

# INTERIM REPORT 1 JANUARY - 30 SEPTEMBER 2021

## Q3 2021

- ▶ The result for the quarter amounted to -5 043 kSEK (-5 346 kSEK)
- ▶ Cash flow for the quarter amounted to -6 414 kSEK (-165 kSEK)
- ▶ Cash and cash equivalents at the end of the quarter amounted to 19 564 kSEK (39 561 kSEK)

<b>Summary Financial Highlights kSEK</b>	<b>July-sep 2021</b>	<b>July-sep 2020</b>	<b>Jan-sep 2021</b>	<b>Jan-sep 2020</b>	<b>Jan-dec 2020</b>
Net revenue	0	0	0	0	0
Operating result	-5,045	-5,317	-14,643	-14,006	-17,235
Result	-5,043	-5,346	-14,686	-14,035	-17,289
Balance sheet total	29,348	42,720	29,348	42,720	39,640
Cash flow	-6,141	-165	-14,056	37,497	31,556
Cash and cash equivalents	19,564	39,561	19,564	39,561	33,620
Equity ratio %	82%	93%	82%	93%	92%
<b>Data per share SEK</b>					
Number of shares at the end of the period	9,806,200	9,606,200	9,806,200	9,606,200	9,606,200
Result per share before and after dilution*	-0.51	-0.56	-1.51	-1.75	-2.06
Cash flow per share	-0.63	-0.02	-1.45	4.68	3.75
Equity per share	2.46	4.13	2.46	4.13	3.79

\* Dilution effects is not calculated when the result is negative

## Significant events during Q3 (July-Sep)

On the 1st of September Anna Lönn started as Development director

## Significant events during Q1-Q2 (Jan-June)

Ziccum published its goals for 2021 on January 12. The major goals are to enter into the first licensing agreement for one or more dry-formulated vaccines, and to present a detailed plan for establishing a modular Fill and Finish production facility for filling and final packaging of dry, thermostable powder vaccines, including the necessary partnerships and financing plans. Ziccum's medium-term goal (2–3 years) is to establish the first Fill and Finish facility for dry-formulated vaccines in Sweden.

On January 25 Ziccum announced the extension of the evaluation agreement with Janssen Vaccine & Prevention B.V. (one of the Janssen Pharmaceutical Companies of Johnson & Johnson) that was entered into on October 3, 2019. The purpose is to finalize the analysis of Ziccum's air-drying capabilities on one of Janssen's vaccine platform technologies.

On March 17 Ziccum announced that the company has been accepted as a member of NIIMBL, the US National Institute for Innovation in Manufacturing Biopharmaceuticals. NIIMBL drives innovation and uptake of new technologies within biopharmaceutical manufacturing in the US. NIIMBL is among others funded by the US National Institute of Standards and Technology (NIST) and the U.S. Department of Commerce and is able to distribute federal grants.

At the General Meeting it was decided to adopt two long-term incentive programs: one for the Board of

Directors, consisting of warrants (LTI 2021/2024), and another one for the employees consisting of employee stock options (LTI 2021:1).

The warrant program LTI 2018/2021 has also closed, and all warrants were exercised. The warrant program was assigned to the Board of Directors and consisted of 200 000 warrants, with a vesting period during 26 April – 26 May 2021. To finance the share subscription, the warrant holders have sold 120 000 warrants to a long-term investor, who has also exercised the warrants. The exercise price was 11 SEK per share, hence 2.2 mSEK was added to Ziccum through the share subscriptions. The exercised warrants increased the number of shares and votes with 200 000 and the total amount of shares is hereby 9 806 200.

## Significant events after the reporting period

Nothing significant to report

## CEO statement

Vaccinations are and have long been one of the best ways to prevent pandemics and epidemics. Right now the need has never been greater. Not least due to the Covid-19 pandemic, which has proven the enormous benefits vaccines have on society as whole. New travelling habits, population growth, climate change and overcrowding all potentially increase the risk of epidemics and pandemics, and children are the most vulnerable; one child in five still does not receive adequate vaccination protection. Approximately 1.5 million children die each year from diseases for which vaccines are already available. With the Covid-19 pandemic, many countries have come to realize the importance of taking responsibility for vaccine production.

