

## Assoc. Prof. GÖZDE YALÇIN ÖZKAT

### Personal Information

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### International Researcher IDs

ScholarID: 2SSTD-IAAAA

ORCID: 0000-0002-9689-2239

Publons / Web Of Science ResearcherID: B-8759-2017

ScopusID: 57223135603

Yoksis Researcher ID: 48485

### Education Information

Post Doctorate, Otto-von-Guericke-Universitaet Magdeburg, Max Planck Institute for Dynamics of Complex Technical Systems , Molecular Simulations and Design , Germany 2021 - 2022

Doctorate, Ankara University, Institute Of Biotechnology, Department Of Biotechnology, Turkey 2013 - 2018

Postgraduate, Ankara University, Institute Of Biotechnology, Department Of Biotechnology, Turkey 2011 - 2013

Undergraduate, Ege University, Faculty Of Engineering, Biyomühendislik Bölümü, Turkey 2007 - 2011

### Foreign Languages

English, C2 Mastery

### Dissertations

Doctorate, Alzheimer Hastalığının Tedavisine Yönelik Yeni Önder Bileşiklerin Geliştirilmesi, Ankara University, Biyoteknoloji Enstitüsü, Temel Biyoteknoloji , 2018

Postgraduate, Farklı Pamuk Çeşitlerinde In Vitro Sürgün Rejenerasyonu, Ankara University, Biyoteknoloji Enstitüsü, Temel Biyoteknoloji, 2013

### Research Areas

Pharmacology, Pharmaceutical Biotechnology, Life Sciences, Biotechnology, Protein Engineering, Health Sciences, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Recep Tayyip Erdoğan University, Mühendislik Ve Mimarlık Fakültesi, Biyomühendislik, 2024 - Continues

Assistant Professor, Recep Tayyip Erdogan University, Mühendislik Ve Mimarlık Fakültesi, Biyomühendislik, 2018 - 2024  
Research Assistant, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, BİYOMÜHENDİSLİK, 2012 - 2018

## Academic and Administrative Experience

Deputy Head of Department, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, BİYOMÜHENDİSLİK, 2020 - Continues

## Courses

Natural Product Chemistry, Undergraduate, 2023 - 2024  
Molecular Modeling and Computational Drug Design, Postgraduate, 2023 - 2024  
Applied Bioinformatics, Undergraduate, 2023 - 2024  
Numerical Modeling and Simulation, Undergraduate, 2023 - 2024  
Protein Engineering, Postgraduate, 2023 - 2024  
Microbial Genetics, Undergraduate, 2023 - 2024  
Secondary Plant Metabolites, Undergraduate, 2023 - 2024  
Animal Tissue Culture, Undergraduate, 2023 - 2024  
Physiology, Undergraduate, 2021 - 2022  
Bioprocess Control, Undergraduate, 2021 - 2022  
Biostatistics, Undergraduate, 2021 - 2022  
Protein Structure and Functions, Undergraduate, 2020 - 2021  
Genetik ve Biyomühendislikte Güncel Konular, Postgraduate, 2020 - 2021  
Mühendislikte Biyokimya, Undergraduate, 2020 - 2021  
Uzmanlık Alan Dersi 2, Postgraduate, 2020 - 2021  
Biyomoleküller Dinamik Ve Simülasyon, Postgraduate, 2020 - 2021  
Stokiyometri, Undergraduate, 2020 - 2021  
Biyofizik, Undergraduate, 2019 - 2020  
Uzmanlık Alan Dersi 1, Postgraduate, 2020 - 2021

## Advising Theses

Yalçın Özkat G., Ankilozan spondilit hastalığının tedavisine yönelik hesaplamalı ilaç geliştirme çalışmaları, Postgraduate, M.BAHATTİN(Student), 2024  
Yalçın Özkat G., Development of new leader compounds for the treatment of multiple sclerosis, Postgraduate, B.HUYLU(Student), 2022

