

## **Asst. Prof. TUĞBA ARZU ÖZAL İLDENİZ**

### **Personal Information**

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### **International Researcher IDs**

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ORCID: 0000-0002-1833-8603

Publons / Web Of Science ResearcherID: C-1488-2018

Yoksis Researcher ID: 110049

### **Education Information**

Doctorate, Johannes Gutenberg Universitaet Mainz, The Faculty of Chemistry, Pharmacy and Earth Sciences, Chemistry, Germany 2004 - 2007

Postgraduate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Kimya (YL) (Tezli), Turkey 2002 - 2004

Undergraduate Minor, Middle East Technical University, Fen-Edebiyat Fakültesi, Kimya Bölümü, Turkey 1997 - 2002

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Environmental Engineering, Turkey 1997 - 2002

### **Foreign Languages**

English, C2 Mastery

### **Certificates, Courses and Trainings**

Health&Medicine, Acibadem Akademi \_ Bebek Dostu Hastane Eğitimi (Sınavı 2022), Acibadem Academy, 2022

### **Research Areas**

Health Sciences, Natural Sciences, Engineering and Technology

### **Academic Titles / Tasks**

Assistant Professor, Acibadem Mehmet Ali Aydinlar University, Faculty Of Engineering And Natural Sciences, Biomedical Engineering, 2019 - Continues

Assistant Professor, Acibadem Mehmet Ali Aydinlar University, Vocational School Of Health Services, Environmental Health Program, 2015 - 2019

Lecturer, Kadir Has University, Faculty Of Engineering And Natural Sciences, Department Of Management Information Systems, 2010 - 2014

## Courses

Research and Ethics in Natural Sciences, Postgraduate, 2021 - 2022  
Thesis, Doctorate, 2022 - 2023  
General Chemistry I, Undergraduate, 2022 - 2023, 2021 - 2022  
Thesis, Postgraduate, 2022 - 2023, 2021 - 2022  
General Chemistry I, Undergraduate, 2022 - 2023, 2021 - 2022  
Introduction to Graphics and Molecular Modelling, Postgraduate, 2022 - 2023, 2021 - 2022  
Ethics in Natural Sciences, Doctorate, 2021 - 2022  
PROBABILITY AND BIOSTATISTICS, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017  
preparation for the doctoral qualification exam, Doctorate, 2022 - 2023, 2021 - 2022  
Patient Safety and Risk Management, Undergraduate, 2021 - 2022, 2020 - 2021  
General Chemistry Laboratory, Undergraduate, 2022 - 2023, 2021 - 2022  
Principles of Biotechnology, Postgraduate, 2021 - 2022, 2020 - 2021  
Principles of Biotechnology and Applications, Doctorate, 2021 - 2022, 2020 - 2021  
Research and Ethics in Natural Sciences, Postgraduate, 2021 - 2022  
Thesis, Postgraduate, 2022 - 2023, 2021 - 2022  
MOLECULAR MODELLING AND GRAPHICS, Doctorate, 2021 - 2022, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017  
Thesis, Postgraduate, 2021 - 2022  
Molecular Modelling and Graphics, Undergraduate, 2021 - 2022  
General Chemistry, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017  
Probability and Biostatistics, Undergraduate, 2018 - 2019  
General Chemistry I , Undergraduate, 2018 - 2019  
Seminar, Postgraduate, 2017 - 2018  
Biostatistics, Undergraduate, 2016 - 2017, 2015 - 2016  
Research Planning in Health Sciences, Postgraduate, 2015 - 2016  
Environment Protection, Associate Degree, 2015 - 2016  
Research Methodologies in Health Services, Undergraduate, 2015 - 2016  
Biostatistics, Associate Degree, 2015 - 2016, 2014 - 2015  
Biostatistics, Postgraduate, 2015 - 2016  
Research Methodologies in Health Sciences, Undergraduate, 2015 - 2016  
Environment Protection, Associate Degree, 2015 - 2016  
Biostatistics, Associate Degree, 2015 - 2016, 2014 - 2015  
Biostatistics, Postgraduate, 2015 - 2016  
Introduction to Environmental Health, Associate Degree, 2014 - 2015  
Introduction to Environmental Health, Associate Degree, 2014 - 2015  
Introduction to Computing and Information Systems, Undergraduate, 2013 - 2014  
Statistics, Undergraduate, 2013 - 2014, 2012 - 2013  
Introduction to Computing and Information Systems, Undergraduate, 2013 - 2014  
Molecular Modelling and Graphics, Postgraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011  
Computational Methods and Tools, Undergraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010  
Introduction to Computing and Information Systems, Undergraduate, 2012 - 2013  
Computational Molecular Biology and Genomics, Postgraduate, 2012 - 2013, 2011 - 2012, 2010 - 2011  
Bioinformatics, Undergraduate, 2011 - 2012  
Introduction to Computing and Information Systems, Undergraduate, 2011 - 2012, 2010 - 2011  
Rich Intenet Applications, Undergraduate, 2010 - 2011  
Molecular Modelling and Graphics, Postgraduate, 2009 - 2010  
Computational Molecular Biology and Genomics, Postgraduate, 2009 - 2010

