

## Assoc. Prof. PEMRA ÖZBEK SARICA

### Personal Information

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### International Researcher IDs

ScholarID: KAzRN-MAAAAJ

ORCID: 0000-0002-3043-0015

Publons / Web Of Science ResearcherID: A-3594-2016

ScopusID: 21935134300

Yoksis Researcher ID: 37047

### Education Information

Doctorate, Imperial College of Science, Technology and Medicine, Faculty of Engineering, Mechanical Engineering Dept., United Kingdom 2004 - 2008

Undergraduate, Bogazici University, Faculty Of Engineering, Department Of Chemistry Engineering, Turkey 1999 - 2004

### Biography

Assoc. Prof. Pemra ÖZBEK SARICA was born in 1982, Istanbul. After graduating from Bogazici University, Chemical Engineering Department in 2004, she moved to United Kingdom to pursue her academic career. She completed her PhD in Mechanical Engineering in Imperial College London, 2008. She studied as a postdoc in Bogazici University, Chemical Engineering Department, Polymer Research Center (PRC) between years 2008-2011. In 2011, she started working as an Assist. Prof. in Marmara University, Bioengineering Department. Currently, she is the Principal Investigator of the Computational Biology and Bioinformatics Research Group.

### Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Engineering, Bioengineering, 2017 - Continues

Assistant Professor, Marmara University, Faculty of Engineering, Bioengineering, 2011 - 2017

Research Assistant, Bogazici University, Faculty Of Engineering, Department Of Chemistry Engineering, 2008 - 2011

Research Assistant, Imperial College of Science, Technology and Medicine, Mühendislik Fakültesi, Makina Mühendisliği, 2004 - 2008

### Academic and Administrative Experience

Deputy Head of Department, Marmara University, Faculty of Engineering, Bioengineering, 2019 - 2022  
Mevlana Exchange Program Coordinator, Marmara University, Faculty of Engineering, Bioengineering, 2013 - 2020  
Erasmus Coordinator, Marmara University, Faculty of Engineering, Bioengineering, 2010 - 2020

## Advising Theses

Özbek Sarıca P., INVESTIGATION OF TYPE 4 PILI ATPASE INHIBITOR USING COMPUTATIONAL TOOLS , Postgraduate, A.Özcan(Student), 2021  
Özbek Sarıca P., Development of a Web-Based Tool for Network Analysis of Protein Structure, Postgraduate, R.Murat(Student), 2019  
SARIYAR AKBULUT B., ÖZBEK SARICA P., Computational study on the inhibition multidrug resistance efflux pumps, Postgraduate, D.Şentürk(Student), 2019  
Özbek Sarıca P., Computational Dynamical Characterization of Human Major Histocompatibility Complex Proteins, Doctorate, O.SERÇİNOĞLU(Student), 2018  
Özbek Sarıca P., Computational Investigation of Peptide Binding Affinity and Complex Stability of Major Histocompatibility Complex (MHC), Postgraduate, A.Bunsuz(Student), 2018  
Özbek Sarıca P., Computational Investigation of Protein Dynamics Based on Energy Dissipation, Postgraduate, E.Naz(Student), 2017  
Özbek Sarıca P., Computational Study On The Effect of pH on the Binding Behaviour of HLA-B Alleles, Postgraduate, Z.Kutlu(Student), 2015  
Özbek Sarıca P., Docking Studies in HLA Molecules, Postgraduate, G.ÖZCAN(Student), 2015

