



NIN/NINDS HEAL Program Grants Prestigious UH3 Award to the University of Miami, Principal Investigator Roy C. Levitt M.D, to Fund Clinical Development of Adolore BioTherapeutics' Gene Therapy Program for the Treatment of Chronic Osteoarthritis Knee Pain

UH3 Award follows the successful completion of an initial NIH/NINDS HEAL UG3 grant for which all pre-clinical milestones were met

This NIH/NINDS HEAL UH3 Award will support all formal pre-clinical GLP/GMP/GCP development work through a first-in-human study in patients, undertaken in collaboration with Adolore BioTherapeutics and expected to commence in 2026

DELRAY BEACH, FL. – October 3, 2023 – Adolore BioTherapeutics (“Adolore” or the “Company”), a biotechnology focused on developing breakthrough opioid-free gene therapy treatments for chronic pain, today announced that the NIH/NINDS HEAL Program has granted a UH3 Award to the University of Miami, Roy C. Levitt, MD, Principal Investigator. Dr. Levitt is a Clinical Professor in the Department of Anesthesiology, at the University of Miami Miller School of Medicine, and Founder and Executive Chairman of Adolore. With this Award, the NIH/NINDS HEAL Program recognizes the importance and potential of the University’s innovative proprietary carbonic anhydrase-8 (CA8*) analgesic peptide gene therapy, invented by Dr. Levitt. CA8* gene therapy is being developed to treat moderate-to-severe chronic knee pain due to osteoarthritis (OA), with the goal of replacing opioids and avoiding their numerous associated complications.

The unique NIH/NINDS HEAL UH3 Award includes Milestones that require Adolore, as the commercialization partner, to compile and submit the IND and oversee first-in-human clinical studies with the goal of facilitating continued development. This award will fund development activities at the University of Miami and through numerous NIH contractors in order to successfully advance this program through a first-in-human clinical study, including GMP manufacturing process development and scale-up, GMP clinical batch manufacturing, GLP-toxicology studies, all analytical development, drug characterization, supplemental pre-clinical work, clinical study design and preparations, IND-compilation and submission, and a first-in-human clinical study.

“It is an honor to receive the highly-vetted HEAL UH3 Award from the NIH/NINDS supporting the advancement of our ADB-102 development program for the treatment of chronic OA knee pain. This funding enables the collaborating parties to execute on numerous Milestones and provides further validation of our innovative approach,” commented Dr. Levitt. “Chronic pain continues to be a major health problem worldwide that represents an annual cost of \$650 billion in the U.S. and there remains a significant unmet need for safe and effective non-opioid pain therapies. We remain committed to driving the ADB-102 development program forward and believe it has the

potential to provide a safe and effective approach to chronic pain management while addressing a very large market opportunity.”

The carbonic anhydrase analgesic peptide family represents the molecular lynchpin of this novel analgesic therapy where it is believed to regulate neuronal intracellular calcium and thereby control neuronal excitability and produce profound analgesia and pain resilience through the activation of Kv7 voltage-gated potassium channels. Adolore obtained a global exclusive license to this intellectual property from the University of Miami in Q2 2023.

CA8* gene therapy is delivered locally using a cutting-edge HSV vector system bioengineered to be replication defective (rdHSV) making it disease-free and nontoxic to neuronal tissue targeted by this vector. The global rights to the rdHSV vector and associated manufacturing cell system for use in the pain field were licensed from the University of Pittsburgh in Q2 2023 by Adolore BioTherapeutics.

The earlier UG3 grant supported pre-clinical development and resulted in compelling pre-clinical data in animal models of chronic knee osteoarthritis pain. These comprehensive safety and efficacy data included biodistribution, shedding, and histopathology assessments for rdHSV-CA8* gene therapy delivered via the intra-articular knee route. The efficacy of a single dose of rdHSV-CA8* surpassed an oral dose equivalent of 100 mg of morphine for an average-sized adult dosed every day for over 6 months. Despite this persistent profound long-term analgesia, rdHSV-CA8* gene therapy stayed where it was injected and produced no dose-limiting toxicity at the highest dose tested. In addition, motor and sensory functions were preserved.

About Osteoarthritis

Osteoarthritis (OA) is a degenerative joint disease that can affect the many tissues of the joint. It is the most common form of arthritis, affecting more than 32.5 million adults in the United States, second only to low back pain in occurrence according to the Centers for Disease Control and Prevention. Although OA can damage any joint, it most commonly affects joints in the hands, knees, hips, and spine. Osteoarthritis can degrade cartilage, change bone shape, and cause inflammation, resulting in chronic pain, stiffness, and loss of mobility. Current treatment options for OA include anti-inflammatory and pain medicines (such as NSAIDs, steroids, and opioids), exercise, weight loss, nerve ablation, and joint replacement surgery.

About Adolore BioTherapeutics, Inc.

Adolore BioTherapeutics, Inc., is a biotechnology company focused on developing novel therapies for the treatment of chronic pain and other pain and nervous system conditions or disorders. Our best-in-class programs are long-acting, locally acting gene therapies that are opioid-free Disease Modifying Anti-Pain therapies (DMAPs) for the treatment of chronic pain.

The Company’s two current CA8* gene therapy programs are in preclinical development for the treatment of patients suffering from erythromelalgia, representing in certain cases a life-long heritable chronic pain condition representing an orphan drug disease with no approved therapy,

and chronic osteoarthritis knee pain, affecting a large number of patients that is often treated with opioids due to the lack of good alternatives, thus contributing to the ongoing opioid crisis.

For more information, visit adolore.com.

Forward-Looking Statements

To the extent this announcement contains information and statements that are not historical, they are considered forward-looking statements within the meaning of the federal securities laws. You can identify forward-looking statements by the use of the words “believe,” “expect,” “anticipate,” “intend,” “estimate,” “project,” “will,” “should,” “may,” “plan,” “intend,” “assume” and other expressions which predict or indicate future events and trends and which do not relate to historical matters. You should not rely on forward-looking statements, because they involve known and unknown risks, uncertainties, and other factors, some of which are beyond the control of the Company. These risks and uncertainties include but are not limited to, those associated with drug development. These risks, uncertainties, and other factors may cause the actual results, performance, or achievements of the Company to be materially different from the anticipated future results, performance, or achievements expressed or implied by the forward-looking statements.

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