golgi enzymes into the endoplasmic reticulum. <b>1995</b> , 108, 1805-1815   | 16  |
| 468 | GTPgammaS-induced actin polymerisation in vitro: ATP- and phosphoinositide-independent signalling via Rho-family proteins and a plasma membrane-associated guanine nucleotide exchange factor. <b>1998</b> , 111, 1583-1594 | 18  |

|     |   |     |
|-----|---|-----|
| 467 | The small GTP-binding protein RacG regulates uroid formation in the protozoan parasite <i>Entamoeba histolytica</i> . <b>1998</b> , 111, 1729-1739  | 54  |
| 466 | ARF6 requirement for Rac ruffling suggests a role for membrane trafficking in cortical actin rearrangements. <b>1999</b> , 112, 855-866   | 259 |
| 465 | Positive regulation of cell-cell and cell-substrate adhesion by protein kinase A. <b>2001</b> , 114, 3265-3272  | 41  |
| 464 | GTP-gamma-S increases the duration of backward swimming behavior and the calcium action potential in marine <i>Paramecium</i> . <b>1991</b> , 155, 505-518  | 15  |
| 463 | Guanine nucleotides modulate calcium currents in a marine <i>Paramecium</i> . <b>1993</b> , 176, 117-133  | 17  |
| 462 | Effect of antihypertensive therapy with alpha methyl dopa on levels of angiogenic factors in pregnancies with hypertensive disorders. <b>2008</b> , 3, e2766  | 43  |
| 461 | Generation of full-length cDNAs for eight putative GPCnR from the cattle tick, <i>R. microplus</i> using a targeted degenerate PCR and sequencing strategy. <b>2012</b> , 7, e32480                           | 13  |
| 460 | The role of the RACK1 ortholog Cpc2p in modulating pheromone-induced cell cycle arrest in fission yeast. <b>2013</b> , 8, e65927  | 4   |
| 459 | Regulator of G-protein signaling 19 (RGS19) and its partner G $\beta$ inhibiting activity polypeptide 3 (GNAI3) are required for zVAD-induced autophagy and cell death in L929 cells. <b>2014</b> , 9, e94634 | 9   |
| 458 | Gi proteins regulate adenylyl cyclase activity independent of receptor activation. <b>2014</b> , 9, e106608   | 10  |
| 457 | Comparative genome-wide methylation analysis of longissimus dorsi muscles between Japanese black (Wagyu) and Chinese Red Steppes cattle. <b>2017</b> , 12, e0182492   | 21  |
| 456 | The Signaling Mechanism of Contraction Induced by ATP and UTP in Feline Esophageal Smooth Muscle Cells. <b>2015</b> , 38, 616-23  | 7   |
| 455 | [Endocrine tumors associated to protein G $\alpha$ 1/Gi2 $\alpha$ mutations]. <b>2005</b> , 49, 784-90  | 4   |
| 454 | Effect of dietary fluorine from Arax $\ddot{u}$ rock phosphate on the hepatic production of cyclic-adenosine monophosphate in broilers. <b>1999</b> , 51, 477-484   | 2   |
| 453 | Keeping an Eye on Bardet-Biedl Syndrome: A Comprehensive Review of the Role of Bardet-Biedl Syndrome Genes in the Eye. <b>2017</b> , 5,   | 27  |
| 452 | Opioid receptor interacting proteins and the control of opioid signaling. <b>2013</b> , 19, 7333-47   | 17  |
| 451 | Cellular Stress and General Pathological Processes. <b>2019</b> , 25, 251-297   | 14  |
| 450 | In Silico Studies Targeting G-protein Coupled Receptors for Drug Research Against Parkinson's Disease. <b>2018</b> , 16, 786-848  | 10  |

|     |  |    |
|-----|--|----|
| 449 | Fluorine in medicine. <b>2004</b> , 2, 141-150   | 61 |
| 448 | GNG5 Controls the Number of Apical and Basal Progenitors and Alters Neuronal Migration During Cortical Development. <b>2020</b> , 7, 578137                                  | 3  |
| 447 | Targeting Protein Kinase C Downstream of Growth Factor and Adhesion Signalling. <b>2015</b> , 7, 1271-91   | 14 |
| 446 | G protein-coupled receptors: the evolution of structural insight. <b>2017</b> , 4, 491-527   | 26 |
| 445 | Multifactorial Regulation of G Protein-Coupled Receptor Endocytosis. <b>2017</b> , 25, 26-43   | 27 |
| 444 | Conceptual Progress for the Improvements in the Selectivity and Efficacy of G Protein-Coupled Receptor Therapeutics: An Overview. <b>2017</b> , 25, 1-3                      | 2  |
| 443 | Immunoexcitotoxicity as the central mechanism of etiopathology and treatment of autism spectrum disorders: A possible role of fluoride and aluminum. <b>2018</b> , 9, 74     | 12 |
| 442 | SCNH2 is a novel apelinergic family member acting as a potent mitogenic and chemotactic factor for both endothelial and epithelial cells. <b>2013</b> , 3, 37-51             | 3  |
| 441 | Endothelial progenitor cells: Exploring the pleiotropic effects of statins. <b>2017</b> , 9, 1-13  | 24 |
| 440 | Macromolecular Docking Simulation to Identify Binding Site of FGB1 for Antifungal Compounds. <b>2011</b> , 32, 3675-3681   | 7  |
| 439 | REM Sleep Regulating Mechanisms in the Cholinergic Cell Compartment of the Brainstem. <b>2013</b> , 8, 58-66   | 3  |
| 438 | Miniature as a hypothetical regulatory protein of the Bursicon/Rickets signaling cascade in the wing epithelia of <i>Drosophila melanogaster</i> . <b>2012</b> , 28, 288-291 | 1  |
| 437 | GNAI1 Suppresses Tumor Cell Migration and Invasion and is Post-Transcriptionally Regulated by Mir-320a/c/d in Hepatocellular Carcinoma. <b>2012</b> , 9, 234-41              | 43 |
| 436 | Registered report: Diverse somatic mutation patterns and pathway alterations in human cancers. <b>2016</b> , 5,  | 4  |
| 435 | Ric-8A, a G protein chaperone with nucleotide exchange activity induces long-range secondary structure changes in Gβ. <b>2016</b> , 5,                                       | 13 |
| 434 | Anti-nociceptive action of peripheral mu-opioid receptors by G-beta-gamma protein-mediated inhibition of TRPM3 channels. <b>2017</b> , 6,                                    | 57 |
| 433 | A new target for G protein signaling. <b>2017</b> , 6,   | 4  |
| 432 | Spatio-temporal regulation of concurrent developmental processes by generic signaling downstream of chemokine receptors. <b>2018</b> , 7,                                    | 9  |

- 431 G protein-regulated endocytic trafficking of adenylyl cyclase type 9. **2020**, 9, 18
- 430 Optogenetic activation of heterotrimeric G-proteins by LOV2GIVe, a rationally engineered modular protein. **2020**, 9, 6
- 429 Neuroprotective Roles of the Adenosine A Receptor Agonist AST-004 in Mouse Model of Traumatic Brain Injury. **2021**, 1, 0
- 428 Intensive Care Sedation: The Alpha-2 Agonists. **2000**, 414-425
- 427 Transgenic Rats and the Functional Genomics of Endocrine Systems. **2001**, 1-24
- 426 Diurnal and Seasonal Reactivity Patterns of Chemical Transmission in the Suprachiasmatic Nuclei and Other Brain Entities Related to Hibernation. **2001**, 127-137
- 425 Direct Regulation of Ion Channels by G Proteins. **2001**, 573-583
- 424 Signal Transduction in Host-Parasite Interactions. **2001**, 415-481
- 423 Effects of chronic alcohol consumption on hepatic poly-ADP-ribosylation in the rat. **2001**, 25, 35S-8S 2
- 422 GTP-Binding Proteins.
- 421 Interaction of different third intracellular loop fragments of human dopamine d2l receptor with a-subunit of gi1 protein - prospective therapeutic application. **2002**, 21, 9-14
- 420 Heterotrimeric G Proteins.
- 419 Hypovirulence. **2002**, 1
- 418 Cell AdhesionDependent Signaling Pathways on Biomaterials Surfaces. **2002**,
- 417 G Proteins. **2003**, 484-487
- 416 Application of Recombinant DNA Technology in Medicinal Chemistry and Drug Discovery. **2003**, 81-113 1
- 415 Regulators of G-Protein Signaling (RGS) Superfamily. **2003**, 311-321
- 414 Structures of Heterotrimeric G Proteins and Their Complexes. **2003**, 127-135

