

## CV

1. **Name Surname** : Didem Karakaş Zeybek
2. **Date of Birth** : 08.02.1988
3. **Title** : PhD
4. **State of Education** : Doctorate
5. **Current Institution** : Istinye University

Degree	Department	University	Date
Bachelor's Degree	Biology	Uludag University	2006-2011
Master's Degree	Molecular Biology	Uludag University	2011-2013
PhD	Molecular Biology	Uludag University	2013-2017

### 5. Academic Appointments

- Assistant Professor (Date) : 17 July 2017  
Associate Professor (Date) :  
Professor (Date) :

### 6. Theses Advised

- 6.1. Postgraduate Theses  
6.2. Doctoral Theses

### 7. PUBLICATIONS

#### 7.1. Articles published in internationally refereed journals (SCI,SSCI,Arts and Humanities)

**A promising natural product, pristimerin, results in cytotoxicity against breast cancer stem cells in vitro and xenografts in vivo through apoptosis and an incomplete autophagy in breast cancer.**

Cevatemre B, Erkısa M, Aztopal N, **Karakas D**, Alper P, Tsimplouli C, Sereti E, Dimas K, Armutak EII, Gurevin EG, Uvez A, Mori M, Berardozi S, Ingallina C, D'Acquarica I, Botta B, Ozpolat B, Ulukaya E.

Pharmacol Res. 2017, pii: S1043-6618(17):30993-3.

**The MTT viability assay yields strikingly false-positive viabilities although the cells are killed by some plant extracts.**

**Karakas D**, Ari F, Ulukaya E.

Turk J Biol. 2017, 41: 919-925

**Cytotoxic and Apoptotic Effects of the Combination of Palladium (II) 5,5-diethylbarbiturate Complex with bis(2-pyridylmethyl)amine and Curcumin on Non Small Lung Cancer Cell Lines.**

Tunc D, Dere E, **Karakas D**, Cevatemre B, Yilmaz VT, Ulukaya E.

Bioorganic & Medicinal Chemistry. 2017, 25(5): 1717-1723.

**Synthesis, biological characterization and evaluation of molecular mechanisms of novel copper complexes as anticancer agents.**

Acilan C, Cevatemre B, Adıguzel Z, **Karakas D**, Ulukaya E, Arda N, Ribeiro N, Correia I, Pessoa JC. *Biochimica et Biophysica Acta (BBA) - General Subjects*. 2017, 1861(2): 218–234.

**A trans-platinum (II) complex induces apoptosis in cancer stem cells of breast cancer.**

Aztopal N, **Karakas D**, Cevatemre B, Ari F, Icsel C, Daidone MG, Ulukaya E. *Bioorganic & Medicinal Chemistry*. 2017, 25(1): 269-276.

**Validation data supporting the characterization of novel copper complexes as anticancer agents.**

Acilan C, Cevatemre B, Adıguzel Z, **Karakas D**, Ulukaya E, Ribeiro N, Correia I, Pessoa JC. *Data Brief*. 2016, 9: 1160-1174.

**Design, Synthesis, Biological Evaluation, Antioxidant and Cytotoxic Activity of Heteroatom Substituted 1,4-Naphtho- and Benzoquinones.**

Deniz NG, Ibis C, Gokmen Z, Stasevych M, Novikov V, Komarovska-Porokhnyavets O, Ozyurek M, Guclu K, **Karakas D**, Ulukaya E. *Chemical & Pharmaceutical Bulletin*. 2015, 63: 1029–1039.

**Addition of niclosamide to palladium(II) saccharinate complex of terpyridine results in enhanced cytotoxic activity inducing apoptosis on cancer stem cells of breast cancer.**

**Karakas D**, Cevatemre B, Aztopal N, Ari F, Yilmaz VT, Ulukaya E. *Bioorganic & Medicinal Chemistry*. 2015, 23(17): 5580-5586.

