

PI-YSP-0111

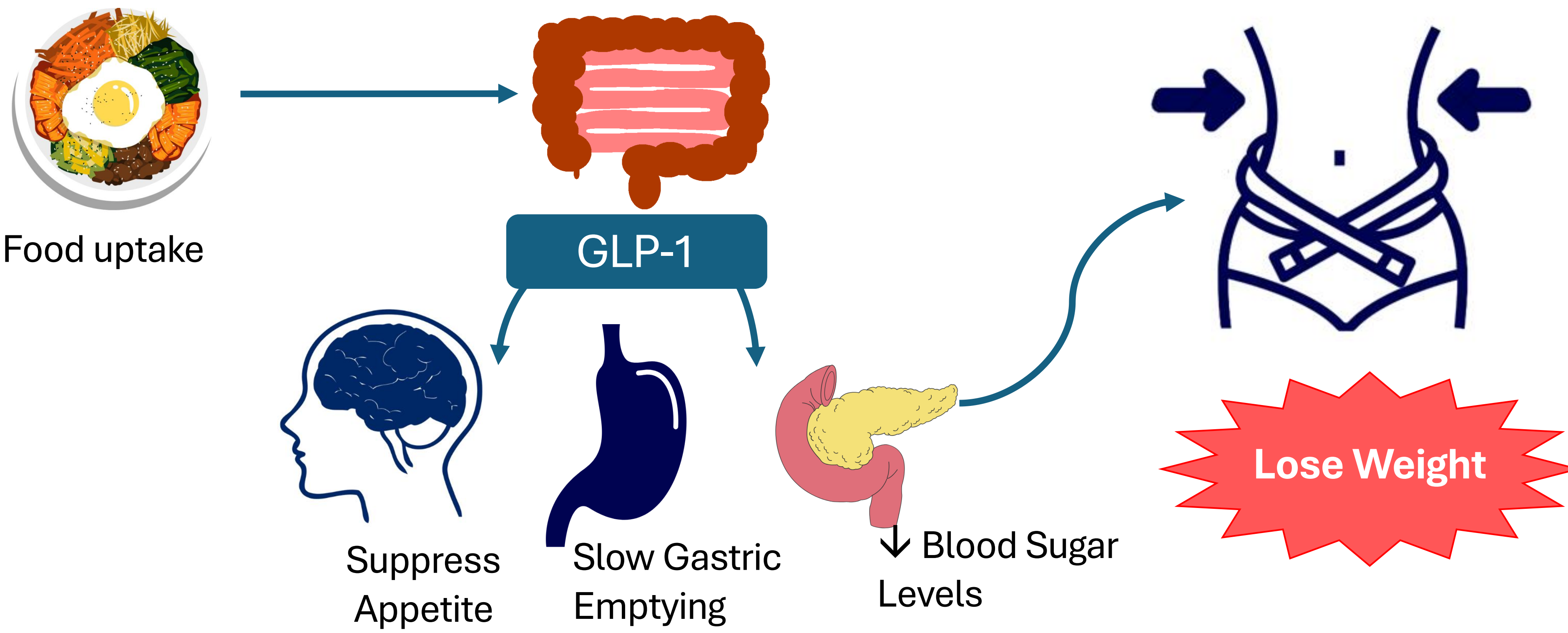
Next-Generation Probiotic for Weight Loss & Gut Health

PI-YSP-0111 Advantages

- Natural GLP-1 without side effects
- Low-cost and easy to access
- Supports intestinal health
- Nutritional supplement – not a drug
- Oral intake, no injections needed

Mechanism of Glucagon-like peptide-1 (GLP-1)

GLP-1 is a hormone released by L cells after eating. It stimulates insulin secretion, lowers blood sugar, slows gastric emptying, increases satiety, and reduces appetite. It's used in type 2 diabetes treatment and supports weight loss.



