

CITATION REPORT

List of articles citing

Rapid and efficient site-specific mutagenesis without phenotypic selection

DOI: 10.1073/pnas.82.2.488

Proceedings of the National Academy of Sciences of the United States of America, 1985, 82, 488-92.

Source: <https://exaly.com/paper-pdf/17492905/citation-report.pdf>

Version: 2024-04-10

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
1856	Cerebral Angiography. 1951 , 1, 95-95		
1855	Strategies and applications of in vitro mutagenesis. 1985 , 229, 1193-201		184
1854	Improved oligonucleotide site-directed mutagenesis using M13 vectors. 1985 , 13, 4431-43		520
1853	In vitro mutagenesis. 1985 , 19, 423-62		266
1852	The rapid generation of oligonucleotide-directed mutations at high frequency using phosphorothioate-modified DNA. 1985 , 13, 8765-85		813
1851	Efficient oligodeoxyribonucleotide-directed deletion mutagenesis using pEMBL vectors: removal of early region introns from polyoma virus mutants. 1986 , 49, 331-40		15
1850	Automated DNA Sequencing: Progress and Prospects. 1986 , 4, 890-895		8
1849	Yeast killer toxin: site-directed mutations implicate the precursor protein as the immunity component. 1986 , 46, 105-13		83
1848	A compensatory base change in U1 snRNA suppresses a 5' splice site mutation. 1986 , 46, 827-35		724
1847	lac permease of Escherichia coli: histidine-322 and glutamic acid-325 may be components of a charge-relay system. <i>Biochemistry</i> , 1986 , 25, 4486-8	3.2	135
1846	Site-directed mutagenesis. 1986 , 237, 1-7		98
1845	Studies of the radical species in compound ES of cytochrome c peroxidase altered by site-directed mutagenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986 , 83, 1295-9	11.5	49
1844	The in vivo mutagenic frequency and specificity of O6-methylguanine in phi X174 replicative form DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986 , 83, 7348-52	11.5	71
1843	Analysis of gamma delta resolvase mutants in vitro: evidence for an interaction between serine-10 of resolvase and site I of res. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986 , 83, 5429-33	11.5	67
1842	Analysis of the essential and excision repair functions of the RAD3 gene of <i>Saccharomyces cerevisiae</i> by mutagenesis. 1986 , 6, 1218-27		64
1841	Base substitutions in the tRNA anticodon arm do not degrade the accuracy of reading frame maintenance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986 , 83, 6538-42	11.5	45
1840	Surface structure recognized for covalent modification of the aspartate receptor in chemotaxis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986 , 83, 6707-10	11.5	37

1839	Site-directed mutagenesis. 1986 , 317, 295-304	12
1838	Mutational replacement of methionine by arginine in the S?1 substrate binding site of yeast carboxypeptidase. 1986 , 51, 459-465	3
1837	Oligodeoxynucleotide-directed mutagenesis of Escherichia coli and yeast by simple cotransformation of the primer and template. 1986 , 5, 325-32	28
1836	Chromogenic identification of oligonucleotide-directed mutants. 1986 , 14, 8489-99	13
1835	Human Apolipoprotein Mutants. 1986 ,	
1834	Inhibition of restriction endonuclease Nci I cleavage by phosphorothioate groups and its application to oligonucleotide-directed mutagenesis. 1986 , 14, 9679-98	585
1833	Functional analysis of the murine IgH enhancer: evidence for negative control of cell-type specificity. 1986 , 14, 8209-21	125
1832	A 100-kD HeLa cell octamer binding protein (OBP100) interacts differently with two separate octamer-related sequences within the SV40 enhancer. 1987 , 1, 1147-60	232
1831	Global flexibility in a sensory receptor: a site-directed cross-linking approach. 1987 , 237, 1596-600	260
1830	Leader peptidase of Escherichia coli: critical role of a small domain in membrane assembly. 1987 , 235, 783-7	75
1829	Expression of Human Parvovirus B19 Structural Protein in E. coli and Detection of Antiviral Antibodies in Human Serum. 1987 , 5, 1077-1080	9
1828	Genetically Engineered Secretion of Active Human Interferon and a Bacterial Endoglucanase from Aspergillus Nidulans. 1987 , 5, 713-719	44
1827	Introns increase gene expression in cultured maize cells. 1987 , 1, 1183-200	557
1826	The role of individual cysteine residues in the structure and function of the v-sis gene product. 1987 , 236, 1315-8	59
1825	Efficient saturation mutagenesis of a pentapeptide coding sequence using mixed oligonucleotides. 1987 , 6, 381-8	15
1824	Efficient packaging of readthrough RNA in ALV: implications for oncogene transduction. 1987 , 236, 845-8	55
1823	Subgenes expressing single lipoyl domains of the pyruvate dehydrogenase complex of Escherichia coli. 1987 , 245, 869-74	34
1822	Gene expression from transcriptionally disabled retroviral vectors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 5197-201	11.5 107

1821	Role of glutamic acid-181 in DNA-sequence recognition by the catabolite gene activator protein (CAP) of Escherichia coli: altered DNA-sequence-recognition properties of [Val181]CAP and [Leu181]CAP. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 6083-7	11.5	83
1820	Genetic analysis of the interaction of the insertion sequence IS903 transposase with its terminal inverted repeats. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 8049-53	11.5	77
1819	The natural 5' splice site of simian virus 40 large T antigen can be improved by increasing the base complementarity to U1 RNA. 1987 , 7, 3018-20		98
1818	Isolation of temperature-sensitive Abelson virus mutants by site-directed mutagenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 8021-5	11.5	34
1817	The highly conserved U small nuclear RNA 3'-end formation signal is quite tolerant to mutation. 1987 , 7, 2070-9		56
1816	AUU-to-AUG mutation in the initiator codon of the translation initiation factor IF3 abolishes translational autocontrol of its own gene (infC) in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 4022-5	11.5	75
1815	Lactose permease of Escherichia coli: properties of mutants defective in substrate translocation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 5535-9	11.5	38
1814	A unique amino acid substitution in the outer membrane protein OmpA causes conjugation deficiency in Escherichia coli K-12. 1987 , 223, 387-90		32
1813	Generation of a hybrid sequence-specific single-stranded deoxyribonuclease. 1987 , 238, 1401-3		142
1812	Extracellular production of cloned alpha-amylase by Escherichia coli. 1987 , 61, 165-76		47
1811	Secondary structure at the bacteriophage G4 origin of complementary-strand DNA synthesis: in vivo requirements. 1987 , 53, 257-64		18
1810	Modulation of a Drosophila melanogaster tRNA gene transcription in vitro by a sequence TNNCT in its 5' flank. 1987 , 60, 13-9		12
1809	The development of subunit and synthetic vaccines using recombinant DNA technology. 1987 , 5, 235-56		2
1808	Transfer of plasmid-borne tuf mutations to the chromosome as a genetic tool for studying the functioning of EF-TuA and EF-TuB in the E. coli cell. 1987 , 69, 1021-30		17
1807	Effects of mutation on the downfield proton nuclear magnetic resonance spectrum of the 5S RNA of Escherichia coli. <i>Biochemistry</i> , 1987 , 26, 5657-65	3.2	16
1806	Additive and independent responses in a single receptor: aspartate and maltose stimuli on the tar protein. 1987 , 50, 171-80		79
1805	Functional elements of DNA upstream from the integrase operon that are conserved in bacteriophages 434 and lambda. 1987 , 61, 135-44		5
1804	Mutations in the lac P2 promoter. 1987 , 169, 1812-7		18

1803	Cis- and trans-acting elements responsible for the cell-specific expression of the human alpha 1-antitrypsin gene.. 1987 , 6, 2759-2766	106
1802	Expression of proteins essential for IS1 transposition: specific binding of InsA to the ends of IS1.. 1987 , 6, 3163-3169	46
1801	The free sulfhydryl group (Cys341) of carboxypeptidase Y: Functional effects of mutational substitutions. 1987 , 52, 263-273	15
1800	Characterization of a promoter up mutation in the -35 region of the promoter of the primer for ColE1 replication. 1987 , 206, 178-80	5
1799	Genetic analysis of UV mutagenesis of the Escherichia coli glyU gene. 1987 , 207, 1-8	13
1798	A c-erb-A binding site in rat growth hormone gene mediates trans-activation by thyroid hormone. 1987 , 329, 738-41	344
1797	Monoclonal antibody and ligand binding sites of the T cell erythrocyte receptor (CD2). 1987 , 329, 842-6	138
1796	Activation of the lac operon of Escherichia coli by a mutant FNR protein. 1987 , 1, 53-8	87
1795	Expression of Met-(-1) angiogenin in Escherichia coli: conversion to the authentic less than Glu-1 protein. 1988 , 175, 450-61	105
1794	Chemical modifications of a cysteinyl residue introduced in the binding site of carboxypeptidase Y by site-directed mutagenesis. 1988 , 53, 381-93	19
1793	The bacteriophage lambda cohesive end site: isolation of spacing/substitution mutations that result in dependence on Escherichia coli integration host factor. 1988 , 212, 157-65	33
1792	Relative strengths of the 35S cauliflower mosaic virus, 1', 2', and nopaline synthase promoters in transformed tobacco sugarbeet and oilseed rape callus tissue. 1988 , 212, 182-90	103
1791	Regulation of a transport operon promoter in Salmonella typhimurium: identification of sites essential for nitrogen regulation. 1988 , 215, 107-17	20
1790	Effect of DNA sequence changes on UV mutability of a purine anticodon triplet of glyU cloned on M13 phage. 1988 , 212, 378-81	
1789	Inactivation of the FNR protein of Escherichia coli by targeted mutagenesis in the N-terminal region. 1988 , 2, 701-7	93
1788	Wood Hydrolysis by Cellulomonas Fimi Endoglucanase and Exoglucanase Coexpressed as Secreted Enzymes in Saccharomyces Cerevisiae. 1988 , 6, 713-719	23
1787	Characterization of the Coleopteran-Specific Protein Gene of Bacillus thuringiensis Var. tenebrionis. 1988 , 6, 61-66	45
1786	pCON4 and pCON5: improved plasmid vectors to study bacterial promoters. 1988 , 50, 17-23	10

1785	The envelope glycoprotein of the human immunodeficiency virus binds to the immunoglobulin-like domain of CD4. 1988 , 334, 159-62		262
1784	Hydrophobic stabilization in T4 lysozyme determined directly by multiple substitutions of Ile 3. 1988 , 334, 406-10		356
1783	The role of the leucine zipper in the fos-jun interaction. 1988 , 336, 646-51		791
1782	Site-directed mutagenesis of citrate synthase; the role of the active-site aspartate in the binding of acetyl-CoA but not oxaloacetate. 1988 , 953, 232-40		15
1781	Activation of cell-specific expression of rat growth hormone and prolactin genes by a common transcription factor. 1988 , 239, 1400-5		477
1780	NMR assignments of the four histidines of staphylococcal nuclease in native and denatured states. <i>Biochemistry</i> , 1988 , 27, 2158-65	3.2	41
1779	Identification of two histidines as copper ligands in <i>Streptomyces glaucescens</i> tyrosinase. <i>Biochemistry</i> , 1988 , 27, 5610-5	3.2	58
1778	A simple and efficient procedure for generating random point mutations and for codon replacements using mixed oligodeoxynucleotides. 1988 , 7, 127-34		44
1777	Two conserved tryptophan residues of tumor necrosis factor and lymphotoxin are not involved in the biological activity. 1988 , 238, 347-52		8
1776	Use of vaccinia virus vectors to study the synthesis, intracellular localization, and action of the human immunodeficiency virus trans-activator protein. 1988 , 164, 450-7		27
1775	Development of an efficient method for generating and screening active trypsin and trypsin variants. 1988 , 542, 61-74		29
1774	The T7 phage gene 10 leader RNA, a ribosome-binding site that dramatically enhances the expression of foreign genes in <i>Escherichia coli</i> . 1988 , 73, 227-35		160
1773	A novel vector allowing the expression of genes in a wide range of gram-negative bacteria. 1988 , 70, 199-204		3
1772	Point mutations in the human vitamin D receptor gene associated with hypocalcemic rickets. 1988 , 242, 1702-5		432
1771	Site-specific oligonucleotide-directed mutagenesis using T4 DNA polymerase. 1988 , 7, 211-7		5
1770	Generation of multiple independent substitution mutants by M13 in vitro mutagenesis using a single mutagenic oligonucleotide. 1988 , 7, 579-84		2
1769	Genetic and crystallographic studies of the 3',5'-exonucleolytic site of DNA polymerase I. 1988 , 240, 199-201		353
1768	A new method for random mutagenesis of complete genes: enzymatic generation of mutant libraries in vitro. 1988 , 2, 63-8		35

1767	Site-directed mutagenesis of beta-galactosidase (E. coli) reveals that tyr-503 is essential for activity. 1988 , 152, 1050-5	39
1766	Site-directed mutagenesis at the regulatory site of fructose 6-phosphate-1-kinase from <i>Bacillus stearothermophilus</i> . 1988 , 156, 537-42	6
1765	Construction of a synthetic variant of the bacteriophage f1 gene V by assembling oligodeoxynucleotides corresponding to only one strand of DNA. 1988 , 71, 41-7	12
1764	Site-directed mutagenesis with <i>Escherichia coli</i> DNA polymerase III holoenzyme. 1988 , 62, 135-9	6
1763	Promoter-detection vectors for <i>Escherichia coli</i> with multiple useful features. 1988 , 64, 207-15	22
1762	Random mutagenesis using degenerate oligodeoxyribonucleotides. 1988 , 73, 319-25	14
1761	brlA is necessary and sufficient to direct conidiophore development in <i>Aspergillus nidulans</i> . 1988 , 54, 353-62	417
1760	Synthesis and expression of a gene for a mini type II dihydrofolate reductase. 1988 , 7, 243-51	9
1759	Mutations at the cysteine codons of the recA gene of <i>Escherichia coli</i> . 1988 , 7, 389-98	21
1758	Versatile plasmid vectors for the construction, analysis and heat-inducible expression of hybrid genes in eukaryotic cells. 1988 , 16, 7748	13
1757	44-amino-acid E5 transforming protein of bovine papillomavirus requires a hydrophobic core and specific carboxyl-terminal amino acids. 1988 , 8, 4071-8	125
1756	Mutant Trp repressors with new DNA-binding specificities. 1988 , 242, 240-5	73
1755	Selective activation of transcription by a novel CCAAT binding factor. 1988 , 241, 582-5	203
1754	A single domain of the estrogen receptor confers deoxyribonucleic acid binding and transcriptional activation of the rat prolactin gene. 1988 , 2, 14-21	161
1753	Genetic analysis of the tomato golden mosaic virus. II. The product of the AL1 coding sequence is required for replication. 1988 , 16, 7043-60	206
1752	Random oligonucleotide mutagenesis: application to a large protein coding sequence of a major histocompatibility complex class I gene, H-2DP. 1988 , 16, 9761-73	14
1751	Autoregulated changes in stability of polyribosome-bound beta-tubulin mRNAs are specified by the first 13 translated nucleotides. 1988 , 8, 1224-35	147
1750	Generation of antisera that discriminate among mammalian alpha-tubulins: introduction of specialized isotypes into cultured cells results in their coassembly without disruption of normal microtubule function. 1988 , 106, 2011-22	71

1749	OBP100 binds remarkably degenerate octamer motifs through specific interactions with flanking sequences. 1988 , 2, 1400-13		169
1748	Site-directed mutagenesis of human beta-adrenergic receptors: substitution of aspartic acid-130 by asparagine produces a receptor with high-affinity agonist binding that is uncoupled from adenylate cyclase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 5478-82	11.5	120
1747	A repressor heterodimer binds to a chimeric operator. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 5834-8	11.5	27
1746	Discrimination between glutamyl-tRNA synthetase and seryl-tRNA synthetase involves nucleotides in the acceptor helix of tRNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 6627-31	11.5	67
1745	Binding region for human immunodeficiency virus (HIV) and epitopes for HIV-blocking monoclonal antibodies of the CD4 molecule defined by site-directed mutagenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 9273-7	11.5	135
1744	Interaction of spatially separated protein-DNA complexes for control of gene expression: operator conversions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 9683-7	11.5	63
1743	Poliovirus type 1/type 3 antigenic hybrid virus constructed in vitro elicits type 1 and type 3 neutralizing antibodies in rabbits and monkeys. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 3203-7	11.5	81
1742	Structure-function relationships for the interleukin 2 receptor: location of ligand and antibody binding sites on the Tac receptor chain by mutational analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 5654-8	11.5	57
1741	Mutagenesis of aspartic acid-116 enhances the ribonucleolytic activity and angiogenic potency of angiogenin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 7139-43	11.5	40
1740	Construction of a "mutagenesis cartridge" for poliovirus genome-linked viral protein: isolation and characterization of viable and nonviable mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 519-23	11.5	41
1739	Different structural alterations upregulate in vitro tyrosine kinase activity and transforming potency of the erbB-2 gene. 1988 , 8, 5570-4		173
1738	Identification of nonessential disulfide bonds and altered conformations in the v-sis protein, a homolog of the B chain of platelet-derived growth factor. 1988 , 8, 1011-8		37
1737	Transformation of yeast with synthetic oligonucleotides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 524-8	11.5	137
1736	Stepwise intracloal maturation of antibody affinity through somatic hypermutation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 8206-10	11.5	135
1735	Uracil-DNA glycosylase inhibitor of bacteriophage PBS2: cloning and effects of expression of the inhibitor gene in Escherichia coli. 1988 , 170, 1082-91		54
1734	Assembly of a polyadenylation-specific 25S ribonucleoprotein complex in vitro. 1988 , 8, 2052-62		47
1733	Mutation of aspartic acid-351, lysine-352, and lysine-515 alters the Ca ²⁺ transport activity of the Ca ²⁺ -ATPase expressed in COS-1 cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 3314-8	11.5	304
1732	Ligand-induced stimulation of epidermal growth factor receptor mutants with altered transmembrane regions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 9567-71	11.5	77

1731	Positive charges at the NH2 terminus convert the membrane-anchor signal peptide of cytochrome P-450 to a secretory signal peptide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 738-42	11.5	131
1730	Secondary structure of the leader transcript from the Escherichia coli S10 ribosomal protein operon. 1988 , 16, 8905-24		32
1729	Oligonucleotide site-directed mutagenesis in Xenopus egg extracts. 1988 , 16, 8525-39		1
1728	Two interferon-induced nuclear factors bind a single promoter element in interferon-stimulated genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 8521-5	11.5	198
1727	Structure of rho factor: an RNA-binding domain and a separate region with strong similarity to proven ATP-binding domains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 2538-42	11.5	77
1726	Identification and characterization of two functional domains within the murine heavy-chain enhancer. 1988 , 8, 145-52		96
1725	Oxygen-dependent upstream activation sites of Saccharomyces cerevisiae cytochrome c genes are related forms of the same sequence. 1988 , 8, 2275-9		19
1724	A threonine to alanine exchange at position 40 of Tet repressor alters the recognition of the sixth base pair of tet operator from GC to AT.. 1988 , 7, 4011-4017		32
1723	Roles of two DNA-binding factors in replication, segregation and transcriptional repression mediated by a yeast silencer.. 1988 , 7, 2241-2253		120
1722	Mutations in the alpha 2 helix of HLA-A2 affect presentation but do not inhibit binding of influenza virus matrix peptide. 1988 , 168, 725-36		75
1721	p2 and inhibition of Tn5 transposition. 1988 , 170, 3008-15		15
1720	Gene encoding sigma E is transcribed from a sigma A-like promoter in Bacillus subtilis. 1988 , 170, 3058-64		53
1719	Phorbol ester treatment increases the exocytic rate of the transferrin receptor recycling pathway independent of serine-24 phosphorylation. 1988 , 106, 1061-6		57
1718	Genetic analysis of tomato golden mosaic virus: the coat protein is not required for systemic spread or symptom development. 1988 , 7, 899-904		86
1717	Fos C-terminal mutations block down-regulation of c-fos transcription following serum stimulation.. 1988 , 7, 4193-4202		62
1716	Isolation and characterization of noncleavable (Ind-) mutants of the LexA repressor of Escherichia coli K-12. 1988 , 170, 2163-73		110
1715	Filamentous phages as cloning vectors. 1988 , 10, 61-83		4
1714	Methyl-directed repair of frameshift heteroduplexes in cell extracts from Escherichia coli. 1989 , 171, 6473-81		29

1713	Site-specific recombination at oriT of plasmid R1162 in the absence of conjugative transfer. 1989 , 171, 799-806	38
1712	Mutants of H-ras that interfere with RAS effector function in <i>Saccharomyces cerevisiae</i> .. 1989 , 8, 3039-3044	31
1711	The ocs-element is a component of the promoters of several T-DNA and plant viral genes.. 1989 , 8, 4197-4204	95
1710	Overproduced bacteriophage T4 gene 33 protein binds RNA polymerase. 1989 , 171, 3579-82	34
1709	Mutations in 16S ribosomal RNA disrupt antibiotic-RNA interactions.. 1989 , 8, 1213-1216	115
1708	Maize streak virus genes essential for systemic spread and symptom development. 1989 , 8, 1023-1032	89
1707	Internal and terminal cis-acting sites are necessary for in vitro replication of the L-A double-stranded RNA virus of yeast.. 1989 , 8, 947-954	61
1706	Influence of the GCGC discriminator motif introduced into the ribosomal RNA P2- and tac promoter on growth-rate control and stringent sensitivity.. 1989 , 8, 3357-3363	60
1705	Structural and functional analysis of transcriptional control of the <i>Rhodobacter capsulatus</i> puf operon. 1989 , 171, 473-82	114
1704	Mutational analysis of a prokaryotic recombinational enhancer element with two functions.. 1989 , 8, 577-585	93
1703	Directionality of DnaA protein/DNA interaction. Active orientation of the DnaA protein/dnaA box complex in transcription termination.. 1989 , 8, 1609-1613	24
1702	Structure and functional expression of a cloned <i>Xenopus</i> thyroid hormone receptor. 1989 , 17, 9395-405	63
1701	Efficient oligonucleotide-directed construction of mutations in expression vectors by the gapped duplex DNA method using alternating selectable markers. 1989 , 17, 4441-54	316
1700	Identification of a talin binding site in the cytoskeletal protein vinculin. 1989 , 109, 2917-27	78
1699	Poly(A) addition during maturation of frog oocytes: distinct nuclear and cytoplasmic activities and regulation by the sequence UUUUUUAU. 1989 , 3, 2151-62	281
1698	Sequences 5' to translation start regulate expression of petunia rbcS genes. 1989 , 1, 209-15	34
1697	Fos-Jun interaction: mutational analysis of the leucine zipper domain of both proteins. 1989 , 3, 770-81	141
1696	A conserved tripeptide sorts proteins to peroxisomes. 1989 , 108, 1657-64	999

1695	In vitro mutated phytohemagglutinin genes expressed in tobacco seeds: role of glycans in protein targeting and stability. 1989 , 1, 95-104	107
1694	A compensatory base change in human U2 snRNA can suppress a branch site mutation. 1989 , 3, 1545-52	263
1693	A secondary structure at the 3' splice site affects the in vitro splicing reaction of mouse immunoglobulin mu chain pre-mRNAs. 1989 , 17, 8159-69	76
1692	Characterization of the ung1 mutation of Escherichia coli. 1989 , 17, 813	2
1691	A method for introducing random single point deletions in specific DNA target sequences using oligonucleotides. 1989 , 17, 4015-23	7
1690	Bioactive recombinant methionyl bovine prolactin: structure-function studies using site-specific mutagenesis. 1989 , 3, 822-31	36
1689	Generation of a catalytic antibody by site-directed mutagenesis. 1989 , 245, 1104-7	81
1688	Transfer RNA intron processing in the halophilic archaebacteria. 1989 , 35, 36-42	34
1687	Visual detection of transposition of the maize element activator (ac) in tobacco seedlings. 1989 , 244, 204-7	169
1686	Multiple mutations in HIV-1 reverse transcriptase confer high-level resistance to zidovudine (AZT). 1989 , 246, 1155-8	1052
1685	Sequences downstream of translation start regulate quantitative expression of two petunia rbcS genes. 1989 , 1, 201-8	114
1684	Genetic analysis of the role of human U1 snRNA in mRNA splicing: I. Effect of mutations in the highly conserved stem-loop I of U1. 1989 , 3, 697-707	27
1683	Positive and negative regulation of the gene for transcription factor IIIA in <i>Xenopus laevis</i> oocytes. 1989 , 3, 651-62	65
1682	Delineation of the regulatory region sequences of <i>Agrobacterium tumefaciens</i> virB operon. 1989 , 17, 4541-50	41
1681	Point mutational analysis of the human c-fos serum response factor binding site. 1989 , 17, 1177-95	97
1680	Mutations in two regions upstream of the A gamma globin gene canonical promoter affect gene expression. 1989 , 17, 4339-52	35
1679	Regulation of phage Mu repressor transcription by IHF depends on the level of the early transcription. 1989 , 17, 10203-12	17
1678	Pseudorevertants of a lac promoter mutation reveal overlapping nascent promoters. 1989 , 17, 3927-49	22

1677	Mutational analysis of the lac regulatory region: second-site changes that activate mutant promoters. 1989 , 17, 3909-25	8
1676	Transcription of a human U6 small nuclear RNA gene in vivo withstands deletion of intragenic sequences but not of an upstream TATATA box. 1989 , 17, 7371-9	65
1675	In vitro Mutated Phytohemagglutinin Genes Expressed in Tobacco Seeds: Role of Glycans in Protein Targeting and Stability. 1989 , 1, 95	4
1674	Sequences Downstream of Translation Start Regulate Quantitative Expression of Two Petunia rbcS Genes. 1989 , 1, 201	9
1673	Sequences 5' to Translation Start Regulate Expression of Petunia rbcS Genes. 1989 , 1, 209	3
1672	Alterations of Endogenous Cytokinins in Transgenic Plants Using a Chimeric Isopentenyl Transferase Gene. 1989 , 1, 403	42
1671	N-terminal basic amino acids are not required for translocation and processing of preproparathyroid hormone. 1989 , 3, 174-8	6
1670	Thyroid hormone-responsive elements of the prolactin gene: evidence for both positive and negative regulation. 1989 , 3, 931-8	50
1669	The structure of HPr and site-directed mutagenesis. 1989 , 5, 43-52	3
1668	Effects of buried ionizable amino acids on the reduction potential of recombinant myoglobin. 1989 , 243, 69-72	141
1667	Mechanisms for regulating expression of membrane isoforms of Fc gamma RIII (CD16). 1989 , 246, 1608-11	148
1666	Identification of phosphate groups important to self-splicing of the Tetrahymena rRNA intron as determined by phosphorothioate substitution. 1989 , 17, 10281-93	60
1665	Discrete mutations introduced in the predicted nucleotide-binding sites of the mdrl gene abolish its ability to confer multidrug resistance. 1989 , 9, 5289-97	302
1664	Protein secretion controlled by a synthetic gene in Escherichia coli. 1989 , 2, 473-80	22
1663	Two phases in the addition of a poly(A) tail. 1989 , 3, 1401-12	81
1662	Changes in the size of pulse-labelled DNA fragments induced in human cells by inhibitors of uracil-DNA glycosylase and DNA methylation. 1989 , 213, 135-40	1
1661	Replication of a human parvovirus nonsense mutant in mammalian cells containing an inducible amber suppressor. 1989 , 171, 239-47	48
1660	Inactivation of carboxypeptidase Y by mutational removal of the putative essential histidyl residue. 1989 , 54, 165-71	20

1659	Oligodeoxynucleotide-directed cleavage and repair of a single-stranded vector: a method of site-specific mutagenesis. 1989 , 177, 120-4	2
1658	A structural requirement in the subsite F of lysozyme. The role of arginine 115 in human lysozyme revealed by site-directed mutagenesis. 1989 , 179, 573-9	10
1657	Expression and mutation of Ca ²⁺ ATPases of the sarcoplasmic reticulum. 1989 , 14, 26-34	17
1656	Use of DNA transfection to analyze gene regulation and function in animal cells: dissection of the tubulin multigene family. 1989 , 14, 147-55	4
1655	Denaturing gradient gel analysis of single-base substitutions at a mouse adenine phosphoribosyltransferase splice acceptor site. 1989 , 2, 217-25	5
1654	Gensynthese. 1989 , 101, 733-752	23
1653	Genes involved in the biosynthesis of PQQ from <i>Acinetobacter calcoaceticus</i> . 1989 , 56, 85-91	9
1652	Translational regulation of the lysis gene in RNA bacteriophage ϕ r requires a UUG initiation codon. 1989 , 218, 137-42	26
1651	Identification of nucleotides critical for activity of the <i>Pseudomonas putida</i> catBC promoter. 1989 , 218, 266-71	17
1650	Novel cis-acting elements in <i>Petunia</i> Cab gene promoters. 1989 , 215, 337-44	89
1649	Isolation, expression and phylogenetic inheritance of an acetolactate synthase gene from <i>Brassica napus</i> . 1989 , 219, 413-20	67
1648	Expression and phase variation of gonococcal P.II genes in <i>Escherichia coli</i> involves ribosomal frameshifting and slipped-strand mispairing. 1989 , 3, 777-86	51
1647	Secretion of Active, Full and Half Length Human Secretory Leukocyte Protease Inhibitor by <i>Saccharomyces Cerevisiae</i> . 1989 , 7, 55-60	8
1646	Biosynthesis of the reverse transcriptase of hepatitis B viruses involves de novo translational initiation not ribosomal frameshifting. 1989 , 337, 364-8	145
1645	Three-dimensional structure of CheY, the response regulator of bacterial chemotaxis. 1989 , 337, 745-9	344
1644	An initiation site for meiotic gene conversion in the yeast <i>Saccharomyces cerevisiae</i> . 1989 , 338, 35-9	308
1643	Mutational analysis of a protein-folding pathway. 1989 , 338, 127-32	118
1642	Location of high affinity Ca ²⁺ -binding sites within the predicted transmembrane domain of the sarcoplasmic reticulum Ca ²⁺ -ATPase. 1989 , 339, 476-8	570

1641	Serpin-resistant mutants of human tissue-type plasminogen activator. 1989 , 339, 721-4	241
1640	Leucine zippers of fos, jun and GCN4 dictate dimerization specificity and thereby control DNA binding. 1989 , 340, 568-71	261
1639	Single amino-acid changes in HIV envelope affect viral tropism and receptor binding. 1989 , 340, 571-4	247
1638	GTPase inhibiting mutations activate the alpha chain of Gs and stimulate adenylyl cyclase in human pituitary tumours. 1989 , 340, 692-6	1439
1637	Alternative production of calcitonin and CGRP mRNA is regulated at the calcitonin-specific splice acceptor. 1989 , 341, 76-80	139
1636	Control of topology and mode of assembly of a polytopic membrane protein by positively charged residues. 1989 , 341, 456-8	497
1635	Phosphorylation of large tumour antigen by cdc2 stimulates SV40 DNA replication. 1989 , 341, 503-7	235
1634	Identification of the fusion peptide of primate immunodeficiency viruses. 1989 , 244, 694-7	233
1633	Conservation of mitotic controls in fission and budding yeasts. 1989 , 57, 295-303	259
1632	The fission yeast cdc2/cdc13/suc1 protein kinase: regulation of catalytic activity and nuclear localization. 1989 , 58, 485-97	397
1631	Purified octamer binding transcription factors stimulate RNA polymerase III-mediated transcription of the 7SK RNA gene. 1989 , 59, 1071-80	109
1630	High-level synthesis of cowpea mosaic virus RNA polymerase and protease in Escherichia coli. 1989 , 78, 135-46	16
1629	An essential G1 function for cyclin-like proteins in yeast. 1989 , 59, 1127-33	528
1628	Characterization of an efficient coronavirus ribosomal frameshifting signal: requirement for an RNA pseudoknot. 1989 , 57, 537-47	568
1627	Epstein-Barr virus small RNA (EBER) genes: unique transcription units that combine RNA polymerase II and III promoter elements. 1989 , 57, 825-34	153
1626	Identification of the residues in human CD4 critical for the binding of HIV. 1989 , 57, 469-81	349
1625	Expression vector pT7:TKII for the synthesis of authentic biologically active RNA encoding vaccinia virus thymidine kinase. 1989 , 77, 69-78	15
1624	A 7 bp mutation converts a human RNA polymerase II snRNA promoter into an RNA polymerase III promoter. 1989 , 58, 55-67	226

1623	Interactions of three sequentially expressed genes control temporal and spatial specificity in <i>Aspergillus</i> development. 1989 , 57, 859-68		235
1622	Positive and negative regulation of gene transcription by a retinoic acid-thyroid hormone receptor heterodimer. 1989 , 59, 697-708		479
1621	Expression of the rat interferon-alpha 1 gene in <i>Escherichia coli</i> controlled by the secondary structure of the translation-initiation region. 1989 , 80, 345-51		22
1620	A high efficiency method for site-directed mutagenesis with any plasmid. 1989 , 84, 153-7		11
1619	Generation of a catalytic sequence-specific hybrid DNase. <i>Biochemistry</i> , 1989 , 28, 8277-86	3.2	31
1618	Role of arginine-38 in regulation of the cytochrome c oxidation-reduction equilibrium. <i>Biochemistry</i> , 1989 , 28, 3188-97	3.2	117
1617	An NMR study of the helix V-loop E region of the 5S RNA from <i>Escherichia coli</i> . <i>Biochemistry</i> , 1989 , 28, 4607-15	3.2	20
1616	Random and site-directed mutagenesis of bacterial luciferase: investigation of the aldehyde binding site. <i>Biochemistry</i> , 1989 , 28, 2684-9	3.2	26
1615	Mutation induced in vitro on a C-8 guanine aminofluorene containing template by a modified T7 DNA polymerase. <i>Biochemistry</i> , 1989 , 28, 2836-43	3.2	18
1614	Genetic engineering of EcoRI mutants with altered amino acid residues in the DNA binding site: physicochemical investigations give evidence for an altered monomer/dimer equilibrium for the Gln144Lys145 and Gln144Lys145Lys200 mutants. <i>Biochemistry</i> , 1989 , 28, 2667-77	3.2	36
1613	Effect of distance and orientation between arginine-302, histidine-322, and glutamate-325 on the activity of lac permease from <i>Escherichia coli</i> . <i>Biochemistry</i> , 1989 , 28, 2540-4	3.2	35
1612	Characterization of site-directed mutants in the lac permease of <i>Escherichia coli</i> . 2. Glutamate-325 replacements. <i>Biochemistry</i> , 1989 , 28, 2533-9	3.2	96
1611	Dissection of the effector-binding site and complementation studies of <i>Escherichia coli</i> phosphofructokinase using site-directed mutagenesis. <i>Biochemistry</i> , 1989 , 28, 6841-7	3.2	41
1610	Leucine repeats and an adjacent DNA binding domain mediate the formation of functional cFos-cJun heterodimers. 1989 , 243, 1689-94		649
1609	Site directed mutagenesis of the beta-subunit of the yeast mitochondrial ATPase. 1989 , 164, 381-6		10
1608	Function of the hexameric sequence in the cauliflower mosaic virus 35S RNA promoter region. 1989 , 164, 387-93		11
1607	Studies on site directed mutant pig citrate synthases. 1989 , 164, 1437-45		15
1606	Molecular genetics of inherited antithrombin III deficiencies. 1989 , 87, 15S-18S		9

