February 2, 2004
AnGes MG, Inc.

AnGes MG and Gene Design Inc. embark on joint development of next-generation decoy nucleotides as part of their push into the field of systemic diseases including cancer and IBD

Today AnGes MG, Inc. concluded a joint development agreement of next-generation decoy nucleotides with Gene Design Inc., a company specializing in the synthesis of nucleic acid based agents.

In this joint development of next-generation decoy nucleotides, AnGes MG aims to become active in the field of systemic diseases including cancer and IBD (Inflammatory Bowel Disease) and enhancing the development pipeline as well as the stability of the decoy nucleotides in blood, further improving safety, strengthening medicinal benefits and decreasing the required intravenous dosage, thereby reducing cost.

Nucleotide cannot be administered intravenously as it is relatively easily broken down by the nuclease in blood, so its use is limited to diseases for which topical administrations are possible. AnGes MG has been developing NFB decoy oligodeoxynucleotide on the premise of topical administrations of the drug directly to the affected areas to treat patients suffering from atopic dermatitis, rheumatic arthritis, and restenosis.

Through the collaborations to date with Gene Design Inc., which specializes in nucleic acid synthesis, AnGes MG has already succeeded in the development of a new decoy, which is hardly broken down by the nuclease in blood, by circularly modifying the terminal areas of the conventional decoy nucleotides (AnGes MG calls this new decoy "ribbon decoy" from the ribbon-like structure).

With the current collaboration , AnGes MG is embarking on the development of a third-generation decoy on the basis of the experiences it has gained through the development of the ribbon decoy. Through this study of next-generation decoy nucleotides, AnGes MG aims to become active in the field of systemic diseases such as cancer or IBD and enhancing the development pipeline as well as remarkably improving the stability of the decoy nucleotides in blood as well as its safety, while reducing the doses required for

intravenous administration, and consequently reducing the cost.

Reference

Explanation of specialized terms

1. Nucleotide

A fraction of a genetic expression, since it is extracted from nucleic acid (DNA or RNA), it is referred to as nucleotide. Nucleotides can be artificially synthesized.

2. Decoy nucleotide

A genetic expression features a switch - genetic factor - bonded to a genome. A decoy is a sequence of double-stranded nucleic acids of the same array as the aforementioned genetic factors, which when introduced to the body, neutralizes those "switches" by preventing their bonding to a genome, thereby regulating the transcription process.

3. Antisense nucleotides

The information in DNA has to be transcribed to mRNA for protein synthesis to begin, and thus - for a genetic expression to "work."

Antisense nucleotides comprise a complementary base sequence of mRNA. When introduced to the body, these nucleotides bond to mRNA, thereby regulating the transcription process.

4. IBD (Inflammatory Bowel Disease)

Diseases of unknown causes which cause chronic inflammations or ulcers to the mucous membranes of the large or small intestines; ulcerative colitis and Crohn's disease to be specific.

Ulcerative colitis is an inflammatory bowel disease which causes erosions or ulcers to mucous membranes of the large intestine.

Crohn's disease is an inflammatory disease which occurs more often in younger people, can affect all digestive organs, from the buccal capsule to the anus, and is characterized by frequent occurrences at the end of the small intestine in particular.

5. 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, rheumatic arthritis, myocardium infarctions, and arteriosclerosis. In addition, regular medicines, such as steroids, or aspirin, even antioxidants are used to inhibit NFB .

6. NFB decoy oligodeoxynucleotide

A decoy nucleotide against NF?B . 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.

Company Profile

Gene Design Inc.
Head office: 3-6-301 Mihogaoka, Ibaragi, Osaka, 567-0047 Japan
President and CEO: Kazuhiko Yuyama
Established:　December 2000
Capital:　18 million yen (December 2003)
Number of employees:　13 (June 2003)
Sales: 92 million yen (October 2003)
Scope of business:　Contracting of DNA synthesis, development of innovative nucleic acid synthesis technology, etc.