

press release

Novo Nordisk enters into research collaborations with Omega Therapeutics and Cellarity on novel treatment approaches for cardiometabolic diseases

- Omega collaboration will leverage the company's platform to develop an epigenomic controller as part of a new approach to obesity management
- Cellarity collaboration will build upon initial work and engage the company's platform to develop a small molecule therapy in metabolic dysfunction-associated steatohepatitis (MASH)
- First two research programmes signed under existing partnership between Novo Nordisk and Flagship Pioneering
- Novo Nordisk will reimburse R&D costs and each company and Flagship's Pioneering Medicines are eligible to receive up to 532 million US dollars in upfront and milestone payments, as well as tiered royalties

Bagsværd, Denmark, Cambridge, Mass., and Somerville, Mass. 4 January, 2024 – Novo Nordisk, Omega Therapeutics, Inc. (Nasdaq: OMTA) ("Omega"), and Cellarity Inc. today announced that Novo Nordisk has entered into separate research collaborations with each company. The Omega collaboration will leverage its proprietary platform technology to develop an epigenomic controller designed to enhance metabolic activity as a part of a potential new treatment approach for obesity management. The Cellarity collaboration aims to unravel novel biological drivers of MASH and will leverage Cellarity's platform to develop a small molecule therapy against this disease.

These are the first two programmes signed under the framework collaboration between Flagship Pioneering and Novo Nordisk to leverage Flagship's bioplatfrom companies to develop novel treatment approaches for cardiometabolic diseases.

"This is an important moment in our partnership with Flagship Pioneering. We look forward to advancing these research programmes with Omega and Cellarity in the coming years as we explore bold new treatment strategies with the potential to make a significant impact for

people living with obesity or MASH,” said Marcus Schindler, executive vice president and chief scientific officer at Novo Nordisk. “Novo Nordisk is committed to advancing new treatment options for people living with cardiometabolic diseases. To that end, it is essential that we complement our internal research with external innovation and work with partners who are bringing forward cutting-edge technology. Both companies offer differentiated and novel approaches, including Omega’s expertise in controlled epigenomic modulation and Cellarity’s deep insights into applying human data and artificial intelligence to the development of new medicines.”

Harnessing epigenomic control as a new treatment approach for obesity management

Globally, there are more than 800 million adults living with obesity¹. Many of the existing therapeutic interventions for weight management have focused on appetite regulation. Thermogenesis, the production of heat within tissues to raise body temperature, is a natural metabolic function that critically regulates overall energy balance.

By harnessing the human body’s innate mechanisms to control cellular identity and gene expression, Omega’s proprietary platform has the potential to create an epigenomic controller designed to enhance thermogenesis, and therefore metabolic activity.

“Precision epigenomic control is an emerging approach to medicine that allows us to pre-transcriptionally modulate gene expression with an unparalleled level of specificity,” said Mahesh Karande, president and CEO of Omega Therapeutics. “By leveraging Novo Nordisk’s deep expertise in the space and our OMEGA platform, we have the opportunity to tap into the body’s natural processes that control metabolic activity and potentially develop an alternative, more durable approach to obesity management.”

Deciphering complex disease biology to develop a transformative medicine for MASH

MASH is a chronic and progressive liver disease with high unmet patient need for which there is currently no approved treatment. MASH is a leading cause of chronic liver disease that can progress to liver failure or require transplantation, and people living with MASH are at increased risk of developing type 2 diabetes and cardiovascular disease.

Cellarity has developed unique capabilities to link biology and chemistry with high dimensional, transcriptomic data to generate medicines against the cellular signatures of disease. Using proprietary AI models, the Cellarity platform provides novel insights into cellular dysfunction and enables the design of drugs previously inaccessible with traditional methods of drug discovery. In September 2022, Novo Nordisk engaged Cellarity to identify novel cell behaviors

¹ [World Obesity Atlas 2023 Report.pdf \(worldobesityday.org\)](https://www.worldobesityday.org/World-Obesity-Atlas-2023-Report.pdf)

implicated in MASH disease progression. The research collaboration expands on this initial work and will further leverage Cellarity's platform to develop a small molecule therapy.

"Cellarity is developing a new paradigm in drug creation by harnessing the power of AI and multiomics data," said Fabrice Chouraqui, Pharm.D., CEO of Cellarity and a CEO-partner at Flagship Pioneering. "Our partnership with Novo Nordisk, the world leader in metabolic disease, creates a unique opportunity for application of our platform to identify novel vantage points into the progression of MASH and develop a transformative small molecule therapy against this debilitating disease."

First two programmes under Flagship framework collaboration

[The previously announced partnership](#) brings together Novo Nordisk's Bio Innovation Hub, an R&D unit designed to accelerate the development of therapeutics via co-creative partnerships with academia, biotechs, and venture capital groups, and Pioneering Medicines, Flagship's drug development initiative leveraging Flagship Pioneering's unique ecosystem of bioplatfrom capabilities.

"These collaboration agreements with Omega and Cellarity are an exciting demonstration of how our partnership with Novo Nordisk is leveraging the unique bioplatfrom technologies within the Flagship ecosystem to develop potentially transformational medicines," said Paul Biondi, president, Pioneering Medicines, and executive partner, Flagship Pioneering. "By bringing these innovative platforms together with Novo Nordisk's deep expertise in cardiometabolic disease we have incredible potential to make a bigger leap forward for patients."