1605	The F1F0-ATPase of Escherichia coli. The substitution of alanine by tyrosine at position 25 in the c-subunit affects function but not assembly. 1989 , 978, 299-304		6
1604	The cysteines in position 1 and 86 of rat interferon-alpha 1 are indispensable for antiviral activity. 1989 , 249, 186-8		1
1603	Synthesis of human endothelin-1 precursors in Escherichia coli. 1989 , 251, 257-60		7
1602	Site-directed mutagenesis of the FAD-binding histidine of 6-hydroxy-D-nicotine oxidase. Consequences on flavinylation and enzyme activity. 1989 , 257, 86-8		19
1601	Genetic analysis of mammalian GAP expressed in yeast. 1989 , 59, 681-6		150
1600	Characterization of an inducible expression system in Aspergillus nidulans using alcA and tubulin-coding genes. 1989 , 79, 119-30		272
1599	A specific class of IS10 transposase mutants are blocked for target site interactions and promote formation of an excised transposon fragment. 1989 , 59, 385-94		85
1598	Construction of mutant and chimeric genes using the polymerase chain reaction. 1989 , 17, 723-33		223
1597	Mutations in the maize mitochondrial T-urf13 gene eliminate sensitivity to a fungal pathotoxin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 4435-9	11.5	53
1596	Xenopus homolog of the mos protooncogene transforms mammalian fibroblasts and induces maturation of Xenopus oocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 5805-9	11.5	96
1595	Characterization of a cDNA clone encoding the visna virus transactivating protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 414-8	11.5	50
1594	Extent of N-terminal methionine excision from Escherichia coli proteins is governed by the side-chain length of the penultimate amino acid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 8247-51	11.5	702
1593	Negative regulation of the thyroid-stimulating hormone alpha gene by thyroid hormone: receptor interaction adjacent to the TATA box. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 9114-8	11.5	200
1592	Role of intron splicing in the function of the MATa1 gene of Saccharomyces cerevisiae. 1989 , 9, 4613-20		11
1591	Dominant yeast and mammalian RAS mutants that interfere with the CDC25-dependent activation of wild-type RAS in Saccharomyces cerevisiae. 1989 , 9, 390-5		184
1590	Biosynthesis of a phosphatidylinositol-glycan-linked membrane protein: signals for posttranslational processing of the Ly-6E antigen. 1989 , 9, 3369-76		27
1589	A U1 small nuclear ribonucleoprotein particle with altered specificity induces alternative splicing of an adenovirus E1A mRNA precursor. 1989 , 9, 3429-37		22
1588	Infectious potential of human immunodeficiency virus type 1 reverse transcriptase mutants with altered inhibitor sensitivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 4803-7	11.5	149

1587	Dramatic thermostabilization of yeast iso-1-cytochrome c by an asparagine----isoleucine replacement at position 57. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 496-9	11.5	92
1586	UACUAAC is the preferred branch site for mammalian mRNA splicing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 2752-6	11.5	166
1585	Determination of Sequence and Structural Requirements for Pathogenicity of a Cucumber Mosaic Virus Satellite RNA (Y-satRNA). 1989 , 1, 1165		9
1584	Molecular and biochemical characterization of the human trk proto-oncogene. 1989 , 9, 24-33		583
1583	The general control activator protein GCN4 is essential for a basal level of ARO3 gene expression in <i>Saccharomyces cerevisiae</i> . 1989 , 9, 144-51		37
1582	Fidelity of DNA polymerase I and the DNA polymerase I-DNA primase complex from <i>Saccharomyces cerevisiae</i> . 1989 , 9, 4447-58		73
1581	Interaction of the H4 autonomously replicating sequence core consensus sequence and its 3'-flanking domain. 1989 , 9, 5464-72		40
1580	Positive and negative transcriptional control by heme of genes encoding 3-hydroxy-3-methylglutaryl coenzyme A reductase in <i>Saccharomyces cerevisiae</i> . 1989 , 9, 5702-12		88
1579	Introduction of functional artificial introns into the naturally intronless ura4 gene of <i>Schizosaccharomyces pombe</i> . 1989 , 9, 1526-35		35
1578	The two positively acting regulatory proteins PHO2 and PHO4 physically interact with PHO5 upstream activation regions. 1989 , 9, 2050-7		140
1577	The OBF1 protein and its DNA-binding site are important for the function of an autonomously replicating sequence in <i>Saccharomyces cerevisiae</i> . 1989 , 9, 2914-21		61
1576	Each of the conserved sequence elements flanking the cleavage site of mammalian histone pre-mRNAs has a distinct role in the 3'-end processing reaction. 1989 , 9, 3105-8		64
1575	Cassette mutagenic analysis of the yeast invertase signal peptide: effects on protein translocation. 1989 , 9, 3400-10		26
1574	Juxtaposition of domains homologous to protein kinases and histidyl-tRNA synthetases in GCN2 protein suggests a mechanism for coupling GCN4 expression to amino acid availability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 4579-83	11.5	244
1573	Interleukin 6 induces a liver-specific nuclear protein that binds to the promoter of acute-phase genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 8202-6	11.5	158
1572	A moveable 5' splice site in adenine phosphoribosyltransferase genes of <i>Drosophila</i> species. 1989 , 9, 2220-3		7
1571	Infectious in vitro transcripts from cloned cDNA of a potyvirus, tobacco vein mottling virus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 3509-13	11.5	60
1570	Mutation at position 791 in <i>Escherichia coli</i> 16S ribosomal RNA affects processes involved in the initiation of protein synthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 4927-31	11.5	88

1569	Hydrophobic packing in T4 lysozyme probed by cavity-filling mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 8237-41	11.5	147
1568	Identification of an assembly domain in the small subunit of ribulose-1,5-bisphosphate carboxylase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 1198-202	11.5	33
1567	cys-3, the positive-acting sulfur regulatory gene of <i>Neurospora crassa</i> , encodes a protein with a putative leucine zipper DNA-binding element. 1989 , 9, 1120-7		72
1566	Multiple hepatocyte-enriched nuclear factors function in the regulation of transthyretin and alpha 1-antitrypsin genes. 1989 , 9, 1415-25		539
1565	Assembly properties of altered beta-tubulin polypeptides containing disrupted autoregulatory domains. 1989 , 9, 3418-28		8
1564	Transforming mutant v-mos protein kinases that are deficient in in vitro autophosphorylation. 1989 , 9, 4087-90		7
1563	Site-directed mutagenesis of the catalytic residues Asp-52 and Glu-35 of chicken egg white lysozyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 133-7	11.5	161
1562	Trans-activation by thyroid hormone receptors: functional parallels with steroid hormone receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 3494-8	11.5	143
1561	Location of the <i>Bombyx mori</i> specificity domain on a <i>Bacillus thuringiensis</i> delta-endotoxin protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 4037-41	11.5	117
1560	Transmembrane signaling by a chimera of the <i>Escherichia coli</i> aspartate receptor and the human insulin receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 5683-7	11.5	53
1559	Codon discrimination and anticodon structural context. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 6873-7	11.5	26
1558	An experimental approach to testing modular evolution: directed replacement of alpha-helices in a bacterial protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 9966-70	11.5	17
1557	Multiple sequence elements of a single functional class are required for cyclic AMP responsiveness of the mouse c-fos promoter. 1989 , 9, 4272-81		226
1556	Uracil-DNA glycosylases and DNA uracil repair. 1989 , 114, 125-79		23
1555	Overexpression and site-directed mutagenesis of the succinyl-CoA synthetase of <i>Escherichia coli</i> and nucleotide sequence of a gene (g30) that is adjacent to the suc operon. 1989 , 260, 737-47		35
1554	Site-specific transposition of insertion sequence IS630. 1990 , 172, 3830-6		29
1553	Activation of p56lck through mutation of a regulatory carboxy-terminal tyrosine residue requires intact sites of autophosphorylation and myristylation. 1990 , 10, 5197-206		126
1552	A suppressor of an RNA polymerase II mutation of <i>Saccharomyces cerevisiae</i> encodes a subunit common to RNA polymerases I, II, and III. 1990 , 10, 6123-31		47

1551	A combination of closely associated positive and negative cis-acting promoter elements regulates transcription of the skeletal alpha-actin gene. 1990 , 10, 528-38	125
1550	Genetic and biochemical evaluation of eucaryotic membrane protein topology: multiple transmembrane domains of <i>Saccharomyces cerevisiae</i> 3-hydroxy-3-methylglutaryl coenzyme A reductase. 1990 , 10, 672-80	72
1549	Short related sequences in the cytoplasmic domains of CD4 and CD8 mediate binding to the amino-terminal domain of the p56lck tyrosine protein kinase. 1990 , 10, 1853-62	247
1548	The carboxy-terminal domains of erbB-2 and epidermal growth factor receptor exert different regulatory effects on intrinsic receptor tyrosine kinase function and transforming activity. 1990 , 10, 2749-56	68
1547	Characterization of factors that direct transcription of rat ribosomal DNA. 1990 , 10, 3105-16	110
1546	Cloning and analysis of a gene involved in DNA repair and recombination, the rad1 gene of <i>Schizosaccharomyces pombe</i> . 1990 , 10, 3750-60	61
1545	Synergy between the NF-E1 erythroid-specific transcription factor and the CACCC factor in the erythroid-specific promoter of the human porphobilinogen deaminase gene. 1990 , 10, 3838-42	78
1544	Structure and expression of cytosolic cyclophilin/peptidyl-prolyl cis-trans isomerase of higher plants and production of active tomato cyclophilin in <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 9519-23	11.5 145
1543	Dominant lethal mutations in a conserved loop in 16S rRNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 1042-6	11.5 127
1542	Myristoylation-dependent replication and assembly of human immunodeficiency virus 1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 523-7	11.5 547
1541	Design of a membrane transport protein for fluorescence spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 1638-42	11.5 48
1540	Promoter switching in Epstein-Barr virus during the initial stages of infection of B lymphocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 1725-9	11.5 164
1539	A small v-sis/platelet-derived growth factor (PDGF) B-protein domain in which subtle conformational changes abrogate PDGF receptor interaction and transforming activity. 1990 , 10, 5496-501	22
1538	Characterization of the S-phase-specific transcription regulatory elements in a DNA replication-independent testis-specific H2B (TH2B) histone gene. 1990 , 10, 585-92	27
1537	Ouabain-resistant mutants of the rat Na,K-ATPase alpha 2 isoform identified by using an episomal expression vector. 1990 , 10, 1367-72	44
1536	Complex regulation of the immunoglobulin mu heavy-chain gene enhancer: microB, a new determinant of enhancer function. 1990 , 10, 3145-54	71
1535	nit-2, the major nitrogen regulatory gene of <i>Neurospora crassa</i> , encodes a protein with a putative zinc finger DNA-binding domain. 1990 , 10, 1056-65	206
1534	The leucine zipper of c-Myc is required for full inhibition of erythroleukemia differentiation. 1990 , 10, 5333-9	59

1533	In vivo expression and mitochondrial targeting of yeast apoiso-1-cytochrome c fusion proteins. 1990 , 10, 5753-62		18
1532	Transcription factor Sp1 is important for retinoic acid-induced expression of the tissue plasminogen activator gene during F9 teratocarcinoma cell differentiation. 1990 , 10, 5883-93		63
1531	The role of the CCAAT/enhancer-binding protein in the transcriptional regulation of the gene for phosphoenolpyruvate carboxykinase (GTP). 1990 , 10, 6264-72		211
1530	brlA requires both zinc fingers to induce development. 1990 , 10, 1815-7		55
1529	Functional organization of the hepatitis B virus enhancer. 1990 , 10, 3683-9		70
1528	A neutral amino acid change in segment IIS4 dramatically alters the gating properties of the voltage-dependent sodium channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 323-7	11.5	162
1527	Mutations that increase the activity of a transcriptional activator in yeast and mammalian cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 2127-31	11.5	63
1526	Cloning, expression, and purification of human cyclophilin in Escherichia coli and assessment of the catalytic role of cysteines by site-directed mutagenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 2304-8	11.5	231
1525	Polyadenylation signal of the mouse thymidylate synthase gene was created by insertion of an L1 repetitive element downstream of the open reading frame. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 2531-5	11.5	35
1524	Site-specific cleavage of duplex DNA by a semisynthetic nuclease via triple-helix formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 9858-62	11.5	58
1523	Fine-structure mutational analysis of a stage- and tissue-specific promoter element of the Drosophila glue gene Sgs-3. 1990 , 10, 5991-6002		20
1522	Amino acid residues that affect interaction of tissue-type plasminogen activator with plasminogen activator inhibitor 1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 3530-3	11.5	133
1521	The yeast PRP6 gene encodes a U4/U6 small nuclear ribonucleoprotein particle (snRNP) protein, and the PRP9 gene encodes a protein required for U2 snRNP binding. 1990 , 10, 6417-25		110
1520	Mutational mapping of RAS-responsive domains of the Saccharomyces cerevisiae adenylyl cyclase. 1990 , 10, 2539-43		59
1519	Base pairing between the 3' exon and an internal guide sequence increases 3' splice site specificity in the Tetrahymena self-splicing rRNA intron. 1990 , 10, 2960-5		49
1518	Mitochondrial targeting of yeast apoiso-1-cytochrome c is mediated through functionally independent structural domains. 1990 , 10, 5763-71		27
1517	A 58-base-pair region of the human C3 gene confers synergistic inducibility by interleukin-1 and interleukin-6. 1990 , 10, 6181-91		91
1516	Schizosaccharomyces pombe ras1 and byr1 are functionally related genes of the ste family that affect starvation-induced transcription of mating-type genes. 1990 , 10, 549-60		77

1515	Capping of mammalian U6 small nuclear RNA in vitro is directed by a conserved stem-loop and AUUAUC sequence: conversion of a noncapped RNA into a capped RNA. 1990 , 10, 939-46		50
1514	Site-directed mutagenesis of the SH2- and SH3-coding domains of c-src produces varied phenotypes, including oncogenic activation of p60c-src. 1990 , 10, 1307-18		164
1513	Hepatic transcription of the acute-phase alpha 1-inhibitor III gene is controlled by a novel combination of cis-acting regulatory elements. 1990 , 10, 3483-91		18
1512	UV cross-linking identifies four polypeptides that require the TATA box to bind to the Drosophila hsp70 promoter. 1990 , 10, 4233-8		27
1511	Nucleotide sequence and DNA recognition elements of alc, the structural gene which encodes allantoicase, a purine catabolic enzyme of Neurospora crassa. <i>Biochemistry</i> , 1990 , 29, 8779-87	3.2	27
1510	Transcriptional derepression of the Saccharomyces cerevisiae HSP26 gene during heat shock. 1990 , 10, 6362-73		46
1509	Site-directed mutagenesis of beta-lactamase I. Single and double mutants of Glu-166 and Lys-73. 1990 , 272, 613-9		123
1508	Identification of the human liver cytochrome P-450 responsible for coumarin 7-hydroxylase activity. 1990 , 267, 365-71		165
1507	Overexpression of restructured pyruvate dehydrogenase complexes and site-directed mutagenesis of a potential active-site histidine residue. 1990 , 269, 443-50		32
1506	The degradation sequence of adenovirus E1A consists of the amino-terminal tetrapeptide Met-Arg-His-Ile. 1990 , 10, 5609-15		8
1505	Genetic suppression demonstrates interaction of TonB protein with outer membrane transport proteins in Escherichia coli. 1990 , 172, 3826-9		120
1504	Mutations that affect control of the methylesterase activity of CheB, a component of the chemotaxis adaptation system in Escherichia coli. 1990 , 172, 3388-99		51
1503	Anaerobic induction in conifers: Expression of endogenous and chimeric anaerobically-induced genes. 1990 , 78, 441-446		8
1502	Characterization of the traT gene and mutants that increase outer membrane permeability from the Salmonella typhimurium virulence plasmid. 1990 , 4, 49-57		22
1501	Production of correctly processed human serum albumin in transgenic plants. 1990 , 8, 217-21		288
1500	Antibody production in baculovirus-infected insect cells. 1990 , 8, 651-4		47
1499	Insect resistant cotton plants. 1990 , 8, 939-43		339
1498	In vivo alteration of telomere sequences and senescence caused by mutated Tetrahymena telomerase RNAs. 1990 , 344, 126-32		562

1497	Disruption of the actin cytoskeleton in yeast capping protein mutants. 1990 , 344, 352-4	154
1496	A binding site for the T-cell co-receptor CD8 on the alpha 3 domain of HLA-A2. 1990 , 345, 41-6	456
1495	Prevention of HIV-1 glycoprotein transport by soluble CD4 retained in the endoplasmic reticulum. 1990 , 345, 625-8	105
1494	Evidence for interaction of different eukaryotic transcriptional activators with distinct cellular targets. 1990 , 346, 147-52	229
1493	Formation of amyloid-like fibrils in COS cells overexpressing part of the Alzheimer amyloid protein precursor. 1990 , 347, 566-9	121
1492	Phylogenetic and genetic evidence for base-triples in the catalytic domain of group I introns. 1990 , 347, 578-80	133
1491	Phosphorylation of the C terminus of Fos protein is required for transcriptional transrepression of the c-fos promoter. 1990 , 348, 80-2	180
1490	Aspartate aminotransferase with the pyridoxal-5'-phosphate-binding lysine residue replaced by histidine retains partial catalytic competence. 1990 , 187, 329-33	29
1489	Expression of the chemically synthesized coding region for the cytotoxin alpha-sarcin in Escherichia coli using a secretion cloning vector. 1990 , 192, 127-31	13
1488	Involvement of the hydrophobic patch of azurin in the electron-transfer reactions with cytochrome C551 and nitrite reductase. 1990 , 194, 109-18	133
1487	Site-Directed Mutagenesis in the Study of Serine Hydroxy methyltransf erase. 1990 , 1, 229-234	
1486	Substitution of a proline for alanine 183 in the hinge region of phosphoglycerate kinase: effects on catalysis, activation by sulfate, and thermal stability. 1990 , 9, 59-67	18
1485	Deletion mutagenesis in M13 by polymerase chain reaction using universal sequencing primers. 1990 , 188, 255-8	2
1484	Mutational analysis of enhancer domains responsive to trans-activation by the X gene of human hepatitis B virus. 1990 , 114, 237-42	5
1483	A genetic screen to identify variants of bovine pancreatic trypsin inhibitor with altered folding energetics. 1990 , 7, 16-31	28
1482	Substrate recognition by the EcoRI endonuclease. 1990 , 7, 185-97	49
1481	A mutant T4 lysozyme (Val 131----Ala) designed to increase thermostability by the reduction of strain within an alpha-helix. 1990 , 7, 198-204	79
1480	Accommodation of single amino acid insertions by the native state of staphylococcal nuclease. 1990 , 7, 299-305	76

1479	Analysis of conventional and in vitro generated mutants of nmr, the negatively acting nitrogen regulatory gene of <i>Neurospora crassa</i> . 1990 , 222, 233-40	25
1478	Functional analysis of the 5' regulatory region and the UUG translation initiation codon of the <i>Arthrobacter oxidans</i> 6-hydroxy-D-nicotine oxidase gene. 1990 , 221, 427-34	18
1477	Regulation of a stylar transmitting tissue-specific gene in wild-type and transgenic tomato and tobacco. 1990 , 224, 183-92	50
1476	Frameshift and double-amber mutations in the bacteriophage T4 uvsX gene: analysis of mutant UvsX proteins from infected cells. 1990 , 222, 112-9	8
1475	Nucleotide sequence and analysis of NMR, a negative-acting regulatory gene in the nitrogen circuit of <i>Neurospora crassa</i> . 1990 , 222, 120-8	33
1474	Transformed plants with elevated levels of chloroplastic SOD are not more resistant to superoxide toxicity. 1990 , 14, 501-11	163
1473	Sulphydryl modifying reagents inhibit Q A (-) oxidation in reaction centers from <i>Rhodobacter sphaeroides</i> and <i>Capsulatus</i> , but not <i>Rhodopseudomonas viridis</i> . 1990 , 26, 171-9	4
1472	A sequence that directs transcriptional initiation in yeast. 1990 , 18, 105-9	14
1471	Correct splicing of modified introns of a <i>Rhizopus</i> proteinase gene in <i>Saccharomyces cerevisiae</i> . 1990 , 223, 11-6	6
1470	Phenylketonuria mutation in Chinese haplotype 44 identical with haplotype 2 mutation in northern-European Caucasians. 1990 , 84, 409-11	16
1469	Amino acid substitutions which stabilize aspartate transcarbamoylase in the R state disrupt both homotropic and heterotropic effects. 1990 , 37, 183-96	26
1468	Mutants of the EcoRI endonuclease with promiscuous substrate specificity implicate residues involved in substrate recognition.. 1990 , 9, 3369-3378	46
1467	The plant G box promoter sequence activates transcription in <i>Saccharomyces cerevisiae</i> and is bound in vitro by a yeast activity similar to GBF, the plant G box binding factor.. 1990 , 9, 1727-1735	28
1466	Identification of essential elements in U14 RNA of <i>Saccharomyces cerevisiae</i> .. 1990 , 9, 4503-4509	45
1465	The molecular characterization of PRP6 and PRP9 yeast genes reveals a new cysteine/histidine motif common to several splicing factors.. 1990 , 9, 2775-2781	59
1464	Structural features of the cytoplasmic region of CD4 required for internalization.. 1990 , 9, 425-434	84
1463	Division genes in <i>Escherichia coli</i> are expressed coordinately to cell septum requirements by gearbox promoters.. 1990 , 9, 3787-3794	131
1462	Both the basic region and the leucine zipper domain of the cyclic AMP response element binding (CREB) protein are essential for transcriptional activation.. 1990 , 9, 225-232	120

1461	The first EGF-like domain from human factor IX contains a high-affinity calcium binding site.. 1990 , 9, 475-480	147
1460	Tax1 induction of the HTLV-I 21 bp enhancer requires cooperation between two cellular DNA-binding proteins.. 1990 , 9, 957-964	53
1459	Deletion analysis of the 51-kilodalton protein of the Bacillus sphaericus 2362 binary mosquitocidal toxin: construction of derivatives equivalent to the larva-processed toxin. 1990 , 172, 6759-63	28
1458	Eukaryotic coupled translation of tandem cistrons: identification of the influenza B virus BM2 polypeptide. 1990 , 9, 2639-47	99
1457	Initial steps in protein membrane insertion. Bacteriophage M13 procoat protein binds to the membrane surface by electrostatic interaction.. 1990 , 9, 2723-2729	71
1456	Analysis of the substrate binding sites of human galactosyltransferase by protein engineering.. 1990 , 9, 3171-3178	79
1455	The region of the HPV E7 oncoprotein homologous to adenovirus E1a and Sv40 large T antigen contains separate domains for Rb binding and casein kinase II phosphorylation.. 1990 , 9, 153-160	239
1454	A yeast tRNA precursor containing a pre-mRNA intron is spliced via the pre-mRNA splicing mechanism.. 1990 , 9, 705-709	4
1453	Cloning, nucleotide sequence, and expression of the Rhodobacter sphaeroides Y thioredoxin gene. 1990 , 172, 1556-61	18
1452	Phenotypes of Bacillus subtilis mutants altered in the precursor-specific region of sigma E. 1990 , 172, 4178-86	24
1451	Construction and properties of a temperature-sensitive mutation in the gene for the bacteriophage SPO1 DNA-binding protein TF1. 1990 , 172, 4672-81	13
1450	Mapping of catalytically important domains in Escherichia coli leader peptidase.. 1990 , 9, 2717-2722	52
1449	Three GCN4 responsive elements act synergistically as upstream and as TATA-like elements in the yeast TRP4 promoter.. 1990 , 9, 2951-2957	18
1448	Discrete domains of human U6 snRNA required for the assembly of U4/U6 snRNP and splicing complexes.. 1990 , 9, 251-255	29
1447	A single base mutation at position 2661 in E. coli 23S ribosomal RNA affects the binding of ternary complex to the ribosome.. 1990 , 9, 2649-2655	53
1446	Cleavage-site preferences of Sindbis virus polyproteins containing the non-structural proteinase. Evidence for temporal regulation of polyprotein processing in vivo.. 1990 , 9, 2631-2638	117
1445	A single base change at 726 in 16S rRNA radically alters the pattern of proteins synthesized in vivo.. 1990 , 9, 289-294	14
1444	The cell type-specific octamer transcription factor OTF-2 has two domains required for the activation of transcription.. 1990 , 9, 1635-1643	97

1443	Identification of cis-acting sequences required for translational autoregulation of the ermC methylase. 1990 , 172, 3661-8	14
1442	Location of a P1 plasmid replication inhibitor determinant within the initiator gene. 1990 , 172, 4441-7	13
1441	virG, an Agrobacterium tumefaciens transcriptional activator, initiates translation at a UUG codon and is a sequence-specific DNA-binding protein. 1990 , 172, 1241-9	59
1440	A specific terminal structure is required for Ty1 transposition. 1990 , 4, 324-30	74
1439	Oncogenic transformation by vrel requires an amino-terminal activation domain. 1990 , 10, 2840-7	137
1438	OP-1 cDNA encodes an osteogenic protein in the TGF-beta family.. 1990 , 9, 2085-2093	425
1437	Identification of a functional glucocorticoid response element in the phenylethanolamine N-methyltransferase promoter using fusion genes introduced into chromaffin cells in primary culture. 1990 , 10, 520-30	121
1436	A simple and sensitive in vivo luciferase assay for tRNA-mediated nonsense suppression. 1990 , 172, 595-602	28
1435	Mutation of either G box or I box sequences profoundly affects expression from the Arabidopsis rbcS-1A promoter.. 1990 , 9, 1717-1726	182
1434	Identification of barley stripe mosaic virus genes involved in viral RNA replication and systemic movement.. 1990 , 9, 3453-3457	109
1433	A simple vector modification to facilitate oligonucleotide-directed mutagenesis. 1990 , 18, 4175-8	8
1432	Mutations affecting TEA blockade and ion permeation in voltage-activated K ⁺ channels. 1990 , 250, 276-9	539
1431	Upstream Sequences Other than AAUAAA Are Required for Efficient Messenger RNA 3'-End Formation in Plants. 1990 , 2, 1261	1
1430	Point mutations in the yeast histone H4 gene prevent silencing of the silent mating type locus HML. 1990 , 10, 4932-4	171
1429	Two systems of glucose repression of the GAL1 promoter in Saccharomyces cerevisiae. 1990 , 10, 4757-69	167
1428	Identification and characterization of two upstream elements that regulate adrenocortical expression of steroid 11 beta-hydroxylase. 1990 , 4, 845-50	34
1427	Metabolic Repression of Transcription in Higher Plants. 1990 , 2, 1027	5
1426	SH2 mutants of c-src that are host dependent for transformation are trans-dominant inhibitors of mouse cell transformation by activated c-src. 1990 , 4, 2342-52	25

1425	STE11 is a protein kinase required for cell-type-specific transcription and signal transduction in yeast. 1990 , 4, 1862-74		165
1424	Single step large scale site-directed in vitro mutagenesis using multiple oligonucleotides. 1990 , 18, 7457-8		17
1423	Translation of the <i>Saccharomyces cerevisiae</i> tcm1 gene in the absence of a 5'-untranslated leader. 1990 , 18, 5823-8		21
1422	Human transferrin receptor internalization is partially dependent upon an aromatic amino acid on the cytoplasmic domain. 1990 , 1, 369-77		129
1421	Structure-function studies on <i>Escherichia coli</i> MetR protein, a putative prokaryotic leucine zipper protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 7076-9	11.5	61
1420	A point mutation uncouples RNA 3'-end formation and termination during ribosomal gene transcription in <i>Xenopus laevis</i> . 1990 , 4, 269-76		29
1419	Interaction of the human immunodeficiency virus type 1 Rev protein with a structured region in env mRNA is dependent on multimer formation mediated through a basic stretch of amino acids. 1990 , 4, 1357-64		172
1418	Compilation of DNA sequences of <i>Escherichia coli</i> (update 1990). 1990 , 18 Suppl, 2549-87		27
1417	Mapping light strand transcripts near the origin of replication of <i>Xenopus laevis</i> mitochondrial DNA. 1990 , 18, 6377-83		6
1416	The gamma subunit of DNA polymerase III holoenzyme of <i>Escherichia coli</i> is produced by ribosomal frameshifting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 3713-7	11.5	224
1415	Tyrosine phosphorylation of the gap junction protein connexin43 is required for the pp60v-src-induced inhibition of communication. 1990 , 1, 989-1002		260
1414	Yeast KRE genes provide evidence for a pathway of cell wall beta-glucan assembly. 1990 , 110, 1833-43		219
1413	Synergistic enhancement of globin gene expression by activator protein-1-like proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 9000-4	11.5	95
1412	Distinct mutations in two patients with leukocyte adhesion deficiency and their functional correlates. 1990 , 172, 335-45		90
1411	Characteristics of the tyrosine recognition signal for internalization of transmembrane surface glycoproteins. 1990 , 111, 1393-407		198
1410	Two binding sites for the herpes simplex virus type 1 UL9 protein are required for efficient activity of the oriS replication origin. 1990 , 71 (Pt 6), 1379-85		66
1409	Molecular characterization of CDC42, a <i>Saccharomyces cerevisiae</i> gene involved in the development of cell polarity. 1990 , 111, 143-52		502
1408	Regulation of the class II-associated invariant chain gene in normal and mutant B lymphocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 4590-4	11.5	20

1407	Role of the human transferrin receptor cytoplasmic domain in endocytosis: localization of a specific signal sequence for internalization. 1990 , 110, 283-94		280
1406	Intracellular accumulation of the cellular prion protein after mutagenesis of its Asn-linked glycosylation sites. 1990 , 1, 101-9		83
1405	The Drosophila Fos-related AP-1 protein is a developmentally regulated transcription factor. 1990 , 4, 822-34		102
1404	The upstream activating sequence for L-leucine gene regulation in <i>Saccharomyces cerevisiae</i> . 1990 , 18, 3923-31		25
1403	Conserved domains of human U4 snRNA required for snRNP and spliceosome assembly. 1990 , 18, 6223-9		33
1402	The N-terminal region of the human immunodeficiency virus envelope glycoprotein gp120 contains potential binding sites for CD4. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 3695-9	11.5	41
1401	Identification of a contact between arginine-180 of the catabolite gene activator protein (CAP) and base pair 5 of the DNA site in the CAP-DNA complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 4717-21	11.5	49
1400	Expression of plant virus genes in animal cells: high-level synthesis of cowpea mosaic virus B-RNA-encoded proteins with baculovirus expression vectors. 1990 , 71 (Pt 11), 2509-17		22
1399	A DNA replication enhancer in <i>Saccharomyces cerevisiae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 4665-9	11.5	93
1398	Characterization of the VirG binding site of <i>Agrobacterium tumefaciens</i> . 1990 , 18, 6909-13		50
1397	An RNA polymerase I termination site can stimulate the adjacent ribosomal gene promoter by two distinct mechanisms in <i>Xenopus laevis</i> . 1990 , 4, 1240-51		58
1396	A sequence pattern that occurs at the transcription initiation region of yeast RNA polymerase II promoters. 1990 , 18, 3387-93		37
1395	Solid phase in vitro mutagenesis using plasmid DNA template. 1990 , 18, 5107-12		32
1394	Homologous Recombination in Plant Cells after <i>Agrobacterium</i> -Mediated Transformation. 1990 , 2, 415		12
1393	Introduction of a Chimeric Chalcone Synthase Gene into <i>Petunia</i> Results in Reversible Co-Suppression of Homologous Genes in trans. 1990 , 2, 279		438
1392	A Short Domain of the Plant Vacuolar Protein Phytohemagglutinin Targets Invertase to the Yeast Vacuole. 1990 , 2, 533		4
1391	Common modifications of trimeric G proteins and ras protein: involvement of polyisoprenylation. 1990 , 249, 165-9		111
1390	A peptide sequence confers retention and rapid degradation in the endoplasmic reticulum. 1990 , 247, 79-82		210

1389	Two domains of yeast U6 small nuclear RNA required for both steps of nuclear precursor messenger RNA splicing. 1990 , 250, 404-9		161
1388	Molecular localization of the transforming and secretory properties of PDGF A and PDGF B. 1990 , 248, 1541-4		58
1387	EGF receptor and erbB-2 tyrosine kinase domains confer cell specificity for mitogenic signaling. 1990 , 248, 79-83		133
1386	Phosphorylation of the polymeric immunoglobulin receptor required for its efficient transcytosis. 1990 , 248, 742-5		250
1385	An insertion in the human thyrotropin receptor critical for high affinity hormone binding. 1990 , 249, 1423-5		149
1384	Both Pit-1 and the estrogen receptor are required for estrogen responsiveness of the rat prolactin gene. 1990 , 4, 1964-71		180
1383	Base changes at position 792 of Escherichia coli 16S rRNA affect assembly of 70S ribosomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 3700-4	11.5	28
1382	Systemic movement of an RNA plant virus determined by a point substitution in a 5' leader sequence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 8894-7	11.5	38
1381	Escherichia coli thymidylate synthase: amino acid substitutions by suppression of amber nonsense mutations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 3957-61	11.5	56
1380	Evidence that the N-terminal domain of nonstructural protein NS3 from yellow fever virus is a serine protease responsible for site-specific cleavages in the viral polyprotein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 8898-902	11.5	283
1379	Nucleotide sequence and promoter analysis of SPO13, a meiosis-specific gene of <i>Saccharomyces cerevisiae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 9406-10	11.5	99
1378	Mouse transgenes in human cells detect specific base substitutions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 8675-9	11.5	4
1377	The C'-terminal interaction domain of the thyroid hormone receptor confers the ability of the DNA site to dictate positive or negative transcriptional activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 8160-4	11.5	42
1376	Conversion of a helix-turn-helix motif sequence-specific DNA binding protein into a site-specific DNA cleavage agent. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 2882-6	11.5	59
1375	Universally conserved and yeast-specific U1 snRNA sequences are important but not essential for U1 snRNP function. 1990 , 4, 1766-74		40
1374	Specific interaction of the human immunodeficiency virus Rev protein with a structured region in the env mRNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 1198-202	11.5	157
1373	Steroid-receptor fusion of the human immunodeficiency virus type 1 Rev transactivator: mapping cryptic functions of the arginine-rich motif. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 7787-91	11.5	208
1372	Protein N-myristoylation in <i>Escherichia coli</i> : reconstitution of a eukaryotic protein modification in bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 1506-10	11.5	236

