Assoc. Prof. GİZEM TATAR YILMAZ

Personal Information

Office Phone: +90 462 377 5307
Email: gizemtatar@ktu.edu.tr
Web: https://avesis.ktu.edu.tr/gizemtatar

International Researcher IDs
ScholarID: OJq1GY4AAAAJ
ORCID: 0000-0001-6642-6870
Publons / Web Of Science ResearcherID: I-6440-2018
ScopusID: 3058617
Yoksis Researcher ID: 300371

Education Information

Doctorate, Gaziantep University, Institute Of Health Sciences, Turkey 2014 - 2018
Postgraduate, Kadir Has University, Institute Of Science, Hesaplamalı Biyoloji ve Biyoenformatik, Turkey 2009 - 2011

Dissertations

Doctorate, Structure predıctıon of eukaryotıc elongatıon factor 2 kınase (EEF-2k) and elucıdatıon of bındıng mechanısms of ıts novel compounds wıth molecular modellıng applıcatıons, Gaziantep University, Institute Of Health Sciences, 2018
Postgraduate, Structure prediction of human DAT and its binding analysis, Kadir Has University, Institute Of Science, 2011

Research Areas

Medicine, Health Sciences, Fundamental Medical Sciences, Biostatistics and Medical Informatics, Life Sciences, Bioinformatics, Biological Modelling, Biological Databases, Molecular Biology and Genetics, Moleculer Biology of Cancer, Protein Engineering, Natural Sciences

Academic Titles / Tasks

Associate Professor, Karadeniz Technical University, Tıp Fakültesi, Temel Tıp, 2022 - Continues
Assistant Professor, Karadeniz Technical University, Tıp Fakültesi, Temel Tıp, 2019 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Synthesis and evaluation of the antioxidant and anti-tyrosinase activities of thiazolyl hydrazone derivatives and their application in the anti-browning of fresh-cut potato**
Djafarou S., Mermer A., Barut B., Tatar Yılmaz G., Khodja I. A., Boulebd H.
FOOD CHEMISTRY, no.414, pp.135745, 2023 (SCI-Expanded)
II. **Design, synthesis, and enzyme inhibition evaluation of some novel Mono- and Di-O-ß-D-**

Glycopyranosyl Chalcone analogues with molecular docking studies
Çelik G., Tatar Yılmaz G., Şahin H., Barut B., Yaylı N.
TURKISH JOURNAL OF CHEMISTRY, vol.47, no.1, pp.171-184, 2023 (SCI-Expanded)

III. **Synthesis of novel thiosemicarbazone derivatives as antidiabetic agent with enzyme kinetic studies and antioxidant activity**
TOK F., KÜÇÜKAL B., BALTAŞ N., TATAR YILMAZ G., KAYMAKÇIOĞLU B.
PHOSPHORUS SULFUR AND SILICON AND THE RELATED ELEMENTS, vol.197, no.12, pp.1284-1294, 2022 (SCI-Expanded)

IV. **Evaluation of the effects of chlorhexidine and several flavonoids as antiviral purposes on SARS-CoV-2 main protease: molecular docking, molecular dynamics simulation studies.**
Tatar G., Salmanli M., Dogru Y., Tuzuner T.
Journal of biomolecular structure & dynamics, vol.40, no.17, pp.7656-7665, 2022 (SCI-Expanded)

V. **Synthesis, Antioxidant and Some Enzyme Inhibition Activities of New Sulfonyl Hydrazones and their Molecular Docking Simulations**
Aktar B. S. K., Sicak Y., TATAR YILMAZ G., Oruc-Emre E. E.
PHARMACEUTICAL CHEMISTRY JOURNAL, vol.56, no.4, pp.559-569, 2022 (SCI-Expanded)

VI. **Synthesis, Biological Evaluation and in Silico Studies of New Pyrazoline Derivatives Bearing Benzo[d]thiazol-2(3H)-one Moiety as Potential Urease Inhibitors**
TOK F., BALTAŞ N., TATAR YILMAZ G., KAYMAKÇIOĞLU B.
CHEMISTRY & BIODIVERSITY, vol.19, no.3, 2022 (SCI-Expanded)

VII. **Structure prediction of eukaryotic elongation factor-2 kinase and identification of the binding mechanisms of its inhibitors: homology modeling, molecular docking, and molecular dynamics simulation**
Tatar G., Taskin T.
JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, vol.40, no.24, pp.13355-13365, 2022 (SCI-Expanded)

VIII. **Synthesis of novel pancreatic lipase inhibitors: Biological investigation and in silico studies**
Mermer A., Demirci S., TATAR G.
JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, vol.40, no.2, pp.931-940, 2022 (SCI-Expanded)