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

- I. **Determination of Novel SARS-CoV-2 Inhibitors by Combination of Machine Learning and Molecular Modeling Methods**  
Güner E., Özkan Ö., YALÇIN ÖZKAT G., Ölgün S.  
Medicinal Chemistry, vol.20, no.2, pp.153-231, 2024 (SCI-Expanded)
- II. **Design, synthesis, and computational studies of benzimidazole derivatives as new antitubercular agents**  
Yalçin-Ozkat G., Ersan R. H., ÜLGER M., TEZCAN ÜLGER S., BURMAOĞLU S., YILDIZ İ., ALGÜL Ö.  
JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, vol.41, no.7, pp.2667-2686, 2023 (SCI-Expanded)

- III. **Mentha longifolia ssp. longifolia Essential Oil Components as Novel Carbonic Anhydrase Isoform I and IX Inhibitors: Biological and Molecular Docking Studies**  
Karaçelik A. A., Özkat G.  
Letters in Drug Design and Discovery, vol.20, no.6, pp.767-778, 2023 (SCI-Expanded)
- IV. **Synthesis, Biological Activities, Antioxidant Properties, and Molecular Docking Studies of Novel Bis-Schiff Base Podands as Responsive Chemosensors for Anions**  
Yapar G., Demir N., Kiraz A., Yalçın Özkat G., Yıldız M.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1266, 2022 (SCI-Expanded)
- V. **Computational studies with flavonoids and terpenoids as BRPF1 inhibitors: in silico biological activity prediction, molecular docking, molecular dynamics simulations, MM/PBSA calculations**  
Yalcin-Ozkat G.  
SAR AND QSAR IN ENVIRONMENTAL RESEARCH, vol.33, no.7, pp.533-550, 2022 (SCI-Expanded)
- VI. **Synthesis, molecular docking and some metabolic enzyme inhibition properties of biphenyl-substituted chalcone derivatives**  
BURMAOĞLU S., KAZANCIOĞLU E. A., KAZANCIOĞLU M. Z., Sağlamtas R., YALÇIN ÖZKAT G., GÜLÇİN İ., ALGÜL Ö.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1254, 2022 (SCI-Expanded)
- VII. **In Silico Studies to Develop New GSK3 beta Inhibitors Effective in the 's Disease**  
Ozkat G., YILDIZ İ.  
LETTERS IN DRUG DESIGN & DISCOVERY, vol.19, no.8, pp.691-705, 2022 (SCI-Expanded)
- VIII. **Molecular Modeling Strategies of Cancer Multidrug Resistance**  
Yalcin-Ozkat G.  
DRUG RESISTANCE UPDATES, vol.59, 2021 (SCI-Expanded)
- IX. **Discovery of 5-(or 6)-benzoxazoles and oxazolo[4,5-b]pyridines as novel candidate antitumor agents targeting hTopo II alpha**  
Karatas E., Foto E., Ertan-Bolelli T., Yalcin-Ozkat G., Yilmaz S., Ataei S., Zilifdar F., Yıldız I.  
BIOORGANIC CHEMISTRY, vol.112, 2021 (SCI-Expanded)
- X. **Design, synthesis and biological evaluation of novel bischalcone derivatives as potential anticancer agents**  
Burmaoğlu S., Gobek A., Aydin B. O., Yurtoglu E., Aydin B. N., Ozkat G., Hepokur C., Şimşek Özek N., Aysin F., Altundaş R., et al.  
BIOORGANIC CHEMISTRY, vol.111, 2021 (SCI-Expanded)
- XI. **Spectroscopic, quantum mechanical studies, ligand protein interactions and photovoltaic efficiency modeling of some bioactive benzothiazolinone acetamide analogs**  
Mary Y. S., Yalcin G., Mary Y. S., Resmi K. S., Thomas R., ÖNKOL T., Kasap E. N., YILDIZ İ.  
CHEMICAL PAPERS, vol.74, no.6, pp.1957-1964, 2020 (SCI-Expanded)
- XII. **Synthesis and molecular docking studies of some novel antimicrobial benzamides**  
Acar C., Yalcin G., Ertan-Bolelli T., KAYNAK ONURDAĞ F., ÖKTEN S., Sener F., YILDIZ İ.  
BIOORGANIC CHEMISTRY, vol.94, 2020 (SCI-Expanded)
- XIII. **Molecular docking studies on fluoro-substituted chalcones as potential DprE1 enzyme inhibitors**  
Yalcin G., BURMAOĞLU S., Yıldız I., Algul O.  
JOURNAL OF MOLECULAR STRUCTURE, vol.1164, pp.50-56, 2018 (SCI-Expanded)
- XIV. **Molecular dynamics, thermodynamic, and mutational binding studies for tumor-specific LyP-1 in complex with p32.**  
TIMUR S., Yalçın G., ÇEVİK Ö., ANDAÇ C., GÜRSOY R.  
Journal of biomolecular structure & dynamics, vol.36, pp.1134-1144, 2018 (SCI-Expanded)
- XV. **Determination of Antibiotic Resistance and Pulsed-Field Gel Electrophoresis Profiles for the Extended-Spectrum beta-Lactamase Producing Escherichia coli**  
Ozer T. T., KARAGÖZ A., Yalcin G., Andac C. A.  
JUNDISHAPUR JOURNAL OF MICROBIOLOGY, vol.11, no.3, 2018 (SCI-Expanded)
- XVI. **Modification of benzoxazole derivative by bromine-spectroscopic, antibacterial and reactivity study using experimental and theoretical procedures**