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

- I. **Attenuation of Type IV pili activity by natural products**  
Yalkut K., Ben Ali Hassine S., Basaran E., KULA C., Ozcan A., Avci F. G., Keskin O., SARIYAR AKBULUT B., ÖZBEK SARICA P.  
Journal of Biomolecular Structure and Dynamics, 2024 (SCI-Expanded)
- II. **Piperidine-based natural products targeting Type IV pili antivirulence: A computational approach**  
Ozcan A., Keskin O., Sariyar Akbulut B., Özbek Sarica P.  
JOURNAL OF MOLECULAR GRAPHICS & MODELLING, vol.119, 2023 (SCI-Expanded)
- III. **A review on the mechanistic details of OXA enzymes of ESKAPE pathogens**  
Avci F. G., Tastekil I., Jaisi A., ÖZBEK SARICA P., SARIYAR AKBULUT B.  
PATHOGENS AND GLOBAL HEALTH, vol.117, no.3, pp.219-234, 2023 (SCI-Expanded)
- IV. **Epistatic effects between amino acid insertions and substitutions mediate toxin-resistance of vertebrate Na<sup>+</sup>, K<sup>+</sup>-ATPases**  
Mohammadi S., Özdemir H. I., Özbek Sarica P., Sumbul F., Stiller J., Deng Y., Crawford A. J., Rowland H. M., Storz J. F., Andolfatto P., et al.  
MOLECULAR BIOLOGY AND EVOLUTION, vol.1, no.1, pp.100-102, 2022 (SCI-Expanded)
- V. **How Epstein-Barr virus envelope glycoprotein gp350 tricks the CR2? A molecular dynamics study**  
Bingöl E. N., Taştekil I., Yay C., Keskin N., ÖZBEK SARICA P.  
Journal of Molecular Graphics and Modelling, vol.114, 2022 (SCI-Expanded)
- VI. **Assessment of 13 in silico pathogenicity methods on cancer-related variants**  
Yazar M., ÖZBEK SARICA P.  
Computers in Biology and Medicine, vol.145, 2022 (SCI-Expanded)
- VII. **Exploring the recognition differences of peptides in TCR-pMHC complex**  
Bingöl E. N., Özbek Sarica P.  
BIOPHYSICAL JOURNAL, vol.121, no.3, 2022 (SCI-Expanded)
- VIII. **Systems biomarkers for papillary thyroid cancer prognosis and treatment through multi-omics**

## networks

Gulfidan G., Soylu M., Demirel D., Erdonmez H. B. C., Beklen H., ÖZBEK SARICA P., ARÇA K. Y., TURANLI B.  
ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, vol.715, 2022 (SCI-Expanded)

- IX. **Hydration modulates oxygen channel residues for oxygenation of cysteine dioxygenase: Perspectives from molecular dynamics simulations**  
Tariq M., Özbek Sarica P., Moin S. T.  
JOURNAL OF MOLECULAR GRAPHICS & MODELLING, vol.110, 2022 (SCI-Expanded)
- X. **Unraveling the Allosteric Communication Mechanisms in T-Cell Receptor-Peptide-Loaded Major Histocompatibility Complex Dynamics Using Molecular Dynamics Simulations: An Approach Based on Dynamic Cross Correlation Maps and Residue Interaction Energy Calculations**  
Bingol E. N., Sercinoglu O., Özbek Sarica P.  
JOURNAL OF CHEMICAL INFORMATION AND MODELING, vol.61, no.5, pp.2444-2453, 2021 (SCI-Expanded)
- XI. **In SilicoTools and Approaches for the Prediction of Functional and Structural Effects of Single-Nucleotide Polymorphisms on Proteins: An Expert Review**  
Yazar M., ÖZBEK SARICA P.  
OMICS-A JOURNAL OF INTEGRATIVE BIOLOGY, vol.25, pp.23-37, 2021 (SCI-Expanded)
- XII. **Identification of novel inhibitors of the ABC transporter BmrA**  
Serçinoğlu O., Senturk D., Altinisik K., Avci F., Frlan R., Tomašič T., Ozbek P., Orelle C., Jault J., Sariyar A.  
BIOORGANIC CHEMISTRY, vol.105, 2020 (SCI-Expanded)
- XIII. **Revisiting allostery in CREB-binding protein (CBP) using residue-based interaction energy**  
Yazar M., Ozbek P.  
JOURNAL OF COMPUTER-AIDED MOLECULAR DESIGN, vol.34, no.9, pp.965-974, 2020 (SCI-Expanded)
- XIV. **Sequence-structure-function relationships in class I MHC: A local frustration perspective**  
Serçinoğlu O., Ozbek P.  
PLOS ONE, vol.15, no.5, 2020 (SCI-Expanded)
- XV. **New Machine Learning Applications to Accelerate Personalized Medicine in Breast Cancer: Rise of the Support Vector Machines**  
Ozer M. E., Sarica P., ARÇA K. Y.  
OMICS-A JOURNAL OF INTEGRATIVE BIOLOGY, vol.24, no.5, pp.241-246, 2020 (SCI-Expanded)
- XVI. **Computational investigation of peptide binding stabilities of HLA-B\*27 and HLA-B\*44 alleles**  
Bunsuz A., SERÇİNOĞLU O., Ozbek P.  
Computational Biology and Chemistry, vol.84, 2020 (SCI-Expanded)
- XVII. **Next-Generation Sequencing Identifies BRCA1 and/or BRCA2 Mutations in Women at High Hereditary Risk for Breast Cancer with Shorter Telomere Length**  
Peker E., Yenmiş G., Bingöl E., Yüksel Ş., Tokat F., Özbek P., Güllü A., Yakıcıer C., Akkiprik M.  
OMICS-A JOURNAL OF INTEGRATIVE BIOLOGY, vol.24, no.1, pp.5-15, 2020 (SCI-Expanded)
- XVIII. **ProSNEx: a web-based application for exploration and analysis of protein structures using network formalism**  
Aydinkal R. M., Serçinoğlu O., Özbek Sarica P.  
Nucleic Acids Research, vol.1, no.1, 2019 (SCI-Expanded)
- XIX. **How Do Mutations and Allosteric Inhibitors Modulate Caspase-7 Activity? A Molecular Dynamics Study**  
Bingol E. N., Serçinoğlu O., Özbek Sarica P.  
Journal Of Biomolecular Structure & Dynamics, vol.37, no.13, pp.3456-3466, 2019 (SCI-Expanded)
- XX. **gRINN: a tool for calculation of residue interaction energies and protein energy network analysis of molecular dynamics simulations**  
Sercinoglu O., Özbek Sarica P.  
NUCLEIC ACIDS RESEARCH, vol.46, 2018 (SCI-Expanded)
- XXI. **Computational characterization of residue couplings and micropolymorphism-induced changes in the dynamics of two differentially disease-associated human MHC class-I alleles**  
Sercinoglu O., Özbek Sarica P.

