



**Press release**  
December 7, 2018  
Gothenburg

## **Professor Stig Steen's heart preservation technology required for successful transplantation from pigs to baboons**

**According to an article published earlier this week in the scientific journal Nature, use of Professor Stig Steen's heart preservation technology is required for successful xenotransplantation from pigs to baboons. This is an important step for XVIVO as well, as XVIVO's heart preservation products are based on this technology and XVIVO owns all commercial rights to the technology.**

The well-reputed scientific journal Nature published earlier this week an article from Munich University Hospital which describes, the long-term survival of baboons that had received a heart transplant from genetically modified pigs. This is an important step forward on the way to being able to give humans porcine heart transplants. The article describes two requirements that have enabled the good results. One of these requirements being the introduction of non-ischemic (no shortage of oxygen) heart preservation in accordance with the method using the products developed by Professor Stig Steen, and the other requirement being inhibition of post-transplantation growth of the heart, which otherwise would become too big for the primate.

These good results are in accordance with earlier experience that have led to XVIVO, as earlier communicated, is working intensively on submitting an application to the Swedish Medical Products Agency. The submission is planned for in approximately one month and is a prerequisite for a multicenter study on XVIVO's products for heart preservation. These products consist of a preservation solution which has the same composition as that clinically used in the heart transplant study ongoing at the University Hospitals of Lund, earlier pre-clinical studies and now pre-clinically used in Munich for heart preservation in xenotransplantation. The technology also includes a portable heart preservation machine incorporating a single-use component which has been constructed by XVIVO, in accordance with Professor Steen's technology.

"There is currently sufficient data available to be able to suppose that non-ischemic heart preservation is a safe technique and, as the company earlier communicated, that it is time to initiate a multicenter study with aim of regulatory approval," says Magnus Nilsson, XVIVO Perfusion's CEO.

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XVIVO Perfusion AB is a medical technology company which develops solutions and systems for assessing and preserving organs outside the body and for selecting usable organs and maintaining them in optimal condition pending transplantation. The company is headquartered in Gothenburg, Sweden, and has one office in Lund, Sweden and one office in the USA. The Xvivo share is listed on Nasdaq Stockholm and has the ticker symbol XVIVO. More information can be found on the website [www.xvivoperfusion.com](http://www.xvivoperfusion.com).

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This is a translation of the Swedish version of the press release. When in doubt, the Swedish wording prevails.