

Human New Genetics

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Human New Genetics

derives from the use of
Genetic Engineering tools

(Gene Cloning, Gene Transfer,
And Genomics)

>> Tasks

- Localization of Disease Genes
- Determination of Molecular Pathology
- Developing of Molecular Strategies for :
 Prognosis
 Diagnosis
 Therapy

>> Means

- Mutation Detection for :
Prenatal Diagnosis
Postnatal Diagnosis
- Gene Transfer for : Gene Therapy

1st Major Scope :

Prevention

The Greek Paradigm :

The National Program for the
Molecular Diagnosis of β -Thalassaemia

A Successful Story

1st Major Scope :

The *Prevention* of β -Thalassaemia

>> The Role of :

the Academia

the State

the Media

the Church

In the development and the
implementation of the Program

>> The Role of :

→ the Academia

- 1. Technology transfer and development**
- 2. Actions towards the Government**

>> The Role of :

→ the State

1. Development of Infrastructure for

> Heterozygote detection

> Prevention

2. School Education

>> The Role of :

→ the Media

- **Organizing Discussions, Interviews ect**
- **Actively promoting information on**
 - 1. State actions**
 - 2. Reports of Learned Bodies**

>> The Role of :

→ the Church

**Cooperation with state authorities on
Wedding papers**

**>> The Effect of the Program
on the activities of :**

Parent and Patient associations

- 1. Organization of Meetings of Experts**
- 2. Funding research (small scale)**
- 3. Facilitation of Clinical Functions**
- 4. Free Entrance to Higher Education**

**>> The Effect of the Program
on the activities of :**

**The Thalassaemia International Federation
(TIF)**

- 1. Creation of International network**
- 2. Dissemination of Information**
- 3. Support for Clinical Functions**
- 4. Support for Education and Research**

2nd Major Scope :

The *Treatment* of β -Thalassaemia

Bone Marrow Transplantations

Gene Therapy for β -Thalassaemia

Gene Therapy for β -Thalassaemia

The Scientific issue
(International)

1. Availability and suitability of Transfer Systems
2. Complex regulation of β -gene expression

Gene Therapy for β -Thalassaemia

The Moral issue

More acceptable than Prenatal diagnosis

Gene Therapy for β -Thalassaemia

The Medical Care issue

- 1. Unknown requirements**
- 2. Lack of expert personnel**

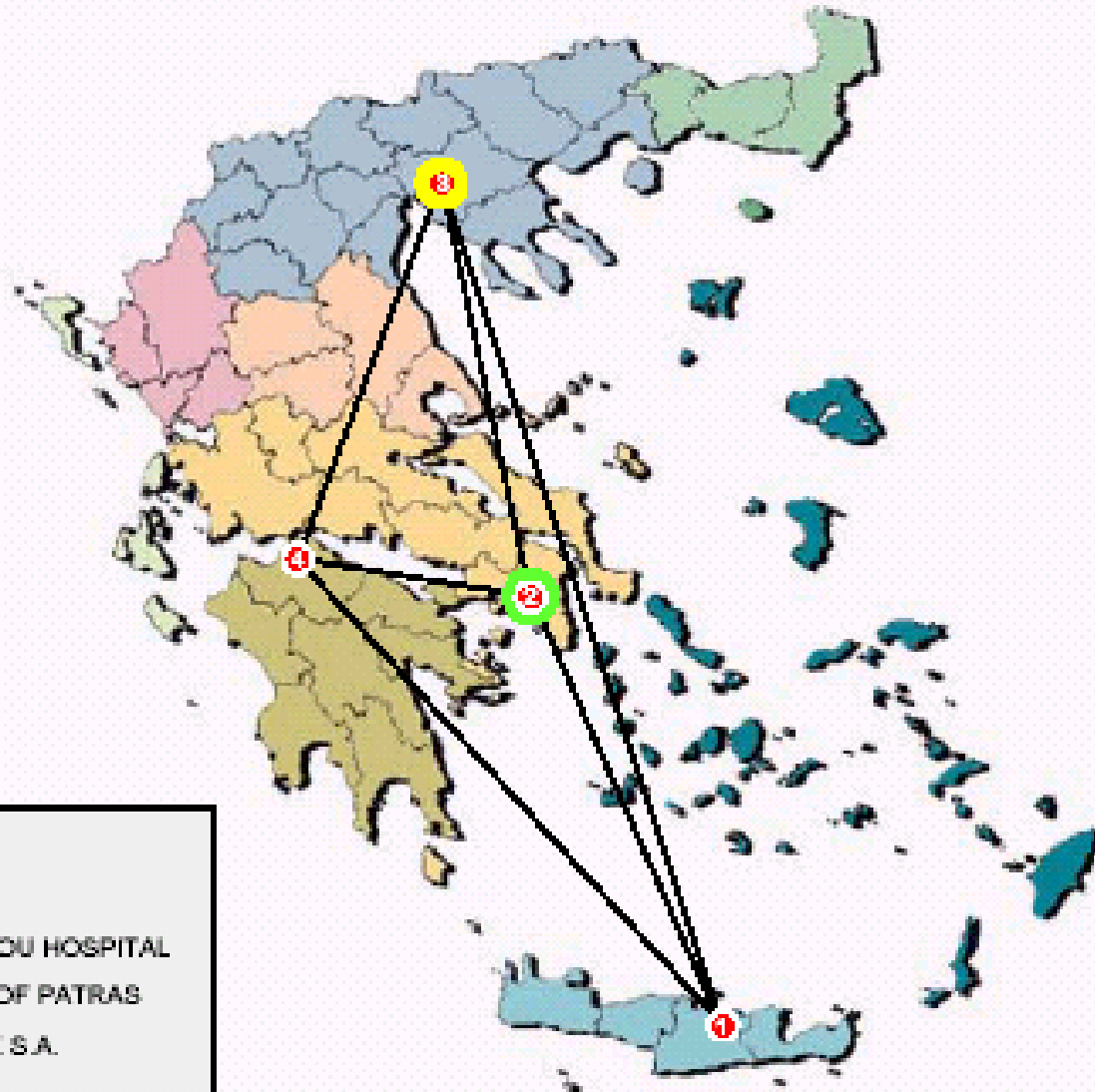
Gene Therapy for β -Thalassaemia

The Financial issue

- 1.Low International Investment**
- 2.High National Interest**

The Development of Gene Therapy Network in Greece

Greek Network for Vector Development and Gene Transfer (GENETHERNET)



- 1 IMBB
- 2 IIBCAA
- 3 PAPANICOLAOU HOSPITAL
- 4 UNIVERSITY OF PATRAS
- 5 BIOMEDICINE S.A.
- 6 ANTISEL S.A.

Thank you