**Cancer Stem Cells: Emerging Actors in Both Basic and Clinical Cancer Research.**

**Karakas D**, Cevatemre B, Ulukaya E. *Turkish Journal of Biology*. 2014, 38: 829-838.

**7.2. Articles published in other internationally refreed journals**

**Total Phenolic Content, Antioxidant and Cyto-/Genotoxic Activities of *Pelargonium quercetorum* Agnew in Human Breast Cancer Cells.**

Ari F, Çelikler S, **Karakaş D**, Cevatemre B, Fırat M, Ulukaya E. *Journal of Clinical and Experimental Investigations*. 2017, 8(1): 22-30.

**7.3. Assertions presented in international scientific congresses and published in the proceedings**

## ORAL PRESENTATIONS

### **4th Workshop of COST Action CM1106.** Chioggia, Italy

10-11 March 2016

Palladium (II)-Saccharinate Complex of Terpyridine Against The Cancer Stem Cells.

### **Targeting Hedgehog Signaling in Cancer Stem Cells. Focused Joint Meeting for ESRs, COST Action CM1106.** Barcelona, Spain

19-20 January 2015

Possible Cross-talk between Hedgehog, Wnt and Notch Pathways Following a Cytotoxic Treatment with Pd(II)-saccharinate complex of terpyridine.

### **19th Congress of Asian Pacific Society of Respiriology.** Bali, Indonesia

13-16 November 2014

Palladium (II)-saccharinate complex of terpyridine seems to be a promising novel compound for the treatment of lung cancer in vitro.

## POSTER PRESENTATIONS

### **3rd International Convention of Pharmaceuticals and Pharmacies,** Istanbul, Turkey

26-29 April 2017

N-Substituted Thiosemicarbazones - Synthesis, Characterization and Comparison of Cytotoxicities Against MCF 7 Cell

### **3rd International Convention of Pharmaceuticals and Pharmacies,** Istanbul, Turkey

26-29 April 2017

The cytotoxic activities of substitue-salicylaldehyde-S-methyl-thiosemicarbazone and it's complex against MCF-7 cell line

### **3rd International Convention of Pharmaceuticals and Pharmacies,** Istanbul, Turkey

26-29 April 2017

Thiosemicarbazone and Nickel(II) Complex Activites Against DU145 Cells

### **3rd International Convention of Pharmaceuticals and Pharmacies,** Istanbul, Turkey

26-29 April 2017

Cytotoxic Activites of 3-bromo-5-chloro-2-hydroxy-acetophenone-N-phenyl-thiosemicarbazone and 3-bromo-5-chloro-2-hydroxy-acetophenone-N-phenyl-thiosemicarbazidato triphenylphosphine Nickel(II) Complex Against MCF-7 (Cancer)

### **4th International Bahçeşehir University (BAU) Drug Design Congress.** Istanbul, Turkey

13-15 October 2016

Proteomic Analysis of the Palladium(II) Saccharinate Complex of Terpyridine in breast cancer stem cells.

### **13th European Biological Inorganic Chemistry Conference.** Budapest, Hungary

28 August-01 September 2016

Synthesis, Chemical and Biological Characterization and Evaluation of Molecular Mechanisms of Novel Copper Complexes as Anticancer Agents.

**FEBS J, vol: 283, pp. 301-302.**

September 2016

Trans-dichloridoplatinum (II) complex induces apoptosis in cancer stem-cell enriched mammospheres.

**24th Biennial Congress of the European Association for Cancer Research.** Manchester, United Kingdom

9-12 July 2016

Synthesis, biological characterization and evaluation of molecular mechanisms of novel copper complexes as anticancer agents.

**COST Action CM1407 Meeting.** Rome, Italy

5-6 October 2015

Dying in different ways: cellular responses of breast cancer stem cells and parental MCF-7 cells to BB-8.

