

# INTERIM REPORT 1 JANUARY - 30 JUNE 2022

## Q2 2022

- ▶ The result for the quarter amounted to -7 882 kSEK (-5 228 kSEK)
- ▶ Cash flow for the quarter amounted to -7 587 kSEK (-3 096 kSEK)
- ▶ Cash and cash equivalents at the end of the quarter amounted to 36 647 kSEK (25 706 kSEK)

| Summary Financial Highlights<br>kSEK | April-June<br>2022 | April-June<br>2021 | Jan-June<br>2022 | Jan-June<br>2021 | Jan-Dec<br>2021 |
|--------------------------------------|--------------------|--------------------|------------------|------------------|-----------------|
| Net revenue                          | 0                  | 0                  | 0                | 0                | 0               |
| Operating result                     | -7,873             | -5,212             | -14,213          | -9,598           | -21,117         |
| Result                               | -7,882             | -5,228             | -14,167          | -9,643           | -21,136         |
| Balance sheet total                  | 51,100             | 33,647             | 51,100           | 33,647           | 39,591          |
| Cash flow                            | -7,587             | -3,096             | 24,374           | -7,914           | -21,347         |
| Cash and cash equivalents            | 36,647             | 25,706             | 36,647           | 25,706           | 12,273          |
| Equity ratio %                       | 86%                | 87%                | 86%              | 87%              | 75%             |

### Data per share SEK

|   |            |           |            |           |            |
|---|------------|-----------|------------|-----------|------------|
| Number of shares at the end of the period   | 13,806,142 | 9,806,200 | 13,806,142 | 9,806,200 | 11,006,056 |
| Result per share before and after dilution* | -0.57      | -0.55     | -1.03      | -1.01     | -2.17      |
| Cash flow per share                         | -0.55      | -0.32     | 1.85       | -0.82     | -2.19      |
| Equity per share                            | 3.17       | 2.97      | 3.17       | 2.97      | 2.70       |

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

## Significant events during Q2 (April-June)

- ▶ Ziccum AB has significantly expanded its lab facilities and capabilities, particularly in the area of mRNA/LNP. Strategic investments include a new cell lab and a system for manufacturing and evaluating dry formulations of mRNA/LNP materials. On June 22, the company informed that the installation of the new cell lab was completed, enabling in-house in vitro research.
- ▶ On June 3, it was announced that Ziccum has extended an ongoing pilot evaluation study agreement with a leading pharmaceutical corporation following the completion of the latest stage of the project.
- ▶ On May 9 Ann Gidner took office as new CEO. Ann has 25+ years of experience from Life Science management internationally, with a significant track record in strategic development, focused leadership, deal making and sales growth. Generating steep growth in leading, international Pharma CDMO corporations took her to senior global positions in the US and Germany. She has also been leading internationalization of mid-sized Life Science companies in Sweden and Germany, as well as building up Pharma technology licencing internationally. Recent years have given experience from CEO and Board positions in listed Swedish Life Science start-ups.
- ▶ Ziccum has been elected onto the Technical Activities Committee of the US National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL). NIIMBL, co-funded by the US Department of Commerce, funds and initiates a wide range of public-private research projects throughout the US.
- ▶ On May 6, the Board of Ziccum published the decision to officially change the company's language to English for all external communications.

- ▶ The current LAPA system is the fourth generation in development. On April 27, Ziccum informed about the selected key targeted technology developments of the LaminarPace system - some underway, and some recently completed:

**1. New powder collector** - Ziccum has now installed a new sealed, contained collection unit that enables the inhouse study of a wider range of test substances. The new unit increases safety, reduces humidity and enables quicker, more efficient collection of drier formulations.

**2. New nitrogen usage** - Ziccum has now introduced Nitrogen gas (N2) into the drying column to replace air. N2 is a highly efficient remover of moisture. The first nitrogen-based generation of LAPA is installed and has performed well in tests.

**3. New nebulizer** - The LAPA system's nebulizer feature is a key component in optimizing the system's capacity, reproducibility and reliability.

**4. New membrane** - Intensive work is currently underway in optimizing the membrane for future GMP compatibility – examining its porosity, mounting and materials for industrial setting.

- ▶ On April 25, a strategic sharpening was announced informing the market that Ziccum is now targeting three key vaccine platforms in its research and development work through 2022 and 2023 – driven by input from external collaborations and new internal technology capabilities.

**1. Viral vector platform using Adenovirus** - Four major Covid-19 vaccines already use adenovirus vaccine vectors as a platform. The platform enables efficient gene transduction and research is ongoing in a wide range of indications. Ziccum has worked extensively with adenovirus and submitted a patent application in January 2019 for a temperature-stable, dry formulation of Adenovirus.

**2. Subunit vaccine (adjuvanted) platform** - This platform is also being used in major Covid-19 vaccine candidates. Instead of using the whole pathogen, protein-based adjuvant vaccines use a defined protein antigen from the pathogen which can be recognized by the body's immune system to provoke an immune response. Protein-based vaccines have been successfully developed over recent decades to treat diseases from diphtheria to tetanus.

