

Expres²ion Biotech Holding AB
Press Release, 2018-12-20

Expres²ion's joint venture AdaptVac receives grants for two new projects: cardiovascular disease and breast cancer in dogs

Expres²ion Biotech Holding AB ("Expres²ion") announces that its joint venture AdaptVac ApS ("AdaptVac") has received DKK 2.2 million (SEK 3.2 million) in funding from the Danish Innovation Foundation for two new vaccine development projects: cardiovascular disease (CVD) in humans and HER2+ breast cancer in dogs. The HER2+ dog project will also be used as preclinical studies for the ongoing HER2+ human breast cancer vaccine project AV001.

The two grants, DKK 1 million for the cardiovascular disease vaccine project and DKK 1.2 million for the AV001 HER2+ breast cancer project, will cover two three-year long research positions, one for each project.

The cardiovascular disease vaccine project will focus on a cholesterol regulator protein (PCSK9) typically absent in humans with very low cholesterol levels. A treatment using monoclonal antibodies was recently approved by the FDA for cholesterol-associated cardiovascular disease, but it is a high-cost treatment requiring many administrations. AdaptVac's virus-like particle (VLP) technology is perfectly suited to solve both these challenges. The projected market size for PCSK-9 targeting monoclonal antibody therapies is US\$ 3 billion by 2024 (GlobalData), and the total market for cholesterol lowering treatments is estimated to be US\$ 24 billion.

The AV001 HER2+ breast cancer project will add HER2+ breast cancer in dogs as a way to combine optimal preclinical safety and efficiency studies for the human vaccine with a much faster time-to-market for the dog vaccine. It will, according to the Board, be possible to sell the dog vaccine project to a large veterinary-focused company after reaching proof of concept. A relevant benchmark for the value of the dog vaccine is the double digit million-dollar deal between Aratana Therapeutics, Inc. and Advaxis, Inc. in 2014 for a HER2+ veterinary cancer project (together with three additional undisclosed potential cancer targets).

"With these grants, AdaptVac takes important steps in its ground-breaking development of VLP-based vaccines for high-valued indications. Adding a cardiovascular disease vaccine project for a US\$ 3 billion market adds significant value to our 50 percent holding in AdaptVac, and the addition of a dog application for the HER2+ breast cancer project is a clever way of combining the human vaccine development with a faster time-to-market element. In the short-term perspective, this non-dilutive funding reduces Expres²ion's need to support AdaptVac financially, while the company can continue to progress at an impressive rate," says Expres²ion's CEO Dr. Steen Klysner.

AdaptVac's press releases can be found at <https://www.adaptvac.com/news>.

About AdaptVac ApS

AdaptVac is a joint venture between Expres²ion Biotechnologies and NextGen Vaccines, combining Expres²ion's platform with novel proprietary and ground-breaking virus-like particle (VLP) technology, developed at the University of Copenhagen. The company aims to accelerate the development of highly efficient therapeutic and prophylactic vaccines within high value segments of oncology, infectious diseases and immunological disorders.

Certified Advisor

Sedermøra Fondkommission is appointed as Certified Adviser for Expres²ion.

For further information, please contact:

Expres²ion Biotechnologies, Dr. Steen Klysner, CEO

Telephone: +45 2062 9908

E-mail: sk@expres2ionbio.com

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About Expres²ion

Expres²ion Biotechnologies ApS is a fully owned Danish subsidiary of Expres²ion Biotech Holding AB with company register number 559033-3729. The subsidiary has developed a unique proprietary platform technology, Expres², that can be used for fast and efficient preclinical and clinical development as well as robust production of complex proteins for new vaccines and

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diagnostics. Since the Company was founded in 2010, it has produced more than 250 proteins and 35 virus-like particles (VLPs) in collaboration with leading research institutions and companies, demonstrating superior efficiency and success rates. In addition, Expres²ion develops novel VLP based vaccines through the joint venture AdaptVac ApS which was founded in 2017.