



الهم صل على بن موسى الرضا المرتضى



# The Role of Royan in Health Tourism

**M.ZARRABI MD**

Managing Director Of Royan Stem Cell Technology Co.

*In Memory of*



**DR. SAEED KAZEMI ASHTIANI**  
**FOUNDER OF ROYAN RESEARCH INSTITUTE**

## ✘ Introduce:

- ✘ Established in 1991
- ✘ the treatment of infertility
- ✘ High level research in the areas of reproductive Biomedicine, Stem Cells and Cloning



## Strategy

- ✘ • **Mission:** The mission of this institute is to achieve its goals by putting basic and clinical research together and along with international collaboration.
- ✘ • **Goals:** Increasing the success rate of infertility treatments along with embryo health. Putting stem cells research findings into operation in cell therapy and disease treatment to increase the level of health.

## Distinctions

- ✘ The first **ICSI** child was born in (1995)
- ✘ The first **PGD** child was born in (2004)
- ✘ The first **cloned sheep** was born in (2006)
- ✘ Establishment of the first **Cord Blood Bank** in Iran (2008)
- ✘ Establishment of mouse and human induced pluripotent stem cells (iPS) (2008)
- ✘ **Transplantation of melanocytes** for patient with Vitiligo (2008)

## Services

- × • **Reproductive Biomedicine Department:**  
Gynecology and Endocrinology (**IUI, IVF, ICSI**, etc.), Andrology, Embryology (IVF, Microinjection, Hatching Laser), Reproductive Genetics (PGD), Reproductive Imaging, Epidemiology and Reproductive Health.
- × • **Stem Cell Biology and Technology Department:**  
Stem Cells and Developmental Biology, Molecular Systems Biology, Regenerative Medicine.
- × • **Animal Biotechnology Department:**  
Reproduction and Development, Molecular Biotechnology, Cell and Molecular Biology.



## **Infertility Clinic**

**An estimated about 10-15% of couples suffer from infertility, and can not conceive a child on their own. Royan Infertility Clinic is nationally and internationally recognized for its advanced reproductive treatments and consistently superior birthrate success.**

**As a result of the center expert interventions and exceptional group of physicians , infertility specialists , and clinical and laboratory experts , several thousands babies have been born to happy parents across the Iran and around the world.**

# **Royan Facilities For Foreign Patients**

**The number of patients entering Royan Institute during the last five years have increased up to **1500**.**

**They come from Iraq, Saudi Arabia, Lebanon, Azerbaijan, Oman, Indonesia, Russia, Pakistan, Emirate , Tajikistan , Kumar and Tanzania.**

