

Organ banks: a scientific achieve chimera closer to achieve thanks to Andalusian researchers

LOCATION: Seville

DURACIÓN VTR: 1'55"

SUMMARY: Researchers of the University of Seville have just patented a system that permits controlling the conditions of an organ during the whole cryopreservation process to check if it is suitable for a transplant. Cryopreservation keeps organs at a very low temperature so they can be used in transplants without taking into account the time when the donation was produced. By now, this technique is being experimented in animals.

VTR

The work to turn into a reality one of the biggest challenges for humankind: organ's cryopreservation to create an organ bank. To make it, these researchers of the University of Seville have developed this technology.

RAMÓN RISCO
Director of the Cryobiotech Group

"It consists in a control system of temperature and antifreeze concentration received by the organ."

This innovation, impossible until now, consists in controlling the conditions of the organ during the whole cryogenisation process, using liquid nitrogen, at minus a hundred and ninety six degrees centigrade.

ARIADNA CORRAL
Researcher

"At temperatures low enough to stop all the metabolic reactions and then returning it to its normal temperature."

So it keeps working and can be used in transplants, something that the scientific community hasn't achieved. But his technique takes them closer. This researchers have also contributed using X-Ray to analyse their conditions for the first time, something they have managed thanks to the collaboration of the Spanish National Accelerator Center.

MARCIN BALCERZYCK
Spanish National Accelerator
Center

"In the beginning we are going to observe the presence and amount of cryoprotector we need inside the tissue."

TOTAL RAMÓN RISCO
Director Grupo Cryobiotech

"Checking if ice has caused harm."

By now they are refining cryopreservation techniques with organs that come from animals; but the objective is creating a human organ banks that avoid long waits as the one suffered by José, who had to wait for the kidney that saved his life for two years.

JOSÉ SARMIENTO
Transplanted patient

"You live under stress because the donor isn't there, has to arrive."

Applying organ cryopreservation organs would be available, they only problem would be looking for the one compatible. Investigation at the service of health.