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### Fields of interest

Our main activity is HLA compatibility testing, which is mandatory for a successful transplant. The addressability and the necessity to perform a transplant is associated with patients who suffer of cronical diseases.

Hematopoietic stem cells transplant represents an efficient treatment for a large number of malignant hematological diseases and aplastic anemias.

Transplant of cells, tissues and/or organs is the last hope for saving these patients' lives.

HLA fenotyping is used for identification of an individual's HLA allele. The existance of a compatibility between a donor's and recipient's allele is the best chance for a successful transplant.

In order to perform HLA testing molecular biology methods are used, low resolution (SSO or SSP), medium resolution and DNA sequencing, which is supposed to identify the type and nucleotide sequence from a DNA fragment.

Family members who are volunteers for stem cells donation are tested in order to see if they are compatible with the relative. The unrelated donors who are willing to be stem cells volunteers could be registered in National Register of Hematopoietic Stem Cells Volunteer Donours. After HLA testing the results are kept in a database in order to be compared with the results of patients who need stem cells transplant.

### Publications:

1. ***DRB1 Allele Frequency in a Population Group from The Western Part of Romania*** Elena Gai, Alexandra Gruia, Mirabela Cristea, Diana Lungeanu, Margit Serban, Smaranda Arghirescu, Cristian Jinca, Victor Dumitrascu, Calin Tatu, Virgil Paunescu, *Physiology*, 2010, Vol.20. Nr.4 (68).pag 36-38, ISSN 1223-2076
2. ***Relationship between HLA A\*02 A\*03 Association and The Risk of Childhood Acute Leukemia*** , Elena Gai, Alexandra Gruia, Mirabela Cristea, Diana Lungeanu, Margit Serban, Smaranda Arghirescu, Cristian Jinca, Victor Dumitrascu, Calin Tatu, Virgil Paunescu, *Analele Stiintifice ale Universitatii 'A. I.Cuza Iasi, Genetica si Biologie Moleculara* 2010, TOM XI, fasc. 2-3, pag.61-64 , ISSN 1582-3571
3. ***The History of HLA and Its Related Diseases***, Elena Gai, Alexandra Gruia, Mirabela Cristea, Diana Lungeanu, Margit Serban, Smaranda Arghirescu, Cristian Jinca, Victor Dumitrascu, Calin Tatu, Gabriela Tanasie, Virgil Paunescu, *Physiology*, 2010, Vol.20. Nr.4 (68), pag 4-8, ISSN 1223-2076
4. ***Hematopoietic stem cells transplant in pediatric actuality from Romania***, S.Arghirescu, C.Jinca, A.Oprisoni, Balint-Gib Loredana, A.Isac, V.Ordodi, M.Baica, Elena Gai, M.Serban (2009), *Revista Onco-Hematolog*, Anul III, nr.9 4/2009, pag.54

5. **Residual water epuration which contain melphalan with a asimmetrical current densities electrochemical reactor**, Ordodi Valentin, Dumitrel Alina, Gruia Alexandra, Iacob Mihai, Mic Aurel Felix, Oprisoni Andrada, Gib-Balint Loredana, **Elena Gai**, Perju Delia (2010), Revista Chimie,2010, vol.61(9), pag.857-861
6. **Aristolochia clematitis in traditional medicine recipes: toxin or remedy?**, Mirabela I. Cristea, Alexandra T. Gruia, Valentin L. Ordodi, Oana I. Gavriliuc, Ileana Scurtu, Violeta Moica, Simona Anghel, Florin Margineanu, Nikola Pavlovic, **Elena Gai**, Victor Dumitrascu, Fabian Tatu, Virgil Paunescu, Calin A. Tatu, Central European Journal of Occupational an Environmental Medicine, 2009;Vol. 15, No 1-2; 7-18
7. **Aristolochia clematitis in medicine: the good and the bad**, Mirabela I. Cristea, Alexandra T. Gruia, Simona Anghel, **Elena Gai**, Calin A. Tatu, Virgil Paunescu, Fiziologia - Physiology 2010.20.1(65), pg. 26-28, ISSN 1223-2076
8. **Adhesion behavior and functional studies on normal and tumoral cells exposed to Aristolochia clematitis aqueous extracts**, Mirabela Cristea, Alexandra Gruia, Florina Bojin, **Elena Gai**, Moica Violeta, Florina Boldeanu, Gabriela Tanasie, Calin Tatu, Virgil Paunescu, Analele Științifice ale Universității „Alexandru Ioan Cuza” din Iasi, Secțiunea Genetică și Biologie Moleculară, TOM XI, 2010, pg 107-112, ISSN 1582-3571

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- Onco-Hematology Clinic and Bone Marrow Transplantation, Children Emergency Clinical Hospital Louis Turcanu Timisoara (<http://www.spital-copii-timisoara.info/>).