413 Heterotrimeric G Proteins.

412 Smad Cofactors/Corepressors in the Fibrosed Post-MI Heart: Possible Therapeutic Targets. **2004**, 485-511

411 Molecular Aspects of G-protein Coupled Receptor Signalling of Relevance for Nuclear Medicine Imaging in Psychiatry. **2004**, 45-55

410 G Proteins and Effectors. **2004**, 344-348

409 Control of Caenorhabditis Elegans Behaviour and Development by G Proteins Big and Small. **2004**, 195-242

408 G protein alpha 11. 1

407 Theoretical and empirical approaches to protein-structure prediction and analysis. **1991**, 35, 1-86 3

406 Cell Membrane and Signal Transduction Pathways Implications for the Pathophysiology of Bipolar Disorders. **2007**, 109-129 1

405 Perception and Transduction of Plant Signals in Pathogens. **2007**,

404 Somatostatin modulates voltage-dependent Ca<sup>2+</sup> channels in GH3 cells via a specific G(o) splice variant. **1995**, 190, 171-82; discussion 182-6 3

403 Functional Selectivity at Opioid Receptors. **2009**, 243-265

402 -Biotransformation of Toxicants. **2009**, 42-57

401 Heterotrimeric G Protein Regulation of Stomatal Movements. **2010**, 177-195

400 Bioinformatics of Seven-Transmembrane Receptors in Plant Genomes. **2010**, 251-277

399 G-Protein-Evoked Signaling Mechanisms in Asthma and Allergic Disease. **2010**, 277-281

398 The Role of GABAergic Modulation of Mesopontine Cholinergic Neurotransmission in Rapid Eye Movement (REM) Sleep. **2010**, 253-277

397 Effectors of G $\beta$ . **2010**, 1655-1663 1

396 Smoothed Signaling Through a G-Protein Effector Network. **2011**, 33-47

- 395 Inhibition of Rab Prenylation. **2011**, 30, 179-203
- 394 Cardiovascular Pharmacology. **2011**, 235-295 1
- 393 Kernel Generative Topographic Mapping of Protein Sequences. **2012**, 195-208
- 392 Co-expressed peJK genes of lobster (*Jasus edwardsii*). **2012**, 60, 10
- 391 Ultrastructural Localization of the G-protein Gs in the Dark Cells of Rat Vestibular Organs. **2013**, 136, 58-61
- 390 Analysis of cell division and cell elongation in the hypocotyls of *Arabidopsis* heterotrimeric G protein mutants. **2013**, 1043, 37-43
- 389 Concluding Remarks. **2013**, 117-119
- 388 Suggested Readings. 225-229
- 387 Fluorid. 221-242
- 386 G-Proteins as Molecular Switches in Signal Transduction. **2014**, 163-205
- 385 Importance of G Protein-Coupled Receptor Genetics in Clinical Medicine. **2014**, 289-298 1
- 384 Laser speckle study of pulsatile flow in presence of induced motion artifact. **2014**,
- 383 G-Protein Signaling Pathways: Regulating Morphogenesis and Virulence of *Cryptococcus*. 151-165
- 382 Signal transduction by guanine nucleotide-binding proteins. **1988**, 44, 337-75 7
- 381 Wasp venom toxin mastoparan, a histamine releaser from mast cells, is a direct activator of GTP-binding regulatory proteins. **1988**, 310-312 1
- 380 Heat Production in Malignant Hyperthermia Susceptible Muscle. **1988**, 1-6
- 379 Adenosine receptors: clinical implications and biochemical mechanisms. **1988**, 32, 195-247 41
- 378 Arachidonic Acid-Induced Activation of NADPH Oxidase in Membranes of Human Neutrophils and HL-60 Leukemic Cells is Regulated by Guanine Nucleotide-Binding Proteins and is Independent of Ca<sup>2+</sup> and Protein Kinase C. **1988**, 169-179

- 377 Effects of Cholinergic Drugs on Extracellular Levels of Acetylcholine and Choline in Rat Cortex, Hippocampus and Striatum Studied by Brain Dialysis. **1989**, 25-38
- 376 Signal transduction via the B cell antigen receptor: involvement of a G protein and regulation of signaling. **1989**, 254, 101-12 1
- 375 Amacrine-Bipolar Cell Interactions Mediate Change Detection in the Retina of the Tiger Salamander. **1989**, 401-411
- 374 Molecular mechanisms of insulin signal transduction. **1989**, 103-122
- 373 Phagocyte Activation. **1989**, 25-42 1
- 372 Identification of a Protein Interacting with ras-p21- by Chemical Cross-Linking. **1989**, 281-285
- 371 Structural And Functional Studies on c-P21, v-P21 and the Genetically Engineered Guanine Nucleotide Binding Domain of EF-Tu. **1989**, 215-227
- 370 Structure and Function of G Proteins from Mammalian and Yeast Cells. **1989**, 291-304
- 369 Role of a G Protein Homolog in Yeast Pheromone Response. **1989**, 359-367
- 368 Sensitization of the Adrenergic System in Early Myocardial Ischemia: Independent Regulation of  $\beta$ Adrenergic Receptors and Adenylate Cyclase. **1989**, 98-111 1
- 367 Does HIV NEF Protein Belong to the G-Protein Family?. **1989**, 285-288
- 366 Signal-Transducing G-Proteins in Dictyostelium Discoideum. **1989**, 369-375
- 365 Comparison of Gonadotropin- and Catecholamine-Induced Alterations of the Adenylate Cyclase G-Proteins in Rabbit Corpora Lutea. **1989**, 403-407
- 364 Molecular basis of regulation of ionic channels by G proteins. **1989**, 45, 121-206; discussion 206-8 6
- 363 Cyclic Nucleotides. **1989**, 131-145
- 362 Molecular Mechanisms of G-Protein Activation. **1989**, 92-99
- 361 Modulation of Calcium and other Channels by G Proteins: Implications for the Control of Synaptic Transmission. **1989**, 127-146
- 360 The ras Oncogene and Myogenic Commitment and Differentiation. **1989**, 191-198



- 359 Behavior of Membrane Guanine-Nucleotide Binding Proteins as Signal Transducers. **1989**, 325-335
- 358 Structure-Function Relationships of The Gtp-Binding Domain of Elongation Factor Tu. **1989**, 67-75 1
- 357 Affinity Labeling of the GDP/GTP Binding Site in Thermus Thermophilus Elongation Factor Tu. **1989**, 99-110
- 356 Phenotypic and Functional Changes During T Cell Activation. **1989**, 36, 269-276
- 355 Selective Regulation of G Proteins by Cell Surface Receptors. **1989**, 1-24
- 354 Developments toward a recombinant pertussis vaccine. **1989**, 251, 1-7
- 353 Eukaryotic RAS proteins and yeast proteins with which they interact. **1989**, 147, 155-69 4
- 352 Signal Sensing and Signal Transduction Across the Plasma Membrane. **1989**, 203-232
- 351 Molecular Biology of Neuroreceptors: Implications for Clinical Neuroscience. **1989**, 645-659
- 350 Bcl-2 Encodes a Novel Small Molecular Weight GTP Binding Protein. **1989**, 479-488
- 349 An Auxin-Mediated Control of a Rapid Phosphoinositide Response in Isolated Plant Cell Membranes. **1989**, 261-264
- 348 The Use of Specific Antisera to Locate Functional Domains of Guanine Nucleotide Binding Proteins. **1989**, 67-75 1
- 347 The yeast G-protein homolog is involved in the mating pheromone signal transduction system. **1989**, 9, 152-158 8
- 346 Identification of Functional Domains in G Protein  $\beta$ Chains. **1989**, 313-324
- 345 Pertussis Toxin Uncouples Enkephalin-Mediated Inhibition of Rabbit Luteal Adenylyl Cyclase. **1989**, 393-398
- 344 Three Forms of Gi Discriminated by Synthetic Peptide Antisera. **1989**, 305-311
- 343 Inhibition of the Function of Guanine Nucleotide Binding Proteins by the New Positive Inotropes. **1990**, 226-233
- 342 Polyphosphoinositide Turnover and Signal Transduction of Auxin on Isolated Membranes of Daucus carota L.. **1990**, 122-129