1371	Two distinct forms of active transcription factor CREB (cAMP response element binding protein). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 5258-62	11.5	117
1370	A trans-acting factor that binds to a GT-motif in a phytochrome gene promoter. 1990 , 250, 1397-9		108
1369	An efficient method for isolation of promoter mutations after oligonucleotide-directed mutagenesis. 1990 , 18, 5323		
1368	Lysine 188 of the catabolite gene activator protein (CAP) plays no role in specificity at base pair 7 of the DNA half site. 1990 , 18, 1457-64		14
1367	Programmed ribosomal frameshifting generates the Escherichia coli DNA polymerase III gamma subunit from within the tau subunit reading frame. 1990 , 18, 1725-9		206
1366	Subunits shared by eukaryotic nuclear RNA polymerases. 1990 , 4, 313-23		155
1365	Interaction of RNase P from Escherichia coli with pseudoknotted structures in viral RNAs. 1990 , 18, 3479-87		47
1364	Point mutations in AAUAAA and the poly (A) addition site: effects on the accuracy and efficiency of cleavage and polyadenylation in vitro. 1990 , 18, 5799-805		451
1363	Electrostatic and steric contributions to regulation at the active site of isocitrate dehydrogenase. 1990 , 249, 1044-6		106
1362	Two complex regions, including a TATA sequence, are required for transcription by RNA polymerase I in Neurospora crassa. 1990 , 18, 1805-11		11
1361	Recombination between directly repeated origins of conjugative transfer cloned in M13 bacteriophage DNA models ligation of the transferred plasmid strand. 1990 , 18, 3579-86		26
1360	Site-directed mutagenesis of glycine-14 and two "critical" cysteinyl residues in Drosophila alcohol dehydrogenase. <i>Biochemistry</i> , 1990 , 29, 1112-8	3.2	64
1359	Multifunctional Ca ²⁺ /calmodulin-dependent protein kinase made Ca ²⁺ independent for functional studies. <i>Biochemistry</i> , 1990 , 29, 1679-84	3.2	127
1358	Genetic analysis of histone H4: essential role of lysines subject to reversible acetylation. 1990 , 247, 841-5		313
1357	Nerve growth factor regulates tyrosine hydroxylase gene transcription through a nucleoprotein complex that contains c-Fos. 1990 , 4, 477-91		205
1356	Buffer enhancement of proton transfer in catalysis by human carbonic anhydrase III. <i>Biochemistry</i> , 1990 , 29, 6400-5	3.2	47
1355	Secondary structure of the ribosome binding site determines translational efficiency: a quantitative analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1990 , 87, 7668-72	11.5	413
1354	A beta 3 integrin mutation abolishes ligand binding and alters divalent cation-dependent conformation. 1990 , 249, 915-8		385

1353	Clustered point mutation analysis of the rat prolactin promoter. 1990 , 4, 1564-71		92
1352	On the use of T7 RNA polymerase transcripts for physical investigation. 1990 , 18, 4139-42		12
1351	Secondary structure is the major determinant for interaction of HIV rev protein with RNA. 1990 , 247, 845-8		181
1350	Mutation of essential catalytic residues in pig citrate synthase. <i>Biochemistry</i> , 1990 , 29, 7557-63	3.2	62
1349	Identification of the tRNA anticodon recognition site of Escherichia coli methionyl-tRNA synthetase. <i>Biochemistry</i> , 1990 , 29, 2220-5	3.2	89
1348	Secretion of the Bordetella pertussis adenylate cyclase from Escherichia coli containing the hemolysin operon. <i>Biochemistry</i> , 1990 , 29, 140-5	3.2	60
1347	Site-specific incorporation of 5-fluorotryptophan as a probe of the structure and function of the membrane-bound D-lactate dehydrogenase of Escherichia coli: a 19F nuclear magnetic resonance study. <i>Biochemistry</i> , 1990 , 29, 3256-62	3.2	33
1346	Mutagenic, electrochemical, and crystallographic investigation of the cytochrome b5 oxidation-reduction equilibrium: involvement of asparagine-57, serine-64, and heme propionate-7. <i>Biochemistry</i> , 1990 , 29, 5500-8	3.2	100
1345	Contributions of the large hydrophobic amino acids to the stability of staphylococcal nuclease. <i>Biochemistry</i> , 1990 , 29, 8033-41	3.2	370
1344	Effects on the formation of antenna complex B870 of Rhodobacter capsulatus by exchange of charged amino acids in the N-terminal domain of the alpha and beta pigment-binding proteins. <i>Biochemistry</i> , 1990 , 29, 7754-8	3.2	37
1343	Cloning, sequencing, expression, and site-directed mutagenesis of the gene from Clostridium perfringens encoding pyruvoyl-dependent histidine decarboxylase. <i>Biochemistry</i> , 1990 , 29, 132-9	3.2	32
1342	Characterization of the cos sites of bacteriophages P2 and P4. 1990 , 96, 9-15		32
1341	The pFF plasmids: cassettes utilising CaMV sequences for expression of foreign genes in plants. 1990 , 14, 333-44		135
1340	Structure function analysis of in vitro mutated CD4 and major histocompatibility complex class II gene products. 1990 , 3 Suppl 1, 91-6		1
1339	A CD4 domain important for HIV-mediated syncytium formation lies outside the virus binding site. 1990 , 60, 747-54		163
1338	Microbody phosphoglycerate kinase of Trypanosoma brucei: expression and complementation in Escherichia coli. 1990 , 90, 215-20		7
1337	Interaction of the unique N-terminal region of tyrosine kinase p56lck with cytoplasmic domains of CD4 and CD8 is mediated by cysteine motifs. 1990 , 60, 755-65		587
1336	Resolution of the fluorescence decay of the two tryptophan residues of lac repressor using single tryptophan mutants. 1990 , 58, 363-78		55

1335	Active site of Escherichia coli DNA photolyase: mutations at Trp277 alter the selectivity of the enzyme without affecting the quantum yield of photorepair. <i>Biochemistry</i> , 1990 , 29, 5698-706	3.2	66
1334	Role of the major capsid protein of phage T4 in DNA packaging from structure-function and site-directed mutagenesis studies. 1990 , 104, 75-83		5
1333	Defective intracellular transport and processing of CFTR is the molecular basis of most cystic fibrosis. 1990 , 63, 827-34		1523
1332	Fine-tuning the topology of a polytopic membrane protein: role of positively and negatively charged amino acids. 1990 , 62, 1135-41		211
1331	Colocalized transmembrane determinants for ER degradation and subunit assembly explain the intracellular fate of TCR chains. 1990 , 63, 503-13		249
1330	The arrangement of the immunoglobulin-like domains of ICAM-1 and the binding sites for LFA-1 and rhinovirus. 1990 , 61, 243-54		646
1329	Effects of mutagenesis of C912 in the streptomycin binding region of Escherichia coli 16S ribosomal RNA. 1990 , 1050, 27-33		19
1328	Aminoacylation of 3' terminal tRNA-like fragments of turnip yellow mosaic virus RNA: the influence of 5' nonviral sequences. 1990 , 1050, 186-92		11
1327	Spatial control of developmental regulatory genes in <i>Aspergillus nidulans</i> . 1990 , 14, 290-293		27
1326	<i>Drosophila melanogaster</i> tRNA(Ser) suppressor genes function with strict codon specificity when introduced into <i>Saccharomyces cerevisiae</i> . 1990 , 91, 255-9		7
1325	Functional elements in the promoter region of the <i>Aspergillus nidulans</i> gpdA gene encoding glyceraldehyde-3-phosphate dehydrogenase. 1990 , 93, 101-9		236
1324	High-level synthesis of recombinant HIV-1 protease and the recovery of active enzyme from inclusion bodies. 1990 , 87, 243-8		62
1323	Cooperative enhancement at the <i>Drosophila</i> Sgs-3 locus. 1990 , 139, 121-33		26
1322	Asp83, Glu113 and Glu134 are not specifically involved in Schiff base protonation or wavelength regulation in bovine rhodopsin. 1990 , 260, 113-8		22
1321	Carboxylterminal deletion mutants of ribulosebisphosphate carboxylase from <i>Rhodospirillum rubrum</i> . 1990 , 265, 41-5		12
1320	Expression and pharmacological characterization of the human M1 muscarinic receptor in <i>Saccharomyces cerevisiae</i> . 1990 , 266, 21-5		49
1319	A crucial role for AspL213 in the proton transfer pathway to the secondary quinone of reaction centers from <i>Rhodobacter sphaeroides</i> . 1990 , 1020, 107-111		92
1318	High levels of transcription driven by a 400 bp segment of the human G6PD promoter. 1990 , 170, 1203-9		10

1317	Site-specific mutagenesis of PRD1 DNA polymerase: mutations in highly conserved regions of the family B DNA polymerase. 1990 , 170, 1294-300	18
1316	Site-directed mutagenesis of mouse thymidylate synthase: alteration of Arg44 to Val44 in a conserved loop guarding the active site has striking effects on catalysis and nucleotide binding. 1990 , 167, 869-75	8
1315	Intracellular processing of complement pro-C3 and proalbumin is inhibited by rat alpha 1-protease inhibitor variant (Met352----Arg) in transfected cells. 1990 , 171, 236-42	23
1314	Purification and characterization of <i>Bacillus thuringiensis</i> var. <i>tenebrionis</i> insecticidal proteins produced in <i>E. coli</i> . 1990 , 170, 665-72	23
1313	Selection of deletion mutants by polymerase chain reaction. 1990 , 173, 1344-6	4
1312	A unique point mutation in the human vitamin D receptor chromosomal gene confers hereditary resistance to 1,25-dihydroxyvitamin D3. 1990 , 4, 623-31	91
1311	Inhibition of mutant troponin C activity by an intra-domain disulphide bond. 1990 , 345, 132-5	103
1310	The purine-cytosine permease gene of <i>Saccharomyces cerevisiae</i> : primary structure and deduced protein sequence of the FCY2 gene product. 1990 , 4, 585-96	70
1309	Alteration of human myoglobin proximal histidine to cysteine or tyrosine by site-directed mutagenesis: characterization and their catalytic activities. 1991 , 180, 138-44	72
1308	<i>Escherichia coli</i> RecBCD enzyme: inducible overproduction and reconstitution of the ATP-dependent deoxyribonuclease from purified subunits. 1991 , 102, 1-6	40
1307	A mutation (Pro-30 to Leu) in CYP21 represents a potential nonclassic steroid 21-hydroxylase deficiency allele. 1991 , 5, 685-92	162
1306	Mixed oligo designer (MOD), a computer program to aid planning of automated, mixed oligodeoxyribonucleotide synthesis for mutagenesis experiments. 1991 , 105, 1-7	1
1305	Mutation of Glu693 to Gln or Val717 to Ile has no effect on the processing of Alzheimer amyloid precursor protein expressed in COS-1 cells by cDNA transfection. 1991 , 132, 97-100	29
1304	Novel muteins of human tumor necrosis factor alpha. 1991 , 1096, 245-52	3
1303	The association of thymidine kinase activity and thymidine transport in <i>Escherichia coli</i> . 1991 , 99, 25-9	12
1302	Random cysteine disulfide crosslinking in the analysis of protein structure. 1991 , 3, 175-181	4
1301	FIS-induced bending of a region upstream of the promoter activates transcription of the <i>E. coli</i> thrU(tufB) operon. 1991 , 73, 713-8	19
1300	A twin-reporter vector for simultaneous analysis of expression signals of divergently transcribed, contiguous genes in filamentous fungi. 1991 , 104, 119-22	34

1299	A marker-coupled method for site-directed mutagenesis. 1991 , 103, 73-7		13
1298	Human uracil-DNA glycosylase complements E. coli ung mutants. 1991 , 19, 4473-8		32
1297	A single-strand specific endonuclease activity copurifies with overexpressed T5 D15 exonuclease. 1991 , 19, 4127-32		42
1296	A novel translation initiation region from Mycoplasma genitalium that functions in Escherichia coli. 1991 , 19, 6905-11		37
1295	Construction of a functional lactose permease devoid of cysteine residues. <i>Biochemistry</i> , 1991 , 30, 9595-600		125
1294	Reverse transcriptase encoded by a human transposable element. 1991 , 254, 1808-10		626
1293	Use of mutant RNAs in studies on yeast 5S rRNA structure and function. 1991 , 69, 217-22		9
1292	Time-resolved fluorescence studies of genetically engineered Escherichia coli glutamine synthetase. Effects of ATP on the tryptophan-57 loop. <i>Biochemistry</i> , 1991 , 30, 3406-16	3.2	28
1291	Site directed substitution of 5-hydroxymethyluracil for thymine in replicating phi X-174am3 DNA via synthesis of 5-hydroxymethyl-2'-deoxyuridine-5'-triphosphate. 1991 , 19, 3337-43		45
1290	Sugar-binding and crystallographic studies of an arabinose-binding protein mutant (Met108Leu) that exhibits enhanced affinity and altered specificity. <i>Biochemistry</i> , 1991 , 30, 6861-6866	3.2	44
1289	Functional expression and characterization of the interferon-induced double-stranded RNA activated P68 protein kinase from Escherichia coli. <i>Biochemistry</i> , 1991 , 30, 10356-61	3.2	58
1288	Alternative secondary structures in the 5' exon affect both forward and reverse self-splicing of the Tetrahymena intervening sequence RNA. <i>Biochemistry</i> , 1991 , 30, 2042-50	3.2	80
1287	Definition of the inhibitory domain of smooth muscle myosin light chain kinase by site-directed mutagenesis. <i>Biochemistry</i> , 1991 , 30, 3498-503	3.2	51
1286	Active site of DNA photolyase: tryptophan-306 is the intrinsic hydrogen atom donor essential for flavin radical photoreduction and DNA repair in vitro. <i>Biochemistry</i> , 1991 , 30, 6322-9	3.2	147
1285	Role of proline residues in the structure and function of a membrane transport protein. <i>Biochemistry</i> , 1991 , 30, 1291-8	3.2	77
1284	Fluorescence study of a mutant cytochrome b5 with a single tryptophan in the membrane-binding domain. <i>Biochemistry</i> , 1991 , 30, 10200-6	3.2	60
1283	Enhancement of the catalytic properties of human carbonic anhydrase III by site-directed mutagenesis. <i>Biochemistry</i> , 1991 , 30, 1484-90	3.2	96
1282	Compound I radical in site-directed mutants of cytochrome c peroxidase as probed by electron paramagnetic resonance and electron-nuclear double resonance. <i>Biochemistry</i> , 1991 , 30, 1986-96	3.2	96

1281	Site-directed mutagenesis of beta-lactamase leading to accumulation of a catalytic intermediate. <i>Biochemistry</i> , 1991 , 30, 10783-7	3.2	75
1280	Engineering of papain: selective alteration of substrate specificity by site-directed mutagenesis. <i>Biochemistry</i> , 1991 , 30, 8929-36	3.2	92
1279	Catalytic enhancement of human carbonic anhydrase III by replacement of phenylalanine-198 with leucine. <i>Biochemistry</i> , 1991 , 30, 8463-70	3.2	48
1278	Cloning and Analysis of Fungal Genes. 1991 , 51-85		25
1277	Involvement of the carboxy-terminal residue in the active site of the histidine-containing protein, HPr, of the phosphoenolpyruvate:sugar phosphotransferase system of Escherichia coli. <i>Biochemistry</i> , 1991 , 30, 9601-7	3.2	129
1276	A water-mediated salt link in the catalytic site of Escherichia coli alkaline phosphatase may influence activity. <i>Biochemistry</i> , 1991 , 30, 7789-96	3.2	44
1275	Role of interactions involving C-terminal nonpolar residues of hirudin in the formation of the thrombin-hirudin complex. <i>Biochemistry</i> , 1991 , 30, 9848-53	3.2	37
1274	Expression and initial characterization of five site-directed mutants of the N-terminal half-molecule of human transferrin. <i>Biochemistry</i> , 1991 , 30, 10824-9	3.2	63
1273	Role of aspartate-37 in determining cofactor specificity and binding in rat liver dihydropteridine reductase. 1991 , 287, 234-9		12
1272	Biosynthesis of the cloned intestinal Na ⁺ /glucose cotransporter. 1991 , 1064, 360-4		50
1271	Selective processing of proalbumin determined by site-specific mutagenesis. 1991 , 175, 690-6		15
1270	Sequence requirements for proteolytic cleavage of precursors with paired basic amino acids. 1991 , 179, 1181-6		24
1269	"Secretase," Alzheimer amyloid protein precursor secreting enzyme is not sequence-specific. 1991 , 179, 1670-6		97
1268	Identification of a point mutation in the human lysosomal alpha-glucosidase gene causing infantile glycogenosis type II. 1991 , 179, 919-26		31
1267	Phorbol ester induces phosphorylation of the 80 kilodalton murine interleukin 1 receptor at a single threonine residue. 1991 , 177, 61-7		8
1266	Conservation of binding sites for regulatory factors in the coordinately expressed alpha 1 (I) and alpha 2 (I) collagen promoters. 1991 , 177, 538-44		72
1265	A Drosophila nuclear localisation signal included in an 18 amino acid fragment from the serendipity delta zinc finger protein. 1991 , 280, 167-70		8
1264	Mutational analysis of two conserved sequence motifs in HIV-1 reverse transcriptase. 1991 , 282, 231-4		64

1263	The proteinase yscA-inhibitor, IA3, gene. Studies of cytoplasmic proteinase inhibitor deficiency on yeast physiology. 1991 , 283, 78-84	14
1262	Construction and properties of a triprotein containing the high-affinity nickel transporter of <i>Alcaligenes eutrophus</i> . 1991 , 283, 109-12	9
1261	Transcriptional analysis of two <i>Rhodobacter capsulatus</i> ferredoxins by translational fusion to <i>Escherichia coli</i> lacZ. 1991 , 292, 13-6	8
1260	Folding around the C-terminus of human carbonic anhydrase II. Kinetic characterization by use of a chemically reactive SH-group introduced by protein engineering. 1991 , 289, 117-22	32
1259	Biogenesis of the yeast vacuole (lysosome). Active site mutation in the vacuolar aspartate proteinase yscA blocks maturation of vacuolar proteinases. 1991 , 293, 62-6	19
1258	Mutational analysis of the RNA pseudoknot component of a coronavirus ribosomal frameshifting signal. 1991 , 220, 889-902	140
1257	A Brassica S-locus gene promoter targets toxic gene expression and cell death to the pistil and pollen of transgenic <i>Nicotiana</i> . 1991 , 143, 173-84	99
1256	Point mutations in human keratin 14 genes of epidermolysis bullosa simplex patients: genetic and functional analyses. 1991 , 66, 1301-11	588
1255	A highly conserved domain of TFIID displays species specificity in vivo. 1991 , 65, 333-40	98
1254	Initiation of sporulation in <i>B. subtilis</i> is controlled by a multicomponent phosphorelay. 1991 , 64, 545-52	753
1253	Phosphorylation of the R domain by cAMP-dependent protein kinase regulates the CFTR chloride channel. 1991 , 66, 1027-36	575
1252	The promoter of the <i>recA</i> gene of <i>Escherichia coli</i> . 1991 , 73, 457-70	14
1251	Oligonucleotide-directed mutagenesis without phenotypic selection. 2001 , Chapter 8, Unit8.1	2
1250	Site-directed mutagenesis of the lipoate acetyltransferase of <i>Escherichia coli</i> . 1991 , 243, 155-60	17
1249	Mutations affecting agonist sensitivity of the nicotinic acetylcholine receptor. 1991 , 60, 721-7	135
1248	Enhanced secretion from insect cells of a foreign protein fused to the honeybee melittin signal peptide. 1991 , 98, 177-83	264
1247	Characterization of the polyadenylation signal from the T-DNA-encoded octopine synthase gene. 1991 , 19, 5575-81	45
1246	Site-directed mutagenesis of hepatocyte nuclear factor (HNF) binding sites in the mouse transthyretin (TTR) promoter reveal synergistic interactions with its enhancer region. 1991 , 19, 4139-45	100

1245	Chimeric molecules with multiple neurotrophic activities reveal structural elements determining the specificities of NGF and BDNF.. 1991 , 10, 2105-2110	92
1244	Potential DNA slippage structures acquired during evolutionary divergence of <i>Acinetobacter calcoaceticus</i> chromosomal <i>benABC</i> and <i>Pseudomonas putida</i> TOL pWW0 plasmid <i>xyzXYZ</i> , genes encoding benzoate dioxygenases. 1991 , 173, 7540-8	125
1243	Association of CD8 with p56lck is required for early T cell signalling events.. 1991 , 10, 1201-1207	61
1242	Role of uracil-DNA glycosylase in mutation avoidance by <i>Streptococcus pneumoniae</i> . 1991 , 173, 283-90	22
1241	Transcription attenuation-mediated control of <i>leu</i> operon expression: influence of the number of <i>Leu</i> control codons. 1991 , 173, 1634-41	12
1240	Preferential transposition of an IS630-associated composite transposon to TA in the 5'-CTAG-3' sequence. 1991 , 173, 6207-12	25
1239	Resolvase-catalysed reactions between <i>res</i> sites differing in the central dinucleotide of subsite I.. 1991 , 10, 3541-3548	59
1238	Genetic analysis of the attenuator of the <i>Rhizobium meliloti</i> <i>trpE(G)</i> gene. 1991 , 173, 3382-8	8
1237	The <i>rpsD</i> gene, encoding ribosomal protein S4, is autogenously regulated in <i>Bacillus subtilis</i> . 1991 , 173, 4595-602	52
1236	Membrane topography of <i>ColE1</i> gene products: the hydrophobic anchor of the colicin E1 channel is a helical hairpin. 1991 , 173, 2927-34	60
1235	Transcription from the adenovirus major late promoter uses redundant activating elements.. 1991 , 10, 3439-3446	23
1234	DNA template effect on RNA splicing: two copies of the same gene in the same nucleus are processed differently.. 1991 , 10, 3457-3465	26
1233	A genetic and structural analysis of the yeast Vps15 protein kinase: evidence for a direct role of Vps15p in vacuolar protein delivery.. 1991 , 10, 4049-4060	71
1232	The <i>bx</i> region enhancer, a distant cis-control element of the <i>Drosophila</i> <i>Ubx</i> gene and its regulation by hunchback and other segmentation genes.. 1991 , 10, 1415-1425	101
1231	A functional pseudoknot in 16S ribosomal RNA.. 1991 , 10, 2203-2214	210
1230	The yeast branchpoint sequence is not required for the formation of a stable U1 snRNA-pre-mRNA complex and is recognized in the absence of U2 snRNA.. 1991 , 10, 1209-1216	51
1229	Heterogeneously initiated transcription from the pre-B- and B-cell-specific mb-1 promoter: analysis of the requirement for upstream factor-binding sites and initiation site sequences. 1991 , 11, 5756-66	79
1228	The <i>metR</i> binding site in the <i>Salmonella typhimurium</i> <i>metH</i> gene: DNA sequence constraints on activation. 1991 , 173, 3547-53	39

1227	An essential iteron-binding protein required for plasmid R1162 replication induces localized melting within the origin at a specific site in AT-rich DNA. 1991 , 173, 5539-45	21
1226	Regulation of Escherichia coli secA mRNA translation by a secretion-responsive element. 1991 , 173, 6605-11	34
1225	Binding of the HTLV-I Tax1 transactivator to the inducible 21 bp enhancer is mediated by the cellular factor HEB1.. 1991 , 10, 3795-3803	50
1224	The surface-exposed tyrosine residue Tyr83 of pea plastocyanin is involved in both binding and electron transfer reactions with cytochrome f.. 1991 , 10, 4011-4016	84
1223	A specific DNA sequence is required for high frequency of recombination in the ade6 gene of fission yeast.. 1991 , 10, 2157-2163	82
1222	A negatively acting DNA sequence element mediates phytochrome-directed repression of phyA gene transcription.. 1991 , 10, 3015-3024	38
1221	Mutational analysis of a bacteriophage P4 late promoter. 1991 , 173, 37-45	20
1220	Specific DNA binding of the TraM protein to the oriT region of plasmid R100. 1991 , 173, 6347-54	35
1219	Synthesis and fractionation properties of SpoIIIGA, a protein essential for pro-sigma E processing in Bacillus subtilis. 1991 , 173, 7821-7	23
1218	Role of potentially charged transmembrane residues in targeting proteins for retention and degradation within the endoplasmic reticulum.. 1991 , 10, 2783-2793	171
1217	The vinyl chloride DNA derivative N2,3-ethenoguanine produces G----A transitions in Escherichia coli. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 9974-8	11.5 117
1216	A novel lineage-specific nuclear factor regulates mb-1 gene transcription at the early stages of B cell differentiation.. 1991 , 10, 3409-3417	104
1215	Hierarchies of base pair preferences in the P22 ant promoter. 1991 , 173, 1944-50	75
1214	Cytoplasmic activation of GAF, an IFN-gamma-regulated DNA-binding factor.. 1991 , 10, 927-932	261
1213	Adhesive properties of the beta 3 integrins: comparison of GP IIb-IIIa and the vitronectin receptor individually expressed in human melanoma cells. 1991 , 113, 451-61	105
1212	Membrane topography of ColE1 gene products: the immunity protein. 1991 , 173, 2935-43	58
1211	Effects of translation on degradation of mRNA segments transcribed from the polycistronic puf operon of Rhodobacter capsulatus. 1991 , 173, 1478-84	25
1210	Mutations that affect chromosomal proteins in yeast. 1991 , 35, 485-523	8

1209	A protein kinase-A recognition sequence is structurally linked to transformation by p59v-rel and cytoplasmic retention of p68c-rel. 1991 , 11, 5867-77	112
1208	Two monomers of yeast transcription factor ADR1 bind a palindromic sequence symmetrically to activate ADH2 expression. 1991 , 11, 1566-77	89
1207	Heterodimers of myogenic helix-loop-helix regulatory factors and E12 bind a complex element governing myogenic induction of the avian cardiac alpha-actin promoter. 1991 , 11, 2439-50	83
1206	Analysis of premature termination in c-myc during transcription by RNA polymerase II in a HeLa nuclear extract. 1991 , 11, 4599-615	38
1205	A -1 ribosomal frameshift in a double-stranded RNA virus of yeast forms a gag-pol fusion protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 174-8	11.5 297
1204	Epitope mapping by mutagenesis distinguishes between the two tertiary structures of the histidine-containing protein HPr. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 4877-81	11.5 38
1203	Structural determinants of stereospecificity in yeast alcohol dehydrogenase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 8420-4	11.5 33
1202	GAL4 is phosphorylated as a consequence of transcriptional activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 10510-4	11.5 60
1201	Prohormone processing in <i>Xenopus</i> oocytes: characterization of cleavage signals and cleavage enzymes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 11393-7	11.5 51
1200	Thyrotropin-luteinizing hormone/chorionic gonadotropin receptor extracellular domain chimeras as probes for thyrotropin receptor function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 902-5	11.5 169
1199	The ubiquitous transcription factor Oct-1 and the liver-specific factor HNF-1 are both required to activate transcription of a hepatitis B virus promoter. 1991 , 11, 1353-9	66
1198	An "attenuator domain" is sandwiched by two distinct transactivation domains in the transcription factor C/EBP. 1991 , 11, 1480-7	83
1197	The juxtamembrane regions of the epidermal growth factor receptor and gp185erbB-2 determine the specificity of signal transduction. 1991 , 11, 3191-202	50
1196	Mutational analysis of CDC42Sc, a <i>Saccharomyces cerevisiae</i> gene that encodes a putative GTP-binding protein involved in the control of cell polarity. 1991 , 11, 3537-44	187
1195	Molecular Cloning and Characterization of Genes Expressed in Shoot Apical Meristems. 1991 , 3, 359	1
1194	<i>Aspergillus nidulans</i> wetA activates spore-specific gene expression. 1991 , 11, 55-62	141
1193	AGP/EBP(LAP) expressed in rat hepatoma cells interacts with multiple promoter sites and is necessary for maximal glucocorticoid induction of the rat alpha-1 acid glycoprotein gene. 1991 , 11, 4959-65	46
1192	The ROX3 gene encodes an essential nuclear protein involved in CYC7 gene expression in <i>Saccharomyces cerevisiae</i> . 1991 , 11, 5639-47	68

1191	Regulation of asparagine synthetase gene expression by amino acid starvation. 1991 , 11, 6059-66		89
1190	URF13, a maize mitochondrial pore-forming protein, is oligomeric and has a mixed orientation in <i>Escherichia coli</i> plasma membranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 10865-9	11.5	54
1189	Positioning of a peptide in the cleft of HLA-A2 by complementing amino acid changes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 11325-9	11.5	26
1188	Effects of site-directed mutagenesis at residues cysteine-31 and cysteine-184 on lecithin-cholesterol acyltransferase activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 1716-20	11.5	67
1187	Mutational analysis of the functional domains of yeast K1 killer toxin. 1991 , 11, 175-81		37
1186	Characterization of a short, cis-acting DNA sequence which conveys cell cycle stage-dependent transcription in <i>Saccharomyces cerevisiae</i> . 1991 , 11, 329-37		121
1185	Functional expression and RNA binding analysis of the interferon-induced, double-stranded RNA-activated, 68,000-Mr protein kinase in a cell-free system. 1991 , 11, 5497-505		192
1184	The 5'-flanking region of the mouse thymidylate synthase gene is necessary but not sufficient for normal regulation in growth-stimulated cells. 1991 , 11, 1023-9		35
1183	Characterization of <i>Neurospora</i> CPC1, a bZIP DNA-binding protein that does not require aligned heptad leucines for dimerization. 1991 , 11, 935-44		37
1182	Synergistic activation of a human promoter in vivo by transcription factor Sp1. 1991 , 11, 1935-43		108
1181	In vitro analysis of the tissue plasminogen activator promoter reveals a GC box-binding activity present in murine brain but undetectable in kidney and liver. 1991 , 11, 3139-47		32
1180	Site-directed mutations of <i>Dictyostelium</i> actin: disruption of a negative charge cluster at the N terminus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 7711-4	11.5	115
1179	B3(Fv)-PE38KDEL, a single-chain immunotoxin that causes complete regression of a human carcinoma in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 8616-20	11.5	210
1178	Mutational analysis of the DNA-binding domain of the CYS3 regulatory protein of <i>Neurospora crassa</i> . 1991 , 11, 4356-62		20
1177	Functional analysis in yeast of cDNA coding for the mitochondrial Rieske iron-sulfur protein of higher plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 10716-20	11.5	21
1176	A poly(dA.dT) tract is a component of the recombination initiation site at the ARG4 locus in <i>Saccharomyces cerevisiae</i> . 1991 , 11, 322-8		108
1175	Identification of an essential site for transcriptional activation within the human T-cell receptor delta enhancer. 1991 , 11, 5671-80		59
1174	nit-4, a pathway-specific regulatory gene of <i>Neurospora crassa</i> , encodes a protein with a putative binuclear zinc DNA-binding domain. 1991 , 11, 5735-45		85

1173	An in vitro transcription analysis of early responses of the human immunodeficiency virus type 1 long terminal repeat to different transcriptional activators. 1991 , 11, 1883-93		76
1172	RAP1 is required for BAS1/BAS2- and GCN4-dependent transcription of the yeast HIS4 gene. 1991 , 11, 3642-51		144
1171	The promoter of the latency-associated transcripts of herpes simplex virus type 1 contains a functional cAMP-response element: role of the latency-associated transcripts and cAMP in reactivation of viral latency. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 48-52	11.5	128
1170	Deletion of sequences upstream of the proteinase improves the proteolytic processing of human immunodeficiency virus type 1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 4776-80	11.5	62
1169	Delineation of a previously unrecognized cis-acting element required for HLA class II gene expression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 10347-51	11.5	18
1168	Disulfide cross-linking studies of the transmembrane regions of the aspartate sensory receptor of <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 10402-6	11.5	127
1167	Phytochrome a overexpression inhibits hypocotyl elongation in transgenic <i>Arabidopsis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 10806-10	11.5	155
1166	Specific initiation by RNA polymerase I in a whole-cell extract from yeast. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 1004-8	11.5	101
1165	Signal transduction in bacteria: CheW forms a reversible complex with the protein kinase CheA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 750-4	11.5	186
1164	Drosophila stimulatory G protein alpha subunit activates mammalian adenylyl cyclase but interacts poorly with mammalian receptors: implications for receptor-G protein interaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 1898-902	11.5	35
1163	Signals for retention of transmembrane proteins in the endoplasmic reticulum studied with CD4 truncation mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 1918-22	11.5	110
1162	Transcriptional activation through ETS domain binding sites in the cytochrome c oxidase subunit IV gene. 1991 , 11, 5631-8		143
1161	Inefficient homooligomerization contributes to the dependence of myogenin on E2A products for efficient DNA binding. 1991 , 11, 3633-41		91
1160	The <i>Neurospora crassa</i> cyt-20 gene encodes cytosolic and mitochondrial valyl-tRNA synthetases and may have a second function in addition to protein synthesis. 1991 , 11, 4022-35		22
1159	Structural and germination defects of <i>Bacillus subtilis</i> spores with altered contents of a spore coat protein. 1991 , 173, 6618-25		48
1158	Removal of N-glycosylation sites of the yeast acid phosphatase severely affects protein folding. 1991 , 173, 3539-46		72
1157	Regulatory elements involved in constitutive and phorbol ester-inducible expression of the plasminogen activator inhibitor type 2 gene promoter. 1991 , 19, 3881-6		53
1156	Gly429 is the major determinant of uncompetitive inhibition of human germ cell alkaline phosphatase by L-leucine. 1991 , 274 (Pt 1), 91-5		41

