

## ÖZGEÇMİŞ

|                                |   |                               |            |
|--------------------------------|---|-------------------------------|------------|
| <b>Adı Soyadı</b>              | :Yaprak Dönmez Çakıl                                  |                               |            |
| <b>İletişim Bilgileri Mail</b> | :yaprak.cakil@maltepe.edu.tr                          |                               |            |
| <b>Doğum Tarihi</b>            | :28/05/1984   |                               |            |
| <b>Unvanı</b>                  | : Dr. Öğr. Üyesi                                      |                               |            |
| <b>Öğrenim Durumu</b>          | :   |                               |            |
| <b>Derece</b>                  | <b>Alan</b>   | <b>Üniversite</b>             | <b>Yıl</b> |
| <b>Lisans (BSc)</b>            | Biyoloji  | Orta Doğu Teknik Üniversitesi | 2007       |
| <b>Yüksek Lisans (MSc)</b>     | Biyoloji  | Orta Doğu Teknik Üniversitesi | 2010       |
| <b>Doktora (PhD)</b>           | Interdisciplinary PhD Programme N094: Malign Diseases | Medical University of Vienna  | 2015       |

### Akademik deneyim

**Araştırma Görevlisi:** Biyolojik Bilimler Bölümü, Orta Doğu Teknik Üniversitesi. 2007-2010.

**Araştırmacı:** Kodlanmayan RNA'lar ile gen ifadesinin düzenlenmesi - The regulation of gene expression by small ncRNAs: Max F. Perutz Laboratuvarları (MFPL), Viyana Üniversitesi, Viyana. Aralık 2010- Mayıs 2011

**Yüksek Lisans Tezi:** Doksorubisine dirençli MCF-7 meme kanseri hücre hattında çoklu ilaç dirençliliğinin siRNA kullanılarak geri dönüştürülmesi - Reversal of multidrug resistance by small interfering RNAs (siRNA) in doxorubicin resistant MCF-7 breast cancer cells

**Doktora Tezi:** ABC taşıyıcı protein ABCB1'in taşıma döngüsü üzerine yapısal çalışmalar - Structural studies on the transport cycle of the ABC transporter ABCB1

### Yayınlar

#### Uluslar arası hakemli dergilerde yayınlanan makaleler:

**Dönmez Cakil Y**, Khunweeraphong N, Parveen Z, Schmid D, Artaker M, Ecker GF, Sitte HH, Pusch O, Stockner T, Chiba P (2014) Pore-exposed tyrosine residues of P-glycoprotein are important hydrogen-bonding partners for drugs. Mol Pharmacol 85(3):420-8. **Uluslararası dergide atıf: 13**

Mairinger S, Wanek T, Kuntner C, **Dönmez Y**, Strommer S, Stanek J, Capparelli E, Chiba P, Muller M, Colabufo NA and Langer O (2012) Synthesis and preclinical evaluation of the radiolabeled P-glycoprotein inhibitor [(11C)MC113. Nucl Med Biol 39(8): 1219-1225. **Uluslararası dergide atıf: 16**

**Dönmez Y**, Gündüz U. 2011. Reversal of multidrug resistance by small interfering RNA (siRNA) in doxorubicin-resistant MCF-7 breast cancer cells. Biomed Pharmacother 65(2):85-9. **Uluslararası dergide atıf: 49**

**Dönmez Y**, Akhmetova L, Iseri ÖD, Kars MD, Gündüz U. 2011. Effect of MDR modulators verapamil and promethazine on gene expression levels of MDR1 and MRP1 in doxorubicin resistant MCF-7 cells. Cancer Chemoth Pharm 67(4):823-8. **Uluslararası dergide atıf: 20**

#### Yazılan Uluslar arası kitaplar veya kitaplarda bölümler:

Chiba P, Ecker GF, Nasim F, **Dönmez Cakil Y** (2016) Interaction of ABC Transporters with Drugs. George AM (Ed.) ABC Transporters - 40 Years On. Springer. Sayfa: 135-153.

