

## Patent Selections:

The patents annotated in this section have been selected from various patent databases. These recent patents are relevant to the articles published in this journal issue, categorized by significant fields of gene therapy methods, process and techniques involved.

### ARTIFICIAL MICRO RNA

1. Mohammad A, Kunyuan L, Lshan C, Chen Q S-C, Houston ME. Compositions for enhancing delivery of double-stranded RNA to regulate gene expression in mammalian cells. EP2145957, 2010.
2. Xijie Y, Hock JM. Micro RNA (miRNA) and neurofibromatosis type 1: A role in diagnosis and therapy. WO2010022166, 2010.
3. Madden KR, Harris AN, Hecker KH. Compositions and methods for preparing short RNA molecules and other nucleic acids. EP2216415, 2010.
4. Meister GDR, Lasse W. Compositions and methods for micro-RNA expression profiling of cancer stem cells. EP2199412, 2010.
5. Ying W, Hongguang Z, Lei W, Shuyang W. Compositions and methods for micro-RNA expression profiling of hepatocellular cancer. Wo2010055488, 2010.
6. Eric O, Shusheng W. A micro-RNA that promotes vascular integrity and uses thereof. WO2010019574, 2010.
7. Koen W, Van EG. Nicotiana benthamiana plants deficient in xylosyltransferase activity. WO2010145846, 2010.
8. Roy SJ, Tester MD. Salinity tolerance in plants. WO2010025513, 2010.
9. Walter S, Vasant J, Victoria P. RNA interference mediated inhibition of the high affinity IGE receptor alpha chain (FCERLA) gene expression using short interfering nucleic acid (SINA). WO2010111503, 2010.

### BACTERIORHODOPSIN

1. Ulrich R, Markus L, Samuel S. Bacteriorhodopsin-containing microcapsules and method for producing the same. WO2010124908, 2010.
2. Montemagno CD, Schmidt JJ, Tozzi SP. Biomimetic membranes. EP2218495, 2010.
3. Stephen T, Andrew H. Compositions comprising macromolecular assemblies of lipid and surfactant. GB2464393, 2010.
4. Bernd H, Agnes C, Nils H, Rudolf M. Mixture of amphipathic molecules and method for modifying cell membranes by means of fusion. WO2011003406, 2011.
5. Jensen Ph, Danielle K, Nielsen Ch. Membrane for filtering of water. EP2179780, 2010.

### HALOBACTERIA

1. Montemagno CD, Schmidt JJ, Tozzi SP. Biomimetic membranes. EP2218495, 2010.
2. Birge RR, Megan N, Matthew R, Sandberg DJ, Nicole W. Protein-based artificial retinas. WO2010102205, 2010.
3. Adams DK. Methods and systems for producing biomass and/or biotic methane using an industrial waste stream. WO2010105169, 2010.
4. Andreas B, Andreas H, Franz K, Babette F, Guido M, Gordon B. Compositions, use and method for the use of surface active proteins in topical drug delivery across keratin. WO2010097344, 2010.

### CATIONIC LIPID

1. Yu-Kyoung O, Min-Sung S, Hye-Jeong S, Shim GG. A novel cationic lipid, a preparation method of the same and a delivery system comprising the same. EP2197834, 2010.
2. Jeffery F, Marla V. Enhancement of an immune response by administration of a cationic lipid-DNA complex (CLDC). EP2257306, 2010.
3. Virginie E, Pascal B, Daniel S. Vectors including an anionic macromolecule and a cationic lipid for delivering small nucleic acids. WO2010084129, 2010.
4. Vasievich EA, Weihsu C, Kenya T, Gregory C, Frank B, Leaf H. Stimulation of an immune response by enantiomers of cationic lipids. EP2276495, 2011.
5. Dirk T, Monika B. Cationic carrier system composed of positively charged lipid vesicles. WO2010092142, 2010.

### FUSOGENIC

1. Hong Z, Weili Y, Lianjun S, Dechun W, Maksim R. Releasable fusogenic lipids for nucleic acids delivery systems. WO2010057160, 2010.
2. Garry RF, Wilson RB. Method of preventing virus: cell fusion by inhibiting the function of the fusion initiation region in RNA viruses having class I membrane fusogenic envelope proteins. EP2261380, 2010.
3. Garry RF, Wilson RB. Method of preventing virus: cell fusion by inhibiting the function of the fusion initiation region in RNA viruses having class I membrane fusogenic envelope proteins. EP2261377, 2010.
4. Antonello P, Elisabetta B, Paolo I. Cholesterol derivatives of inhibitors of viral fusion. EP2205283, 2010.

**LIPOPLEX**

1. Steffen P, Evgenios S. Emulation of lipoprotein structures. EP2277508, 2011.
2. Hyung-Joo K. Immunostimulatory compositions comprising liposome-encapsulated oligonucleotides as active ingredients. WO2010147387, 2010.
3. Hirofumi T, Yasuyuki H, Koji N, Hidekazu T. Prompt nucleic acid delivery carrier composition. EP2140870, 2010.
4. Hyung-Joo K. Immunostimulatory compositions comprising liposome-encapsulated oligonucleotides and epitopes. WO2011007961, 2011.
5. Ansgar S, Joeorg K, Martin W. Means for inhibiting the expression of ANG2. WO2010094491, 2010.
6. Joerg K, Ansgar S. Means for inhibiting the expression of OPA1. WO2010091878, 2010.

