Year-end report January – December 2022

The period in summary

January 1 – December 31, 2022

- In the end of March the first batch of Strangvac® was released for sale in Sweden, and in the end of May we passed another milestone in the fight against strangles when Strangvac® was released for sale in Denmark.
- Intervacc announced on July 20th that the company had received an order for approximately SEK 3 million from Dechra Pharmaceuticals PLC. The order contains vaccine vials for selected countries in Europe.
- Strangvac® began being sold late August in the UK, and during the last quarter the sales started in Germany, France, Austria, Benelux, Luxembourg, Poland, Ireland and Italy.
- During February an application for a Permit for Sale and Distribution of Strangvac® in the U.S. was submitted to the U.S. Department of Agriculture (USDA).
- On April 25 we announced positive results from a proof-of-concept study where piglets from vaccinated sows were protected against experimental challenge with *Streptococcus suis*.
- Progress in development of vaccine to prevent mastitis in dairy cows caused by *Staphylococcus aureus* was reported during the second quarter.
- CEO Andreas Andersson and three other key persons have subscribed for 330,455 shares in Intervacc by exercising warrants. Through the issue, which was registered at the beginning of August, the company has received just over SEK 6 million.

Long-term financial goals

In connection with the year-end report 2022, the board has decided to adopt the following long-term financial goals regarding Strangvac®:
Strangvac® has the potential to reach annual global sales exceeding one billion SEK with a gross margin of approx. 65%.

	01/10/22 -31/12/22	01/10/21 -31/12/21	Full year 2022	Full ye 2021
Net sales	3 884	1 068	9 684	
Operating result	-23 394	-8 798	-64 413	-2
Result after financial items	-23 045	-8 729	-64 155	-2
Balance sheet total	265 035	329 393	265 035	32
Equity ratio	94%	94%	94%	
Number of shares outstanding end of period	50 490 843	50 160 388	50 490 843	50 16

Average number of shares before dilution	50 490 843	50 160 388	50 295 324	50 16
Average number of shares after dilution	50 490 843	50 391 330	50 406 868	50 40
Earnings per share before dilution	-0,46	-0,17	-1,28	
Earnings per share after dilution	-0,46	-0,17	-1,28	

Figures in brackets indicate outcome for the corresponding period of the previous financial year. The financial information presented relates to the Group and is expressed in TSEK unless otherwise stated.

Net Sales

Net sales during the financial year 2022 amounted to SEK 9.7 million, which is a SEK 4.5 million increase compared 2021 (5.2), and for the fourth quarter of 2022, sales amounted to SEK 3.9 million (1.1). The company's first in-house developed product, Strangvac®, began to be sold on the Swedish market in the last days of March 2022, and has successively during 2022 begun to be sold on the most important markets in Europe. Together with our partner and distributor Dechra Pharmaceuticals, Strangvac® will gradually be launched in other markets in Europe.

Earnings

During the fourth quarter of 2022, the operating profit has been charged with a cost of SEK -5.9 million, which refers to vaccine vials manufactured with antigens from the validation batches (manufactured in 2019) where the shelf-life date has passed, and the manufactured vials have therefore not been assessed to have an economic value on the balance sheet date. In the event that the company manages to extend the shelf-life of the antigens, it is possible that the vials may gain commercial value. The company has several ongoing projects that relate to both production improvements and regulatory compliance and that aim to provide greater flexibility in manufacturing and at the same time ensure that products are manufactured and controlled according to quality standards. It includes, for example, extended shelf-life and will simplify planning and production as well as improve margins, and above all lay the foundation for the economies of scale that come with larger quantities.

During the fourth quarter of 2022, the operating profit has also been credited with SEK 1.9 million regarding an older and disputed debt (from 2017) that the company no longer considers likely to be obliged to pay. These two items, together SEK -4.0 million, have charged the operating profit on the line "Goods for resale, raw materials and consumables" in the income statement.