1155	Albino mutants of <i>Streptomyces glaucescens</i> tyrosinase. 1991 , 274 (Pt 3), 707-13	46
1154	Site-directed mutagenesis of dicarboxylic acids near the active site of <i>Bacillus cereus</i> 5/B/6 beta-lactamase II. 1991 , 276 (Pt 2), 401-4	18
1153	Identification of residues in ornithine decarboxylase essential for enzymic activity and for rapid protein turnover. 1991 , 277 (Pt 3), 671-5	62
1152	Transmitter regulation of voltage-dependent K ⁺ channels expressed in <i>Xenopus</i> oocytes. 1991 , 277 (Pt 3), 899-902	19
1151	Conversion of citrate synthase into citryl-CoA lyase as a result of mutation of the active-site aspartic acid residue to glutamic acid. 1991 , 280 (Pt 2), 521-6	20
1150	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. 1991 , 5, 1523-6	20
1149	The C-terminal half of the preS1 region is essential for the secretion of human hepatitis B virus large S protein devoid of the N-terminal retention sequence. 1991 , 181, 386-9	4
1148	Morphopoietic switch mutations of bacteriophage P2. 1991 , 182, 34-46	39
1147	Biosynthetic antibody binding sites: development of a single-chain Fv model based on antidinitrophenol IgA myeloma MOPC 315. 1991 , 10, 669-83	16
1146	Cyclin is degraded by the ubiquitin pathway. 1991 , 349, 132-8	2102
1145	Alteration of ionic selectivity of a K ⁺ channel by mutation of the H5 region. 1991 , 349, 700-4	486
1144	Determination of the subunit stoichiometry of a voltage-activated potassium channel. 1991 , 350, 232-5	853
1143	Pentameric structure and subunit stoichiometry of a neuronal nicotinic acetylcholine receptor. 1991 , 350, 235-8	433
1142	Generating yeast transcriptional activators containing no yeast protein sequences. 1991 , 350, 250-2	168
1141	Peptide binding to empty HLA-B27 molecules of viable human cells. 1991 , 351, 74-7	128
1140	Key residues involved in calcium-binding motifs in EGF-like domains. 1991 , 351, 164-7	273
1139	Extracellular domains mediating epsilon subunit interactions of muscle acetylcholine receptor. 1991 , 352, 64-7	85
1138	Construction of an improved baculovirus insecticide containing an insect-specific toxin gene. 1991 , 352, 85-8	315

1137	'Pseudo' domains in phage-encoded DNA methyltransferases. 1991 , 352, 645-8	35
1136	Genetic evidence for base pairing between U2 and U6 snRNA in mammalian mRNA splicing. 1991 , 352, 821-4	170
1135	A primary determinant for lipoxygenase positional specificity. 1991 , 354, 149-52	179
1134	The cysteine residue in the carboxyl-terminal domain of the m2 muscarinic acetylcholine receptor is not required for receptor-mediated inhibition of adenylate cyclase. 1991 , 57, 1873-7	32
1133	Mutational analysis supports a role for multiple structural features in the C-terminal secretion signal of Escherichia coli haemolysin. 1991 , 5, 2391-403	114
1132	c-src structure in human cancers with elevated pp60c-src activity. 1991 , 64, 531-3	11
1131	Fine tuning of the catalytic properties of human carbonic anhydrase II. Effects of varying active-site residue 200. 1991 , 195, 393-6	17
1130	Production and purification of recombinant human interleukin-5 from yeast and baculovirus expression systems. 1991 , 196, 623-9	22
1129	Domain structure and interaction within the pentafunctional arom polypeptide. 1991 , 196, 717-24	39
1128	The proteinase yscB inhibitor (PB12) gene of yeast and studies on the function of its protein product. 1991 , 197, 1-7	26
1127	Studies on RNase T1 mutants affecting enzyme catalysis. 1991 , 197, 203-7	34
1126	Mouse ornithine decarboxylase is phosphorylated by casein kinase-II at a predominant single location (serine 303). 1991 , 197, 419-24	18
1125	Structural and functional differences between carbonic anhydrase isoenzymes I and II as studied by site-directed mutagenesis. 1991 , 198, 589-92	51
1124	Some properties of site-specific mutants of human carbonic anhydrase II having active-site residues characterizing carbonic anhydrase III. 1991 , 201, 417-20	15
1123	Structural role of amino acids 99-110 in recombinant human erythropoietin. 1991 , 202, 225-9	16
1122	Role of aspartic acid 38 in the cofactor specificity of Drosophila alcohol dehydrogenase. 1991 , 202, 263-7	79
1121	Single amino acid substitutions in the B870 alpha and beta light-harvesting polypeptides of Rhodobacter capsulatus. Structural and spectral effects. 1991 , 202, 277-84	26
1120	Site-directed mutagenesis and epitope-mapped monoclonal antibodies define a catalytically important conformational difference between human placental and germ cell alkaline phosphatase. 1991 , 202, 605-16	46

1119	Redox and flavin-binding properties of recombinant flavodoxin from <i>Desulfovibrio vulgaris</i> (Hildenborough). 1991 , 202, 1091-100	60
1118	Secretion of mutant leucine-specific binding proteins with internal deletions in <i>Escherichia coli</i> . 1991 , 46, 321-30	1
1117	Tyrosine phosphorylation of three cellular proteins correlates with transformation of rat 1 cells by pp60src. 1991 , 4, 145-52	5
1116	High-level soluble expression of isopenicillin N synthase isozymes in <i>E. coli</i> . 1991 , 47, 5991-6002	20
1115	Site-directed mutagenesis of ricin A-chain and implications for the mechanism of action. 1991 , 10, 270-8	149
1114	Functional analysis of a conserved amino-terminal region of HSP70 by site-directed mutagenesis. 1991 , 7, 699-716	7
1113	In vivo overproduction of the pentafunctional arom polypeptide in <i>Aspergillus nidulans</i> affects metabolic flux in the quinate pathway. 1991 , 227, 187-96	24
1112	Expression in yeast of a cDNA copy of the K2 killer toxin gene. 1991 , 227, 127-36	50
1111	Dual transcriptional initiation sites from the pyrC promoter control expression of the gene in <i>Salmonella typhimurium</i> . 1991 , 225, 249-56	27
1110	A single amino acid substitution changes the substrate specificity of quinoprotein glucose dehydrogenase in <i>Gluconobacter oxydans</i> . 1991 , 229, 206-12	38
1109	Characterisation of missense mutations in the Act88F gene of <i>Drosophila melanogaster</i> . 1991 , 226, 70-80	115
1108	Transcription termination in the dnaA gene. 1991 , 230, 486-90	6
1107	A multi-component upstream activation sequence of the <i>Saccharomyces cerevisiae</i> glyceraldehyde-3-phosphate dehydrogenase gene promoter. 1991 , 231, 22-32	61
1106	Construction of expression vectors based on the rice actin 1 (Act1) 5' region for use in monocot transformation. 1991 , 231, 150-60	250
1105	Control of transient expression of chimaeric genes by gibberellic acid and abscisic acid in protoplasts prepared from mature barley aleurone layers. 1991 , 16, 713-24	68
1104	Differential accumulation of four phaseolin glycoforms in transgenic tobacco. 1991 , 16, 381-95	28
1103	Site-directed mutagenesis of putative active-site residues of <i>Bacillus stearothermophilus</i> α -amylase. 1991 , 1, 267-273	8
1102	Cloning and sequencing of a cyclodextrin glucanotransferase gene from <i>Bacillus ohbensis</i> and its expression in <i>Escherichia coli</i> . 1991 , 35, 600-5	35

1101	AUG codons in the RNA leader sequences of the yeast PET genes CBS1 and SCO1 have no influence on translation efficiency. 1991 , 20, 465-9	9	
1100	Xenopus laevis Oct-1 does not bind to certain histone H2B gene promoter octamer motifs for which a novel octamer-binding factor has high affinity. 1991 , 19, 815-21	10	
1099	Maturation and function of cystic fibrosis transmembrane conductance regulator variants bearing mutations in putative nucleotide-binding domains 1 and 2. 1991 , 11, 3886-93	218	
1098	Critical structural elements of the VP16 transcriptional activation domain. 1991 , 251, 87-90	415	
1097	Mutations in the FAD-binding fold of alcohol oxidase from Hansenula polymorpha. 1991 , 4, 821-9	11	
1096	Effect of uracil situated in the vicinity of a mispair on the directionality of mismatch correction in Escherichia coli. 1991 , 19, 1443-7	1	
1095	Adjacent pol II and pol III promoters: transcription of the yeast retrotransposon Ty3 and a target tRNA gene. 1991 , 19, 1317-24	60	
1094	Mutations in 16S rRNA in Escherichia coli at methyl-modified sites: G966, C967, and G1207. 1991 , 19, 4259-65	28	
1093	Functional analysis of human cardiac gap junction channel mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 3525-9	11.5	143
1092	Modification of the coding sequence enhances plant expression of insect control protein genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 3324-8	11.5	464
1091	A novel mechanism regulating growth factor association with the cell surface: identification of a PDGF retention domain. 1991 , 5, 1191-9	102	
1090	Mutants of Agrobacterium tumefaciens with elevated vir gene expression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 6941-5	11.5	45
1089	Sorting out IF networks: consequences of domain swapping on IF recognition and assembly. 1991 , 113, 1111-24	30	
1088	Human immunodeficiency virus proteinase dimer as component of the viral polyprotein prevents particle assembly and viral infectivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 3213-7	11.5	167
1087	The glycosyl phosphatidylinositol anchor is critical for Ly-6A/E-mediated T cell activation. 1991 , 112, 377-84	95	
1086	The cloned RNA polymerase II transcription factor IID selects RNA polymerase III to transcribe the human U6 gene in vitro. 1991 , 5, 1477-89	136	
1085	Mutations in CD8 that affect interactions with HLA class I and monoclonal anti-CD8 antibodies. 1991 , 174, 371-9	56	
1084	An intron binding protein is required for transformation ability of p53. 1991 , 19, 4747-52	39	

1083	Muscle-specific transcriptional activation by MyoD. 1991 , 5, 1377-86		288
1082	Nonfunctional mutants of the retinoblastoma protein are characterized by defects in phosphorylation, viral oncoprotein association, and nuclear tethering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 3033-7	11.5	180
1081	Analysis of the IHF binding site in the regulatory region of bacteriophage Mu. 1991 , 19, 2825-34		24
1080	Multiple protein-DNA interactions in the TATAA-less mouse thymidylate synthase promoter. 1991 , 19, 2267-74		73
1079	xUBF contains a novel dimerization domain essential for RNA polymerase I transcription. 1991 , 5, 1957-68		76
1078	Mutant LexA proteins with an increased rate of in vivo cleavage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 7356-60	11.5	24
1077	Mutagenesis of the human transferrin receptor: two cytoplasmic phenylalanines are required for efficient internalization and a second-site mutation is capable of reverting an internalization-defective phenotype. 1991 , 112, 853-61		50
1076	Regulation of the alpha inhibin gene by cyclic adenosine 3',5'-monophosphate after transfection into rat granulosa cells. 1991 , 5, 521-34		106
1075	Protein engineering of the propeptide of human factor IX. 1991 , 4, 319-23		17
1074	Manipulation of the 'zinc cluster' region of transcriptional activator LEU3 by site-directed mutagenesis. 1991 , 19, 5991-7		26
1073	Overexpression of Phytochrome B Induces a Short Hypocotyl Phenotype in Transgenic Arabidopsis. 1991 , 3, 1275		41
1072	Maize rbcS Promoter Activity Depends on Sequence Elements Not Found in Dicot rbcS Promoters. 1991 , 3, 997		4
1071	Effect of deleting the R domain on CFTR-generated chloride channels. 1991 , 253, 205-7		243
1070	Modulation of the affinity of integrin alpha IIb beta 3 (GPIIb-IIIa) by the cytoplasmic domain of alpha IIb. 1991 , 254, 845-7		316
1069	Relative antiviral activity of in vitro-synthesized murine interferon-alpha 4 and -alpha 1. 1991 , 11, 9-15		6
1068	The AP-1 site is required for basal expression but is not necessary for TPA-response of the human stromelysin gene. 1991 , 19, 3723-31		106
1067	Alanine scanning site-directed mutagenesis of the zinc fingers of transcription factor ADR1: residues that contact DNA and that transactivate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 9188-92	11.5	65
1066	mRNA leader length and initiation codon context determine alternative AUG selection for the yeast gene MOD5. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 9789-93	11.5	120

1065	Complex pattern of immunoglobulin mu gene expression in normal and transgenic mice: nonoverlapping regulatory sequences govern distinct tissue specificities. 1991 , 5, 932-43		85
1064	In vitro mutagenesis and functional expression in Escherichia coli of a cDNA encoding the catalytic domain of human DNA ligase I. 1991 , 19, 6093-9		89
1063	The second amino acid of alfalfa mosaic virus coat protein is critical for coat protein-mediated protection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 2331-5	11.5	22
1062	Reverse transcriptase encoded by a retrotransposon from the trypanosomatid Crithidia fasciculata. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 9794-8	11.5	60
1061	Schizosaccharomyces pombe ste11+ encodes a transcription factor with an HMG motif that is a critical regulator of sexual development. 1991 , 5, 1990-9		289
1060	Limited functional equivalence of phylogenetic variation in small nuclear RNA: yeast U2 RNA with altered branchpoint complementarity inhibits splicing and produces a dominant lethal phenotype. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 7061-5	11.5	32
1059	Derivatives of CAP having no solvent-accessible cysteine residues, or having a unique solvent-accessible cysteine residue at amino acid 2 of the helix-turn-helix motif. 1991 , 9, 463-73		38
1058	A 30-residue-long "export initiation domain" adjacent to the signal sequence is critical for protein translocation across the inner membrane of Escherichia coli. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 9751-4	11.5	83
1057	Photosynthetic electron transport in genetically altered photosystem II reaction centers of chloroplasts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 9122-6	11.5	57
1056	Alternative splicing of beta-tropomyosin pre-mRNA: cis-acting elements and cellular factors that block the use of a skeletal muscle exon in nonmuscle cells. 1991 , 5, 2096-107		95
1055	Sequential truncation of the lactose permease over a three-amino acid sequence near the carboxyl terminus leads to progressive loss of activity and stability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 2969-73	11.5	44
1054	Posttranslational modifications within the HIV-1 envelope glycoprotein which restrict virus assembly and CD4-dependent infection. 1991 , 7, 501-10		22
1053	Characterization of SIS1, a Saccharomyces cerevisiae homologue of bacterial dnaJ proteins. 1991 , 114, 623-38		183
1052	Cloning, sequencing, expression and characterization of DNA photolyase from Salmonella typhimurium. 1991 , 19, 4885-90		31
1051	Binding of the CBP2 protein to a yeast mitochondrial group I intron requires the catalytic core of the RNA. 1991 , 5, 1870-80		39
1050	Cleavage of the bovine herpesvirus glycoprotein B is not essential for its function. 1991 , 72 (Pt 9), 2083-90		14
1049	The cytoplasmic domain of the integrin lymphocyte function-associated antigen 1 beta subunit: sites required for binding to intercellular adhesion molecule 1 and the phorbol ester-stimulated phosphorylation site. 1991 , 174, 1227-38		218
1048	Identification of aecA mutations in Bacillus subtilis as nucleotide substitutions in the untranslated leader region of the aspartokinase II operon. 1991 , 137, 1135-43		25

1047	Role of the gag and pol genes of human immunodeficiency virus in the morphogenesis and maturation of retrovirus-like particles expressed by recombinant vaccinia virus: an ultrastructural study. 1991 , 72 (Pt 10), 2509-17	76
1046	Construction of herpes simplex viruses that are pseudodiploid for the glycoprotein B gene: a strategy for studying the function of an essential herpesvirus gene. 1991 , 72 (Pt 2), 385-92	15
1045	RNA--protein interactions within the internal translation initiation region of encephalomyocarditis virus RNA. 1991 , 19, 4999-5005	52
1044	Expression of the tobacco mosaic virus movement protein using a baculovirus expression vector. 1991 , 72 (Pt 11), 2831-5	18
1043	Inactivation of auxin in tobacco transformed with the indoleacetic acid-lysine synthetase gene of <i>Pseudomonas savastanoi</i> . 1991 , 5, 438-46	195
1042	Isolation and characterization of cDNA clones encoding polypeptides related to a Dictyostelium discoideum cyclic AMP binding protein. 1991 , 137, 501-8	6
1041	Isolation and functional expression of a mammalian prohormone processing enzyme, murine prohormone convertase 1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 6834-8	11.5 55
1040	Requirements for bypass of UV-induced lesions in single-stranded DNA of bacteriophage phi X174 in <i>Salmonella typhimurium</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 1251-5	11.5 24
1039	Myristic acid auxotrophy caused by mutation of <i>S. cerevisiae</i> myristoyl-CoA:protein N-myristoyltransferase. 1991 , 113, 1313-30	66
1038	A DNA sequence upstream of the tet(O) gene is required for full expression of tetracycline resistance. 1991 , 35, 2020-5	28
1037	Multiple processing-defective mutations in a mammalian histone pre-mRNA are suppressed by compensatory changes in U7 RNA both in vivo and in vitro. 1991 , 5, 1709-22	90
1036	A fast and convenient way to produce single stranded DNA from a phagemid. 1991 , 19, 181	22
1035	Removal of an inter-domain hydrogen bond through site-directed mutagenesis: role of serine 176 in the mechanism of papain. 1991 , 4, 307-11	16
1034	TEF, a transcription factor expressed specifically in the anterior pituitary during embryogenesis, defines a new class of leucine zipper proteins. 1991 , 5, 1739-53	199
1033	Demonstration that CFTR is a chloride channel by alteration of its anion selectivity. 1991 , 253, 202-5	979
1032	Does steric interference between splice sites block the splicing of a short c-src neuron-specific exon in non-neuronal cells?. 1991 , 5, 389-402	131
1031	Control of Ethylene Synthesis by Expression of a Bacterial Enzyme in Transgenic Tomato Plants. 1991 , 3, 1187	29
1030	Molecular Mechanisms Underlying the Differential Expression of Maize Pyruvate, Orthophosphate Dikinase Genes. 1991 , 3, 225	16

1029	Repression of the human glycoprotein hormone alpha-subunit gene by glucocorticoids: evidence for receptor interactions with limiting transcriptional activators. 1991 , 5, 100-10	57
1028	Binding specificity of cyclic adenosine 3',5'-monophosphate-responsive element (CRE)-binding proteins and activating transcription factors to naturally occurring CRE sequence variants. 1991 , 5, 1541-51	37
1027	A phosphorylation site in the Na ⁺ channel required for modulation by protein kinase C. 1991 , 254, 866-8	228
1026	Regulation of adhesion of ICAM-1 by the cytoplasmic domain of LFA-1 integrin beta subunit. 1991 , 251, 1611-3	236
1025	A bacterial system for investigating transport effects of cystic fibrosis--associated mutations. 1991 , 254, 109-11	19
1024	Tissue-specific splicing in vivo of the beta-tropomyosin gene: dependence on an RNA secondary structure. 1991 , 252, 1842-5	157
1023	Tentoxin sensitivity of chloroplasts determined by codon 83 of beta subunit of proton-ATPase. 1992 , 257, 1245-7	74
1022	Gibberellin-Responsive Elements in the Promoter of a Barley High-pl a-Amylase Gene. 1992 , 4, 1435	1
1021	The Use of Antisense mRNA to Inhibit the Tonoplast H ⁺ + ATPase in Carrot. 1992 , 4, 851	
1020	Promoter Fusions to the Activator Transposase Gene Cause Distinct Patterns of Dissociation Excision in Tobacco Cotyledons. 1992 , 4, 573	
1019	Long Regions of Homologous DNA Are Incorporated into the Tobacco Plastid Genome by Transformation. 1992 , 4, 39	1
1018	Interaction of p107 with cyclin A independent of complex formation with viral oncoproteins. 1992 , 255, 85-7	220
1017	Ty3 integrates within the region of RNA polymerase III transcription initiation. 1992 , 6, 117-28	178
1016	Gibberellin-responsive elements in the promoter of a barley high-pl alpha-amylase gene. 1992 , 4, 1435-41	171
1015	Over-production of 5-enolpyruvylshikimate-3-phosphate synthase in Escherichia coli: use of the T7 promoter. 1992 , 5, 461-6	12
1014	Characterization of a fission yeast gene, gpa2, that encodes a G alpha subunit involved in the monitoring of nutrition. 1992 , 6, 2455-62	135
1013	Binding of TFIIIA to derivatives of 5S RNA containing sequence substitutions or deletions defines a minimal TFIIIA binding site. 1992 , 20, 2639-45	12
1012	Role of phosphorylation in p34cdc2 activation: identification of an activating kinase. 1992 , 3, 13-27	426

1011	Two promoter elements are necessary and sufficient for expression of the sea urchin U1 snRNA gene. 1992 , 20, 3743-51		18
1010	Competition of aminoacyl-tRNA synthetases for tRNA ensures the accuracy of aminoacylation. 1992 , 20, 1547-52		12
1009	Synthesis of the complete 200K polyprotein encoded by cowpea mosaic virus B-RNA in insect cells. 1992 , 73 (Pt 11), 2775-84		22
1008	A Mycoplasma protein homologous to mammalian SRP54 recognizes a highly conserved domain of SRP RNA. 1992 , 20, 5763-70		44
1007	Analysis of the phosphorylation, DNA-binding and dimerization properties of the RNA polymerase I transcription factors UBF1 and UBF2. 1992 , 20, 1301-8		81
1006	Random mutagenesis of Schizosaccharomyces pombe SRP RNA: lethal and conditional lesions cluster in presumptive protein binding sites. 1992 , 20, 1607-15		25
1005	Substitutions of a cysteine conserved among DNA cytosine methylases result in a variety of phenotypes. 1992 , 20, 319-26		61
1004	Pseudouridine in the anticodon G psi A of plant cytoplasmic tRNA(Tyr) is required for UAG and UAA suppression in the TMV-specific context. 1992 , 20, 5911-8		83
1003	Construction of small-insert genomic DNA libraries highly enriched for microsatellite repeat sequences. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 3419-23	11.5	254
1002	Anchoring pockets in human histocompatibility complex leukocyte antigen (HLA) class I molecules: analysis of the conserved B ("45") pocket of HLA-B27. 1992 , 175, 809-20		65
1001	Sequence-specific interaction with the viral AL1 protein identifies a geminivirus DNA replication origin. 1992 , 4, 799-809		109
1000	Requirement for CD8-major histocompatibility complex class I interaction in positive and negative selection of developing T cells. 1992 , 176, 89-97		81
999	Mapping functional specificity in the Dfd and Ubx homeo domains. 1992 , 6, 1071-81		123
998	Mutations of the 22- and 27-kD zein promoters affect transactivation by the Opaque-2 protein. 1992 , 4, 701-9		87
997	Promoter fusions to the Activator transposase gene cause distinct patterns of Dissociation excision in tobacco cotyledons. 1992 , 4, 573-82		75
996	Requirement of N-linked glycosylation site in Drosophila rhodopsin. 1992 , 8, 385-90		53
995	The use of antisense mRNA to inhibit the tonoplast H ⁺ ATPase in carrot. 1992 , 4, 851-64		83
994	Expression of fusion proteins of the nicotinic acetylcholine receptor from mammalian muscle identifies the membrane-spanning regions in the alpha and delta subunits. 1992 , 116, 385-93		65

993	Determination of transmembrane protein structure by disulfide cross-linking: the Escherichia coli Tar receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 4144-8	11.5	209
992	Genetic analysis of the interaction between bacteriophage T7 DNA polymerase and Escherichia coli thioredoxin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 9774-8	11.5	22
991	The AP-1 site at -150 bp, but not the NF-kappa B site, is likely to represent the major target of protein kinase C in the interleukin 2 promoter. 1992 , 175, 853-62		68
990	Competition of aminoacyl-tRNA synthetases for tRNA ensures the accuracy of aminoacylation. 1992 , 20, 2847-52		46
989	Sequence-specific DNA-binding proteins are components of a nuclear matrix-attachment site. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 4178-82	11.5	114
988	The cell-type-specific activator region of c-Jun juxtaposes constitutive and negatively regulated domains. 1992 , 6, 1493-502		50
987	Expression of Amino-Terminal Portions or Full-Length Viral Replicase Genes in Transgenic Plants Confers Resistance to Potato Virus X Infection. 1992 , 4, 735-744		50
986	In vitro definition of the yeast RNA polymerase I promoter. 1992 , 20, 279-85		44
985	Novel mutants of 23S RNA: characterization of functional properties. 1992 , 20, 3147-52		36
984	Do the ends justify the mean? Proline mutations at the ends of the keratin coiled-coil rod segment are more disruptive than internal mutations. 1992 , 116, 1181-95		148
983	Antirepression function in Escherichia coli for the cAMP-cAMP receptor protein transcriptional activator. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 9880-4	11.5	89
982	A viral protease-mediated cleavage of the transmembrane glycoprotein of Mason-Pfizer monkey virus can be suppressed by mutations within the matrix protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 3443-7	11.5	62
981	A 5'-terminal stem-loop structure can stabilize mRNA in Escherichia coli. 1992 , 6, 135-48		242
980	A geminivirus replication protein is a sequence-specific DNA binding protein. 1992 , 4, 597-608		130
979	Construction of a water-soluble form of penicillin-binding protein 2a from a methicillin-resistant Staphylococcus aureus isolate. 1992 , 36, 533-9		40
978	Replication of grapevine fanleaf virus satellite RNA transcripts in Chenopodium quinoa protoplasts. 1992 , 73 (Pt 10), 2517-23		21
977	Differential effects of elevating [K] _o on three transient outward potassium channels. Dependence on channel inactivation mechanisms. 1992 , 71, 657-72		22
976	Intronic sequence with both negative and positive effects on the regulation of alternative transcripts of the chicken beta tropomyosin transcripts. 1992 , 20, 3987-92		41

975	Analysis of proteins binding to the proximal promoter region of the human cytomegalovirus IE-1/2 enhancer/promoter reveals both consensus and aberrant recognition sequences for transcription factors Sp1 and CREB. 1992 , 20, 3287-95		45
974	Distinct signals in human immunodeficiency virus type 1 Pr55 necessary for RNA binding and particle formation. 1992 , 73 (Pt 12), 3079-86		109
973	Specific binding of influenza A virus NS1 protein to the virus minus-sense RNA in vitro. 1992 , 73 (Pt 1), 17-25		52
972	The expression of murine protein disulfide isomerase in Escherichia coli. 1992 , 11, 405-14		5
971	Overview: High Efficiency Oligonucleotide-Directed Mutagenesis of Double-stranded DNA Vectors. 1992 , 2, 1023-1029		
970	A general strategy for random insertion and substitution mutagenesis: substoichiometric coupling of trinucleotide phosphoramidites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 3581-5	11.5	53
969	The transcriptional start site for a human U6 small nuclear RNA gene is dictated by a compound promoter element consisting of the PSE and the TATA box. 1992 , 20, 4903-12		51
968	A novel method for site-directed mutagenesis using PCR and uracil DNA glycosylase. 1992 , 2, 124-30		36
967	Functional analysis of the antigen binding site on the T cell receptor alpha chain. 1992 , 175, 1553-63		37
966	Mutations of human myristoyl-CoA:protein N-myristoyltransferase cause temperature-sensitive myristic acid auxotrophy in <i>Saccharomyces cerevisiae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 4129-33	11.5	114
965	Evidence that SNF2/SWI2 and SNF5 activate transcription in yeast by altering chromatin structure. 1992 , 6, 2288-98		433
964	A point mutation in the MyoD basic domain imparts c-Myc-like properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 9010-4	11.5	52
963	Activation of human cyclin-dependent kinases in vitro. 1992 , 3, 571-82		227
962	Molecular localization of an ion-binding site within the pore of mammalian sodium channels. 1992 , 257, 248-51		253
961	Effect of lengthening lymphocyte function-associated antigen 3 on adhesion to CD2. 1992 , 3, 157-66		22
960	A PCR method for introducing mutations into cloned DNA by joining an internal primer to a tagged flanking primer. 1992 , 20, 624		19
959	Initiator methionine tRNA is essential for Ty1 transposition in yeast. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 3236-40	11.5	88
958	Correct folding of alpha-lytic protease is required for its extracellular secretion from <i>Escherichia coli</i> . 1992 , 118, 33-42		47

957	Genetic identification of the DNA binding domain of Escherichia coli LexA protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 4500-4	11.5	34
956	Genes encoding transcription factor IIIA and the RNA polymerase common subunit RPB6 are divergently transcribed in <i>Saccharomyces cerevisiae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 3999-4003	11.5	27
955	Analysis of disulphide bridge function in recombinant bovine prolactin using site-specific mutagenesis and renaturation under mild alkaline conditions: a crucial role for the central disulphide bridge in the mitogenic activity of the hormone. 1992 , 5, 559-67		12
954	Transport of the lysosomal membrane glycoprotein lgp120 (lgp-A) to lysosomes does not require appearance on the plasma membrane. 1992 , 117, 311-25		242
953	Site-directed mutagenesis and substrate-induced inactivation of beta-lactamase I. 1992 , 288 (Pt 3), 1045-51		11
952	The third Trp-Lys-Ser (WKS) tripeptide motif in tissue factor is associated with a function site. 1992 , 282 (Pt 3), 737-40		20
951	Stabilization of the oxy form of tyrosinase by a single conservative amino acid substitution. 1992 , 282 (Pt 3), 915-8		23
950	Structure-function analysis of human transforming growth factor-alpha by site-directed mutagenesis. 1992 , 283 (Pt 1), 91-8		15
949	Bovine inositol monophosphatase. Modification, identification and mutagenesis of reactive cysteine residues. 1992 , 285 (Pt 2), 461-8		16
948	Overproduction of the pyruvate dehydrogenase multienzyme complex of Escherichia coli and site-directed substitutions in the E1p and E2p subunits. 1992 , 287 (Pt 2), 611-9		35
947	Chapter 16 Structure and assembly of peroxisomal membrane proteins. 1992 , 209-220		2
946	Role of p34cdc2-mediated phosphorylations in two-step activation of pp60c-src during mitosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 7237-41	11.5	68
945	A cluster of hydrophobic amino acid residues required for fast Na(+)-channel inactivation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 10910-4	11.5	661
944	A putative ATP-dependent RNA helicase involved in <i>Saccharomyces cerevisiae</i> ribosome assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 11131-5	11.5	97
943	Group II introns deleted for multiple substructures retain self-splicing activity. 1992 , 12, 1950-8		87
942	Oct-1 and Oct-2 potentiate functional interactions of a transcription factor with the proximal sequence element of small nuclear RNA genes. 1992 , 12, 3247-61		177
941	Characterization of the promoter region of the src family gene lyn and its trans activation by human T-cell leukemia virus type I-encoded p40tax. 1992 , 12, 3784-95		42
940	Early meiotic transcripts are highly unstable in <i>Saccharomyces cerevisiae</i> . 1992 , 12, 3948-58		43

939	Formation of the 3' end of sea urchin U1 small nuclear RNA occurs independently of the conserved 3' box and on transcripts initiated from a histone promoter. 1992 , 12, 4132-41	8
938	Identification of binding sites on the regulatory A subunit of protein phosphatase 2A for the catalytic C subunit and for tumor antigens of simian virus 40 and polyomavirus. 1992 , 12, 4872-82	129
937	Characterization of two developmentally regulated sea urchin U2 small nuclear RNA promoters: a common required TATA sequence and independent proximal and distal elements. 1992 , 12, 650-60	24
936	Complex recognition site for the group I intron-encoded endonuclease I-Scell. 1992 , 12, 716-23	37
935	In vivo splicing of the beta tropomyosin pre-mRNA: a role for branch point and donor site competition. 1992 , 12, 3204-15	45
934	Definition of the binding sites of individual zinc fingers in the transcription factor IIIA-5S RNA gene complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 10822-6	11.5 85
933	Molecular mechanism of uncompetitive inhibition of human placental and germ-cell alkaline phosphatase. 1992 , 286 (Pt 1), 23-30	69
932	Sequence-Specific Interaction with the Viral AL1 Protein Identifies a Geminivirus DNA Replication Origin. 1992 , 4, 799	13
931	Mutations of the 22- and 27-kD Zein Promoters Affect Transactivation by the Opaque-2 Protein. 1992 , 4, 701	9
930	Hepatocyte nuclear factor 3 beta contains two transcriptional activation domains, one of which is novel and conserved with the Drosophila fork head protein. 1992 , 12, 3723-32	185
929	An RNA pseudoknot and an optimal heptameric shift site are required for highly efficient ribosomal frameshifting on a retroviral messenger RNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 713-7	11.5 151
928	A strategy for the generation of conditional mutations by protein destabilization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 1249-52	11.5 65
927	Accumulation of U14 small nuclear RNA in <i>Saccharomyces cerevisiae</i> requires box C, box D, and a 5', 3' terminal stem. 1992 , 12, 4456-63	81
926	Characterization of the human immunoglobulin kappa gene 3' enhancer: functional importance of three motifs that demonstrate B-cell-specific in vivo footprints. 1992 , 12, 5206-16	44
925	A mutation outside the two zinc fingers of ADR1 can suppress defects in either finger. 1992 , 12, 5758-67	18
924	The restricted promoter activity of the liver transcription factor hepatocyte nuclear factor 3 beta involves a cell-specific factor and positive autoactivation. 1992 , 12, 552-62	104
923	The insulin and islet amyloid polypeptide genes contain similar cell-specific promoter elements that bind identical beta-cell nuclear complexes. 1992 , 12, 1777-88	171
922	Expression cloning of a novel zinc finger protein that binds to the c-fos serum response element. 1992 , 12, 2432-43	64

