

# A distinguished service for a unique child



 Accredited



 tak.eie

ΤΡΑΠΕΖΑ ΑΡΧΕΓΟΝΩΝ ΚΥΤΤΑΡΩΝ  
ΕΘΝΙΚΟ ΙΔΡΥΜΑ ΕΡΕΥΝΩΝ

A precious  
**gift welcomes**  
its arrival  
**to our world**



Your child that is expected to come in this world is a unique and distinguished human being. Different from any other living individual and from anybody that has ever lived or will live in the future on this planet. It will be capable to do deeds and live a life nobody has lived before, because it is unique, like everybody. However the unique nature of that precious organism, makes it hard to find “spare parts” if these are needed to preserve health and quality of life.

Mother Nature has foreseen how to overcome that drawback; indeed, every child comes in the life with a bag of spare parts. Cells that can be stored upon birth, and be used during its life for the replacement of damaged cells and possibly organs. This fact was until recently unknown, and these unique and precious cells were left to be destroyed. Another option was till recently to donate these cells to be used for another person, however everyone is unique...

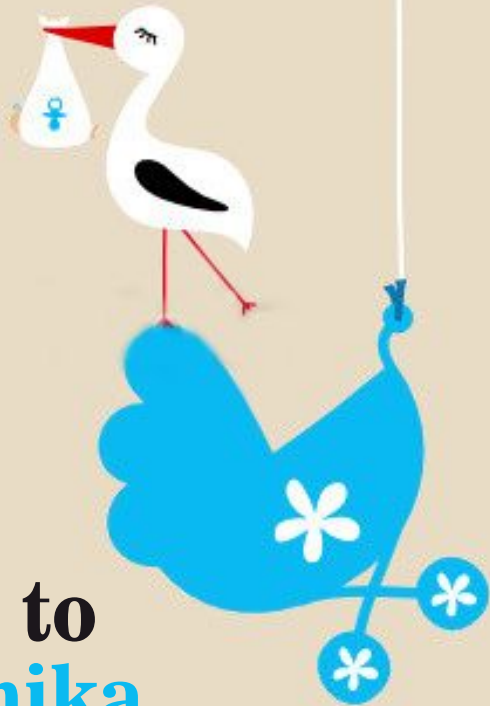
Today we know that these autologous (of the same person) cells, collected upon birth, represent the best and most valuable therapeutic material for regenerative cellular therapies, a field of medicine constantly growing, with everyday emerging new applications in all medical specialties. We know that autologous cells

collected upon birth, untouched by aging, represent the best available material for these applications.

Because, today we know that stem cells age and that stem cells aging is one of the main reasons of human aging. Based on that knowledge, the demand for storage of stem cells upon birth is constantly increasing.

Today's question for the prudent prospective parents is not if they will or not collect the stem cells upon birth but how to choose the best services for their child's future.





# Welcome to Biohellenika

Biohellenika, a medically oriented stem cells company, has successfully released cryopreserved stem cells from the umbilical cord blood for autologous therapies all over the world and supports clinical trials in collaboration with qualified specialists and medical groups.

Biohellenika is one of the few companies in Europe that has the international accreditation AABB (American Association of Blood Banks), which enables the family to use stem cells in any hospital worldwide.

Biohellenika, the exclusive partner of the National Research Foundation in the field of cryopreservation of stem cells, was founded, organized and operates under the guidance of academic medical doctors and the strictest European and international standards. Today Biohellenika is the first choice of parents who want to cryopreserve their child's stem cells, presents steady growth in number of samples and is classified among the largest stem cells banks in Europe.



### **What are** stem cells?

Stem cells are primitive cells that under appropriate conditions can turn into any cell type of the body. Umbilical cord blood and placenta contain the largest amount of healthy and young stem cells with better histocompatibility between family members and greater regenerative capacity because of their young age. The ability to collect this valuable biological material is given once and unique time in our lives, the time of birth.

### **What are** the applications of stem cells today?

Today stem cells from the umbilical cord blood are used to treat malignant and autoimmune diseases and in clinical trials for the treatment of cerebral palsy, autism and juvenile diabetes in hospitals worldwide.