The operating profit for 2022 amounted to SEK -64.4 million, which is a deterioration of SEK -35.0 million compared to the same period in 2021 (-29.4). Of the deterioration, SEK -14.6 million refers to depreciation on balanced development costs that the company began with at the launch of Strangvac in Europe during the first quarter of 2022. Furthermore, the group has costs for both manufacturing, regulatory compliance, marketing and sales that are largely independent of volume, and thereby makes a big impact with the smaller volumes the company has at the beginning of the commercialization of the company's first product, Strangvac®. The operating result during the fourth quarter of 2022 amounted to SEK -23.0 million, which is a deterioration of SEK -14.3 million compared to the same period last year.

The negative operating profit is mainly explained by the fact that the commercialization of the group's first in-house developed product, Strangvac®, is in a start-up stage.

Cash Flow

During 2022, the working capital has increased and affected the cash flow with SEK -26.9 million (-2.0), mainly through the build-up of inventory which burdened the cash flow. The cash flow in 2022 has meant that cash and cash equivalents have decreased by SEK -70.0 million (-48.5), of which SEK -19.3 million (-12.6) refers to the fourth quarter and cash and cash equivalents on the balance sheet date amount to SEK 45.7 million (115 ,7).

Financial position

On the balance sheet date 2022, equity amounted to SEK 250.2 million, which compared to the same balance sheet date 2021 is a decrease of SEK 58.1 million. About 61% of the group's balance sheet total (52%) has been invested in balanced development costs, which on the balance sheet date 2022 amount to SEK 160.9 million (171.3). Cash and cash equivalents, which on the balance sheet date amount to SEK 45.7 million (115.7), are largely affected by the commercialization of Strangvac® in Europe and the investments made in research and development, where our new and ongoing projects are becoming increasingly important. The project portfolio refers to vaccines against S. suis infections in pigs and S. aureus infections in dairy cows (mastitis). Research and development also include upcoming regulatory process with the USDA (United States Department of Agriculture). The company does not yet generate a positive cash flow from business operations. This can mean that capital-intensive investments cannot be carried out as planned, are postponed or that the company enters into partnerships. The company makes the assessment that there are funds for the next 12 months.

CEO Comments

Our first proprietary vaccine, Strangvac®, is available in key European markets and we are making exciting progress towards our goal of becoming a global leader in developing veterinary vaccines against streptococcal and staphylococcal infections.

At Intervacc we develop and commercialize modern veterinary vaccines based on recombinant fusion proteins and we are at the absolute forefront of this expanding field. We are particularly strong in developing veterinary vaccines against streptococcal and staphylococcal infections, a niche where our technology platform and our experience enables us to take a leading position. We are convinced that our approach is the key to finally bring vaccines to market against these complex bacterial diseases. Vaccines are powerful tools with which to prevent disease and create a healthier and more sustainable future. By preventing diseases, we can reduce the use of antibiotics and so mitigate the risk that antibiotic-resistant bacteria will develop. Through disease prevention, we can also reduce the risk that new dangerous pathogens emerge, which can affect both animal and human health. Building on our successes and experience we can develop vaccines where others have failed. Intervacc has a fantastic opportunity to make a big difference.

Our first proprietary vaccine, Strangvac, against the streptococcal infection strangles in horses, is already on the market. Strangvac® addresses a severe (fatal), common and highly contagious global disease. It is a vaccine with great coverage against all globally circulating *Streptococcus equi* strains, with the potential to be a game changer in the fight against this devastating disease. The approval of Strangvac by the EMA and VMD, and the subsequent launch of Strangvac® in Europe is a fantastic breakthrough and a confirmation that we independently can take a vaccine from research and development to approval and manufacturing. During 2022 we launched Strangvac® in Sweden, Denmark, the UK, Germany, France, Austria, the Benelux regions, Ireland, Poland, and Italy. Together with our distribution partner we have selected these markets because they are key European countries where vaccination rates against other equine diseases are high. We will continue to roll out Strangvac® in the remaining European countries covered by the EMA approval.
In Europe, outside the Nordics and the Baltics, Dechra Pharmaceuticals sells Strangvac®. Dechra Pharmaceuticals is one of the ten leading veterinary pharmaceutical companies in the world and the fourth largest in equine medicine in Europe. Strangvac® is an important, strategic product within their equine portfolio, and it is a centre piece of their European Equine Marketing campaign.