**The Second Congress Of The Serbian Association For Cancer Research.** Belgrade, Serbia

2-3 October 2015

Addition of Curcumin to a Palladium (II)-barbiturate Complex Enhances the Cytotoxic/Apoptotic Activity on non-Small Cell Lung Carcinoma Cells.

**EACR-Sponsored 3rd Anticancer Agents Development Congress.** İzmir, Turkey

18-19 May 2015

Trans-Dichloridobis [2-(2 Hydroxyethyl) Pyridine] Platinum(II) Complex Induces Apoptosis via ROS Generation in PC-3 Prostate Cancer Cell Line.

**COST CM1106 Working Group Meeting, Chemical Approaches to Targeting Drug Resistance in Cancer Stem Cells.** Athens, Greece

26-27 March 2015

Mammospheres (Cancer Stem Cell-Enriched Population) in Breast Cancer Show Resistance Against A Palladium (II)-Saccharinate Complex of Terpyridine.

**23rd Biennial Congress of the European Association for Cancer Research.** Munich, Germany 5-8 July 2014

Breast cancer stem cells are more resistant than parental cells to a novel Pd (II) saccharinate complex.

**EACR-Sponsored 2nd Anticancer Agents Congress & 5th Multidisciplinary Cancer Research Congress's.** Mugla, Turkey

23-27 April 2014

An effective novel approach for treatment of breast cancer: combination of Pd (II) complex and niclosamide.h

**EACR-Sponsored 2nd Anticancer Agents Congress & 5th Multidisciplinary Cancer Research Congress's.** Mugla, Turkey

23-27 April 2014

Investigation of cytotoxic / apoptotic effects of a novel synthesized platinum (II) complex [PT(HEPY)2CL2] on human breast cancer stem cells in vitro.

**Chemical Approaches to Targeting Drug Resistance in Cancer Stem Cells.** 2nd Working Group Meeting, Budapest, Hungary

27-28 March 2014

Investigation of cytotoxic/apoptotic effects of a novel synthesized platinum (II) complex [Pt(hepy)<sub>2</sub>Cl<sub>2</sub>] on human breast cancer stem cells in vitro.

**1st International BAU Drug Design Symposium.** Istanbul, Turkey

21-23 March 2013

A Novel PD(II) Based Molecule Exerts its Toxicity Through DNA Double Strand Formation: Analysis via Biochemical and Proteomic Methods.

**7.4.** International books published, or chapters from a book

**7.5.** Articles published in national refereed journals

**7.6. Assertions presented in national scientific congresses and published in the proceedings**

## **ORAL PRESENTATIONS**

**Istinye University Molecular Cancer Summit,** Istanbul, Turkey

25-26 March 2017

Pankreatik Kanser ve Tümör Mikroçevresinin EF2K İnhibisyonu Aracılığıyla Hedeflenmesi

**6th Multidisciplinary Cancer Research Congress's,** Konya, Turkey

27-30 October 2016

Cytotoxic Synergy Between Tingenin B and Paclitaxel Against Breast Cancer Stem Cells: Induction of Mitochondria Dependent Apoptosis

**6th Multidisciplinary Cancer Research Congress's,** Konya, Turkey

27-30 October 2016

The Plant-Derived Triterpenoid Pristimerin is a Potent Anticancer Agent due to its Cytotoxic Activity on Breast Cancer in vitro and in vivo

**SANKO University Innovation in Medicine Summit-2,** Gaziantep, Turkey

5-7 May 2016

Yeni Bakır Komplekslerinin Sentezi, Moleküler Etki Mekanizması, Dna Hasarı Oluşumu Ve p53-Bağımsız Apoptotik Etkileri

**21st National Cancer Congress,** Antalya, Turkey

22-26 April 2015

Palladyum (II) Kompleksi ve Niklozamid Kombinasyonunun Meme Kanseri Kanser Kök Hücreleri Üzerindeki in vitro Güçlü Sitotoksik/Apoptotik Etkisi

**21st National Biology Congress,** Izmir, Turkey

03-07 September 2012

Bitki Ekstraktlarında Kullanılan MTT Metodu Ne Kadar Güvenilir?