- JOURNAL OF BIOMOLECULAR STRUCTURE & DYNAMICS, vol.36, pp.724-740, 2018 (SCI-Expanded)
- XXII. **A computational docking study on the pH dependence of peptide binding to HLA-B27 sub-types differentially associated with ankylosing spondylitis**  
Sercinoglu O., Ozcan G., Kabas Z. K., ÖZBEK SARICA P.  
JOURNAL OF COMPUTER-AIDED MOLECULAR DESIGN, vol.30, no.7, pp.569-581, 2016 (SCI-Expanded)
- XXIII. **Dynamic characterization of HLA-B\*44 Alleles: A comparative molecular dynamics simulation study**  
ÖZBEK SARICA P.  
COMPUTATIONAL BIOLOGY AND CHEMISTRY, vol.62, pp.12-16, 2016 (SCI-Expanded)
- XXIV. **DynaFace: Discrimination between Obligatory and Non-obligatory Protein-Protein Interactions Based on the Complex's Dynamics**  
Soner S., ÖZBEK SARICA P., Garzon J. I., Ben-Tal N., HALILOĞLU T.  
PLOS COMPUTATIONAL BIOLOGY, vol.11, no.10, 2015 (SCI-Expanded)
- XXV. **Hot Spots in a Network of Functional Sites**  
ÖZBEK SARICA P., Soner S., HALILOĞLU T.  
PLOS ONE, vol.8, no.9, 2013 (SCI-Expanded)
- XXVI. **Community wide assessment of protein interface modeling suggests improvements to design methodology**  
Sarel J F., Timothy A W., Strauch E., Corn J. E., Qin S., Zhou H., Mitchell J. C., Omar NA D., Mayuko T., Genki T., et al.  
Journal Of Molecular Biology, vol.414, pp.289-302, 2011 (SCI-Expanded)
- XXVII. **DNABINDPROT fluctuation based predictor of DNA binding residues within a network of interacting residues**  
Özbek Sarica P., Soner S., Erman B., Haliloglu T.  
Nucleic Acids Research, vol.38, pp.417-423, 2010 (SCI-Expanded)
- XXVIII. **Fracture mechanics analysis of arc shaped specimens for pipe grade polymers**  
ÖZBEK SARICA P., Argyrakos C., Leever P.  
Polymer Testing, vol.28, pp.357-361, 2009 (SCI-Expanded)
- XXIX. **Uniaxial tensile properties underlying plane stress rapid fracture resistance in polyethylene**  
ÖZBEK SARICA P., Leever P.  
Polymer Engineering And Science, vol.48, pp.1855-1861, 2008 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Differential Interactome Based Drug Repositioning Unraveled Abacavir, Exemestane, Nortriptyline Hydrochloride, and Tolcapone as Potential Therapeutics for Colorectal Cancers**  
beklen h., arslan s., Gulfidan G., Turanlı B., ÖZBEK SARICA P., Karademir Yılmaz B., ARĞA K. Y.  
Frontiers in Bioinformatics, vol.1, 2021 (Peer-Reviewed Journal)
- II. **HLA Moleküllerinde Peptit Ligandlarının Kompleks Stabilitesine Olan Etkisinin Araştırılması**  
Bunsuz A., Serçinoğlu O., Özbek Sarica P.  
International journal of advances in engineering and pure sciences (Online), vol.30, 2018 (Peer-Reviewed Journal)
- III. **Dynamic Characterization of HLA Molecules by GNM**  
SERÇİNOĞLU O., ÖZBEK SARICA P.  
Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi, vol.20, no.59, pp.376-399, 2018 (Peer-Reviewed Journal)
- IV. **Protein dynamics**  
ÖZBEK SARICA P., Haliloglu T.  
Sigma Mühendislik ve Fen Bilimleri Dergisi, vol.27, pp.161-170, 2009 (Peer-Reviewed Journal)
- V. **Plane stress rapid fracture resistance of pipe grade PE Estimation from tensile drawing data**  
ÖZBEK SARICA P., Leever P. S.  
ANTEC Conference Proceedings, vol.5, pp.2880-2884, 2007 (Peer-Reviewed Journal)

