CV
HALİL DÜNDAR

PERSONAL INFORMATION

Name : Halil Dündar

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Birth of date :1972

EDUCATION

1999-2006 **Ph.D. Middle East Technical University**, **Biotechnology,** Ankara, TURKEY

1995-1999 **M.Sc. Middle East Technical University**, **Biotechnology,** Ankara, TURKEY

1990-1994 **B.Sc. Hacettepe University**, **Department of Biology,** Ankara, TURKEY

RESEARCH INTERESTS: Molecular biology of hereditary metabolic diseases (gene discovery, genome editing, pharmacological chaperones to treat mitochondrial and lysosomal diseases), molecular microbiology and protein chemistry (purification, cloning, and characterization of antimicrobial peptides).

RESEARCH EXPERIENCE

2015- Gazi University Faculty of Medicine, Department of Pediatric Metabolic Disorders and Pediatric Genetics, Ankara, TURKEY.

Research Area: Development and application of gene therapy and pharmacological chaperones for the treatment of genetic diseases.

December 2011–August 2012

Norwegian University of Life Sciences, Department of Chemistry, Biotechnology and Food Science, Laboratory of Microbial Gene Technology, Ås, NORWAY

Research area: Biochemical and genetic characterization of antimicrobial peptides from lactic acid bacteria.

•Purified and characterized the bacteriocin enterocin V583 from *Enterococcus faecalis* P16

•Purified a cloned lactococcin from *Lactococcus lactis* B1213

•Purified and characterized enterocin B from *Enterococcus faecium* W3

October 2007-Oct 2011

Hacettepe University Faculty of Medicine, Department of Pediatrics, Ankara, TURKEY.

Research area: Inborn errors of metabolism

- Mapped the locus and identified the disease causing mutation in a Turkish family with Infantile Onset Spino Cerebellar Ataxia (IOSCA) by genome wide association study and whole exome sequencing

- Detection of mutations in Turkish patients with inborn errors of metabolism using resequencing microarrays and direct sequencing

September 1999-September 2006 (PhD Studies)

Middle East Technical University, Department of Biotechnology, Ankara, TURKEY.

PhD dissertation: Characterization and purification of a abcteriocin produced by Leuconostoc mesenteroides subsp. cremoris.

• Purified a bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris* W3

• Characterized pyhsico-chemical properties of the bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris* W3 as well as inhibition spectrum

• Performed experiments for extraction of the bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris* W3 using organic solvents

• Performed experiments for large scale purification of the bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris* W3 using synthetic calcium silicate

• Determined the effects of various factors affecting adsorption of the bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris* W3 on gram-positive bacteria

September 1995-April 1999 (MSc Study)

Middle East Technical University, Department of Biotechnology, Ankara, TURKEY.

Msc thesis: Utilization of lignocellulosic compounds for the production of cellulases by *Torula thermophila.*

Plasmid profiling of multiple antibiotic resistant Salmonella strains isolated from animals and human beings from Turkey (One Semester study)

LABORATORY TECHNIQUES AND SKILLS

Molecular Biology: PCR, DNA extraction/preparation, molecular cloning, plasmid preparation, gel electrophoresis, genome wide genotyping with SNP micro arrays, DNA sequencing and analysis by capillary sequencing and by resequencing micro arrays, next generation sequencing data analysis, cell culture.

Biochemistry: Protein and peptide purification by size-exclusion chromatography, ion-exchange chromatography, hydrophobic interaction chromatography and reverse-phase high performance liquid chromatography, organic solvent extraction and ammonium sulphate precipitation of proteins, enzyme assays, SDS-PAGE and Western Blotting.

Microbiology: Culturing techniques, culture maintenance, aseptic techniques, handling and identification of bacteria, 16S rDNA typing, screening antimicrobial compounds from lactic acid bacteria, production of industrial enzymes, other general microbiological techniques.

INSTRUMENTATION: Akta FPLC, ABI Genetic Analyzer, Microarray platform.

A) PUBLICATIONS (Journal Papers)

A1. Dündar H. 2016. Bacteriocinogenic potential of *Enterococcus faecium* isolated from wine. ***Probiotics and Antimicrobial Proteins*** (ACCEPTED, June 2016).

A2. Dündar H., Salih B., Bozoglu F. 2016 Purification and characterization of a bacteriocin from an oenological strain of *Leuconostoc mesenteroides* subsp. *cremoris*. ***Preparative Biochemistry and Biotechnology***. 46: 354-359.

A3. Dündar H., Brede D.A., La Rosa S.L., El Gendy A.O., Diep D.B., Nes I.F. 2015. *Fsr* quorum sensing system and cognate Gelatinase orchestrate the expression and 1 processing of pro-protein EF1097 into mature antimicrobial peptide enterocin O16. ***Journal of Bacteriology***. 197(13):2112-2121.

A4. Dündar H., Atakay M., Çelikbıçak Ö., Salih B., Bozoglu F. 2014. Comparison of two methods for purification enterocin B produced by *Enterococcus faecium* W3**.** ***Preparative Biochemistry and Biotechnology***. 45(8):796-809. doi: 10.1080/10826068.2014.958165.