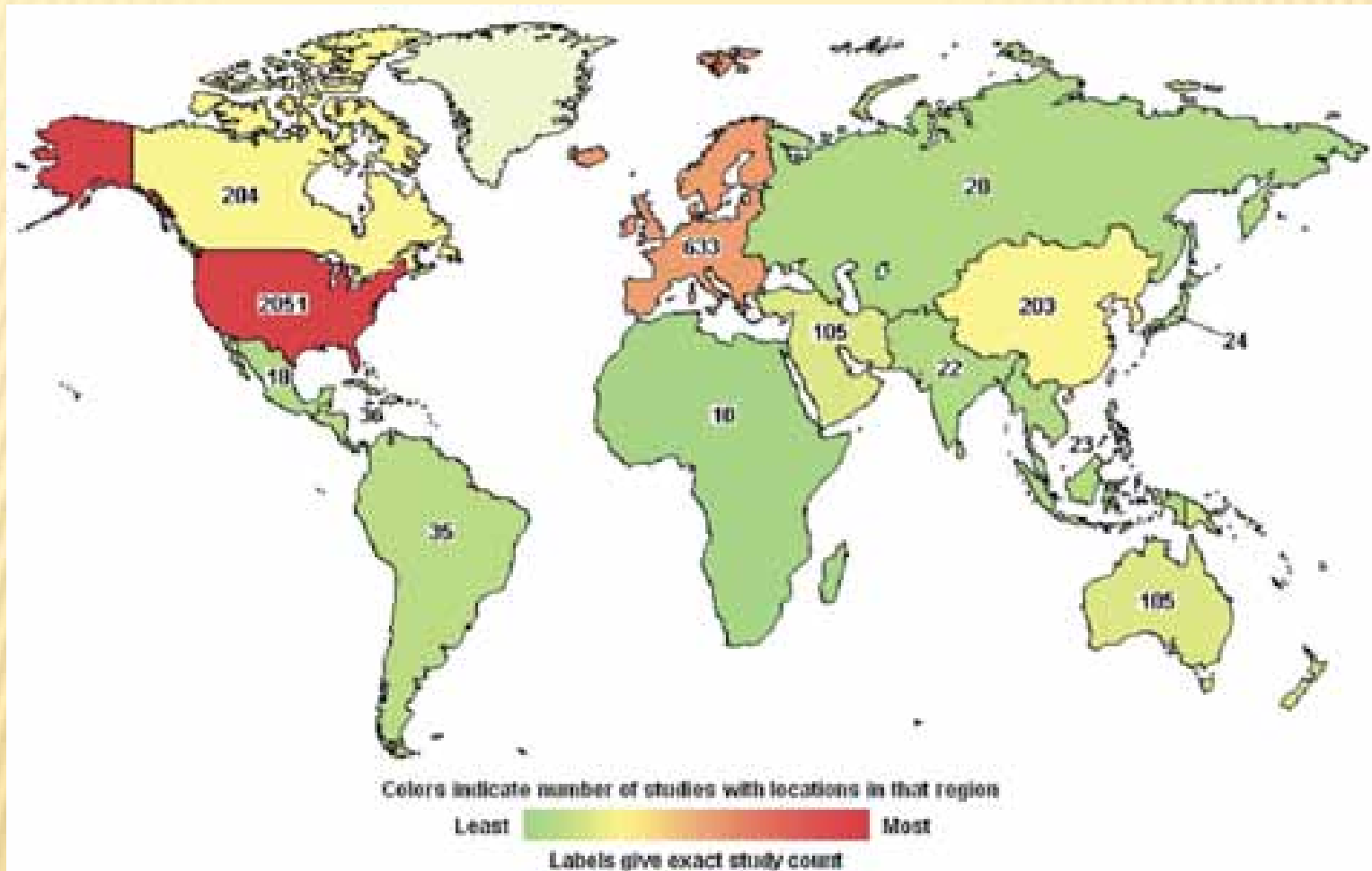
- ✘ **In addition, a lot of Iranian patients (about 30 cases every year) living in other countries (such as United States, Uzbekistan, Canada, India, Switzerland, Ukraine, United kingdom, Kuwait, Emirate, Turkey, France, Germany, Azerbaijan, Russia, Greece and etc) had commenced their treatments in this institute.**

**Royan Treatment Facilities to achieve best services and satisfactions**

- × **Lower cost** as well as **high success rate** in comparison with the United States and European countries could be valuable reasons for our foreign patients to select Royan institute for treatment.