## Books & Book Chapters

### I. MOLEKÜLER DİNAMİK (MD) SİMÜLASYONLARI

Bingol E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.

in: PROTEİN: YAPISI, MÜHENDİSLİĞİ, ETKİLEŞİMLERİ, DİNAMİĞİ VE İLAÇ TASARIMINDAKİ YERİ, Saliha Ece Acuner, Editor, Ankara Nobel Tıp Kitabevleri, İstanbul, pp.237-255, 2021

### II. In Silico Databases and Tools for Drug Repurposing

Serçinoğlu O., Özbek Sarıca P.

in: In Silico Drug Design, Kunal Roy, Editor, Elsevier Science, Oxford/Amsterdam , London, pp.703-743, 2019

## Refereed Congress / Symposium Publications in Proceedings

### I. Differential Interactome Based Drug Repositioning Unraveled Potential Therapeutics for Colorectal Cancers

BEKLEN H., Arslan S., GULFİDAN G., TURANLI B., ÖZBEK SARICA P., YILMAZ B., ARÇA K. Y.

3rd EURASIA BIOCHEMICAL APPROACHES & TECHNOLOGIES (EBAT) CONGRESS, Antalya, Turkey, 4 - 07 November 2021

### II. New inhibitors of the BmrA pump identified through virtual screening

Senturk D., SERÇİNOĞLU O., ALTINIŞIK KAYA F. E., Frlan R., Tomasic T., AVCI F. G., ÖZBEK SARICA P., Orelle C., Jault J. M., SARIYAR AKBULUT B.

MuTaLig COST ACTION CA15135 4th WG meeting, 05 March 2020

### III. Exploring dynamics of pMHC using accelerated molecular dynamics

Bingol E. N., ÖZBEK SARICA P.

7th International Bahçeşehir University (BAU) Drug Design Congress, 19 - 21 December 2019

### IV. Identification of allostery in CREB-Binding Protein via using pairwise residue interaction energy method

YAZAR M., ÖZBEK SARICA P.

7th International Bahçeşehir University (BAU) Drug Design Congress, 19 - 21 December 2019

### V. A Tool for Investigating Protein Signaling Network by Perturbation of External Energy Dissipation

özer m. e., özdemir h. i., SERÇİNOĞLU O., Bingol E. N., ÖZBEK SARICA P.

7th International Bahçeşehir University (BAU) Drug Design Congress, 19 - 21 December 2019

### VI. Ailesel Meme Kanseri Hastalarında BRCA1 ve BRCA2 Genlerinin Yeni Nesil Dizileme Yöntemi ile Dizilenmesi ve Telomer Uzunluğuyla İlişkisi

PEKER EYÜBOĞLU İ., YENMİŞ G., BİNGÖL E. N., YÜKSEL KILIÇTURGAY Ş., TOKAT F., ÖZBEK SARICA P., GÜLLÜ AMURAN G., YAKICIER M. C., AKKİPRİK M.

Tıbbi Biyoloji ve Genetik kongresi, Turkey, 27 - 30 October 2019

### VII. Determination Of Candidate Biomarkers Through Differential Interactome in Colorectal Adenocarcinoma

BEKLEN H., GULFİDAN G., TURANLI B., ÖZBEK SARICA P., YILMAZ B., ARÇA K. Y.

The 12th International Symposium on Health Informatics and Bioinformatics (HIBIT 2019), İzmir, Turkey, 17 - 19 October 2019

### VIII. Comparative dynamical characterization of TCR and MHC molecules upon binding via molecular dynamics simulations

Bingol E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.