A5. Dündar H., Çelikbıçak Ö., Salih B., Bozoglu F. 2014. Large-scale purification of a bacteriocin from *Leuconostoc mesenteroides* subsp. *cremoris* using diatomite calcium silicate. ***Turkish Journal of Biology.*** 38: 611-618.

A6. Ozgül R.K., Güzel-Ozantürk A., **Dündar H.,** Yücel-Yılmaz D., Coşkun T., Sivri S., Aydoğdu S., Tokatlı A., Dursun A. 2013. Galactosemia in the Turkish population with a high frequency of Q188R mutation and distribution of Duarte-1 and Duarte-2 variations. *Journal of Human Genetics.* 58: 675-678.

A7. Dündar H., Özgül R.K., Güzel-Ozantürk A., Dursun A., Sivri S., Aliefendioğlu D., Coşkun T., Tokatlı A. 2012. Microarray based mutational analysis of patients with methylmalonic acidemia: Identification of 10 novel mutations. ***Molecular Genetics and Metabolism.*** 106(4): 419-23.

A8. Dündar H., Özgül R.K., Yalnızoglu D., Erdem S., Oguz K.K., Tuncel D., Temucin Ç.M. and Dursun A. 2012. Identification of a novel Twinkle mutation in a family with infantile onset spinocerebellar ataxia by whole exome sequencing. ***Pediatric Neurology*.** 46 (3): 172-177.

A9. Ögel Z.B., Yarangumeli K., **Dündar H**., Ifrij I. 2001. Submerged cultivation of Scytalidium thermophilum on complex lignocellulosic biomass for endoglucanase production. ***Enzyme and Microbial Technology*.** 28 (7-8): 689-695.

B) CONFERENCE PAPERS (INTERNATIONAL)

B1. Dündar H., Atakay M., Avcıoğlu B., Salih B. 2016.Whole-cell matrix-assisted laser desorption/ionization mass spectrometry for rapid detection of enterocin A and B. ‘‘*41st Federation of European Biochemical Societies (FEBS) Congress*. September 03-08, 2016, Kuşadası, Turkey, (ACCEPTED FOR ORAL PRESENTATION). ’’

B2. Dündar H., Biberoğlu G., Ciftci B., Topcu B., Okur I., Tumer L., Ezgü F. 2016. Evaluation of gentamicin for stopcodon readthrough therapy in Fabry disease. 13th Middle East Metabolic Group *(MEMG)* Meeting. October 28-30, 2016, Amman, Jordan (ACCEPTED FOR ORAL PRESENTATION).

B3. Dündar H., Salih B. 2011. Purification, characterization and partial amino acid sequence of mesentericin W3, a new anti-Listeria bacteriocin. ‘‘*36th European Biochemical Societies (FEBS) Congress*. June 25-30, 2011, Turin, Italy, S9.2.5 (ORAL PRESENTATION).’’

B4. Dündar H., Özgül R.K., Yalnızoglu D., Özdamar S.E., Tuncel D., Akarsu N., Dursun A. 2011. Next generation sequencing in a family with infantile onset spinocerebellar ataxia identified a novel missense mutation in *C10orf2* gene. ‘‘*European Human Genetics Conference (ESHG)*. May 28-31, 2011, Amsterdam, The Netherlands. P11.084.’’

B5. Dündar H., Özgül R.K., Dursun A. 2010. Analysis of MUT gene mutations in Turkish patients with methylmalonic acidemia using resequencing microarrays: identification of fourteen novel mutations. ‘‘*European Human Genetics Conference (ESHG)*. June 12-15, 2010, Gothenburg, Sweden, P13.26.’’

B6. Dündar H., Yücel D., Dursun A., Özgül R.K. 2010. Genome-wide genotyping for the characterization of disease locus in a family with an uncharacterized neurometabolic disease.‘‘*Annual Symposium of the Society for the Study of Inborn Error of Metabolism*, Istanbul, Turkey. 31 August-3 September 2010, Istanbul, Turkey, *Journal of Inherited Metabolic Disease*. Vol. 33 Suppl. 1 August 2010, pp. 173-567P’’

B7. Dündar H., Özgül R.K., Ünal Ö., Karaca M., Aydin H.İ. ,Tokatli A., Sivri H.S., Coşkun T., Dursun A. 2010. Molecular and structural analysis of six nonsense mutations in mut methylmalonic acidemia patients including two novel nonsense mutations.‘‘*Annual Symposium of the Society for the Study of Inborn Error of Metabolism*, ISTANBUL, TURKEY, 31 August-3 September 2010, *Journal of Inherited Metabolic Disease*. Vol. 33 Suppl. 1 August 2010, pp. 177-579P’’

B8. Dursun A., **Dündar H**., Özgül R.K., Talim B., Kale G., Demir H., Temizel S.I., Tokatlı A., Sivri S., Coskun T. 2010. Cirrhosis associated with propionate metabolism. ‘‘*Annual Symposium of the Society for the Study of Inborn Error of Metabolism*, Istanbul, Turkey. 31 August-3 September 2010, *Journal of Inherited Metabolic Disease.* Vol. 33 Suppl. 1 August 2010, pp. 50-117P’’

