

Vitrisperm Offers Hope To Families

University of La Frontera



Vitrisperm, or Aseptic Straw Vitrification (VAP) Technology, protects sperm function and reproductive ability, giving hope to parents experiencing infertility. VAP maintains sperm function through vitrification, providing an 80 percent effective of human sperm survival rate, protecting genetic material, replacing the use of liquid nitrogen for storage and eliminating the need for a cooling curve, according to the different tests carried out by the team of researchers, led by Dr. Raúl Sánchez, andrologist and gynecologist, Doctor of the University of La Frontera.

“ Patients with a history of cancer or genetic or chronic diseases will benefit from this new technology since it allows fertility preservation.

It is simple to use, has low-cost reagents and is quick in its methodology, which also decreases the cost. VAP differs from conventional cryopreservation, in that only human spermatozoa are vitrified, without seminal plasma. It does not require more than storage in a refrigerator at -80°C .

In assisted reproduction, eight live births were reported worldwide using Vitrisperm, including in Chile, Russia, and Spain.

VAP technology has earned six granted patents (including Germany, Denmark, Spain, Italy and the United Kingdom), 35 publications in mainstream scientific journals (WOS/ISI) in the development of technology applied to fish and other mammals, five book chapters. Its outstanding results in effectiveness rate led ANDROGEN, the Spanish center specializing in male infertility, to focus its interest in VAP technology. Together with UFRO's TTO, they licensed the technology to BOKIBANK, a leading assisted insemination firm in Spain. The use and exploitation license is granted exclusively to BOKIBANK for Spain and those European countries in which the corresponding patent has been granted, so that BOKIBANK is the only company authorized to implement, offer and market the vitrification, or sperm preservation service, in the field of application of VAP technology in the territory.

The Innovation Department of the Universidad de La Frontera in Temuco, Chile, through its Technology Transfer Unit (UTT), worked to ensure the technology met European standards and international intellectual protection of technology.

"The transfer of VAP technology was achieved thanks to a joint work with Dr. Juan Álvarez from the ANDROGEN company, in a little over 5 years, resulting in a learning exercise for the entire team of the Technology Transfer Unit of the University of La Frontera, which we participated in from the protection through the first invention patent to the signing of the agreement with ANDROGEN and the license with BOKIBANK," said Fabiola Vásquez Miranda, director of UTT.

Universidad de La Frontera is the first in Chile to achieve an international tech transfer negotiation, with a technological development that will impact many.

"This is a milestone for our university and in particular a notable result of the management of the Innovation Directorate, allowing the effort of our researchers transcend and constitute a real contribution to global society, and contributing to the internationalization objectives of our university," said Franklin Valdebenito Godoy, director of Innovation and Technological Transfer of the Vice-Rectoría for Research and Postgraduate Studies at the University of La Frontera, who met with Enrique Oquiñena, founding partner of Laboratorios BOKIBANK SL, to close the licensing negotiation and design the business plan for Europe and the next launch of the technology in Spain.

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