ECOMB, 19 - 21 September 2019

### IX. Protein Networks: Development of a web tool to analyze protein structural topology

aydınkal r. m., SERÇİNOĞLU O., ÖZBEK SARICA P.

6th International BAU-Drug Design Congress, 13 - 15 December 2018

### X. Biophysical Links Between Polymorphism, Stability and Peptide-Binding in the Major Histocompatibility Complex

SERÇİNOĞLU O., ÖZBEK SARICA P.

6th International BAU-Drug Design Congress, 13 - 15 December 2018

- XI. **Comparison of allosteric pathway identification of CREB-binding protein using computational methods**  
YAZAR M., ÖZBEK SARICA P.  
6th International BAU-Drug Design Congress, 13 - 15 December 2018
- XII. **Comparative Analysis of Two Binding Sites on The BmrA Efflux Pump**  
şentürk karagöz d., SERÇİNOĞLU O., ÖZBEK SARICA P., oreille c., Jault J., SARIYAR AKBULUT B.  
6th International BAU-Drug Design Congress, Turkey, 13 - 15 December 2018
- XIII. **Dynamical characterization of TCRpMHC complex: A comparative molecular dynamics study**  
Bingol E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.  
6th International BAU-Drug Design Congress, 13 - 15 December 2018
- XIV. **VIRTUAL SCREENING FOR INHIBITORS OF THE BmrA PUMP**  
şentürk karagöz d., SERÇİNOĞLU O., SARIYAR AKBULUT B., ÖZBEK SARICA P., oreille c., Jault j. m.  
HIBIT 2018 11TH INTERNATIONAL SYMPOSIUM ON HEALTH INFORMATICS AND BIOINFORMATICS, 25 - 27 October 2018
- XV. **Investigation of catalytic loop motions and global dynamics of caspase- 7 structures**  
Bingöl E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.  
International conference on applied mathematics, modeling and Life Sciences, 3 - 05 October 2018
- XVI. **Biophysical basis of MHC Class I polymorphism**  
SERÇİNOĞLU O., ÖZBEK SARICA P.  
International conference on applied mathematics, modeling and Life Sciences, 3 - 05 October 2018
- XVII. **Computational Approaches to the Investigation of Peptide-MHC Complex Stability**  
Bunsuz A., SERÇİNOĞLU O., ÖZBEK SARICA P.  
International conference on applied mathematics, modeling and Life Sciences, 3 - 05 October 2018
- XVIII. **Comparison of computational allosteric pathway identification methods**  
YAZAR M., SERÇİNOĞLU O., ÖZBEK SARICA P.  
International conference on applied mathematics, modeling and Life Sciences, 3 - 05 October 2018
- XIX. **Understanding the dynamic nature of proteins using molecular dynamics (MD) simulations**  
ÖZBEK SARICA P.  
International conference on applied mathematics, modeling and Life Sciences, 3 - 05 October 2018
- XX. **Development of a web-based tool for network analysis of protein structures**  
Aydinkal R. M., SERÇİNOĞLU O., ÖZBEK SARICA P.  
International conference on applied mathematics, modeling and Life Sciences, 3 - 05 October 2018
- XXI. **Quantifying Peptide Binding Affinities from Non-equilibrium Work**  
Sercinoglu O., ÖZBEK SARICA P.  
62nd Annual Meeting of the Biophysical-Society, San-Francisco, Costa Rica, 17 - 21 February 2018, vol.114
- XXII. **Construction of allosteric residue networks in caspase-7 using energy perturbation responses**  
Bingol E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.  
International Symposium on Chemistry via Computation Applications on Molecular Nanoscience, 30 October 2017
- XXIII. **Effect of temperature on the molecular dynamics simulations of HLA-A 02 alleles,**  
Bunsuz A., SERÇİNOĞLU O., ÖZBEK SARICA P.  
International Symposium on Chemistry via Computation Applications on Molecular Nanoscience, 30 October 2017
- XXIV. **A Software Tool for Parallel Computation and Characterization of Residue Interaction Energies from Molecular Dynamics Simulations**  
SERÇİNOĞLU O., ÖZBEK SARICA P.  
International Symposium on Chemistry via Computation Applications on Molecular Nanoscience, 30 October 2017
- XXV. **Detection of the allosteric residue network in effector caspase molecules by energy dissipation model**  
Bingol E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.  
5th International BAU-Drug Design Congress, 19 - 21 October 2017

