



PRESS RELEASE

January 12, 2021

Ziccum presents corporate goals for 2021

Lund, 12 January 2021. Ziccum's major goals for 2021 are to enter into its first licensing agreement for a dry-formulated vaccine, and to present a detailed plan for establishing a Fill and Finish production facility for the filling and final packaging of dry, thermostable vaccines based on Ziccum's unique technology.

The Board of Ziccum AB announces the release of its major goals and sub-goals for 2021. Its major goals for 2021 are:

- To enter into a first licensing agreement regarding one or more vaccines
- 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

Licensing agreement

The goal of concluding a licensing agreement remains from the previous year. License revenues continue to be a central part of Ziccum's business model. A licensing agreement would validate LaminarPace and be a clear endorsement of the commercial value of Ziccum's offering. Whilst Covid-19 has caused some delays in the Company's three ongoing collaborations, these projects have nevertheless continued to move forward and make progress.

Fill and Finish plant

Our goal in 2021 is to present a detailed plan for establishing a Fill and Finish production facility for filling and final packaging of dry, thermostable powder vaccines that will include the necessary partnerships and financing plan. In 2020, Ziccum carried out a concept study of a plan to produce a vaccine Fill and Finish production facility together with KeyPlants AB using their modular construction system. The study showed that Ziccum's technology delivered several advantages over (traditional) freeze-drying technologies;

- 80% lower electricity demand
- 67% lower operating costs
- 50% lower investment costs

The concept study has been well received by the industry and a variety of actors within the vaccination arena. The establishing of a Fill and Finish facility would appreciably clarify Ziccum's offering to both the vaccine industry and end users of vaccines. The company's business model and revenue opportunities would significantly expand through being able to take a larger part of the value chain. Ziccum's medium term goal (2–3 years) is to establish a first Fill and Finish facility for dry-formulated vaccines in Sweden. This facility could then be duplicated, and a parallel one placed anywhere in the world. The urgent need for countries and / or regions to be able to take greater

control over their own vaccine supply is currently being championed by organizations like UNIDO (United Nations Industrial Development Organization: www.unido.org), and others. They point out that this would enable the delivery of vaccine products better adapted to local needs, such as higher temperature-resistance, and help drive forward socio-economic development across regions.

The necessary prerequisites for establishing a Fill and Finish facility are that Ziccum:

- Receives significant external financing through grants, loan financing and / or other forms of alternative financing (not dilution of the share capital)
- Obtains approved bulk vaccines for reformulation using Ziccum's method. This means working closely with a vaccine manufacturer.

In addition, Ziccum intends to initiate cooperation with a country or region in order to be able to establish a parallel facility in the long-term to further increase the amount of vaccinations in areas in great need of temperature-stable vaccines.

Further goals and key activities

International collaborations

The vaccine market relies hugely on the work of organizations such as IGOs (International Governmental Organizations) and NGOs (Non-Governmental Organizations), who influence it in many ways, for example through purchasing and distributing vaccines. An example of an important IGO is UNICEF, which accounts for as much as 50 percent of the purchases of all childhood vaccines. A key success factor for Ziccum is to ensure that these organizations know and understand Ziccum's technology and how it can develop new dosage formulations that are less dependent on the cold chain. In this way, these organizations can set requirements and encourage established vaccine manufacturers to work for change to deliver temperature-stable formulations. Our goal is to formalize a collaboration with at least one of these organizations during 2021.

Patent

It is the Company's ambition to continue to set a high pace in its own Research and Development activities, with the aim of generating new data that can form the basis for further patent applications, primarily for more types of vaccines. As part of this, in 2021 we will continue our work with AMU, Aix-Marseille University, which has access to and extensive knowledge of a wide range of viruses and vaccines.

Process development

Ziccum attaches great importance to developing its formulation process for temperature-stable vaccines and adapting it for industrial production, with the goal of streamlining ongoing and upcoming collaborative discussions with industrial partners. This project includes increasing production capacity and automating the management of the system and processes, as well as adapting it to government-controlled vaccine production.

Grant applications

The vaccine market offers a number of opportunities to obtain different forms of grants. Ziccum will make applications for those grants that it deems to be relevant, obtainable and in its interest.

Organizational development

Ziccum has gone from three employees in the beginning of 2020 to seven in the beginning of 2021. We will continue to need to employ competent and experienced staff to further strengthen our ability to deliver on our stated goals.

Corporate goals: These refer to set future objectives for Ziccum's business and operations. The company's operations and activities will steer towards these goals. Given future uncertainties however, it cannot be promised that the Company will be able to achieve these goals.

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About Ziccum

Ziccum develops new thermostable versions of the world's most urgently needed, life-saving vaccines. The Company's patented technology, LaminarPace, enables the production of new, gently air-dried formulations that can be transported easily and cost-effectively, with no need for a costly and complicated cold chain, all the way from the factory to the last child in the last mile of the supply chain.

Attachments

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