

curriculum vitae

Personal data

Dr. Cigdem Özen



Date / place of birth 08.01.1977, Konya
Marital status Married, a Son (8)
Nationality Turkish

- [X](#) [Xing/cigdemozen](#)
- [R](#) [Researchgate.com/cigdemozen](#)
- [Ln](#) [Linkedin/cigdemozen](#)
- [G](#) [Googlescholar/cigdemozen](#)

ABOUT ME

Highly motivated and flexible molecular biologist with a 19 year experience specializing in molecular biology and biotechnology assay optimization in the laboratory. Specialized in DNA / protein based bioassays, colorimetric, fluorometric bioassays, monoclonal antibody production using hybridoma technology, and experimental biochemical methods such as affinity chromatography, protein isolation, enzymatic activity, blotting. Two years of experience in quality assurance and quality control of biopharmaceutical production and testing. Over a 10 year experience in laboratory management. Enthusiastic team player who takes the lead and at the same time learns from the team members.

Professional Career

01.2014 - 09.2018 **Specialist Researcher / Assistant to the Director of the Institute**
(Prof. Mehmet Öztürk)

Organization : Dokuz Eylül University, International Izmir

Biomedicine and Genome Institute (IBG) , Izmir
Turkey

Tasks:

I created the necessary technical specifications for state-of-the-art equipped research laboratories of the newly established and largest International Biomedicine and Genome Institute (iBG) in Turkey. My main responsibilities were the designing of the cGMP pilot facility of monoclonal antibody-based biopharmaceutical drugs and the establishment of laboratories for the development and quality control of these drugs. In addition, I also continued my wet lab research on Hepatocellular carcinoma, aging-cancer connection and anti-cancer drug research. We were supported from government for two research project with a budget of more than 10 million euros. Meanwhile least 200 people work now in this research institute.

12.2009 - 01.2014

Postdoctoral Researcher und Junior Lab Manager (Prof. Mehmet Öztürk)

Organisation : Bilkent University, Department of Molecular Biology and Genetics, Ankara, Turkey

Taks:

My main research goal was to understand why normal cells are more cancerous than aged and how we can stop liver cancer cells through the use of new drug candidates. We used hepatocellular carcinoma (HCC) as a cancer model and examined the role of ATAD2 protein in carcinogenesis between senescence and liver transformation. We have tested more than 500 different new cancer drug candidates on HCC and various cancer cell lines to find new anticancer drug candidates. During this time I became a very experienced molecular biology researcher. I used almost all types of molecular biology techniques. Cost management, purchasing and budget control of our group were also my duties. From my postdoctoral work, 11 scientific articles have been published so far.

12.2000-09.2009

Research and Teaching Assistant (with Prof. Nuran Diril)

Organization : Hacettepe University, Department of Biology,

Molecular Biology Section, Ankara, Turkey

Tasks:

I was primarily responsible for preparing, explaining and assessing exams for students in molecular biology, molecular genetics and experimental biochemistry. During this time I completed my master and doctoral studies. My master's thesis was conducted to investigate the mutagenic potential of 4 dental cement types with the Ames test system (short-term test system). My PhD dissertation was concerned with the discovery of novel DNA topoisomerase inhibitors as drug candidates for cancer using DNA-based in vitro experimental systems. During this time we completed four research projects. I was also responsible for controlling project budgets, acquisitions, and writing reports. So far I have published six scientific papers from these studies.

10.2006-08.2007

Visiting Scientist (Prof. Felipe Cortes)

Organization : University of Seville, Biology Faculty, Department of Cell Biology, Seville, Spain

Tasks:

In the Cortes group, I was responsible for studying the potential for DNA damage and genotoxicity of various chemicals (such as lithium salts and merbarone) in AA8-CHO cell lines. During this time, I learned mammalian tissue culture techniques and chromosome staining and gained experience in the evaluation of chromosome ablation techniques. One scientific article was published from this study and I also achieved to learn Spanish until intermediate level.