## **POSTER PRESENTATIONS**

**XV. National Medical Biology and Genetics Congress.** Fethiye-Oludeniz, Turkey

26 - 29 Ekim 2017

Pankreatik Kanserde Onkojenik EF-2 Kinaz'ın Mikroçevre Aracılı Düzenlenmesi ve Terapötik Hedeflenmesinin İncelenmesi

**14<sup>th</sup> Oncology Institute Days Symposium and 7th I.U. Oncology Institute Workshop**, Istanbul, Turkey

23-24 December 2016

Pristimerin'in Meme Kanseri Hücreleri Üzerine in vitro ve in vivo Sitotoksik Etkisi

**6<sup>th</sup> Multidisciplinary Cancer Research Congress's**, Konya, Turkey

27-30 October 2016

Genotoxic Activity of Palladium(II) Saccharinate Complex of Terpyridine on Breast Cancer Stem Cells

**6<sup>th</sup> Multidisciplinary Cancer Research Congress's**, Konya, Turkey

27-30 October 2016

Inhibition of the WNT Signalling Pathway Sensitizes Breast Cancer Stem Cells to Pd(II) Complex-Induced Apoptosis

**21<sup>st</sup> National Cancer Congress**, Antalya, Turkey

22-26 April 2015

Kemorefrakter İleri Evre Meme Kanseri Tedavisinde Tümör Kemosensitivite Testi (Onkogram): Yeni Bir Umut?

**3<sup>th</sup> Pharmaceutical Chemistry, Production, Technology and Standardization Congress**, Antalya, Turkey

20-22 March 2015

Meme Kanseri Tedavisinde Ümit Vaat Edici Yeni Bir Yaklaşım: Palladyum (II) Kompleksi [PdCl(terpy)](sac)·2H<sub>2</sub>O ve Niklozamid Kombinasyonu

**EACR-sponsored 2nd Anticancer Agents Congress & 5th Multidisciplinary Cancer Research Congress's**, Mugla, Turkey

23-27 April 2014

Palladium (II) kompleksinin tek başına ve ilaç kombinasyonları ile meme kanseri kök hücreleri üzerindeki sitotoksik etkilerinin in vitro incelenmesi

**EACR-sponsored 2nd Anticancer Agents Congress & 5th Multidisciplinary Cancer Research Congress's**, Mugla, Turkey

23-27 April 2014

Palladium (II) komplekslerinin akciğer ve kolon kanseri hücre soyları üzerine sitotoksik/apoptotik etkileri

**EACR-sponsored 2nd Anticancer Agents Congress & 5th Multidisciplinary Cancer Research Congress's**, Mugla, Turkey

23-27 April 2014

Yeni sentezlenen Palladium komplekslerinin akciğer kanseri hücre soyu üzerine sitotoksik/apoptotik etkileri

**XIII. National Medical Biology and Genetics Congress**, Kusadasi, Aydin, Turkey

27-30 October 2013

Palladyum (II) Bileşiği A549 Akciğer Kanseri Hücrelerinde Kaspaz 3/7 Üzerinden Apoptozisi Tetikler

**1st Pharmaceutical Chemistry, Production, Technology and Standardization Congress, Antalya, Turkey**  
29-31 March 2013  
Yeni Bir Pd(II) Bileşiminin DNA Kırıkları Üzerinden Oluşturduğu Moleküler Etkinin Biyokimyasal ve Proteomik Metodlarla İncelenmesi

**21st National Biology Congress, Izmir, Turkey**  
03-07 September 2012  
Yeni Sentezlenen Pd(II) Sakkarinat Komplekslerinin Antikanser Etkilerinin ve Mekanizmalarının Araştırılması

**21st National Biology Congress, Izmir, Turkey**  
03-07 September 2012  
Sarkom Tedavisi için Yeni Bir Yaklaşım: Uludağ Üniversitesi Tarafından Yeni Sentez Edilen Palladyum (II) Bileşiği