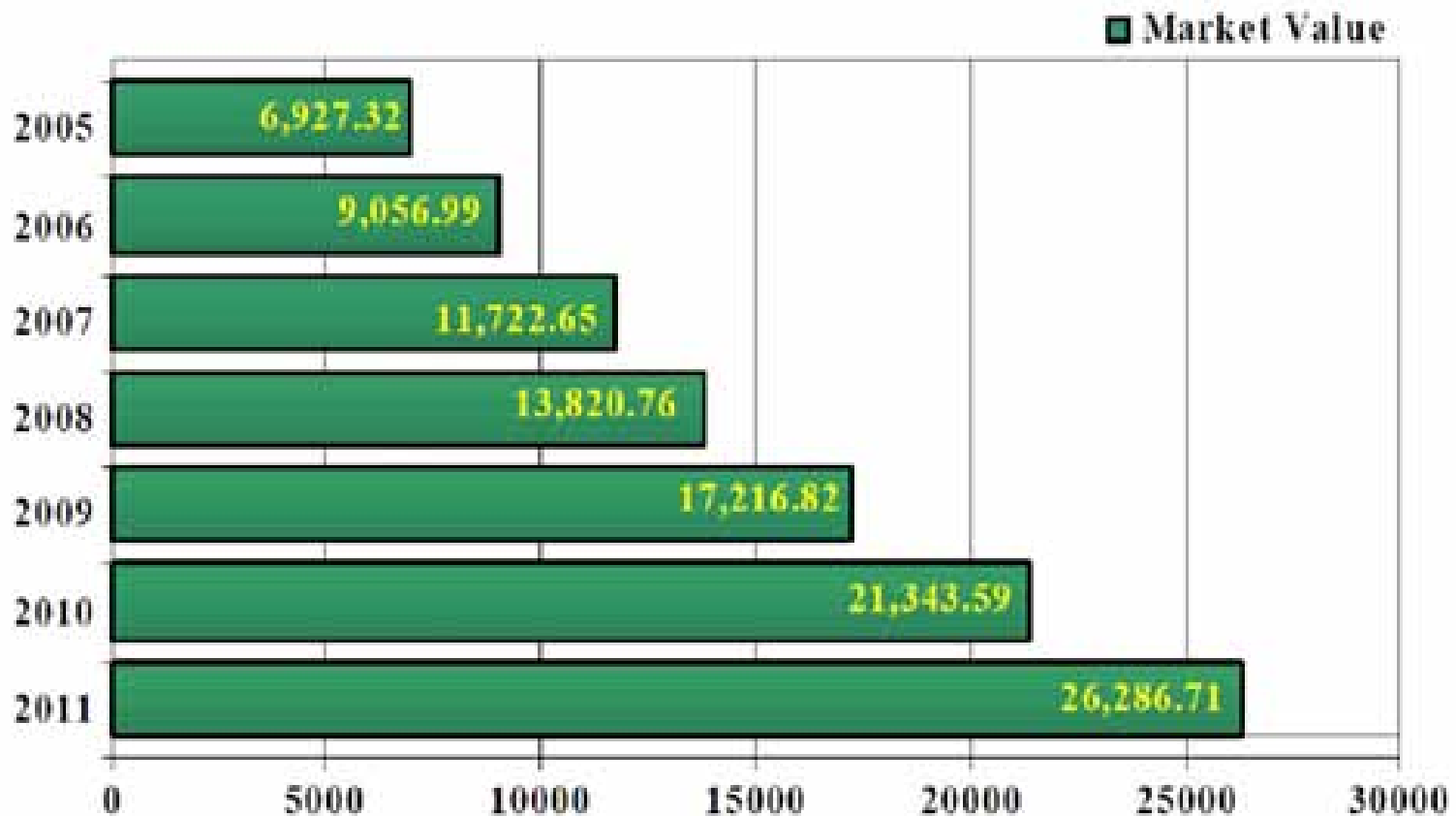
- × **Spread out** all treatment process : diagnosis and sometimes start of treatment done via internet so they need the least time to stay here.