- 341 Reviewmyo-Inositol metabolites as cellular signals. **1990**, 199-216
- 340 Activation of Human Neutrophils by Granyocyte-Macrophage Colony-Stimulating Factor: Role of Guanine-Nucleotide Binding Proteins. **1990**, 153-162 1
- 339 Biological Characteristics of Acute Myeloblastic Leukaemia Contributing to Management Strategy. **1990**, 87-116
- 338 CROSS-TALK BETWEEN DIFFERENT INTRACELLULAR SIGNALLING PATHWAYS IN THE RAT HIPPOCAMPUS. **1990**, 197-207
- 337 Characterisation of a Guanine Nucleotide Binding Protein Associated with the Thylakoid Membrane. **1990**, 1747-1750
- 336 Mechanism for Dual Regulation of the Particulate cGMP-Inhibited cAMP Phosphodiesterase in Rat Adipocytes by Isoproterenol and Insulin. **1990**, 309-314
- 335 The Phospholipase C Linked P2y-Purinergic Receptor. **1990**, 266-271
- 334 Biochemical Correlates of Auto-Aggressive Behavior. **1990**, 297-311
- 333 Enzymology and protein chemistry in the wider area of biology. **1990**, 352-373
- 332 Adenylyl Cyclases. **1990**, 448-466
- 331 Transducin: A Model of Biological Coupling Enzymes. **1990**, 125-132
- 330 Molecular Mechanisms of Mammalian Sperm-Zona Pellucida Interaction: Crosstalk Between Sperm and Egg. **1990**, 415-436
- 329 Mechanisms Involved in G-protein Activation by Hormone Receptors. **1990**, 199-212
- 328 The continuing story of 5-hydroxytryptamine receptors: a 5-HT3 receptor modulates dopamine release from rat striatal slice. **1990**, 117-126
- 327 Mechanisms of Adenosine Action. **1990**, 184-193
- 326 Cytokinin Mode of Action [Problems and Perspectives. **1990**, 161-172 1
- 325 Assays In Vitro and In Vivo for Invasion and Metastasis: Application to Drug Testing. **1990**, 148-165
- 324 Calcium Control Mechanisms in the Myometrial Cell and the Role of the Phosphoinositide Cycle. **1990**, 121-167

|     |  |    |
|-----|--|----|
| 323 | G Proteins. <b>1990</b> , 143-153  |    |
| 322 | Organization of Genes Coding for G-Protein $\beta$ Subunits in Higher and Lower Eukaryotes. <b>1990</b> , 63-80  | 2  |
| 321 | Neurotransmitter Assessment in Neuropsychiatric Disorders of Childhood. <b>1990</b> , 33-59  | 2  |
| 320 | The Role of GTP-Binding Proteins in the Regulation of Phospholipase A2 and C in Bovine Retinal Rod Outer Segments. <b>1990</b> , 289-300   |    |
| 319 | Is a GTP-Binding Protein Involved in the Auxin-Mediated Phosphoinositide Response on Plant Cell Membranes?. <b>1990</b> , 255-266  |    |
| 318 | Comparison of Plant and Animal Signal Transducing Systems. <b>1990</b> , 307-322   | 1  |
| 317 | Model of Signal Transduction by G Proteins. <b>1990</b> , 155-178  |    |
| 316 | The molecular components of the olfactory signal transduction cascade. <b>1990</b> , 1, 101-107  |    |
| 315 | Influence of GDP(B)S on Agonist-Induced Calcium Mobilization and Platelet Function. <b>1990</b> , 343-352  |    |
| 314 | G-Proteins in Neonatal Liver: Ontogeny and Relationship to Activation of Adenylate Cyclase. <b>1990</b> , 83-94  |    |
| 313 | Genetic Analysis of $\beta$ Adrenergic Receptor Structure and Function. <b>1990</b> , 35-53  | 1  |
| 312 | Two forms of <i>Drosophila melanogaster</i> Gs alpha are produced by alternate splicing involving an unusual splice site. <b>1990</b> , 10, 910-917  | 23 |
| 311 | Role of phosphatidylinositide metabolism in ras-induced <i>Xenopus</i> oocyte maturation. <b>1990</b> , 10, 923-929  | 12 |
| 310 | c-Ha-ras down regulates the alpha-fetoprotein gene but not the albumin gene in human hepatoma cells. <b>1990</b> , 10, 1461-1469   | 5  |
| 309 | Oncogene N-ras mediates selective inhibition of c-fos induction by nerve growth factor and basic fibroblast growth factor in a PC12 cell line. <b>1990</b> , 10, 1556-1563                 | 8  |
| 308 | SAS1 and SAS2, GTP-binding protein genes in <i>Dictyostelium discoideum</i> with sequence similarities to essential genes in <i>Saccharomyces cerevisiae</i> . <b>1990</b> , 10, 2367-2378 | 5  |
| 307 | Mutation of the Gs protein alpha subunit NH2 terminus relieves an attenuator function, resulting in constitutive adenylyl cyclase stimulation. <b>1990</b> , 10, 2931-2940                 | 7  |
| 306 | Regulation of protein kinase C activity in neuronal differentiation induced by the N-ras oncogene in PC-12 cells. <b>1990</b> , 10, 2983-2990  | 10 |

- 305 Glucagon and p21 ras enhance the phosphorylation of the same 38-kilodalton membrane protein from rat liver cells. **1990**, 10, 2468-2474 3
- 304 Alterations of G-protein coupling function in phosphoinositide signaling pathways of cells transformed by ras and other membrane-associated and cytoplasmic oncogenes. **1990**, 10, 3117-3124 3
- 303 Density-dependent nerve growth factor regulation of Gs-alpha RNA in pheochromocytoma 12 cells. **1990**, 10, 3277-3279
- 302 Biochemical characterization of baculovirus-expressed rap1A/Krev-1 and its regulation by GTPase-activating proteins. **1990**, 10, 2901-2908 25
- 301 Expression of a gene family in the dimorphic fungus *Mucor racemosus* which exhibits striking similarity to human ras genes. **1990**, 10, 6654-6663 7
- 300 The Elusive Oxidase The Respiratory Burst Oxidase of Human Phagocytes. **1991**, 215-254 1
- 299 Voltage-Gated Ionic Channels: Diversity and Modulation by Mg<sup>2+</sup>. **1991**, 21-31
- 298 Supersensitivity of the adenylyl cyclase system in acute myocardial ischemia: evaluation of three independent mechanisms. **1990**, 85 Suppl 1, 67-78 8
- 297 Activation of adenylate cyclase during swelling of S49 cells in hypotonic medium is not involved in subsequent volume regulation. **1991**, 51-56
- 296 Molecular mechanism underlying the occurrence of supersensitivity at muscarinic receptors: analysis using cerebral cortical neurons in primary culture. **1991**, 287, 331-42
- 295 Guanine Nucleotide-Binding Proteins and Their Coupling to Opioid Receptors. **1991**, 121-140
- 294 Lipid functions. **1991**, 338-387
- 293 Fluorescence Investigations of Receptor-Mediated Processes. **1991**, 135-167
- 292 Interactions Between Opioid Receptors and Guanine Nucleotide Regulatory Proteins in Intact Membranes: Studies in a Neurotumor Cell Line. **1991**, 101-120
- 291 G Proteins May Exist as Polymeric Proteins: A Basis for the Disaggregation Theory of Hormone Action. **1991**, 45-58
- 290 Die Dopaminhypothese der Schizophrenie. **1991**, 125-134
- 289 Processing of Photosensory Signals in *Halobacterium halobium*. Common Features of the Bacterial Signalling Chain and of Information Processing in Higher Developed Organisms. **1991**, 231-241 1
- 288 Cholera toxin induces expression of the immediate-early response gene JE via a cyclic AMP-independent signaling pathway. **1991**, 11, 102-107 8