**Uluslar arası bilimsel toplantılarda sunulan ve bildiri kitabında (Proceeding) basılan bildiriler:**

1. Dönmez Cakil Y, Goda K, Szaloki G, Parveen Z, Türk D, Szakacs G, Chiba P, Stockner T: Can ABC transporters with a degenerate NBS stay active by avoiding nucleotide occlusion? Poster sunumu, SFB35 Symposium: "The Transporter Transition", Eylül 18-21, 2018, Viyana, Avusturya.
2. Akbulut Z, Isan H, Cakil YD, Aktas RG: Collagen type I changes expression of apoptosis related genes both at proliferation and differentiation stages of hepatocellular carcinoma cells. Poster sunumu. 10th International Heinrich F. C. Behr-Symposium on Stem Cells and Cancer, Eylül 16-19, 2018, Heidelberg, Almanya.
3. Isan H, Akbulut Z Cakil YD, Aktas RG: The relationship between cancer stem cells and epithelial mesenchymal transition in hepatocellular carcinoma cells during differentiation period. Poster sunumu. 10th International Heinrich F. C. Behr-Symposium on Stem Cells and Cancer, Eylül 16-19, 2018, Heidelberg, Almanya.
4. Szöllösi D, Doenmez-Cakil Y, Sohail I, Szaloki G, Goda KK, Szakacs G, Chiba P, Stockner T: Nucleotides control the conformation of the motor domain of ABC transporters. Poster sunumu, Biophysical Society 61st Annual Meeting, Şubat 11-15, 2017, New Orleans, Louisiana, USA
5. Nasim F, Dönmez Cakil Y, Weitzenböck HP, Sitte HH, Sohail A, Szakacs G, Stockner T, Chiba P: Decrypting the role of apical pore tyrosine residues in formation of the extracellular gate of human P- glycoprotein. Poster sunumu, 6th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 5 - 11, 2016, Innsbruck, Avusturya.
6. Dönmez Cakil Y, Szaloki G, Goda K, Parveen Z, Türk D, Szakacs G, Chiba P, Stockner T: Coupling of energy conversion at the motor domains to conformational changes in the transmembrane domain of ABCB1. Poster sunumu, 6th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 5 - 11, 2016, Innsbruck, Avusturya.
7. Stockner T, Dönmez Y, Chiba P: In silico studies of ABCB1: a helmet makes all the difference! Poster sunumu, ATP-Binding Cassette Transporters: From Mechanism to Organism, Nisan 16- 18, 2015, University of Chester, Birleşik Krallık.
8. Stockner T, Dönmez Cakil Y, Chiba P: Equilibrium conformation of substrate releasing state of P- glycoprotein in a membrane environment. Sözlü sunum, 20th Scientific Symposium of the Austrian Pharmacological Society (APHAR), Eylül 26-27, 2014, Innsbruck, Avusturya.
9. Stockner T, Dönmez Cakil Y, Jayaraman K, Chiba P, Sitte HH: Structure – function relationship: SLC6 and ABCB membrane transporters seen through the computational magnification lense. Sözlü sunum, 7th SFB35 Symposium 2014, Eylül 8-19, 2014, Viyana, Avusturya.
10. Dönmez Cakil Y, Chiba P, Stockner T: Conformational changes in P-glycoprotein: from outer leaflet to NBD-NBD interface. Poster sunumu, 7th SFB35 Symposium 2014: Transmembrane Transporters in Healthand Disease ,Eylül 8-19, 2014, Viyana, Avusturya.
11. Spork M, Sohail MI, Dönmez Y, Stockner T, Ecker GF, Chiba P: Rescue of ABCB1 domain-interface mutants by folding correctors. Poster sunumu, 7th SFB35 Symposium 2014: Transmembrane Transporters in Health and Disease, Eylül 8-19, 2014, Viyana, Avusturya.
12. Dönmez Cakil Y, Chiba P, Stockner T: Characterization of the outward-facing conformation of the ABC transporter P-glycoprotein. Poster sunumu, 5th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 8 - 14, 2014, Innsbruck, Avusturya.
13. Chiba P, Dönmez Y, Spork M, Sohail MI, Nasim F, Stockner T: Active site pharmacochaperones assist folding of ABCB1 by long range interactions between substrate binding sites and nucleotide binding domains. Poster sunumu, 5th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 8 - 14, 2014, Innsbruck, Avusturya.
14. Stockner T, Dönmez Y, Chiba P: Combining in vitro with in silico studies to obtain insights into substrate transport by the multidrug resistance protein P-glycoprotein. Poster sunumu, Role of Multidrug Resistance Proteins in Pharmacokinetics and Toxicology, Eylül 3-6, 2013, Ryn, Polonya.
15. Stockner T, Dönmez Y, Chiba P: Combining in vitro with in silico studies to obtain insights into substrate transport by the multidrug resistance protein P-glycoprotein. Sözlü sunum, BioMedical Transporters: Transporters and Channels in Drug Discovery and Preclinical Development, Ağustos 11 - 15, 2013, St. Moritz, İsviçre.
16. Dönmez Y, Khunweeraphong N, Parveen Z, Sitte HH, Chiba P, Stockner T: Pore exposed tyrosine residues of P-glycoprotein are important hydrogen bonding partners for drugs. Poster sunumu, BioMedical Transporters: Transporters and Channels in Drug Discovery and Preclinical Development, Ağustos 11 - 15, 2013, St. Moritz, İsviçre.
17. Stockner T, Dönmez Y, Chiba P: We have several ABC exporter crystal structures: do they tell us the right story? Poster sunumu, 3rd Visegrad Symposium on Structural Systems Biology, Haziran 19-22, 2013, Smolenice, Slovakya.