Education

2003-2009

Doctor of Philosophy in Molecular Biology

Hacettepe University, Biology Department; Ankara, Turkey

2000-2003

Thesis: "Investigation of the inhibitory effect of some benzazole - derivatives of the eukaryotic DNA topoisomerase I and II" (Kaplan et al Özen, MCR. 2013; Yalcin -Aki et al, SAR QSAR, 2014.)

Master of Science in Molecular Biology

Hacettepe University, Biology Department; Ankara, Turkey

Thesis: " Determination of mutagenic potentials of dental cements by Salmonella / microsome test system" (Kaplan et al., 1995-1999 Biomaterials, 2004)

Bachelor in Biologie

Hacettepe University, Biology Department; Ankara, Turkey

Core Competencies

Practical experience in the following experiments in BSL 1 and 2 laboratories.

Molecular Biology

DNA isolation, RNA isolation, plasmid and genomic DNA isolation, Gene cloning in bacteria, site-directed mutagenesis, PCR, RT-qPCR, qPCR, DNA sequence analysis, flow cytometry, protein isolation, fluorescence microscopy, sulforhodamine B test, HDAC inhibition test, recombinant protein expression in bacteria, components cell preparation, microarray, DNA topoisomerase I and II inhibition test, restriction endonuclease assays, reverse mutation assay in bacteria.

Biochemistry

Dot blotting, Western blotting, ELISA, immunofluorescent staining, IHC staining, in vitro DNA relaxation assay, catalase enzyme activity assay, protein purification assay.

Tissue Culture

HEK 293, hepatocellular carcinoma cell lines (16 different), breast cancer cell lines (5 different), colon cancer cell lines (3), HeLa, Mouse hybridoma cells, cell line maintenance, transfection optimization, plasmid transfection, RNAi knockdowns, cell fusion, selection, phase inverted microscopy, phase inverted fluorescence microscopy, fluorescence microscopy

Animal Models

Animal care and handling, removal of spleens from the mouse, tail blood collection

Teaching

Experimental biochemistry, molecular biology, molecular genetics.

Data Analysis

One way ANOVA, LD50 Analysis, Flow cytometer analysis, MS Excell data analysis, Gel Image Analysis

Linguistic Skills

Turkish - Native language

English - Fluent (spoken and written)
German - Good (B2 -C1 , Telc B2 certificate)
Spanish - basic knowledge

Since 10.2017 I dedicate myself to learning German. I have taken the following German courses in Dresden.

- **Begginer** : A1 to B1 German Course at VHS, Dresden (Integration course)
- **Intermediate** : Occupational German course B1-B2 at Inlingua language school , Dresden
- **Advance**: General and business German (C1 Level) course at Euro Schule and also VHS, Dresden

Computer Skills

Microsoft Wort/ Excell / Powerpoint (***)
Image J (***)
Flowing Software (**)
R-Studio (*)
SPSS (**)
BLAST (**)
Primer / Cloning designing tools (**)
PubChem (**)

** Beginner, ** Intermediate, *** Advance*

Awards

2011- 2013 Postdoctorate Research Program Grant from the Turkish Academy of Sciences

Certificates

- ✓ ISO / TR 10013: 2001 Guidelines for the documentation of the quality management system.
- ✓ ISO 17025: 2005 General requirements for the competence of testing and calibration laboratories
- ✓ ISO 19011: Auditor Education 2011
- ✓ Good Manufacturing Practices, EudraLex by Volume 4 training
- ✓ Biosafety and biosafety with BSL 3 focus, 2 days training
- ✓ Telc General and Occupational German (B2)

Volunteer Jobs

June 1996 Caretta caretta Protection and Marking Project Anamur, Mediterien Sea -Turkey

- August 1999 Monachus monachus Protection Project, Black Sea-Turkey
- June 2003 Chelonia mydas Protection und Marking Project in Cyprus, Medeterien Sea
- June 2019 Gorbitz 135. Grundschule in Dresden, Helping students for their theater preparations
- Since January 1st 2020 TU Dresden, DLR- School Lab in Technische Sammlung in Dresden as a Volunteer Scientist, I am preparing new scientific projects for the School Lab. We are explaining students (from 5th grade to 12th grade) different experiments and the science under it.