#### 7.7. Other publications

### 8. Projects

- **Project Coordinator** in the project titled “*Pankreatik kanser hücreleri ile nöral hücreler arasındaki eksozomal mikroRNA aracılı iletişimin pankreatik kanserin agresif karakteri üzerine etkilerinin incelenmesi*” that is supported by **TUBITAK 3501 Career Development Program** for three years (2018-2021). Project number: 117Z955.
- **Project Coordinator** in the project titled “*Pankreas kanseri ve tümör mikroçevresinin hedeflenmesi*” that is supported by **TUBITAK, 2214- A International Research Fellowship Programme** for 10 months (2015-2016). Project number: 2214A, 2015-1.
- **Researcher** in the project titled “*Kök Hücre Wnt Yolak İnhibitörü olan Niklozamidin Antikanser İlaçlarla Kombinasyonlarının Meme Kanseri Kanseri Kök Hücreleri Üzerindeki Sitotoksik/Apoptotik Etkilerinin ve Mekanizmanın Gen ve Protein Düzeyinde Araştırılması*” that is supported by the **Unit of Uludag University Scientific Research Projects** for two years (2016-2018). Project Number: OUAP(T)-2016/1.
- **Researcher** in the project titled “*Akciğer Kanseri Olgularının Tedaviye Yanıtının ATP-TCA ve MTT Metodu ile ex vivo Olarak Araştırılması*” that is supported by the **Unit of Uludag University Scientific Research Projects** for two years (2014-2016). Project Number: : OUAP(T)- 2014/2.
- **Researcher** in the project titled “*Magnetik Demir Nanopartiküllerine Yüklenmiş Siklopaminin İnsan Meme Kanseri Kök Hücreleri Üzerindeki Sitotoksik/Apoptotik Etkilerinin Araştırılması*”

that is supported by the **Unit of Uludag University Scientific Research Projects** for two years (2014-2016). Project Number: BUAP(F)- 2014/3

- **Researcher** in the project titled “*Kanser Kök Hücrelerine Özgü Hücre Canlılık/Sitotoksiste Test Kiti Geliştirilmesi*” that is supported by the **Unit of Uludag University Scientific Research Projects** for two years (2014-2016). Project Number: OUAP(T)- 2014/1
- **Scholarship Student** in the project titled “*Uludağ Üniversitesince Sentez Edilen Palladium (II) Kompleksinin Ve Kök Hücre Yolak İnhibitörleri Ile Kombinasyonlarının Meme Kanseri Kanser Kök Hücreleri Üzerindeki Sitotoksik / Genotoksik Etkilerinin Ve Mekanizmanın Gen Ve Protein Düzeyinde Araştırılması*” that is supported by **TUBITAK, 1001 - Scientific and Technological Research Projects Funding Program** for two years (2013-2015). Project Number: 212T147.
- **Scholarship Student** in the project titled “*Yeni Sentezlenen Platin(II) Kompleksinin [Pt(Hepy)<sub>2</sub>cl<sub>2</sub>] Sitotoksik/ Apoptotik Etkilerinin Meme Kanseri Kök Hücrelerinde In Vitro Araştırılması*” that is supported by **TUBITAK, 1002-Short Term R&D Funding Program** for one year (2013-2014). Project Number: 112T726.