- 287 The Regulation of Prostacyclin Secretion in Endothelial Cells. **1991**, 211-223 1
- 286 5-Hydroxytryptamine1A (5-HT1A) Receptor Responsivity in Anxiety Disorders and Depression. **1991**, 130-144 1
- 285 Vesicle Trafficking and Membrane Polarity in Epithelial Cells: Relationship to Intercalated Cell Function in Kidney Collecting Ducts. **1991**, 965-976
- 284 G Protein Involvement in Signal Transduction. **1991**, 267-273
- 283 Cell Surface Receptors & Signal Transduction. **1991**, 147-189
- 282 Expression of G-protein alpha-subunit cDNA. **1991**, 287, 141-9
- 281 Expression of Two Isoforms of the Guanine Nucleotide Binding Protein, Go, IN NG10815 Neuroglioma Cells. **1991**, 221-235
- 280 Historical development of the receptor concept. **1991**, 83, 3-12
- 279 Methodology for the Study of Metabolism: Cellular and Molecular Techniques. **1991**, 15-47
- 278 Structural heterogeneity of membrane receptors and GTP-binding proteins and its functional consequences for signal transduction. **1991**, 69-83 2
- 277 Neuromodulation of Non-NMDA Class Glutamate Receptor Channels in Hippocampal Neurons. **1991**, 153-168
- 276 The Control of Hypothalamic Opioid Peptide Release. **1991**, 199-211 2
- 275 Defining Sites and Mechanisms of Interaction Between Rhodopsin and Transducin. **1991**, 141-149
- 274 The Three-Dimensional Structure of P21 in the Catalytically Active Conformation and Analysis of Oncogenic Mutants. **1991**, 183-193
- 273 Hormone und Neurotransmission. **1991**, 59-76 1
- 272 The CDC25 protein of *Saccharomyces cerevisiae* promotes exchange of guanine nucleotides bound to ras. **1991**, 11, 2641-2646 74
- 271 Molecular cloning of the cDNA for stimulatory GDP/GTP exchange protein for smg p21s (ras p21-like small GTP-binding proteins) and characterization of stimulatory GDP/GTP exchange protein. **1991**, 11, 2873-2880 36
- 270 Muscarinic Receptors: Molecular Biology and Neuropsychopharmacology. **1992**, 3-17

- 269 Regulation of G proteins by mastoparan. **1992**, 393-395
- 268 Cellular Endocrinology. **1992**, 213-235
- 267 Signal Transducing G-Proteins:  $\beta$ Subunits. **1992**, 233-269
- 266 Membrane-Delimited Stimulation of Heart Cell Calcium Current by  $\beta$ Adrenergic Signal-Transducing Gs Protein. **1992**, 113-127
- 265 Immunological Probes of the Structure, Function, and Expression of Heterotrimeric GTP-Binding Proteins. **1992**, 270-298
- 264 Role of p21ras in hormone signalling and cell growth/transformation. **1992**, 321, 143-6
- 263 PAF Effects on Transmembrane Signaling Pathways in Rat Kupffer Cells. **1992**, 1038-1043
- 262 Bioactions of 5-Hydroxyicosatetraenoate and its Interaction with Platelet-Activating Factor. **1992**, 1184-1188
- 261 The Metabolic Fates and Cellular Functions of Myoinositol. **1993**, 7-19
- 260 Identification of Proteins Involved in Endosome Fusion: Implications for Toxin Activity. **1993**, 179-190
- 259 Introduction: The Biology of Receptors. **1993**, 1-25
- 258 Modulation of the Atrial Muscarinic-Gated K Current by Phosphorylation. **1993**, 57-72
- 257 Cytoskeletal Assembly: The Actin and Tubulin Nucleotidases. **1993**, 53-62
- 256 Cell Signaling and Regulation of Exocytosis at Fertilization of the Egg. **1993**, 75-102
- 255 PARATHYROID HORMONE BIOSYNTHESIS AND ACTION. **1993**, 321-341
- 254 The importance of a disulphide bond in the binding of dopamine to the D2 receptor: A molecular modelling study. **1993**, 197-200
- 253 G-Protein  $\beta$ Subunit Chimeras Reveal Specific Regulatory Domains Encoded in the Primary Sequence. **1993**, 79-97
- 252 Catecholamine-Induced Chloride Current in Cardiac Myocytes. **1993**, 19-56

- 251 Interaction of peptide fragments corresponding to cytoplasmic loops of G protein-coupled receptors with G protein and phospholipid membrane. **1993**, 677-680
- 250 GUANYLYL CYCLASE-LINKED RECEPTORS. **1993**, 89-100
- 249 Receptors and Responses. **1993**, 223-296
- 248 Regulated Exocytosis and Interorganelle Vesicular Traffic: A Comparative Analysis. **1993**, 487-505
- 247 Activation Mechanisms of Cardiac Muscarinic K Channels. **1993**, 47-59
- 246 Cyclic AMP Metabolism in Intact Rat Ventricular Cardiac Myocytes: Interaction of Carbachol with Isoproterenol and 3-Isobutyl-L-Methylxanthine. **1993**, 195-201
- 245 Zellbewegung und Metastasierung: Ber die Rolle des Rezeptors des autokrinen Motilitätsfaktors bei Tumorzellen. **1993**, 103-124
- 244 Lipid Modifications of GTP-Binding Regulatory Proteins. **1993**, 45-54
- 243 The Impact of Molecular Genetics on Cancer Research. **1993**, 3-13
- 242 G-Protein Regulation of Phospholipase C in the Turkey Erythrocyte. **1993**, 401-415
- 241 G-Protein Regulation of Cardiac K<sup>+</sup> Channels. **1993**, 499-526
- 240 Guanine Nucleotide Dissociation Stimulators. **1993**, 361-375
- 239 GTP-Binding Proteins and Formation of Secretory Vesicles. **1993**, 147-162 1
- 238 Tyrosine phosphorylation and the mechanism of signal transduction by the B-lymphocyte antigen receptor. **1993**, 245-252
- 237 Antibody mimicking the action of RAS proteins on yeast adenylyl cyclase: implication for RAS-effector interaction. **1993**, 13, 769-774 5
- 236 Early cellular events in the induction of murine hepatitis virus (MHV-3) induced macrophage procoagulant activity (PCA). **1993**, 342, 385-8 1
- 235 Signalling in the Activation of Immunologically Relevant Cells. **1994**, 99-128
- 234 Signaling Mechanisms Utilized by Mammalian Cells. **1994**, 27-62