Heart failure and ischemic cardiomyopathy, pulmonary fibrosis, emphysema, strokes, complicated fractures, peripheral arterial occlusion, multiple sclerosis, burns, ulcers and scars also can be treated by stem cells. Stem cells are used in plastic and aesthetic surgery and in creation of small organs. In the latter case, has announced the creation of heart valves, urinary bladder, trachea and jaw, while in preclinical studies are used to regenerate liver and kidney in acute conditions or in gene therapies in cases of hereditary diseases.

# Caring for you, like family

## BIOHELLENIKA, TAK EIE, ASSURES THE CONTINUATION OF STORAGE OF YOUR CHILD'S PRECIOUS CELLS IN ANY CASE

Biohellenika - TAK EIE, is a partner of the National Hellenic Research Foundation (NHRF). NHRF, based on the founding contract of the company, will continue the storage of cells in any case. NHRF will continue to exist as long as the Greek state will continue to exist.

## BIOHELLENIKA - TAKEIE STORES THE CELLS OF YOUR CHILD AS A UNIQUE AND IRREPLACABLE THERAPEUTIC MATERIAL

- **In two separate cities.** The cells are stored in our accredited laboratories in Thessaloniki and in the premises of NHRF in Athens.
- **In multiple sections.** Biohellenika stores 5 sections and multiple quality control segments.
- Biohellenika stores in its unique **ISO 13485** accredited and patented medical device that assures constant cryogenic storage for unlimited time.
- **Viability** of stem cells higher than the international average rate.

## FOR THE BENEFIT OF YOUR CHILD, BIOHELLENIKA HAS ACHIEVED A UNIQUE COMBINATION OF ACCREDITATIONS AND CERTIFICATIONS, NO OTHER COMPANY CAN COMPARE WITH

- International Accreditation by the AABB (American Association of Blood Banks)
- Quality control procedures accredited by ISO 15189
- Clean Rooms certified according to ISO 14644
- Quality management system certified according to ISO 9001
- ISO 13485 accredited storage system
- Security levels meet all the standards ISO 27001
- The company is licensed and regulated by the Data Protection Authority
- Two modern and well - equipped laboratories in Thessaloniki and Athens, which operate according to the standards published in 3984 Act, 27 June 2011, Official Gazette 150 for the cord blood banks operation

## SUPPORT OF CELLULAR THERAPIES

- Biohellenika has already successfully released, stored cord blood units to European and USA Hospitals.
- Biohellenika has the experience of more than **400** successfully released autologous therapeutic mesenchymal stem cell units.

## CONTINUOUS DEVOTION TO MEDICAL SCIENCE

- Publications in international Scientific and Medical Journals
- Awards in Scientific and Medical meetings
- Scientific collaboration with prominent Research Institutes and Universities
- Support of Clinical Trials using autologous stem cells.

## A VARIETY OF SERVICES FOR YOUR FAMILY ONLY BIOHELLENIKA CAN COMBINE

- Cord blood stem cells by umbilical vein puncturing
- Additional cells by placenta straining
- Additional cells from the Wharton Jelly
- Stem cells from the deciduous teeth
- Stem cells from the adipose tissue
- Stem cells from the bone marrow
- Skin fibroblasts
- Cartilage chondrocytes

## HIGH QUALITY AT AFFORDABLE PRICES

- 20 Years special programs with favorable repayment terms.
- All financial settlements start after the quality tests and medical results.
- Small number stem cells samples are stored free of charge.

## EVIDENCE BASED ADVICE IN CASE REGENERATIVE MEDICINE OR CELLULAR THERAPY IS NEEDED

The scientific Board of Biohellenika consisting of Professors of the Medical School of the Aristotle University and Scientists of NHRF, will be near you providing scientific evidence and any available information in any case cell therapy may be needed for your family.





**Autologous  
Therapeutic  
Treatments  
Supported  
by Biohellenika**



## **Biohellenika an internationally accredited company by AABB**

American Association of Blood Banks ensures compliance with the stricter treatment standards and cryopreservation. The high quality of Biohellenika services has proved in practice by successful transplantation of cord blood stem cells, two of which took place in the Hematology Department of Duke University in the U.S. The viability of the stem cells of samples processed by Biohellenika after thawing was much higher (96%) of the generally accepted average (80%), indicating the Biohellenika is between the most respective laboratories in the world. Moreover Biohellenika has released more than 400 samples of stem cells for autologous cell therapies up today.

