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CELLS

Cryopreservation of genetic material

Nowadays

The current development in the field of health care. For years the individual. researchers have managed to extract and preserve stem cells from blood and umbilical cord tissue of newborns to be preserve these cells so they can be used which turns out to be a natural remedy with spectacular results in many cases.

of Stem cells extracted from the umbilical technologies applied to medicine is cord of the newborn in many cases assuming a daunting revolution to come involve a kind of "genetic insurance" for

Difficulties arise when we need to used years later in the healing process at the right time. Today the facilities of various diseases in the same patient, to address this need are usually very expensive and complex and necessarily include shipment to a public or private bank of umbilical cord blood samples for storage.

80

| DISEASES |

Currently cured with stem cells and that number grows every year 26.000

| PEOPLE |

Cured in Europe each year with stem cell treatments

15.000

| CHILDREN |

| The Family Genetic Kit

This FGK (Family Genetic kit) manufactured and developed by the company GIBiomed, addresses these needs by offering an affordable alternative to the existing demand. On one hand, the device drastically reduces the costs of the process of cryopreservation, and secondly, being a small appliance to be installed in the household, eliminating the need for shipping and storage at public banks and/or private. The person himself (or the family) is the custodian of their genetic material, controlling at all times the location where it is deposited.

The product is a small appliance containing a number of vials which are housed with their timely cryoprotectors within the apparatus and cryopreserved by applying liquid nitrogen, at temperatures near to minus -196ºC *.





| Feeding liquid nitrogen

The device contains a generator of Otherwise the user will not have to and that for safety reasons can be operation. coupled with a triple electro-valve to a gas bottle with a LN2 solenoid, except that in the power supply network interruption generator for prolonged periods.

liquid nitrogen capable of producing worry about maintaining it, because the the required amount of LN2 for the device is connected to the mains and cryopreservation of the genetic material hence it obtains the energy required for

> In the case of a power failure or the need for a shift, the product has the said auxiliary system that ensures operation at least for a certain period since the power outage suffered electric power.



CELLS

Cryopreservation genetics for everyone

| Vials

GIBiomed distributes from April 2016 a Brand new system of pattented vials (straws) and sealants thereof designed to cryopreservation of ovules, sperm, embryos and blastocysts and later use in assisted reproduction techniques.

They are provided with their own seal device, the soluted means (free of protein of human or animal origin), the suction system (3 possible methods) and the container.

The main novelty of this product is the percentage of oocyte survival (about 95%) than for sealed straws provides an excellent percentage.

Most countries require the use of sealed straws in the whole process, currently having such a smaller percentage of oocyte survival in open straws.

The product is sold in kits of 10 individually sterilized and packaged straws, with five colors available for easy identification in clinic: yellow, pink, green, orange and blue. Each kit is of a single color. It comprises a capillary ultrathin straw assembly formed by 6 parts and an outer protective layer.

which -with an affordable price- allows embryos, semen and other tissues. the user to keep it at home.

the future to fight certain diseases of and selection are added. genetic root or other that the person can get over their lifetime. This device

them only available to few.

should be available to everyone. accessible from this device. Thus, the process costs are drastically reduced, and it ensures that preserved At present there is no any appliance cryo cells or tissues are then to be used in the market with these features and -if necessary- for the end user and his/ it constitutes undoubtedly a small her family who guards it in their own revolution in devices within the context cryo preservation unit.

Our products help to solve the difficulties We know that both the use of stem cells, at this time to promote the safety and and other tissues will be very important proper preservation of genetic materials to fight a lot of serious illnesses. And it is including tissues that are cryopreserved. equally true for the increasing demand In the most simplified version of this in connection with assisted fertilization device it is in practice a small appliance, related to the preservation of ovules,

Such preservation is not reserved only The device is a FGK (family genetic to humans, but has a relevant weight kit) that allows to have an effective in the animal kingdom, where the same cryopreserved remedy for doctors in techniques are practiced of breeding

The FGK genenetic kit is a technological may, therefore, imply a small practical device including the production of revolution within the context of health. liquid nitrogen, to have its own builtin generator. Thus, the device does Today it is posible to preserve stem cells not need to constantly replenish this and other tissues in certain institutions, essential element for cryopreservation – even though the process costs are very except in the event of an emergency- and high, along with the difficulties and the it is fully autonomous. It incorporates practical accessibility limitations make a system of constant synchronization of all maintenance, which allows us to visualize these in real time, anytime, GlBiomed vision is that this device anywhere, through an ad hoc app

of preventive health and medicine.

Main features of FGK

| VERSATILE | Allows to Cryopreserve newborn stem cells from umbilical cord. as well as other samples from | RELIABLE | adults including sperm, ovules or other genetic material or tissue Availability of an auxiliary system: if capable of being cryopreserved. it runs out of power supply, samples Each one duly labeled. can be perfectly maintained for a predetermined time depending on model (size of cryostat, Security Apps, etc) | COMFORTABLE | Designed to be as easy as a small I AUTONOMOUS I appliance in which we can store the genetic materials or other It incorporates a liquid nitrogen tissues of our family. generator that produces at all times the necessary amount of this element for cryopreservation. | LIFE "INSURANCE" | | PORTABLE| The use of stem cells greatly increases the chances of every The lightness of the capsule person (and his family) to and the existence of an overcome hundreds of diseases, auxiliary system that keeps some already curable and others the cryopreservation without currently under investigation. connection to the power grid, Storage of sperm and ovules allows transport safely and also allows us to having our own children in the future.