Result and financial position Q3 (July-September) 2022

Operating income from goods and services amounted to 0 kSEK (0).

Operating expenses amounted to 6 674 kSEK (5 045), of which personnel costs amounted to 2 579 kSEK (2 032).

Other external costs amounted to 3 713 kSEK (2 775).

Operating result amounted to -6 674 kSEK (-5 045) and result after financial items amounted to -6 599 kSEK (-5 043).

Result amounted to -6 599 kSEK (-5 043).

Result per share before and after dilution amounted to -0.48 SEK (-0.51).

Cash flow during the period amounted to -7 054 kSEK (-6 142). The cash flow included a share issue of 0 kSEK (0). Cash flow per share amounted to -0.52 SEK (-0.63).

Result and financial position - reporting period (Jan-September) 2022

Operating income from goods and services amounted to 0 kSEK (0).

Operating expenses amounted to 20 901 kSEK (14 643), of which personnel costs amounted to 8 694 kSEK (6 663).

Other external costs amounted to 11 176 kSEK (7 429).

Operating result amounted to -20 888 kSEK (-14 648) and result after financial items amounted to -20 767 kSEK (-14 686).

Result for the period amounted to -20 767 kSEK (-14 686).

Result per share before and after dilution amounted to -1.50 SEK (-1.51).

Cash flow during the period amounted to 17 320 kSEK (-14 056). The cash flow included a share issue of 28 051 kSEK (2 358). Cash flow per share amounted to 1.27 SEK (-1.45).

Cash and cash equivalents as of Sep 30 2022 amounted to 29 593 kSEK, compared with 12 273 kSEK on December 31 2021.

The company's equity as of Sep 30 2022 amounted to 37 198 kSEK, compared with 29 731 kSEK on December 31 2021.

Equity per share as of Sep 30 2022 amounted to 2.69 SEK, compared with 2.70 SEK on December 31 2021.

The company's equity ratio as of Sep 30 2022 was 87% compared to 75% on December 31 2021.

The result follows budget expectations regarding the costs of the ongoing commercialization of LaminarPace technology. The increase of external costs is mainly driven by consulting fees, extended premises, R&D costs and the disposal of two of the first generation LaminarPace system. Personnel costs have increased compared with the previous year as a result of the company having double CEO salary costs for four months, since the former CEO Göran Conradson was exempted from work during the notice period.

The investments made during the year are mainly related to development of the LaminarPace technology in order to adapt and automate the technology for industrial production by increasing production capacity and prepare for GMP production.

Ziccum in brief

Ziccum's patented technology LaminarPace gently dries liquid biopharmaceuticals such as vaccines or protein therapeutics into a particle engineered powder product.

For patient administration, the drug powder may be reconstituted, which means mixed with liquid and injected just like a liquid solution vaccine, or directly administered in powder form by inhalation or other novel administration routes.

The gentle processing in ambient temperature enables thermostable powder biopharmaceuticals. This means that the biological drug or vaccine can be transported and stored at room temperature, unlike today's liquid biologics that require costly, complex logistics with an unbroken cold chain, or even freeze chain.

Vision

Ziccum's vision is to enable new biological treatments for patient needs globally, by making drug formulation, biopharmaceutical processing, product transport and patient administration efficient and functional enough for successful treatments.

Business model

Ziccum’s business model is to offer evaluation studies and technology licensing to Pharma, Biotech and drug manufacturing partners, based on Ziccum intellectual property and know-how.

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 Market on October 25, 2018.

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

Market and market targeting

The market for biologics and vaccine manufacturing is very significant and has a renewed emphasis with the covid-19 pandemic, having created keen awareness of the importance of vaccines not only within research organisations and from healthcare authorities, but in every segment of the industry and in the general public, globally. The Covid-19 pandemic created an enormous focus on developing a vaccine urgently, and highlighted the need for worldwide distribution.

Thanks to very intense efforts from large industry players it was possible to develop the new m-RNA in LNP formulation for Covid-19 vaccination in a short timeframe. However, as now commonly known, these new m-RNA vaccines require cryogenic handling all throughout the distribution chain, meaning storage and handling at -80’C. This poses a number of logistical and handling issues. In this situation, the Ziccum offering to enable powder-form thermostable biologics and vaccines should be of great interest.

The freeze-drying technique for drugs, established and developed since many decades, still has only succeeded in very limited trials to generate dry mRNA/LNP – and the product still requires special handling. Another technique gaining ground in pharmaceutical processing is spray-drying by heating – but there, no known attempts have succeeded in generating dry material from mRNA/LNP. Hence, the LaminarPace ability to dry LNP formulations may be of great importance.

The LaminarPace technology lends itself to biopharmaceutical ingredients in general, but as of now the company has decided to focus on vaccines, and three specific vaccine platforms, all relevant for covid-19 vaccines:

- mRNA/LNP vaccine platform
- Viral vector (adenovirus) platform
- Subunit vaccine (adjuvanted) platform

For the total vaccine Western world sales market value, estimates for the top vaccine indications are as follows; In 2023 predicted to 69 billion USD, also after a slight decrease from record Covid-19 numbers; to be followed by some 65 billion USD per year in 2024-2026, then rising towards 77 billion USD in 2028.

With a licensing business model, estimates of the market size considering a 1% royalty on entire vaccine sales can be made. Based on this, the total drying technology licensing market size may be predicted to 650 to 770 Million EUR per year in the near future.

Technical description

The basic principle of LaminarPace is a column that separates the ingoing liquid that contains the active component from a countercurrent nitrogen flow that slowly and gently causes evaporation. The result is a micronized 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 September 30 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 2022-09-30

Name	Number of shares	Share capital	Votes
Försäkrings AB, Avanza Pension	1,172,115	8.5%	8.5%
Göran Conradson	760,738	5.5%	5.5%
William Lithander	540,000	3.9%	3.9%
Tigerstaden AS	427,991	3.1%	3.1%
Nordnet Pensionsförsäkring AB	404,273	2.9%	2.9%
Viskär AB	220,000	1.6%	1.6%
Other shareholders	10,281,025	74.5%	74.5%
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 September 30, 2022 amounted to SEK 2.09.

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 231 kSEK for project management.

Board member (until April 28, 2022) 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 continued risk of delays in the Company's external collaborative projects due to the pandemic.