- 233 Activation of GTP-binding proteins by aluminum fluoride modulates catecholamine release in the rabbit carotid body. **1994**, 360, 205-8
- 232 Gestörte Sekretions- und Resorptionsmechanismen bei Diarrhö **1994**, 103-116
- 231 Nucleoside and Nucleotide Modulation of Oncogenic Expression: A New Approach to Cancer Chemotherapy. **1994**, 149-182 1
- 230 Platelet-Activating Factor: Receptors and Receptor Antagonists. **1994**, 297-360 2
- 229 Signal Transduction Processes in Sensorimotor Neurons of the Enteric Nervous System. **1994**, 35-45
- 228 Regulation of the Cyclic Nucleotide-Dependent Pathway in Seminiferous Tubule Cells. **1994**, 373-387
- 227 Calcium Fluxes and Distribution in Neurons. **1994**, 53-68
- 226 Role of Calcium in Stimulus-Secretion Coupling in Exocrine Glands. **1994**, 59-90
- 225 Growth Stimulation Mediated by G Protein Coupled Receptors in Hepatocytes: Synergism with Epidermal Growth Factor and Mechanisms of Signal Transduction. **1994**, 71-91
- 224 Adrenaline and Noradrenaline. **1995**, 1-79
- 223 Membrane Receptors. **1995**, 39, 187-230
- 222 Defective ANF-R2/ANP-C receptor-mediated signalling in hypertension. **1995**, 223-231
- 221 Signaling Through G Protein-Coupled Receptors. **1995**, 65-93
- 220 Dynamics of Ion Channels Modified by Mobilized Calcium in Vascular Smooth Muscle Cells. **1995**, 1-45
- 219 Reversal of defective G-proteins and adenylyl cyclase/cAMP signal transduction in diabetic rats by vanadyl sulphate therapy. **1995**, 113-119
- 218 GTPases: Key regulatory components of the endocytic pathway. **1995**, 223-234
- 217 CREM, a master-switch in the nuclear response to cAMP signaling. **1995**, 1-38
- 216 Alterations of  $\beta$ -adrenoceptor-G-protein-regulated adenylyl cyclase in heart failure. **1995**, 147-160 1



- 215 Sympathetic Neuroeffector Mechanisms in the Failing and Hypertrophied Myocardium. **1995**, 403-417 1
- 214 PHARMACOLOGIC MANIPULATION OF THE CIRCULATION. **1995**, 13, 21-35
- 213 Purines and Ventricular Arrhythmias. **1996**, 383-394 1
- 212 Affective Disorders. **1996**, 35-83
- 211 Light Signal Transduction Mediated by Phytochromes. **1996**, 197-218
- 210 Adrenergic and muscarinic regulation of L-type calcium current. **1996**, 81-91
- 209 Differences in response to activation of adenylyl cyclase by various stimulants in human myocardium. **1996**, 329-333
- 208 Some Aspects of the Molecular Endocrinology of Prostatic Cancer. **1996**, 3-29 1
- 207 The Role of G Proteins in Myocardial Preconditioning. **1996**, 147-166
- 206 The Role of Alpha-Adrenergic Activity in Cardioprotection Against Ischemic Injury. **1996**, 417-432
- 205 Molecular biology of adrenergic receptors. **1996**, 54-59
- 204 The guanine nucleotide-binding regulatory proteins (G proteins) in myocardium with ischemia. **1996**, 153-158
- 203 Muscarinic and purinergic regulation of cardiac K<sup>+</sup> channels. **1996**, 177-186
- 202 G proteins, adenylyl cyclase and related phosphoproteins in the developing rat heart. **1996**, 31-38
- 201 Defective G-Protein Expression and Adenylyl Cyclase in Genetic and Experimental Hypertension. **1996**, 311-329
- 200 Phosphotransfer reactions as a means of G protein activation. **1996**, 59-63
- 199 Regulation of G protein function: Implications for heart disease. **1996**, 31-38
- 198 G-Protein Regulation of Plant K<sup>+</sup> Channels. **1996**, 39-61 1

- 197 Possible role of BARS-50, a substrate of brefeldin A-dependent mono-ADP-ribosylation, in intracellular transport. **1997**, 419, 321-30 3
- 196 A New Mechanism for G Protein Activation. **1997**, 93-111
- 195 Nucleotide Exchange Reactions and G Protein Activation. **1997**, 75-92
- 194 Differential regulation of G-protein expression by vasoactive peptides. **1997**, 21-27
- 193  $\beta$ Adrenerge Signaltransduktion am insuffizienten menschlichen Herzen. **1997**, 21-35
- 192 G Protein-Coupled Receptors and G Proteins. **1997**, 43-62
- 191 Principles of a New Molecular Mechanism for Signal Transduction. **1997**, 113-141
- 190 Receptors. **1997**, 9-33
- 189 Involvement of GTP in the Primary Proteolysis of the D1 Protein During Photoinhibition of Photosystem II. **1998**, 2019-2022
- 188 Effects of Antidepressants on Transmembrane Signaling. **1998**, 1-6
- 187 ???/cAMP????????????????C/Ca<sup>2+</sup>????????????-. **1998**, 24, 14-21
- 186 Human Gonadotropin Receptors: Pathophysiology, Pharmacology, and Molecular Mechanisms. **1998**, 153-177
- 185 Mechanisms of thyroid hormone control over sensitivity and maximal contractile responsiveness to  $\beta$ adrenergic agonists in atria. **1998**, 419-426
- 184 Antisense Oligodeoxynucleotides as Specific Tools for Studying Opioid Receptor-Mediated Analgesia. **1998**, 103-124
- 183 Molecular Organization of the  $\beta$ Adrenergic System. **1998**, 129-158
- 182 Molekulare Grundlagen der Herzinsuffizienz. **1998**, 147-221 o
- 181 Serotonergic and Noradrenergic Neuromodulation in the Hippocampus and the Mechanism of Action of Antidepressants. **1998**, 7-20
- 180 Adenosine and Cardiac Aging. **1998**, 143-158

- 179 Different Effects of Gs $\alpha$  Splice Variants on  $\beta$ -Adrenoreceptor-mediated Signaling. **1998**, 273, 5109a-5116 1
- 178 Light Signal Transduction and Gene Expression. **1999**, 897-929 1
- 177 Molekulare Mechanismen der Depressionstherapie. **1999**, 273-318 3
- 176 Neuroactive Steroid Modulation of Neuronal Voltage-Gated Calcium Channels. **1999**, 225-232 1
- 175 A Eukaryotic Neighbor: Dictyostelium discoideum. 439-452
- 174 Trafficking and the Tubulovesicular Membrane Network. 253-271 1
- 173 The Role of  $\mu$ Opioid Receptors in Brain Ionic Homeostasis Under Physiological Condition. **2015**, 117-246 1
- 172 Gastrointestinal Hormones and Receptors. 198-226 1
- 171 Encyclopedia of Signaling Molecules. **2016**, 1-7
- 170 Encyclopedia of Signaling Molecules. **2016**, 1-5
- 169 Differential Control of Potassium Channel Activity by GRK2. **2016**, 173-183
- 168 G-Protein  $\beta$  (GNAQ). **2017**, 1-5
- 167 Inositol Trisphosphate and Smooth Muscle Function. **2017**, 413-445
- 166 Encyclopedia of Signaling Molecules. **2018**, 4657-4663
- 165 Encyclopedia of Signaling Molecules. **2018**, 2230-2234
- 164 Encyclopedia of Signaling Molecules. **2018**, 4577-4583
- 163 Encyclopedia of Signaling Molecules. **2018**, 1927-1940
- 162 Signal Processing in the Brainstem Auditory Nuclei. **2019**, 43-109