**3. mRNA/LNP vaccine platform** - Generating data on dry-formulated mRNA/LNP materials is a key strategic priority for Ziccum. Covid-19 has highlighted the efficacy of mRNA/LNP as a vaccine platform enormously.

- ▶ During the second quarter CEO Ann Gidner has bought 15,000 shares in Ziccum. In addition, the Board members Andreas Pettersson Rohman also bought 39,333 shares and Fredrik Sjövall 10,000 shares in the Company.

## Significant events during Q1 (Jan-March)

- ▶ At the Extraordinary General Meeting held on January 18, in addition to approving the Board's proposal, it was decided to increase the limit on the number of shares and the size of the share capital in the Articles of Association, to enable the issue of the remaining 933 362 units in the private placement.
- ▶ On January 18, an additional 2 800 086 shares and 1 866 724 warrants were registered, and all shares and warrants in the private placement are thus registered.
- ▶ The last payments from the directed share issue were received by the company in January and February 2022, a total of 40 mSEK was added to the company after deduction of issue costs.
- ▶ Ziccum announced on February 7 that it has become a member of the United Nations Global Compact, the world's largest corporate sustainability initiative.
- ▶ On February 22, it was announced that Göran Conradson was terminated from his position as CEO. The company's CFO, Frida Hjelmberg, will be acting CEO for the time being.
- ▶ On March 3, the Board released an update on strategy, goals and priorities. The company's strategy for entering into commercial agreements with industrial players has been and is clearly defined. It is based on four key priority activities:
  1. Drive an active business development agenda that proactively prepares for collaboration with existing and potential partners. This is partly to offer the opportunity to evaluate specific projects in combination with Ziccum's technology, and partly to understand the requirements placed on the technology before a decision on a license agreement can be made.
  2. Generate laboratory data that manifests and confirms the technology's capacity to dry different types of vaccines, so-called proof of concept.
  3. Develop the company's technology to adapt its functionality, capacity and quality to the licensees' required specifications.
  4. Develop conceptual plans for how Ziccum's drying technology can be adapted to the commercial scale and integrated into a commercial production environment.

With a new CEO, the Board's goal is to increase the pace of, above all, business development work – with the goal of entering into more industrial collaborations in order to evaluate LaminarPace and advance our existing collaborations into negotiations on commercial terms and license agreements.

- ▶ On March 28, it was announced that Ann Gidner is appointed as new CEO for Ziccum, she takes office on May 9.

## Significant events after the reporting period

- ▶ On July 19, Ziccum published the selected partner for the development of its crucial new nebulizer component for the LaminarPace system. The chosen partner TEKCELEO is an innovative mechatronic manufacturer with advanced knowledge of nebulizers. The component is central to the advanced drying capabilities and scaleup of Ziccum's LaminarPace system.
- ▶ On July 21, it was announced that Ziccum together with the Zurich University of Applied Sciences (ZHAW) are applying for funding from the Eurostars funding body for a joint project that will develop the 3D modelling stage of LaminarPace. The project aims to strengthen, support and accelerate the development of LaminarPace – offering high-value insights into its unique particle properties, and accelerating and optimizing industrialization.
- ▶ On August 2, Ziccum informed about a reorganisation aiming to facilitate and accelerate its new strategic focus on key projects and vaccine platforms. As part of the reorganization, Senior Formulation Specialist Fabrice Rose was appointed Scientific Director. The reorganization was implemented on August 1, 2022.

## CEO statement

### From vision to action

It has been a true pleasure to join Ziccum at this intense stage of business-oriented action and help setting a sharper focus for the critical development needs and industrial partnering. The company has a very competent and dedicated team, and with a more precise focus we are taking great strides forward, both in the actual experimental work and in our partnering dialogues, creating value.



During the quarter a key strategic focus on three high potential vaccine platforms was defined. Ziccum is now prioritizing three key, high-potential vaccine platforms: adenovirus vaccine vectors, adjuvanted vaccines and mRNA vaccines using LNP delivery. All three platforms are used in major Covid-19 vaccines, and subject to intense development efforts in the pharmaceutical industry.

We also streamlined the project portfolio to three high-value ongoing feasibility studies corresponding to these platforms. Two are joint with leading pharma corporations, and one with an internationally leading vaccine research institute. I was delighted to help take these dialogues forward and to introduce new significant industry players to Ziccum. We were able to finish an important feasibility study and ship the pilot evaluation material to our key pharma collaborator, to now await the analysis and feedback.

Starting in this report we give a portfolio overview, to help the understanding of the overall status of our external projects. For these projects however, collaborating with pharmaceutical corporations, one needs to respect the decision-making of the counterpart and the demand for perfect confidentiality; in pharmaceutical development, every relevant project is subject to strict secrecy due to the large business potential. Hence, one must be very careful making public predictions or disclose any details.