GLP-1 receptor agonists vs Akkermansia muciniphila (AKK)

1. Exogenous: GLP-1 receptor agonists. (liraglutide, semaglutide, and tirzepatide)

Benefit: Structurally modified to significantly extend their duration of action, from several hours to a week

Drawback: side effects, including nausea, vomiting, and diarrhea; moreover, weight gain may occur after discontinuation of the drug.

2. Endogenous : Akkermansia muciniphila (AKK)

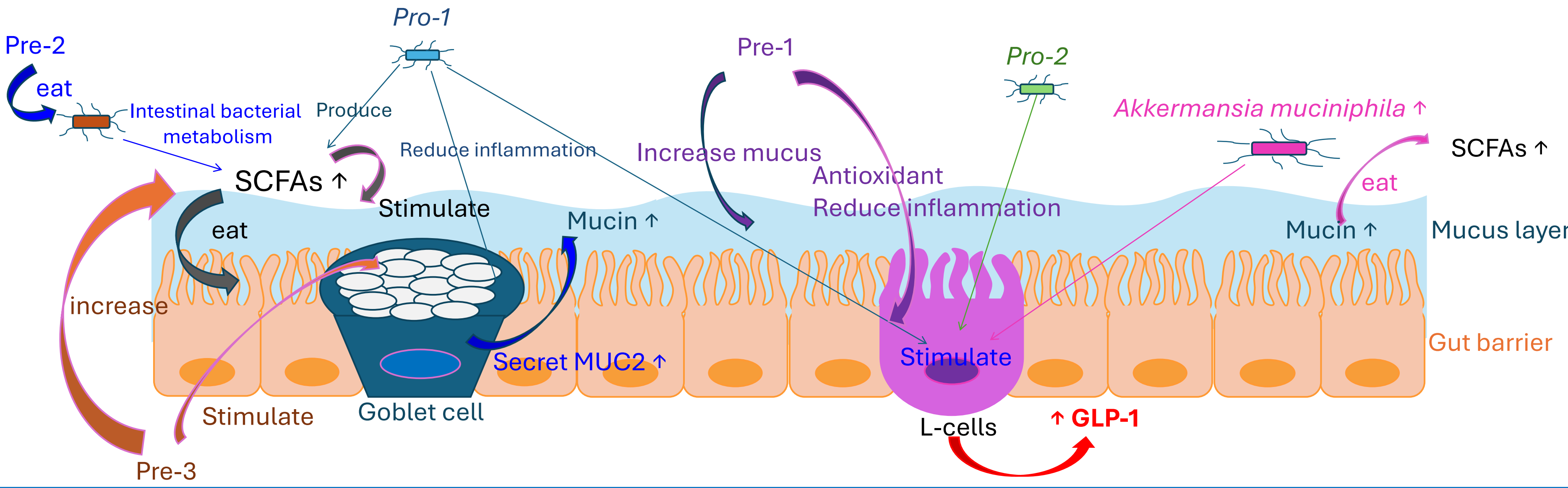
Benefit: Endogenous GLP-1 produced by the human intestine has low side effects.

Drawback: Endogenous GLP-1 is relatively unstable, but if AKK in the intestine continues to secrete GLP-1, the problem of GLP-1 deficiency can be alleviated.

