



# Participant Profile

for the  
**Turkish-German Strategy Workshop 2006**  
**TÜBİTAK Marmara Research Center,**  
**Istanbul- Gebze Turkey**  
**13 – 15 December 2006**



International Bureau (IB)  
of the Federal Ministry of  
Education and Research  
(BMBF)

## 1. Contact details and personal information

<b>Name:</b>	Uğur ÖZBEK	<b>Phone:</b>	90 212 4142000/ext.33312
<b>Role/function<sup>1</sup>:</b>	Chairman, group leader	<b>Fax:</b>	90 212 635 7757
<b>Institution:</b>	Istanbul University, Institute for Experimental Medical Research (DETAE)	<b>E-Mail:</b>	<a href="mailto:uozbek@istanbul.edu.tr">uozbek@istanbul.edu.tr</a>
<b>Department:</b>	Genetics Department	<b>Website:</b>	<a href="http://www.istanbul.edu.tr/enstituler/detae/tr">http://www.istanbul.edu.tr/enstituler/detae/tr</a>
<b>Address:</b>	Vakıf Gureba Cad. Capa	<b>Organisation type<sup>2</sup>:</b>	University
<b>Postcode and City:</b>	34284, Istanbul		

<sup>1</sup> **Role/function** e.g. working group leader, managing director, postdoc, PhD etc.

<sup>2</sup> **Organisation type** e.g. university, research institution, small and medium enterprise (SME), industry etc.

### Working Group:

- |   |
|---|
| <input type="checkbox"/> 1 Material Technologies  |
| <input checked="" type="checkbox"/> 2 Biotechnology, Genomics and Food                          |
| <input type="checkbox"/> 3 Energy   |
| <input type="checkbox"/> 4 Information and Communication Technologies                           |
| <input type="checkbox"/> 5 Environmental Protection, Climate Change and Sustainable Development |

### Areas of activity:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> research    | <input checked="" type="checkbox"/> training |
| <input type="checkbox"/> technology development | <input type="checkbox"/> dissemination       |
| <input type="checkbox"/> demonstration          | <input type="checkbox"/> other:              |

### Keywords characterising your area of research:

- Please choose the appropriate key words (max. 5) from the following list:  
<http://www.cordis.lu/fp6/keywords>
- 01.02.01.20.00.00.00
  - 01.02.01.32.00.00.00
  - 01.02.01.46.05.01.00
  - 03.02.03.18.00.00.00
  - 03.02.03.12.10.00.00



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**Expertise,  
technologies and  
infrastructures  
available in your  
institution:**

## **Research activities / expertise:**

1. Application-oriented genomic approaches to medical knowledge and technologies
2. Molecular studies of hematological malignancies
3. Gene expression and proteomics
4. Advanced genomics and its applications for health
5. Neurogenetics

**Methods:** Quantitative Real-Time PCR, SNP analysis, Southern Blot and Western Blot, PCR, SEREX

**Key technologies:** Quantitative genomic research,

**Infrastructures:** Light Cycler 1.5 Real Time PCR, LightCycler 480 Real-Time PCR, Conventional PCR, Vertical and Horizontal Electrophoresis, Fluorescence Microscopy, Tissue Culture Facilities, Microbiology Facilities.