## Advising Theses

- Özal İldeniz T. A., Molecular Modelling of Antimicrobial Peptides, Postgraduate, S.Atasever(Student), 2023
- Özal İldeniz T. A., Concurrent impact of various prospective drug ligand molecules on different illness/disease mechanisms, Postgraduate, B.BUTURAK(Student), 2013
- Özal İldeniz T. A., Molecular dynamic studies of human dat and its natural ligand dopamine, Postgraduate, S.DEMİRCİ(Student), 2012
- Özal İldeniz T. A., Structure prediction of human DAT and its binding analysis, Postgraduate, G.TATAR(Student), 2011

### **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Detection of cholera toxin with surface plasmon field-enhanced fluorescent spectroscopy**  
Seherler S., Bozdogan A., Özal İldeniz T. A., Kök F. N., Sakir I. A.  
BIOTECHNOLOGY AND APPLIED BIOCHEMISTRY, vol.69, no.4, pp.1557-1566, 2022 (SCI-Expanded)
- II. **Designing of multi-targeted molecules using combination of molecular screening and in silico drug cardiotoxicity prediction approaches**  
Buturak B., Durdagi S., Noskov S. Y., İldeniz A. T. O.  
Journal of Molecular Graphics and Modelling, vol.50, pp.16-34, 2014 (SCI-Expanded)
- III. **Modeling solubilities of additives in polymer micro structures: Single-step perturbation method based on a soft-cavity reference state**  
Oezal T. A., Peter C., Hess B., van der Vegt N. F. A.  
MACROMOLECULES, vol.41, no.13, pp.5055-5061, 2008 (SCI-Expanded)
- IV. **Fast-growth thermodynamic integration: Calculating excess chemical Potentials of additive molecules in polymer microstructures**  
Hess B., Peter C., Ozal T. A., van der Vegt N. F. A.  
MACROMOLECULES, vol.41, no.6, pp.2283-2289, 2008 (SCI-Expanded)
- V. **Confusing cause and effect: Energy-entropy compensation in the preferential solvation of a nonpolar solute in dimethyl sulfoxide/water mixtures**  
Ozal T. A., van der Vegt N. F. A.  
JOURNAL OF PHYSICAL CHEMISTRY B, vol.110, no.24, pp.12104-12112, 2006 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **Peptide Antibiotics Developed by Mimicking Natural Antimicrobial Peptides**  
Nihan Ü., Çınaroğlu S. S., Elmas Açıkel M., Akçelik S., ÖZAL İLDENİZ T. A., ARBAK S., Allahverdiyev A., KOCAGÖZ Z. T.  
Clinical Microbiology: Open Access, vol.6, no.4, 2017 (Peer-Reviewed Journal)

### **Books & Book Chapters**

- I. **Nanotip: Moleküler Modelleme**  
Özal İldeniz T. A.  
in: Nanobiotechnology, Akin A, Editor, Türkiye Klinikleri Yayınevi, Ankara, pp.6-12, 2021
- II. **Modeling of Cell Membrane Systems**  
Özal İldeniz T. A.  
in: Biomimetic Lipid Membranes: Fundamentals, Applications, and Commercialization, Fatma Neşe Kök,Ahu Arslan Yıldız,Fatih Inci, Editor, Springer, London/Berlin , Zug, pp.73-108, 2019
- III. **Chemical Characterization of Sinopean Archaeological Common Ware: Chemistry Behind Ceramics**  
Özal İldeniz T. A.  
LAP LAMBERT Academic Publishing, Saarbrücken, 2012