**DNA EXTRACTION**

1. Jacob B, Jacobsen CS. Improvement of low-biomass soil DNA/RNA extraction yield and quality. WO2010146026, 2010.
2. Liddell JD. Plasmid DNA Extraction Process. WO2011012841, 2011.
3. Brevnov MG, Pawar HS, Furtado MR, Jaiprakash S. Methods and kits for extraction of DNA. EP2250285, 2010.
4. Rudolf E, Dietmar L, Holger W, Christina L. Method and kit for the sample preservation and cell disruption before the extraction of nucleic acids. EP2231853, 2010.
5. Saul DJ. Sample collection device suitable for low-volume extraction. WO2010027283, 2010.

**PCR**

1. Cohen DA, Mortillaro MJ, Andro CP. Thermal cycling instrument and methods for carrying out PCR. GB2468993, 2010.
2. Lee DH, Kang JS, Park YS, Kim DH. A method for detecting HBV using real time PCR. EP2258878, 2010.
3. Caifu C, Michael E, Lawrence H. Asynchronous primed PCR. EP2256213, 2010.
4. Kurnik RT, Thomas T. Determination of single peak melting temperature by PCR analogy and double sigmoid equation. EP2241990, 2010.
5. Kim HB, Kim SY, Gil JM, Park HJ, Park HO. Primers for PCR amplification comprising abasic parts within the primer sequences. EP2195464, 2010.
6. Luc B, Jian-Ping Z. Microchip large-volume PCR with integrated real-time CE detection. EP2152893, 2010.
7. Christian B. Detection of PCR products in gel electrophoresis. EP2276859, 2011.

8. Christian B. Detection of PCR products in gel electrophoresis. EP2276859, 2011.

**P2RX7**

1. Edward W, Xiaoxia C, Phil S. Method for genome editing. WO2011011767, 2011.
2. Andrew L, Ute V, Barbara P, Denis W. Determinants of the acute sickness response. WO2010071915, 2010.
3. Tariq G, Junjian L, Alexander I. Dual variable domain immunoglobulins and uses thereof. WO2011014659, 2011.
4. Kambiz S, Dennis S, Shah PM. Novel cell lines and methods. WO2010088633, 2010.
5. Chung-Ming H, Margaret H, Anwar M. IL-17 binding proteins. WO2010102251, 2010.
6. Raphael L, Robert C. Individualized cancer treatment. WO2010059742, 2010.
7. Ostermeier MA, Wright CM. Prodrug activation in cancer cells using molecular switches. WO2010019257, 2010.

**SPLICE ISOFORM**

1. Luda D, William M, Pavel G, Josee G, Andrea N. Alternatively-spliced isoform of mu-opioid receptor gene with cell excitatory function. WO2010022145, 2010.
2. Lutz GJ, Tallent MK, Lykens NM. Modulation of pre-mRNA using splices modulating oligonucleotides as therapeutic agents in the treatment of disease. WO2010083338, 2010.
3. Gene Y, Jonathan S, Gage FH. Methods for identifying differences in alternative splicing between two RNA samples. WO2010077288, 2010.
4. Epstein HF, Wei G, Daisi C, Ram S. UNC-45a splice variants based cancer diagnostics and therapeutics. WO2010083162, 2010.
5. Brown HA, Lindsley CW, Waterson AG, Scott SA. Isoform selective phospholipase D inhibitors. WO2011011680, 2011.
6. Sliwkowski MX, Klaus E, Maija H. Isoform specific anti-HER4 antibodies. WO2010068437, 2010.
7. Panagiotis P, Julian V, Benoit C, Abou ES. Signature of secreted protein isoforms specific to ovarian cancer. WO2010118525, 2010.
8. Brian O, Scott D, Sharad A. Use of immunoglobulin heavy and light chains or fragments thereof to bind to aggregated amyloidogenic proteins. WO2011002494, 2011.

**EXTRACELLULAR ATP**

1. Stanley R, Greg C, Jonathan T, Chen ZJ, Jinsuk L. Regulation of cotton fiber growth by extracellular nucleotides and ectoapyrases. WO2010065725, 2010.

2. Monica M. Glycolipid mixture with antiinflammatory activity obtained from *oscillatoria planktothrix*. WO2010094693, 2010.
3. Frank MH, Sayegh MH. Gene encoding a multidrug resistance human p-glycoprotein homologue on chromosome 7p15-21 and uses thereof. EP2230253, 2010.
4. Hadida RSS, Miller MT, Grootenhuis PDJ, Matthew H. Thiazoles and oxazoles useful as modulators of ATP-binding cassette transporters. EP2140865, 2010.
5. Amir P. Formulations of ATP and analogs of ATP. WO2010099542, 2010.

6. Balazovsky MB, Antonov VG, Belyaev AN, Eremin AV. Pharmacological adjuvants based on coordination compounds of d-metals. EP2263649, 2010.
7. Peter C, Smet D, Joost S, Frederic R, Corentin H. Extracellular allosteric inhibitor binding domain from a tyrosine kinase receptor. WO2011001413, 2011.
8. Andre K. Conjugates for immunotherapy of cancer. EP2275142, 2011.
9. Haugland RP, Archer RA, Beechem JM, Hagen DC, Haugland RP. Methods for immunolabeling. EP2259067, 2010.
10. Kenji K, Yukihiro M, Akiomi T, Sawako T. Agent for improving dysfunction due to neuropathy and RHO kinase activation inhibitor. EP2174661, 2010.