921	Requirement of mosXe protein kinase for meiotic maturation of <i>Xenopus</i> oocytes induced by a cdc2 mutant lacking regulatory phosphorylation sites. 1992 , 12, 3192-203		37
920	A site of tyrosine phosphorylation in the C terminus of the epidermal growth factor receptor is required to activate phospholipase C. 1992 , 12, 128-35		95
919	Transcriptional transactivation functions localized to the glucocorticoid receptor N terminus are necessary for steroid induction of lymphocyte apoptosis. 1992 , 12, 589-97		85
918	Reconstitution of functional mammalian U4 small nuclear ribonucleoprotein: Sm protein binding is not essential for splicing in vitro. 1992 , 12, 1460-8		39
917	Identification of pre-mRNA polyadenylation sites in <i>Saccharomyces cerevisiae</i> . 1992 , 12, 4215-29		58
916	Monoclonal IgM rheumatoid factors bind IgG at a discontinuous epitope comprised of amino acid loops from heavy-chain constant-region domains 2 and 3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 94-8	11.5	56
915	A promoter element that exerts positive and negative control of the interleukin 2-responsive J-chain gene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 5966-70	11.5	31
914	Ligand occupancy mimicked by single residue substitutions in a receptor: transmembrane signaling induced by mutation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 7890-4	11.5	36
913	Functional interactions between putative intramembrane charged residues in the lactose permease of <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 10547-51	11.5	139
912	Reading-frame restoration with an apolipoprotein B gene frameshift mutation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 11431-5	11.5	49
911	Expression of Amino-Terminal Portions or Full-Length Viral Replicase Genes in Transgenic Plants Confers Resistance to Potato Virus X Infection. 1992 , 4, 735		11
910	RNA-dependent RNA polymerase consensus sequence of the L-A double-stranded RNA virus: definition of essential domains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 2185-9	11.5	46
909	Infectious Sindbis virus transient expression vectors for studying antigen processing and presentation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 2679-83	11.5	204
908	Multiple elements in the upstream glucokinase promoter contribute to transcription in insulinoma cells. 1992 , 12, 4578-89		64
907	Biological function of the retinoblastoma protein requires distinct domains for hyperphosphorylation and transcription factor binding. 1992 , 12, 5363-72		147
906	Mutational analysis of conserved positions potentially important for initiator tRNA function in <i>Saccharomyces cerevisiae</i> . 1992 , 12, 1432-42		39
905	Nerve growth factor-induced derepression of peripherin gene expression is associated with alterations in proteins binding to a negative regulatory element. 1992 , 12, 2501-13		34
904	The 19-kilodalton adenovirus E1B transforming protein inhibits programmed cell death and prevents cytolysis by tumor necrosis factor alpha. 1992 , 12, 2570-80		347

903	Amino acid residues required for fast Na(+)-channel inactivation: charge neutralizations and deletions in the III-IV linker. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 10905-9	11.5	223
902	Regulation of the junB gene by v-src. 1992 , 12, 3356-64		40
901	The cellular oncogene c-myc can interact synergistically with the Epstein-Barr virus BZLF1 transactivator in lymphoid cells. 1992 , 12, 136-46		53
900	A 24-amino-acid polypeptide is essential for the biosynthesis of the coenzyme pyrrolo-quinoline-quinone. 1992 , 174, 1426-7		54
899	Single-base mutations at position 2661 of Escherichia coli 23S rRNA increase efficiency of translational proofreading. 1992 , 174, 7896-901		41
898	TmrB protein, responsible for tunicamycin resistance of Bacillus subtilis, is a novel ATP-binding membrane protein. 1992 , 174, 4302-7		27
897	Mapping rheumatoid factor binding sites using genetically engineered, chimeric IgG antibodies. 1992 , 11, 245-52		10
896	Analysis of the rat ribosomal DNA promoter: characterization of linker-scanning mutants and of the binding of UBF. 1992 , 20, 1587-92		13
895	A ribosomal ambiguity mutation in the 530 loop of E. coli 16S rRNA. 1992 , 20, 4221-7		92
894	Human and Drosophila homeodomain proteins that enhance the DNA-binding activity of serum response factor. 1992 , 257, 1089-95		324
893	[3Fe-4S] to [4Fe-4S] cluster conversion in Escherichia coli fumarate reductase by site-directed mutagenesis. <i>Biochemistry</i> , 1992 , 31, 2703-12	3.2	79
892	Modifications of the E.coli Lac repressor for expression in eukaryotic cells: effects of nuclear signal sequences on protein activity and nuclear accumulation. 1992 , 20, 1785-91		56
891	Human nucleotide excision nuclease removes thymine dimers from DNA by incising the 22nd phosphodiester bond 5' and the 6th phosphodiester bond 3' to the photodimer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 3664-8	11.5	386
890	Specific activation of a tyrosine----glycine mutant of delta 5-3-ketosteroid isomerase by phenols. 1992 , 184, 1386-92		14
889	Site-directed mutagenesis of serotonin 5-HT2 receptors. 1992 , 5, 281-2		3
888	Functional analysis of the pertussis toxin promoter. 1992 , 143, 671-81		12
887	A functional connection between the pores of distantly related ion channels as revealed by mutant K+ channels. 1992 , 258, 1152-5		504
886	Plant food protein engineering. 1992 , 36, 89-208		88

885	Introducing strong metal-binding sites onto surfaces of proteins for facile and efficient metal-affinity purifications. 1992 , 4, 25-40		19
884	Chimeric rat Na,K-ATPase alpha 1/alpha 3* isoforms. Analysis of the structural basis for differences in Na ⁺ requirements in the alpha 1 and alpha 3* isoforms. 1992 , 671, 120-32; discussion 132-3		10
883	Distinct cellular functions mediated by different VLA integrin alpha subunit cytoplasmic domains. 1992 , 68, 1051-60		289
882	U5 snRNA interacts with exon sequences at 5' and 3' splice sites. 1992 , 68, 743-54		346
881	Specific sequences and a hairpin structure in the template strand are required for N4 virion RNA polymerase promoter recognition. 1992 , 70, 491-500		77
880	Plasmodium falciparum-infected erythrocytes bind ICAM-1 at a site distinct from LFA-1, Mac-1, and human rhinovirus. 1992 , 68, 63-9		151
879	The small GTP-binding protein rab4 controls an early sorting event on the endocytic pathway. 1992 , 70, 729-40		548
878	Disruption of the low affinity receptor-binding site in NGF allows neuronal survival and differentiation by binding to the trk gene product. 1992 , 69, 329-41		322
877	RNA and DNA binding zinc fingers in Xenopus TFIIIA. 1992 , 71, 679-90		162
876	Construction and characterization of a mutant of Rhodobacter sphaeroides with the reaction center as the sole pigment-protein complex. <i>Biochemistry</i> , 1992 , 31, 4458-65	3.2	105
875	Characterization of the Erwinia carotovora pch gene and its product polygalacturonase. 1992 , 117, 119-24		11
874	High frequency mutagenesis by a DNA methyltransferase. 1992 , 71, 1073-80		246
873	A point mutation in a Shaker K ⁺ channel changes its charybdotoxin binding site from low to high affinity. 1992 , 62, 5-7		72
872	Aspartic acid-66 is the only essential negatively charged residue in the putative hydrophilic loop region of the metal-tetracycline/H ⁺ antiporter encoded by transposon Tn10 of Escherichia coli. <i>Biochemistry</i> , 1992 , 31, 8344-8	3.2	40
871	Structural elements of ornithine decarboxylase required for intracellular degradation and polyamine-dependent regulation. 1992 , 12, 2178-85		86
870	Contributions of phylogenetically variable structural elements to the function of the ribozyme ribonuclease P. <i>Biochemistry</i> , 1992 , 31, 328-33	3.2	53
869	Contributions of the polar, uncharged amino acids to the stability of staphylococcal nuclease: evidence for mutational effects on the free energy of the denatured state. <i>Biochemistry</i> , 1992 , 31, 5717-28	3.2	131
868	Identification of the active site residues in dipeptidyl peptidase IV by affinity labeling and site-directed mutagenesis. <i>Biochemistry</i> , 1992 , 31, 2582-7	3.2	64

867	Site-directed mutagenesis of pseudoazurin from <i>Alcaligenes faecalis</i> S-6; Pro80Ala mutant exhibits marked increase in reduction potential. 1992 , 5, 177-84		21
866	The DNA-binding domain of the Cys-3 regulatory protein of <i>Neurospora crassa</i> is bipartite. <i>Biochemistry</i> , 1992 , 31, 3197-203	3.2	18
865	Structure and dynamics of transmembrane signaling by the <i>Escherichia coli</i> aspartate receptor. <i>Biochemistry</i> , 1992 , 31, 11978-83	3.2	32
864	Contribution to catalysis and stability of the five cysteines in <i>Escherichia coli</i> aspartate aminotransferase. Preparation and properties of a cysteine-free enzyme. <i>Biochemistry</i> , 1992 , 31, 32-9	3.2	25
863	Alteration of bond-cleavage pattern in the hydrolysis catalyzed by <i>Saccharomycopsis</i> alpha-amylase altered by site-directed mutagenesis. <i>Biochemistry</i> , 1992 , 31, 5232-6	3.2	22
862	Structure-function analysis of <i>Escherichia coli</i> translation initiation factor IF3: tyrosine 107 and lysine 110 are required for ribosome binding. <i>Biochemistry</i> , 1992 , 31, 11984-90	3.2	35
861	Catalytic center of cyclodextrin glycosyltransferase derived from X-ray structure analysis combined with site-directed mutagenesis. <i>Biochemistry</i> , 1992 , 31, 8740-6	3.2	101
860	C-terminal cysteines of Tn501 mercuric ion reductase. <i>Biochemistry</i> , 1992 , 31, 1677-85	3.2	33
859	Ear3/COUP-TF binds most tightly to a response element with tandem repeat separated by one nucleotide. 1992 , 183, 492-8		36
858	Site-directed mutagenesis of an apolipoprotein E mutant, apo E5(Glu3----Lys) and its binding to low density lipoprotein receptors. 1992 , 187, 1180-6		7
857	The His-probe method: effects of histidine residues introduced into the complementarity-determining regions of antibodies on antigen-antibody interactions at different pH values. 1992 , 309, 85-8		6
856	Cytochrome c2 mutants of <i>Rhodobacter capsulatus</i> . 1992 , 292, 419-26		34
855	Species-specific recognition patterns of monoclonal antibodies directed against vimentin. 1992 , 201, 1-7		58
854	Over-expression and refolding of beta-subunit from the chloroplast ATP synthase. 1992 , 298, 69-73		18
853	A signal peptide with a proline next to the cleavage site inhibits leader peptidase when present in a sec-independent protein. 1992 , 299, 243-6		51
852	Highly conserved hexamer, octamer and nonamer motifs are positive cis-regulatory elements of the wheat histone H3 gene. 1992 , 300, 167-70		35
851	Cis-trans isomerization is rate-determining in the reactivation of denatured human carbonic anhydrase II as evidenced by proline isomerase. 1992 , 296, 90-4		51
850	Enzymatic activity of adenylate cyclase toxin from <i>Bordetella pertussis</i> is not required for hemolysis. 1992 , 304, 51-6		27

849	Mutational analysis of the role of Glu309 in the sarcoplasmic reticulum Ca(2+)-ATPase of frog skeletal muscle. 1992 , 306, 247-50	26
848	Differential role of four cysteines on the activity of a low M(r) phosphotyrosine protein phosphatase. 1992 , 310, 9-12	28
847	A mutant alpha-amylase with enhanced activity specific for short substrates. 1992 , 310, 216-8	15
846	Processing of the chloroplast transit peptide of pea carbonic anhydrase in chloroplasts and in Escherichia coli. Identification of two cleavage sites. 1992 , 314, 232-6	23
845	Mutational analysis of the "slippery-sequence" component of a coronavirus ribosomal frameshifting signal. 1992 , 227, 463-79	213
844	Expression of bacterial mercuric ion reductase in Saccharomyces cerevisiae. 1992 , 174, 1288-92	11
843	The stable maintenance system pem of plasmid R100: degradation of PemI protein may allow PemK protein to inhibit cell growth. 1992 , 174, 4205-11	101
842	Site-directed mutagenesis at the Exo III motif of phi 29 DNA polymerase; overlapping structural domains for the 3'-5' exonuclease and strand-displacement activities.. 1992 , 11, 4227-4237	67
841	Genetic analysis of bacterial acetyltransferases: identification of amino acids determining the specificities of the aminoglycoside 6'-N-acetyltransferase Ib and IIa proteins. 1992 , 174, 3196-203	79
840	Mutational analysis of the precursor-specific region of Bacillus subtilis sigma E. 1992 , 174, 4629-37	24
839	Tandem cloning of bacteriophage T4 nrdA and nrdB genes and overproduction of ribonucleoside diphosphate reductase (alpha 2 beta 2) and a mutationally altered form (alpha 2 beta 2(93)). 1992 , 174, 5740-4	9
838	Role of the origin of transfer in termination of strand transfer during bacterial conjugation. 1992 , 174, 6659-65	33
837	Characterization of the Bacillus subtilis rpsD regulatory target site. 1992 , 174, 6763-70	31
836	Demonstration of retrotransposition of the Tf1 element in fission yeast.. 1992 , 11, 1145-1153	35
835	Activation of distant replication origins in vivo by DNA looping as revealed by a novel mutant form of an initiator protein defective in cooperativity at a distance.. 1992 , 11, 1205-1216	55
834	A 22 bp cis-acting element is necessary and sufficient for the induction of the yeast KAR2 (BiP) gene by unfolded proteins.. 1992 , 11, 2583-2593	271
833	High plasticity of multispecific DNA methyltransferases in the region carrying DNA target recognizing enzyme modules.. 1992 , 11, 4445-4450	20
832	Phosphorylation of conserved serine residues does not regulate the ability of mosxe protein kinase to induce oocyte maturation or function as cytostatic factor. 1992 , 116, 725-35	43

831	Mutational analysis of <i>Agrobacterium tumefaciens</i> virD2: tyrosine 29 is essential for endonuclease activity. 1992 , 174, 303-8	73
830	DNA replication defect in <i>Salmonella typhimurium</i> mutants lacking the editing (epsilon) subunit of DNA polymerase III. 1992 , 174, 6965-73	25
829	Regulation of narK gene expression in <i>Escherichia coli</i> in response to anaerobiosis, nitrate, iron, and molybdenum. 1992 , 174, 7104-11	41
828	Characterization of a regulatory network that controls sigma B expression in <i>Bacillus subtilis</i> . 1992 , 174, 749-57	105
827	Analysis of a mutation affecting the specificity domain for prohead binding of the bacteriophage lambda terminase. 1992 , 174, 850-6	37
826	The Tn10-encoded tetracycline resistance mRNA contains a translational silencer in the 5' nontranslated region. 1992 , 174, 2478-84	10
825	IS10 transposase mutations that specifically alter target site recognition.. 1992 , 11, 741-750	51
824	Detection of large COOH-terminal domains processed from the precursor of <i>Serratia marcescens</i> serine protease in the outer membrane of <i>Escherichia coli</i> . 1992 , 111, 627-32	12
823	The replication initiator operon of promiscuous plasmid RK2 encodes a gene that complements an <i>Escherichia coli</i> mutant defective in single-stranded DNA-binding protein. 1992 , 174, 4842-6	16
822	The <i>Agrobacterium tumefaciens</i> virD3 gene is not essential for tumorigenicity on plants. 1992 , 174, 5161-4	24
821	Replication origin mutations affecting binding of pSC101 plasmid-encoded Rep initiator protein. 1992 , 174, 456-63	7
820	Gene V protein-mediated translational regulation of the synthesis of gene II protein of the filamentous bacteriophage M13: a dispensable function of the filamentous-phage genome. 1992 , 174, 595-600	20
819	A heterologous membrane protein domain fused to the C-terminal ATP-binding domain of HlyB can export <i>Escherichia coli</i> hemolysin. 1992 , 174, 6771-9	28
818	OCH1 encodes a novel membrane bound mannosyltransferase: outer chain elongation of asparagine-linked oligosaccharides.. 1992 , 11, 2511-2519	202
817	Role of the open reading frames of Rous sarcoma virus leader RNA in translation and genome packaging.. 1992 , 11, 3747-3757	49
816	Reversible phosphorylation--dephosphorylation determines the localization of rab4 during the cell cycle.. 1992 , 11, 4379-4389	101
815	Regulation of the mec-3 gene by the <i>C.elegans</i> homeoproteins UNC-86 and MEC-3.. 1992 , 11, 4969-4979	90
814	Delineation of structural domains involved in the subtype specificity of tachykinin receptors through chimeric formation of substance P/substance K receptors.. 1992 , 11, 3585-3591	86

813	Transposase-induced excision and circularization of the bacterial insertion sequence IS911.. 1992 , 11, 5079-5090	64
812	Cell cycle regulation of CDK2 activity by phosphorylation of Thr160 and Tyr15.. 1992 , 11, 3995-4005	454
811	Transmembrane helical interactions: zeta chain dimerization and functional association with the T cell antigen receptor.. 1992 , 11, 3245-3254	77
810	Recognition of bases in Escherichia coli tRNA(Gln) by glutaminyl-tRNA synthetase: a complete identity set.. 1992 , 11, 4159-4165	66
809	Transcriptional regulation of the ilv-leu operon of Bacillus subtilis. 1992 , 174, 3212-9	77
808	Involvement of SecB, a chaperone, in the export of ribose-binding protein. 1992 , 174, 5219-27	28
807	Expression of argU, the Escherichia coli gene coding for a rare arginine tRNA. 1992 , 174, 1956-64	30
806	Proteolysis of bacteriophage phi X174 prohead accessory protein gpB by Escherichia coli OmpT protease is not essential for phage maturation in vivo. 1992 , 174, 2404-6	5
805	Sequence-specific initiator elements focus initiation of transcription to distinct sites in the yeast TRP4 promoter.. 1992 , 11, 4583-4590	12
804	Polyadenylation of maternal mRNA during oocyte maturation: poly(A) addition in vitro requires a regulated RNA binding activity and a poly(A) polymerase.. 1992 , 11, 5021-5032	66
803	Constitutive mutations of Agrobacterium tumefaciens transcriptional activator virG. 1992 , 174, 4169-74	77
802	The leaky UGA termination codon of tobacco rattle virus RNA is suppressed by tobacco chloroplast and cytoplasmic tRNAs(Trp) with CmCA anticodon.. 1992 , 11, 4167-4173	36
801	Purification and characterization of a mutant DnaB protein specifically defective in ATP hydrolysis. 1992 , 174, 7689-96	22
800	Drastic alteration of cycloheximide sensitivity by substitution of one amino acid in the L41 ribosomal protein of yeasts. 1992 , 174, 254-62	64
799	Survival of phage M13 with uracils on one or both DNA strands. 1992 , 233, 348-54	4
798	Expression and regulation of a dnaA homologue isolated from Pseudomonas putida. 1992 , 232, 431-9	23
797	Characterization of the Aspergillus niger pelB gene: structure and regulation of expression. 1992 , 234, 113-20	54
796	An AP-1-like motif in the first intron of human Pro alpha 1(I) collagen gene is a critical determinant of its transcriptional activity. 1992 , 118, 119-29	62

795	A plant signal sequence enhances the secretion of bacterial ChiA in transgenic tobacco. 1992 , 18, 47-53	29
794	Mutational analysis of a plant heat shock element. 1992 , 19, 665-75	42
793	<i>Arabidopsis thaliana</i> small subunit leader and transit peptide enhance the expression of <i>Bacillus thuringiensis</i> proteins in transgenic plants. 1992 , 20, 81-93	80
792	Molecular analysis of chalcone and dihydropinosylvin synthase from Scots pine (<i>Pinus sylvestris</i>), and differential regulation of these and related enzyme activities in stressed plants. 1992 , 18, 489-503	118
791	Absence of mutations in the promoter region of the low density lipoprotein receptor gene in a large number of familial hypercholesterolaemia patients as revealed by denaturing gradient gel electrophoresis. 1992 , 89, 561-5	14
790	Two subtypes of HLA-B51 differing by substitution at position 171 of the alpha 2 helix. 1992 , 37, 57-63	18
789	Time-resolved fluorescence studies of tryptophan mutants of <i>Escherichia coli</i> glutamine synthetase: conformational analysis of intermediates and transition-state complexes. 1992 , 1, 342-55	7
788	Active site mutants of human cyclophilin A separate peptidyl-prolyl isomerase activity from cyclosporin A binding and calcineurin inhibition. 1992 , 1, 1092-9	255
787	Structural and energetic differences between insertions and substitutions in staphylococcal nuclease. 1992 , 13, 132-40	31
786	Amino acid substitution analysis of <i>E. coli</i> thymidylate synthase: the study of a highly conserved region at the N-terminus. 1992 , 13, 352-63	12
785	Functional roles of amino acid residues involved in forming the alpha-helix-turn-alpha-helix operator DNA binding motif of Tet repressor from Tn10. 1992 , 14, 168-77	23
784	N-linked glycosylation of proteinase B precursors of the yeast <i>Saccharomyces cerevisiae</i> is not required for proper targeting or processing of the enzyme. 1992 , 8, 353-9	3
783	Mutations in the DnaA binding sites of the replication origin of <i>Escherichia coli</i> . 1992 , 233, 81-8	23
782	Production of HIV-1 Vpu with pYEULCBX, a convenient vector for the production of non-fused proteins in yeast. 1992 , 14, 639-642	9
781	Heterologous expression and purification of active human phosphoribosylglycinamide formyltransferase as a single domain. 1992 , 11, 467-73	31
780	DNA twisting and the effects of non-contacted bases on affinity of 434 operator for 434 repressor. 1992 , 355, 89-91	76
779	New mammalian chloride channel identified by expression cloning. 1992 , 356, 238-41	330
778	The gene <i>lin-3</i> encodes an inductive signal for vulval development in <i>C. elegans</i> . 1992 , 358, 470-6	327

777	The PurR binding site in the <i>gla</i> promoter region of <i>Escherichia coli</i> . 1992 , 99, 299-304	12
776	Interaction of the regulatory protein NicR1 with the promoter region of the <i>pAO1</i> -encoded 6-hydroxy-D-nicotine oxidase gene of <i>Arthrobacter oxidans</i> . 1992 , 6, 1809-20	11
775	Determination of a specific region of the purine-cytosine permease involved in the recognition of its substrates. 1992 , 6, 2989-97	31
774	Site-directed mutagenesis of an amino acid residue in the bacteriophage P2 <i>ogr</i> protein implicated in interaction with <i>Escherichia coli</i> RNA polymerase. 1992 , 6, 3313-20	17
773	Structural requirements for high efficiency endocytosis of the human transferrin receptor. 1992 , 47, 209-17	10
772	Studies on engineering crystallizability by mutation of surface residues of human thymidylate synthase. 1992 , 122, 265-272	70
771	Structural and functional characterization of the mutant <i>Escherichia coli</i> glutaredoxin (C14----S) and its mixed disulfide with glutathione. <i>Biochemistry</i> , 1992 , 31, 9288-93	3.2 199
770	Biochemical and biological activity of phosphorylated and non-phosphorylated ras p21 mutants. 1992 , 1129, 278-86	4
769	Role of an evolutionarily invariant serine for the stability of human carbonic anhydrase II. 1992 , 1118, 179-86	24
768	Identification and analysis of the gag-pol ribosomal frameshift site of feline immunodeficiency virus. 1992 , 186, 389-97	70
767	Identification of the active site residues in the nsP2 proteinase of Sindbis virus. 1992 , 191, 932-40	101
766	The complex for replication initiation of <i>Escherichia coli</i> . 1992 , 102, S1-6	19
765	Conversion of human interferon-beta from a secreted to a phosphatidylinositol anchored protein by fusion of a 17 amino acid sequence to its carboxyl terminus. 1992 , 110, 181-91	2
764	Synthetic cryIIIA gene from <i>Bacillus thuringiensis</i> improved for high expression in plants. 1992 , 1, 228-36	48
763	Effective vectors for transformation, expression of heterologous genes, and assaying transposon excision in transgenic plants. 1992 , 1, 285-97	279
762	Biogenesis of the yeast vacuole (lysosome). Mutation in the active site of the vacuolar serine proteinase yscB abolishes proteolytic maturation of its 73-kDa precursor to the 41.5-kDa pro-enzyme and a newly detected 41-kDa peptide. 1992 , 203, 641-53	25
761	Expression of the <i>Saccharomyces cerevisiae</i> Kex2p endoprotease in insect cells. Evidence for a carboxy-terminal autoprocessing event. 1992 , 204, 121-6	21
760	Glutamyl-tRNA synthetase from <i>Thermus thermophilus</i> HB8. Molecular cloning of the <i>gltX</i> gene and crystallization of the overproduced protein. 1992 , 204, 465-72	18

759	Purification and properties of the mercuric-ion-binding protein MerP. 1992 , 205, 375-81	38
758	Development of a mutagenesis, expression and purification system for yeast phosphoglycerate mutase. Investigation of the role of active-site His181. 1992 , 207, 709-14	46
757	Mapping of three unique Ca(2+)-binding sites in human annexin II. 1992 , 207, 923-30	45
756	The binding of mutant actins to profilin, ATP and DNase I. 1992 , 209, 171-9	28
755	Unusual amino acid substitution in the anion-binding site of <i>Lactobacillus plantarum</i> non-allosteric L-lactate dehydrogenase. 1992 , 209, 993-8	14
754	Intron excision from tRNA precursors by plant splicing endonuclease requires unique features of the mature tRNA domain. 1992 , 210, 193-203	18
753	In vitro mutagenesis of the yeast SUP4-o gene to identify all substitutions that can be detected in vivo with the SUP4-o system. 1992 , 19, 282-7	19
752	Preferential usage of JH2 in D-J joinings with DQ52 is determined by the primary DNA sequence and is largely dependent on recombination signal sequences. 1992 , 22, 2225-30	9
751	Stability of capillary gels for automated sequencing of DNA. 1992 , 13, 475-83	72
750	Transfer vectors for maximal expression of passenger genes in the <i>Bombyx mori</i> nuclear polyhedrosis virus expression system. 1993 , 42, 1293-300	2
749	A missense mutation in the low density lipoprotein receptor gene causes familial hypercholesterolemia in Sephardic Jews. 1993 , 91, 141-7	30
748	Functional analysis of the gamma-glutamylcysteine synthetase of <i>Escherichia coli</i> B: effect of substitution of His-150 to Ala. 1993 , 38, 473-7	2
747	Overproduction of, and interaction within, bifunctional domains from the amino- and carboxy-termini of the pentafunctional AROM protein of <i>Aspergillus nidulans</i> . 1993 , 240, 92-102	17
746	The positive-acting sulfur regulatory protein CYS3 of <i>Neurospora crassa</i> : nuclear localization, autogenous control, and regions required for transcriptional activation. 1993 , 239, 334-44	23
745	Nitrate reductase of <i>Neurospora crassa</i> : the functional role of individual amino acids in the heme domain as examined by site-directed mutagenesis. 1993 , 240, 221-30	11
744	DNA binding domains in Tn3 transposase. 1993 , 236, 267-74	15
743	Signal transduction and sporulation in <i>Bacillus subtilis</i> : autophosphorylation of Spo0A, a sporulation initiation gene product. 1993 , 238, 138-44	3
742	Kanamycin resistance as a selectable marker for plastid transformation in tobacco. 1993 , 241, 49-56	145

741	Positively charged amino acids placed next to a signal sequence block protein translocation more efficiently in <i>Escherichia coli</i> than in mammalian microsomes. 1993 , 239, 251-6	60
740	Transfer RNA-mediated suppression of stop codons in protoplasts and transgenic plants. 1993 , 22, 681-90	29
739	Identification of functioning regulatory sites and a new myosin binding site in the C-terminal 288 amino acids of caldesmon expressed from a human clone. 1993 , 14, 385-91	26
738	Amino-acid substitutions in the zinc finger of NIT2, the nitrogen regulatory protein of <i>Neurospora crassa</i> , alter promoter element recognition. 1993 , 24, 212-8	16
737	A yeast antiviral protein, SKI8, shares a repeated amino acid sequence pattern with beta-subunits of G proteins and several other proteins. 1993 , 9, 43-51	31
736	Functional expression of bacterial beta-glucuronidase and its use as a reporter system in the yeast <i>Yarrowia lipolytica</i> . 1993 , 9, 71-5	13
735	Reduced efficiency in the glycosylation of the first sequon of <i>Saccharomyces cerevisiae</i> exoglucanase leads to the synthesis and secretion of a new glycoform of the molecule. 1993 , 9, 221-34	13
734	Expression of HIV-1 nef in yeast: the 27 kDa Nef protein is myristylated and fractionates with the nucleus. 1993 , 9, 565-73	15
733	Pro to Gly (P219G) in a silent glycosylation site results in complete glycosylation in tissue plasminogen activator. 1993 , 2, 126-7	5
732	Modulation of antibody affinity by a non-contact residue. 1993 , 2, 206-14	40
731	Unnatural amino acid packing mutants of <i>Escherichia coli</i> thioredoxin produced by combined mutagenesis/chemical modification techniques. 1993 , 2, 395-403	32
730	In vivo formation of active aspartate transcarbamoylase from complementing fragments of the catalytic polypeptide chains. 1993 , 2, 1013-23	13
729	Cysteine scanning mutagenesis of putative transmembrane helices IX and X in the lactose permease of <i>Escherichia coli</i> . 1993 , 2, 1024-33	104
728	Effects of alanine substitutions in alpha-helices of sperm whale myoglobin on protein stability. 1993 , 2, 1099-105	44
727	A study of the effects of altering the sites for N-glycosylation in alpha-1-proteinase inhibitor variants M and S. 1993 , 2, 1400-10	11
726	<i>C. elegans</i> lin-45 raf gene participates in let-60 ras-stimulated vulval differentiation. 1993 , 363, 133-40	239
725	Identification of a proline residue as a transduction element involved in voltage gating of gap junctions. 1993 , 365, 847-9	149
724	Inhibition of bacteriophage Mu transposition by Mu repressor and Fis. 1993 , 10, 293-8	14

7 ²³	Soluble forms of the human T cell receptor CD4 are efficiently expressed by <i>Streptomyces lividans</i> . 1993 , 11, 1031-6	27
7 ²²	Cloning of human, mouse and fission yeast recombination genes homologous to RAD51 and recA. 1993 , 4, 239-43	466
7 ²¹	Cystic fibrosis transmembrane conductance regulator splice variants are not conserved and fail to produce chloride channels. 1993 , 4, 426-31	101
7 ²⁰	MAP kinase-related FUS3 from <i>S. cerevisiae</i> is activated by STE7 in vitro. 1993 , 362, 261-4	174
7 ¹⁹	A single amino acid of the cholecystokinin-B/gastrin receptor determines specificity for non-peptide antagonists. 1993 , 362, 348-50	210
7 ¹⁸	Transcriptional organization of the F1845 fimbrial adhesin determinant of <i>Escherichia coli</i> . 1993 , 7, 993-1006	70
7 ¹⁷	Translational initiation at the coat-protein gene of phage MS2: native upstream RNA relieves inhibition by local secondary structure. 1993 , 9, 1079-88	30
7 ¹⁶	Spatial and temporal controls of the <i>Aspergillus</i> brlA developmental regulatory gene. 1993 , 8, 211-8	63
7 ¹⁵	Mechanism of expression of DNA repair gene vsr, an <i>Escherichia coli</i> gene that overlaps the DNA cytosine methylase gene, dcm. 1993 , 9, 823-33	31
7 ¹⁴	The triplet of lysine residues (Lys724-Lys725-Lys726) of Alzheimer's amyloid precursor protein plays an important role in membrane anchorage and processing. 1993 , 61, 239-46	15
7 ¹³	Functional analysis of conserved histidines in choline acetyltransferase by site-directed mutagenesis. 1993 , 61, 247-53	36
7 ¹²	The role of conserved tryptophan residues in the interaction of a bacterial cellulose binding domain with its ligand. 1993 , 106, 77-83	75
7 ¹¹	MetJ-mediated regulation of the <i>Salmonella typhimurium</i> metE and metR genes occurs through a common operator region. 1993 , 108, 145-50	10
7 ¹⁰	Mutant aspartate aminotransferase (K258H) without pyridoxal-5'-phosphate-binding lysine residue. Structural and catalytic properties. 1993 , 211, 475-84	24
7 ⁰⁹	Importance of the conserved active-site residues Tyr7, Glu106 and Thr199 for the catalytic function of human carbonic anhydrase II. 1993 , 211, 821-7	82
7 ⁰⁸	Sequencing and characterization of the sdaB gene from <i>Escherichia coli</i> K-12. 1993 , 212, 777-84	26
7 ⁰⁷	Lipase from <i>Pseudomonas aeruginosa</i> . Production in <i>Escherichia coli</i> and activation in vitro with a protein from the downstream gene. 1993 , 215, 239-46	31
7 ⁰⁶	Calcium binding by chick calretinin and rat calbindin D28k synthesised in bacteria. 1993 , 215, 401-10	40