Aswathy V. V., ALPER-HAYTA S., Yalcin G., Mary Y. S., PANICKER C. Y., JOJO P. J., Kaynak-Onurdag F., ARMAKOVIC S., ARMAKOVIC S. J., Yildiz I., et al.

JOURNAL OF MOLECULAR STRUCTURE, vol.1141, pp.495-511, 2017 (SCI-Expanded)

XVII. **Vibrational spectroscopic analysis, molecular dynamics simulations and molecular docking study of 5-nitro-2-phenoxyethyl benzimidazole**

MENON V. V., Foto E., MARY Y. S., Karatas E., PANICKER C. Y., Yalcin G., ARMAKOVIC S., ARMAKOVIC S. J., VAN ALSENOY C., Yildiz I.

JOURNAL OF MOLECULAR STRUCTURE, vol.1129, pp.86-97, 2017 (SCI-Expanded)

## Articles Published in Other Journals

I. **DRUG REPOSITIONING APPROACH FOR THE TREATMENT OF ANKYLOSING SPONDYLITIS ANKİLOZAN SPONDİLİT TEDAVİSİNDE İLAÇ YENİDEN YERLEŞTİRME YAKLAŞIMI**

YALÇIN ÖZKAT G.

Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.46, no.3, pp.896-908, 2022 (Scopus)

II. **DEVELOPMENT OF NEW CYCLOPHILIN D RECEPTOR INHIBITORS FOR THE TREATMENT OF MULTIPLE SCLEROSIS MS HASTALIĞININ TEDAVİSİ İÇİN YENİ SİKLOFİLİN D RESEPTÖR İNHİBİTÖRLERİNİN GELİŞTİRİLMESİ**

YALÇIN ÖZKAT G., Huylu B.

Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.46, no.2, pp.458-473, 2022 (Scopus)

III. **Molecular binding profile of protoberberine alkaloids on glycogen synthase kinase 3 $\beta$  as a drug candidate for alzheimer's diseases Alzheimer hastalığında ilaç adayı olarak protoberberin alkoitlerinin glikojen sentaz kinaz 3 $\beta$  ile moleküler bağlanma profilleri**

Yalcin G., Yildiz I.