- 161 Heterotrimeric G-Protein Signaling in Plants. **2019**, 189-226
- 160 Noncanonical scaffolding of Gβ and β-arrestin by G protein-coupled receptors.
- 159 A kinetic operational model of agonism incorporating receptor desensitization for G-protein-coupled receptors. 1
- 158 A decoy heterotrimeric Gβγ protein has substantially reduced nucleotide binding but retains nucleotide-independent interactions with its cognate RGS protein and Gα dimer.
- 157 A Universal Allosteric Mechanism for G Protein Activation.
- 156 A GTP-state specific cyclic peptide inhibitor of the GTPase Gβγ. 0
- 155 Receptor tyrosine kinases activate heterotrimeric G proteins via phosphorylation within the interdomain cleft of Gβγ
- 154 STABILITY ANALYSIS OF A SIGNALING CIRCUIT WITH DUAL SPECIES OF GTPASE SWITCHES. 0
- 153 Optogenetic activation of heterotrimeric Gi proteins by LOV2-GiVeb a rationally engineered modular protein.
- 152 Modulation of cAMP metabolism for CFTR potentiation in human airway epithelial cells.
- 151 The GPCR-β-arrestin complex allosterically activates C-Raf by binding its amino terminus. **2021**, 297, 101369 1
- 150 Heterotrimeric G Proteins in Plants: Canonical and Atypical Gβγ Subunits. *International Journal of Molecular Sciences*, **2021**, 22, 6.3 1
- 149 Genetics of Uveal Melanoma. **2021**, 71-85
- 148 The G-protein β subunits regulate platelet function. **2020**, 262, 118481 0
- 147 Protein-protein interactions at a glance: Protocols for the visualization of biomolecular interactions. **2021**, 166, 271-307 1
- 146 Analysis of the effect of trichloroacetic acid and epidermal growth factor release on cytoskeleton gene expression using the nano-controlled releasing system. **2020**, 58, 290
- 145 Molecular mechanisms regulating hormone production and action. **2020**, 131-176
- 144 Chapter 3:ATP as the Premier Biological Phosphoryl Transfer Reagent. **2020**, 57-104

|     |   |     |
|-----|---|-----|
| 143 | Molecular Biology of the Nociceptor/Transduction. <b>2020</b> , 88-119  |     |
| 142 | G protein-regulated endocytic trafficking of adenylyl cyclase type 9.   |     |
| 141 | Measuring G Protein Activation with Spectrally Resolved Fluorescence Fluctuation Spectroscopy.  |     |
| 140 | Kernel Generative Topographic Mapping of Protein Sequences. 817-830   |     |
| 139 | Histamine and Its Receptors. <b>2009</b> , 329-356  | 1   |
| 138 | Hydrocarbon Utilisation by Streptomyces Soil Bacteria. <b>2001</b> , 185-190  |     |
| 137 | Lipid functions. <b>1991</b> , 338-387  |     |
| 136 | Phosducin-Like Protein 1 (Phlp1) and Phosducin-Like Orphan Protein 1 (Phlop1). <b>1999</b> , 431-442  |     |
| 135 | Status of Adrenoceptors, G-Proteins, and Adenylyl Cyclase in Ischemic Heart Disease. <b>1998</b> , 97-123   |     |
| 134 | Receptors. <b>2005</b> , 9-33   |     |
| 133 | Heterotrimeric G Proteins and Their Effector Pathways. <b>2005</b> , 109-134  |     |
| 132 | The Unusual Regulation of the Adenylyl cyclase of Amphibian Oocytes by Progesterone - A Review.   |     |
| 131 | A Universal Allosteric Mechanism for G Protein Activation.  | 1   |
| 130 | Role of SGP2, a suppressor of a gpa1 mutation, in the mating-factor signaling pathway of <i>Saccharomyces cerevisiae</i> . <b>1988</b> , 8, 5410-5416     | 14  |
| 129 | Relationship among guanine nucleotide exchange, GTP hydrolysis, and transforming potential of mutated ras proteins. <b>1988</b> , 8, 2472-2478            | 100 |
| 128 | Characterization of phytochrome-regulated gene expression in a photoautotrophic cell suspension: possible role for calmodulin. <b>1989</b> , 9, 4819-4823 | 19  |
| 127 | The G protein alpha o subunit alters morphology, growth kinetics, and phospholipid metabolism of somatic cells. <b>1989</b> , 9, 5434-5439                | 6   |
| 126 | Lymphocyte-specific Ca <sup>2+</sup> -binding protein LSP1 is associated with the cytoplasmic face of the plasma membrane. <b>1989</b> , 9, 3043-3048     | 9   |

|     |  |     |
|-----|--|-----|
| 125 | A common switch in activation of the response regulators NtrC and PhoB: phosphorylation induces dimerization of the receiver modules. <b>1995</b> , 14, 3696-705   | 51  |
| 124 | Galanin activates nucleotide-dependent K <sup>+</sup> channels in insulin-secreting cells via a pertussis toxin-sensitive G-protein. <b>1989</b> , 8, 413-20   | 48  |
| 123 | Regulation of the mannose 6-phosphate/IGF II receptor expression at the cell surface by mannose 6-phosphate, insulin like growth factors and epidermal growth factor. <b>1989</b> , 8, 681-6                                     | 17  |
| 122 | The ras-related mouse ypt1 protein can functionally replace the YPT1 gene product in yeast. <b>1989</b> , 8, 1427-32   | 56  |
| 121 | Mutational analysis of SEC4 suggests a cyclical mechanism for the regulation of vesicular traffic. <b>1989</b> , 8, 1685-93  | 125 |
| 120 | Association of two pertussis toxin-sensitive G-proteins with the D2-dopamine receptor from bovine striatum. <b>1989</b> , 8, 2353-7  | 5   |
| 119 | The adenylate cyclase-coupled vasopressin V2-receptor is highly laterally mobile in membranes of LLC-PK1 renal epithelial cells at physiological temperature. <b>1989</b> , 8, 2481-8  | 10  |
| 118 | Identification of a common signal associated with cellular proliferation stimulated by four haemopoietic growth factors in a highly enriched population of granulocyte/macrophage colony-forming cells. <b>1989</b> , 8, 2967-74 | 13  |
| 117 | A human homologue of the yeast GST1 gene codes for a GTP-binding protein and is expressed in a proliferation-dependent manner in mammalian cells. <b>1989</b> , 8, 3807-14   | 50  |
| 116 | Hormonal induction of low affinity receptor guanylyl cyclase. <b>1993</b> , 12, 769-77   | 24  |
| 115 | Receptor stimulated accumulation of phosphatidylinositol (3,4,5)-trisphosphate by G-protein mediated pathways in human myeloid derived cells. <b>1993</b> , 12, 2265-73  | 44  |
| 114 | Identification of an extracellular motif involved in the binding of guanine nucleotides by a glutamate receptor. <b>1996</b> , 15, 1548-56   | 18  |
| 113 | New antibiotic that acts specifically on the GTP-bound form of elongation factor Tu. <b>1991</b> , 10, 779-84  | 20  |
| 112 | Mutational analysis of the putative effector domain of the GTP-binding Ypt1 protein in yeast suggests specific regulation by a novel GAP activity. <b>1991</b> , 10, 785-92  | 31  |
| 111 | The orphan receptor cDNA RDC7 encodes an A1 adenosine receptor. <b>1991</b> , 10, 1677-82  | 45  |
| 110 | The molecular genetics of Enhancer of split, a gene required for embryonic neural development in <i>Drosophila</i> . <b>1988</b> , 7, 3917-27  | 48  |
| 109 | Structure-function relationships in the GTP binding domain of EF-Tu: mutation of Val20, the residue homologous to position 12 in p21. <b>1988</b> , 7, 2861-7  | 10  |
| 108 | In vitro reconstitution of cdc25 regulated <i>S. cerevisiae</i> adenylyl cyclase and its kinetic properties. <b>1990</b> , 9, 641-51   | 18  |