705	Sequences in the rev-responsive element responsible for premature translational arrest in the human-immunodeficiency-virus-type-1 envelope. 1993 , 216, 459-67	7
704	Gly387 of murine ornithine decarboxylase is essential for the formation of stable homodimers. 1993 , 218, 245-50	22
703	SITE-DIRECTED MUTAGENESIS OF THE LH2 LIGHT-HARVESTING COMPLEX OF <i>Rhodobacter sphaeroides</i> : CHANGING Lys23 TO Gin RESULTS IN A SHIFT IN THE 850 nm ABSORPTION PEAK. 1993 , 57, 2-5	18
702	Construction and characterization of a specialized ribosome system for the overproduction of proteins in <i>Escherichia coli</i> . 1993 , 9, 345-54	4
701	Random mutagenesis of a plasmid-borne glycosidase gene and phenotypic selection of mutants in <i>Escherichia coli</i> . 1993 , 301, 73-7	7
700	Proton transfer in the catalytic mechanism of carbonic anhydrase. Effects of placing histidine residues at various positions in the active site of human isoenzyme II. 1993 , 1203, 142-6	23
699	Introduction of Ca(2+)-binding amino-acid sequence into the T4 lysozyme. 1993 , 1162, 84-8	3
698	Multiple regulatory elements ensure accurate transcription of a human ribosomal protein gene. 1993 , 19, 347-62	14
697	Overexpression of a <i>Rhizopus delemar</i> lipase gene in <i>Escherichia coli</i> . 1993 , 28, 81-8	34
696	Effect of chicken lysozyme signal peptide alterations on secretion of human lysozyme in <i>Saccharomyces cerevisiae</i> . 1993 , 71, 401-5	2
695	Functional expression of gastric H,K-ATPase using the baculovirus expression system. 1993 , 329, 277-82	51
694	Tyr-139 in <i>Thermus thermophilus</i> 3-isopropylmalate dehydrogenase is involved in catalytic function. 1993 , 332, 37-8	13
693	The DsbA-DsbB system affects the formation of disulfide bonds in periplasmic but not in intramembraneous protein domains. 1993 , 332, 49-51	12
692	Bovine inositol monophosphatase. The identification of a histidine residue reactive to diethylpyrocarbonate. 1993 , 321, 37-40	6
691	A thioredoxin-independent fully active NADP-malate dehydrogenase obtained by site-directed mutagenesis. 1993 , 321, 55-8	22
690	Chimeric Ca(2+)-ATPase/Na+,K(+)-ATPase molecules. Their phosphoenzyme intermediates and sensitivity to Ca2+ and thapsigargin. 1993 , 336, 248-54	16
689	Different sec-requirements for signal peptide cleavage and protein translocation in a model <i>E. coli</i> protein. 1993 , 318, 7-10	4
688	The in vivo assembly and function of the N- and C-terminal halves of the Tn10-encoded TetA protein in <i>Escherichia coli</i> . 1993 , 324, 131-5	14

687	A negative charge in the M2 transmembrane segment of the neuronal alpha 7 acetylcholine receptor increases permeability to divalent cations. 1993 , 324, 185-90		18
686	Engineering type 1 copper sites in proteins. 1993 , 325, 39-48		123
685	Alpha-helical distorting substitution disrupt coupling between m3 muscarinic receptor and G proteins. 1993 , 324, 103-8		22
684	Structural and functional characterisation of recombinant human erythropoietin analogues. 1993 , 336, 133-6		6
683	Deletion of NH2- and COOH-terminal sequences destroys function of the Ca2+ ATPase of rabbit fast-twitch skeletal muscle sarcoplasmic reticulum. 1993 , 336, 168-70		15
682	Biosynthesis and initial processing of the cardiac sarcolemmal Na(+)-Ca2+ exchanger. 1993 , 1151, 35-42		67
681	Amino acid substitutions in the membrane-binding domain of cytochrome b5 alter its membrane-binding properties. 1993 , 1153, 163-9		15
680	High-frequency plastid transformation in tobacco by selection for a chimeric aadA gene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 913-7	11.5	672
679	Location of the replication determinants of the satellite RNA associated with grapevine fanleaf nepovirus (strain F13). 1993 , 75, 597-603		20
678	Folding of the four domains and dimerization are impaired by the Gly446-->Glu exchange in human glutathione reductase. Implications for the design of antiparasitic drugs. <i>Biochemistry</i> , 1993 , 32, 4060-6	3.2	109
677	TATA box mutations in the Schizosaccharomyces pombe nmt1 promoter affect transcription efficiency but not the transcription start point or thiamine repressibility. 1993 , 123, 131-6		587
676	The internal quaternary ammonium receptor site of Shaker potassium channels. 1993 , 10, 533-41		239
675	Characterization of a tumor necrosis factor-responsive element which down-regulates the human osteocalcin gene. 1993 , 13, 3714-21		38
674	Trypsin display on the surface of bacteriophage. 1993 , 128, 129-34		94
673	A protein containing conserved RNA-recognition motifs is associated with ribosomal subunits in Saccharomyces cerevisiae. 1993 , 21, 3211-6		9
672	Effects of mutations in the hinge region of serpins. <i>Biochemistry</i> , 1993 , 32, 7650-7	3.2	171
671	Probing local mobility in carbonic anhydrase: EPR of spin-labelled SH groups introduced by site-directed mutagenesis. 1993 , 2003-2007		8
670	Mutational and kinetic analysis of a mobile loop in tyrosyl-tRNA synthetase. <i>Biochemistry</i> , 1993 , 32, 13658-63	3.2	48

669	Discrimination among tRNAs intermediate in glutamate and glutamine acceptor identity. <i>Biochemistry</i> , 1993 , 32, 14210-9	3.2	39
668	Expression and characterization of a structural and functional domain of the mannitol-specific transport protein involved in the coupling of mannitol transport and phosphorylation in the phosphoenolpyruvate-dependent phosphotransferase system of <i>Escherichia coli</i> . <i>Biochemistry</i> , 1993 , 32, 9553-62	3.2	21
667	Mutagenesis of structural half-cystine residues in human thioredoxin and effects on the regulation of activity by selenodiglutathione. <i>Biochemistry</i> , 1993 , 32, 9701-8	3.2	146
666	Functional consequences of substitution of the seven-residue segment LysIleArgAspGlnMetAla240 located in the stalk helix S3 of the Ca(2+)-ATPase of sarcoplasmic reticulum. <i>Biochemistry</i> , 1993 , 32, 10015-20	3.2	10
665	Helix variants of troponin C with tailored calcium affinities. <i>Biochemistry</i> , 1993 , 32, 9826-31	3.2	21
664	Identification of lysine 153 as a functionally important residue in UDP-galactose 4-epimerase from <i>Escherichia coli</i> . <i>Biochemistry</i> , 1993 , 32, 13231-6	3.2	48
663	Structural and functional characterization of sperm whale myoglobin mutants: role of arginine (E10) in ligand stabilization. <i>Biochemistry</i> , 1993 , 32, 6041-9	3.2	31
662	Substitution of transmembrane residues with hydrogen-bonding potential in the alpha subunit of Na,K-ATPase reveals alterations in ouabain sensitivity. <i>Biochemistry</i> , 1993 , 32, 544-50	3.2	64
661	Site-directed mutagenesis of a predicted cation binding site of Na, K-ATPase. <i>Biochemistry</i> , 1993 , 32, 819-26	3.2	63
660	Circular permutation of T4 lysozyme. <i>Biochemistry</i> , 1993 , 32, 12311-8	3.2	72
659	Effects of site-directed mutagenesis on the N-glycosylation sites of human lecithin:cholesterol acyltransferase. <i>Biochemistry</i> , 1993 , 32, 8732-6	3.2	32
658	Mutations in the catalytic domain of factor IX that are related to the subclass hemophilia Bm. <i>Biochemistry</i> , 1993 , 32, 6324-9	3.2	12
657	Characterization of folding intermediates of human carbonic anhydrase II: probing substructure by chemical labeling of SH groups introduced by site-directed mutagenesis. <i>Biochemistry</i> , 1993 , 32, 224-31	3.2	104
656	Baculovirus expression of the maize mitochondrial protein URF13 confers insecticidal activity in cell cultures and larvae. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 3388-92	11.5	58
655	Site-directed mutagenesis of the Na,K-ATPase: consequences of substitutions of negatively-charged amino acids localized in the transmembrane domains. <i>Biochemistry</i> , 1993 , 32, 13523-30	3.2	123
654	Mutagenesis of ribosomal protein S8 from <i>Escherichia coli</i> : expression, stability, and RNA-binding properties of S8 mutants. <i>Biochemistry</i> , 1993 , 32, 4761-8	3.2	19
653	Alteration of the enzymatic specificity of human angiogenin by site-directed mutagenesis. <i>Biochemistry</i> , 1993 , 32, 2307-13	3.2	59
652	Role of phenylalanine-327 in the closure of loop 6 of ribulosebiphosphate carboxylase/oxygenase from <i>Rhodospirillum rubrum</i> . <i>Biochemistry</i> , 1993 , 32, 1940-4	3.2	12

651	Intestinal fatty acid binding protein: characterization of mutant proteins containing inserted cysteine residues. <i>Biochemistry</i> , 1993 , 32, 11015-21	3.2	27
650	Catalase HPII of <i>Escherichia coli</i> catalyzes the conversion of protoheme to cis-heme d. <i>Biochemistry</i> , 1993 , 32, 10159-64	3.2	64
649	Construction of a vector for site-specific frameshift mutagenesis containing the mutable hotspot of <i>Salmonella typhimurium</i> TA98 on an M13 bacteriophage. 1993 , 6, 317-27		10
648	The conserved residues glutamate-37, aspartate-100, and arginine-269 are important for the structural stabilization of <i>Escherichia coli</i> aspartate transcarbamoylase. <i>Biochemistry</i> , 1993 , 32, 10150-8	3.2	32
647	Flexibility impaired by mutations revealed the multifunctional roles of the loop in glutathione synthetase. <i>Biochemistry</i> , 1993 , 32, 12398-404	3.2	38
646	Site-specific mutagenesis of <i>Drosophila</i> alcohol dehydrogenase: evidence for involvement of tyrosine-152 and lysine-156 in catalysis. <i>Biochemistry</i> , 1993 , 32, 3342-6	3.2	152
645	A 2-thiouridine derivative in tRNA ^{Glu} is a positive determinant for aminoacylation by <i>Escherichia coli</i> glutamyl-tRNA synthetase. <i>Biochemistry</i> , 1993 , 32, 3836-41	3.2	165
644	Calcitonin increases transcription of parathyroid hormone-related protein via cAMP. 1993 , 94, 1-7		41
643	Polycos vectors: a system for packaging filamentous phage and phagemid vectors using lambda phage packaging extracts. 1993 , 137, 93-100		6
642	Autoantibodies in the sera of patients with autoimmune thyroid disease recognize a secreted form of human thyroid peroxidase generated in a baculovirus system. 1993 , 94, R5-8		6
641	The requirement for subunit interaction in the production of <i>Penicillium chrysogenum</i> acyl-coenzyme A:isopenicillin N acyltransferase in <i>Escherichia coli</i> . 1993 , 132, 199-206		26
640	Involvement of threonine 234 in catalysis of tyrosyl adenylate formation by tyrosyl-tRNA synthetase. <i>Biochemistry</i> , 1993 , 32, 13644-50	3.2	34
639	Functional domains of the transcriptional activator NUC-1 in <i>Neurospora crassa</i> . 1993 , 130, 259-64		12
638	Replacement of the invariant tyrosine in the CAGY region of the human chorionic gonadotropin beta subunit. 1993 , 92, R1-5		14
637	tRNA as a positive regulator of transcription antitermination in <i>B. subtilis</i> . 1993 , 74, 475-82		235
636	Identification of revertants for the cystic fibrosis delta F508 mutation using STE6-CFTR chimeras in yeast. 1993 , 73, 335-46		162
635	3' splice site recognition in <i>S. cerevisiae</i> does not require base pairing with U1 snRNA. 1993 , 73, 803-12		49
634	Sigma F, the first compartment-specific transcription factor of <i>B. subtilis</i> , is regulated by an anti-sigma factor that is also a protein kinase. 1993 , 74, 735-42		231

633	Strategy and implementation of a system for protein engineering. 1993 , 28, 41-54		11
632	Role of the amino-terminal amino acid sequences determining the in vitro refolding process of prochymosin polypeptide. 1993 , 28, 85-97		10
631	Improved high-level constitutive foreign gene expression in plants using an AMV RNA4 untranslated leader sequence. 1993 , 94, 139-149		125
630	Phage display as a rapid gene expression system: production of bioactive cytokine-phage and generation of neutralizing monoclonal antibodies. 1993 , 161, 169-76		51
629	In vivo evidence that UV-induced C-->T mutations at dipyrimidine sites could result from the replicative bypass of cis-syn cyclobutane dimers or their deamination products. <i>Biochemistry</i> , 1993 , 32, 472-81	3.2	134
628	Identification of a residue in the translocation pathway of a membrane carrier. 1993 , 75, 37-44		75
627	Functional analysis of the P box, a domain in cyclin B required for the activation of Cdc25. 1993 , 75, 155-164		73
626	Recombinant Protein Technology. 1993 , 467-487		6
625	Role of HIV-1 envelope V3 loop cleavage in cell tropism. 1993 , 9, 1007-15		24
624	SpollAB is an anti-sigma factor that binds to and inhibits transcription by regulatory protein sigma F from <i>Bacillus subtilis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 2325-9	11.5	187
623	Identification of nine tissue-specific transcription factors of the hepatocyte nuclear factor 3/forkhead DNA-binding-domain family. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 3948-52	11.5	223
622	mRNA processing independent of RNase III and RNase E in the expression of the F1845 fimbrial adhesin of <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 1455-9	11.5	38
621	The short form of the CheA protein restores kinase activity and chemotactic ability to kinase-deficient mutants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 1518-22	11.5	75
620	A 24-base-pair sequence 3' to the human erythropoietin gene contains a hypoxia-responsive transcriptional enhancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 3928-32	11.5	111
619	Multiple regions of NSR1 are sufficient for accumulation of a fusion protein within the nucleolus. 1993 , 123, 1081-91		58
618	Restructuring an interdomain linker in the dihydrolipoamide acetyltransferase component of the pyruvate dehydrogenase complex of <i>Escherichia coli</i> . 1993 , 6, 101-8		24
617	The long extra arms of human tRNA((Ser)Sec) and tRNA(Ser) function as major identify elements for serylalation in an orientation-dependent, but not sequence-specific manner. 1993 , 21, 5589-94		84
616	Identification of genomic sequences that mediate the induction of the endoplasmic reticulum stress protein, ERp72, by protein traffic. 1993 , 12, 807-22		14

615	Design and specificity of hammerhead ribozymes against calretinin mRNA. 1993 , 21, 5171-8	46
614	c-Jun is phosphorylated by the DNA-dependent protein kinase in vitro; definition of the minimal kinase recognition motif. 1993 , 21, 1289-95	101
613	Determination of diabetogenicity attributable to a single amino acid, Ala776, on the polyprotein of encephalomyocarditis virus. 1993 , 42, 435-43	43
612	Direct genetic selection for a specific RNA-protein interaction. 1993 , 21, 5754-60	23
611	Stimulation of gene expression by introns: conversion of an inhibitory intron to a stimulatory intron by alteration of the splice donor sequence. 1993 , 21, 5901-8	32
610	Functional studies of truncated soluble intercellular adhesion molecule 1 expressed in <i>Escherichia coli</i> . 1993 , 37, 1278-84	18
609	The roles of the rod end and the tail in vimentin IF assembly and IF network formation. 1993 , 122, 395-407	62
608	FUS3 phosphorylates multiple components of the mating signal transduction cascade: evidence for STE12 and FAR1. 1993 , 4, 495-510	232
607	Mutational analysis of Moloney murine leukaemia virus surface protein gp70. 1993 , 74 (Pt 4), 707-14	15
606	Direct BRLF1 binding is required for cooperative BZLF1/BRLF1 activation of the Epstein-Barr virus early promoter, BMRF1. 1993 , 21, 1999-2007	121
605	Ribosomal pausing during translation of an RNA pseudoknot. 1993 , 13, 6931-40	204
604	Characterization of ribonuclease P RNAs from thermophilic bacteria. 1993 , 21, 671-9	46
603	Human lysosomal alpha-glucosidase: functional characterization of the glycosylation sites. 1993 , 289 (Pt 3), 681-6	50
602	Multiple RNA polymerase conformations and GreA: control of the fidelity of transcription. 1993 , 262, 867-73	267
601	The promoter region of the yeast KAR2 (BiP) gene contains a regulatory domain that responds to the presence of unfolded proteins in the endoplasmic reticulum. 1993 , 13, 877-90	307
600	Elements regulating an alternatively spliced exon of the rat fibronectin gene. 1993 , 13, 5301-14	60
599	Probing keratinocyte and differentiation specificity of the human K5 promoter in vitro and in transgenic mice. 1993 , 13, 3176-90	131
598	Involvement of U6 snRNA in 5' splice site selection. 1993 , 262, 2035-9	236

597	Phosphatidylinositol 3-kinase encoded by yeast VPS34 gene essential for protein sorting. 1993 , 260, 88-91	868
596	The Escherichia coli gcvT gene encoding the T-protein of the glycine cleavage enzyme system. 1993 , 3, 339-46	23
595	Site-directed mutagenesis of the 2-haloalkanoic acid dehalogenase I gene from Pseudomonas sp. strain CBS3 and its effect on catalytic activity. 1993 , 374, 489-96	15
594	Functional role of the NH2-terminal cytoplasmic domain of a mammalian A-type K channel. 1993 , 102, 1057-83	52
593	A bZIP protein, sisterless-a, collaborates with bHLH transcription factors early in Drosophila development to determine sex. 1993 , 7, 1688-702	87
592	Cis- and trans-acting elements involved in amino acid regulation of asparagine synthetase gene expression. 1993 , 13, 3202-12	95
591	The subcellular distribution of early endosomes is affected by the annexin II2p11(2) complex. 1993 , 123, 1119-32	156
590	The I domain is a major recognition site on the leukocyte integrin Mac-1 (CD11b/CD18) for four distinct adhesion ligands. 1993 , 120, 1031-43	463
589	DNA bending and orientation-dependent function of YY1 in the c-fos promoter. 1993 , 7, 2497-509	201
588	Cloning and functional characterization of early B-cell factor, a regulator of lymphocyte-specific gene expression. 1993 , 7, 760-73	216
587	The costimulatory activity of the CD26 antigen requires dipeptidyl peptidase IV enzymatic activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 4586-90	11.5 158
586	Critical hydrogen bonding by serine 235 for cephalosporinase activity of TEM-1 beta-lactamase. 1993 , 37, 2438-42	30
585	Recombinant human sickle hemoglobin expressed in yeast. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 918-22	11.5 43
584	Mutational and secondary structural analysis of the basolateral sorting signal of the polymeric immunoglobulin receptor. 1993 , 123, 1149-60	136
583	Associations between subunit ectodomains promote T cell antigen receptor assembly and protect against degradation in the ER. 1993 , 122, 67-78	45
582	The structure of the initiation complex at the replication origin, oriC, of Escherichia coli. 1993 , 21, 5025-33	55
581	Oligomerization of NTRC at the glnA enhancer is required for transcriptional activation. 1993 , 7, 2258-73	163
580	Cloning of the rat progesterone receptor gene 5'-region and identification of two functionally distinct promoters. 1993 , 7, 1603-16	140

579	A virion-specific inhibitory molecule with therapeutic potential for human immunodeficiency virus type 1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 3544-8 ^{11.5}	33
578	Cooperative interactions between the <i>Caenorhabditis elegans</i> homeoproteins UNC-86 and MEC-3. 1993 , 261, 1324-8	191
577	Molecular basis for specific recognition of both RNA and DNA by a zinc finger protein. 1993 , 260, 530-3	126
576	Tissue-specific RNA splicing generates an ankyrin-like domain that affects the dimerization and DNA-binding properties of a bHLH protein. 1993 , 7, 55-71	68
575	Protoplasts transiently expressing the 200K coding sequence of cowpea mosaic virus B-RNA support replication of M-RNA. 1993 , 74 (Pt 10), 2233-41	53
574	Protein Biotechnology. 1993 ,	20
573	The putative zinc finger of a caulimovirus is essential for infectivity but does not influence gene expression. 1993 , 74 (Pt 4), 775-80	10
572	Effect of mutational alteration of Asn-128 in the putative GTP-binding domain of tetracycline resistance determinant Tet(O) from <i>Campylobacter jejuni</i> . 1993 , 37, 2645-9	15
571	A rab protein regulates the localization of secretory granules in AtT-20 cells. 1993 , 4, 747-56	35
570	Expression of mutant ELH prohormones in AtT-20 cells: the relationship between prohormone processing and sorting. 1993 , 121, 11-21	33
569	Mutagenesis of the cyclic AMP receptor protein of <i>Escherichia coli</i> : targeting positions 72 and 82 of the cyclic nucleotide binding pocket. 1993 , 21, 1827-35	30
568	The protein tyrosine kinase p56lck regulates thymocyte development independently of its interaction with CD4 and CD8 coreceptors [corrected]. 1993 , 178, 245-55	31
567	Importance of conserved amino acids at the cleavage site of the haemagglutinin of a virulent avian influenza A virus. 1993 , 74 (Pt 2), 311-4	42
566	Nucleotide sequence analysis and DNA hybridization studies of the ant(4')-IIa gene from <i>Pseudomonas aeruginosa</i> . 1993 , 37, 708-14	11
565	Differential orientations of the DNA-binding domain and carboxy-terminal dimerization interface regulate binding site selection by nuclear receptor heterodimers. 1993 , 7, 1423-35	295
564	Identification of a functional thyroid hormone response element in the upstream flanking region of the human Na,K-ATPase beta 1 gene. 1993 , 21, 2619-26	36
563	Biogenesis of the yeast vacuole (lysosome). Signal sequence deletion of the vacuolar aspartic proteinase yscA does not block maturation of vacuolar proteinases. 1993 , 374, 1109-15	5
562	Ala1048-->Asp mutation in the kinase domain of insulin receptor causes defective kinase activity and insulin resistance. 1993 , 42, 1837-44	17

561	Structural requirement of C-terminal region of chicken lysozyme signal peptide. 1993 , 4, 113-120		1
560	Pattern of aromatic and hydrophobic amino acids critical for one of two subdomains of the VP16 transcriptional activator. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 883-7	11.5	246
559	Acceptor end binding domain interactions ensure correct aminoacylation of transfer RNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 2010-4	11.5	30
558	Molecular characterization of a structural epitope that is largely conserved among severe isolates of a plant virus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 3641-4	11.5	34
557	The role of the preserved sequences of Dam methylase. 1993 , 21, 3183-90		29
556	In vivo characterization of site-directed mutations in the promoter of the herpes simplex virus type 1 latency-associated transcripts. 1993 , 74 (Pt 9), 1859-69		85
555	Regulation of sigma B levels and activity in <i>Bacillus subtilis</i> . 1993 , 175, 2347-56		117
554	Molecular analysis of the <i>phoH</i> gene, belonging to the phosphate regulon in <i>Escherichia coli</i> . 1993 , 175, 1316-24		82
553	Nucleotide sequence of the <i>adi</i> gene, which encodes the biodegradative acid-induced arginine decarboxylase of <i>Escherichia coli</i> . 1993 , 175, 1221-34		76
552	A 30-kDa alternative translation product of the CCAAT/enhancer binding protein alpha message: transcriptional activator lacking antimitotic activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 9606-10	11.5	264
551	The importance of the interdomain hinge in intramolecular electron transfer in flavocytochrome b2. 1993 , 291 (Pt 1), 89-94		29
550	<i>Arthrobacter</i> D-xylose isomerase: protein-engineered subunit interfaces. 1993 , 291 (Pt 2), 575-83		10
549	Identification of the predominant glycosaminoglycan-attachment site in soluble recombinant human thrombomodulin: potential regulation of functionality by glycosyltransferase competition for serine474. 1993 , 295 (Pt 1), 131-40		40
548	<i>Arthrobacter</i> D-xylose isomerase: chemical modification of carboxy groups and protein engineering of pH optimum. 1993 , 296 (Pt 3), 685-91		19
547	Mammalian inositol monophosphatase: the identification of residues important for the binding of Mg ²⁺ and Li ⁺ ions using fluorescence spectroscopy and site-directed mutagenesis. 1993 , 296 (Pt 3), 811-5		18
546	Identity determinants of human tRNA(Ser): sequence elements necessary for serylolation and maturation of a tRNA with a long extra arm.. 1993 , 12, 3333-3338		53
545	Site-directed mutations in a highly conserved region of <i>Bacillus thuringiensis</i> delta-endotoxin affect inhibition of short circuit current across <i>Bombyx mori</i> midguts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 9041-5	11.5	75
544	TAP1, a yeast gene that activates the expression of a tRNA gene with a defective internal promoter. 1993 , 13, 3424-33		36

543	Short artificial hairpins sequester splicing signals and inhibit yeast pre-mRNA splicing. 1993 , 13, 6841-8		70
542	Evidence that the SKI antiviral system of <i>Saccharomyces cerevisiae</i> acts by blocking expression of viral mRNA. 1993 , 13, 4331-41		101
541	Phosphorylation of Ser-42 and Ser-59 in the N-terminal region of the tyrosine kinase p56lck. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 5176-80	11.5	85
540	Identification and characterization of an essential, activating regulatory element of the human SIS/PDGFB promoter in human megakaryocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 7563-7	11.5	32
539	Mutations at U2555, a tRNA-protected base in 23S rRNA, affect translational fidelity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 9214-8	11.5	77
538	The relationship between synthetic and editing functions of the active site of an aminoacyl-tRNA synthetase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 11553-7	11.5	54
537	Autoreactive epitopes defined by diabetes-associated human monoclonal antibodies are localized in the middle and C-terminal domains of the smaller form of glutamate decarboxylase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 2832-6	11.5	147
536	Properties and purification of an active biotinylated lactose permease from <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 6934-8	11.5	116
535	A recombinant immunotoxin containing a disulfide-stabilized Fv fragment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 7538-42	11.5	198
534	Characterization of composite aminodeoxyisochorismate synthase and aminodeoxyisochorismate lyase activities of anthranilate synthase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 9983-7	11.5	49
533	Aspartate transcarbamoylase containing circularly permuted catalytic polypeptide chains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 11980-4	11.5	43
532	GSP1 and GSP2, genetic suppressors of the prp20-1 mutant in <i>Saccharomyces cerevisiae</i> : GTP-binding proteins involved in the maintenance of nuclear organization. 1993 , 13, 2152-61		144
531	In vitro definition of the yeast RNA polymerase I enhancer. 1993 , 13, 2644-54		23
530	CD4 down-regulation by nef alleles isolated from human immunodeficiency virus type 1-infected individuals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 5549-53	11.5	155
529	A single-base-pair deletion in the beta-glucuronidase gene accounts for the phenotype of murine mucopolysaccharidosis type VII. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 6567-71	11.5	115
528	U2 small nuclear RNA 3' end formation is directed by a critical internal structure distinct from the processing site. 1993 , 13, 1119-29		18
527	A genetic analysis of the E2F1 gene distinguishes regulation by Rb, p107, and adenovirus E4. 1993 , 13, 6314-25		115
526	Analysis of the SWI4/SWI6 protein complex, which directs G1/S-specific transcription in <i>Saccharomyces cerevisiae</i> . 1993 , 13, 1069-77		97

525	Functional characterization of elements in a human U6 small nuclear RNA gene distal control region. 1993 , 13, 4670-8		41
524	A point mutation of the Na ⁺ /H ⁺ exchanger gene (NHE1) and amplification of the mutated allele confer amiloride resistance upon chronic acidosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 4508-12	11.5	145
523	Charge-reversion mutagenesis of Dictyostelium actin to map the surface recognized by myosin during ATP-driven sliding motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 2127-31	11.5	80
522	Participation of the transcription factor C/EBP delta in the acute-phase regulation of the human gene for complement component C3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 2584-8	11.5	119
521	Two domains of ISGF3 gamma that mediate protein-DNA and protein-protein interactions during transcription factor assembly contribute to DNA-binding specificity. 1993 , 13, 196-206		117
520	Identification and characterization of an Alu-containing, T-cell-specific enhancer located in the last intron of the human CD8 alpha gene. 1993 , 13, 7056-70		123
519	Site-directed point mutations in embryonic stem cells: a gene-targeting tag-and-exchange strategy. 1993 , 13, 4115-24		122
518	Lack of an initiator element is responsible for multiple transcriptional initiation sites of the TATA-less mouse thymidylate synthase promoter. 1993 , 13, 4894-903		67
517	Functional interchangeability of the structurally similar tetranucleotide loops GAAA and UUCG in fission yeast signal recognition particle RNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 5409-13	11.5	19
516	The E2A gene product contains two separable and functionally distinct transcription activation domains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 8063-7	11.5	106
515	A second hepatitis C virus-encoded proteinase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 10583-7	11.5	343
514	Genetic analysis of homomeric interactions of human immunodeficiency virus type 1 integrase using the yeast two-hybrid system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 10593-7	11.5	60
513	Role of dimerization in yeast aspartyl-tRNA synthetase and importance of the class II invariant proline. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 10816-20	11.5	58
512	Upstream basal promoter element important for exclusive RNA polymerase III transcription of the EBER 2 gene. 1993 , 13, 2655-65		25
511	Regions of the Bacillus subtilis ilv-leu operon involved in regulation by leucine. 1993 , 175, 7581-93		45
510	Accumulation of D1 polypeptide in tobacco plastids is regulated via the untranslated region of the psbA mRNA.. 1993 , 12, 601-606		118
509	The low abundance of U7 snRNA is partly determined by its Sm binding site.. 1993 , 12, 1229-1238		66
508	Properties of Saccharomyces cerevisiae wee1 and its differential regulation of p34CDC28 in response to G1 and G2 cyclins.. 1993 , 12, 3417-3426		262

507	A membrane-associated complex containing the Vps15 protein kinase and the Vps34 PI 3-kinase is essential for protein sorting to the yeast lysosome-like vacuole.. 1993 , 12, 2195-2204	230
506	An extended surface of binding to Trk tyrosine kinase receptors in NGF and BDNF allows the engineering of a multifunctional pan-neurotrophin.. 1993 , 12, 2281-2293	115
505	Initiation codon mutations in the Chlamydomonas chloroplast petD gene result in temperature-sensitive photosynthetic growth.. 1993 , 12, 3627-3635	38
504	Interaction of intronic boundaries is required for the second splicing step efficiency of a group II intron.. 1993 , 12, 5173-5180	26
503	Mutational and functional analysis of dominant SPT2 (SIN1) suppressor alleles in Saccharomyces cerevisiae. 1993 , 13, 5393-407	18
502	Saccharomyces cerevisiae HSP70 heat shock elements are functionally distinct. 1993 , 13, 5637-46	31
501	Yeast MAK3 N-acetyltransferase recognizes the N-terminal four amino acids of the major coat protein (gag) of the L-A double-stranded RNA virus. 1993 , 175, 3192-4	52
500	Structural requirements of Bacillus subtilis alpha-amylase signal peptide for efficient processing: in vivo pulse-chase experiments with mutant signal peptides. 1993 , 175, 4203-12	9
499	Regulation of the Salmonella typhimurium metF gene by the MetR protein. 1993 , 175, 5862-6	43
498	The active form of the KorB protein encoded by the Streptomyces plasmid pIJ101 is a processed product that binds differentially to the two promoters it regulates. 1993 , 175, 6996-7005	14
497	Sites and gene products involved in lambdoid phage DNA packaging. 1993 , 175, 2393-9	27
496	Phospholipid transfer activity is relevant to but not sufficient for the essential function of the yeast SEC14 gene product.. 1993 , 12, 4775-4784	86
495	Nucleotide pool-sensitive selection of the transcriptional start site in vivo at the Salmonella typhimurium pyrC and pyrD promoters. 1993 , 175, 4137-44	34
494	Co-correction of the ERCC1, ERCC4 and xeroderma pigmentosum group F DNA repair defects in vitro.. 1993 , 12, 3685-3692	103
493	Analysis of the structure and subcellular location of filamentous phage pIV. 1993 , 175, 3998-4007	74
492	Inversion-independent phase variation of type 1 fimbriae in Escherichia coli. 1993 , 175, 4335-44	76
491	Use of a reporter gene to follow high-pressure signal transduction in the deep-sea bacterium Photobacterium sp. strain SS9. 1993 , 175, 7533-40	59
490	Evidence for autoregulation of camR, which encodes a repressor for the cytochrome P-450cam hydroxylase operon on the Pseudomonas putida CAM plasmid. 1993 , 175, 7828-33	26

489	Structurally engineered cytochromes with unusual ligand-binding properties: expression of <i>Saccharomyces cerevisiae</i> Met-80-->Ala iso-1-cytochrome c. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 11456-9	11.5	84
488	The phylogenetically predicted base-pairing interaction between alpha and alpha' is required for group II splicing in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1993 , 90, 10658-62	11.5	35
487	Repression of the traM gene of plasmid R100 by its own product and integration host factor at one of the two promoters. 1993 , 175, 4466-74		18
486	Elements controlling follicular expression of the s36 chorion gene during <i>Drosophila</i> oogenesis. 1993 , 13, 5898-906		15
485	Isolation and characterization of <i>S. cerevisiae</i> mutants defective in somatostatin expression: cloning and functional role of a yeast gene encoding an aspartyl protease in precursor processing at monobasic cleavage sites.. 1993 , 12, 285-294		44
484	Sec dependent and sec independent assembly of <i>E. coli</i> inner membrane proteins: the topological rules depend on chain length.. 1993 , 12, 683-691		115
483	Mutations in the conserved loop of human U5 snRNA generate use of novel cryptic 5' splice sites in vivo.. 1993 , 12, 5181-5189		40
482	The <i>Aspergillus nidulans</i> yA gene is regulated by abaA.. 1993 , 12, 2039-2048		58
481	The functional versatility of CREM is determined by its modular structure.. 1993 , 12, 1179-1191		157
480	Translational repression of brlA expression prevents premature development in <i>Aspergillus</i> .. 1993 , 12, 2449-2457		65
479	Functional tRNAs with altered 3' ends.. 1993 , 12, 2559-2566		44
478	Role of tyrosine-5 in the cytoplasmic tail of the macrophage asialoglycoprotein receptor in the rapid internalization of ligands. 1993 , 113, 271-6		13
477	The <i>Aspergillus nidulans</i> brlA regulatory locus consists of overlapping transcription units that are individually required for conidiophore development.. 1993 , 12, 2439-2447		82
476	The length and the secondary structure of the D-stem of human selenocysteine tRNA are the major identity determinants for serine phosphorylation.. 1994 , 13, 241-248		17
475	Promoter and operator determinants for fur-mediated iron regulation in the bidirectional fepA-fes control region of the <i>Escherichia coli</i> enterobactin gene system. 1994 , 176, 3944-55		55
474	Influence of translational efficiency on the stability of the mRNA for ribosomal protein S20 in <i>Escherichia coli</i> . 1994 , 176, 992-8		36
473	Opine-regulated promoters and LysR-type regulators in the nopaline (noc) and octopine (occ) catabolic regions of Ti plasmids of <i>Agrobacterium tumefaciens</i> . 1994 , 176, 495-503		30
472	Membrane protein topology: effects of delta mu H ⁺ on the translocation of charged residues explain the positive inside rule.. 1994 , 13, 2267-2272		119