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Molecular Dynamic Simulation of Interaction Between Crimean-Congo Haemorrhagic Fever Virus Glycoprotein and Epidermal Growth Factor Receptor (EGFR)**  
Özal İldeniz T. A., Atasever S.  
5th International Symposium on Bioinformatics, İstanbul, Turkey, 15 - 17 December 2021, pp.66
- II. **MOLECULAR DYNAMICS SIMULATIONS OF PEPTIDE ANTIBIOTICS DEVELOPED BY MIMICKING NATURAL ANTIMICROBIAL PEPTIDES**  
Özal İldeniz T. A.  
THE 12TH INTERNATIONAL SYMPOSIUM ON HEALTH INFORMATICS AND BIOINFORMATICS, İzmir, Turkey, 17 October 2019 - 19 June 2021, pp.109-110
- III. **Surface Plasmon Florescence Spectroscopy Based Biosensor for Cholera Toxin Detection**  
BOZDOĞAN A., SEHERLER Ş., ÖZAL İLDENİZ T. A., KÖK F. N., ANAÇ İ.  
2017 21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017
- IV. **Molecular Modelling in Biosensor Desgin for Cholera Toxin Detection**  
Çınaroglu S., ANAÇ İ., KÖK F. N., ÖZAL İLDENİZ T. A.  
2017 21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017
- V. **Detection of bacterial toxins via surface plasmon resonance with fluorescence spectroscopy based biosensor**  
Seherler Ş., BOZDOĞAN A., ÖZAL İLDENİZ T. A., ANAÇ İ., KÖK F. N.  
Malta VIII Frontiers of Science and Education in the Middle East, Malta, 10 - 15 December 2017
- VI. **Detection of bacterial toxins via surface plasmon resonance with fluorescence spectroscopy based biosensor**  
Seherler Ş., BOZDOĞAN A., ÖZAL İLDENİZ T. A., ANAÇ İ., KÖK F. N.  
International Biosensor Conference (BBMEC12), Roma, Italy, 25 - 28 September 2017
- VII. **COMP 44-Free energy calculations of molecular solutes in polymeric microstructures**  
van der Vegt N. F. A., Hess B., Ozal T. A., Peter C.  
235th American-Chemical-Society National Meeting, Louisiana, United States Of America, 6 - 10 April 2008, vol.235
- VIII. **COMP 86-Thermodynamics of solvent reorganization in solvent/co-solvent mixtures**  
van der Vegt N. F. A., Lee M., Ozal T. A.  
235th American-Chemical-Society National Meeting, Louisiana, United States Of America, 6 - 10 April 2008, vol.235

## **Supported Projects**

Özal İldeniz T. A., Foundation, "Kırım Kongo Kanamali Ateşi Virüsüne ait Yapının (6VKF) Modellemek İncelenmesi", 2021 - 2022

ÜNÜBOL N., ÖZAL İLDENİZ T. A., TUBITAK Project, Biyofilm Oluşturan Bakterilere Özgü Geliştirilecek Peptit Antibiyotikler ve Yenilikçi Yüzey Bağlama Stratejileri Kullanılarak Antimikrobiyal Kateterlerin Geliştirilmesi, 2019 - 2021  
ARBAK S., KANLIDERE Z., ÜNÜBOL N., CAN Ö., SÜYEN G., KOCAGÖZ Z. T., ÖZAL İLDENİZ T. A., TUBITAK Project, Doğadan Esinlenerek Antimikrobiyal Peptit ve Benzerlerinin Geliştirilmesi, 2018 - 2021

Özal İldeniz T. A., Eren T., TUBITAK Project, Doğal antimikrobiyal peptit türevlerinin sentetik polimerler ile çift etki (elektrostatik/hidrofobik etkileşme ve lektin proteinin inhibasyonu) sağlayarak taklit edilmesi, 2018 - 2021

Özal İldeniz T. A., Kök F. N., Anaç I., TUBITAK Project, Suyla Bulasan Patojenlerin Yüzey Plazmon Floresan Spektroskopisi Teknigi İle Hızlı Tayini, 2016 - 2018

## **Activities in Scientific Journals**

## Scientific Refereeing

KOSGEB, Acibadem Mehmet Ali Aydinlar University, Turkey, December 2023  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Acibadem Mehmet Ali Aydinlar University, Turkey, December 2022  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Acibadem Mehmet Ali Aydinlar University, Turkey, December 2022  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Acibadem Mehmet Ali Aydinlar University, Turkey, September 2022  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Acibadem Mehmet Ali Aydinlar University, Turkey, September 2022  
KOSGEB, Acibadem Mehmet Ali Aydinlar University, Turkey, August 2022  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Acibadem Mehmet Ali Aydinlar University, Turkey, July 2022  
Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Acibadem Mehmet Ali Aydinlar University, Turkey, July 2022  
KOSGEB, Acibadem Mehmet Ali Aydinlar University, Turkey, April 2022  
KOSGEB, Acibadem Mehmet Ali Aydinlar University, Turkey, March 2022

## Tasks In Event Organizations

Özal İldeniz T. A., 13th The International Symposium on Health Informatics and Bioinformatics (HIBIT 2020), Scientific Congress, İstanbul, Turkey, Eylül 2020  
Özal İldeniz T. A., HIBIT'19, Scientific Congress, İzmir, Turkey, Ekim 2019

## Metrics

Publication: 18  
Citation (WoS): 86  
Citation (Scopus): 81  
H-Index (WoS): 4  
H-Index (Scopus): 4

## Awards

Özal İldeniz T. A., Outstanding teaching award, Acibadem Mehmet Ali Aydinlar Üniversitesi , September 2021