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AnGes MG, Inc.

Japanese medical-use patent issued for NFB decoy oligo
-Covering treatment and preventive drugs for ischemic diseases, organ
transplantations and cancers-

AnGes MG today announced the issuance of a Japanese utility patent (JP3474879) for the treatment of NFB associated diseases such as ischemic diseases, organ transplantations, and metastasis/invasion or cachexia of cancers.

Specifically, it claims treatments of "reperfusion disorder in ischemic diseases, postoperative aggravation from organ transplantations and surgery, and post PTCA restenosis" and "cancer metastasis/invasion and cachexia" by NFB decoy oligo. In addition to the Company's joint R&D with Goodman Co., Ltd. for a NFB decoy oligo coating stent, this patent was developed to support the Company's expansion of the medicine's scope of applications including cancer, as well as promote the Company's clinical trial projects relating to NFB decoy oligo.

Corresponding patents were established abroad to effectively protect the clinical development globally.

US patent (issued in July 2001) 6262033

Patent pending in Europe

Finally, additional medical use patent applications, such as atopic dermatitis, psoriasis, and rheumatic arthritis, were filed subsequent to this patent, to expand the scope of the clinical applications.

Reference

Explanation of specialized terms

1. NFB (nuclear factor-kappa B)

NFB is a genetic factor enabling regulation of cytokines and adhesion factors - related to immunological reactions. Bonding NFB to a genome causes excessive transcription of

immunization-related genetic expressions. This is why NFB has been indicated as one of the causes of atopic dermatitis and rheumatic arthritis.

2. NFB decoy oligo (NF-B decoy oligodeoxynucleotide)

A genetic expression features a switch - transcription factor - bonded to a genome.

A decoy is an artificial gene (also referred to as nucleotide) in which a "compressed" nucleic acid of the same genetic sequences as the aforementioned transcriptional factor is artificially synthesized, which when introduced to the body, neutralizes those "switches" by preventing their bonding to a genome, thereby regulating the transcription process.

It is a decoy nucleotide against NFB. AnGes MG is developing therapeutic agents on the basis of its properties to treat patients suffering from atopic dermatitis, rheumatic arthritis, and restenosis - conditions caused by excessive immunological response.

3. Utility patent

In pharmaceutical industry, the patent for the medicine's scope of applications is generally called utility patent or medical patent, which claims a strong right to monopolize manufacture, sales and import of the medicine for the disease.

There are also composition of matter patent for medicine itself, process patent for the manufacturing method of medicine and pharmaceutical patent for the preparation of medicine.

4. Cachexy

Cachexy is pathological dystrophic general prostration caused by cancer and involves such symptoms as total debilitation, emaciation, edema of the eyelids or lower limbs, and anemic pallor. AnGes has verified the effect of NFB decoy oligo on cachexy improvement in animal tests and inhibitory effects in metastasis models.

5. Reperfusion disorder

Blood vessels or internal organs may suffer serious damage when blood flow resumes after blood vessels had been clogged from thrombus/arteriosclerosis, or after a temporary blocking of blood flow during operations or organ transplants - this condition is called reperfusion disorder.

6. PTCA(Percutaneous Transluminal Coronary Angioplasty), stent

PTCA is a technology to dilate narrow areas of blood vessels by using a balloon catheter for occlusive lesions of coronary artery. It is also referred to as the "balloon catheter technique"

because a balloon is used.

PTCA is an excellent technology, but has a defect rate of approximately 40% occurrence of restenosis, reocclusion of the lesions. In contrast, a technique in which a stent (mesh tube mainly made of stainless steel) is implanted in the blood vessels dilated by PTCA is frequently used in recent years. The rate of restenosis in this stent therapy is approximately 30%, and drug-coated stents that are coated with anticancer drugs or immunosuppressants on the surface, are being developed mainly in the U.S. as a next generation treatment.

AnGes is thus developing a stent coated with NFB decoy oligo cooperating with Goodman Co., Ltd.