Internally, we had a great range of technical improvements and installations made, including powder collection equipment and nitrogen gas usage, and we were most pleased to have the fourth generation LaminarPace units installed during the quarter. We also had the new cell lab installation nicely completed. Important decisions were taken regarding the development strategy, which resulted in selection of a new nebulizer partner, Tekcelo, which we expect to give a very efficient development project like communicated. We also took an important decision to partner with the ZHAW Institute in Zurich, Switzerland to consider LaminarPace 3D modelling and jointly apply for a Eurostars grant.

The sharpened company focus and elimination of non-strategic activities provide better clarity for our hard-working team, which boosted energy and efforts. We also had the pleasure of moving into new office and lab facilities, creating a good setting for the work ahead.

All in all, we had a very intense quarter. I want to thank Frida Hjelmberg for her good contributions as interim CEO, and I am most grateful for the efforts by Chairman Fredrik Sjövall, initiating the new company focus and enabling a smooth CEO transition. We jointly want to thank our collaborators, partners and owners for excellent interaction and support.

**Lund, August 23, 2022**

**Ann Gidner, CEO**

## Expected future development

The company's overall objective is to enter into one or more license agreements to industrialize and commercialize the technology in collaboration with one or more major pharmaceutical companies.

The path to licensing agreements goes through evaluation agreements where LaminarPace functionality and capacity are evaluated together with a partner. If successful, the ambition is to continue to a negotiation regarding a license agreement. Primarily for a specific project or vaccine.

A prerequisite for being a relevant and attractive licensing partner is to be able to describe what an industrial version of LaminarPace can look like, and make it probable that the technology is suitable for upscaling and GMP production. Therefore, Ziccum conducts its own development projects where important components in LaminarPace are developed and adapted to industrial requirements.

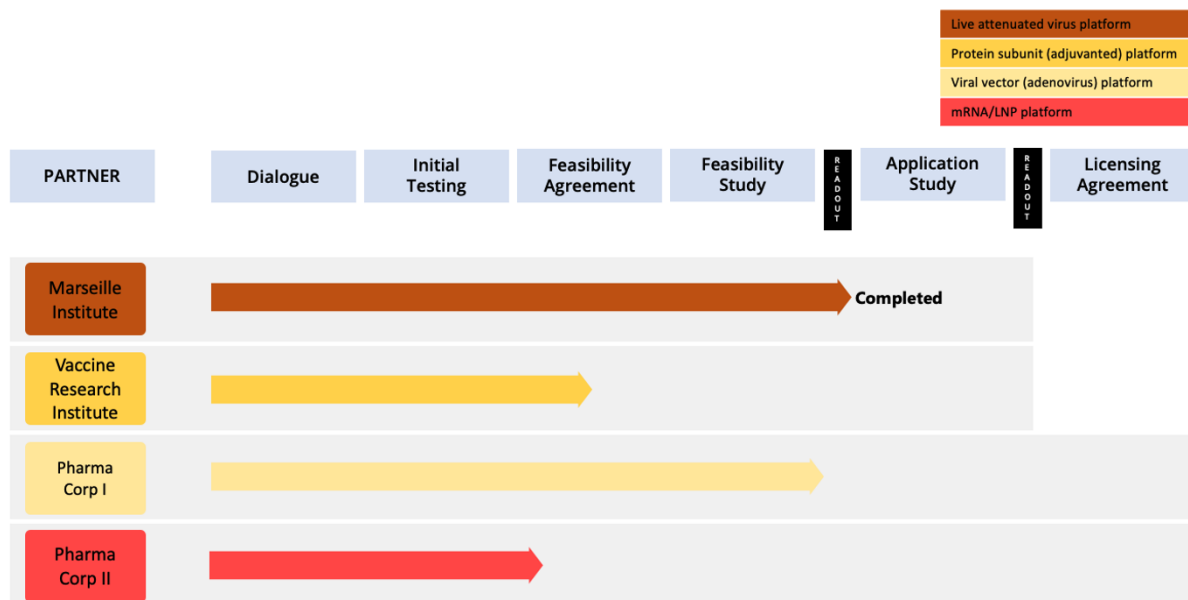
A third priority area is applications for external and non-dilutive funding for further development of the technology. Ziccum actively monitors announcements that suit the Company's area of operation and technical phase.

## Project Portfolio overview

The Ziccum pipeline of external projects is depicted in a portfolio overview. This gives a general representation of the key steps towards the desired commercialization by entering into license agreements, licensing the LaminarPace technology for specific applications, and the current status of each project. The actual progress in a specific project may proceed via alternative or additional steps, and the timeline varies greatly depending on the resulting read-outs and the counterpart preferences.

Pharmaceutical development in general is subject to very strict confidentiality, and certain collaborations are given without partner name publication, until name disclosure is possible.

The company also pursues earlier dialogues with other counterparts in on-going business development efforts.



*Project portfolio overview as of 30 June, 2022*