|     |   |     |
|-----|---|-----|
| 107 | Regulation of the yeast pheromone response pathway by G protein subunits. <b>1990</b> , 9, 691-6  | 60  |
| 106 | A Go-like protein in <i>Drosophila melanogaster</i> and its expression in memory mutants. <b>1990</b> , 9, 1449-55  | 8   |
| 105 | The <i>ryh1</i> gene in the fission yeast <i>Schizosaccharomyces pombe</i> encoding a GTP-binding protein related to <i>ras</i> , <i>rho</i> and <i>ypt</i> : structure, expression and identification of its human homologue. <b>1990</b> , 9, 1949-55 | 26  |
| 104 | Lateral mobility of the phospholipase C-activating vasopressin V1-type receptor in A7r5 smooth muscle cells: a comparison with the adenylate cyclase-coupled V2-receptor. <b>1990</b> , 9, 2693-9   | 8   |
| 103 | Dissection of thymocyte signaling pathways by in vivo expression of pertussis toxin ADP-ribosyltransferase. <b>1990</b> , 9, 3821-9   | 75  |
| 102 | Distinct sequence elements control the specificity of G protein activation by muscarinic acetylcholine receptor subtypes. <b>1990</b> , 9, 4381-90  | 41  |
| 101 | Refined crystal structure of the triphosphate conformation of H-ras p21 at 1.35 Å resolution: implications for the mechanism of GTP hydrolysis. <b>1990</b> , 9, 2351-9   | 311 |
| 100 | Rapid activation of alternative second messenger pathways in olfactory cilia from rats by different odorants. <b>1990</b> , 9, 2453-8   | 72  |
| 99  | The <i>ras</i> -related <i>ypt</i> protein is an ubiquitous eukaryotic protein: isolation and sequence analysis of mouse cDNA clones highly homologous to the yeast YPT1 gene. <b>1987</b> , 6, 4049-53   | 46  |
| 98  | Multiple trimeric G-proteins on the trans-Golgi network exert stimulatory and inhibitory effects on secretory vesicle formation. <b>1992</b> , 11, 4795-804   | 50  |
| 97  | Fluoroaluminates mimic muscarinic- and oxytocin-receptor-mediated generation of inositol phosphates and contraction in the intact guinea-pig myometrium. Role for a pertussis/cholera-toxin-insensitive G protein. <b>1988</b> , 255, 705-13            | 68  |
| 96  | Oxytocin receptor couples to the 80 kDa G $\alpha$ family protein in human myometrium. <b>1996</b> , 315 (Pt 3), 739-44   | 16  |
| 95  | Characterization of heterotrimeric G-proteins in adult <i>Acanthocheilonema viteae</i> . <b>1996</b> , 320 (Pt 2), 459-66   | 2   |
| 94  | Novel bimodal effects of the G-protein tissue transglutaminase on adrenoreceptor signalling. <b>1999</b> , 343 Pt 3, 541-9  | 8   |
| 93  | Rem2, a new member of the Rem/Rad/Gem/Kir family of Ras-related GTPases. <b>2000</b> , 347 Pt 1, 223-31   | 49  |
| 92  | Persistent activation of G $\alpha$ through limited proteolysis by calpain. <b>2000</b> , 347 Pt 3, 733-40  | 5   |
| 91  | Human rheumatoid synovial cell stimulation by the membrane attack complex and other pore-forming toxins in vitro: the role of calcium in cell activation. <b>1990</b> , 71, 312-6   | 12  |
| 90  | Pharmacological control of human basophil histamine release stimulated by eosinophil granule major basic protein. <b>1989</b> , 66, 611-5   | 24  |

|    |   |     |
|----|---|-----|
| 89 | Immunoglobulin subunits of murine B lymphocytes: structure and associations with other membrane proteins. <b>1989</b> , 67, 251-7   | 4   |
| 88 | Effects of prostaglandin E2, cholera toxin and 8-bromo-cyclic AMP on lipopolysaccharide-induced gene expression of cytokines in human macrophages. <b>1995</b> , 84, 446-52 | 68  |
| 87 | Effects of pertussis toxin treatment on human natural killer cell function. <b>1992</b> , 76, 402-7   | 21  |
| 86 | The gene for the alpha i1 subunit of human guanine nucleotide binding protein maps near the cystic fibrosis locus. <b>1988</b> , 42, 884-8                                  | 5   |
| 85 | Tumor-secreted vascular permeability factor increases cytosolic Ca <sup>2+</sup> and von Willebrand factor release in human endothelial cells. <b>1991</b> , 138, 213-21    | 235 |
| 84 | Case studies in cholera: lessons in medical history and science. <b>1999</b> , 72, 393-408  | 8   |
| 83 | Demonstration of distinct agonist and antagonist conformations of the A1 adenosine receptor. <b>1989</b> , 264, 13157-64  | 25  |
| 82 | Mechanisms underlying reduced responsiveness of neonatal neutrophils to distinct chemoattractants. <b>2001</b> , 70, 969-76   | 33  |
| 81 | G-protein coupled receptor resensitization-appreciating the balancing act of receptor function. <b>2012</b> ,   | 18  |
| 80 | Low expression of GNAI3 predicts poor prognosis in patients with HCC. <b>2015</b> , 8, 21482-6  | 8   |
| 79 | An Insight into GPCR and G-Proteins as Cancer Drivers.. <b>2021</b> , 10,   | 4   |
| 78 | Inhibition of Interactions Between NDPK-B and NDPK-C in Presence of Graphene Oxide.   |     |
| 77 | Critical cysteines in the functional interaction of adenylyl cyclase isoform 6 with G $\beta$ .   | 1   |
| 76 | Pharmacology of Viral GPCRs: All-Round Chemokine Receptor Homologs. <b>2021</b> ,   |     |
| 75 | Quantifying the Kinetics of Signaling and Arrestin Recruitment by Nervous System G-Protein Coupled Receptors.. <b>2021</b> , 15, 814547                                     | 1   |
| 74 | A network of G $\beta$ signaling partners is revealed by proximity labeling proteomics analysis and includes PDZ-RhoGEF.. <b>2022</b> , 15, eabi9869                        | 1   |
| 73 | Cryo-EM structure of human GPR158 receptor coupled to the RGS7-G $\beta$ signaling complex. <b>2022</b> , 375, 86-91  | 5   |
| 72 | The Expression and Prognostic Significance of Major MicroRNA Genes in Breast Cancer Based on Bioinformatics Analysis. <b>2022</b> , 11, 1-30                                |     |



|    |   |    |
|----|---|----|
| 71 | PTH1R Actions on Bone Using the cAMP/Protein Kinase A Pathway.. <b>2021</b> , 12, 833221  | 1  |
| 70 | The Hippo pathway in cancer: YAP/TAZ and TEAD as therapeutic targets in cancer.. <b>2022</b> , 136, 197-222   | 4  |
| 69 | Balanced expression of G protein-coupled receptor subtypes in the mouse, macaque, and human cerebral cortex.. <b>2022</b> , 487, 107-107  | 2  |
| 68 | Signal transduction in cells following binding of chemoattractants to membrane receptors. <b>1988</b> , 55, 65-80   | 27 |
| 67 | Alterations of beta-adrenoceptor-G-protein-regulated adenylyl cyclase in heart failure. <b>1995</b> , 147, 147-60   | 12 |
| 66 | Differential regulation of G-protein expression by vasoactive peptides. <b>1997</b> , 176, 21-7   |    |
| 65 | Mechanisms of thyroid hormone control over sensitivity and maximal contractile responsiveness to beta-adrenergic agonists in atria. <b>1998</b> , 184, 419-26                               |    |
| 64 | Cryo-EM structure of human GPR158 receptor coupled to the RGS7-Gβ signaling complex. <b>2021</b> , eabl4732   | o  |
| 63 | Biology and pathophysiology of central nervous system metastases. <b>2022</b> , 55-78   |    |
| 62 | The Genome of the Marine Rotifer Brachionus manjavacas: Genome-Wide Identification of 310 G Protein-Coupled Receptor (GPCR) Genes.. <b>2022</b> , 24, 226                                   | 3  |
| 61 | Intrinsically disordered proteins play diverse roles in cell signaling.. <b>2022</b> , 20, 20   | 8  |
| 60 | The multifaceted roles of heterotrimeric G-proteins: lessons from models and crops.. <b>2022</b> , 255, 88  | o  |
| 59 | GNG2 acts as a tumor suppressor in breast cancer through stimulating MRAS signaling.. <b>2022</b> , 13, 260   | o  |
| 58 | Ligand-Dependent Modulation of the Dynamics of Intracellular Loops Dictates Functional Selectivity of 5-HTR.. <b>2022</b> ,   | o  |
| 57 | Adenosine A1R/A3R Agonist AST-004 Reduces Brain Infarction in Mouse and Rat Models of Acute Ischemic Stroke.  |    |
| 56 | Quantitative live-cell imaging of GPCR downstream signaling dynamics.. <b>2022</b> ,  | o  |
| 55 | G protein-coupled receptors (GPCRs) in rotifers and cladocerans: Potential applications in ecotoxicology, ecophysiology, comparative endocrinology, and pharmacology.. <b>2022</b> , 109297 | 1  |
| 54 | The interplay of GTP-binding protein AGB1 with ER stress sensors IRE1a and IRE1b modulates Arabidopsis unfolded protein response and bacterial immunity.. <b>2021</b> , 2018857             | o  |

