Biomea Fusion Reports New Preclinical Data on Icovamenib-Semaglutide Combination Study

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- New in vivo preclinical data announced today, demonstrate that icovamenib, in combination with semaglutide showed additional 11.5% body weight reduction and 43% increase in lean muscle mass compared to semaglutide alone
- Icovamenib, in combination with semaglutide, approximately doubled C-peptide production per unit of glucose compared to semaglutide alone leading to a 60% improved reduction of fasting blood glucose
- Ex vivo human islet experiments previously presented in October, showed that icovamenib enhanced the activity of glucagon-like peptide-1 (GLP-1)-based therapies, leading to substantial increase in insulin secretion
- Topline data from the COVALENT-111 study showed that 12 weeks of daily icovamenib in patients uncontrolled on a GLP-1-based therapy (n=10) led to an HbA1c reduction of 0.84% at week 26
- Further data will be presented during the upcoming J.P. Morgan Conference January 13-15, 2025

REDWOOD CITY, Calif., Jan. 07, 2025 (GLOBE NEWSWIRE) -- Biomea Fusion, Inc. (“Biomea” or “Biomea Fusion” or “the Company”) (Nasdaq: BMEA), a clinical-stage biopharmaceutical company dedicated to discovering and developing oral covalent small molecules to improve the lives of patients with diabetes, obesity, and genetically defined cancers, today announce compelling results from in vivo studies of icovamenib in combination with semaglutide.

About the study:
This preclinical study evaluated the efficacy of icovamenib, an investigational covalent menin inhibitor, in combination with a GLP-1 receptor agonist (i.e., semaglutide) to assess key metabolic parameters in animal models including: improvements in C-peptide index, a marker of insulin secretion and glucose regulation, blood glucose, HbA1c, insulin resistance (HOMA-IR) and beta cell function (HOMA-B), changes in body weight and composition, including fat and lean mass, and appetite suppression. Biomarkers were analyzed at multiple time points throughout a 28-day period. The study was conducted in two groups, one group of 10 Zucker Diabetic Fatty (ZDF) rats dosed with icovamenib (day 1 through day 28) in combination with semaglutide (day 14 through day 28) and a second group of 10 ZDF rats dosed with semaglutide alone (day 14 through day 28). ZDF rat is a type 2 diabetes animal model of insulin resistance.

Highlights of the Study:

Superior Glycemic Control:

- A 60% reduction in fasting blood glucose level was observed with combination therapy compared to semaglutide alone.
- A 50% reduction in area under the curve (AUC) was observed during the Oral Glucose Tolerance Test (OGTT) with combination therapy versus semaglutide alone, indicating improved glucose metabolism ($p<0.0001$).

Improvements in HbA1c:

- HbA1c reduction on Day 28 was greater with the combination therapy (>1%) compared to semaglutide alone ($p<0.05$).

Reduced Insulin Resistance and Improvements in Beta Cell Function:

- Insulin resistance as measured by HOMA-IR was reduced by 75% with combination therapy compared to semaglutide alone ($p<0.001$).
- Combination treatment also improved beta-cell function as measured by HOMA-B.

Weight Loss and Muscle Mass Improvements:

- Combination therapy reduced body weight by 11.5% and fat mass by 29.5% compared to semaglutide alone.
- A 43% increase in lean mass compared to semaglutide alone was also observed with combination therapy.
- We believe these results underscore the combination's unique ability to reduce fat mass while preserving and enhancing lean muscle mass.

Validated Safety

- Icovamenib in combination with semaglutide was well tolerated across multiple time points.

“We believe these preclinical results underscore the potential of icovamenib to transform diabetes treatment when combined with GLP-1-based therapies,” said Juan Pablo Frias, Biomea Fusion’s Chief Medical Officer. “Our studies demonstrated that icovamenib not only increased the C-peptide index but also amplified key benefits of GLP-1 therapies, including improved glycemic and body weight control. Importantly, this synergy may enable lower doses of GLP-1 therapies to achieve glycemic and weight loss targets, potentially reducing side effects and improving tolerability. We are very encouraged by these preclinical results and look forward to further assessing this combination in clinical trials to potentially address unmet needs of people living with type 2 diabetes.”