Each company, Novo Nordisk and Pioneering Medicines will jointly advance these respective programmes through preclinical development and conduct foundational activities, after which point Novo Nordisk could advance the programmes into clinical studies. Under the terms of the respective agreements, Novo Nordisk will reimburse R&D costs. Additionally, each agreement may pay up to 532 million dollars in upfront, development and commercial milestone payments, as well as tiered royalties on annual net sales of a licensed product, to be shared between the respective companies and Flagship's Pioneering Medicines.

About Novo Nordisk

Novo Nordisk is a leading global healthcare company, founded in 1923 and headquartered in Denmark. Our purpose is to drive change to defeat serious chronic diseases, built upon our heritage in diabetes. We do so by pioneering scientific breakthroughs, expanding access to our medicines, and working to prevent and ultimately cure disease. Novo Nordisk employs about 61,400 people in 80 countries and markets its products in around 170 countries. For more information, visit [novonordisk.com](https://www.novonordisk.com), [Facebook](#), [Instagram](#), [X](#), [LinkedIn](#) and [YouTube](#).

About Omega Therapeutics

Omega Therapeutics is a clinical-stage biotechnology company pioneering the development of a new class of programmable epigenomic mRNA medicines to treat or cure a broad range of diseases. By pre-transcriptionally modulating gene expression, Omega's approach enables controlled epigenomic modulation of nearly all human genes, including historically undruggable and difficult-to-treat targets, without altering native nucleic acid sequences. Founded in 2017 by Flagship Pioneering following breakthrough research by world-renowned experts in the field of epigenetics, Omega is led by a seasoned and accomplished leadership team with a track record of innovation and operational excellence. The Company has a diverse pipeline of therapeutic candidates derived from its OMEGA platform spanning oncology, regenerative medicine, multigenic diseases including immunology, and select monogenic diseases.

For more information, visit omegatherapeutics.com, or follow us on [X](#) and [LinkedIn](#).

About the OMEGA Platform

The OMEGA platform leverages the Company's deep understanding of gene regulation, genomic architecture and epigenetic mechanisms to design programmable epigenomic mRNA medicines that precisely target and modulate gene expression at the pre-transcriptional level. Combining a biology-first approach and world-class data science capabilities with rational drug design and customized delivery, the OMEGA platform enables control of fundamental epigenetic processes to correct the root cause of disease by returning aberrant gene expression to a normal range. Omega's modular and programmable mRNA medicines, called [epigenomic controllers](#), target specific genomic loci within insulated genomic domains with high specificity to durably tune single or multiple genes to treat and cure diseases through unprecedented precision epigenomic control.

Omega Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding the research collaboration with Novo Nordisk and the development of a programmable epigenomic mRNA candidate designed to increase metabolic activity and support weight management; the potential of the OMEGA platform to engineer programmable epigenomic mRNA therapeutics that successfully regulate gene expression by targeting insulated genomic domains; and expectations surrounding the potential of Omega's product candidates. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the novel technology on which our product candidates are based makes it difficult to predict the time and cost of preclinical and clinical development and subsequently obtaining regulatory approval, if at all; the substantial development and regulatory risks associated with epigenomic controllers due to the novel and unprecedented nature of this new category of medicines; our limited operating history; the incurrence of significant losses and the fact that we expect to continue to incur significant additional losses for the foreseeable future; our need for substantial additional financing; our investments in research and development efforts that further enhance the OMEGA platform, and their impact on our results; uncertainty regarding preclinical development, especially for a new class of medicines such as epigenomic

controllers; potential delays in and unforeseen costs arising from our clinical trials; the fact that our product candidates may be associated with serious adverse events, undesirable side effects or have other properties that could halt their regulatory development, prevent their regulatory approval, limit their commercial potential, or result in significant negative consequences; the impact of increased demand for the manufacture of mRNA and LNP based vaccines to treat COVID-19 on our development plans; difficulties manufacturing the novel technology on which our epigenomic controller candidates are based; our ability to adapt to rapid and significant technological change; our reliance on third parties for the manufacture of materials; our ability to successfully acquire and establish our own manufacturing facilities and infrastructure; our reliance on a limited number of suppliers for lipid excipients used in our product candidates; our ability to advance our product candidates to clinical development; and our ability to obtain, maintain, enforce and adequately protect our intellectual property rights. These and other important factors discussed under the caption "Risk Factors" in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, and our other filings with the SEC, could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management's estimates as of the date of this press release. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change.

About Cellarity

Cellarity is fundamentally redesigning the way drugs are created. By shifting the focus from a single target to the underlying cellular dysfunction, the company unravels the complexity of disease biology to create medicines that are out of reach with the target-based drug discovery approach. Founded by Flagship Pioneering in 2017, Cellarity has developed a platform that utilizes proprietary AI models trained on over 30 million single cell transcriptomes to uncover novel actionable biology and create non-intuitive drug candidates in a vast array of diseases. The company currently has programs ongoing in several disease areas including those in metabolic disease, hematology, and immuno-oncology. For more information, visit www.cellarity.com.

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