18. Stockner T, Dönmez Y, Chiba P: The ATP bound state of P-glycoprotein is closed towards the cell exterior. Sözlü sunum, Membrane Transporters & Channels & Their Role in Human Disease, Aralık, 6, 2012, University of South Wales, Birleşik Krallık.
19. Kudlacek O, Dönmez Y, Stockner T, Chiba P, Fressmuth M: ABC transporters of Fasciola hepatica. Poster sunumu, 5th SFB Symposium 2012: Transmembrane Transporters in Health and Disease, Eylül 24- 25, 2012, Viyana,Avusturya.
20. Dönmez Y, Chiba P and Stockner T: Characterization of the outward-facing conformation of the ABC transporter P-glycoprotein. Poster sunumu, 5th SFB Symposium 2012: Transmembrane Transporters in Health and Disease, Eylül 24 - 25, 2012, Viyana, Avusturya.
21. Dönmez Y, Parveen Z, Schmid D, Spork M, Sitte HH, Ecker GF, Stockner T, Chiba P: Role of pore- exposed tyrosine residues in the transmembrane segments of human P-glycoprotein for transport function and trafficking. Poster sunumu, 5th SFB Symposium 2012: Transmembrane Transporters in Health and Disease, Eylül 24 - 25, 2012, Viyana, Avusturya.
22. Spork M, Parveen Z, Dönmez Y, Sucic S, Freissmuth M, Ecker GF, Stockner T, Chiba P: ER-export of wil- type ABCB1 domain interface mutants by folding correctors. Poster sunumu, 5th SFB Symposium 2012: Transmembrane Transporters in Health and Disease, Eylül 24 - 25, 2012, Viyana, Avusturya.
23. Parveen Z, Spork M, Dönmez Y, Gstach H, Stockner T, Trauner M, Ecker G, Freissmuth M, Sitte H, Chiba P: Interaction of ABC subfamily B transports with small molecules. Poster sunumu, 4th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 3- 9, 2012, Innsbruck,Avusturya.
24. Stockner T, Dönmez Y, Parveen Z, Chiba P: Which conformation does the ABC transporter P- glycoprotein adopt in the physiological membrane environment? Poster sunumu, 4th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 3- 9, 2012, Innsbruck,Avusturya.
25. Dönmez Y, Parveen Z, Chiba P, Stockner T: The NBD-NBD interface is not the sole determinant for transport in ABC transporters. Poster sunumu, 4th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases, Mart 3- 9, 2012, Innsbruck, Avusturya.
26. Stockner T, Dönmez Y, Parveen Z, Chiba P: Which conformation does the ABC transporter P- glycoprotein adopt in the physiological membrane environment? Sözlü sunum, 18th Scientific Symposium of the Austrian Pharmacological Society (APHAR), Eylül 20-21, 2012, Graz, Avusturya.
27. Kudlacek O, Dönmez Y, Stockner T: ABC transporters of the liver fluke Fasciola hepatica. Poster sunumu, 18th Scientific Symposium of the Austrian Pharmacological Society (APHAR), Eylül 20-21, 2012, Graz, Avusturya
28. Nil Z, Dönmez Y, Darcansoy İşeri Ö, Demirel Kars M, Gündüz: Expression of the Ceramide Metabolizing Enzymes In Drug Resistant MCF-7 Cells. Poster sunumu, I. International Multidisciplinary Cancer Research Congress, Mayıs 21-24 2009, Antalya,Türkiye.
29. Dönmez Y, Iseri ÖD, Kars MD,Gündüz U: Analysis of  $\beta$ -tubulin isotypes and apoptotic gene expression in response to paclitaxel treatment in MCF-7 breast carcinoma cell lines. EMBO Young Scientists Forum, Şubat 20-22 2008, İstanbul, Türkiye.