With approximately 6 million horses, Europe is one of the world's largest, most well-developed, and integrated horse-producing regions. The number of horses in Europe that are currently part of a vaccination program varies greatly between countries. In the Nordic countries, Germany and France, the vaccination rate against equine influenza virus is estimated to be over 70%, while in the United Kingdom, in a normal year, it is estimated to be between 40% and 50%. In southern Europe, the vaccination rate is usually lower. Our aim is to reach about half of Europe's horses with our vaccine against strangles. We expect that horses that start a vaccination program will continue to be vaccinated for many years, often for life, and that once we have established the use of Strangvac® in a market, its use will continue to grow as the vaccine and its benefits become more widely recognised by horse owners, veterinarians, equine organisations and other key stakeholders such as insurance companies.

Our marketing strategy is to build the market by increasing the awareness of how severe, common, and contagious equine strangles is, establishing guidelines and recommendations that give confidence to veterinarians and horse owners of how to use Strangvac® for the prevention of strangles, and to build a brand image that encourages wider use. Equine strangles is a severe (fatal) and highly contagious global disease that is very common and can affect any horse. It is underreported in most European countries but initiatives are in place to encourage more openness about the disease – such as strangles awareness week. It is also easier to talk about the disease now when solutions such as Strangvac are available. In establishing guidelines and recommendations we work with vaccine ambassadors and Key Opinion Leaders. Veterinarians and horse owners who have used Strangvac® are positive and are endorsing the wider use of Strangvac® to reduce the prevalence of this severe disease. As the number of vaccinated horses continues to grow, we are generating more and more knowledge of the safety and effectiveness of Strangvac® that builds confidence and encourages more veterinarians and owners to vaccinate the horses in their care. Our target is to make Strangvac® a Basic or Core vaccine for horses. In building a brand image that encourages use we are highlighting that Strangvac® is an effective way to protect your loved horses and it is a cost- effective way to mitigate risk for those whose businesses rely on healthy horses. Insurance companies can even further incentivize usage in the future. Strangles outbreaks are common and occur throughout the year across Europe. As an

examples, there are on average one or two outbreaks per week just in Sweden. Only the first index case in an outbreak is registered and an outbreak usually includes many horses. With vaccination we are convinced that these outbreaks can be reduced significantly and leading KOLs believe that Strangvac® has the potential to cut the number of outbreaks by 90% - akin to the benefits that have been realized by vaccination against equine influenza virus.

The establishment of sales of a new vaccine typically follows a traditional S-curve, with an introductory phase, an expansion phase, and a maturation phase where the maturation phase evolves to an established position with continued growth at a slower pace. How long it takes from launch to the maturation phase differs greatly between different products. For biological pharmaceuticals such as vaccines, it is common for the time interval between launch and maturation phase to be 3–8 years. For most of the markets that we are now selling in, sales started in Q4 2022, so we are still very early in the predicted growth curve. For vaccine like Strangvac® that is to a large extent building the market, we assume that time to full market penetration is in the longer time frame range.

Our net sales for the fourth quarter of 2022 grew significantly over the previous quarter and vs. the second quarter of 2022. For Sweden, the market where Strangvac® sales started in end of March 2022 and we sell direct, the number of sold doses of Strangvac grew with about 150% between Q3 and Q4. While growth in percentage is strong, we are in the early phase of this S-curve in Europe and the total revenue of sales is still very modest. We predict a steady growth in the number of horses vaccinated, but sales revenue can fluctuate from quarter to quarter due to our sales model, where we sell via a distributor for most of our markets.