Ziccum has a unique and patented technology – LaminarPace™ – which enables us to produce vaccines in dry powder form, which is not practically or economically possible with conventional technologies. The benefits are many. It increases the stability and so the lifespan of the vaccine, it facilitates the entire transport chain from factory to patient and it enables the distribution of vaccines to new places where, for example, cold- and freezer storage is a major challenge. The result is greater vaccination coverage at a lower cost.

Ziccum's key strategic priorities focus on three major areas: Developing thermostable formulations of vaccines, preparing for production on a commercial scale and building external collaborations with industrial actors who develop vaccines and, importantly for the industry, Non-Governmental Organizations (NGOs) and International Governmental Organizations (IGO). Several IGOs, including the WHO, are very clear that vaccine production must be increased in developing countries in so-called regional hubs, so that an equitable vaccine supply can be achieved. We are currently in discussions at a senior level with one of these regional hubs.

Driven by the ongoing pandemic, our work on developing thermostable formulations of vaccines is focused increasingly on Covid-19 vaccines. For example, we taken on work evaluating whether LaminarPace can dry vaccines built on mRNA technology. Good results in this would broaden our offer to the vaccine industry significantly. It should also be mentioned that Covid-19 vaccines are mainly based on 4-5 different technology platforms - we feel comfortable that our technology can be used effectively on a number of these.

In parallel, we are continuing our work developing a system for large-scale industrial production of dry thermostable vaccines. This is a top priority that will speed up our discussions with external collaborators and make our offering more attractive to partners. During the quarter, we have achieved important successes in this, and we now have an updated system onsite in our laboratory which we are evaluating. The updated system is a big step forward and is being prepared for GMP (Good Manufacturing Practice) requirements and scaling up.

Our collaboration with Janssen continues as planned. We have also initiated a new collaboration with a prominent academic partner and we have several discussions ongoing with new partners, both industrial and academic, about new collaborations.

We have two main goals for 2021, to partly develop concrete plans to build and establish a demonstration Fill and Finish facility for filling and final packaging of vaccines based on LaminarPace, and to continue our work of licensing our technology. A license agreement would validate LaminarPace and be a clear acknowledgment of

the commercial value of Ziccum's offering. This work is continuing.

We are gratified to see the large number of new initiatives being taken worldwide to greatly increase the regional production capacity of vaccines. This means that the traditional customer base for our technology, ie large global vaccine companies, is being expanded with several new players, especially in developing countries. Our solution for thermostable vaccines provides a very strong competitive advantages, as many Covid-19 vaccines still have to be transported and stored at temperatures all the way down to -80 ° C. Yet storing and transporting vaccines at -80 ° C in large parts of the world with undeveloped infrastructure and insecure access to stable electricity networks is an enormous challenge.

In summary, we are well positioned for a very exciting future in an industry that will remain a key priority area globally for a long time to come.

Lund, October 28, 2021 Göran Conradson, VD

## Expected future development

The company's goals for the year, as earlier communicated, are to:

- ▶ Enter into a first licensing agreement regarding one or more vaccine
- ▶ Present a detailed plan for establishing a modular Fill and Finish production facility for filling and final packaging of dry, thermostable powder vaccines, including the necessary partnerships and financing plans
- ▶ Expand international collaborations
- ▶ Continue to set a high pace in Research and Development activities, with the aim of generating new data that can form the basis for further patent applications
- ▶ Expand process development for the formulation process and adapt it for industrial production
- ▶ Apply for grants
- ▶ Continue to hire, to strengthen the opportunity to deliver on the company goals

## Licensing agreements

Based on the collaboration agreements and the ongoing positive dialogues with established parties on the market, it's Ziccum's goal, during 2021, to generate at least one license agreement based on commercial terms.