- XXVI. **Immunogenic Peptide - HLA-A 02:01 Complexes Studied by Comparative Molecular Dynamics Simulation**  
Bunsuz A., SERÇİNOĞLU O., ÖZBEK SARICA P.  
5th International BAU-Drug Design Congress, 19 - 21 October 2017
- XXVII. **Steered Molecular Dynamics Simulation for Efficient Ranking of Peptide - MHC Class I Binding Affinities\_**  
SERÇİNOĞLU O., ÖZBEK SARICA P.  
5th International BAU-Drug Design Congress, 19 - 21 October 2017
- XXVIII. **Allelic dependence of MHC I stability on peptide termini conta ts in MD simulations**  
SERÇİNOĞLU O., ÖZBEK SARICA P.  
19th UIPAB congress and 11th EBSA congress, 16 - 20 July 2017
- XXIX. **Investigation of Peptide Binding Affinity andThermalStability ofHuman Leukocyte Antigens (HLAs)**  
Bunsuz A., SERÇİNOĞLU O., ÖZBEK SARICA P.  
19th UIPAB congress and 11th EBSA congress, 16 - 20 July 2017
- XXX. **Searching a communication pathway between allosteric siteand binding region in effector caspase molecules**  
Bingöl E. N., SERÇİNOĞLU O., ÖZBEK SARICA P.  
BAU Drug Design, 13 - 15 October 2016
- XXXI. **Investigation of Peptide Binding Affinity and Complex Stability ofHuman Leukocyte Antigens HLAs**  
bunsuz a., SERÇİNOĞLU O., ÖZBEK SARICA P.  
BAU Drug Design, 12 - 15 October 2016
- XXXII. **Allelic modulation of global dynamics of HLA B 27 05 and HLA B 27 09 molecules**  
SERÇİNOĞLU O., ÖZBEK SARICA P.  
13th Greta Pifat Mrzljak International School of Biophysics, 1 - 10 September 2016
- XXXIII. **Exploration of allosteric paths in caspase molecules using energy dissipation**  
Bingol E. N., Sercinoglu O., Sarica P.  
41st FEBS Congress on Molecular and Systems Biology for a Better Life, Kusadasi, Turkey, 3 - 08 September 2016, vol.283, pp.235
- XXXIV. **HLA B 44 Alellerinin Peptid Bağlanma Davranış Mekanizmalarının Hesaplamalı Olarak Araştırılması**  
Bunsuz A., SERÇİNOĞLU O., ÖZBEK SARICA P.  
Biruni Üniversitesi Bilgisayar Destekli İlaç Tasarımı, Turkey, 16 - 17 May 2016
- XXXV. **Investigating Dynamics of HLA Molecules by Energy Dissipation**  
Bingol E. N., Sercinoglu O., ÖZBEK SARICA P.  
60th Annual Meeting of the Biophysical-Society, Los-Angeles, Chile, 27 February - 02 March 2016, vol.110
- XXXVI. **Computational study on the binding behaviour of HLA B44 alleles**  
Sercinoglu O., ÖZBEK SARICA P.  
3rd International BAU-Drug Design Congress, Istanbul, 1 - 03 October 2015
- XXXVII. **Structural characterization of peptide binding to class I MHC proteins using protein energy networks from molecular dynamics simulations**  
Sercinoglu O., ÖZBEK SARICA P.  
3rd International BAU-Drug Design Congress, Istanbul, 1 - 03 October 2015
- XXXVIII. **Computational investigation of protein dynamics based on energy dissipation**  
Sercinoglu O., ÖZBEK SARICA P.  
3rd International BAU-Drug Design Congress, Istanbul, 1 - 03 October 2015
- XXXIX. **Investigation of the binding behaviour of HLA B27 alleles at varying pH Conditions using computational methods**  
Sercinoglu O., ÖZBEK SARICA P.  
3rd International BAU-Drug Design Congress, Istanbul, 1 - 03 October 2015
- XL. **Computational study on the binding behaviour of HLA B27 alleles at varying pH conditions**  
Ozcan G., Kutlu Kabas Z., Sercinoglu O., ÖZBEK SARICA P.  
10th European Biophysics Congress, Dresden, 17 - 22 July 2015