Our negative operating result of -23.0 MSEK for the fourth quarter is mainly explained by the fact that the commercialization of Strangvac® is in the start-up phase. We have invested in further develop the manufacturing and quality control processes. Activities covering increasing precision of analytical methods, reducing lead times, and improving COGS are progressing and key for reaching our financial targets. The Q4 result includes also a write down of SEK -5.9 million, which refers to vaccine vials manufactured with antigens from the validation batches (manufactured in 2019) where the shelf-life date has passed.

There are approximately 60 million horses around the world and about a third of these are in countries that, like Europe, use vaccination as a tool to prevent disease. We are prioritizing the launch of Strangvac® in these primary markets, but equine strangles is a global problem and we ultimately expect to reach the entire global market. Leading veterinarians recommend revaccination with Strangvac® once or twice per year. We predict that an anticipated vaccination schedule of ~1 – 2 doses per year will result in recurring annual revenue with long term potential to exceed 1 billion SEK per year and gross margins of around 65%, with is comparable to our industry peers. Based on the long-term potential, we assess that the medium-term potential is within the range of SEK 150–300 million in annual revenue and a gross margin that increases with the volumes.

We are in the process of obtaining a license for sales and distribution of Strangvac® for the US market. The initial stage of the process has taken longer than we originally estimated, and we predict that an approval is achievable in around 24 months from now. The exact timing is pending the requirements for local studies as well as time needed for inspection of our manufacturing sites

by the US authorities. The application for a license of sales and distribution in Canada will be made in connection to the US application and an approval for Canada is expected at approximately the same time or slightly after approval for the US.

We plan to start the formal submission for an approval in Australia and New Zealand during 2023 with the aim to receive approval during 2024.

Strangvac® paves the way for a new generation of vaccines against bacterial infectious diseases. Based on the same technology platform, and with a focus on similar types of bacterial infections, we aim to develop more safe and effective vaccines. At the forefront of our development portfolio, we have a prototype vaccine against *Streptococcus suis* infections, one of the most serious pathogens affecting piglets. Piglets are mainly affected during the first weeks of life, but it can be difficult to get vaccines to work in very young individuals before their immune system is fully developed. Therefore, we were delighted when earlier this year we showed that vaccination of pregnant sows with our prototype vaccine was safe and provided protection to piglets through the transfer of immunity via colostrum immediately after birth. There is currently no effective vaccine against *S. suis* infections and the demand for a vaccine is great. Today, *S. suis* infections are treated with antibiotics and there is reason to assume that the infection pressure will increase further as the use of antibiotics decreases in accordance with the EU goals to reduce antibiotic use in animals by 50% from 2020 to 2030.

We estimate that there are just under 1 billion pigs globally, and approximately 150 million pigs in the EU. Of the 150 million pigs in the EU, approximately 10 million are breeding sows. Our results indicate a possible vaccination schedule where each breeding sow would receive a primary vaccination of 2 doses, followed by a dose before each litter. We estimate that a vaccine against *S. suis* infections that is based on sows being in a vaccination schedule with a booster before each farrowing has a total accessible market value of approx. SEK 1 (one) bn in Europe alone. S. suis is endemic in pig populations across the world and it is a growing problem to food security, and so we expect that our vaccine programme will yield significant global benefits both to animal and human health.

Our project to develop a vaccine against mastitis in dairy cows, caused by *Staphylococcus aureus* is also progressing according to plan. We earlier showed that the vaccine was safe and immunogenic in pregnant heifers. In this current phase, which is part-funded by a grant from the EU's VetBioNet programme, we are testing whether the vaccine protects against *S. aureus* infection. Mastitis in dairy cows is one of the most common bacterial diseases affecting dairy cows worldwide. In Europe alone there are 2.6 million cases of mastitis every year, causing annual losses of around 600 million euros, losses which have likely increased further with the rising price of milk. The profit will be shared with the farmers. Furthermore, in about 25% of cases, mastitis is caused by *S. aureus*, and mastitis is the most common reason for antibiotic use in dairy cows.

The global market for veterinary vaccines is expected to grow by about 6-10% annually. Companion animals, including horse are the segment that has shown the strongest growth in recent years. The focus from governments to reduce the use of antibiotics and improve food security is further fuelling the need for effective vaccines against bacterial diseases.

