



BAMLET treatment strengthens metabolic health – nutrition as a first step toward commercialization

New research findings defining BAMLET 's beneficial effects on metabolism have been published in Scientific Reports, a journal within the Nature Portfolio. The study shows that oral treatment with BAMLET reduces weight gain, blood glucose levels and adipose tissue growth and improves intestinal function in several models of obesity and diabetes. The findings also define biological mechanisms underlying these effects, strengthening the scientific basis for using BAMLET to improve metabolic health. The paper *“Balancing metabolism—control of weight gain, blood glucose levels and intestinal leakiness by alpha-lactalbumin-oleic acid complexes”* was published on September 19, 2026, <http://doi.org/10.1038/s41598-026-71811-9>

The BAMLET complex of alpha-lactalbumin and oleic acid belongs to the same family of protein-lipid complexes as HAMLET and Alpha1H. Previous research on BAMLET has shown strong protective effects in models of intestinal cancer.

In connection with these studies, extensive changes were also observed in biological systems regulating carbohydrate and fat metabolism, leading to further studies focusing on metabolic diseases. Hamlet BioPharma has previously communicated early observations that BAMLET has shown effects on obesity and type 2 diabetes in experimental models. The newly published study provides a consolidated and considerably more detailed picture of these results and of the possible mechanisms of action underlying the effects.

In mice with diet-induced obesity, BAMLET reduced weight gain and elevated blood glucose levels compared with placebo. Similar effects were observed in genetically obese mice. BAMLET also reduced the accumulation of visceral and systemic adipose tissue and improved the insulin response. In healthy mice on a normal diet, no corresponding effects on weight or blood glucose were observed.

The results also identify the intestine as an important target organ. In a model of chronic diabetes, intestinal barrier function improved after only three days of oral treatment.

The study also provides new information about possible mechanisms of action. BAMLET reduced levels of the glucose transporter GLUT2 and inhibited glucose uptake in cell models. The researchers also identified effects on systems regulated by

adiponectin and leptin, two central regulators of the body's fat and glucose metabolism. Taken together, the results show that BAMLET affects several key components of metabolic regulation simultaneously.

"This study is the first to provide a clear picture of BAMLET's effects on several central mechanisms of glucose and fat metabolism are affected. The combination of oral administration, effects in several independent disease models and an increased understanding of the mechanisms of action provides a strong foundation for further development," says Ines Ambite, Scientist at Lund University and Board member of Linnane Pharma.

The new findings broaden BAMLET's potential area of use from cancer to metabolic health and create opportunities for several commercial development paths.

A first step is to develop BAMLET within nutrition. BAMLET consists of food-related components, is administered orally, and the intellectual property portfolio includes nutrition-based product formats. Nutrition is considered capable of offering a faster and less capital-intensive path toward commercialization than traditional pharmaceutical development.

Such a strategy may also create value relevant to the continued development of BAMLET. Early commercialization within nutrition can help establish production, product formats, distribution and market presence while the scientific documentation continues to expand.

In parallel, there is a long-term opportunity to develop BAMLET as a pharmaceutical treatment for metabolic diseases. The pharmaceutical pathway enables development toward specific medical indications, where clinical documentation and regulatory approval may create additional value. Nutrition and pharmaceutical development therefore do not need to be viewed as alternative paths. Nutrition can represent a first commercial step while the scientific and clinical foundation for future pharmaceutical development continues to be built.

"We see an opportunity to develop BAMLET step by step. Nutrition provides a potentially faster route to market and can create commercial opportunities earlier in development. At the same time, we retain the significant long-term potential that the new results demonstrate in obesity, diabetes and other metabolic diseases. The ongoing discussions with major players in nutrition are an important part of the work to identify the best route to market," says Catharina Svanborg, Professor at Lund University, Chairman of Hamlet BioPharma.

Linnane Pharma is responsible for the development of BAMLET and, through a licensing agreement with Hamlet BioPharma, holds an exclusive and sublicensable global license to develop and commercialize products based on BAMLET.

Under the agreement, Hamlet BioPharma is entitled to 25 percent of Linnane Pharma's future revenues from sales of BAMLET-based products and other BAMLET-related revenues, such as licensing fees. The royalty commitment applies through 2044.

For Hamlet BioPharma, the model means that the company has direct economic exposure to the future commercialization of BAMLET while operational development is carried out by Linnane Pharma. Successful commercialization within nutrition may therefore create an earlier revenue opportunity for BAMLET, while a future pharmaceutical pathway can develop the long-term potential in large medical markets.

The current study is preclinical, and BAMLET has not yet been evaluated as a treatment for obesity or diabetes in humans. Further studies will form the basis for the development of both nutrition-based products and future medical applications.

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