## Manufacturing facility

During 2020 Ziccum have accomplished a conceptual design of a manufacturing facility together with KeyPlants AB based on their modular system. This study pointed out many advantages compared to traditional lyophilization (freeze-drying):

80% less electricity

65% less Operational costs (OPEX)

50% less Investment cost (CAPEX)

The conceptual design has been well received by the industry and different stakeholders within the vaccine field. By establishing a Fill and Finish facility it will be possible to concretize what Ziccum can offer. The company's business model and revenue streams can expand by taking a larger part of the value chain.

## International cooperation

A key to success is to make sure that stakeholders within the vaccine market know and understand that Ziccum's technology can develop new vaccine formulations that are less dependent on the cold chain. In that way, those stakeholders can demand and influence established vaccine producers to make a change towards thermostable vaccines. The goal is to enter into at least one formal cooperation during 2021.

## Patent

It is the company's ambition to continue setting a high pace on its own Research and Development activities with the aim of generating new data that can form the basis for new patent applications, primarily regarding more types of vaccines. Furthermore, the cooperation with AMU, Aix-Marseille University, which provides both a good supply and knowledge about viruses and vaccines, will continue.

## **Process development**

Ziccum puts a lot of effort into developing the process of producing thermostable vaccines and adapting the technology for industrial production. This work is done with the aim of furthering effective, ongoing and upcoming discussions with industrial partners. The project includes upscaling of production capacity, automatization, and adaption to regulatory standards.

## **Grant applications**

The vaccine market offers several different opportunities to receive various forms of grants. Ziccum will apply for such grants that the company deems to be in Ziccum's interest and opportunity to receive.

## **Organizational development**

We will continue to have a great need to employ competent and experienced staff to further strengthen the company's ability to deliver on its set goals.

## Result - Q3 (July-Sep) 2021

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

Operating expenses amounted to 5 045 kSEK (5 319), of which personnel costs amounted to 2 032 kSEK (836).

Other external costs amounted to 2 775 kSEK (4 389).

Operating result amounted to -5 045 kSEK (-5 317) and result after financial items amounted to -5 043 kSEK (-5 346).

Result amounted to -5 043 kSEK (-5 346).

Earnings per share before and after dilution amounted to -0.51 SEK (-0.56).

Cash flow during the period amounted to -6 141 kSEK (-165). The cash flow included a share issue of 0 kSEK (6 554). Cash flow per share amounted to -0.63 SEK (-0.02). Cash flow excluding share issues and raising of loans amounted to -0.63 SEK (-0.71).

## Result and financial position - reporting period (Jan-June)

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

Operating expenses amounted to 14 643 kSEK (14 008), of which personnel costs amounted to 6 663 kSEK (2 127).

Other external costs amounted to 7 429 kSEK (11 611).

Operating result amounted to -14 648 kSEK (-14 006) and result after financial items amounted to -14 686 kSEK (-14 035).

Result amounted to -14 686 kSEK (-14 035).

Earnings per share before and after dilution amounted to -1.51 SEK (-1.75).

Cash flow during the period amounted to -14 056 kSEK (37 497). Cash flow included share issues of 2 358 kSEK (52 398) and raising of loans of 0 kSEK (2 000). Cash flow per share amounted to -1.45 SEK (4.68). Cash flow per share excluding new issues and raising of loans amounted to -1.69 SEK (-1.86).

Cash and cash equivalents as of Sep 30 2021 amounted to 19 564 kSEK, compared with 33 620 kSEK on December 31 2020.

The company's equity as of Sep 30 2021 amounted to 24 139 kSEK, compared with 36 381 kSEK on December 31 2020.

Equity per share amounted to 2.46 SEK, compared with 3.79 SEK on December 31 2020.

The company's equity ratio as of Sep 30 2021 was 82% compared to 92% on December 31 2020.

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 and extended premises. Personnel costs have increased compared with the previous year due to increased workforce and the fact that the CEO is now employed by the company.

The investments made during the year is 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.