About Menin’s Role in Diabetes
Loss of functional beta cell mass is a core component of the natural history in both types of diabetes — type 1 diabetes (T1D) (mediated by autoimmune dysfunction) and type 2 diabetes (T2D) (mediated by metabolic dysfunction). Beta cells are found in the pancreas and are responsible for the synthesis and secretion of insulin. Insulin is a hormone that helps the body use glucose for energy and helps control blood glucose levels. In patients with diabetes, beta cell mass and function have been observed to be diminished, leading to insufficient insulin secretion and hyperglycemia. Menin is thought to act as a brake on beta cell turnover and growth, supporting the notion that inhibition of menin could lead to the regeneration of normal, healthy beta cells. Based on these and other scientific findings, Biomea is exploring the potential for icovamenib-mediated menin inhibition as a viable therapeutic approach to potentially halt or reverse progression of T2D.

About Type 2 Diabetes
Diabetes is considered a chronic health condition that affects how the body turns food into energy and results in excessive glucose in the bloodstream. Over time, this can cause serious health problems and damage vital organs. Most people with diabetes have a shorter life expectancy than people without this disease. The Centers for Disease Control and Prevention estimates about two in five adults in the United States are now expected to develop diabetes during their lifetime. More than 37 million people of all ages (about 11% of the United States population) have diabetes today. 96 million adults (more than one in three) have pre-diabetes, blood glucose levels that are higher than normal but not high enough to be classified as diabetes. Diabetes is also one of the largest economic burdens on the United States health care system with one dollar out of every four dollars in United States health care costs spent on caring for people with diabetes. Despite the current availability of many diabetes medications, there remains a significant need in the treatment and care of patients with diabetes.

About Icovamenib
Icovamenib is an investigational, orally bioavailable, potent, and selective covalent inhibitor of menin. The molecule was built using Biomea Fusion’s FUSION™ System and is designed to regenerate insulin-producing beta cells with the aim to cure diabetes. Icovamenib’s proposed mechanism of action in diabetes is to enable the proliferation, preservation, and reactivation of a patient’s own healthy, functional, insulin-producing beta cells. As the potentially first disease-modifying therapy for T1D and T2D, icovamenib could become an important addition and complement to the diabetes treatment landscape once it has successfully completed its ongoing clinical studies.

About Biomea Fusion
Biomea Fusion is a clinical-stage biopharmaceutical company focused on the discovery and development of oral covalent small molecules to improve the lives of patients with diabetes, obesity, and genetically defined cancers. A covalent small molecule is a synthetic compound that forms a permanent bond to its target protein and offers a number of potential advantages over conventional non-covalent drugs, including greater target selectivity, lower drug exposure, and the ability to drive a deeper, more durable response.

We are utilizing our proprietary FUSION™ System to discover, design and develop a pipeline of next-generation covalent-binding small-molecule medicines designed to maximize clinical benefit for patients. We aim to have an outsized impact on the treatment of disease for the patients we serve. We aim to cure.

Visit us at biomeafusion.com and follow us on LinkedIn, X and Facebook.

Forward-Looking Statements
Statements we make in this press release may include statements which are not historical facts and are considered forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These statements may be identified by words such as “aims,” “anticipates,” “believes,” “could,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “plans,” “possible,” “potential,” “seeks,” “will,” and variations of these words or similar expressions that are intended to identify forward-looking statements. Any such statements in this press release that are not statements of historical fact, including statements regarding the clinical and therapeutic potential of our product candidates and development programs, their mechanism of action, and their potential relative to approved products marketed by third parties; the potential benefits to future trial design and program development of subtyping diabetes patients and their potential to be used in combination with approved products marketed by third parties; our research, development and regulatory plans, the progress of our ongoing and upcoming clinical trials and the timing of such events may be deemed to be forward-looking statements. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 27A of the Securities Act and Section 21E of the Exchange Act and are making this statement for purposes of complying with those safe harbor provisions. Any forward-looking statements in this press release are based on our current expectations, estimates and projections only as of the date of this release and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements, including the risk that preliminary or interim results of preclinical studies or clinical trials may not be predictive of future or final results in connection with future clinical trials and the risk that we may encounter delays in preclinical or clinical development, patient enrollment and in the initiation, conduct and completion of our ongoing and planned clinical trials and other research and development activities. These risks concerning Biomea Fusion’s business and operations are described in additional detail in its periodic filings with the U.S. Securities and Exchange Commission (SEC), including its most recent periodic report filed with the SEC and subsequent filings thereafter. Biomea Fusion explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

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