

## EuroMatch

A **Europe-wide** strategy to facilitate **More Access** to **Transplants**  
with **Compatible HLA** antigens.

<b>Participant No</b>	<b>Short name</b>	<b>Participant organisation name</b>	<b>Country</b>
1.	LUMC (coord)	Leiden University Medical Center	NL
2.	NHSBT	National Health Service Blood and Transplant	UK
3.	ET	Eurotransplant International Foundation	NL
4.	ST	ScandiaTransplant	DK
5.	ISS-CNT	Italian National Institute of Health	IT
6.	IKEM	Institute for Clinical and Experimental Medicine	CZ
7.	NTS	Dutch Transplant Foundation	NL
8.	IST	Istanbul University Faculty of Medicine	TR
9.	UOG	University of Geneva	CH
10.	KUL	KU Leuven	BE
11.	IDIBAPS	Institut D'Investigacions Biomediques August Pi i Sunyer	ES
12.	MPT	SME Multiplicom	BE
13.	HILA	Belgian Red Cross	BE

### Work packages

- 1: Provide a detailed characterization of the HLA phenotype diversity of populations all over Europe to improve the finding of compatible donors for highly sensitized patients
- 2: Central database - Towards a uniform definition of highly sensitized patients eligible for a Europe-wide acceptable mismatch program
- 3: To describe the advantages, feasibility and requirements for a donor exchange program to enhance transplantation of patients that are hard to match in their own population
- 4: Legal status and regulation issues regarding cross border allocation of kidneys in Europe
- 5: To develop a European-wide approach for a shared waiting list**
  - To design a (virtual) allocation office for European-wide allocation**
  - To design procedures for European-wide donor reporting to the allocation office**
  - To develop a proposal for an allocation algorithm**
- 6: The definition of the relevant epitopes on HLA class I - and HLA class II antigens with a special emphasis on the detection and definition of acceptable epitopes**
- 7: Alternative typing strategy, for both Class I and Class II HLA, aiming at the short turn-around time for the definition of the crucial polymorphisms in the HLA genes from a potential donor, which are relevant for the reactivity of the antibodies of the recipient**

### Work packages

- 8: To identify the ethical concerns associated with the construction of a Europe-wide acceptable mismatch program
  - To study empirically stakeholders' views with regard to the development of the proposed Europe-wide acceptable mismatch program.
  - To develop recommendations with regard to the appropriate development of a Europe-wide acceptable mismatch program, meeting all ethical criteria.
- 9: The project management team will coordinate the scientific activities of the project, organize the meetings and oversee the overall legal, contractual, ethical, financial and administrative management, including the consortium agreement. Additional management tasks include coordination of knowledge management, overseeing the promotion of gender equality in the project, overseeing science and societal issues related to the research activities conducted within the project and obtaining audit certificates from the participants.

**Table 3.1b: List of work packages**

WP No	Work Package Title	Lead Participant No	Lead Participant Short Name	Person-Months	Start Month	End month
1	Inventory of HLA phenotypes of European populations	9	UOG	56.2	1	48
2	Towards a uniform definition of highly sensitized patients eligible for a Europe-wide acceptable mismatch program.	1	LUMC	246.2	1	48
3	Towards an international paired kidney donor exchange program	7	NTS	50.5	1	48
4	Legal status and regulation issues regarding cross border allocation of kidneys in Europe	2	ET	41.4	1	24
5	Logistic issues related to the implementation of a Europe-wide acceptable mismatch program	2	ET	57.6	25	48
6	From acceptable HLA antigens to acceptable epitopes	1	LUMC	266	1	48
7	Development of the optimal typing technique to define the HLA antibody epitopes in donors and recipients.	11	MPT	93.75	1	48
8	Inventory of the ethical issues associated with the introduction of a Europe-wide acceptable mismatch program	10	KUL	48	1	48
9	Project management	1	LUMC	24	1	48
				883.65		

**Proposal acronym:** EuroMatch  
**Duration (months):** 48  
**Proposal title:** A Europe-wide strategy to facilitate More Access to Transplants with Compatible HLA antigens  
**Activity:** SC1-PM-04-2016

N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1	ACADEMISCH ZIEKENHUIS LEIDEN	NL	1,380,271	22.10%	1,380,271	22.10%
2	NHS BLOOD AND TRANSPLANT	UK	398,795	6.39%	398,795	6.39%
3	STICHTING EUROTRANSPLANT INTERNATIONAL FOUNDATION	NL	447,500	7.17%	447,500	7.17%
4	ScandiTransplant	DK	528,750	8.47%	528,750	8.47%
5	ISTITUTO SUPERIORE DI SANITA	IT	401,250	6.43%	401,250	6.43%
6	Institut klinické a experimentální medicíny	CZ	425,715	6.82%	425,715	6.82%
7	NEDERLANDSE TRANSPLANTATIE STICHTING	NL	141,688	2.27%	141,688	2.27%
8	Istanbul Üniversitesi	TR	201,250	3.22%	201,250	3.22%
9	UNIVERSITE DE GENEVE	CH	558,750	8.95%	558,750	8.95%
10	KATHOLIEKE UNIVERSITEIT LEUVEN	BE	365,000	5.84%	365,000	5.84%
11	CONSORCI INSTITUT D'INVESTIGACIONS BIOMEDIQUES	ES	408,684	6.54%	408,684	6.54%
12	AUGUST PI I SUNYER	BE	337,111	5.40%	337,111	5.40%
13	MULTIPLICOM NV	BE	650,000	10.41%	650,000	10.41%
	Belgian Red Cross	BE	650,000	10.41%	650,000	10.41%
	Total:		6,244,764		6,244,764	

**Abstract:**

The major objective of this project is to implement a Europe-wide acceptable mismatch program to facilitate transplantation of highly sensitized patients, who have no chance to be received a renal transplant in the current situation. The presence of donor specific HLA antibodies is considered a contra-indication for renal transplantation as their presence is associated with hyperacute graft rejection. Highly sensitized patients have antibodies against many HLA antigens and it is very difficult to identify donors towards which they do not have donor specific HLA antibodies. Considering the high mortality rate of patients on dialysis, special strategies are used to enhance transplantation of these patients, such as the acceptable mismatch program of Eurotransplant. This strategy has proven to be very effective but a significant proportion of these patients has a rare HLA phenotype in relation to the donor population and cannot be transplanted. Basis of this project is the fact that HLA frequencies are different in different European populations. However, rare HLA phenotypes in one population are more frequent in other populations. Simulation studies performed in a previous FP7 project EUROSTAM showed that extension of the donor pool to a limited number of additional European populations, will significantly increase the chance that these patients can be transplanted. It is to be expected that extension of the potential donor pool to more European populations will be beneficial for an even higher percentage of highly sensitized patients. A second goal is to change the basis of the donor search from acceptable HLA antigen mismatches towards acceptable HLA antibody epitopes. Antibodies, reactive with the more than 10,000 known HLA class I antigens, are actually directed against a limited number of epitopes shared by these antigens. Knowledge of the actual antibody epitopes will facilitate the search for a compatible donor in a Europe-wide acceptable mismatch program.

**Evaluation Summary Report****Evaluation Result**

**Total score: 9.50 (Threshold: 12)**