Ankara Üniversitesi Eczacılık Fakültesi Dergisi, vol.42, no.3, pp.1-12, 2018 (Scopus)

IV. **Characterisation of drug resistance of nosocomial ESBL-producing E. coli isolates obtained from a Turkish university hospital between 2009 and 2012 by pulsed field gel electrophoresis and antibiotic resistance tests.**

KARAGÖZ A., SUNNETCIOGLU M., CEYLAN M., BAYRAM Y., Yalcin G., KOCAK N., SUVAK B., ANDAC C.

Le infezioni in medicina, vol.24, pp.24-31, 2016 (Scopus)

V. **Current Trends In Fenugreek Biotechnology And Approaches Towards Its Improvement**

Aasim M., Khawar K. M., YALÇIN G., Bakhsh A.

american journal of social issues and humanities, no.3, pp.128-136, 2014 (Peer-Reviewed Journal)

## Books & Book Chapters

I. **Hormonlar ve Endokrin Sistemi**

AASIM M., SADİ G., YALÇIN G.

in: BİYOLOJİ - Biology Schaum's Dördüncü Baskıdan Çeviri, Mehmet Karataş, Editor, NOBEL Akademik Yayıncılık, pp.286-303, 2015

## Refereed Congress / Symposium Publications in Proceedings

I. **Some New Benzoxazoles as Topoisomerase II Inhibitors2**

YILDIZ İ., Karataş E., FOTO E., YALÇIN G., ZİLİFDAR FOTO F., ERTAN BOLELLİ T.

Uluslararası Katılımlı 5. İlaç Kimyası Kongresi, 30 March - 02 April 2017

II. **Molecular Docking Analysis of New Antibacterial Lead Compounds for Staphylococcus aureus**

YALÇIN G., acar c., YILDIZ İ.

Eurasian Congress on Molecular Biotechnology, 19 - 21 September 2019

- III. **Glikojen Sentaz Kinaz 3 Beta İnhibitörleri Üzerine Hesaplamalı Farmakofor Modelleme Çalışmaları**  
YALÇIN G.  
16. Ulusal Tıbbi Biyoloji ve Genetik Kongresi, 27 - 30 October 2019
- IV. **Some New Oxazolo[4,5-b]pyridines as Topoisomerase II $\alpha$  Inhibitors**  
YILDIZ İ., Karataş E., FOTO E., YALÇIN G., Ataei S., ERTAN BOLELLİ T., ZİLİFDAR FOTO F.  
7th Drug Chemistry Conference, Antalya/Kemer, Turkey, 14 - 17 March 2019
- V. **Some New Topoisomerase II Inhibitors**  
YILDIZ İ., KARATAS E., FOTO E., YALÇIN G., ATAEİ S., ERTAN BOLELLİ T., ZİLİFDAR F.  
4th International Turkic World Conference on Chemical Sciences and Technologies, Kiev, Ukraine, 7 - 10 September 2018, pp.127
- VI. **Molecular Binding Profile of Protoberberine Alkaloids on Receptor for Advanced Glycation Endproducts (RAGE) as a Drug Candidate for Alzheimer's Diseases**  
YALÇIN G., DOĞRU B., YILDIZ İ.  
International Chemistry Biology Conference'18, Şarm El-Şeyh, Egypt, 11 - 14 July 2018, pp.154
- VII. **Glycogen Synthase Kinase 3 Beta inhibition by several acetylcholinesterase inhibitors**  
YALÇIN G., DOĞRU B., YILDIZ İ.  
4th International Turkic World Conference on Chemical Sciences and Technologies, Kiev, Ukraine, 7 - 10 September 2018, pp.145
- VIII. **Investigation of Beta-secretase 1 Enzyme inhibition with known acetylcholinesterase inhibitors**  
YALÇIN G., YILDIZ İ.  
4th International Turkic World Conference on Chemical Sciences and Technologies, Kiev, Ukraine, 7 - 10 September 2018, pp.146
- IX. **Computational studies on glycogen synthase kinase 3 beta inhibitors**  
YALÇIN G., YILDIZ İ.  
International Chemistry Biology Conference'18, Şarm El-Şeyh, Egypt, 11 - 14 July 2018, pp.153
- X. **Molecular binding profile of protoberberine alkaloids on glycogen synthase kinase 3 $\beta$  as a drug candidate for Alzheimer's diseases**  
YALÇIN G., YILDIZ İ.  
7th International Molecular Biology and Biotechnology Congress, Konya, Turkey, 25 April - 27 September 2018, pp.42
- XI. **DprE1-Benzimidazole derivatives interactions using molecular modelling**  
YALÇIN G., ERSAN R. H., ALGÜL Ö., YILDIZ İ.  
Uluslararası Katılımlı 6. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, Antalya, Turkey, 22 - 25 March 2018, pp.120
- XII. **Computational studies for drug design on beta-secretase 1 inhibition**  
YALÇIN G., YILDIZ İ.  
Uluslararası Katılımlı 6. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, Antalya, Turkey, 22 - 25 March 2018, pp.119
- XIII. **Development of new lead BACE1 enzyme inhibitors**  
YALÇIN G., YILDIZ İ.  
5th International BAU Drug Design Congress, 19 - 21 October 2017, pp.43
- XIV. **Pharmacophore Generation Studies for Developing of Potential BACE1 Enzyme Inhibitors**  
YALÇIN G., YILDIZ İ.  
3rd International Turkic World Conference on Chemical Sciences and Technologies, 10 - 13 September 2017, pp.304
- XV. **Molecular modelling studies on glycogen synthase kinase 3B inhibitors for Alzheimer's Diseases**  
YALÇIN G., YILDIZ İ.  
2nd International Gazi Pharma Symposium, 11 - 13 October 2017, pp.253
- XVI. **Protoberberine alkaloids as a drug candidate for Alzheimer's Diseases**  
YALÇIN G., YILDIZ İ.