In recent years Biohellenika in cooperation with selected scientific groups is involved in clinical trials for the cerebral palsy and autism treatment and also to improve the cardiac function in cases of myocardial infarction or ischemic cardiomyopathy. Even the scientific work has contributed to the effective management of chronic obstructive pulmonary disease and idiopathic pulmonary fibrosis, while the selective treatment of osteoarthritis, degenerative or traumatic, by using adipose stem cells, chondrocytes or blood products has improved the quality of life in many patients and reduces the

operations in only completely necessary numbers.

Alongside Biohellenika, has developed tailor-made personalized products for Cosmetic Medicine for the prevention of skin aging.

All these treatments are performed with autologous stem cells, are safe, cost low and have minimally burdensome for the patient.

## **Innovative projects that are supported by the General Secretariat for Research and Technology and other research grants:**

1. Development of new strategies for myocardial regeneration.
2. Nanotechnology for cartilage regeneration for combating osteoarthritis.
3. Antioxidant and anti-aging products from stem cells.
4. Genetic modification of adipose tissue mesenchymal stem cells for combating cancer. The use of "sleeping beauty" Transposon for developing of human cell lines capable of producing therapeutic proteins.
5. Burns, wound healing, supported by Biohellenika
6. Use of stem cell for the treatment of Idiopathic Pulmonary Fibrosis

Biohellenika will exploit these results in Greece and abroad, offering better quality of cellular therapies at affordable cost.

# 6 steps to follow



## **1. Scientific information to the parents**

The scientific staff of Biohellenika is at your disposal for a detailed and direct contact. One phone call to **213130063**, will solve all your queries and you will get analytical information about our services.

## **2. Collection kit**

Following the strictest international standards (IATA UN3373 Biological Substance Category B), to guarantee the best conditions of transport and the quality of the sample, the collection kit will be send to your home address without any charge or you can pick it up during your visit to our offices. The isothermal packaging provides the transport of biological material with continuous recording of temperature.

## **3. Strict Quality Control**

Quality control is carried out by qualified personnel, based on published protocols developed by Biohellenika. The percentages of viability and recovery of cryopreserved stem cells in Biohellenika laboratories after thawing is over 95%, as assessed by accredited laboratories abroad in which samples that were proceeded to Biohellenika, have been used.

## **4. Medical report**

The laboratory quality tests last a week. Then parents are informed about the results and a medical report is written and signed by the laboratory director.

## **5. Private agreement**

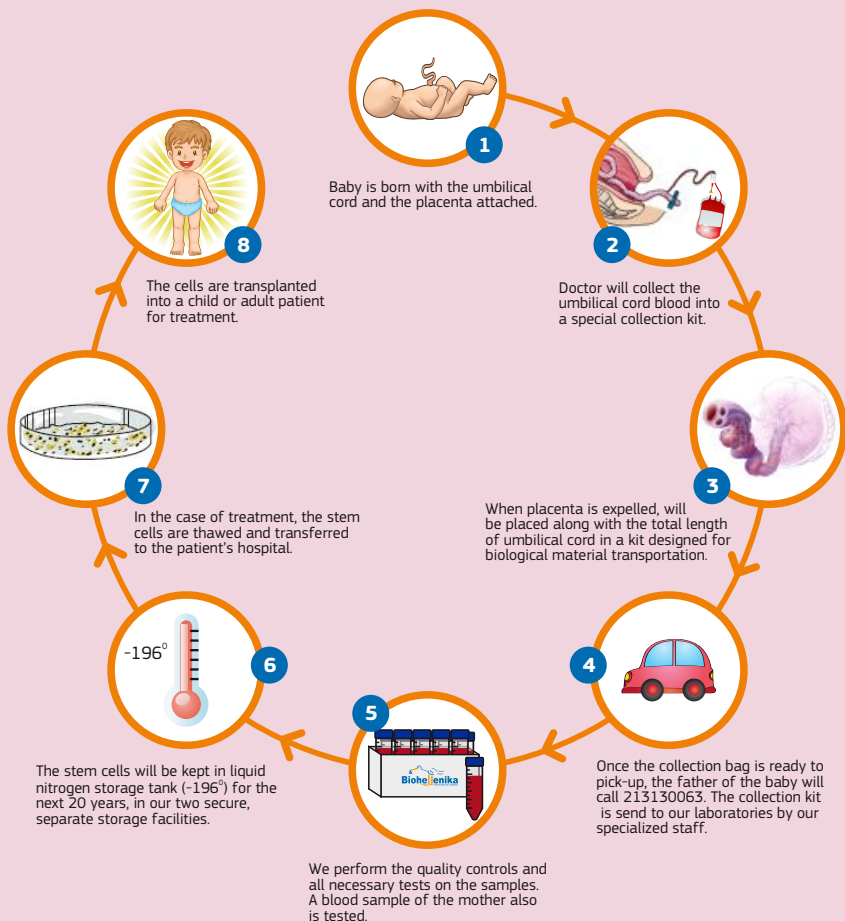
The private contract of Biohellenika is the guarantee for the continuous 20-year storage of stem cells, with unique premium benefits of Biohellenika to the family. Also, you are given free medical consultation throughout the course of the contract.