## 9. Administrative Services

## 10. Professional Affiliations

Association for Molecular Cancer Research in Turkey (MOKAD)  
European Association for Cancer Research (EACR)

## 11. Fellowships and Awards

- **Poster presentation award (3<sup>rd</sup> place). Didem Karakas, Engin Ulukaya, Bulent Ozpolat.** *Pankreatik Kanserde Onkojenik EF-2 Kinaz'ın Mikroçevre Aracılı Düzenlenmesi ve Terapötik Hedeflenmesinin İncelenmesi.* XV. National Medical Biology and Genetics Congress. 26 - 29 Ekim 2017, Fethiye Oludeniz, Turkey
- **Oral Presentation Award (1<sup>st</sup> place).** Buse Cevatemre, Merve Erkisa, Nazlıhan Aztopal, **Didem Karakaş**, Pınar Alper, Chriiida Tsimplouli, Evangelia Sereti, Konstantinos Dimas, Elif İ. İkitimur Armutak, Ebru Gürel Gürevin, Ayca Üvez, Mattia Mori, Simone Berardozi, Cinzia Ingallina, Bruno Botta, Engin Ulukaya. *The Plant-Derived Triterpenoid Pristimerin is a Potent Anticancer Agent Due to Its Cytotoxic Activity on Breast Cancer in vitro and in vivo.* 6th Multidisciplinary Cancer Research Congress's, 27-30 October 2016, Konya, Turkey



- **Scholarship. TUBITAK, 2214- A International Research Fellowship Programme, 2015-1.** *University of Texas (Houston), M.D. Anderson Cancer Center, 21 March 2016-26 January 2017.*
- **Oral Presentation Award.** Engin Ulukaya, **Didem Karakaş**, Buse Cevatemre, Nazlıhan Aztopal, Ferda Ari, Veysel Turan Yılmaz. *Palladyum (II) kompleksi ve niklozamid kombinasyonunun meme kanseri kanser kök hücreleri üzerindeki in vitro güçlü sitotoksik /apoptotik etkileri.* 21<sup>st</sup> National Cancer Congress, 22-26 April 2015, Antalya, Turkey
- **EACR Poster Presentation Award (3<sup>rd</sup> Place).** **Didem Karakas**, Buse Cevatemre, Veysel Turan Yılmaz, Engin Ulukaya. *Trans-Dichloridobis [2-(2 Hydroxyethyl) Pyridine] Platinum(II) Complex Induces Apoptosis via ROS Generation in PC-3 Prostate Cancer Cell Line.* EACR-Sponsored 3rd Anticancer Agents Development Congress, Izmir, Turkey, 18-19 May 2015.
- **Poster presentation award (1<sup>st</sup> place).** Ferda Arı, Nazlıhan Aztopal, **Didem Karakaş**, Buse Cevatemre, Engin Ulukaya. *Kanser Tedavisinde Yeni Bir Hedef: Kanser Kök Hücresi.* Uludag University IV Information and R&D Days, 11-13 November 2014, Bursa, Turkey.
- **Poster presentation award (2<sup>nd</sup> place).** Engin Ulukaya, Mehmet Sarımahmut, **Didem Karakaş**. *Hücre Canlılığı Test Kiti Geliştirilmesi.* Uludag University, Science and Technology Week, 12-14 March 2014, Bursa, Turkey.
- **Poster presentation award (1<sup>st</sup> place).** Ferda Arı, Serap Çelikler, Nazlıhan Aztopal, Buse Cevatemre, **Didem Karakaş**, Mehmet Sarımahmut, Arzu Yılmaztepe Oral, Gürcan Gülyeryüz, Engin Ulukaya. *Türkiye Endemik Bitkilerinden Kanser Tedavisine.* Uludag University III Information and R&D Days, 12-14 November 2013, Bursa, Turkey.
- **Project Award (2<sup>nd</sup> place) (Oral presentation).** Mehmet Sarımahmut, **Didem Karakaş**. *Kanser kök hücrelerine özgü kemosenitivite test kiti geliştirilmesi.* Uludag University III Information and R&D Days, 12-14 November 2013, Bursa, Turkey

12. Please fill out the chart below for undergraduate and graduate courses you have given in the last 2 years.

Academic Year	Semester	Course	Weekly Course Hours		Number of Students
			Theoretical	Practical	
2017-2018	Fall	Biochemistry	4	-	197
	Spring				
	Fall				
	Spring				

**Note:** If given, summer courses should also be added to the chart.