471	The active site of yeast aspartyl-tRNA synthetase: structural and functional aspects of the aminoacylation reaction.. 1994 , 13, 327-337	179
470	Sequences within the poliovirus internal ribosome entry segment control viral RNA synthesis.. 1994 , 13, 3149-3157	94
469	The Broad-Complex directly controls a tissue-specific response to the steroid hormone ecdysone at the onset of <i>Drosophila</i> metamorphosis.. 1994 , 13, 3505-3516	155
468	The binding epitopes of neurotrophin-3 to its receptors trkC and gp75 and the design of a multifunctional human neurotrophin.. 1994 , 13, 5896-5909	88
467	A role for residue 151 of LamB in bacteriophage lambda adsorption: possible steric effect of amino acid substitutions. 1994 , 176, 3204-9	23
466	The short form of CheA couples chemoreception to CheA phosphorylation. 1994 , 176, 4483-91	24
465	Site-directed mutagenesis of the mecA gene from a methicillin-resistant strain of <i>Staphylococcus aureus</i> . 1994 , 176, 443-9	22
464	The <i>Haemophilus influenzae</i> sxy-1 mutation is in a newly identified gene essential for competence. 1994 , 176, 6789-94	30
463	Molecular genetic analysis of a prokaryotic transcriptional coactivator: functional domains of the bacteriophage T4 gene 33 protein. 1994 , 176, 1164-71	15
462	Translation of encephalomyocarditis virus RNA: parameters influencing the selection of the internal initiation site.. 1994 , 13, 1673-1681	100
461	Characterization of two protein kinases from <i>Schizosaccharomyces pombe</i> involved in the regulation of DNA repair.. 1994 , 13, 2777-2788	80
460	Sec-independent translocation of a 100-residue periplasmic N-terminal tail in the <i>E. coli</i> inner membrane protein proW.. 1994 , 13, 4653-4661	56
459	The <i>Rhodobacter sphaeroides</i> cytochrome c2 signal peptide is not necessary for export and heme attachment. 1994 , 176, 602-9	16
458	Analysis of the most representative tumour-derived p53 mutants reveals that changes in protein conformation are not correlated with loss of transactivation or inhibition of cell proliferation.. 1994 , 13, 3496-3504	150
457	Interaction between the acceptor end of tRNA and the T box stimulates antitermination in the <i>Bacillus subtilis</i> tyrS gene: a new role for the discriminator base. 1994 , 176, 4518-26	90
456	Expression of both <i>Bacillus subtilis</i> threonyl-tRNA synthetase genes is autogenously regulated. 1994 , 176, 486-94	36
455	Selective ectodomain phosphorylation and regulated cleavage of beta-amyloid precursor protein.. 1994 , 13, 534-542	95
454	The <i>Escherichia coli</i> proU promoter element and its contribution to osmotically signaled transcription activation. 1994 , 176, 3638-45	40

453	A new gene of bacteriophage P4 that controls DNA replication. 1994 , 176, 6059-65	17
452	Heterodimerization of the yeast MATa1 and MAT alpha 2 proteins is mediated by two leucine zipper-like coiled-coil motifs.. 1994 , 13, 1403-1413	29
451	Intracellular trafficking and activation of the furin proprotein convertase: localization to the TGN and recycling from the cell surface.. 1994 , 13, 18-33	367
450	Identification of JAK protein tyrosine kinases as signaling molecules for prolactin. Functional analysis of prolactin receptor and prolactin-erythropoietin receptor chimera expressed in lymphoid cells.. 1994 , 13, 2583-2591	109
449	IDX-1: a new homeodomain transcription factor expressed in rat pancreatic islets and duodenum that transactivates the somatostatin gene.. 1994 , 13, 1145-1156	324
448	Neuronal differentiation signals are controlled by nerve growth factor receptor/Trk binding sites for SHC and PLC gamma.. 1994 , 13, 1585-1590	241
447	A dramatic shift in the transmembrane topology of a viral envelope glycoprotein accompanies hepatitis B viral morphogenesis.. 1994 , 13, 1048-1057	121
446	Phylogenetic comparative chemical footprint analysis of the interaction between ribonuclease P RNA and tRNA.. 1994 , 13, 3945-3952	72
445	Direct control of transcription of the Drosophila morphogen bicoid by the serendipity delta zinc finger protein, as revealed by in vivo analysis of a finger swap. 1994 , 8, 2718-28	22
444	A DNA sequence required for geminivirus replication also mediates transcriptional regulation. 1994 , 6, 1157-70	118
443	Mutagenesis of the cyclic AMP receptor protein of Escherichia coli: targeting positions 83, 127 and 128 of the cyclic nucleotide binding pocket. 1994 , 22, 2894-901	41
442	An analysis of the in vitro and in vivo phenotypes of mutants of herpes simplex virus type 1 lacking glycoproteins gG, gE, gI or the putative gJ. 1994 , 75 (Pt 6), 1245-58	206
441	Charge replacement near the phosphorylatable serine of the myosin regulatory light chain mimics aspects of phosphorylation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 1490-4	11.5 112
440	Cytosine deaminations catalyzed by DNA cytosine methyltransferases are unlikely to be the major cause of mutational hot spots at sites of cytosine methylation in Escherichia coli. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 1574-8	11.5 69
439	Evolution of the replication regions of IncI alpha and IncFII plasmids by exchanging their replication control systems. 1994 , 1, 201-12	11
438	The Caenorhabditis elegans muscle-affecting gene unc-87 encodes a novel thin filament-associated protein. 1994 , 127, 79-93	56
437	A role for autophosphorylation revealed by activated alleles of FUS3, the yeast MAP kinase homolog. 1994 , 5, 297-312	64
436	5' proximal regions of Arabidopsis nitrate reductase genes direct nitrate-induced transcription in transgenic tobacco. 1994 , 106, 477-84	58

435	The petD gene is transcribed by functionally redundant promoters in <i>Chlamydomonas reinhardtii</i> chloroplasts. 1994 , 14, 6171-9	45
434	Three tuf-like genes in the kirromycin producer <i>Streptomyces ramocissimus</i> . 1994 , 140 (Pt 4), 983-98	40
433	The 3'-untranslated regions of c-mos and cyclin mRNAs stimulate translation by regulating cytoplasmic polyadenylation. 1994 , 8, 926-38	280
432	Cellular protein interactions with herpes simplex virus type 1 oriS. 1994 , 14, 2545-55	31
431	Site-directed and site-saturation mutagenesis using oligonucleotide primers. <i>Methods in Molecular Biology</i> , 1994 , 30, 211-25	1.4 2
430	Two 10-bp regions are critical for phytochrome regulation of a <i>Lemna gibba</i> Lhcb gene promoter. 1994 , 6, 1123-34	55
429	Cell cycle-regulated degradation of <i>Xenopus</i> cyclin B2 requires binding to p34cdc2. 1994 , 5, 713-24	30
428	The COOH-terminal ends of internal signal and signal-anchor sequences are positioned differently in the ER translocase. 1994 , 126, 1127-32	125
427	Co-enzyme specificity of 3-isopropylmalate dehydrogenase from <i>Thermus thermophilus</i> HB8. 1994 , 7, 401-3	18
426	Specific factors are required for kinase-dependent endocytosis of insulin receptors. 1994 , 5, 539-47	11
425	The conserved 3'-flanking sequence, AATGGAAATG, of the wheat histone H3 gene is necessary for the accurate 3'-end formation of mRNA. 1994 , 22, 1052-8	18
424	Geminivirus replication origins have a modular organization. 1994 , 6, 405-16	166
423	The presence of both negative and positive elements in the 5'-flanking sequence of the rat Na,K-ATPase alpha 3 subunit gene are required for brain expression in transgenic mice. 1994 , 22, 4748-55	46
422	Uracil-excision DNA repair. 1994 , 48, 315-70	83
421	Two 10-bp Regions Are Critical for Phytochrome Regulation of a <i>Lemna gibba</i> Lhcb Gene Promoter. 1994 , 6, 1123	3
420	BZP, a novel serum-responsive zinc finger protein that inhibits gene transcription. 1994 , 14, 6773-88	43
419	The Barley Stripe Mosaic Virus gb Gene Encodes a Multifunctional Cysteine-Rich Protein That Affects Pathogenesis. 1994 , 6, 1593	2
418	Effects of tyrosine-->phenylalanine mutations on auto- and trans-phosphorylation reactions catalyzed by the insulin receptor beta-subunit cytoplasmic domain. 1994 , 13, 593-604	5

417	A self-initiating eukaryotic transient gene expression system based on cotransfection of bacteriophage T7 RNA polymerase and DNA vectors containing a T7 autogene. 1994 , 22, 2114-20		26
416	Carboxypeptidase Taq, a thermostable zinc enzyme, from <i>Thermus aquaticus</i> YT-1: molecular cloning, sequencing, and expression of the encoding gene in <i>Escherichia coli</i> . 1994 , 58, 1490-5		36
415	A processing pathway for amyloid β protein precursor generates a secreted form with an intact carboxyl terminus. 1994 , 1, 221-231		5
414	Several hydrophobic amino acids in the p53 amino-terminal domain are required for transcriptional activation, binding to mdm-2 and the adenovirus 5 E1B 55-kD protein. 1994 , 8, 1235-46		534
413	Disruption of mesoderm and axis formation in fish by ectopic expression of activin variants: the role of maternal activin. 1994 , 8, 1448-62		90
412	The lung-specific surfactant protein B gene promoter is a target for thyroid transcription factor 1 and hepatocyte nuclear factor 3, indicating common factors for organ-specific gene expression along the foregut axis. 1994 , 14, 5671-81		472
411	Yeast farnesyl-diphosphate synthase: site-directed mutagenesis of residues in highly conserved prenyltransferase domains I and II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 3044-8	11.5	166
410	Relocation of the plastid rbcL gene to the nucleus yields functional ribulose-1,5-bisphosphate carboxylase in tobacco chloroplasts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 1969-73	11.5	124
409	Subcellular localization of proteins involved in the assembly of the spore coat of <i>Bacillus subtilis</i> . 1994 , 8, 234-44		139
408	RNA editing in the Wilms' tumor susceptibility gene, WT1. 1994 , 8, 720-31		150
407	Integrin cytoplasmic domains mediate inside-out signal transduction. 1994 , 124, 1047-59		585
406	Mutants at Ser277 of <i>Xenopus</i> cdc2 protein kinase induce oocyte maturation in the absence of the positive regulatory phosphorylation site Thr161. 1994 , 5, 587-96		4
405	T7 RNA polymerase-dependent expression of COXII in yeast mitochondria. 1994 , 14, 4643-52		37
404	Single base, site-directed mutagenesis of a 90 kilobase-pair P1 clone. 1994 , 22, 4348-9		11
403	DNA-Protein Interactions. 1994 ,		5
402	3' end processing of mouse histone pre-mRNA: evidence for additional base-pairing between U7 snRNA and pre-mRNA. 1994 , 22, 4023-30		41
401	Sequence determinants of DNA bending in the <i>ilvH</i> promoter and regulatory region of <i>Escherichia coli</i> . 1994 , 22, 5753-60		7
400	Alternative splicing of beta-tropomyosin pre-mRNA: multiple cis-elements can contribute to the use of the 5'- and 3'-splice sites of the nonmuscle/smooth muscle exon 6. 1994 , 22, 2318-25		39

399	Interaction between the first and last nucleotides of pre-mRNA introns is a determinant of 3' splice site selection in <i>S. cerevisiae</i> . 1994 , 22, 1981-7	40
398	Localization of the intrinsically bent DNA region upstream of the <i>E. coli</i> <i>rrnB</i> P1 promoter. 1994 , 22, 2344-50	41
397	A simple in vivo footprinting method to examine DNA-protein interactions over the yeast PYK UAS element. 1994 , 22, 1450-5	20
396	The <i>Aspergillus nidulans</i> <i>abaA</i> gene encodes a transcriptional activator that acts as a genetic switch to control development. 1994 , 14, 2503-15	223
395	Identification and functional characterization of the bovine manganous superoxide dismutase promoter. 1994 , 10, 113-21	49
394	The NTP-binding motif in cowpea mosaic virus B polyprotein is essential for viral replication. 1994 , 75 (Pt 11), 3167-76	18
393	Coupling between genome translation and replication in an RNA virus. 1994 , 8, 1726-37	155
392	Clathrin-dependent localization of alpha 1,3 mannosyltransferase to the Golgi complex of <i>Saccharomyces cerevisiae</i> . 1994 , 127, 667-78	93
391	The barley stripe mosaic virus gamma b gene encodes a multifunctional cysteine-rich protein that affects pathogenesis. 1994 , 6, 1593-606	61
390	Modulation of the enzymatic activity of papain by interdomain residues remote from the active site. 1994 , 7, 769-75	8
389	The yeast MUD2 protein: an interaction with PRP11 defines a bridge between commitment complexes and U2 snRNP addition. 1994 , 8, 843-54	172
388	Role of interactions between SpoIIAA and SpoIIAB in regulating cell-specific transcription factor sigma F of <i>Bacillus subtilis</i> . 1994 , 8, 2653-63	150
387	Sorting signals in the MHC class II invariant chain cytoplasmic tail and transmembrane region determine trafficking to an endocytic processing compartment. 1994 , 126, 317-30	172
386	Distinct residues of human p53 implicated in binding to DNA, simian virus 40 large T antigen, 53BP1, and 53BP2. 1994 , 14, 8315-21	59
385	A pore-forming protein with a metal-actuated switch. 1994 , 7, 655-62	59
384	LFA-1 binding site in ICAM-3 contains a conserved motif and non-contiguous amino acids. 1994 , 2, 429-40	39
383	Site-directed mutagenesis using a uracil-containing phagemid template. <i>Methods in Molecular Biology</i> , 1994 , 31, 67-77	1.4 3
382	Cytotoxic T lymphocyte and antibody responses generated in rhesus monkeys immunized with retroviral vector-transduced fibroblasts expressing human immunodeficiency virus type-1 III _B ENV/REV proteins. 1994 , 5, 853-62	24

381	An NFIL-6 sequence near the transcriptional initiation site is necessary for the lipopolysaccharide induction of murine interleukin-1 beta. 1994 , 13, 561-9	15
380	Static DNA bending and protein interactions within the <i>Pasteurella haemolytica</i> leukotoxin promoter region: development of an activation model for leukotoxin transcriptional control. 1994 , 13, 171-81	13
379	Transposase A binding sites in the attachment sites of bacteriophage Mu that are essential for the activity of the enhancer and A binding sites that promote transposition towards Fpro-lac. 1994 , 22, 773-9	1
378	Analysis of the structure and synthesis of GRP94, an abundant stress protein of the endoplasmic reticulum. 1994 , 13, 117-24	31
377	Steady-state fluorescence and phosphorescence spectroscopic studies of bacterial luciferase tryptophan mutants. 1994 , 4, 209-16	3
376	Stopped-flow fluorescence studies of the interaction of a mutant form of cytochrome b5 with lipid vesicles. 1994 , 4, 227-33	4
375	Endoplasmic reticulum targeting of active modified beta-glucuronidase (GUS) in transgenic tobacco plants. 1994 , 3, 326-31	11
374	Amino-acid alterations in the beta-tubulin gene of <i>Neurospora crassa</i> that confer resistance to carbendazim and diethofencarb. 1994 , 25, 418-22	25
373	Evidence that stilbene synthases have developed from chalcone synthases several times in the course of evolution. 1994 , 38, 610-8	171
372	Intracellular transport of class I HLA molecules is affected by polymorphic residues in the binding groove. 1994 , 39, 266-71	2
371	Expression of four mutant human ornithine transcarbamylase genes in cultured Cos 1 cells relates to clinical phenotypes. 1994 , 93, 129-34	8
370	Point mutations in IIS4 alter activation and inactivation of rat brain IIA Na channels in <i>Xenopus</i> oocyte macropatches. 1994 , 427, 406-13	16
369	Modulation by protein kinase A of a cloned rat brain potassium channel expressed in <i>Xenopus</i> oocytes. 1994 , 428, 186-93	27
368	Membrane topology and assembly of the outer membrane protein OmpA of <i>Escherichia coli</i> K12. 1994 , 243, 127-35	60
367	Regulation of the expression of the isocitrate lyase gene (<i>acuD</i>) of <i>Aspergillus nidulans</i> . 1994 , 242, 484-9	35
366	Chloroplast targeting of spectinomycin adenyltransferase provides a cell-autonomous marker for monitoring transposon excision in tomato and tobacco. 1994 , 244, 189-96	6
365	Only one of the paired <i>Schizophyllum commune</i> A alpha mating-type, putative homeobox genes encodes a homeodomain essential for A alpha-regulated development. 1994 , 244, 318-24	24
364	Spectroscopic characterization of reaction centers of the (M)Y210W mutant of the photosynthetic bacterium <i>Rhodobacter sphaeroides</i> . 1994 , 40, 55-66	78

363	Insect resistance of transgenic plants that express modified <i>Bacillus thuringiensis</i> cryIA(b) and cryIC genes: a resistance management strategy. 1994 , 26, 51-9	64
362	Cysteine scanning mutagenesis of the N-terminal 32 amino acid residues in the lactose permease of <i>Escherichia coli</i> . 1994 , 3, 240-7	27
361	Residues 36-42 of liver RNase PL3 contribute to its uridine-preferring substrate specificity. Cloning of the cDNA and site-directed mutagenesis studies. 1994 , 3, 459-66	15
360	Contribution of a single heavy chain residue to specificity of an anti-digoxin monoclonal antibody. 1994 , 3, 737-49	16
359	Properties of a recombinant human hemoglobin double mutant: sickle hemoglobin with Leu-88(beta) at the primary aggregation site substituted by Ala. 1994 , 3, 1206-12	37
358	Properties of a recombinant human hemoglobin with aspartic acid 99(beta), an important intersubunit contact site, substituted by lysine. 1994 , 3, 1213-23	27
357	Stabilization of myoglobin by multiple alanine substitutions in helical positions. 1994 , 3, 1430-5	16
356	Further characterisation of the talin-binding site in the cytoskeletal protein vinculin. 1992 , 103, 719-731	41
355	The tight association of the tyrosine kinase substrate annexin II with the submembranous cytoskeleton depends on intact p11- and Ca(2+)-binding sites. 1992 , 103, 733-742	131
354	Carboxyl terminus structural requirements for glycosyl-phosphatidylinositol anchor addition to cell surface proteins. 1993 , 105, 831-840	8
353	A chimera of the cytoplasmic tail of the mannose 6-phosphate/IGF-II receptor and lysozyme localizes to the TGN rather than prelysosomes where the bulk of the endogenous receptor is found. 1994 , 107, 923-932	15
352	Function of type I and type II keratin head domains: their role in dimer, tetramer and filament formation. 1994 , 107, 1959-1972	55
351	Transmembrane domain of CD44 is required for its detergent insolubility in fibroblasts. 1995 , 108, 1033-1041	79
350	Tubulin folding is altered by mutations in a putative GTP binding motif. 1996 , 109, 1471-1478	13
349	Identification and characterization of a novel type of annexin-membrane interaction: Ca ²⁺ is not required for the association of annexin II with early endosomes. 1997 , 110, 221-228	83
348	Mutations in the bimC box of Cut7 indicate divergence of regulation within the bimC family of kinesin related proteins. 1998 , 111, 853-865	42
347	Processing of CFTR bearing the P574H mutation differs from wild-type and deltaF508-CFTR. 1999 , 112, 2091-2098	24
346	Mutational analysis of cysteine-string protein function in insulin exocytosis. 1999 , 112, 1345-1351	43

345	Formation of glycine receptor clusters and their accumulation at synapses. 2000 , 113, 2783-2795	58
344	Mutations in domain IV of elongation factor EF-G confer -1 frameshifting. 2021 , 27, 40-53	4
343	CCTalpha and CCTdelta chaperonin subunits are essential and required for cilia assembly and maintenance in Tetrahymena. 2010 , 5, e10704	21
342	Primer extension mutagenesis powered by selective rolling circle amplification. 2012 , 7, e31817	19
341	Swi1 associates with chromatin through the DDT domain and recruits Swi3 to preserve genomic integrity. 2012 , 7, e43988	12
340	Tracking molecular recognition at the atomic level with a new protein scaffold based on the OB-fold. 2014 , 9, e86050	15
339	Directed Evolution of a Highly Specific FN3 Monobody to the SH3 Domain of Human Lyn Tyrosine Kinase. 2016 , 11, e0145872	2
338	Kinetic Characterization of 100 Glycoside Hydrolase Mutants Enables the Discovery of Structural Features Correlated with Kinetic Constants. 2016 , 11, e0147596	30
337	Involvement of the Arg566 residue of Aeromonas sobria serine protease in substrate specificity. 2017 , 12, e0186392	3
336	Transcription factor Yin Yang 2 is a novel regulator of the p53/p21 axis. 2017 , 8, 54694-54707	15
335	The role of herpes simplex virus-1 thymidine kinase alanine 168 in substrate specificity. 2008 , 2, 60-6	9
334	A Method for User-defined Mutagenesis by Integrating Oligo Pool Synthesis Technology with Nicking Mutagenesis. 2020 , 10, e3697	4
333	Site-directed Mutagenesis of Tyrosine 108 Residue in Human Glutathione S-Transferase P1-1. 2003 , 24, 1188-1192	2
332	RNA-RNA Interactions between RNA Elements at the 5' end and at the Upstream of sgRNA of RNA Genome are Required for Potato virus X RNA Replication. 2008 , 24, 289-295	1
331	A general strategy to construct small molecule biosensors in eukaryotes. 2015 , 4,	114
330	Specific structural elements of the T-box riboswitch drive the two-step binding of the tRNA ligand. 2018 , 7,	14
329	Circular synthesized CRISPR/Cas gRNAs for functional interrogations in the coding and noncoding genome. 2019 , 8,	15
328	RNA Metabolism in Trypanosomes: Approaches to Unravel pre-mRNA Signals Required for Intron Removal. 2000 , 19-42	

327 Polyamine and Glutathione Biosynthetic Enzymes from Trypanosoma Brucei and Trypanosoma Cruzi. **2000**, 95-119

326 The alanine-scanning mutagenesis of Dictyostelium myosin II at the ionic interface with actin. **2002**, 36, 65-74

325 Site-Directed Mutagenesis.

324 Mutations within the putative active site of heterodimeric deoxyguanosine kinase block the allosteric activation of the deoxyadenosine kinase subunit. **2002**, 35, 244-7

323 Cysteine-Scanning Mutagenesis.

322 Kunkel Mutagenesis.

321 Preparation of Uracil-containing Single-stranded Bacteriophage M13 DNA. **2006**, 2006,

320 Oligonucleotide-directed Mutagenesis of Single-stranded DNA. **2006**, 2006,

319 Development of new anti-TNF therapy. **2007**, 27, 512-515

318 Mutations in CP47 That Target Putative Hydrogen Bonds with Sulfoquinovosyl-Diacylglycerol at the Monomer-Monomer Interface of Photosystem II. **2008**, 733-735

317 RNA-protein crosslink mapping using TEV protease. *Methods in Molecular Biology*, **2008**, 488, 201-12 1.4

316 Gene Cloning, Transfection, and Mutagenesis. **2011**, 539-555

315 Die Untersuchung der Genexpression und Genfunktion. **2011**, 167-186

314 Insertion of IF (insertion-in-flap) Domain into F36V to Provide Higher Activity of Peptidyl-propyl cis-trans Isomerase. **2012**, 33, 281-284 1

313 Two disulfide mutants in domain I of <i>Bacillus thuringiensis</i> Cry3Aa ßendotoxin increase stability with no effect on toxicity. **2012**, 02, 123-131

312 Untersuchung der Funktion von DNA-Sequenzen. **2013**, 211-268

311 Protein Engineering. **1986**, 55-70

310 Versatile E. coli Expression-Modification Vectors as Tools for Structure-Function Studies of Apolipoprotein A1. **1986**, 153-160

309 Technical Approaches. **1986**, 5-18

308 Expression of Human C5a in E. Coli. **1987**, 539-549

307 Expression of the E1 gene of mouse hepatitis virus (MHV A59) in vivo and in vitro. **1987**, 218, 83-97 4

306 Bacterial Tryptophan Synthase: A Multienzyme Complex Which Contains Pyridoxal Phosphate. **1987**, 73-81 1

305 A genetic analysis of the zinc finger of SV40 large T antigen. **1989**, 144, 21-9 1

304 The general control activator protein GCN4 is essential for a basal level of ARO3 gene expression in *Saccharomyces cerevisiae*. **1989**, 9, 144-151 14

303 Structure-Function Relationships of The Gtp-Binding Domain of Elongation Factor Tu. **1989**, 67-75 1

302 Site-directed mutagenesis and expression of mutated lysozyme gene of phage T4. **1989**, 5, 93-95

301 Characterization of the S-phase-specific transcription regulatory elements in a DNA replication-independent testis-specific H2B (TH2B) histone gene. **1990**, 10, 585-592 6

300 Genetic and biochemical evaluation of eucaryotic membrane protein topology: multiple transmembrane domains of *Saccharomyces cerevisiae* 3-hydroxy-3-methylglutaryl coenzyme A reductase. **1990**, 10, 672-680 36

299 Capping of mammalian U6 small nuclear RNA in vitro is directed by a conserved stem-loop and AUAUAC sequence: conversion of a noncapped RNA into a capped RNA. **1990**, 10, 939-946 30

298 Ouabain-resistant mutants of the rat Na,K-ATPase alpha 2 isoform identified by using an episomal expression vector. **1990**, 10, 1367-1372 19

297 Short related sequences in the cytoplasmic domains of CD4 and CD8 mediate binding to the amino-terminal domain of the p56lck tyrosine protein kinase. **1990**, 10, 1853-1862 100

296 Base pairing between the 3' exon and an internal guide sequence increases 3' splice site specificity in the *Tetrahymena* self-splicing rRNA intron. **1990**, 10, 2960-2965 23

295 Synergy between the NF-E1 erythroid-specific transcription factor and the CACCC factor in the erythroid-specific promoter of the human porphobilinogen deaminase gene. **1990**, 10, 3838-3842 36

294 Hepatic transcription of the acute-phase alpha 1-inhibitor III gene is controlled by a novel combination of cis-acting regulatory elements. **1990**, 10, 3483-3491 9

293 A small v-sis/platelet-derived growth factor (PDGF) B-protein domain in which subtle conformational changes abrogate PDGF receptor interaction and transforming activity. **1990**, 10, 5496-5501 5

292 The leucine zipper of c-Myc is required for full inhibition of erythroleukemia differentiation. **1990**, 10, 5333-5339 30

- 291 Transcription factor Sp1 is important for retinoic acid-induced expression of the tissue plasminogen activator gene during F9 teratocarcinoma cell differentiation. **1990**, 10, 5883-5893 19
- 290 Mitochondrial targeting of yeast apoiso-1-cytochrome c is mediated through functionally independent structural domains. **1990**, 10, 5763-5771 10
- 289 In vivo expression and mitochondrial targeting of yeast apoiso-1-cytochrome c fusion proteins. **1990**, 10, 5753-5762 5
- 288 The degradation sequence of adenovirus E1A consists of the amino-terminal tetrapeptide Met-Arg-His-Ile. **1990**, 10, 5609-5615 4
- 287 Fine-structure mutational analysis of a stage- and tissue-specific promoter element of the *Drosophila* glue gene Sgs-3. **1990**, 10, 5991-6002 10
- 286 Sequence-Specific DNA Binding Activities of Even Skipped and Other Homeo Box Proteins in *Drosophila*. **1991**, 279-304
- 285 Mutational analysis of the functional domains of yeast K1 killer toxin. **1991**, 11, 175-181 13
- 284 New Approaches to Studies on the Androgen Receptor. **1991**, 243-252
- 283 Conformational and Shape Changes Associated with cAMP- Dependent Protein Kinase. **1991**, 119-123
- 282 Hybrid Enzymes and the Sequence-Specific Cleavage of Nucleic Acids. **1991**, 1-31
- 281 Expression in *E. Coli* of Mutated R Subunits of the cAMP-Dependent Protein Kinase from *Dictyostelium Discoideum*.. **1991**, 107-111
- 280 The 5'-flanking region of the mouse thymidylate synthase gene is necessary but not sufficient for normal regulation in growth-stimulated cells. **1991**, 11, 1023-1029 19
- 279 In vitro analysis of the tissue plasminogen activator promoter reveals a GC box-binding activity present in murine brain but undetectable in kidney and liver. **1991**, 11, 3139-3147 8
- 278 The *Neurospora crassa* cyt-20 gene encodes cytosolic and mitochondrial valyl-tRNA synthetases and may have a second function in addition to protein synthesis. **1991**, 11, 4022-4035 7
- 277 Maturation and function of cystic fibrosis transmembrane conductance regulator variants bearing mutations in putative nucleotide-binding domains 1 and 2. **1991**, 11, 3886-3893 83
- 276 Regulation of asparagine synthetase gene expression by amino acid starvation. **1991**, 11, 6059-6066 29
- 275 Light-Regulation of *Sorghum* Leaf NADP-Malate Dehydrogenase. I Site-Directed Mutagenesis. **1992**, 701-704
- 274 Synergy of Semisynthesis and Site-Directed Mutagenesis: Manipulating Genes to Create Sites for Autocatalytic Protein Fragment Religation. **1992**, 209-217 1

273	Characterization of two developmentally regulated sea urchin U2 small nuclear RNA promoters: a common required TATA sequence and independent proximal and distal elements. 1992 , 12, 650-660	18
272	Complex recognition site for the group I intron-encoded endonuclease I-Scell. 1992 , 12, 716-723	22
271	Group II introns deleted for multiple substructures retain self-splicing activity. 1992 , 12, 1950-1958	44
270	Structural elements of ornithine decarboxylase required for intracellular degradation and polyamine-dependent regulation. 1992 , 12, 2178-2185	36
269	Requirement of mosXe protein kinase for meiotic maturation of <i>Xenopus</i> oocytes induced by a cdc2 mutant lacking regulatory phosphorylation sites. 1992 , 12, 3192-3203	16
268	Construction and expression of nonsense suppressor tRNAs which function in plant cells. 1992 , 2, 583-588	7
267	Regulation of the junB gene by v-src. 1992 , 12, 3356-3364	15
266	Formation of the 3' end of sea urchin U1 small nuclear RNA occurs independently of the conserved 3' box and on transcripts initiated from a histone promoter. 1992 , 12, 4132-4141	5
265	A mutation outside the two zinc fingers of ADR1 can suppress defects in either finger. 1992 , 12, 5758-5767	7
264	Chimeric CEA-Specific Antibody Fragments and Anti-idiotypic Antibodies for Immunoscintigraphy and New Therapeutic Approaches to Colorectal Carcinomas. 1993 , 187-206	
263	Molecular Biology of Spiroplasmas: 1991. 1993 , 15-30	1
262	Polytene Chromosomes in Mutagenesis. 1993 , 115-149	
261	U2 small nuclear RNA 3' end formation is directed by a critical internal structure distinct from the processing site. 1993 , 13, 1119-1129	11
260	Cis- and trans-acting elements involved in amino acid regulation of asparagine synthetase gene expression. 1993 , 13, 3202-3212	29
259	Characterization of a tumor necrosis factor-responsive element which down-regulates the human osteocalcin gene. 1993 , 13, 3714-3721	15
258	Substrate specificity of the gastrin-amidating enzyme. <i>Journal of Biological Chemistry</i> , 1993 , 268, 15929-15934	2
257	Functional characterization of elements in a human U6 small nuclear RNA gene distal control region. 1993 , 13, 4670-4678	19
256	Elements controlling follicular expression of the s36 chorion gene during <i>Drosophila</i> oogenesis. 1993 , 13, 5898-5906	7

- 255 Identification and characterization of an Alu-containing, T-cell-specific enhancer located in the last intron of the human CD8 alpha gene. **1993**, 13, 7056-7070 41
- 254 Transcriptional elements in *Pasteurella haemolytica* leukotoxin expression. **1994**, 447-462
- 253 Studies of the Mechanism of Tyrosine Phenol-lyase: Kinetics and Site-Directed Mutagenesis. **1994**, 193-197
- 252 NIH 3T3 cells stably transfected with the gene encoding phosphatidylcholine-hydrolyzing phospholipase C from *Bacillus cereus* acquire a transformed phenotype. **1994**, 14, 646-654 11
- 251 Sequence and spatial requirements for the tissue- and species-independent 3'-end processing mechanism of plant mRNA. **1994**, 14, 6829-6838 6
- 250 EXPRESSION OF MYCOPLASMAL GENES IN *Escherichia coli*. **1995**, 201-211
- 249 Food enzymes and the new technology. **1995**, 41-113 1
- 248 The Active Site of Sorghum Leaf NADP Dependent Malate Dehydrogenase. **1995**, 3971-3974
- 247 pBluescriptII: Multifunctional Cloning and Mapping Vectors. **1995**, 171-183
- 246 Identification of the Residues Involved in Light-Activation and Catalytic Activity of NADP-Malate Dehydrogenase. **1995**, 3927-3932
- 245 Identification of a Thiol-Reagent Sensitive Internal Cysteine at the Active Site of Recombinant Sorghum Leaf NADP-malate Dehydrogenase. **1995**, 3975-3978
- 244 Short-patch reverse transcription in *Escherichia coli*. **1995**, 140, 909-15 4
- 243 Important Molecular Biological Methods. **1996**, 647-672
- 242 In Vitro Mutagenesis. **1996**, 155-179
- 241 Mutagenesis of Human Lactoferrin and Expression in Baby Hamster Kidney Cells. **1997**, 97-110
- 240 Systematic Enhancement of Polymerization of Recombinant Sick Cell Hemoglobin Mutants: Implications for Transgenic Mouse Model for Sick Cell Anemia. **1997**, 90, 4620-4627
- 239 Mechanism of Auto-Inhibition of NADP-Malate Dehydrogenase by Its C-Terminal Extension. **1998**, 3703-3706
- 238 M13 and Phagemid-Based Cloning Vectors. **1998**, 181-191