PI-YSP-0111 Presumed Mechanism

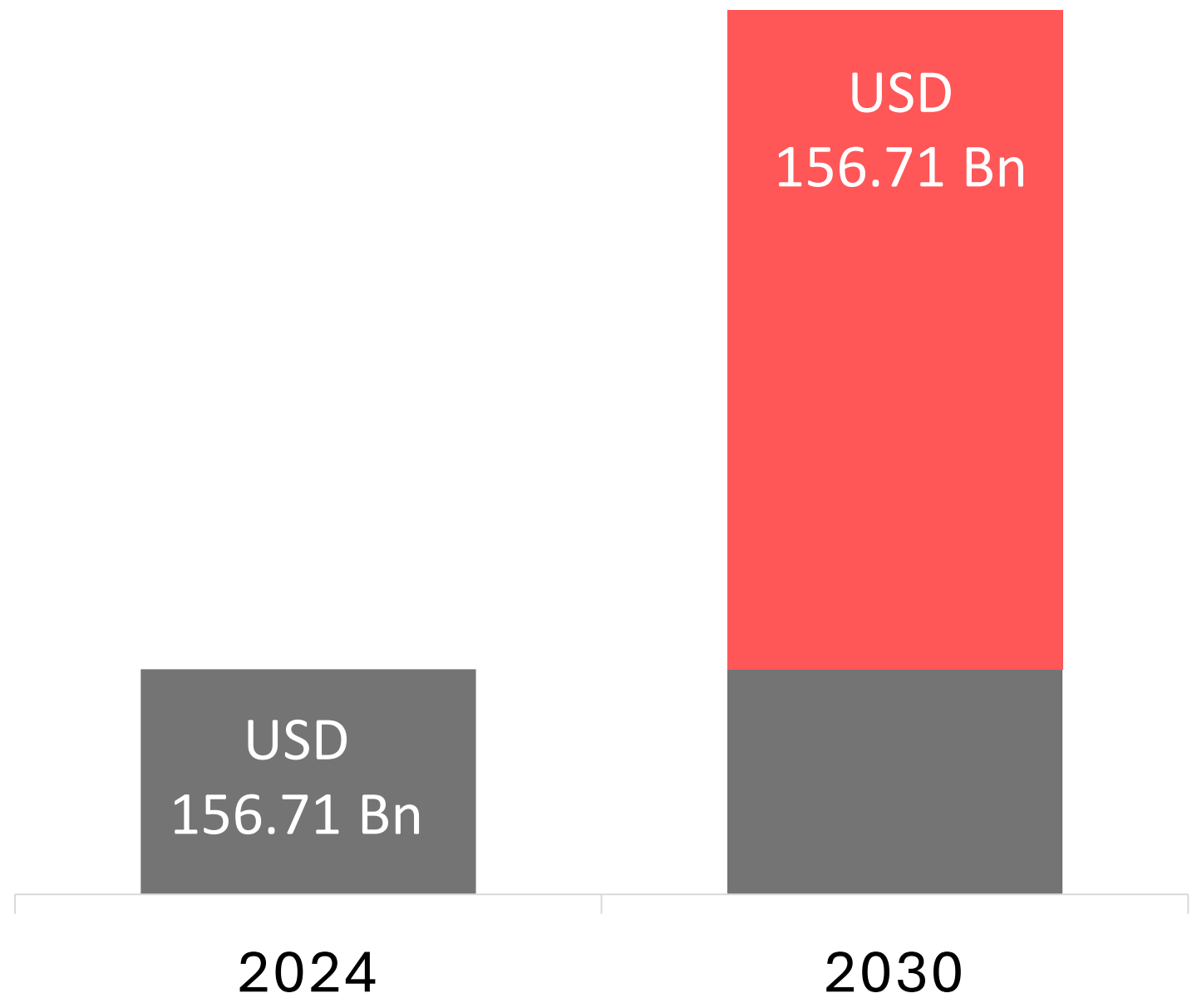
Probiotics: Pro-1 、Pro-2

Prebiotics: Pre-1 、Pre-2 、Pre-3



