

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.

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