- 2nd International Gazi Pharma Symposium, 11 - 13 October 2017, pp.254
- XVII. **Molecular modelling studies on Glycogen Synthase Kinase 3 $\beta$  Inhibitors for Alzheimer's Diseases**  
YALÇIN G., YILDIZ İ.  
2nd International Gazi Pharma Symposium Series (GPSS-2017), 11 - 13 October 2017
- XVIII. **Pharmacophore Generation Studies for the Discovery of Potential BACE1 Enzyme Inhibitors**  
YALÇIN G., YILDIZ İ.  
3rd International Turkic World Conference on Chemical Sciences Technologies, 10 - 13 September 2017
- XIX. **New nitro-benzoxazoles as antitumor agents targeting htopo II**  
KARATAS E., FOTO E., YALÇIN G., ZİLİFDAR F., ERTAN BOLELLİ T., YILDIZ İ.  
17th Hellenic Symposium on Medicinal Chemistry (Designing targeted and safer drugs), Thessaloniki, Greece, 1 - 03 June 2017
- XX. **Some New Benzoxazoles as Topoisomerase II Inhibitors**  
YILDIZ İ., KARATAS E., FOTO E., YALÇIN G., ZİLİFDAR F., ERTAN BOLELLİ T.  
Uluslararası Katılımlı 5. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, Antalya, Turkey, 30 March - 02 April 2017
- XXI. **Molecular Docking Studies on Some Benzimidazole Derivatives as Possible Decaprenylphosphoryl-D-ribose oxidase Enzyme Inhibitors**  
YALÇIN G., ERSAN R. H., YILDIZ İ., ALGÜL Ö.  
5. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyonu Kongresi, 30 March - 02 April 2017
- XXII. **Molecular Docking Studies on Some Benzimidazole Derivatives as Possible Decaprenylphosphoryl-D-ribose oxidase Enzyme Inhibitors**  
YALÇIN G., ERSAN R. H., YILDIZ İ., ALGÜL Ö.  
Uluslararası Katılımlı 5. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretimi ve Standardizasyon Kongresi, 30 March - 02 April 2017, pp.210
- XXIII. **Molecular binding profile of protoberberine alkaloids on amyloid precursor proteincleaving enzyme 1 (BACE1) as a drug candidate for Alzheimer's diseases**  
YALÇIN G., YILDIZ İ.  
41th FEBS CONGRESS The Biochemical Basis of Life, 23 September 2016, vol.283, pp.232
- XXIV. **Pharmacophore Generation Studies For The Discovery Of Potential Acetylcholinesterase Inhibitors**  
YALÇIN G., YILDIZ İ.  
3rd INTERNATIONALBAU-DRUG DESIGN CONGRESS, 01 October 2015
- XXV. **Inverse-agonistic mechanisms of thioridazine on Gi protein-coupled D2L dopamine receptors**  
YALÇIN G., ANDAC C. A.  
40th FEBS CONGRESS The Biochemical Basis of Life, Berlin, Germany, 04 July 2015, vol.282, pp.365
- XXVI. **DOP-3 Homology Modelling and Explicit Solvent Molecular Dynamics of Stimulated Human Gi-coupled D2 Dopamine Receptor in a Membrane System**  
YALÇIN G., ANDAC C. A.  
2nd INTERNATIONALBAU-DRUG DESIGN SYMPOSIUM, 17 October 2014
- XXVII. **DETERMINATION OF BINDING PROPERTIES OF BUTACLAMOL IN COMPLEX WITH A MEMBRANE-BOUND HUMANGİ-COUPLED D2L DOPAMİNE RECEPTOR**  
YALÇIN G., ANDAC C. A.  
8-th Eurasian Meeting on Heterocyclic Chemistry (EAMHC-2014), Tiflis, Georgia, 20 September 2014
- XXVIII. **ALA-SCAN mutational analysis on the agonist binding state of human Gi-coupled D2L dopamine receptor complex**  
YALÇIN G.  
Workshop and Summer School on Protein Structure, Function, and Dynamics, 14 September 2014
- XXIX. **Bütaclamolün İnsan Gi Proteini ve D2L Dopamin Reseptör Kompleksindeki Bağlanma Özelliklerinin Membran Simülasyonlarıyla Belirlenmesi**  
YALÇIN G., CENK A A.  
8. Ulusal Afinitive Teknikleri Kongresi, Konya, Turkey, 04 September 2014, pp.29