237	Identification of the Basic Residues of Cytochrome F Responsible for Electrostatic Docking with Plastocyanin in Vitro: Relevance to the Electron Transfer in Vivo. 1998 , 1581-1584		
236	DNA Assembly Tools and Strategies for the Generation of Plasmids. 599-613		
235	Mutagenesis: Site-Directed. 1-14		
234	Identification of two principal amyloid-driving segments in variable domains of Ig light chains in AL amyloidosis.		
233	SpliceVisuL: Visualization of Bidirectional Long Short-term Memory Networks for Splice Junction Prediction.		
232	Variation in assembly stoichiometry in non-metazoan homologs of the hub domain of Ca ²⁺ /Calmodulin-dependent protein kinase II.		0
231	Design to Data for mutants of β glucosidase B from <i>Paenibacillus polymyxa</i> : M319C, T431I, and K337D.		0
230	Design to Data for mutants of β glucosidase B from <i>Paenibacillus polymyxa</i> : Q22T, W123R, F155G, Y169M, W438D, V401A.		1
229	A method for high-throughput screening hydrolase of lignin β aryl ether linkage from directed evolution by glutathione (GSH) assay. 2020 , 7,		0
228	Structural basis of SALM3 dimerization and synaptic adhesion complex formation with PTP α		
227	Gene synthesis. 1988 , 37, 73-127		3
226	Design to Data for mutants of β glucosidase B from <i>Paenibacillus polymyxa</i> : I45K, A357S, I20A, I20V, and I20E.		
225	Relative Efficiency of Utilization of Promoter and Termination Sites by Bacteriophage T3 RNA Polymerase. <i>Journal of Biological Chemistry</i> , 1989 , 264, 14246-14255	5-4	4
224	Identification of nonessential disulfide bonds and altered conformations in the v-sis protein, a homolog of the B chain of platelet-derived growth factor. 1988 , 8, 1011-1018		15
223	Autoregulated changes in stability of polyribosome-bound beta-tubulin mRNAs are specified by the first 13 translated nucleotides. 1988 , 8, 1224-1235		76
222	Assembly of a polyadenylation-specific 25S ribonucleoprotein complex in vitro. 1988 , 8, 2052-2062		27
221	Oxygen-dependent upstream activation sites of <i>Saccharomyces cerevisiae</i> cytochrome c genes are related forms of the same sequence. 1988 , 8, 2275-2279		12
220	Discrete mutations introduced in the predicted nucleotide-binding sites of the <i>mdr1</i> gene abolish its ability to confer multidrug resistance. 1989 , 9, 5289-5297		91

219	A moveable 5' splice site in adenine phosphoribosyltransferase genes of <i>Drosophila</i> species. 1989 , 9, 2220-2223	3
218	The OBF1 protein and its DNA-binding site are important for the function of an autonomously replicating sequence in <i>Saccharomyces cerevisiae</i> . 1989 , 9, 2914-2921	35
217	Biosynthesis of a phosphatidylinositol-glycan-linked membrane protein: signals for posttranslational processing of the Ly-6E antigen. 1989 , 9, 3369-3376	14
216	Cassette mutagenic analysis of the yeast invertase signal peptide: effects on protein translocation. 1989 , 9, 3400-3410	10
215	Assembly properties of altered beta-tubulin polypeptides containing disrupted autoregulatory domains. 1989 , 9, 3418-3428	5
214	A U1 small nuclear ribonucleoprotein particle with altered specificity induces alternative splicing of an adenovirus E1A mRNA precursor. 1989 , 9, 3429-3437	14
213	Transforming mutant v-mos protein kinases that are deficient in in vitro autophosphorylation. 1989 , 9, 4087-4090	6
212	The role of AHA motifs in the activator function of tomato heat stress transcription factors HsfA1 and HsfA2. 2000 , 12, 265-78	69
211	Higher seizure susceptibility and enhanced tyrosine phosphorylation of N-methyl-D-aspartate receptor subunit 2B in <i>fyn</i> transgenic mice. 1998 , 5, 429-45	38
210	Repression by suppressor of hairless and activation by Notch are required to define a single row of single-minded expressing cells in the <i>Drosophila</i> embryo. 2000 , 14, 377-88	153
209	A novel technique for the rapid preparation of mutant RNAs. 1989 , 17, 711-22	16
208	The analysis of the human hemopexin promoter defines a new class of liver-specific genes. 1989 , 17, 9351-65	23
207	Tyrosine O-sulfation promotes proteolytic processing of progastrin. 1995 , 14, 3073-9	11
206	Yeast aminopeptidase I is post-translationally sorted from the cytosol to the vacuole by a mechanism mediated by its bipartite N-terminal extension. 1995 , 14, 5476-84	11
205	Tyrosine 343 in the erythropoietin receptor positively regulates erythropoietin-induced cell proliferation and Stat5 activation. 1995 , 14, 5557-68	63
204	Point mutations within a dimer interface homology domain of c-Mpl induce constitutive receptor activity and tumorigenicity. 1995 , 14, 5569-78	27
203	The tumour suppressor gene product APC blocks cell cycle progression from G0/G1 to S phase. 1995 , 14, 5618-25	51
202	Differential binding of Lrp to two sets of pap DNA binding sites mediated by Pap I regulates Pap phase variation in <i>Escherichia coli</i> . 1995 , 14, 5785-97	40

201	Intracellular trafficking and activation of the furin proprotein convertase: localization to the TGN and recycling from the cell surface. 1994 , 13, 18-33	199
200	The length and the secondary structure of the D-stem of human selenocysteine tRNA are the major identity determinants for serine phosphorylation. 1994 , 13, 241-8	14
199	The active site of yeast aspartyl-tRNA synthetase: structural and functional aspects of the aminoacylation reaction. 1994 , 13, 327-37	69
198	Selective ectodomain phosphorylation and regulated cleavage of beta-amyloid precursor protein. 1994 , 13, 534-42	35
197	A dramatic shift in the transmembrane topology of a viral envelope glycoprotein accompanies hepatitis B viral morphogenesis. 1994 , 13, 1048-57	62
196	IDX-1: a new homeodomain transcription factor expressed in rat pancreatic islets and duodenum that transactivates the somatostatin gene. 1994 , 13, 1145-56	117
195	Heterodimerization of the yeast MATa1 and MAT alpha 2 proteins is mediated by two leucine zipper-like coiled-coil motifs. 1994 , 13, 1403-13	21
194	Neuronal differentiation signals are controlled by nerve growth factor receptor/Trk binding sites for SHC and PLC gamma. 1994 , 13, 1585-90	73
193	Translation of encephalomyocarditis virus RNA: parameters influencing the selection of the internal initiation site. 1994 , 13, 1673-81	58
192	Membrane protein topology: effects of delta mu H ⁺ on the translocation of charged residues explain the 'positive inside' rule. 1994 , 13, 2267-72	45
191	Identification of JAK protein tyrosine kinases as signaling molecules for prolactin. Functional analysis of prolactin receptor and prolactin-erythropoietin receptor chimera expressed in lymphoid cells. 1994 , 13, 2583-91	33
190	Characterization of two protein kinases from Schizosaccharomyces pombe involved in the regulation of DNA repair. 1994 , 13, 2777-88	42
189	Sequences within the poliovirus internal ribosome entry segment control viral RNA synthesis. 1994 , 13, 3149-57	58
188	Analysis of the most representative tumour-derived p53 mutants reveals that changes in protein conformation are not correlated with loss of transactivation or inhibition of cell proliferation. 1994 , 13, 3496-504	61
187	The Broad-Complex directly controls a tissue-specific response to the steroid hormone ecdysone at the onset of Drosophila metamorphosis. 1994 , 13, 3505-16	44
186	Phylogenetic comparative chemical footprint analysis of the interaction between ribonuclease P RNA and tRNA. 1994 , 13, 3945-52	36
185	Sec-independent translocation of a 100-residue periplasmic N-terminal tail in the E. coli inner membrane protein proW. 1994 , 13, 4653-61	17
184	A model of maltodextrin transport through the sugar-specific porin, LamB, based on deletion analysis. 1994 , 13, 4670-5	13

183	The binding epitopes of neurotrophin-3 to its receptors trkC and gp75 and the design of a multifunctional human neurotrophin. 1994 , 13, 5896-909	23
182	Transformation by homeobox genes can be mediated by selective transcriptional repression. 1994 , 13, 5967-76	10
181	Mechanism of dysfunction of two nucleotide binding domain mutations in cystic fibrosis transmembrane conductance regulator that are associated with pancreatic sufficiency. 1995 , 14, 876-83	29
180	Predicted complementarity determining regions of the T cell antigen receptor determine antigen specificity. 1995 , 14, 927-38	10
179	Regulation of the human WEE1Hu CDK tyrosine 15-kinase during the cell cycle. 1995 , 14, 1878-91	157
178	Interleukin-1 beta converting enzyme requires oligomerization for activity of processed forms in vivo. 1995 , 14, 1923-31	32
177	Functional analysis of mutant neurotrophins deficient in low-affinity binding reveals a role for p75LNGFR in NT-4 signalling. 1995 , 14, 1979-90	31
176	Two independent targeting signals in the cytoplasmic domain determine trans-Golgi network localization and endosomal trafficking of the proprotein convertase furin. 1995 , 14, 2424-35	101
175	The role of <i>Saccharomyces cerevisiae</i> type 2A phosphatase in the actin cytoskeleton and in entry into mitosis. 1995 , 14, 2745-59	42
174	An immunoglobulin-like domain determines the specificity of neurotrophin receptors. 1995 , 14, 2795-805	34
173	EBF contains a novel zinc coordination motif and multiple dimerization and transcriptional activation domains. 1995 , 14, 2907-16	55
172	Mutational analysis of a prokaryotic recombinational enhancer element with two functions. 1989 , 8, 577-85	62
171	Internal and terminal cis-acting sites are necessary for in vitro replication of the L-A double-stranded RNA virus of yeast. 1989 , 8, 947-54	34
170	Maize streak virus genes essential for systemic spread and symptom development. 1989 , 8, 1023-32	45
169	Mutations in 16S ribosomal RNA disrupt antibiotic-RNA interactions. 1989 , 8, 1213-6	60
168	Directionality of DnaA protein/DNA interaction. Active orientation of the DnaA protein/dnaA box complex in transcription termination. 1989 , 8, 1609-13	11
167	Mutants of H-ras that interfere with RAS effector function in <i>Saccharomyces cerevisiae</i> . 1989 , 8, 3039-44	22
166	Influence of the GCGC discriminator motif introduced into the ribosomal RNA P2- and tac promoter on growth-rate control and stringent sensitivity. 1989 , 8, 3357-63	30

165	The ocs-element is a component of the promoters of several T-DNA and plant viral genes. 1989 , 8, 4197-204	77
164	Isolation and characterization of <i>S. cerevisiae</i> mutants defective in somatostatin expression: cloning and functional role of a yeast gene encoding an aspartyl protease in precursor processing at monobasic cleavage sites. 1993 , 12, 285-94	10
163	Accumulation of D1 polypeptide in tobacco plastids is regulated via the untranslated region of the psbA mRNA. 1993 , 12, 601-6	77
162	Sec dependent and sec independent assembly of <i>E. coli</i> inner membrane proteins: the topological rules depend on chain length. 1993 , 12, 683-91	37
161	The functional versatility of CREM is determined by its modular structure. 1993 , 12, 1179-91	54
160	The low abundance of U7 snRNA is partly determined by its Sm binding site. 1993 , 12, 1229-38	48
159	The <i>Aspergillus nidulans</i> yA gene is regulated by abaA. 1993 , 12, 2039-48	27
158	A membrane-associated complex containing the Vps15 protein kinase and the Vps34 PI 3-kinase is essential for protein sorting to the yeast lysosome-like vacuole. 1993 , 12, 2195-204	130
157	An extended surface of binding to Trk tyrosine kinase receptors in NGF and BDNF allows the engineering of a multifunctional pan-neurotrophin. 1993 , 12, 2281-93	34
156	The <i>Aspergillus nidulans</i> brlA regulatory locus consists of overlapping transcription units that are individually required for conidiophore development. 1993 , 12, 2439-47	43
155	Translational repression of brlA expression prevents premature development in <i>Aspergillus</i> . 1993 , 12, 2449-57	33
154	Functional tRNAs with altered 3' ends. 1993 , 12, 2559-66	26
153	Identity determinants of human tRNA(Ser): sequence elements necessary for serylation and maturation of a tRNA with a long extra arm. 1993 , 12, 3333-8	35
152	Properties of <i>Saccharomyces cerevisiae</i> wee1 and its differential regulation of p34CDC28 in response to G1 and G2 cyclins. 1993 , 12, 3417-26	184
151	Initiation codon mutations in the <i>Chlamydomonas</i> chloroplast petD gene result in temperature-sensitive photosynthetic growth. 1993 , 12, 3627-35	27
150	Co-correction of the ERCC1, ERCC4 and xeroderma pigmentosum group F DNA repair defects in vitro. 1993 , 12, 3685-92	66
149	Interaction of intronic boundaries is required for the second splicing step efficiency of a group II intron. 1993 , 12, 5173-80	20
148	Mutations in the conserved loop of human U5 snRNA generate use of novel cryptic 5' splice sites in vivo. 1993 , 12, 5181-9	39

147	Phospholipid transfer activity is relevant to but not sufficient for the essential function of the yeast SEC14 gene product. 1993 , 12, 4775-84	41
146	Cytoplasmic retention and nuclear import of 5S ribosomal RNA containing RNPs. 1996 , 15, 1383-91	16
145	Identification of a subdomain within DNA-(cytosine-C5)-methyltransferases responsible for the recognition of the 5' part of their DNA target. 1996 , 15, 1443-50	11
144	The cytostatic function of c-Abl is controlled by multiple nuclear localization signals and requires the p53 and Rb tumor suppressor gene products. 1996 , 15, 1583-95	56
143	The CXXC motif: imperatives for the formation of native disulfide bonds in the cell. 1996 , 15, 2659-67	64
142	Excision of cytosine and thymine from DNA by mutants of human uracil-DNA glycosylase. 1996 , 15, 3442-7	67
141	An RNA conformational change between the two chemical steps of group II self-splicing. 1996 , 15, 3466-76	49
140	Reduced replication of 3TC-resistant HIV-1 variants in primary cells due to a processivity defect of the reverse transcriptase enzyme. 1996 , 15, 4040-9	152
139	The second immunoglobulin-like domain of the VEGF tyrosine kinase receptor Flt-1 determines ligand binding and may initiate a signal transduction cascade. 1996 , 15, 4919-27	34
138	The Aspergillus FlbA RGS domain protein antagonizes G protein signaling to block proliferation and allow development. 1996 , 15, 5184-90	108
137	Zinc finger-mediated protein interactions modulate Ikaros activity, a molecular control of lymphocyte development. 1996 , 15, 5358-69	122
136	The inducible elongin A elongation activation domain: structure, function and interaction with the elongin BC complex. 1996 , 15, 5557-66	32
135	Characterization of the nuclear protein import mechanism using Ran mutants with altered nucleotide binding specificities. 1996 , 15, 7120-8	53
134	Cytoplasmic activation of GAF, an IFN-gamma-regulated DNA-binding factor. 1991 , 10, 927-32	132
133	Association of CD8 with p56lck is required for early T cell signalling events. 1991 , 10, 1201-7	21
132	The yeast branchpoint sequence is not required for the formation of a stable U1 snRNA-pre-mRNA complex and is recognized in the absence of U2 snRNA. 1991 , 10, 1209-16	64
131	The bx region enhancer, a distant cis-control element of the Drosophila Ubx gene and its regulation by hunchback and other segmentation genes. 1991 , 10, 1415-25	65
130	Chimeric molecules with multiple neurotrophic activities reveal structural elements determining the specificities of NGF and BDNF. 1991 , 10, 2105-10	25

129	A specific DNA sequence is required for high frequency of recombination in the ade6 gene of fission yeast. 1991 , 10, 2157-63	69
128	A functional pseudoknot in 16S ribosomal RNA. 1991 , 10, 2203-14	116
127	Role of potentially charged transmembrane residues in targeting proteins for retention and degradation within the endoplasmic reticulum. 1991 , 10, 2783-93	79
126	Transcriptional activation by heterodimers of the achaete-scute and daughterless gene products of <i>Drosophila</i> . 1991 , 10, 2965-73	84
125	A negatively acting DNA sequence element mediates phytochrome-directed repression of phyA gene transcription. 1991 , 10, 3015-24	38
124	A novel lineage-specific nuclear factor regulates mb-1 gene transcription at the early stages of B cell differentiation. 1991 , 10, 3409-17	58
123	Transcription from the adenovirus major late promoter uses redundant activating elements. 1991 , 10, 3439-46	14
122	DNA template effect on RNA splicing: two copies of the same gene in the same nucleus are processed differently. 1991 , 10, 3457-65	17
121	Resolvase-catalysed reactions between res sites differing in the central dinucleotide of subsite I. 1991 , 10, 3541-8	25
120	Binding of the HTLV-I Tax1 transactivator to the inducible 21 bp enhancer is mediated by the cellular factor HEB1. 1991 , 10, 3795-803	39
119	The surface-exposed tyrosine residue Tyr83 of pea plastocyanin is involved in both binding and electron transfer reactions with cytochrome f. 1991 , 10, 4011-6	25
118	A genetic and structural analysis of the yeast Vps15 protein kinase: evidence for a direct role of Vps15p in vacuolar protein delivery. 1991 , 10, 4049-60	41
117	p80cdc25 mitotic inducer is the tyrosine phosphatase that activates p34cdc2 kinase in fission yeast. 1991 , 10, 4301-9	129
116	Genetic analysis of tomato golden mosaic virus: the coat protein is not required for systemic spread or symptom development. 1988 , 7, 899-904	38
115	Roles of two DNA-binding factors in replication, segregation and transcriptional repression mediated by a yeast silencer. 1988 , 7, 2241-53	105
114	A threonine to alanine exchange at position 40 of Tet repressor alters the recognition of the sixth base pair of tet operator from GC to AT. 1988 , 7, 4011-7	19
113	Fos C-terminal mutations block down-regulation of c-fos transcription following serum stimulation. 1988 , 7, 4193-202	50
112	The region of the HPV E7 oncoprotein homologous to adenovirus E1a and Sv40 large T antigen contains separate domains for Rb binding and casein kinase II phosphorylation. 1990 , 9, 153-60	121

111	Both the basic region and the 'leucine zipper' domain of the cyclic AMP response element binding (CREB) protein are essential for transcriptional activation. 1990 , 9, 225-32	64
110	Discrete domains of human U6 snRNA required for the assembly of U4/U6 snRNP and splicing complexes. 1990 , 9, 251-5	22
109	A single base change at 726 in 16S rRNA radically alters the pattern of proteins synthesized in vivo. 1990 , 9, 289-94	12
108	Structural features of the cytoplasmic region of CD4 required for internalization. 1990 , 9, 425-34	35
107	The first EGF-like domain from human factor IX contains a high-affinity calcium binding site. 1990 , 9, 475-80	33
106	Virus-like particle formation of Drosophila copia through autocatalytic processing. 1990 , 9, 535-41	35
105	A yeast tRNA precursor containing a pre-mRNA intron is spliced via the pre-mRNA splicing mechanism. 1990 , 9, 705-9	6
104	Tax1 induction of the HTLV-I 21 bp enhancer requires cooperation between two cellular DNA-binding proteins. 1990 , 9, 957-64	41
103	The cell type-specific octamer transcription factor OTF-2 has two domains required for the activation of transcription. 1990 , 9, 1635-43	72
102	Mutation of either G box or I box sequences profoundly affects expression from the Arabidopsis rbcS-1A promoter. 1990 , 9, 1717-26	170
101	The plant G box promoter sequence activates transcription in <i>Saccharomyces cerevisiae</i> and is bound in vitro by a yeast activity similar to GBF, the plant G box binding factor. 1990 , 9, 1727-35	33
100	OP-1 cDNA encodes an osteogenic protein in the TGF-beta family. 1990 , 9, 2085-93	93
99	Mapping of catalytically important domains in <i>Escherichia coli</i> leader peptidase. 1990 , 9, 2717-22	19
98	Initial steps in protein membrane insertion. Bacteriophage M13 procoat protein binds to the membrane surface by electrostatic interaction. 1990 , 9, 2723-9	20
97	The molecular characterization of PRP6 and PRP9 yeast genes reveals a new cysteine/histidine motif common to several splicing factors. 1990 , 9, 2775-81	43
96	Three GCN4 responsive elements act synergistically as upstream and as TATA-like elements in the yeast TRP4 promoter. 1990 , 9, 2951-7	11
95	Analysis of the substrate binding sites of human galactosyltransferase by protein engineering. 1990 , 9, 3171-8	14
94	Mutants of the EcoRI endonuclease with promiscuous substrate specificity implicate residues involved in substrate recognition. 1990 , 9, 3369-78	20

93	Identification of barley stripe mosaic virus genes involved in viral RNA replication and systemic movement. 1990 , 9, 3453-7	60
92	Division genes in <i>Escherichia coli</i> are expressed coordinately to cell septum requirements by gearbox promoters. 1990 , 9, 3787-94	71
91	Identification of essential elements in U14 RNA of <i>Saccharomyces cerevisiae</i> . 1990 , 9, 4503-9	41
90	Cleavage-site preferences of Sindbis virus polyproteins containing the non-structural proteinase. Evidence for temporal regulation of polyprotein processing in vivo. 1990 , 9, 2631-8	87
89	A single base mutation at position 2661 in <i>E. coli</i> 23S ribosomal RNA affects the binding of ternary complex to the ribosome. 1990 , 9, 2649-55	23
88	Cis- and trans-acting elements responsible for the cell-specific expression of the human alpha 1-antitrypsin gene. 1987 , 6, 2759-66	83
87	Expression of proteins essential for IS1 transposition: specific binding of InsA to the ends of IS1. 1987 , 6, 3163-9	28
86	IS10 transposase mutations that specifically alter target site recognition. 1992 , 11, 741-50	31
85	A system for site-specific mutagenesis of the photosynthetic reaction center in <i>Rhodospseudomonas viridis</i> . 1992 , 11, 777-83	5
84	Demonstration of retrotransposition of the Tf1 element in fission yeast. 1992 , 11, 1145-53	32
83	Activation of distant replication origins in vivo by DNA looping as revealed by a novel mutant form of an initiator protein defective in cooperativity at a distance. 1992 , 11, 1205-16	34
82	OCH1 encodes a novel membrane bound mannosyltransferase: outer chain elongation of asparagine-linked oligosaccharides. 1992 , 11, 2511-9	100
81	Delineation of structural domains involved in the subtype specificity of tachykinin receptors through chimeric formation of substance P/substance K receptors. 1992 , 11, 3585-91	13
80	Role of the open reading frames of Rous sarcoma virus leader RNA in translation and genome packaging. 1992 , 11, 3747-57	35
79	Transmembrane helical interactions: zeta chain dimerization and functional association with the T cell antigen receptor. 1992 , 11, 3245-54	30
78	Cell cycle regulation of CDK2 activity by phosphorylation of Thr160 and Tyr15. 1992 , 11, 3995-4005	208
77	Recognition of bases in <i>Escherichia coli</i> tRNA(Gln) by glutaminyl-tRNA synthetase: a complete identity set. 1992 , 11, 4159-65	32
76	The leaky UGA termination codon of tobacco rattle virus RNA is suppressed by tobacco chloroplast and cytoplasmic tRNAs(Trp) with CmCA anticodon. 1992 , 11, 4167-73	24

75	Site-directed mutagenesis at the Exo III motif of phi 29 DNA polymerase; overlapping structural domains for the 3'-5' exonuclease and strand-displacement activities. 1992 , 11, 4227-37	27
74	Regulation of the mec-3 gene by the C.elegans homeoproteins UNC-86 and MEC-3. 1992 , 11, 4969-79	41
73	Polyadenylation of maternal mRNA during oocyte maturation: poly(A) addition in vitro requires a regulated RNA binding activity and a poly(A) polymerase. 1992 , 11, 5021-32	21
72	Transposase-induced excision and circularization of the bacterial insertion sequence IS911. 1992 , 11, 5079-90	33
71	Reversible phosphorylation--dephosphorylation determines the localization of rab4 during the cell cycle. 1992 , 11, 4379-89	51
70	High plasticity of multispecific DNA methyltransferases in the region carrying DNA target recognizing enzyme modules. 1992 , 11, 4445-50	12
69	Sequence-specific initiator elements focus initiation of transcription to distinct sites in the yeast TRP4 promoter. 1992 , 11, 4583-90	10
68	Identification of the ferroxidase centre of Escherichia coli bacterioferritin. 1995 , 312 (Pt 2), 385-92	28
67	Cell-cycle-regulated phosphorylation of cAMP response element-binding protein: identification of novel phosphorylation sites. 1999 , 338 (Pt 1), 49-54	10
66	Determinants of specificity for aflatoxin B1-8,9-epoxide in alpha-class glutathione S-transferases. 1999 , 339 (Pt 1), 95-101	6
65	Roles of key active-site residues in flavocytochrome P450 BM3. 1999 , 339 (Pt 2), 371-9	55
64	Interactions between a single immunoglobulin-binding domain of protein L from Peptostreptococcus magnus and a human kappa light chain. 1999 , 340 (Pt 1), 193-9	13
63	Involvement of Arg-328, Arg-334 and Arg-342 of DnaA protein in the functional interaction with acidic phospholipids. 1999 , 340 (Pt 2), 433-8	5
62	Characterization of the membrane quinoprotein glucose dehydrogenase from Escherichia coli and characterization of a site-directed mutant in which histidine-262 has been changed to tyrosine. 1999 , 340 (Pt 3), 639-47	8
61	The role of tyrosine-9 and the C-terminal helix in the catalytic mechanism of Alpha-class glutathione S-transferases. 1999 , 343 Pt 3, 525-31	14
60	Cysteine residues in the Na ⁺ /dicarboxylate co-transporter, NaDC-1. 1999 , 344 Pt 1, 205-9	16
59	A change of the metal-specific activity of a cambialistic superoxide dismutase from Porphyromonas gingivalis by a double mutation of Gln-70 to Gly and Ala-142 to Gln. 2000 , 345 Pt 2, 345-50	11
58	Identification of a DNA-binding domain and an active-site residue of pseudorabies virus DNase. 2000 , 346 Pt 2, 441-5	4

57	Roles of individual EF-hands in the activation of m-calpain by calcium. 2000 , 348 Pt 1, 37-43	8
56	Monoclonal antibodies identify residues 199-216 of the integrin alpha2 vWFA domain as a functionally important region within alpha2beta1. 2000 , 350 Pt 2, 485-93	11
55	Role of cationic amino acids in the Na ⁺ /dicarboxylate co-transporter NaDC-1. 2000 , 350 Pt 3, 677-83	5
54	Calcium-dependent conformational stability of modules 1 and 2 of human gelsolin. 2000 , 350 Pt 3, 873-81	7
53	The large genome segment of dsRNA bacteriophage phi6 is the key regulator in the in vitro minus and plus strand synthesis. 1995 , 1, 510-8	32
52	Compound heterozygote for lipoprotein lipase deficiency: Ser----Thr244 and transition in 3' splice site of intron 2 (AG----AA) in the lipoprotein lipase gene. 1990 , 47, 721-6	44
51	The retrieval of ancient human DNA sequences. 1996 , 59, 368-76	198
50	FAD-linked Presenilin-1 V97L mutation impede transport regulation and intracellular Ca(2+) homeostasis under ER stress. 2015 , 8, 20742-50	3
49	Repositioning of an alternative exon sequence of mouse IgM pre-mRNA activates splicing of the preceding intron. 1991 , 1, 175-84	22
48	CREB represses transcription of fos promoter: role of phosphorylation. 1991 , 1, 55-60	26
47	CTD kinase large subunit is encoded by CTK1, a gene required for normal growth of <i>Saccharomyces cerevisiae</i> . 1991 , 1, 149-67	139
46	The proximal element is capable of determining proper temporal expression of the embryonic sea urchin U2 snRNA gene. 1994 , 4, 1-18	3
45	Recessive mutations in the second largest subunit of TFIIC suggest a new step in RNA polymerase III transcription. 1995 , 5, 35-47	4
44	Mutations at the Ser50 residue of translation factor eIF-2alpha dominantly affect developmental rate, body weight, and viability of <i>Drosophila melanogaster</i> . 1997 , 6, 349-60	8
43	Functional analysis of the Ume3p/Srb11p-RNA polymerase II holoenzyme interaction. 1999 , 8, 43-57	24
42	Higher Seizure Susceptibility and Enhanced Tyrosine Phosphorylation of N-Methyl-d-Aspartate Receptor Subunit 2B in <i>fyn</i> Transgenic Mice. 1998 , 5, 429-445	63
41	High-valency Anti-CD99 Antibodies Toward the Treatment of T Cell Acute Lymphoblastic Leukemia.. 2021 , 434, 167402	0
40	High-throughput navigation of the sequence space. 2022 , 123-146	

- 39 Protein engineering: Methods and applications. **2022**, 641-668
- 38 Roadmap to affinity-tuned antibodies for enhanced chimeric antigen receptor T cell function and selectivity.. **2022**, 1
- 37 Engineering pH-Sensitive Single-Domain Antibodies.. *Methods in Molecular Biology*, **2022**, 2446, 269-298 1.4
- 36 Preparation of Immune and Synthetic VNAR Libraries as Sources of High-Affinity Binders.. *Methods in Molecular Biology*, **2022**, 2446, 71-93 1.4
- 35 A patent-based consideration of latest platforms in the art of directed evolution: a decade long untold story.. **2022**, 1-114 1
- 34 Directed Evolution Pipeline for the Improvement of Orthogonal Translation Machinery for Genetic Code Expansion at Sense Codons.. **2022**, 10, 815788 0
- 33 Pyrroloquinoline Quinone Chemistry, Biology, and Biosynthesis.. **2022**, 0
- 32 Fragment-Directed Random Mutagenesis by the Reverse Kunkel Method.. **2022**, 0
- 31 The MreA Metal-Binding Sites C40, H65, and C69 Play a Critical Role in the Metal Tolerance of *Pseudomonas putida* KT2440.. **2022**, 79, 142
- 30 Expression of the K74 Killer Toxin from *Saccharomyces paradoxus* Is Modulated by the Toxin-Encoding M74 Double-Stranded RNA 5' Untranslated Terminal Region.. **2022**, e0203021
- 29 A phage- and colorimetric sensor-based artificial nose model for banana ripening analysis. **2022**, 362, 131763 0
- 28 Infection and protection responses of deletion mutants of non-structural proteins of foot-and-mouth disease virus serotype Asia1 in guinea pigs. **2021**, 106, 273 0
- 27 Site-Directed Mutagenesis Using a Uracil-Containing Phagemid Template. 827-833
- 26 Synergy of protease binding sites within the ecotin homodimer is crucial for inhibition of MASP enzymes and for blocking lectin pathway activation.. *Journal of Biological Chemistry*, **2022**, 101985 5.4 0
- 25 Facile Assembly of Combinatorial Mutagenesis Libraries Using Nicking Mutagenesis. *Methods in Molecular Biology*, **2022**, 85-109 1.4
- 24 Structural Elucidation and Engineering of a Bacterial Carbohydrate Oxidase. *Biochemistry*, 3.2
- 23 Arg236 in human chymotrypsin B2 (CTRB2) is a key determinant of high enzyme activity, trypsinogen degradation capacity, and protection against pancreatitis. **2022**, 1870, 140831
- 22 Enteric VIP-producing neurons maintain gut microbiota homeostasis through regulating epithelium fucosylation. **2022**, 1

21	Scalable Functional Assays for the Interpretation of Human Genetic Variation. 2022 , 56,	0
20	Efficient Homology-Directed Repair with Circular Single-Stranded DNA Donors.	0
19	Inhibition of RAS-driven signaling and tumorigenesis with a pan-RAS monobody targeting the Switch I/II pocket. 2022 , 119,	0
18	Antigenic mapping reveals sites of vulnerability on β CoV spike protein. 2022 , 5,	0
17	Orientation of the Ig Domains of CD8 β Relative to MHC Class I. 1999 , 162, 846-851	11
16	One Active C1r Subunit Is Sufficient for the Activity of the Complement C1 Complex: Stabilization of C1r in the Zymogen Form by Point Mutations. 1999 , 162, 1108-1112	5
15	Distinct Patterns of Folding and Interactions with Calnexin and Calreticulin in Human Class I MHC Proteins with Altered N-Glycosylation. 1998 , 160, 831-837	12
14	Structure-Function Study of the Extracellular Domain of the Human IFN- β Receptor (hIFNAR1) Using Blocking Monoclonal Antibodies: The Role of Domains 1 and 2. 1998 , 160, 1782-1788	6
13	Cutting Edge: Lyn-Mediated Down-Regulation of B Cell Antigen Receptor Signaling: Inhibition of Protein Kinase C Activation by Lyn in a Kinase-Independent Fashion. 1998 , 160, 1547-1551	7
12	Peptide Selection by an MHC H-2Kb Class I Molecule Devoid of the Central Anchor (α) Pocket. 1998 , 160, 2815-2823	4
11	Mapping IgG Epitopes Bound by Rheumatoid Factors from Immunized Controls Identifies Disease-Specific Rheumatoid Factors Produced by Patients with Rheumatoid Arthritis. 1998 , 160, 2496-2505	3
10	A Novel Type II Complement C2 Deficiency Allele in an African-American Family. 1998 , 161, 578-584	3
9	Cutting Edge: Dominant Effect of Ile50Val Variant of the Human IL-4 Receptor β Chain in IgE Synthesis. 1999 , 162, 1227-1231	34
8	Alterations in CD4-Binding Regions of the MHC Class II Molecule I-Ek Do Not Impede CD4+ T Cell Development. 1999 , 162, 1348-1358	3
7	A Composite C/EBP Binding Site Is Essential for the Activity of the Promoter of the IL-3/IL-5/Granulocyte-Macrophage Colony-Stimulating Factor Receptor β Gene. 1999 , 163, 2674-2680	5
6	Introduction to Directed Evolution and Rational Design as Protein Engineering Techniques. 2023 , 1-28	0
5	A method for mapping the linear epitopes targeted by the natural antibody response to Zika virus infection using a VLP platform technology. 2023 , 579, 101-110	0
4	Engineering of bidirectional, cyanobacteriochrome-based light-inducible dimers (BICYCL)s. 2023 , 20, 432-441	0

- 3 Microbial activity and productivity enhancement strategies. **2023**, 85-104 o
- 2 Allosteric role of the citrate synthase homology domain of ATP citrate lyase. **2023**, 14, o
- 1 Computational engineering of previously crystallized pyruvate formate-lyase activating enzyme reveals insights into SAM binding and reductive cleavage. **2023**, 104791 o