Executive Summary

MOLEDA's first aim is to determine the optimal conditions for precise and selective non viral DNA transfer. This will be obtained by introducing molecular strategies to improve Laser-beam mediated plasmid delivery (LBGT) and plasmid electrotransfer (ET)

The second main objective is to use this parameter to obtain preclinical proofs of concepts of gene therapy in several case study applications:

- long term intracellular expression of dystrophin gene in skeletal muscle, for the therapy of Duchenne muscular dystrophy (an inherited neuromuscular disease),
- long term blood secretion of circulating protein: erythropoietin (EPO) for chronic renal failure and secreted monoclonal antibodies for antitumor passive immunization,
- short term transgene expression in skin for raising humoral and cellular immune response in an antitumor vaccination project.

The global aim is to advance energetically toward effective clinical trials using these non viral gene therapy technologies.

The first 18 months were dedicated to implement the first main objective and to start preliminary work on the second. The objectives of the first period were successfully reached with some changes that were described in the first report.

Major achievements of the second period Months 18-36

During the second period, most of the objectives have been reached, even if the consortium really needs 6 months more to achieve some therapeutical application deliverables.

General considerations on the STREP organization, management and atmosphere

The work program went smoothly between team-members at both management level and working scientist level.

Participants advanced towards their common concerted objective in an autonomous way, by direct interaction between concerned members.

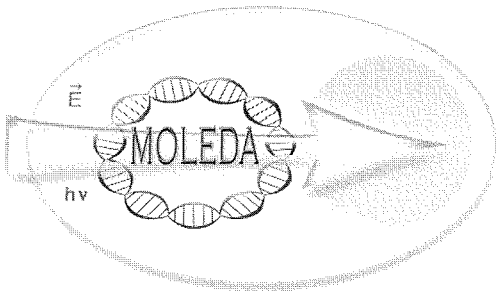
All partners have been successfully involved.

We also noticed the friendly and stimulating atmosphere of periodic scientific meetings (although sometimes passionate), where about 15-20 scientists participated each time and the frequent direct and spontaneous contacts and interactions between team members, and not only between team leaders.

In term of dissemination effort, a **MOLEDA-CLINIGENE** Summer School untitled ***"Non-viral gene transfer into muscle and skin"*** has been organized at Evry - Maison Alfort - Paris, in September 16th-22nd, 2007. More than 50 participants from 16 countries participated to this succesfull event.

Graphical Identity

As basis of the project and in order to create a graphical identity, a logo was chosen:



Along with the acronym and its completion.

MOLEDA

MOLECULAR OPTIMIZATION OF LASER / ELECTROTRANSFERT DNA ADMINISTRATION
INTO SKIN AND MUSCLE FOR GENE THERAPY

The acronym of the project is MOLEDA and stands for **M**olecular **O**ptimization of **L**aser / **E**lectrotransfer **D**NA **A**dministration into muscle and skin for gene therapy.

The web site is : *http://www.moleda.org*

Contractors

The contractor of the project are:

Partic. no.	**Participant representative**	**Participant name**	**Participant short name**	**Country**
1	Daniel Scherman	Institut National Supérieur d'Etude et de Recherche Médicale	INSERM	France
2	Eithan Galun	Hadassah Medical Organisation	HMO	Israël
3	Véronique Préat	Université Catholique de Louvain	UCL	Belgium
4	Georges Dickson	Royal Halloway & Bedford New College – University of London	RHUL	UK
5	Volker Schirrmacher	Deutsches Krebsforschungszentrum	DKFZ	Germany
6	Iacob Mathiesen	INOVIO	INOVIO	Norway

7	Paul Parren	GENMAB	GENMAB	Netherlands
8	Stéphane Blot	Ecole Nationale Vétérinaire d'Alfort	ENVA	France
9	Isabelle Geahel	Inserm Transfert	Inserm Transfert	France

Contact

For more information on the project, the person to contact is either:

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