Free time activities

Yoga, Hiking, Mountain Biking, Volleyball, Choir, Book Reading, Badminton, Volunteer for Intercultural activities of TU Dresden Concept.

Dresden, May 3rd 2020



Dr. Cigdem Özen

PUBLICATIONS

1. Egemen Foto, **Cigdem Özen**, Fatma Zilifdar, Betül Tekiner-Gülbaş, İlkay Yıldız, Esin Akı-Yalçın, Nuran Diril, İsmail Yalçın “Benzoxazines as new human topoisomerase I inhibitors and potential poisons” *DARU J Pharm Sci* (2019). <https://doi.org/10.1007/s40199-019-00315-x>
2. Senem Demir, **Cigdem Özen**, Meltem Ceylan-Ünlüsoy, Mehmet Öztürk, Oya Bozdağ-Dündar, “Novel Furochromone Derivatives: Synthesis and Anticancer Activity Studies”, *Journal of Heterocyclic Chemistry*, 27. Feb. 2019 (online).
3. Dongdong Wang, **Cigdem Özen**, Ibrahim M Abu-Reidah, Sridevi Chigurupati, Jayanta Kumar Patra, Jarosław O Horbanczuk, Artur Józwiak, Nikolay T Tzvetkov, Pavel Uhrin, Atanas G Atanasov, “Vasculoprotective Effects of Pomegranate (*Punica granatum L.*)”, *Front Pharmacol.* 2018; 9: 544.
4. **Cigdem Özen**, Meltem Ceylan-Unlusoy, Mehmet Ozturk, Oya Bozdag-Dundar, “A novel chromonyl thiohydantoin with anti-proliferative action on primary hepatocellular carcinoma cells”, *Medicinal Chemistry Research*, January 2018, Volume 27, Issue 1, pp 153–160.
5. **C Ozen**, MC Unlusoy, N Aliary, M Ozturk, OB Dundar, “Thiazolidinedione or Rhodanine: A Study on Synthesis and Anticancer Activity Comparison of Novel Thiazole Derivatives” *Journal of Pharmacy & Pharmaceutical Sciences*, 2017, 20 (1): 415-427.
6. Mehmet Ozturk, Tugce Batur, Umut Ekin, Aybike Erdogan, Evin İscan, Umur Keles, Ozden Oz, **Cigdem Özen**, “Molecular pathogenesis of liver cancer”, *Journal of Gastrointestinal Cancer*, September 2017, Volume 48, Issue 3, pp 222–224.
7. Muhammad Ayaz Mustafa, Afshan Aslam, **Cigdem Özen**, Imran Ali Hashmi, Mehmet Ozturk, Firdous Imran Ali “Phenacyl group containing amide derivative of dehydroabietylamine exhibiting enhanced cytotoxic activity against PLC and MCF7 cancer cell lines”, *Medicinal Chemistry Research*, 2017, Volume 26, Issue 7, pp 1367–1376.
8. Mustafa MA, **Özen C**, Hashmi IA, Aslam A, Baig JA, Yildiz G, Muhammad S, Solangi IB, Naqvi NH, Ozturk M and Ali FI “Synthesis and bio-molecular study of (+)-N-Acetyl- α -amino acid dehydroabietylamine derivative for the selective therapy of hepatocellular carcinoma”, *BMC Cancer*, Nov 14, 2016, 16:883.