|    |  |      |   |
|----|--|------|---|
| 53 | Data_Sheet_1.pdf. <b>2020</b> ,  |      |   |
| 52 | The mechanism for ligand activation of the GPCR-G protein complex.. <b>2022</b> , 119, e2110085119   |      | 2 |
| 51 | Discovery of small molecule G $\beta$ /11 protein inhibitors against uveal melanoma. <b>2022</b> ,   |      | 0 |
| 50 | Ion Channels That Are Directly Regulated by G Proteins. <b>1995</b> , 378-385  |      |   |
| 49 | Nucleotide-decoupled G proteins reveal the role of G protein conformation in receptor-G protein selectivity.   |      | 0 |
| 48 | cAMP Signalling Pathway in Biocontrol Fungi. <i>Current Issues in Molecular Biology</i> , <b>2022</b> , 44, 2622-2634  | 2.9  | 0 |
| 47 | Direct Regulation of Ion Channels by G Proteins. <b>2001</b> , 573-583   |      | 0 |
| 46 | Crosstalk Between Wilt-Causing Fungi, Plants and Their Microbiome. <i>Rhizosphere Biology</i> , <b>2022</b> , 155-178  | 0.8  |   |
| 45 | Structural insights into G protein activation by D1 dopamine receptor. <i>Science Advances</i> , <b>2022</b> , 8,  | 14.3 | 0 |
| 44 | Interacting partners of Brassica juncea Regulator of G-protein Signaling protein suggest its role in cell wall metabolism and cellular signaling. <i>Bioscience Reports</i> ,                                    | 4.1  |   |
| 43 | G Protein-Coupled Receptor Signaling: Transducers and Effectors. <i>American Journal of Physiology - Cell Physiology</i> ,   | 5.4  | 2 |
| 42 | G-Protein-Coupled Receptors in Rheumatoid Arthritis: Recent Insights into Mechanisms and Functional Roles. <i>Frontiers in Immunology</i> , 13,  | 8.4  | 0 |
| 41 | Molecular Identification of the G-Protein Genes and Their Expression Profiles in Response to Nitrogen Deprivation in Brassica napus. <i>International Journal of Molecular Sciences</i> , <b>2022</b> , 23, 8151 | 6.3  | 1 |
| 40 | $\beta$ ADRENERGIC AGONIST THERAPY. <b>1993</b> , 13, 839-860  |      | 1 |
| 39 | G $\beta$ protein subunit: A step toward understanding its non-canonical mechanisms. 10,   |      | 1 |
| 38 | Cell-To-Cell Communication in the Resistance Vasculature. 1-35   |      |   |
| 37 | Sequential formation of heteroternary CB[10] complexes.  |      | 0 |
| 36 | Decrease in cAMP levels modulates adhesion to fibronectin and immunostimulatory ability of human dendritic cells. <b>2002</b> , 72, 93-100   |      | 4 |

|    |   |   |
|----|---|---|
| 35 | Phosphorylation of Gβ shapes canonical Gβγ/PCR signaling.   | 0 |
| 34 | The interaction, mechanism and function of GPR158-RGS7 cross-talk. <b>2022</b> ,  | 1 |
| 33 | Free fatty acid receptors in the endocrine regulation of glucose metabolism: Insight from gastrointestinal-pancreatic-adipose interactions. 13, | 1 |
| 32 | Cancer-Associated Mutations Enhance The Sensitivity Of The Trupath Gα/11 System.  | 0 |
| 31 | Arrestin and G Protein Interactions with GPCRs: A Structural Perspective. <b>2022</b> , 109-179   | 0 |
| 30 | Multiple functions of phospholipase Cβ at a glance. <b>2022</b> , 135,  | 0 |
| 29 | Functions of regulators of G protein signaling 16 in immunity, inflammation, and other diseases. 9,   | 0 |
| 28 | Endosomal Chemokine Receptor Signalosomes Regulate Central Mechanisms Underlying Cell Migration.  | 0 |
| 27 | GPCR Signaling in Nanodomains: Lessons from Single-Molecule Microscopy. <b>2022</b> , 946-977   | 0 |
| 26 | RGS12 polarizes the GPM2-GNAI complex to organize and elongate stereocilia in sensory hair cells. <b>2022</b> , 8,                              | 0 |
| 25 | G protein gamma subunit, a hidden master regulator of GPCR signaling. <b>2022</b> , 102618  | 0 |
| 24 | AVaccinia-based system for directed evolution of GPCRs in mammalian cells.  | 0 |
| 23 | Characterization of a Novel Weak Allele of RGA1/D1 and Its Potential Application in Rice Breeding. <b>2022</b> , 29, 522-534                    | 0 |
| 22 | Basic Principles of Pharmacologic Action. <b>1991</b> , 26, 245-262   | 0 |
| 21 | Second Messenger Systems. <b>2022</b> , 193-201   | 0 |
| 20 | Adenosine A1R/A3R agonist AST-004 reduces brain infarction in mouse and rat models of acute ischemic stroke. 1,                                 | 0 |
| 19 | ArabidopsisORP2A positively regulates glucose signaling by interacting with AtRGS1 and promoting AtRGS1 degradation.                            | 0 |
| 18 | The Rice Blast Fungus Magnaporthe oryzae Uses a Turgor-Dependent, Septin-Mediated Mechanism to Invade Rice. <b>2023</b> , 307-327               | 0 |

- 17 The role of G protein conformation in receptor $\beta$  protein selectivity. ○
- 16 Stickier G-protein conformations. ○
- 15 The multimodal action of G alpha q in coordinating growth and homeostasis in theDrosophilawing imaginal disc. ○
- 14 Role of Graphene Oxide in Inhibiting the Interactions between Nucleoside Diphosphate Kinases -B and -C. **2023**, 3, 22-34 ○
- 13 Fluorescent proteins and genetically encoded biosensors. 1
- 12 Features of the immune status in HIV-infected patients with Kaposi $\beta$  sarcoma. **2023**, 22, 130 ○
- 11 Stabilization of Interdomain Interactions in G protein  $\beta$ Subunits Determines G $\beta$ Subtype Signaling Specificity. ○
- 10 The histamine H3 receptor modulates dopamine D2 receptor $\beta$ dependent signaling pathways and mouse behaviors. **2023**, 299, 104583 ○
- 9 The crosstalk between 5-HT2AR and mGluR2 in schizophrenia. **2023**, 230, 109489 ○
- 8 G-Protein  $\beta$ Subunit Gene TaGB1-B Enhances Drought and Salt Resistance in Wheat. **2023**, 24, 7337 ○
- 7 Insights into cryptochrome modulation of ABA signaling to mediate dormancy regulation in Marchantia polymorpha. **2023**, 238, 1479-1497 ○
- 6 Small-molecule targeting of GPCR-independent non-canonical G protein signaling inhibits cancer progression. ○
- 5 Protein Design Strategies for the Structural $\beta$ Functional Studies of G Protein-Coupled Receptors. **2023**, 88, S192-S226 ○
- 4 Fine-tuning GPCR-mediated neuromodulation by biasing signaling through different G-protein subunits. ○
- 3 A Vaccinia-based system for directed evolution of GPCRs in mammalian cells. **2023**, 14, ○
- 2 Unveiling the Differences in Signaling and Regulatory Mechanisms between Dopamine D2 and D3 Receptors and Their Impact on Behavioral Sensitization. **2023**, 24, 6742 ○
- 1 Function Investigations and Applications of Membrane Proteins on Artificial Lipid Membranes. **2023**, 24, 7231 ○