



BioAge Labs Presents Preclinical Data for Apelin Receptor Agonist Azelaprag for Obesity Demonstrating Significant Improvements in Weight Loss and Body Composition When Combined with Incretin Drugs

June 21, 2024

Oral presentation delivered by Chief Medical Officer Paul Rubin, MD, at the American Diabetes Association's 84th Scientific Sessions, the world's largest diabetes conference

RICHMOND, Calif.--([BUSINESS WIRE](#))--BioAge Labs, Inc. ("BioAge"), a clinical-stage biotechnology company developing therapeutic candidates for metabolic diseases, such as obesity, by targeting the biology of aging, today announced preclinical data for its lead product candidate azelaprag, an orally available small molecule agonist of the apelin receptor APJ, in combination with incretin agonists for the treatment of obesity. The data were presented in a talk by BioAge's Chief Medical Officer and EVP-Research Paul Rubin, MD, at the American Diabetes Association's 84th Scientific Sessions. The conference, being held June 21–24 in Orlando, convenes more than 12,000 leading physicians, scientists, and health care professionals and features the latest scientific and therapeutic findings in diabetes.

In a mouse model of obesity, the addition of azelaprag to the GLP-1/GIP receptor agonist tirzepatide increased total weight loss to 39%, approximately double that of tirzepatide monotherapy, restoring body weight to the range observed in lean control mice. Furthermore, the combination restored body composition and muscle function to that of lean controls. Similar results were observed when azelaprag was combined with semaglutide, a GLP-1 receptor agonist. Importantly, the synergistic weight loss observed in animals on combination therapy was not due to a further decrease in food intake.

"We are highly encouraged by these preclinical data, which highlight the potential of azelaprag to significantly improve the weight loss and metabolic benefits of incretin therapy, the current standard of care for obesity," said Kristen Fortney, Ph.D., CEO of BioAge. "Given its oral availability and favorable tolerability profile, we believe azelaprag is ideally suited for combination use with incretin drugs and could enable a new generation of patient-friendly, all-oral obesity regimens that could rival or even surpass the efficacy of injectables while also promoting healthy body composition."

Azelaprag is a potential first-in-class oral agonist of the apelin receptor APJ. Apelin is an exercise-induced signaling molecule (exerkine) that acts on APJ to mediate many of the metabolic benefits of physical activity. In a Phase 1b trial, azelaprag promoted muscle metabolism and prevented muscle atrophy in healthy older volunteers on bed rest ([link](#)). The study also showed that azelaprag shifted circulating protein biomarkers in a manner consistent with its function as an exercise mimetic, increasing predicted resting energy expenditure and cardiorespiratory fitness.

BioAge plans to initiate a Phase 2 trial in mid-2024 evaluating azelaprag in combination with tirzepatide (Zepbound®) in older adults with obesity ([link](#)). The study is being conducted in collaboration with Eli Lilly and Company, which is providing tirzepatide, and Lilly's Chorus clinical development organization, which is advising on trial design and execution.

Presentation Details:

Title: Apelin Receptor Agonist Azelaprag Increases Weight Loss in Diet-Induced Obese Mice on Incretin Agonists and Restores Body Composition and Muscle Function to that of Lean Controls

Abstract number: 118-OR

Session: Beyond Glucose and Weight Reduction—Additional Effects of Incretin-Based Therapies

Date/time: Friday, June 21, 2024, 4:15 – 4:30 PM

Presenter: Paul Rubin, MD, Chief Medical Officer and EVP-Research, BioAge Labs

About BioAge Labs, Inc.

BioAge is a clinical-stage biotechnology company developing therapeutic product candidates for metabolic diseases, such as obesity, by targeting the biology of human aging. The company's lead product candidate, azelaprag, is an orally available small molecule agonist of APJ that promoted metabolism and prevented muscle atrophy on bed rest in a Phase 1b trial. In mid-2024, BioAge plans to initiate a Phase 2 trial of azelaprag in combination with tirzepatide for the treatment of obesity in older adults. Azelaprag has potential as an oral regimen to amplify weight loss and improve body composition in patients on obesity therapy with incretin drugs. BioAge is also developing BGE-100, a structurally novel NLRP3 inhibitor. BioAge's preclinical programs, based on novel insights from the company's discovery platform built on human longevity data, also address key pathways in metabolic aging.

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