# Worldwide Experimental Trials of Stem Cell-Based Therapies



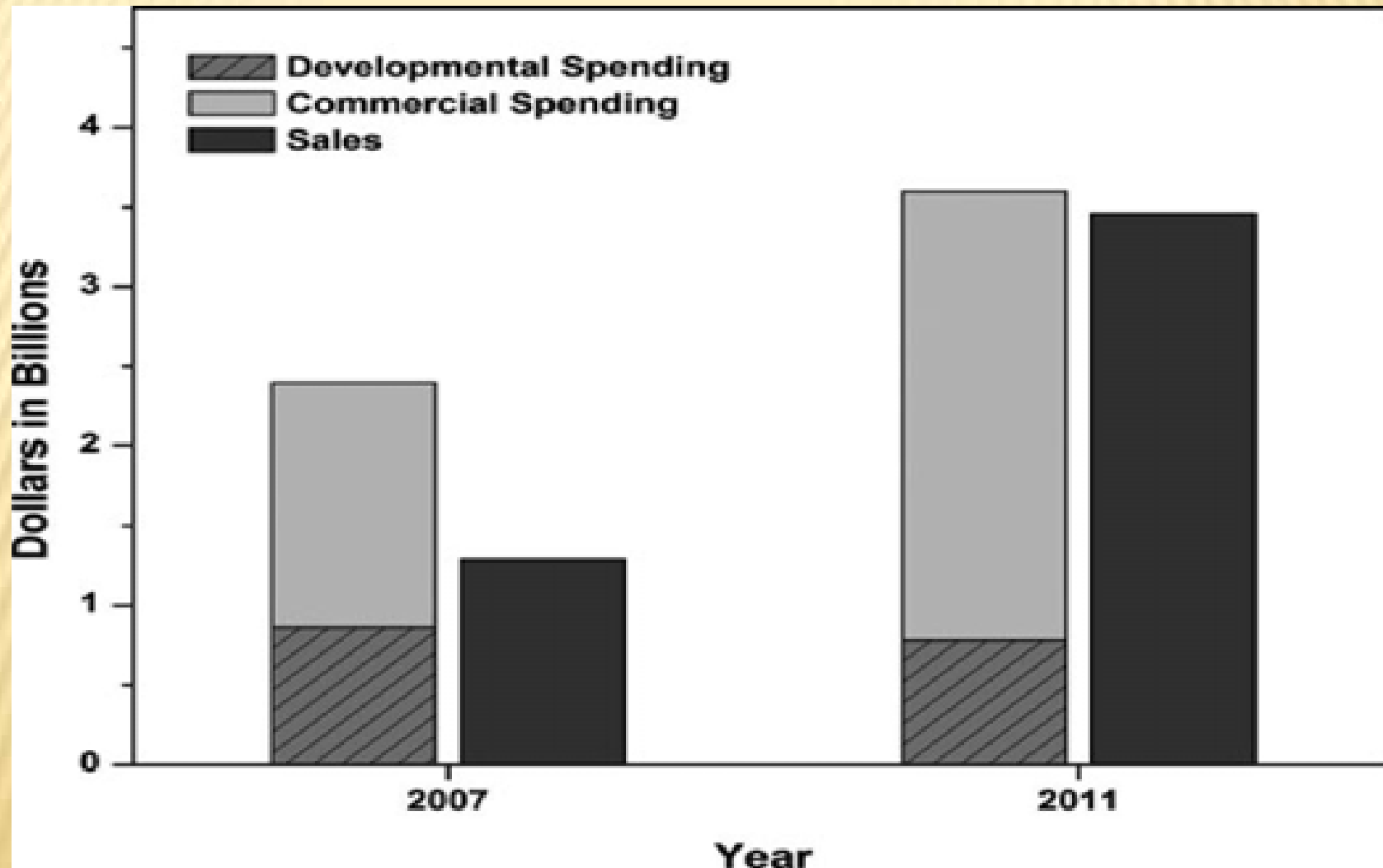
World map showing locations of open, closed, and pending clinical trials of stem cell-based interventions as listed on [clinicaltrials.gov](http://clinicaltrials.gov). The relative numbers of trials performed outside of the U.S. may indeed be markedly understated because of reporting bias at the U.S. government clinical trials website.