9. **Ozen C**, Dayanc BE “Current Prevention Approaches for Hepatocellular Carcinoma” *J Cancer Prev Curr Res* 2016, 4(1): 00103.
10. Mustafa MA Aslam A, **Ozen C**, Hashmi IA, Naqvi NH, Ozturk M and Ali FI, “Comparative evaluation of in vitro cytotoxic effects among parent abietyl alcohol and novel fatty acid ester derivatives against MCF7 and hepatocellular carcinoma cell lines”, *Pak. J. Pharm.Sci.*, 2014, Vol.27, No.6 (Suppl), pp.2013-2018.
11. Mustafa MA, Hashmi IA, Manzoor S, Ahmed A, Ahmed V, Aslam A, **Ozen C**, Naqvi NH, Ozturk M, Ali FI, “Synthesis and characterization of amino acid conjugates of oleanolic acid and their in vitro cytotoxic effect on HCC cell lines”, *Pak. J. Pharm. Sci.*, 2014, Vol.27, No.5, (Special), September 2014, pp.1491-1496.
12. Aki-Yalcin E, Ertan-Bolelli T, Taskin-Tok T, Ozturk O, Ataei S, **Ozen C**, Yildiz I, Yalcin I, “Evaluation of inhibitory effects of benzothiazole and 3-amino-benzothiazolium derivatives on DNA topoisomerase II by molecular modeling studies” *SAR QSAR 2014*, *Environ Res.* 2014 Jul 16:1-13.
13. Zilifdar F, Alper-Hayta S, Yilmaz S, **Kaplan Ozen Ç**, Foto E, Aydoğan Z, Yildiz I, Aki E, Yalçın I, Diril N, “Genotoxic potentials and eukaryotic DNA topoisomerase I inhibitory effects of some benzoxazine derivatives”, *Medicinal Chemistry Research*, 2013, Volume 23, [Issue 1](#), pp 480–486.
14. Yildiz G, Arslan-Ergul A, Bagislar S, Konu O, Yuzugullu H, Gursoy-Yuzugullu O, Ozturk N, **Ozen C**, Ozdag H, Erdal E, Karademir S, Sagol O, Mizrak D, Bozkaya H, Ilk HG, Ilk O, Bilen B, Cetin-Atalay R, Akar N & Ozturk M, “Genome-wide transcriptional reorganization associated with senescence-to immortality switch during human hepatocellular carcinogenesis”, *PLOS ONE*, 2013, 8(5): e64016.
15. **Kaplan Ozen C**, Tekiner Gulbas B, Foto E, Yildiz I, Diril N, Aki E and Yalcin I, “Benzothiazole Derivatives as Human DNA Topoisomerase II alpha Inhibitors”, *Medicinal Chemistry Research* 2013, Volume 22, Issue 12, 5798-50808.
16. **Ozen C**, Yildiz G, Dagcan AT, Cevik DC, Ors A, Keles U, Topel H, Ozturk M, “Genetics and epigenetics of liver cancer”, *New Biotechnology* 2013, Volume 30, Issue 4, Pages 381–384.
17. Pastor N,* **Kaplan C***, Dominguez I, Mateos S, Cortes F, “Cytotoxicity and mitotic alterations induced by non-genotoxic lithium salts in CHO cells *in vitro*” *Toxicology In Vitro*, 2009, 23, 432-438.