## **Key publications:**

1. Aydin-Sayitoglu M, Hatirnaz O, Erensoy N, Ozbek U. Role of CYP2D6, CYP1A1, CYP2E1, GSTT1 and GSTM1 Genes in the Susceptibility to Acute Leukemias. *Am J Hematol*, 2006 Feb 21;81(3):162-170
2. Chan, AO, Soliman AS, Zhang, Q, Rashid A, Bedeir A, Houlihan PC, Mokhtar N, Al-Masri N, Ozbek U, Yaghan R, Kandilci A, Omar S, Kapran Y, Dizdaroglu F, Bondy ML, Amos CI, Issa JP, Levin B, Hamilton SR. Differing DNA methylation patterns and gene mutation frequencies in colorectal carcinomas from Middle Eastern countries. *Clin Cancer Res*. 2005 Dec 1;11(23):8281-7.
3. Einav U, Tabach Y, Get G, Yitzhaky A, Ozbek U, Amariglio N, Izraeli S, Rechavi and Domany E. Gene expression analysis reveals a strong signature of an interferon induced pathway in childhood lymphoblastic leukemia as well as in breast and ovarian cancer. *Oncogene*. 2005 Sep 22;24(42):6367-75.
4. Vural B, Chen L, Saip P.<sup>3</sup>, Chen Y, Ustuner Z.<sup>3</sup>, Gonen M, Jager E, Simpson AJ, Old LJ, Ozbek U, Gure AO. Frequency of SOX Group B (SOX1, 2, 3) and ZIC2 antibodies in Turkish SCLC patients and their correlation with clinical parameters. *Cancer*, 2005, May; 103 (12):2575-2583
5. Cardone M, Kandilci A, Carella C, Nilsson JA, Brennan JA, Sirma S, Ozbek U, Boyd K, Cleveland JL, Grosveld GC. The Novel ETS Factor TEL2 Cooperates with Myc in B Lymphomagenesis. *Mol and Cell Biol*. 2005 Mar; 25(6): 2395–2405
6. Akyerli CA, Beksac M, Holko M,d, Frevel M, Dalva K, Ozbek U, Soydan E, Ozcan M, Ozet G, Ilhan O, Gurman G, Akan H, Williams BRG, Ozcelik T. Expression of *IFITM1* in chronic myeloid leukemia patients. *Leukemia Research* 29 (2005) 283–286
7. Ekmekci CG, Gutierrez MI, Siraj AK, Ozbek U, Bhatia K. Aberrant methylation of multiple tumor suppressor genes in acute myeloid leukemia. *Am J Hematol*. 2004 Oct 19;77(3):233-240
8. Sirma S, Agaoglu L, Yildiz I, Cayli D, Horgusluoglu E, Anak S, Yuksel L, Unuvar A, Celkan T, Apak H, Karakas Z, Devocioglu O, Ozbek U. NAD(P)H:quinone oxidoreductase 1 null genotype is not associated with pediatric de novo acute leukemia. *Pediatr Blood Cancer*. 2004 Oct;43(5):568-70.
9. Savli H, Sirma S, Nagy B, Aktan M, Dincol G, Salcioglu Z, Sarper N, Ozbek U. Real-Time PCR analysis of af4 and dek genes expression in acute promyelocytic



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- leukemia t(15;17) patients. *Exp Mol Med.* 2004 Jun 30;36(3):279-82.
10. Savlı H, Sırma S, Nagy B, Aktan M, Dinçol G, Salcioglu Z, Ozbek U. Expression analysis of DEK, AF4 and FLII genes in all-trans-retinoic acid (ATRA) treated acute promyelocytic leukemia t(15;17) patients by quantitative real-time PCR. *Turk J Med Sci.* 2004, 34: 85-89.
  - 11.
  12. Savlı H, Sırma S, Nagy B, Aktan M, Dinçol G, Ozbek U. Real-time PCR analysis of the apoptosis related genes in ATRA treated APL t(15;17) patients. *Exp Mol Med.* 2003, 31;35(5):454-9.
  13. Gutierrez MI, Siraj AK, Bhargava M, Ozbek U, Banavali S, Chaudhary MA, El Solh H, Bhatia K. Concurrent methylation of multiple genes in childhood ALL: Correlation with phenotype and molecular subgroup. *Leukemia.* 2003, 17(9):1845-50.
  14. Akyerli CB, Ozbek U, Aydın-Sayitoglu M, Sırma S, Ozcelik T. Analysis of MYH Tyr165Cys and Gly382Asp variants in childhood leukemias. *J Cancer Res Clin Oncol.* 2003, 129(10):604-5
  15. H. Savlı, A. Karadenizli, F. Kolaylı, S. Gündes, U. Ozbek, H. Vahaboglu. Expression stability of six housekeeping genes: a proposal for resistance gene quantification studies of *Pseudomonas aeruginosa* by real-time quantitative RT-PCR. *Journal of Medical Microbiology*, 2003, 52: 1-6.
  16. U. Özbek, Sırma S, Ağaoğlu L, Yüksel L, Anak S, Yıldız I, Devocioğlu O, Timur Ç, Meral A, Gedikoğlu G. Prognostic significance of the TEL-AML1 fusion gene in pediatric acute lymphoblastic leukemia in Turkey. *J Pediatr Hematol/Oncol*, 2003, March; 25(3): 204-208.



