



## PRESS RELEASE

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# Ziccum reports positive results from external validation of mRNA activity after LaminarPace treatment

**Ziccum AB (publ) has received data from external contract research (CRO) partner Truly Labs, confirming high activity levels in mRNA/LNP materials dried by LaminarPace, after continued internal confirmations. The in-vitro data validate the ability of Ziccum's LaminarPace technology to transform delicate mRNA/LNP solution into stable, bioactive dry powder with excellent in-vitro characteristics.**

The external confirmation and extended data set of preserved mRNA activity after LaminarPace treatment was obtained with cell-based *in-vitro* assays by the CRO. The study was performed to validate the internal mRNA activity data previously reported on March 20th. The new data give a clear and distinctive confirmation of the ability of Ziccum's LaminarPace technology to transform delicate mRNA/LNP solution into stable, bioactive dry powder with excellent *in-vitro* characteristics.

mRNA is one of the three target vaccine platforms Ziccum focuses on, and its in-house mRNA project is of central strategic importance, considering the market need and growth. In October 2022, Ziccum reported proof of successful nebulization and drying of a vaccine/LNP model substance. In March 2023, Ziccum reported the same positive confirmations regarding encapsulation and particle properties for actual mRNA/LNP trials, plus confirmed mRNA activity after LaminarPace drying and reconstitution to liquid. These findings have since then been repeatedly confirmed in continued internal studies. The new CRO activity read-outs are obtained in a different mRNA model - and having the same clear activity preservation in a second mRNA model makes the validation stronger.

Ziccum has recently signed two major agreements for Evaluation Studies on mRNA/LNP treatment with LaminarPace – the first in May with a leading Biopharmaceutical corporation, the second in July with a multinational Pharmaceutical corporation. These collaborations also will include *in-vitro* activity readouts.

CEO Ann Gidner: "Investment and innovation in RNA and mRNA therapies continue to grow and the industry efforts are very impressive. Solutions for stability and delivery that can enable new vaccine and drug projects could broadly expand the possibilities for this booming therapeutic platform. These distinct mRNA activity results for Ziccum constitute excellent and important confirmation. The next step is the in-vivo data, to see this confirmed in animal models. This work is starting now".

**For more information about Ziccum, please contact:**

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## **About Ziccum**

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Ziccum is developing LaminarPace™, a unique ambient drying method for biopharmaceuticals and vaccines based on mass transfer, not heat transfer. The technology is offered by licensing to vaccine and biologics developers and manufacturers in the global pharmaceutical industry. By reducing drying stress to the active ingredient, LaminarPace™ uniquely enables particle-engineered, thermostable dry powder biopharmaceuticals which can be easily handled and transported and are highly suitable for novel administration routes. The technology has been successfully applied to mRNA, peptides, proteins, antibodies, lipids and enzymes as well as excipients and adjuvants, and is well suited for industrial application. Ziccum is listed on the Nasdaq First North Growth Market.

## **About mRNA**

The new mRNA technology, first implemented in the Covid mass vaccinations, has become a game-changer in pharmaceutical development, generating multi-billion-dollar development efforts all over the global industry. Solving stability limitations and delivery challenges, as mRNA in LNP formulation is a very complex and delicate structure, would enable a cornerstone treatment across new indications, also targeting so called undruggable genes. A market forecast predicts the mRNA domain to grow to 59 BUSD by 2031 (1). However, existing methods for treatment, formulation or drying do not solve the limitations regarding stability nor fragility, and options for delivery are limited to injection currently.

(1) Straits Research, June 08, 2023

## **Attachments**

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[Ziccum reports positive results from external validation of mRNA activity after LaminarPace treatment](#)