IX. **Synthesis of benzoyl hydrazones having 4-hydroxy-3,5-dimethoxy phenyl ring, their biological activities, and molecular modeling studies on enzyme inhibition activities**
Kursun Aktar B. S., Sicak Y., TATAR YILMAZ G., Oruc-Emre E. E.
TURKISH JOURNAL OF CHEMISTRY, vol.46, pp.236-252, 2022 (SCI-Expanded)

X. **Investigation of the antimicrobial activities of various antimicrobial agents on Streptococcus Mutans Sortase A through computer-aided drug design (CADD) approaches**
SALMANLI M., Yilmaz G. T., TÜZÜNER T.
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, vol.212, 2021 (SCI-Expanded)

XI. **Synthesis, biological evaluation (antioxidant, antimicrobial, enzyme inhibition, and cytotoxic) and molecular docking study of hydroxy methoxy benzoin/benzil analogous**
Yaylı N., Kılıç G., Kahriman N., Kanbolat Ş., Bozdeveci A., Alpay Karaoğlu Ş., Aliyazıcıoğlu R., Erdinç Sellitepe H. E., Selin Doğan İ. S., Aydın A., et al.
BIOORGANIC CHEMISTRY, vol.115, 2021 (SCI-Expanded)

XII. **Investigation of potential inhibitor properties of ethanolic propolis extracts against ACE-II receptors for COVID-19 treatment by molecular docking study**
Guler H. İ., Tatar G., Yildiz O., Belduz A. O., Kolayli S.
ARCHIVES OF MICROBIOLOGY, vol.203, no.6, pp.3557-3564, 2021 (SCI-Expanded)

XIII. **Computational drug repurposing study of the RNA binding domain of SARS-CoV-2 nucleocapsid protein with antiviral agents**
Tatar G., Ozyurt E., Turhan K.
BIOTECHNOLOGY PROGRESS, vol.37, no.2, 2021 (SCI-Expanded)

XIV. **Determination of potential selective inhibitors for ROCKI and ROCKII isoforms with molecular modeling techniques: structure based docking, ADMET and molecular dynamics simulation**

Secinti B. B., Tatar G., Tok T. T.
JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, vol.37, no.9, pp.2457-2463, 2019 (SCI-Expanded)

XV. **Synthesis, anticancer activity and ADMET studies of N-(5-methyl-1,3,4-thiadiazol-2-yl)-4-[(3-substituted)ureido/thioureido] benzenesulfonamide derivatives**
KARAKUŞ S., TOK F., Tuerk S., ŞALVA E., Tatar G., Taskin-Tok T., Kocyigit-Kaymakcioglu B.
PHOSPHORUS SULFUR AND SILICON AND THE RELATED ELEMENTS, vol.193, no.8, pp.528-534, 2018 (SCI-Expanded)

XVI. **Clarification of Interaction Mechanism of Mouse Hepatitis Virus (MHV) N and nsp3 Protein with Homology Modeling and Protein-Protein Docking Analysis.**
Tatar G., Tok T.
Current computer-aided drug design, 2016 (SCI-Expanded)

Articles Published in Other Journals

I. **Molecular docking, synthesis and biological evaluation (enzyme inhibition, antimicrobial and antioxidant) of methoxy benzoin/benzil/stilbenoid derivatives**
YAYLI N., KAHRİMAN N., BOZDAL G., SERDAROĞLU V., ALİYAZICIOĞLU R., SELLİTEPE H. E., ALPAY KARAOĞLU Ş., Yilmaz G.
ORGANIC COMMUNICATIONS, vol.15, no.2, pp.129-147, 2022 (ESCI)

II. **Bazı Kalkonların COVID-19 Tedavisine Yönelik SARS-CoV-2 Ana Proteaza Bağlanma Mekanizmasının Moleküler Kenetleme Yaklaşımı ile Aydınlatılması**
Tatar Yılmaz G., Aktar B. S. K.
International journal of advances in engineering and pure sciences (Online), vol.33, no.4, pp.660-669, 2021 (Peer-Reviewed Journal)

III. **SARS-CoV-2 Ana Proteaz Enzimine Yönelik Antiviral Bileşiklerin Bilgisayar Destekli İlaç Tasarımı Yöntemleri ile Değerlendirilmesi**
TATAR YILMAZ G., YILMAZ E.
European Journal of Science and Technology, no.32, pp.1043-1047, 2021 (Peer-Reviewed Journal)

IV. **Target-Driven Design of a Coumarinyl Chalcone Scaffold Based Novel EF2 Kinase Inhibitor Suppresses Breast Cancer Growth In Vivo**
Onder F. C., Kahraman N., Atici E. B., Cagir A., Kandemir H., Tatar G., Tok T. T., Kara G., Karliga B., Durdagi S., et al.
ACS PHARMACOLOGY & TRANSLATIONAL SCIENCE, vol.4, no.2, pp.926-940, 2021 (ESCI)