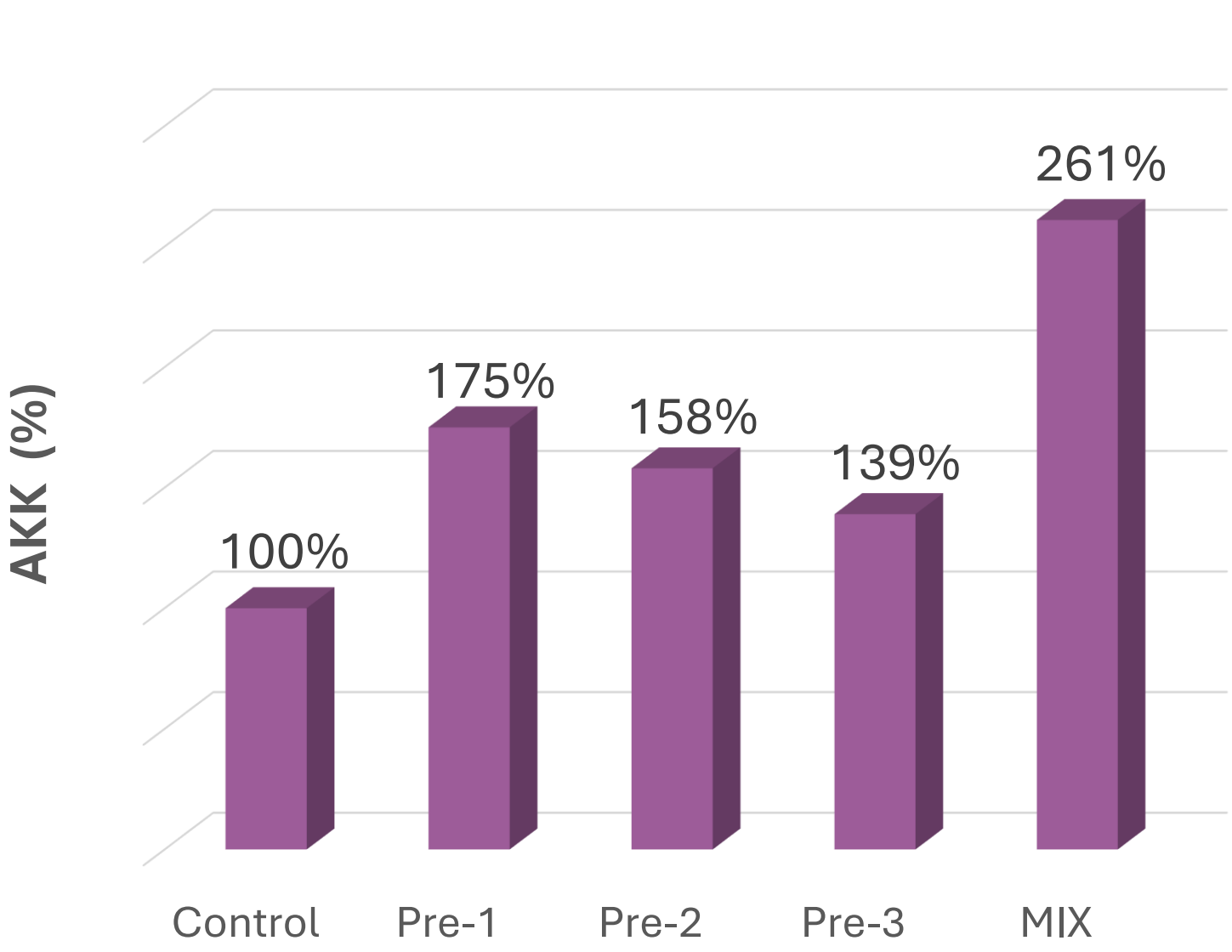
GLP-1 Receptor Agonist Market

Market forecast to grow at a CAGR of 17.5%