- XLII. Peptide dependent binding stabilization effect of 2 microglobulin on HLA B27 alleles**  
Sercinoglu O., ÖZBEK SARICA P.  
10th European Biophysics Congress, Dresden, 17 - 22 July 2015
- XLIII. Computational study on the binding behaviour of HLA-B27 alleles at varying pH conditions**  
Ozcan G., Kabas Z. K., Sercinoglu O., Ozbek P.  
10th European-Biophysical-Societies-Association (EBSA) European Biophysics Congress, Dresden, Germany, 18 - 22 July 2015, vol.44
- XLIV. Peptide-dependent binding-stabilization effect of beta 2m on HLA B27 alleles: A computational study**  
Sercinoglu O., Ozbek P.  
10th European-Biophysical-Societies-Association (EBSA) European Biophysics Congress, Dresden, Germany, 18 - 22 July 2015, vol.44
- XLV. An investigation of the effects of model simplification and water box shell size on the molecular dynamics simulations of peptide loaded major histocompatibility complex proteins**  
Sercinoglu O., ÖZBEK SARICA P.  
Modeling of Biomolecular Systems Interactions, Dynamics, and Allosteric: Bridging Experiments and Computations, 10 - 14 September 2014
- XLVI. Computational investigation of the energy exchange pathways in peptide loaded major histocompatibility complex proteins**  
Sercinoglu O., Ozcan G., ÖZBEK SARICA P.  
Modeling of Biomolecular Systems Interactions, Dynamics, and Allosteric: Bridging Experiments and Computations, 10 - 14 September 2014
- XLVII. Comparison of the binding behavior of HLA B alleles related to ankylosing spondylitis disease by computational methods**  
Kutlu Kabas Z., Ozcan G., Sercinoglu O., ÖZBEK SARICA P.  
Modeling of Biomolecular Systems Interactions, Dynamics, and Allosteric: Bridging Experiments and Computations, 10 - 14 September 2014
- XLVIII. Comparative study of functional dynamics in mutant von hippel lindau tumor suppressor protein structures**  
Güçlü T. F., ÖZBEK SARICA P., Ozer A. N.  
Modeling of Biomolecular Systems Interactions, Dynamics, and Allosteric: Bridging Experiments and Computations, Istanbul, Turkey, September 10-14, 2014, 10 - 14 September 2014, pp.92
- XLIX. Binding behavior of HLA B alleles related to ankylosing spondylitis AS disease A comparative study by computational methods**  
Ozcan G., Kutlu Kabas Z., Sercinoglu O., ÖZBEK SARICA P.  
ECCB'xx14, the 13th European Conference on Computational Biology, Strasbourg, 7 - 10 September 2014
- L. Computational study on the effect of pH on the binding behaviour of HLA B alleles**  
Kutlu Kabas Z., Ozcan G., Sercinoglu O., ÖZBEK SARICA P.  
ECCB'xx14, the 13th European Conference on Computational Biology, 7 - 10 September 2014
- L. Dynamic Analysis of Mutant von Hippel Lindau Tumor Suppressor Protein structures**  
Güçlü T. F., ÖZBEK SARICA P., Ozer A. N.  
2nd International BAU-Drug Design Congress, Istanbul, 17 - 19 April 2014
- LI. Collective Dynamics provides a measure for biological association**  
Soner S., Ovalı Ş. K., ÖZBEK SARICA P., BenTal N., Haliloglu T.  
CAPRI 2013 Combine and Conquer Meeting, 17 - 19 April 2013
- LII. The intrinsic dynamics of partner chains aid in the detection of native complexes amongst docking decoys**  
Kaya C., Soner S., ÖZBEK SARICA P., Haliloglu T.  
CAPRI 2013 Combine and Conquer Meeting, 17 - 19 April 2013
- LIIL. Dynamics predefine protein binding**  
Soner S., ÖZBEK SARICA P., Haliloglu T.  
Chemical Physics Congress-IX Izmir, Izmir, Turkey, 14 - 16 October 2010



- LIV. **Dynamics and evolutionary conservation of inter protein interfaces aid in the detection of native complexes amongst docking decoys**  
ÖZBEK SARICA P., Soner S., Chen N., Kalman M., Erman B., Bental N., Haliloglu T.  
CAPRI 4th Evaluation Meeting, 9 - 11 December 2009
- LV. **The origins of polyethylenes resistance to rapid plane stress rupture**  
ÖZBEK SARICA P., Leever P.  
5th ESIS TC4 Conference on Fracture of Polymers, Composites and Adhesives, 7 - 11 September 2008
- LVI. **Plane stress rapid fracture resistance of pipe grade PE Estimation from tensile drawing data**  
ÖZBEK SARICA P., Leever P.  
ANTEC Conference Proceedings, 6 - 10 May 2007

## Supported Projects

Sariyar Akbulut B., Sayar N. A., Özbek Sarica P., Kazan D., TÜBİTAK International Bilateral Joint Cooperation Program Project, Rational design of *Corynebacterium glutamicum* for a microbial cell factory to synthesize L-DOPA and bioprocess development for L-DOPA production, 2021 - 2024