#### **Ulusal bilimsel toplantılarda sunulan bildiri kitabında basılan bildiriler:**

- 1 Akhmetova L, Dönmez Y, Iseri ÖD, Kars MD, Gündüz U: Doksorubisine Dirençli MCF-7 Meme Kanseri Hücre Hattında Çoklu İlaç Dirençliliğinin Engellenmesi. Sözlü sunum, XXI Ulusal Biyokimya Kongresi, Ekim 28-31 2009, İstanbul,Türkiye.
- 2 Dönmez Y, Akçay İ, Iseri ÖD, Kars MD, Gündüz U: Paklitaksel ve Vinkristin Uygulanan MCF-7 Hücrelerinde  $\beta$ -tubulin İzotip Ekspresyonlarının İncelenmesi. Poster sunumu, 15. Biyoteknoloji Kongresi, Ekim 28-31 2007, Antalya,Türkiye.
- 3 Dönmez Y, Akçay İ, Iseri ÖD, Kars MD, Gündüz U: Paklitaksel Uygulanan MCF-7 Hücrelerinde Apoptotik Gen Ekspresyonu Düzeylerinin İncelenmesi. Poster sunumu, 15. Biyoteknoloji Kongresi, Ekim 28-31 2007, Antalya, Türkiye.

#### **Ödüller:**

Öğrenci Burs Ödülü, 5th FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases,, Mart 8 - 14, 2014, Innsbruck, Avusturya.

En İyi Tez Ödülü, 2011, Orta Doğu Teknik Üniversitesi, Ankara.

#### **Son iki yılda verdiği lisans ve lisansüstü düzeyindeki dersler:**

| Akademik Yıl | Dönem | Dersin Adı  | Haftalık Saati | Öğrenci Sayısı |
|--------------|-------|---|----------------|----------------|
| 2017-2018    | 1     | Tıbbi Biyoloji (İngilizce)                                |                | 76             |
| 2017-2018    | 2     | Histoloji & Embriyoloji (Türkçe / İngilizce, Dönem 1 / 2) |                | 80 /46         |