## **6. Financial Settlements**

Financial settlements start after the quality tests. The total cost for the 20-years storage of stem cells from the umbilical cord blood is 1.600 euro. Contact with the specialized staff of Biohellenika to explain you all the alternative ways of payments.

## **The Best Choice for Your Child's Future**

# Stem Cells Collection


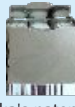
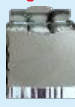




# 5 features you should prefer Biohellenika, with proof



## Word-class new services

Additional stem cells from placenta and the total length of the umbilical cord offer unique benefits to the child and its family

	Other Companies Services	Biohellenika Services	Importance
Total Number of Available Stem cells from Umbilical Cord Blood	<p>Stem cells for ONE therapeutic application only for hematopoietic diseases</p> 	<p>Stem cells for MULTIPLE therapeutic applications according to patient's need for hematopoietic, autoimmune diseases and regenerative medicine</p>  <p>Biohellenika's patent 1007483 for the certified storage system according to ISO 13485</p>	Graft of stem cells for multiple applications for a wide range of diseases
Total Number of Available Stem cells from Placenta Drainage	<p>Not available service</p>	<p>Additional amount of stem cells for MULTIPLE therapeutic applications according to patient's need for hematopoietic, autoimmune diseases and regenerative medicine</p> 	Second graft of stem cells – sufficient quantity for the hematopoietic treatment of a patient 100 kilos in average
Total Number of Available Mesenchymal Cells	<p>Cryopreservation of intact umbilical cord segments</p>  <p><b>15cm of Umbilical Cord</b></p> <ol style="list-style-type: none"> <li>1. Cryopreservation Certificate</li> <li>2. 6 weeks notice for the delivery of the cells from segments</li> <li>3. Unknown number of mesenchymal cells after thawing</li> <li>4. Cellular proliferation is mandatory</li> <li>5. Cellular proliferation is an extra cost for the patient</li> <li>6. Cellular proliferation alters the quality of the cells</li> </ol>	<p>MORE THAN ONE application of ready to use mesenchymal stem cells according to patient's needs</p>  <p><b>Total Length of Umbilical Cord (≈50cm)</b></p> <ol style="list-style-type: none"> <li>1. Cryopreservation Certificate with the exact number of cryopreserved cells</li> <li>2. Cells ready to use for therapeutic application (1 hour)</li> <li>3. The number of the isolated cells is known</li> <li>4. Sufficient amount of cells without proliferation</li> <li>5. No cost for cell proliferation</li> <li>6. Cells retain their original quality</li> </ol>	Maximum number of ready to use mesenchymal cells with certified viability



## Strict safety rules

Biohellenika ensures the safe storage and transfer of the samples

**Clean Rooms:** Surveillance of the clean room air quality 24 hours 7 days per week, by computer and alarm system.

**ISO 15189:** Accredited quality tests by ESYD

**AABB:** Processes and banking conditions accredited by the American Association of Blood Banks

**Cryo-view Database System:** Record and monitor the liquid nitrogen levels in the storage containers and in case of deviation the Board of Directors and Quality Manager are instantly informed.