Books & Book Chapters

I. **Bilgisayar destekli ilaç tasarımı**
Tatar Yılmaz G.
in: Protein yapısı, mühendisliği, etkileşimleri, dinamiği ve ilaç tasarımındaki yeri, Saliha Ece Acuner, Editor, Nobel Tıp Kitapevi, Ankara, pp.291-307, 2021

II. **BİLGİSAYAR DESTEKLİ İLAÇ TASARIMI**
TATAR YILMAZ G.
in: PROTEİN: YAPISI, MÜHENDİSLİĞİ, ETKİLEŞİMLERİ, DİNAMİĞİ VE İLAÇ TASARIMINDAKİ YERİ, Saliha Ece ACUNER, Editor, Ankara Nobel Tıp Kitabevleri, Ankara, pp.291-307, 2021

Refereed Congress / Symposium Publications in Proceedings

I. **Evaluation of The Effects of Different Formulations of Subunit Covid-19 Vaccine on Cytokine Levels in HepG2 Cells**

Arca Çakır D., Yirün A., Aydın S., Varan G., Tatar Yılmaz G., Erkekoğlu Ü. P., Ünal S.
11 INTERNATIONAL CONGRESS OF THE TURKISH SOCIETY OF TOXICOLOGY, Antalya, Turkey, 2 - 05 November 2022, pp.129

II. **COVID-19 Tedavisine Yönelik İn Siliko İlaç Geliştirme Çalışmaları**
Tatar Yılmaz G.
Uluslararası Ege Sağlık Alanları Sempozyumu, İzmir, Turkey, 18 - 19 December 2021, pp.120-121

III. **SARS-CoV-2 Spike, Main protease ve Nucleocapsid Proteinlerinin Molnupiravir ile Etkileşim Mekanizmasının Moleküler Kenetlenme Yöntemi ile İncelenmesi**
Özyurt E., Tatar Yılmaz G., Turhan K.
13. TIP BİLİŞİMİ KONGRESİ, İstanbul, Turkey, 24 - 27 March 2021, pp.1-8

IV. **Evaluation Of Two Different Antibacterial Agents For Inhibition Of Streptococcus Mutans-Sortase A Enzyme Structure By Molecular Docking Method**
SALMANLI M., TATAR G., TÜZÜNER T., YILMAZ N., BAYGIN Ö.
26.International Congress of Turkish Society of Pediatric Dentistry, 10 - 13 October 2019, pp.92-93

V. **Zika Virüsüne karşı in-siliko ilaç tasarımı**
Kok M. A., TATAR G., Taşkın Tok T.
3.Uluslararası Avrasya Multidisipliner Çalışmalar Kongresi, Gaziantep, Turkey, 4 - 07 April 2019, pp.304-311

VI. **Üç boyutlu DNA Aptamer Temelli Biyosensönler ile Endrokin bozucu kimyasallarin tespit edilmesi**
BAYIL İ., TATAR G., TASKIN TOK T.
3.Uluslararası Avrasya Multidisipliner Çalışmalar Kongresi, Gaziantep, Turkey, 4 - 07 April 2019, pp.334-339

VII. **Recent Developments in eEF2 Kinase Inhibitors**
AY M., CÖMERT ÖNDER F., KANDEMİR H., TAŞKIN TOK T., BELLUR ATİCİ E., TATAR G., KARLIĞA B., ŞAHİNER N., Ozpolat B.
International Conference on PharmaScience Research and Development (Pharma RD 2019), Paris, France, 4 - 06 March 2019, pp.25-26

VIII. **Determination of potential selective inhibitors for ROCKI and ROCKII isoforms with molecular modeling techniques: Structure Based Docking,ADMET and Molecular Dynamics Simulation**
TATAR G.
Proteinlerin Yapısı ve Etkileşimleri konulu Biyofizik Yaz Okulu, 29 - 30 August 2018

IX. **Molecular Docking Study of Novel 1,2,3,4,-Tetrahydroisoquinoline Derivates as Anticancer Agents against epidermal growth factor (EGFR) receptor**
TATAR G., TASKIN TOK T., HASSAN Y., MOHAMMED A. D.
1. Uluslararası Kanser ve İyon Kanalları Kongresi, Şanlıurfa, Turkey, 21 - 23 September 2017, pp.132

X. **Molecular Docking Study of Rho-Kinase (ROCK) inhibitors**
BAYEL SECINTI B., TATAR G., TASKIN TOK T.
Innovation in Medicine Summit-3, Gaziantep, Turkey, 11 - 13 May 2017, pp.84