# STEM CELL GLOBAL MARKET

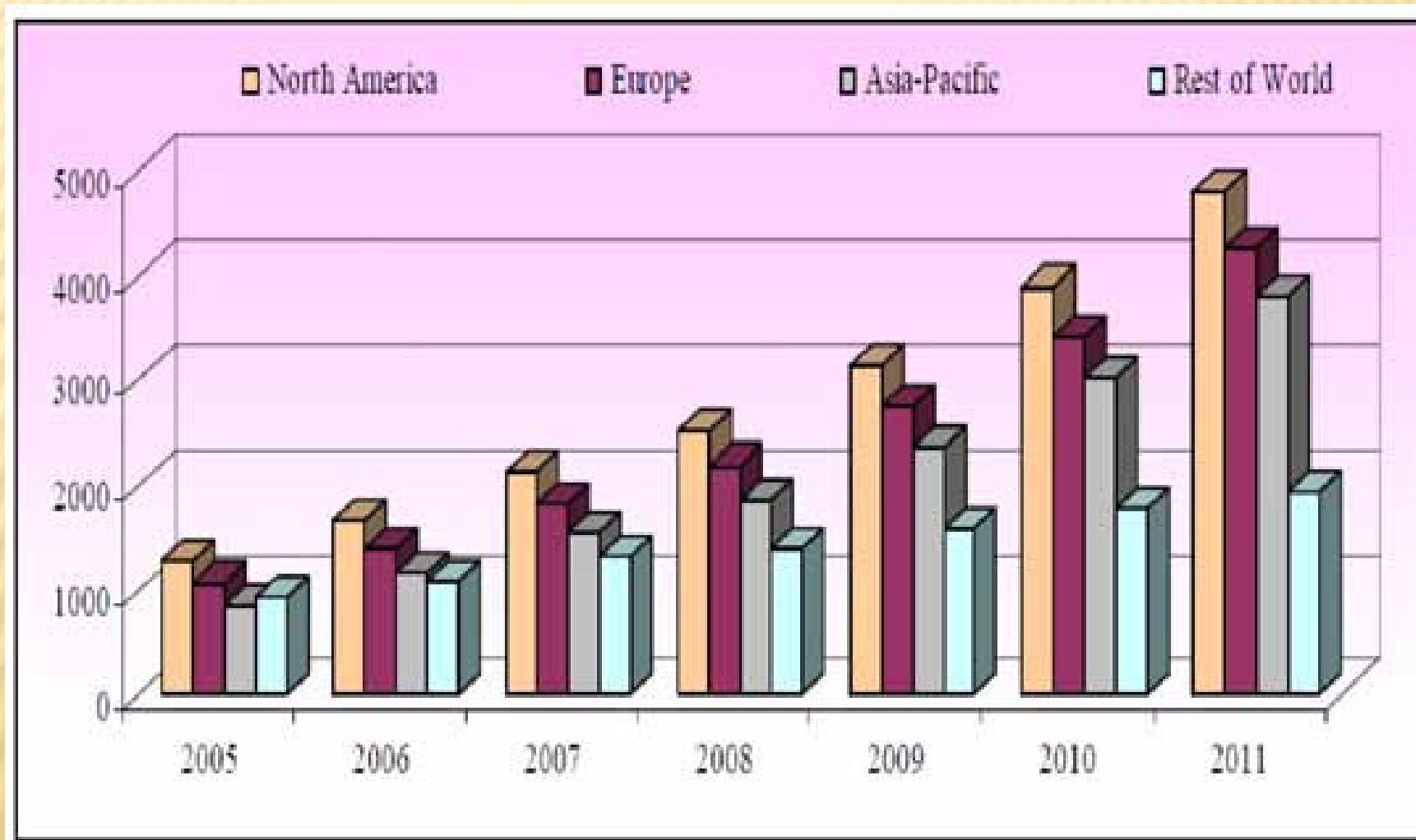




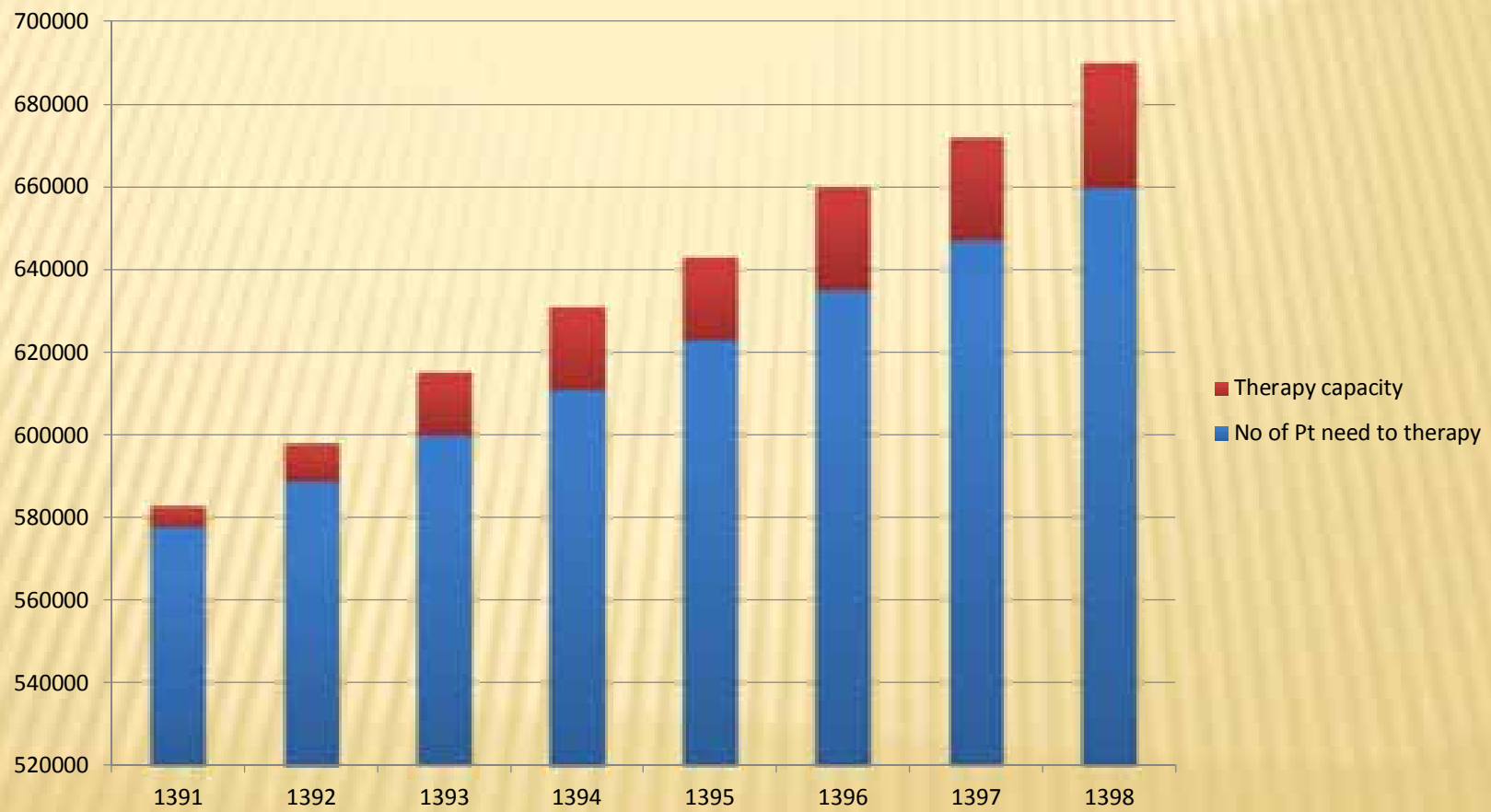
## SPENDING AND SALES (BLACK) IN BILLIONS FOR TISSUE ENGINEERING AND STEM CELL THERAPEUTICS FOR 2007 AND 2011



# STEM CELL REGIONAL MARKET



# MARKET CAPACITY



# OUR FUTURE

## Royan Cell Therapy Hospital



# x Cord blood banking

- ✘ Each year thousands of people are diagnosed with life-threatening diseases that can be treated by rebuilding the patient's hematopoietic (blood cell producing) system with transplanted blood-forming cells

# ***What is cord blood?***

It is a rich source of young **hematopoietic stem cells**, which can be used in medical treatments for a range of conditions, including **blood disorders, immune diseases, and certain cancers, such as leukemia** .

× **Cord blood banking** refers to the **collection** and **preservation** of umbilical cord blood and placenta for **private** and **public** use.



## *Cord blood banking*

is a procedure in which the umbilical cord blood after birth is

- Collected
- Shipped
- Processed
- Frozen
- Stored (in private or public banks)
- Released for future medical use.

## **Public** cord blood banks

The first public banking on unrelated UCBB was started in New York in 1993.