**ISBT 128 barcoding system** ensures the traceability of the samples.

**Temperature – Liquid N2 level Security Alarm** connects each tank to a telephone center to automatically call the members of the Board of directors and the Quality Manager in case of deviation.

**Cryo-bank Access-Control Alarm:** Unique security password for authorized personnel to enter the laboratories.

**Fingerprint Access-Control System:** Only authorized personnel have access to laboratories.

**Network IP Security Camera System:** Secure video surveillance accessible 24 hours 7 days per week by the security company.

**Biohellenika Access-Control Alarm** informs the security company 24 hours 7 days per week.

**Extensive Fire-Alarm System:** When activated, a signal is instantly sent to the Fire Brigade and the extinguishing system automatically activated.

**Oxygen / Nitrogen Level Detection Alarm System:** In the case of oxygen/nitrogen ratio into the storage room is changed, the ventilation system is automatically activated. Alarm sounds and security alarms activated.

**Power Supply:** Two generators assure continuous full power system operation.

**IATA Regulations:** Samples are triple packaged according to IATA Regulations for Biological substance, Category B biological materials, Packing Instruction 650.



## Cryopreservation of superior quality stem cells grafts

Biohellenika's services are **superior** compared to others

**Speed** Less than 12 hours average transport time from hospital to our laboratories

**Viability** • Up to 98% stem cells recovery of the original sample after processing

- 95% viability after thawing, fact that is over the international average rate

**Protocols** Published in international medical journals or patented verify the long-term cryopreservation of stem cells

**Traceability** Barcode system according to ISBT 128 international specifications



## Use of advanced technology to process stem cells with high yields

Evidence-based advanced technology

Step by step watching and measurements, for the full recovery of the stem cells that are contained in the initial cord blood collection. The stem cells are counted in the initial collection, up on the arrival to the lab and after processing. Closed system for stem cells processing and cryopreservation in more than one parts. This system permits multiple uses up on the need and ensures long term cryopreservation, high viability and safe storage in more than one places.

**Real Time PCR:** We test both mother's and child's blood with the most advanced virus detection method, thus it is not needed to retest mother's blood six months after birth.

**BactAlert:** Closed system for aerobic and anaerobic bacteria detection with no possibility of contamination.

**Bactec:** Closed system for microbiologic control with no possibility of contamination.

**Vitec Biomerieux:** Microbial contamination identification and susceptibility to antibiotics testing. The service ensures the quality and the safety of the samples.



## we asked our clients and they said YES!!!

**95%** were **very satisfied** by Biohellenika service

**97%** rated **high** the quality of the customer care service

**93%** trusts Biohellenika's international **accreditations** and **certifications**

**100%** recommend **Biohellenika** for stem cells bank

Source: Qualitative National Research to 1.000 clients, December 2012.

# Stem Cells Packages

Benefits	Baby Bio Simple	Baby Bio Start	Baby Bio Basic	Baby Bio Premium	Baby Bio Luxury	Stem cells banks within Hospitals	Stem cells banks Abroad	Greek stem cells banks	Stem cells Donation
TAK EIE guarantee	●	●	●	●	●	X	X	X	X
Storage into 2 separate laboratories	X	●	●	●	●	X	X	X	X
International Accreditation AABB	●	●	●	●	●	X	X	X	X
National Accreditation ESYD	●	●	●	●	●	X	X	X	X
More than 400 cellular therapies	●	●	●	●	●	X	X	X	X
15 cm umbilical cord in pieces	●	●	●	X	X	●	●	X	X
50 cm umbilical cord	X	X	X	●	●	X	X	X	X
Placenta	X	X		X	●	X	X	X	X
50.000 euro insurance for 20 years	X	●	●	●	●	X	X	X	X
Less than 6 hours average transport time from hospital to laboratories	●	●	●	●	●	●	X	X	X
Monthly Installments	up to 36 installments	up to 36 installments	up to 36 installments	up to 36 installments	up to 36 installments	up to 12 installments	up to 12 installments	up to 3 installments	X
Cost	900 euro	1.350 euro	1.600 euro	1.600 euro	1.900 euro	800 euro	800 euro	1.500 euro	up to 30.000 euro to release the graft

## GREECE

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