Recent patents in antisense technology

Patent #	Subject	Assignee	Inventor(s)	Priority application date	Publication date
WO 200198359	A method for the prevention or inhibition of breast cancer–cell proliferation comprising the administration of an antibody that inhibits the interaction of a sex-steroid receptor with a sex-steroid response element of the *Cyr61* (cysteine-rich heparin-binding protein) promoter and an antisense oligonucleotide that binds to a polynucleotide encoding *Cyr61*.	American Home Products (Madison, NJ)	Sampath D, Winneker R, Zhang Z	6/21/2000	12/27/2001
WO 200198522	New positively charged peptide nucleic acid analogs in which the linkage of nucleobases to the interior amino group of the peptide nucleic acid unit is through an ethylene bridge; useful for targeting antisense molecules to the brain.	Yissum Research Dev. Co., Hebrew Univ. (Jerusalem, Israel)	Gibson D, Katzhendler J, Najajreh Y, Schlossman A	6/23/2000	12/27/2001
FR 2809734	A new human tetraspan protein, useful in antisense therapy for identifying specific modulators (e.g., for treating or diagnosing neurodegeneration).	Pierre Fabre Medicament (La Chartreuse, France)	Delneste Y, Jeannin P, Magistrelli G	5/31/2000	12/7/2001
WO 200192513	A method for enhancing gene suppression in a cell for therapeutic use, comprising increasing the steady-state levels of a target gene in the presence of an antisense sequence, or overexpressing RNA interference–enhancing sequences.	Johnson & Johnson Research Pty. Ltd. (Eveleigh, NSW, Australia)	Arndt GM, Raponi M	8/7/2000	12/6/2001
WO 200190347	A novel antisense polynucleotide that binds the splice-donor/packaging signal region or transactivation response region of human immunodeficiency virus–1 RNA; useful for preventing and treating HIV infection.	SynGenix (Cambridge, United Kingdom)	Chadwick DR, Lever A	5/23/2000	11/29/2001
WO 200181545	A method for regulating the expression of extra-nuclear genetic material (e.g., transfected plasmid in eukaryotic cells) comprising the expression of a polynucleotide that encodes heat-shock protein–binding protein 1 in eukaryotic cells; useful in gene and antisense therapy for conditions such as apoptosis, cellular stress, viral infection, heart disease, and cancer.	Guerriero V, Kreeger ME, Raynes DA, Whitesell LJ	Guerriero V, Kreeger ME, Raynes DA, Whitesell LJ	4/27/2000	11/1/2001
WO 200181602	Novel *Zea mays* ortholog of *mre11* polynucleotide; useful for the antisense suppression of one or more genes in a host cell, tissue, or plant, and in gene shuffling methods (e.g., modulating the level of *mre11* expression in a plant cell, increasing transformation efficiency in plants, and regulating DNA recombination and repair).	Pioneer Hi-Bred Intl. (Des Moines, IA)	Mahajan PB	4/19/2000	11/1/2001
WO 200168667	A method for inhibiting the proliferation of tumor cells with a highly glycolytic phenotype, comprising contacting the cells with an antisense polynucleotide or oligonucleotide that hybridizes with a mRNA encoding a hexokinase under conditions that allow hybridization of the antisense polynucleotide with the mRNA.	Johns Hopkins Univ. School of Medicine (Baltimore, MD)	Mathupala SP, Pedersen PL	3/14/2000	9/20/2001
KR 2001064549	A method for repressing partially or completely the expression of sialidase in a transformed host-cell line using antisense RNA. This method enhances the final yield of glycoprotein considerably by inhibiting the elimination of sialic acid located at the terminal of the glycoprotein sugar chain.	Cheil Jedang Co. (Seoul, Korea)	Ha BJ, Jung J, Ko HG, Lee DE, Oh MS, Park JS	12/29/1999	7/9/2001
WO 200076497	A method for treating advanced or large tumors in mammals including humans using antisense gene therapy; treatment comprises the administration of an immunotherapeutic agent (e.g., a T-cell co-stimulatory cell adhesion molecule) and a tumor growth-restriction agent (e.g., flavone acetic acid).	Auckland Uniservices Ltd. (Auckland, New Zealand)	Ching L, Kanwar JR, Krissansen GW	6/14/1999	12/21/2000

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