Treatment for Muscle Atrophy and for Enhancing Muscle Growth

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Technology description

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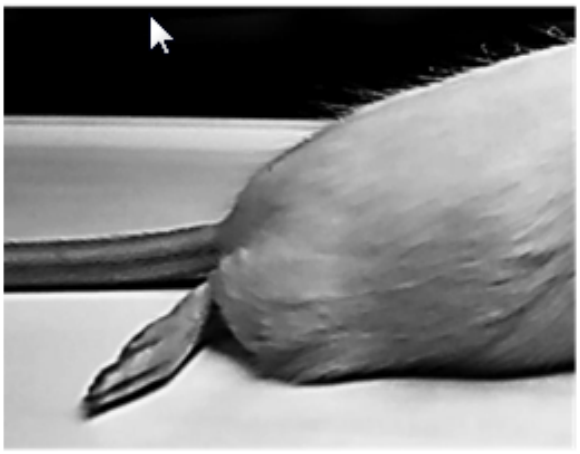
This technology licensing and collaboration opportunity is for an mRNA based therapeutic that provides for increased hepatic production of follistatin (FS). In vivo experiments demonstrate delivered mRNA accumulates in the liver, which results in an increase of FS in blood serum. Mouse studies demonstrate a subcutaneous injection regimen capable of increasing a subject’ s body weight over a month’ s time.
Background of Invention
Muscle atrophy is a detrimental and often severely debilitating disease state whose etiology lies within a myriad of disease states ranging from AIDS, sepsis, cardiac failure, muscular dystrophies, cancer, and the natural process of aging. The extent to which the atrophy is occurring can be a clear prognostic indicator of patient recovery and survival. Furthermore, the ability to maintain healthy lean muscle mass whether through exercise or other therapeutic interventions is crucial for the preservation of mobility during aging, preventing metabolic disorders, and increasing both quality and longevity of life in patients experiencing disease states that promote active muscle wasting.



Application area

Treating muscle wasting disorders
Enhancing muscle growth

Advantages

Hepatic production and secretion of FS protein
Compatible with sustained release formulations for in home treatment by a patient

Institution

Oregon State University

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