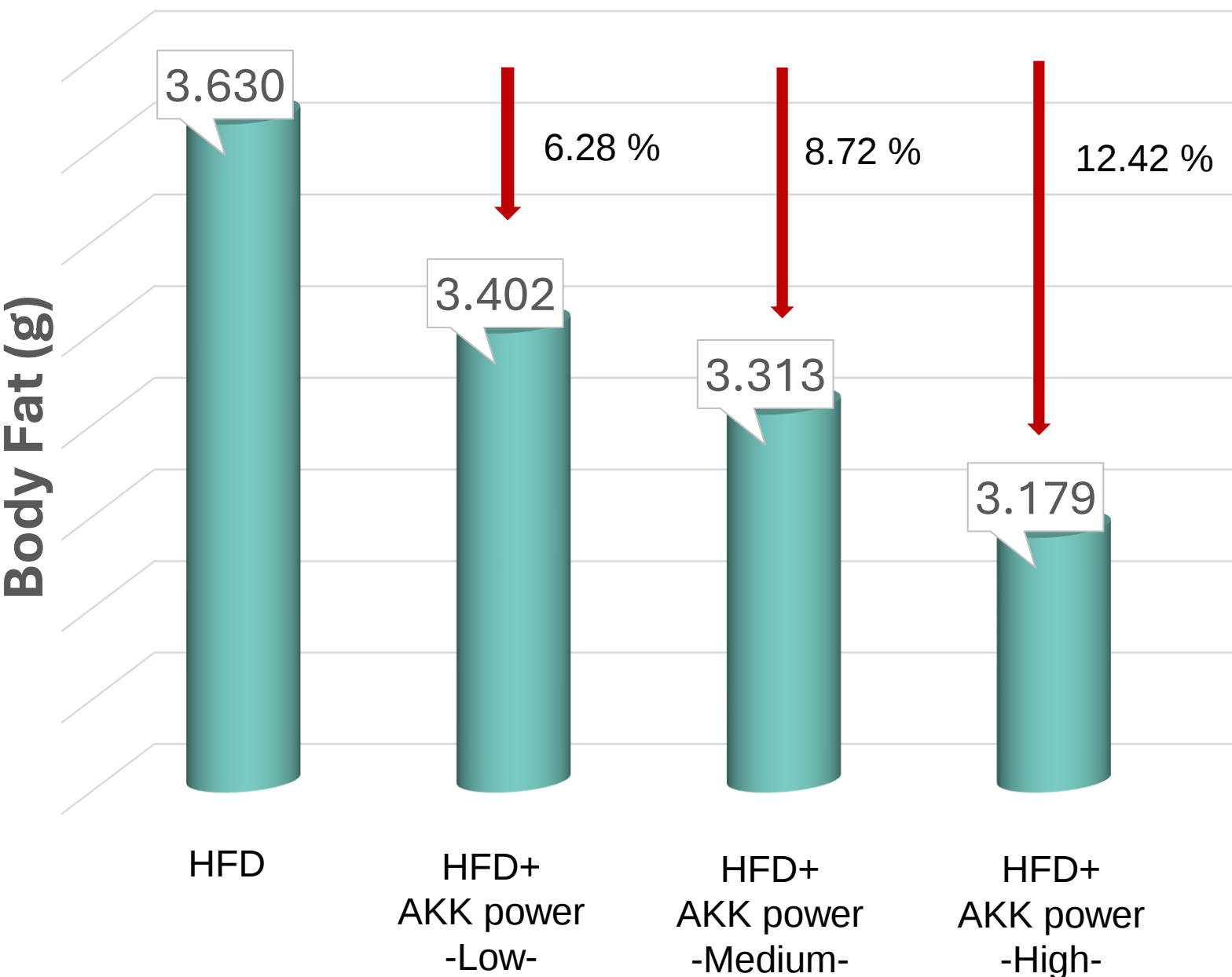


PI-YSP-0111 can increase the amount of AKK and reduce the body fat and weight in mice