We are privileged to be at the forefront of a growing industry, with a promising pipeline and a product on the market that addresses a severe (fatal), common and highly contagious global

disease, a large global market that we have just started to tap in to. It is worth reiterating that we are only in the beginning.

A big thank you to all employees, partners, and shareholders!

Andreas Andersson, CEO

Significant events during the period January 1 – December 31, 2022

Sales start for Strangvac in several important European markets

On October 12th, 2022 Intervacc announced that the first batch of Strangvac® for sale in Germany, France, Austria, Belgium, Luxemburg and the Netherlands has been released. On November 15th, it was announced that Strangvac will be distributed to wholesalers in Ireland and on November 28th, the sales of the vaccine in Poland began. On December 13th, Intervacc announced that the first batch of Strangvac® vaccine doses for sale in Italy was released.
The vaccine has thus been launched on several important European markets during the period. The distribution in Europe, excluding the markets in the Nordics and the Baltic region, is done with the help of Dechra Pharmaceuticals PLC. Intervacc's Chief Scientific Officer, Dr. Andrew Waller, has participated in several market activities conducted by Dechra during the period.

Strangvac® is approved for sale and marketing in the EU as well as the UK, Norway and Iceland. The market in Sweden, Denmark and in the UK. France, Germany, and the Benelux region are among the largest in Europe for equine vaccines. Outbreaks of equine strangles occur regularly and is the cause of great suffering and costs in these regions and across Europe. With the release, we have a finished product approved for launch in these countries. This is significant milestone for our continued launch around Europe.

Intervacc and the Swedish University of Agricultural Sciences, SLU, extends a multi-year contract for the development of innovative animal health vaccines

On December 19th, 2022 – Intervacc and the Swedish University of Agricultural Sciences, SLU, announced that they have extended the contract for the development of animal health vaccines using recombinant proteins. The successful collaboration has led to a vaccine against equine strangles approved by the European Medicines Agency, as well as promising vaccine candidates against other streptococcal and staphylococcal infections.
The vaccine against equine strangles, approved by EMA and VMD, paves the way for a new generation of vaccines for bacterial infections. Based on the same technology platform, and with a focus on the same types of bacterial infections, Intervacc is developing more safe and effective vaccines. At the forefront of our development portfolio is a prototype vaccine against *Streptococcus suis* infections, one of the most serious infections affecting piglets, followed by a prototype vaccine against *Staphylococcus aureus*, which results in mastitis, a disease of the udder in dairy cows that is difficult to treat.

Significant events after the period

In connection with the year-end report 2022, the board has decided to adopt the following long-term financial goals regarding Strangvac®:

Strangvac® has the potential to reach annual global sales exceeding one billion SEK with a gross margin of approx. 65%.

Certified adviser

Eminova Fondkommission is Intervacc's Certified Adviser.
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Dividend

The Board of Directors proposes that no dividend be paid.

Dates for upcoming reports

May 20, 2022	**Interim report Q1 January 1 - March 31, 2022**
August 31, 2022	**Interim report Q2 January 1 - June 30, 2022**
November 10, 2022	Interim report Q3 January 1 - September 30, 2022
February 17, 2023	Year-end report January 1 - December 31, 2022

Annual report 2022 will be published on April 6, 2023 on the company's website.

Annual General Meeting

Annual General Meeting 2023 will take place on June 7, 2023.

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The interim report for the period January – December 2022 is attached to this press release and is available on the company's website www.intervacc.se/investors/reports.

This information is information that Intervacc AB (publ) is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication, through the agency of the contact person set out above, at 08.30 CET on February 17, 2023.

About Intervacc

Intervacc AB is a Swedish company within animal health developing vaccines for animals. The Company’s vaccine and vaccine candidates are based on research at Karolinska Institutet and Swedish University of Agricultural Research where the foundation was laid for the Company´s research and development work. The Intervacc share has been listed on the Nasdaq First North Growth Market since April 2017.

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