February 17, 2021
Company Name: AnGes Inc.
Presentative: Ei Yamada, President & CEO

AnGes' Phase 1b Results of NF-kappa B Oligo DNA Decoy Administration in Subjects with Chronic Discogenic Low Back Pain Support Advancement into Phase 2 Clinical Study

AnGes, Inc., a biopharmaceutical company focused on developing innovative gene-based medicines for serious diseases, announced today the top line clinical results on AMG0103, an investigational oligonucleotide drug for the treatment of chronic discogenic low back pain (DLBP). The data from all 25 men and women enrolled in the prospective, double-blind, randomized and controlled study, ages 32 to 70 years (mean age: 53.5 yrs), indicate that the intradiscal injection of AMG0103 (NF-kappa B decoy oligo DNA) was well-tolerated, and no patients experienced serious adverse events (SAEs) throughout the 12-month course of study. In addition to the validation of drug safety in this first-in-human indication, the exploratory, prospectively-defined secondary efficacy endpoints also demonstrated encouraging results with regard to back pain and patient satisfaction.

Chronic discogenic low back pain is a ubiquitous problem for people worldwide and causes a high economic burden to societies, primarily due to lost productivity and wages. Low back pain is also the leading cause of living disability, exceeding major disorders such as depression, diabetes, vascular and respiratory disease. As a result of these demographics, and the debilitating nature of chronic DLBP, AMG0103 has a large market potential in this clinical indication.

"Based on the favorable safety profile, and preliminary efficacy data from our Phase 1b study, we believe we may have a potential breakthrough therapy for patients suffering from discogenic back pain," said Steven Garfin, MD, Principal Investigator of the study and Interim Dean of the UC San Diego School of Medicine where he has also served as Chairman of the Department of Orthopaedic Surgery since 1997. "My colleagues and I are impressed with the extent and duration of significant pain reduction in this study and look forward to further evaluation in subsequent trials. If successful, AMG0103 has the potential to be the first minimally invasive oligonucleotide decoy used in the treatment of this debilitating spinal condition."

Preliminary Safety Results

The primary endpoint of the Phase 1b study was to assess the safety and tolerability of this investigational oligonucleotide decoy therapy in adults with DLBP through 12 months following treatment. This clinical trial was designed to evaluate increasing doses of AMG0103 (0.3, 3.0 and 10.0 mg) that, in an outpatient setting, were injected directly into the intervertebral disc. Based on the data through 6 months (Part 1 of the study), there was no evidence of clinically relevant renal, hepatic or hematologic dysfunction. In addition, clinical examination of all patients through the 12-month endpoint (Part 2) confirmed the absence of sensory or motor function decline in the placebo and all treatment groups.

At this time, AnGes has completed their analysis of the 6-month data (Part 1) of this FDA-registered study, and additional results will be reported when the 12-month efficacy data are available. Among the 19 subjects receiving AMG0103, only a single, transient drug-related adverse event (AE) was observed in the immediate post-injection period. No subjects withdrew from the study as a result of AEs or SAEs related to the intervention or the drug itself. Based on observations over the course of

the study, the independent Data Safety Monitoring Board made no modifications to the protocol, and supported dose escalation across all three cohorts.

Results from Secondary and Exploratory Endpoints

Prospectively-defined secondary endpoints of the study included measurement of back pain, leg pain, and several validated instruments used to assess patient reported outcome measures such as the Patient Global Impression of Change (PGI-C), the Roland-Morris Disability Questionnaire (RMDQ) and the Oswestry Disability Index. Administration of AMG0103 resulted in a dose-dependent and sustained reduction in back pain, measured on a 100 mm VAS scale, throughout the 6-month study period (Part 1). While all doses showed clinical improvement compared to the placebo control, the subject group receiving a single 10 mg dose resulted in a reduction of back pain by almost 50% just 14 days after treatment. Back pain in this group continued to decline, reaching a 71% reduction from baseline by 6 months, which was significantly better (p=0.033) than the placebo control group that showed just a 15% improvement. Given the relatively small sample size of each per protocol cohort (n=6) in this Phase 1b study, it is especially encouraging to see the preliminary signal of efficacy along with statistical significance in the 10 mg group. As the 12-month data becomes available the company will complete their analysis and report on those results as well.

For patient reported outcomes, the PGI-C score (measured from 1 to 7 on an ordinal scale) revealed a dose-dependent improvement from baseline at 6 months, and was numerically superior to placebo control for all treatment groups. In the 10 mg AMG0103 cohort, the improvement was almost 3 full points better than that observed with the control, and was both clinical and statistically significant (p=0.001). The PGI-C instrument quantifies how patients regard their improvement from baseline. As such, and using the 7- point scale, a 3-point difference between any two groups is clinically meaningful. In addition to this outcome, all three treatment arms showed a 20 to 50% improvement in RDMQ score at 6 months while the control arm declined more than 15% from baseline.

“Taken together, we believe these data support the view that a single 10mg intradiscal dose of AMG0103 can lead to significant, safe and long-lasting improvements in back pain and patient satisfaction,” said Dr. Ei Yamada, Chief Executive Officer of AnGes, Inc. “We want to give our heartfelt thanks to all the patients, researchers, investigators and their staff for their passion, expertise and engagement in helping to advance this clinical research. We plan to advance our clinical study program to confirm these preliminary results in order to obtain marketing approval from the FDA and possibly other regulatory agencies around the world.”

About AMG0103

AMG0103 is an investigational, synthetic NF-kB oligonucleotide decoy that binds the NF-kB transcription factor to suppress release of inflammatory cytokines (physiologically active substances that are secreted by cells) and therefore has the potential to become an effective therapeutic agent for the treatment of various disorders caused by excessive inflammatory reactions and immune responses. Currently, the only pharmaceutical therapy approved by the US FDA for chronic DLBP is symptomatic treatment by anti-inflammatory analgesics. AMG0103 differs from existing analgesics because it exerts its effect by inhibiting the presumptive causative agent. The results of basic scientific research suggest that local injection of AMG0103 is also effective in treating intervertebral disc degeneration, helping restore disc height, and suppressing the progression of the disease, which cannot be treated with existing therapeutic agents.

AnGes will continue its efforts to develop this groundbreaking therapeutic agent for the treatment of chronic DLBP.

About AnGes

AnGes, Inc., a biopharmaceutical company focuses on the development of gene-based medicines. In September 2019, AnGes commenced the commercialization in Japan of Collategene® (Hepatocyte Growth Factor, HGF, plasmid gene therapy) for the treatment of Chronic arterial occlusive disease with lower limb ulcers. Collategene® is the world's first marketed drug using Plasmid DNA. AnGes is currently focusing on the development of DNA vaccines for COVID-19 and Hypertension, Tie2 tyrosine kinase receptor agonist for COVID-19 treatment, and NF-κB decoy oligonucleotide and Chimera decoy oligonucleotide as next generation product for Chronic Discogenic Lumbar Back Pain. Furthermore, AnGes acquired EmendoBio to expand its capabilities in Genome Editing Technologies in December 2020. For more information, visit https://www.anges.co.jp/en/

The company is located in Tokyo and Osaka, Japan and listed on Mothers of Tokyo Stock Exchange, a market for emerging companies.

Forward-Looking Statement

This news release contains forward-looking statements. Any forward-looking statements are based on the current expectations of the company's management and are subject to significant risks and uncertainties.

AnGes, Inc.
Public Relations & Investor Relations Group
For Inquiry: https://www.anges.co.jp/en/contact/
Website: https://www.anges.co.jp/en/