18. Erdemgil FZ, Ilhan S, Korkmaz-Aydođdu F, **Kaplan C**, Mercangöz A, Arfan M, Ahmad S “Chemical Composition and Biological Activities of the essential oil of *Perovskia atriplicifolia* from Pakistan” *Pharmaceutical Biology*, 2007, Vol. 45, issue 4, pages: 324-331.
19. **Kaplan C**, Diril N, Şahin S and Cehreli MC “Mutagenic potentials of dental cements as detected by the Salmonella/microsome test” *Biomaterials*, 2004, Volume 25, Issue 18, 4019-4027.

OTHER PUBLICATIONS

1. Yesiloglu Talha Zahid, DÜNDAR OYA, **ÖZEN ÇİĞDEM**, ÖZTÜRK MEHMET (2016). Synthesis and HDACi Activity of Novel Thiazole Substituted Benzamide Compounds. 23rd Young Research Fellow Meeting.
2. AKI YALÇIN ESİN EMİNE, YALÇIN İSMAİL, Ertan Böleli Tuğba, YILMAZ SERAP, Böleli Kayhan, ÖZTÜRK ÖZÜM, TAŞKIN TOK TUĞBA, **ÖZEN ÇİĞDEM** (2015). Computer aided drug design studies for new anticancer drugs. EACR_Sponsored III Anticancer Agent Development Congress 2015, 38-38.
3. **ÖZEN ÇİĞDEM**, GÜNDÜZ MİYASE GÖZDE, ŞİMŞEK RAHİME, ÖZTÜRK MEHMET (2015). New calcium channel blocker compounds with anticancer activity. EACR_Sponsored III Anticancer Agent Development Congress 2015.
4. **ÖZEN ÇİĞDEM**, ÜNLÜSOY MELTEM, DÜNDAR OYA, ÖZTÜRK MEHMET (2015). A novel khellin molecule with high antigrowth activity in cancer cells. EACR_Sponsored III Anticancer Agent Development Congress
5. DÜNDAR OYA, Kutlu Funda, Çevik Dilek, **ÖZEN ÇİĞDEM**, ÖZTÜRK MEHMET (2014). Investigation of anticancer potential and histone deacetylase inhibitor activity of novel piperazinyl flavone derivatives. 1st International Congress: from drug discovery to drug delivery
6. Foto Egemen, **ÖZEN ÇİĞDEM**, ZİLİFDAR FATMA, Yılmaz Serap, Hayta Sabiha, YILDIZ İLKAY, AKI YALÇIN ESİN EMİNE, YALÇIN İSMAİL, DİRİL NURAN (2014). Inhibitory Effects of Some Benzoxazine Derivatives on Human DNA Topoisomerase I. 2nd INTERNATIONAL BAU-DRUG DESIGN SYMPOSIUM, Novel Methods and Emerging Targets in Drug Discovery & Patented Drug Development
7. Çevik Dilek, Kutlu Funda, **ÖZEN ÇİĞDEM**, ÖZTÜRK MEHMET, DÜNDAR OYA (2013). Novel benzamido acetic acid acetic acid ethyl ester substituted piperazine containing flavone derivatives have anticancer activities evidenced by histone deacetylase inhibition. 2nd International Congress of the Molecular Biology Association of Turkey
8. **ÖZEN ÇİĞDEM**, ÜNLÜSOY MELTEM, Ertan Rahime, DÜNDAR OYA, ÖZTÜRK MEHMET (2013). New flavonyl thiazolidinedione compounds against hepatocellular carcinoma cells identification and bio response characterization. International BAU Drug Design Symposium
9. **Çiğdem Özen**, Meltem Ceylan Ünlüsoy, Oya Bozdağ DüNDAR, Rahmiye Ertan, Mehmet Öztürk, “Kromonil tiazolidindion türevi bir karma bileşiğın hepatoselüler karsinoma hücrelerine karşı yüksek biyoaktivitesi ve etki mekanizması”, 20. Ulusal Kanser Kongresi, 19-23 Nisan 2013, Antalya, Türkiye.
10. **Çiğdem Özen**, Egemen Foto, Zeliha Soysal, Fatma Zilifdar, Betül Tekiner Gülbaş, İlkay Yıldız, Esin Akı, İsmail Yalçın, Nuran Diril, “12 Adet Benzotiyazol Türevinin Ökaryotik DNA Topoizomeraz İnhibisyon Potansiyellerinin Araştırılması (Investigation of Eukaryotic DNA Topoisomerase Inhibition Potential of 12 Benzothiazole Derivatives)” 20. Ulusal Kanser Kongresi, 19-23 Nisan 2013, Antalya, Türkiye
11. Dilek Çevik, Funda Kutlu, **Çiğdem Özen**, Mehmet Ozturk, Oya Bozdağ DüNDAR, Novel benzamido/acetic acid /acetic acid ethyl ester substituted piperazine containing flavone derivatives have anticancer activities evidenced by histone deacetylase inhibition, Toplantı adı: MolBiyKon2013, Tarih/Yer: 22-23 Kasım 2013, ITU Ayazaga Kampusu, İstanbul
12. Yıldız Gökhan, Bağışlar Sevgi, Arslan Ergül Ayca, Gursoy Yuzugullu Ozge, Konu Ozlen, Yuzugullu Haluk, ÖZTÜRK NURİ, ÖZDAĞ HİLAL, **ÖZEN ÇİĞDEM**, ERDAL BAĞRIYANIK ŞERİFE ESRA, Karademir Sedat, Sagol Ozgul, Mizrak Dilsa, Bozkaya Hakan, İlk Hakkı Gokhan, İlk Ozlem, Bilen Biter, ATALAY RENGÜL, Akar Nejat, Saadi Khochbin, ÖZTÜRK MEHMET (2011). A molecular signature of senescence escape in liver cancer. *Les Jurnees de la Recherche Medicale*