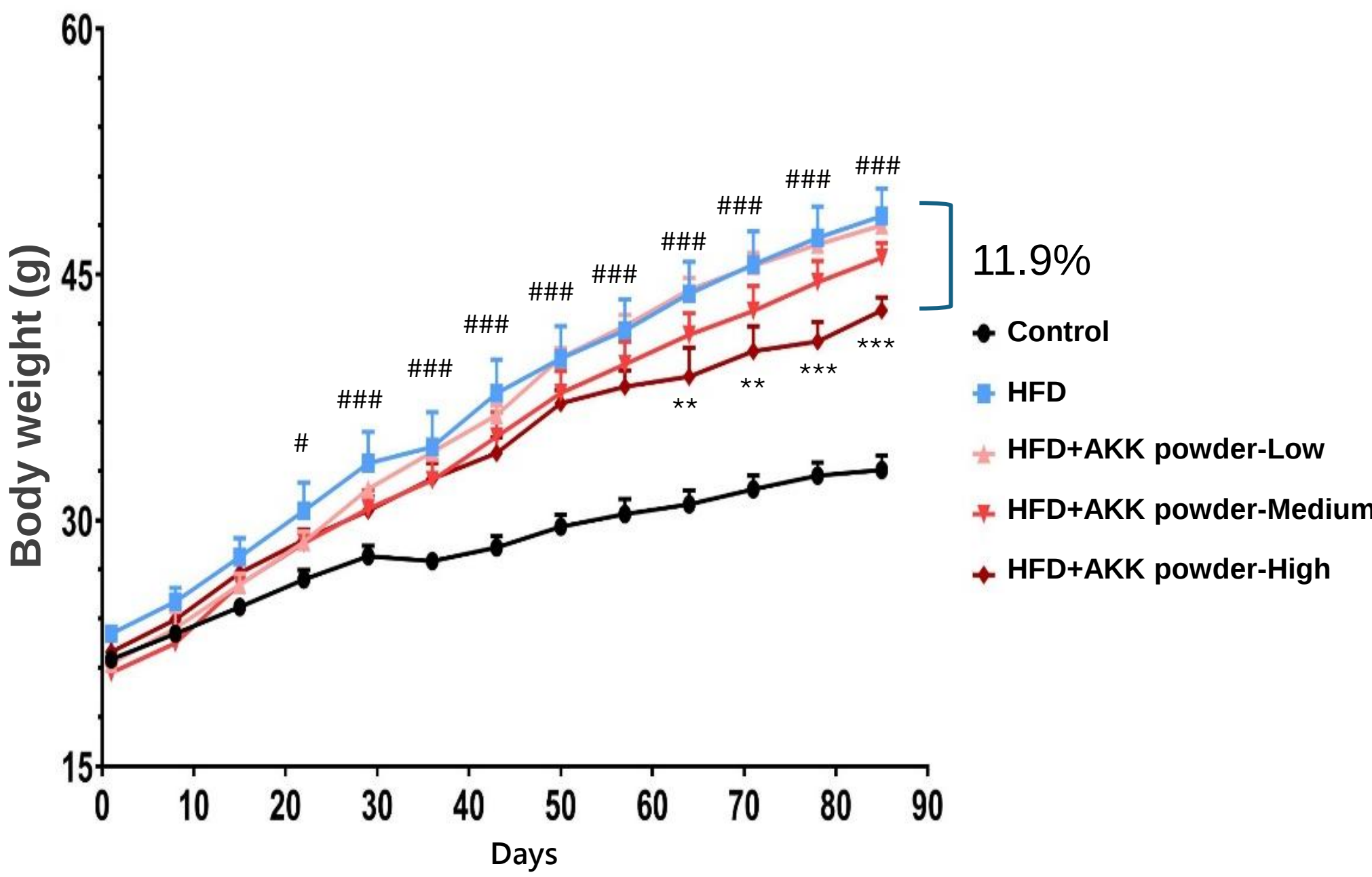
C57BL/6 mice were used to evaluate the effect of the test substance on preventing the formation of body fat. After feeding the mice with a high-calorie diet to induce obesity for 28 days, various analyses were performed.