XI. **Evaluation of Docking Functions for ROCK2-Ligands Docking**
YILDIRIM M., TATAR G., TASKIN TOK T.
4th International BAU Drug Design Congress, Gaziantep, Turkey, 13 - 15 October 2016, pp.230

XII. **Investigation of mutation on the molecular functions of ROCK2 (Rho-kinase2) protein with molecular modeling techniques**
TATAR G.
EMBO Integrative modeling of biomolecular interactions practical course, Barselona, Spain, 4 - 09 July 2016, pp.35

XIII. **Investigation of mutation on the molecular functions of ROCK2 protein with molecular modeling techniques**
TATAR G., TAŞKIN TOK T.
Summer school on Molecular Modeling 4, Sardinia, Italy, 6 - 10 June 2016

XIV. **Computer-assisted Drug Design and Development**
TASKIN TOK T., TATAR G.
Innovation in Medicine Summit-2, Gaziantep, Turkey, 05 May 2016 - 07 May 2017, pp.79

XV. **Voltaj Kapılı Potasyum Kanal Proteinin Kv1 2 Homoloji Modellenmesi ve HsTx1 Toksini ile Etkileşim**

Mekanizmaların Docking Yöntemiyle Aydınlatılması
YILMAZ K., TATAR G., TAŞKIN TOK T.
27. Ulusal Kimya Kongresi, Turkey, 23 - 28 August 2015

XVI. **Elucidation of Interaction Mechanism of Coronavirus protein with Molecular Docking**
TATAR G., TASKIN TOK T.
Modeling of Biomolecular Systems Interactions, Dynamics and Allostery: Bridging Experiments and Computations, İstanbul, Turkey, 10 - 14 September 2014, pp.137

XVII. **Homology modeling of Coronavirus (CoV) structural proteins and its interaction mechanism analysis**
TATAR G., TAŞKIN TOK T.
2. İlaç Kimyası, Üretim, Teknoloji ve Standardizasyon Kongresi, Turkey, 21 - 23 March 2014

Supported Projects

TATAR YILMAZ G., BEKTAŞ Ö., Project Supported by Higher Education Institutions, Bilgisayar Destekli İlaç Tasarımı Yöntemleri ile Yeni BCR-ABL Tirozin Kinaz İnhibitörlerinin Geliştirilmesi, 2022 - Continues
Tatar G., Aktar B. S. K., TUBITAK Project, Antidiyabetik Ajan Olarak alfa-Glukozidaz ve Ppar-gama'ya Karsı Kalkon, Pirazol, Izoksazol ve Hidrazon Gruplarına Sahip Yeni Moleküllerin Tasarımı, Moleküler Modelleme Çalısmaları ve in vitro Aktivitelerinin Incelenmesi, 2021 - 2023
Tatar G., Ünal S., Okay S., Aydın S., Erkekoğlu Ü. P., Karahan M., Özkul A., Ergünay K., İnkaya A. Ç., Turkey Institutes of Health Administration Project, PEPTIDE-BASED VACCINE RESEARCH AND DEVELOPMENT STUDIES AGAINST COVID-19, 2020 - 2022
Tatar G., Yaylı N., Turkey Institutes of Health Administration Project, Sortaz A enzimine yönelik yeni antimikrobiyal inhibitörlerin moleküler modelleme yöntemleri ile geliştirilmesi, 2020 - 2022
TUBITAK Project, Moleküler Modelleme Tabanlı Yeni Hipoksiyle İndüklenen Faktörler HIF 1 ve HIF 2 Enzim İnhibitörlerinin Geliştirilmesi Sentezi ve Sitotoksisite Araştırmaları, 2016 - 2018

Scientific Refereeing

JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, SCI Journal, April 2022
SCIENTIFIC REPORTS, SCI Journal, March 2022
CLİNİCAL AND EXPERİMENTAL HEALTH SCİENCE, National Scientific Refreed Journal, February 2022
COMPUTERS IN BIOLOGY AND MEDICINE, SCI Journal, November 2021
FRONTIERS IN PHARMACOLOGY, SCI Journal, September 2021
International journal of advances in engineering and pure sciences (Online), National Scientific Refreed Journal, May 2021
BIOPHYSICAL CHEMISTRY, SCI Journal, January 2021
BIOTECHNOLOGY PROGRESS, National Scientific Refreed Journal, August 2020

Metrics

Publication: 40
Citation (WoS): 96
Citation (Scopus): 106
H-Index (WoS): 6
H-Index (Scopus): 6

Scholarships

Travel Grant, Other International Organizations, 2016 - 2016
Bursary, TUBITAK, 2015 - 2016

Awards

TATAR G., Best Poster Award, Turkish Society of Pediatric Dentistry, October 2019