13. Campanella Claudia, Gammaza Marino, N Ardizzone, **ÖZEN ÇİĞDEM**, Pastor Nuria, Orta Luis, Maras Me, Peri M, Capello Fe, Cortes Felipe (2008). HSP60 pro Caspase3 Complex Persist After Oxidative Stress in Tumoral Cells. XVII Reunion Cientifica De La Sociedad Española De Mutagenesis Ambiental
14. Pastor Nuria, Campanella Claudia, **ÖZEN ÇİĞDEM**, Mateos Santiago, Cortes Felipe (2008). Caracterizacion Del Farmaco Antitumoral Merbarona Un Inhibidor De La Enzima Topoisomerasa II De ADN. XVII Reunion Cientifica De La Sociedad Española De Mutagenesis Ambiental
15. **ÖZEN ÇİĞDEM**, Foto Egemen, TEKİNER GÜLBAŞ PERVİN BETÜL, ARPACI ÖZLEM, YILDIZ İLKAY, AKI YALÇIN ESİN EMİNE, YALÇIN İSMAİL, DİRİL NURAN (2008). Newly Synthesized Benzothiazoles Are More Effective On Catalytic Role Of DNA Topoisomerase II Than Topoisomerase I. XVII. Reunion Cientifica de la Sociedad Espanola de Mutagenesis Ambiental
16. Campanella Claudia, **ÖZEN ÇİĞDEM**, Orta Luis, Neukam Karin, Cortes Felipe (2007). The Effects of Oxidative Stress on Neoplastic Cell Survival. XVI Reunion Cientifica De La Sociedad Española De Mutagenesis Ambiental
17. Orta Luis, Neukam Karin, Campanella Claudia, **ÖZEN ÇİĞDEM**, Mateos Santiago (2007). La Sustitucion Del ADN con Nucleosidos Halogenados Protege de Las Roturas De Cadena y De Los Intercambios Entre Cromatidas Hermanas Inducidas Por El Inhibidor De Topoisomerasa I Camptotecina. XVI Reunion Cientifica De La Sociedad Española De Mutagenesis Ambiental
18. **ÖZEN ÇİĞDEM**, Pastor Nuria, Domingez Immaculada, Campanella Claudia, Orta Luis, Neukam Karin, Mateos Santiago (2007). Lithium Salts Induce Micronuclei in AA8 Chinese Hamster Cells But No DNA Or Chromosome Damage. XVI Reunion Cientifica De La Sociedad Española De Mutagenesis Ambiental
19. Neukam Karin, Pastor Nuria, Orta Luis, Campanella Claudia, **ÖZEN ÇİĞDEM**, Cortes Felipe (2007). Induction of Endoreduplication by Flavanols Present in the Human Diet. XVI Reunion Cientifica De La Sociedad Española De Mutagenesis Ambiental
20. Fatma Zilifdar, **Çiğdem Kaplan Özen**, Zeliha Soysal, Nuran Diril, "Loniceria etrusca Meyve Özütlerinin Sitotoksik, Mutajenik-Antimutajenik Etkileri" XI. Ulusal Tıbbi Biyoloji ve Genetik Kongresi, 28-31 Ekim 2009, Bodrum- Türkiye.
21. **Çiğdem Kaplan**, Nuran Diril, Murat Çehrelı, Saime Şahin, Tülay Saraçbaşı, "Bazı Dental Simanların Mutajenik Potansiyellerinin Salmonella/ Mikrozom Test Sistem İle Belirlenmesi" XIII. Biyoteknoloji Kongresi 25-29 Ağustos 2003, Çanakkale, Türkiye.
22. **Çiğdem Kaplan**, Nuran Diril, Murat Çehrelı, Saime Şahin, Tülay Saraçbaşı, "Bazı Dental Simanların Ames Test Sistemi İle Mutajenik Potansiyellerinin Belirlenmesi", XVI. Ulusal Biyoloji Kongresi, 4-7 Eylül 2002, Malatya, Türkiye.