B9. Özgül R.K., Güzel A., **Dündar H**., Yücel D., Yılmaz A., Ünal O., Tokatlı A., Sivri S., Coskun T., Dursun A. 2010. Mutation profile of BCKDHA, BCKDHB and DBT genes for maple syrup urine disease in Turkey. ‘‘*Annual Symposium of the Society for the Study of Inborn Error of Metabolism,*

Istanbul, Turkey, 31 August-3 September 2010, İstanbul, Turkey. *Journal of Inherited Metabolic Disease*. Vol. 33 Suppl. 1 August 2010, pp. 23-13P''

B10. Karaca M., Özgül R.K., **Dündar H**., Coskun T., Tokatli A., Sivri S., Dursun A. 2010. Molecular analysis of homocystinuria in Turkish patients. ''*Annual Symposium of the Society for the Study of Inborn Error of Metabolism,* Istanbul, Turkey, 31 August-3 September 2010, İstanbul, Turkey. *Journal of Inherited Metabolic Disease*. Vol. 33 Suppl. 1 August 2010, pp. 35-58P''

B11. Güzel A., Özgül R.K., **Dündar H**., Coskun T., Sivri S., Tokatlı A., Göksun E., Hismi B., Dursun A. 2010. Galactosemia in a Turkish population with a high prevalence of Q188R mutation.''*Annual Symposium of the Society for the Study of Inborn Error of Metabolism,* Istanbul, Turkey. 31 August-3 September 2010, *Journal of Inherited Metabolic Disease.* Vol. 33 Suppl. 1 August 2010, pp. 66-175P''

B12. Yılmaz A., Güzel A., **Dündar H**., Dursun A., Uslu N., Yuce A., Özgül R.K. 2010. Screening of ATP7B gene mutations in Turkish patients with Wilson dısease by custom designed resequencing microarrays.''*Annual Symposium of the Society for the Study of Inborn Error of Metabolism,* Istanbul, Turkey, 31 August-3 September 2010, İstanbul, Turkey. *Journal of Inherited Metabolic Disease*. Vol. 33 Suppl. 1 August 2010, pp. 160-518P''

B13. Dursun A., Yalnizoglu D., **Dündar H**., Erdem S., Akarsu A.N., Özgül R.K. 2010. Association of polyneuropathy, mental retardation, sensorineural hearing loss, 6th nerve palsy, convulsions, and oral dyskinesia; a propable new neurometabolic disorder.''*Annual Symposium of the Society for the Study of Inborn Error of Metabolism,* Istanbul, Turkey. 31 August-3 September 2010, *Journal of Inherited Metabolic Disease*. Vol. 33 Suppl. 1 August 2010, pp. 178-586P''

C) CONFERENCE PAPERS (NATIONAL)

C1. Özgül R.K., **Dündar H**., Yalnızoğlu D., Erdem S., Tuncel D., Temuçin Ç., Akarsu N., Dursun, A. 2011. Identification of a novel *C10orf2* mutation responsible for infantile onset spinocerebellar ataxi (IOSCA) by homozygosity mapping and exome sequencing. *XI: Metabolic disorders and Nutrition Congress*. April 14-16, 2011. Çesme /İzmir, Turkey. Pp. 117-P49

C2. Dündar H., Özgül K., Dursun A. 2010. Structural analysis of three novel missense mutations in the *Mut* gene of methylmalonic acidemia patients. *9. National Medical Genetics Congress.* December 1-5, 2010. Istanbul, Turkey. Clinical Genetics 2010; 78 (Suppl. 1) pp.125

C3. Dündar H., Özgül K., Dursun A. 2010. Identification of a novel insertion mutation in PCCA gene of a Turkish propionic acidemia patient. *9. National Medical Genetics Congress.* December 1-5, 2010. Istanbul, Turkey. Clinical Genetics 2010; 78 (Suppl. 1) pp.125

C4. Dündar H., Bozoglu F. 2008. Large scale and rapid purification of a bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris*. *19th National Biology Congress*, June 23-27, 2008. Trabzon, Turkey. Abstracts Book (2008). SM 004

C5. Dündar H., Bozoglu F. 2007. Purification of a bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris*. *15th National Biotechnology Congress*, October 28-31, 2007. Antalya, Turkey. Abstracts Book (2007). P-GB7

C6. Dündar H., Bozoglu F. 2007. Characterization of a bacteriocin produced by *Leuconostoc mesenteroides* subsp. *cremoris*. *15th National Biotechnology Congress*, October 28-31, 2007. Antalya, Turkey. Abstracts Book (2007). P-GB8

OTHER TRAININGS

EMBO Electron Microscopy and Stereology in Cell Biology Course. June 17-June 27, 2010. Electron Microscopy Laboratory, Department of Molecular Biosciences, University of Oslo, Norway.

Next generation sequencing (NGS) data analysis, Leiden University Medical Center, November 1-3, 2010, Leiden, The Netherland.