Development of a Novel Molecular Therapy Agent against Joint Contracture was Adopted as A-STEP by JST
- Development of a Novel Molecular Therapy Agent using "Decoy Nucleotides"-

A study group led by Professor Aoki at Faculty of Health Science, Morinomiya University of Medical Sciences speculated that the production of Hypoxia Inducible Factor (HIF-1), a transcription factor, plays an important role in the impaired local circulation of the joint contracture. A technology transfer project to verify this hypothesis and to develop a novel molecular therapy agent was adopted as A-STEP (Adaptable and Seamless Technology transfer Program through target-driven R&D) by Japan Science and Technology Agency (JST). The further information follows:

It is a serious issue in the area of geriatrics that disused joint contracture after fracture fixation and cerebrovascular disorders deteriorates patients' Activity of Daily Living (ADL) and Quality of Life (QOL). Existing therapy to prevention of contracture progression is only physical therapy, and no medicines are available.

Based on the molecular mechanism that a transcription factor, HIF-1 is activated under joint hypoxic condition, Professor Aoki and his group aim to develop a novel molecular therapy agent using "decoy oligonucleotides" to regulate the transcription process. Comprehensive understanding of pathophysiology of disused joint contracture, focusing on a transcription factor, HIF-1 is novel, and a molecular therapy agent development based on the hypothesis will be very innovative. Thus, such new medicines with existing physical therapy are expected to provide a new option to answer the unmet medical need.

AnGes MG has experience of development of NF-kB decoy nucleotides for the treatment of atopic dermatitis, currently in Phase 2, will work together with Professor Aoki's study group at Morinomiya University of Medical Sciences to make HIF-1 decoy nucleotides.

Meanwhile, this trend will have no effect on the business performance for the fiscal year of 2011.

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