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## 2. Past and present research collaborations

**Are you familiar with the European Framework Programme?**

<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>
<input type="checkbox"/> with Framework Programme 5 <input checked="" type="checkbox"/> with Framework Programme 6 <input type="checkbox"/> with Framework Programme 7	

**EU-projects you are involved in:**  
**Past projects**

**Programme title / contract number / title / acronym / your function (coordinator / partner / contractor)**

**Present projects**

FP6-2005-LIFESCIHEALTH-6/037315/Functional Genomics and Neurobiology of Epilepsy:a basis foe new therapeutic strategies/ EPICURE/Core Partner

FP6-2004-INCO-MPC-3/031968/Euro-Mediterranean Network For Genetic Services/MedGeNet/Partner

LSHC-CT-2004 Strengthen and develop scientific and technological excellence in research and therapy of leukemia (CML, AML, ALL, CLL, MDS, CMPD) by integration of major national leukemia networks and their interdisciplinary partner groups in Europe/European Leukemianet.

**Other international collaborations:**

OJ2005/C11/ A/790632/Public Health Genetics European Network/PHGEN/Partner

**Name(s) and contact details of potential partners:**

**If you would like to suggest the participation of particular partners from the partner country based on existing contacts or collaboration experience, you are welcome to indicate their names and contact details below:**



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### 3. Presentation at the Workshop

I will give a presentation at the workshop (approx. 10 min.) to present my institution, my expertise, and my collaboration interests. The contents of my presentations is summarised below (max. 1 page).

Institute for Experimental Medicine (DETAE) is established in 1992. The research activities of DETAE are organized in 5 research programs: Genetics, Immunology, Molecular Medicine, Biology of Laboratory Animals and Neurosciences. DETAE's research staff includes 15 academics, 65 laboratory investigators including graduate students (MSc, Ph.D and M.D/Ph.D). In Genetics Department we work on hematological malignancies in leukemias, neurological disorders such as epilepsy, pharmacogenetics, cancer gene therapy and cardiac diseases such as acquired form of Long QT disease. Our Genetics Department is a reference center for the molecular diagnosis of many neuro-muscular, hematologic and malignant diseases in our region. Since 1995, we are working on pediatric and adult leukemias, especially on acute myeloid (AML), lymphoblastic (ALL) leukemia and chronic myeloid (CML) leukemia. We perform routine analyses on translocations which are used as clinical and diagnostic markers. We do accept patients from the Marmara region and mostly from different hospitals in Istanbul. Also, we have got many ongoing projects on analysis of different single nucleotide polymorphisms (SNPs) in leukemias, gene expression and methylation studies in leukemogenesis. We do many collaborations with different foreign hospitals and institutes. We work closely with St. Jude Children's Leukemia Hospital; Memphis-USA, Erasmus Medical Center; Rotterdam-Netherlands and Milano University; Milano-Italy.

The main interests of our group could be classified as follows:

1. The molecular characterization of the function of genes that are rearranged, mutated and /or lost in human cancers and their role in development and oncogenesis, utilising animal models.
2. The definition of the in vivo oncogenic potential and the molecular consequences of cancer-specific genetic events and of cancer-specific aberrant products (fusion proteins generated as a results of various translocations).
3. The generation of faithful animal models of human cancer and the utilisation of these models for the development and testing of novel therapeutic approaches.
4. Gene therapy approach for chronic myeloid leukemia (CML) patients with the use of lentiviral vectors.

Projects developed in the lab Include:

- The molecular genetics of acute lymphoblastic leukemia, chronic myeloid leukemia, acute myeloid leukemia, Factor V (Leiden), Protrombin, DMD, BMD, SMA, Huntington and AZF
- Behcet's disease
- Epilepsy
- Genetic predisposition of cardiovascular diseases
- Metabolic disease
- Pharmacogenetics approach to inherited cardiac diseases
- Lentiviral vector production for gene therapy studies

We would be glad to collaborate with the groups dealing with these headlines.

**I agree with the publication of my data on the Workshop website!**

**PLEASE FILL IN THIS FORM UNTIL 22 SEPT. 2006 AND RETURN IT TO:**

**Internationales Buero des BMBF**  
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