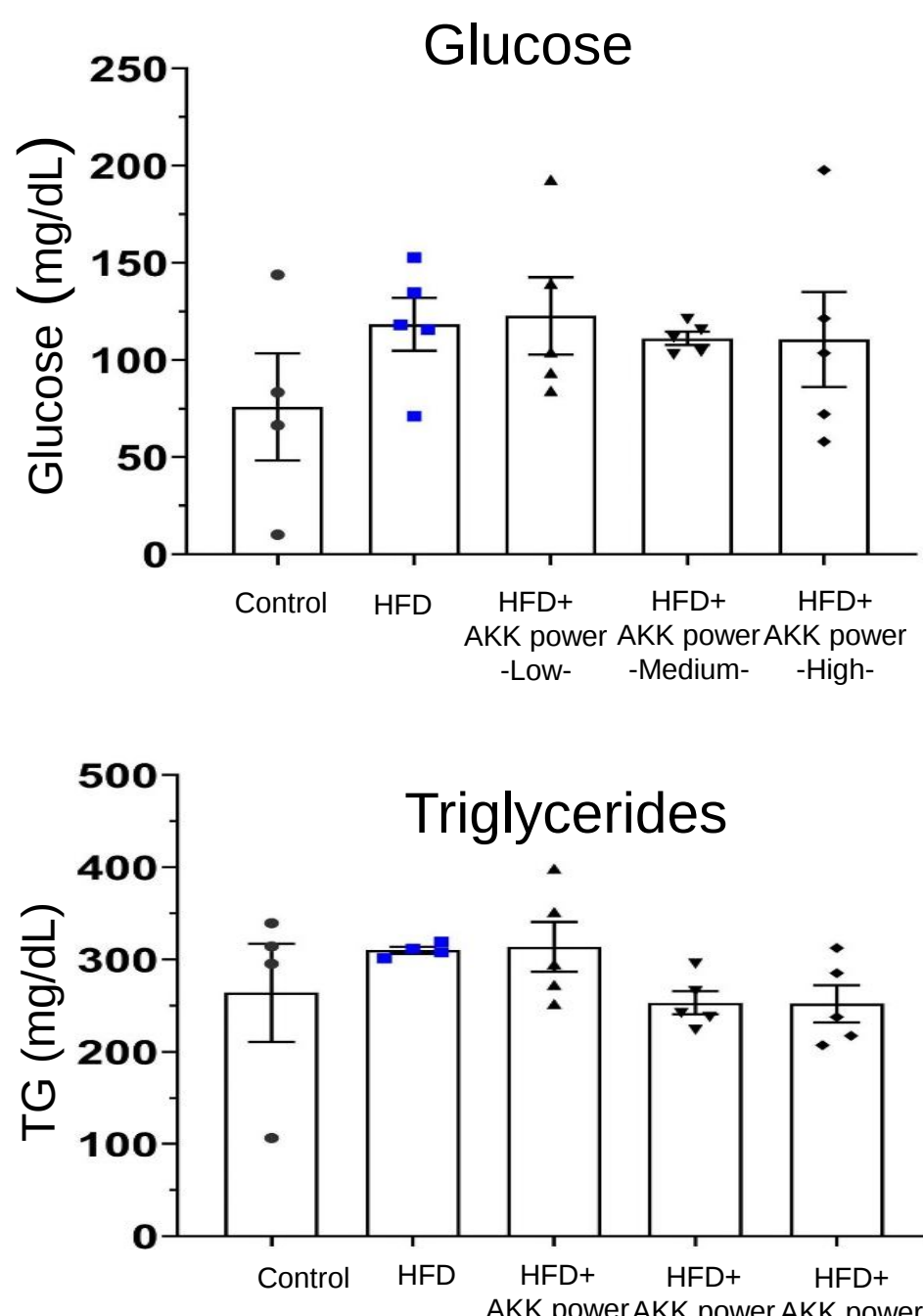
In vitro studies prebiotics alone or in combination can promote AKK growth.



In vivo animal studies showed that body fat decreased with increasing dose.



In vivo studies showed that feeding high dose AKK powder reduced 11.9% body weight growth. Data are presented as mean ± SEM (n = 5-6). #p < 0.05, ###p < 0.001 against control, **p < 0.01 ***p < 0.001 against HFD-diet group with mixed-effects model REML and Dunnett's multiple comparison test.



Blood analysis showed a decreasing trend in glucose and triglycerides.