

## Res. Asst. KEYSER KÜBRA KIRBOĞA

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: ABO-3603-2022

ScopusID: 57445226400

Yoksis Researcher ID: 364831

### Education Information

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Biyomühendislik (YI) (Tezli), Turkey 2020 - 2022

Postgraduate, Izmir Institute Of Technology, Institute Of Engineering And Natural Sciences, Biyoteknoloji (YI) (Tezli) (İngilizce), Turkey 2019 - 2020

Undergraduate, Mugla Sıtkı Kocman University, Faculty Of Science, Department Of Molecular Biology And Genetics, Turkey 2014 - 2018

### Research Areas

Health Sciences, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Research Assistant, Bilecik Seyh Edebali University, Mühendislik Fakültesi, Biyomühendislik, 2022 - Continues

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

- I. **Spectrochemical and explainable artificial intelligence approaches for molecular level identification of the status of critically ill patients with COVID-19**  
Tokgoz G., KIRBOĞA K. K., ÖZEL F., YÜCEPUR S., ARDAHANLI İ., GURBANOV R.  
Talanta, vol.279, 2024 (SCI-Expanded)
- II. **Data mining and molecular dynamics analysis to detect HIV-1 reverse transcriptase RNase H activity inhibitor**  
Ghafoor N. A., KIRBOĞA K. K., Baysal Ö., Süzek B. E., SİLME R. S.  
Molecular Diversity, vol.28, no.4, pp.1869-1888, 2024 (SCI-Expanded)
- III. **Explainable artificial intelligence in the design of selective carbonic anhydrase I-II inhibitors via molecular fingerprinting**  
KIRBOĞA K. K., IŞIK M.

Journal of Computational Chemistry, vol.45, no.18, pp.1530-1539, 2024 (SCI-Expanded)

- IV. **Feature Engineering-Assisted Drug Repurposing on Disease-Drug Transcriptome Profiles in Gastric Cancer**  
KIRBOĞA K. K., Rudrapal M.  
Assay and Drug Development Technologies, vol.22, no.4, pp.181-191, 2024 (SCI-Expanded)
- V. **Bladder cancer gene expression prediction with explainable algorithms**  
KIRBOĞA K. K.  
Neural Computing and Applications, vol.36, no.4, pp.1585-1597, 2024 (SCI-Expanded)
- VI. **Targeting Breast Cancer with N-Acetyl-D-Glucosamine: Integrating Machine Learning and Cellular Assays for Promising Results**  
Baysal Ö., Genç D., SILME R. S., KIRBOĞA K. K., Çoban D., Ghafoor N. A., Tekin L., Bulut O.  
Anti-Cancer Agents in Medicinal Chemistry, vol.24, no.5, pp.334-347, 2024 (SCI-Expanded)
- VII. **Explainability and white box in drug discovery**  
KIRBOĞA K. K., Abbasi S., KÜÇÜKSİLLE E. U.  
Chemical Biology and Drug Design, vol.102, no.1, pp.217-233, 2023 (SCI-Expanded)
- VIII. **CVD22: Explainable artificial intelligence determination of the relationship of troponin to D-Dimer, mortality, and CK-MB in COVID-19 patients**  
KIRBOĞA K. K., KÜÇÜKSİLLE E. U., NALDAN M. E., IŞIK M., Gülcü O., Aksakal E.  
Computer Methods and Programs in Biomedicine, vol.233, 2023 (SCI-Expanded)
- IX. **The importance of neopterin in COVID-19: The prognostic value and relation with the disease severity**  
Rasmi Y., Heidari N., Kübra Kirboğa K. K., Hatamkhani S., Tekin B., Alipour S., Naderi R., Farnamian Y., Akca I.  
Clinical Biochemistry, vol.104, pp.1-12, 2022 (SCI-Expanded)
- X. **Decellularized Alstroemeria flower stem modified with chitosan for tissue engineering purposes: A cellulose/chitosan scaffold**  
Esmaeili J., Jadbabae S., Far F. M., Lukolayeh M. E., Kirboğa K. K., Rezaei F. S., Barati A.  
International Journal of Biological Macromolecules, vol.204, pp.321-332, 2022 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Ignition of Small Molecule Inhibitors in Friedreichs Ataxia with Explainable Artificial Intelligence**  
KIRBOĞA K. K., KÜÇÜKSİLLE E. U., KÖSE U.  
Asociatia LUMEN, vol.14, 2023 (Peer-Reviewed Journal)
- II. **Detection of new candidate compounds against four antibiotic targets using explainable artificial intelligence by molecular fingerprints**  
KIRBOĞA K. K., Ghafoor N. A., BAYSAL Ö.  
International Journal of Multidisciplinary Studies and Innovative Technologies, 2023 (Peer-Reviewed Journal)
- III. **Applications of Turmeric Starch and Curcumin**  
KIRBOĞA K. K.  
Bayburt Üniversitesi Fen Bilimleri Dergisi, 2023 (Peer-Reviewed Journal)
- IV. **Development of gold nanoparticle-based biosensors for COVID-19 diagnosis**  
Khan J., Rasmi Y., Kirboğa K. K., Ali A., Rudrapal M., Patekar R. R.  
Beni-Suef University Journal of Basic and Applied Sciences, vol.11, no.1, 2022 (Scopus)
- V. **Perspectives on Computer Aided Drug Discovery**  
KIRBOĞA K. K., KÜÇÜKSİLLE E. U.  
Dicle Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.11, 2022 (Peer-Reviewed Journal)
- VI. **The Impact of Artificial Intelligence on the Medical Area: Detailed Review**  
KIRBOĞA K. K., KÜÇÜKSİLLE E. U., KÖSE U.  
JOMUDE, vol.6, no.1, pp.54-73, 2021 (Peer-Reviewed Journal)

## Books & Book Chapters

I. **Chapter 5 - Molecular cloning of drug targets**

KIRBOĞA K. K., ÇİFTÇİ B.

in: Biochemical and Molecular Pharmacology in Drug Discovery , , Editor, Elsevier, pp.99-117, 2024

## Refereed Congress / Symposium Publications in Proceedings

I. **XAI-PT: Exploring Post-Transcriptional Biology with Explainable Artificial Intelligence**

KIRBOĞA K. K.

4TH INTERNATIONAL CONFERENCE ON INNOVATIVE ACADEMIC STUDIES ICIAS 2024, Turkey, 12 March 2024

II. **An Overview of Artificial Intelligence and Explainability in Pharmacovigilance**

Kırboğa K. K., Çiftci B., Işık M.

2ND INTERNATIONAL CONFERENCE ON ENGINEERING, NATURAL AND SOCIAL SCIENCES, Konya, Turkey, 4 - 06 April 2023, pp.415-422

III. **Designing enzymes and pathways using artificial intelligence for metabolic engineering**

Kırboğa K. K., Işık M.

2nd International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 10 October 2022

IV. **A Look at Computational Drug Discovery with Explainable Artificial Intelligence**

KIRBOĞA K. K., KÜÇÜKSİLLE E. U.

1st International Conference on Innovative Academic Studies, Turkey, 10 September 2022

V. **Evaluation of the Drugs Tested in the Treatment of Covid-19 (Sars-Cov-2 Infection) on the Molecular Virus Replication**

KIRBOĞA K. K.

Suleyman Demirel University Faculty of Medicine Health Symposium, Isparta, Turkey, 01 April 2019

## Scholarships

2211-A, TUBITAK, 2023 - Continues