Sariyar Akbulut B., Sayar N. A., Özbek Sarica P., TÜBİTAK International Multi-Cooperation Project, Replacing food-competing feedstocks with Methanol, CO<sub>2</sub> and Methylamine for a Sustainable Bioeconomy, 2021 - 2024

Sariyar Akbulut B., Özbek Sarica P., Avci F. G., Keskin Özkaya Z. Ö., TÜBİTAK Project, Inhibition and characterization of the inhibition dynamics of the type 4 pil protein complex, 2020 - 2023

Özbek Sarica P., Sariyar Akbulut B., Project Supported by Other Official Institutions, Peptidlerle ilişkili bağışıklık sistemi proteinlerinin çalışma mekanizmalarının aydınlatılması, 2020 - 2022

Arğa K. Y., ÖZBEK SARICA P., TÜBİTAK Project, Kolorektal kanserinde farklılaşan protein-protein etkileşimleri üzerinden ilaç repozisyonu, 2019 - 2020

Özbek Sarica P., TÜBİTAK Project, Development of a web based tool for protein network investigation, 2019 - 2020

Özbek Sarica P., Project Supported by Higher Education Institutions, Computational Investigation of Peptide Binding Affinity and Complex Stability of Major Histocompatibility Complex (MHC), 2018 - 2020

Sariyar Akbulut B., Özbek Sarica P., Avci F. G., Project Supported by Higher Education Institutions, Evaluation of the alkaloids of the aporphine family as inhibitors of different efflux pumps using in vitro and in silico methods, 2017 - 2019

Özbek Sarica P., Project Supported by Higher Education Institutions, Moleküler Dinamik Simülasyon Bazlı Sarsım Yöntemi ile Protein İçi Sinyal İletim Mekanizmasının Karakterizasyonu, 2016 - 2018

Özbek Sarica P., Project Supported by Higher Education Institutions, Computational Dynamical Characterization of Human Major Histocompatibility Complex Proteins, 2015 - 2018

Özbek Sarica P., Project Supported by Higher Education Institutions, Dynamic Characterization of Protein-protein Interfaces using Gaussian Network Model, Marmara University Research Fund Project, 2014 - 2015

Özbek Sarica P., TÜBİTAK Project, Dynamic Characterization of HLA Molecules, 2013 - 2015

Özbek Sarica P., Project Supported by Higher Education Institutions, Dynamic Characterization of Protein Binding Mechanism, 2012 - 2013

Özbek Sarica P., Haliloglu T., TÜBİTAK Project, Proteinlerde Bağlanma Mekanizmasında Yapısal Dinamik, 2009 - 2010

## Memberships / Tasks in Scientific Organizations

Biophysical Society, Member, 2016 - Continues

## Metrics

Publication: 94

Citation (WoS): 317

Citation (Scopus): 339

H-Index (WoS): 8

H-Index (Scopus): 9

## **Congress and Symposium Activities**

International conference on applied mathematics, modeling and Life Sciences, Working Group, İstanbul, Turkey, 2018

Biophysical Society 62th Annual Meeting, Working Group, California, United States Of America, 2018

International Symposium on Chemistry via Computation Applications on Molecular Nanoscience, Working Group, İstanbul, Turkey, 2017

5th International BAU Drug Design Congress, Working Group, İstanbul, Turkey, 2017

Biophysical Society 60th Annual Meeting, Working Group, California, United States Of America, 2016

3rd International BAU Drug Design Congress, Working Group, İstanbul, Turkey, 2015

10th European Biophysics Congress, Working Group, Dresden, Germany, 2015

Biophysical Society Thematic Meeting: Modeling of Biomolecular Systems Interactions, Dynamics, and Allostery: Bridging Experiments and Computations, Working Group, İstanbul, Turkey, 2014

Joint TCBG/MMBioS Hands-on Workshop on Computational Biophysics, Working Group, Pennsylvania, United States Of America, 2013

Schrodinger Workshop, "Computational Drug Discovery", Working Group, İstanbul, Turkey, 2012

Three-days HADDOCK workshop, Working Group, İstanbul, Turkey, 2011

## **Scholarships**

TUBITAK-BİDEB 2218 (Turkish National Science and Technology Foundation), TUBITAK, 2009 - 2011

Overseas Research Student Awards Scheme (ORSAS), Other International Organizations, 2004 - 2008

Chevron Phillips Chemical Company, Other International Organizations, 2004 - 2008