## **Private** cord blood banks

- ✘ The first private banking began 15 years ago. For autologous or related allogeneic transplantation

More than 780,000 cord blood units are stored in over **130 private cord blood banks** worldwide and over 400,000 units in more than **100 public cord blood banks.**

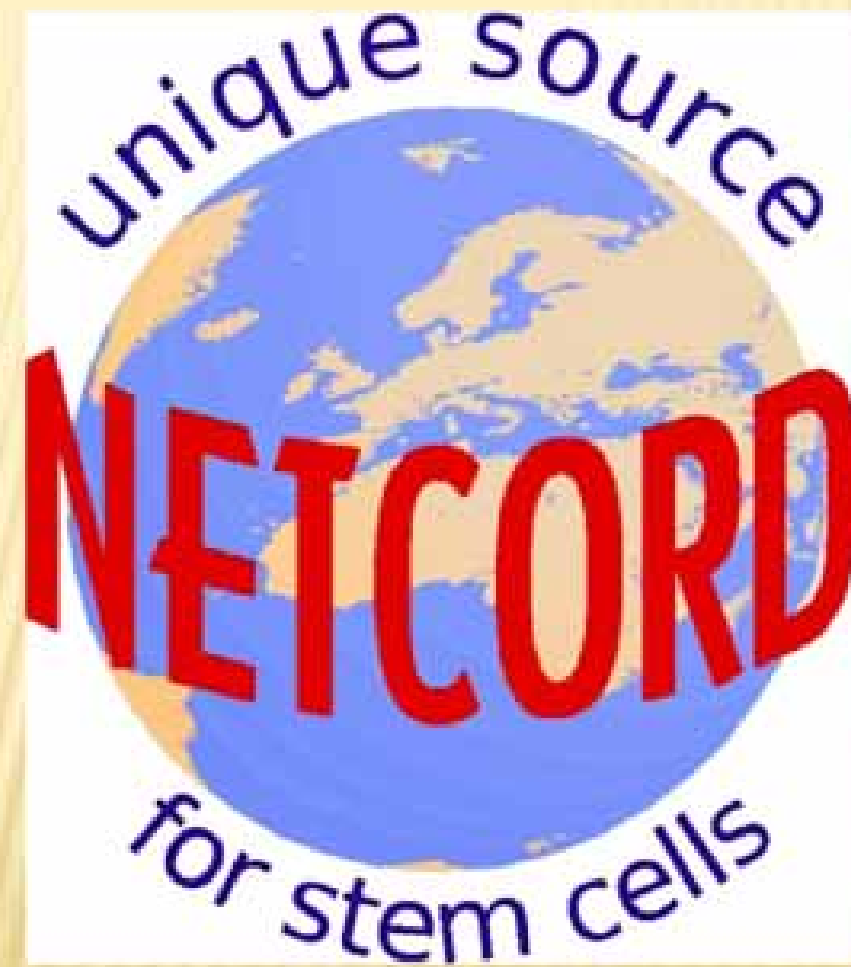
More than **25000** allogeneic cord blood transplantations have been performed worldwide since the first cord blood transplantation in **1988**.



**ROYAN** INSTITUTE

Reproductive Medicine & Stem Cell

Established in 1991



- × **NETCORD** Foundation was established in **1998** with the aim to promote the use of umbilical cord blood (UCB) for allogeneic stem cell transplantation

## ***Cord blood bank in Iran***

### **Public cord blood bank**

- × (Royan-Shariati Hos.-Blood Transfusion org.)

**7,000 samples**

### **Private cord blood bank**

- × (Royan stem cell tech co.)

**40,000 samples**

- ✘ The first foreign branch was held in **IRAQ ,ERBIL**





## دفاقر نمايندگي بانک خون بند ناف روپان

- × خراسان رضوي × اصفهان
- × مازندران × گيلان
- × اردبيل × يزد
- × آذربايجان شرقي × همدان
- × آذربايجان غربي × کرمانشاه
- × خوزستان × ايلام
- × مرکزي × کرمان
- × کردستان × فارس
- × زنجان × لرستان
- × البرز × سمنان
- × قزوین × اقلی هم کردستان
- × عراق - اربیل







# CLEAN ROOM



# MICROBIOLOGY LAB



# HLA LAB



# PROCESSING LAB







*Thank You For Your  
Attention*