## Supported Projects

Yalçın Özkat G., Yıldız İ., Yılmaz S., Project Supported by Other Official Institutions, hTopo IIA Enzim Hedefli Yeni Bazı Antitümör Etkili Benzoksazol ve Benzimidazol Türevlerinin Geliştirilmesi, 2023 - 2025

Yalçın Özkat G., Özil M., Seyrantepe V., TÜBİTAK - AB COST Project, Innovation with Glycans: new frontiers from synthesis to new biological targets (INNOGLY), 2019 - 2023

Yalçın Özkat G., TUBITAK Project, Alzheimer Hastalığında In Silico İlaç Geliştirme Çalışmalarına Kuantum Mekanik Yaklaşımlar, 2021 - 2022

Yalçın Özkat G., Erbaş Çakmak S., TÜBİTAK - AB COST Project, New diagnostic and therapeutic tools against multidrug resistant tumors (STRATAGEM), 2018 - 2022

## Metrics

Publication: 52

Citation (WoS): 234

Citation (Scopus): 226

H-Index (WoS): 10

H-Index (Scopus): 10

## Scholarships

Genç Bilim İnsanı 2018(FEBS Young Scientist), Other International Organizations, 2018 - Continues

Post-Doctorate Research Fellowship from TUBITAK (The Scientific and Technological Research Council of Turkey) through funding programme 2219/1, TUBITAK, 2021 - 2022