

Ziccum in brief

Ziccum's patented technology LaminarPace air-dries liquid vaccine into a thermostable powder vaccine. Before the vaccine is administered, the vaccine powder is mixed with liquid and can then be injected in exactly the same way as a liquid solution vaccine.

The LaminarPace technology is gentle, air drying takes place at room temperature, resulting in powder vaccines becoming thermostable. This means that the vaccine can be transported and stored at room temperature, unlike today's vaccines that require costly, complex logistics with an unbroken freezer or cold chain.

Vision

Ziccum's vision is to increase vaccination coverage worldwide. This can be made possible by minimizing dependence on expensive, impractical, and energy-intensive refrigerated and frozen transport systems and storage.

Business model

Ziccum's business model is to offer licenses and tech transfers to vaccine companies based on Ziccum's patent portfolio.

History

LaminarPace was developed by Inhalation Sciences Sweden AB (publ) to generate small amounts of micronized material for aerosolization. However, the many additional high-potential areas the technology could be applied to soon became apparent, and for that reason, Inhalation Sciences carried out a spin-out of LaminarPace into a subsidiary, Ziccum AB, which since mid-2017 has been developing and commercializing the technology on its own.

Ziccum's shares were listed on Spotlight Stock Markets on October 25, 2018.

On December 1 2020, Ziccum moved to Nasdaq First North Growth Market.

Market

Ziccum's primary market consists of vaccines where the need for new methods for producing dry preparations is greatest. Ziccum addresses the possibility of developing dry preparations (powders) which are reconstituted at the administration stage, i.e. dissolved with sterile liquid. Thus, the advantages of a liquid dosage form are maintained without being forced to maintain a complicated and costly cold chain from factory to patient.

The vaccine market has very strong growth driven by COVID-19. But even apart from the COVID-19 vaccine, the WHO predicts growth for almost all vaccines. In 2019, the global vaccine market was worth 33 billion USD, divided into 5.5 billion doses, excluding military and travel vaccines (WHO Global vaccine market report 2020).

Global vaccine production for 2021 is forecast at about 20 billion doses. Future growth largely depends on how COVID-19 develops in terms of re-vaccinations and mutations.

Technical description

The basic principle of LaminarPace is a column that separates the ingoing comminuted liquid that contains the active component from a countercurrent dry air flow that slowly and gently causes evaporation. The result is a finely divided powder. The drying cycle is a so-called semi-continuous process. The system not only retains all the properties of sensitive active substances, but also allows great possibilities to control certain properties of the particles, e.g. particle size that is crucial for creating an inhalable material.

The powder produced during the process is normally very easy to dissolve, which enables flexible application possibilities, e.g. vials of intravenously administered drugs, inhalable drugs and even for topical application of particles through the skin.

Shares

As of January 1 2022, the total number of shares was 11 006 056 and as of March 31 2022, the total number of shares was 13 806 142. The increase of 2 800 086 shares was a result of the share issue that was initiated by the company in December 2021.

All shares have a voting ratio of 1.

The Board of Directors proposes that no dividend is paid for the financial year 2021.

Shareholders 2023-03-31

Name	Number of shares	Share capital	Votes
Försäkrings AB, Avanza Pension	1,491,794	10.8%	10.8%
Göran Conradson	760,738	5.5%	5.5%
Nordnet Pensionsförsäkring AB	454,183	3.3%	3.3%
Tigerstaden AS	427,991	3.1%	3.1%
William Lithander	300,000	2.2%	2.2%
Viskär AB	220,000	1.6%	1.6%
Övriga aktieägare	10,151,436	73.5%	73.5%
Total	13,806,142	100%	100%

Share price

Ziccum AB was registered as a public company by the Swedish Companies Registration Office 2018-05-31.

Ziccum's shares were listed on Spotlight Stock Markets on October 25, 2018.

The share's closing price on the first trading day amounted to SEK 5.90.

Ziccum moved to Nasdaq First North Growth Market on December 1, 2020.

The share closing price on March 31 2022 amounted to SEK 8.58.

Transactions with related parties

During the reporting period, fees charged by related parties were invoiced as follows:

The Chairman of the Board, Fredrik Sjövall, has through Axelero AB invoiced fees amounting to 77 kSEK for project management.

Board member Mattias Münnich has through Magamu AB invoiced 26 kSEK for project management.

Board fees have been paid in accordance with resolutions at the Annual General Meeting.

There have otherwise been no significant transactions with related parties.

Significant risk and uncertainties in brief

Ziccum's significant risk and uncertainty factors include business-related risks as well as risks related to market and technology development, patents, competitors and future financing.

The company's value is largely dependent on the success of the company's development projects and the ability to enter into partnerships, and that LaminarPace receives broad market acceptance. Ziccum is in the commercialization phase and there is a risk that the company will not reach sufficient profitability.

The company has not generated sufficient income to achieve a positive cash flow, which means that the company needs access to capital before its cash flow becomes positive.

It is the company's assessment that the company has the required financing for longer than 12 months.

In light of the outbreak of the coronavirus and COVID-19, Ziccum is closely monitoring the development of events and taking measures to minimize or eliminate the impact on the company's operations. Ziccum follows guidelines from the Swedish Public Health Agency. Ziccum has been able to continue its internal operations without significant impact on COVID-19. However, there is a risk of delays in the Company's external collaborative projects due to the pandemic.