CLOSER LOOK

MEMORANDUM

Lilly partners with MEDI&GENE to advance treatments for durable weight loss and lean mass maintenance – December 17, 2025

Lilly's ExploR&D program will combine Lilly's molecule engineering and development with a MEDI&GENE asset to advance the program to clinical trial readiness

Lilly and Seoul-based MEDI&GENE announced today a partnership to advance a next-generation therapeutic for obesity. Founded in 2021, MEDI&GENE is a biopharmaceutical company whose discovery platform aims to develop novel therapeutic pathways for long-term weight maintenance, lean mass maintenance, and achieve the durability of metabolic effects. Lilly's ExploR&D program, part of its broader Cataylst360 initiative, is expected to offer customized research and development support to MEDI&GENE from the discovery phase to clinical proof-of-concept studies. This partnership will encompass strategic capital, laboratory space, and technology to enhance research and development capabilities.

Table of Contents

Partnership with MEDI&GENE advances Lilly's support of early-stage biotechnology companies

Lilly has publicly announced over 75 partnerships in the past 15 years, spanning novel therapeutics to AI supercomputers. With this announcement, Lilly signals further expansion of its extensive network of partnerships, some of which have already begun targeting the need for muscle preservation with the use of GLP-1 RAs such as Lilly's tirzepatide.

Of note, Lilly recently partnered with Juvena Therapeutics in June 2025 to discover and develop drug candidates to support muscle health and body composition, leveraging Juvena's human stem-cell secreted protein library. Juvena has highlighted connections between stronger muscle health and enhanced metabolism, mobility, long-term disease prevention, and overall health. Through this partnership, Juvena is eligible to receive over $650 million for research, development, and commercial milestone payments.

Additionally, just last month, Lilly announced plans to open a new 4,000-square-foot Lilly Gateway Labs site in Philadelphia's 2300 Market building, a life sciences facility developed and operated by Breakthrough Properties. This facility expands the Lilly Gateway Labs model, part of Catalyst360, which is centered on providing wet lab space and scientific partnerships to early-stage biotech companies. The site will offer resident companies access to fully equipped labs as well as strategic scientific engagement.

Concerns of muscle mass loss with GLP-1 RAs have inspired debate in the metabolic health ecosystem

Discussion around muscle mass preservation has begun to dominate considerations of long-term GLP-1 RA use. At DTM 2025, we heard compelling evidence for the consideration of muscle loss with the use of GLP-1 RAs from Dr. Alexander Fleming (Kinexum). He said that T2D is associated with an accelerated loss of muscle quality and strength in older adults, and age-related muscle loss in turn increases the risk of T2D and related complications such as CVD and microvascular disease. There are currently no approved therapies that can delay or prevent this public health challenge, which correlates with high rates of morbidity and mortality, but improvements and a focus on strength training, in

addition to traditional exercise, could support better outcomes. Given the significant research committed to understanding how GLP-1 RAs address these challenges, Dr. Fleming encouraged a greater focus on enhancing the quality of weight loss and encouraged attendees to take advantage of this opportunity.

However, at ObesityWeek 2025, Prof. Soo Lim (Seoul National University, South Korea) argued that a rise in whole-body fat and intramuscular fat with weight gain can lead to the inflammation of muscle tissue alongside adipose tissue. He has demonstrated the presence of cytokines, inflamed adipocytes surrounding muscle, additional blood vessels, and M1 macrophages in the muscles of people with overweight or obesity. With the use of GLP-1 RAs, inflammation subsides, just as it does for adipose tissue. Similar patterns are observed, with inflammatory species reduced and the recruitment of M2 macrophages and T2 cells as alternatives. Prof. Lim posits that this reduction in inflammation may explain much of the muscle mass loss observed with the use of GLP-1 RAs.

As these debates continue, Lilly appears to be exploring options for preserving muscle mass and, more generally, focusing on the quality of weight loss and maintenance, through efforts like this partnership with MEDI&GENE.

Close Concerns' Questions

1. When might we expect further updates on MEDI&GENE's pipeline? What sorts of broad therapeutic classes might the company be targeting?
2. If a muscle-preservation candidate is developed, will MEDI&GENE be involved in future trials evaluating its efficacy alongside tirzepatide?
3. How might MEDI&GENE's status as a company based in Korea affect this partnership compared to Lilly's domestic partners, who likely have easier access to laboratory space offered by Lilly?

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