



ASX Release

NUSEP SIGNS HEADS OF AGREEMENT WITH MINITÜB

Sydney, Australia , 4 November 2014

NuSep signs Heads of Agreement with Minitüb GmbH, the global leader in servicing the animal reproduction market.

Nusep Holdings Limited is pleased to announce that it has signed a Memorandum of Understanding with Minitüb GmbH of Tiefenbach, Germany.

Minitüb is a biotechnology company specialised in advanced reproduction technologies and molecular biology, serving clients worldwide in agricultural, sport and companion animal breeding as well as in the research community. With numerous manufacturing sites, eight international subsidiaries including Minitube Australia, a global network of distributors and 300 employees worldwide, Minitüb provides products that have led the introduction of innovation in animal reproduction and continues to be at the forefront of new developments. Minitube scientists and experts cooperate closely with leading studs, universities and industry partners around the world to develop new products and services.

NuSep and Minitüb have entered into an agreement to work together to build the international sales of NuSep's products in animal reproduction. Initially the products will comprise NuSep's *SpermSep* sperm selection devices and consumables.

This is a significant step forward in NuSep's plans for commercialising *SpermSep* for animal reproduction, giving NuSep:

- access via Minitüb to the leading animal reproduction facilities worldwide, across all the major animal species where artificial insemination is dominant (pigs, dairy, beef, horses), and
- the experience of Minitüb for developing and refining the market opportunities for *SpermSep* sperm selection technology in these animal species.

As Minitüb is focussed solely on animal reproduction this agreement excludes the human reproduction sector. Nusep will continue to work to develop *SpermSep*'s human reproduction applications separately outside of this agreement.

Minitüb will have exclusive global distribution rights for the NuSep products for use in animal reproduction for an initial period of three years, with an option to extend by mutual agreement.

NuSep and Minitüb will also work together closely on clinical trials, initially in bovine IVF but also later in artificial insemination (AI) in other animal species.

Minitüb will manage and fund the costs of clinical trials with NuSep's products for trials in Europe, the Middle East, Africa and the Americas whilst NuSep will manage and fund the costs of clinical trials conducted in the Asia-Pacific region.

The companies are first conducting a trial at Ludwig Maxmillian University (LMU) in Munich to investigate the use of the *SpermSep* technology for bovine IVF. The trial is expected to commence in early 2015 and should finish by mid-2015.

About SpermSep

SpermSep is the NuSep business focussing on assisted reproductive technologies. The SpermSep system uses NuSep's separation membrane and electrophoresis expertise to select the most viable sperm from semen samples to be used in fertility treatments, including IVF for humans and artificial insemination (AI) for animals.

The SpermSep process provides a quick, cost effective and reliable method of selecting the best sperm cells, and avoiding the DNA-damage to sperm that occurs from the dominant current sperm selection process. The SpermSep system comprises a bench top instrument and single-use cartridges sets for each semen sample and it takes about 5 minutes to process the semen sample to select the optimum sperm.

SpermSep devices for research use are currently also in additional clinical trials for both human IVF and animal AI in Australia. The development of clinical SpermSep systems for the human and animal markets is about to commence.

When launched, SpermSep will be the first automated instrument/consumable solution for preparing sperm samples for ART.

The Market Opportunity

IVF in animals is presently a small but fast growing niche and is utilised for valuable animals.

Animal Artificial Insemination (AI) is widespread in the developed countries. In the USA, 95% of the nation's dairy cows are bred by AI, and the use of AI by commercial swine producers is currently 70-75%. In the EU, almost 90% of pigs and dairy cows are produced by AI. However better sperm selection techniques are needed as the success rate of successful embryos generated per insemination falls.

The veterinary consumables market for ART is worth US\$213m per annum.

For further information please contact:

Alison Coutts
Executive Chairman
+61 2 8415 7300
alison.coutts@nusep.com