



# YAŞAM BİLİMLERİ VE BİYOTEKNOLOJİ ENSTİTÜSÜ FAALİYET SUNUMU

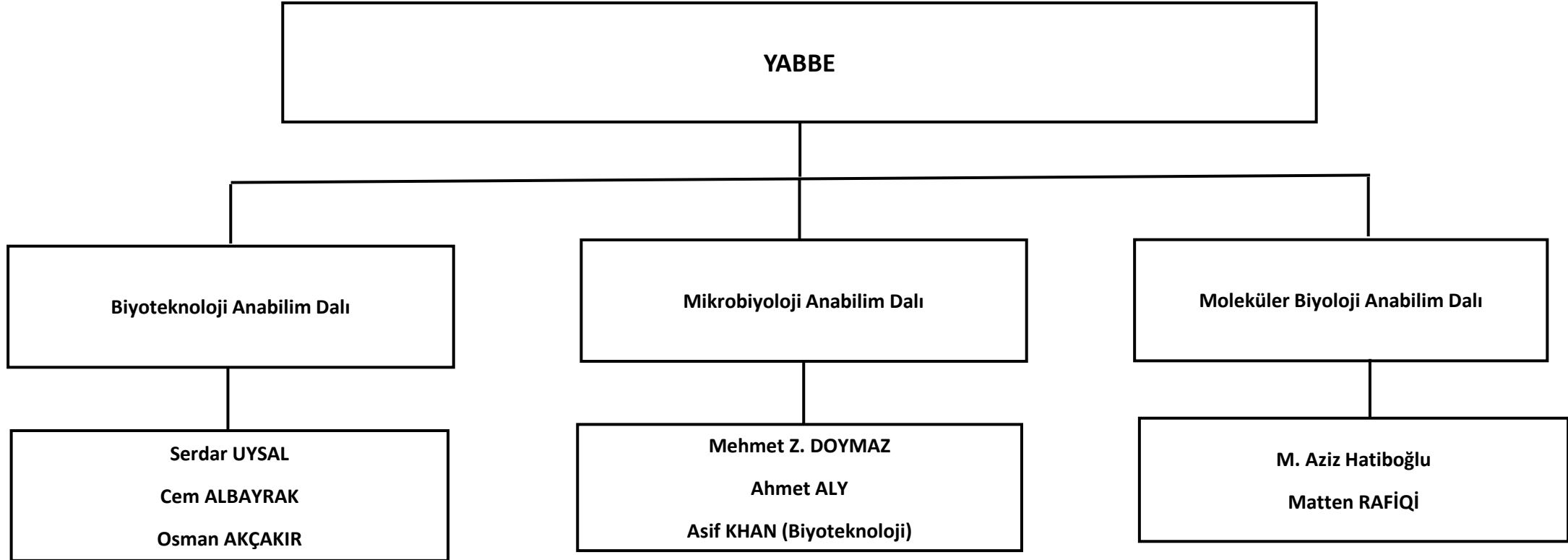
2020







- Bütçe
- Personel
- Projeler
- Geleceğe İlişkin Projeksiyon
- Sonuç ve Değerlendirme



# YABBE-Öğretim Üyeleri



**Osman Akçakır**



**Cem Albayrak**



**Ahmed Aly**



**Mehmet Z. Doymaz**



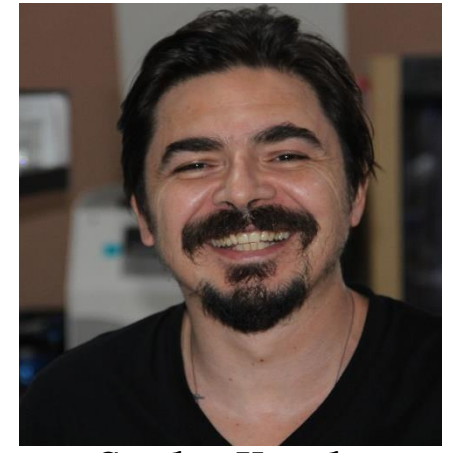
**M. Aziz Hatiboğlu**



**M. Asif Khan**



**Matteen Rafiqi**



**Serdar Uysal**

Öğretim Üyesi	Eğitim	Çalışma Alanı
<b>Cem ALBAYRAK, PhD</b>	<ul style="list-style-type: none"><li>• Lisans; Massachusetts Institute of Technology,</li><li>• Y. Lisans; Stanford University</li><li>• Doktora; Stanford University</li><li>• Doktora Sonrası; ETH Zurich - Swiss Federal Institute of Technology</li><li>• Dr. Öğrt. Üyesi; Koç University, Istanbul</li></ul>	Biyoteknoloji
<b>Ahmed ALY, PhD</b>	<ul style="list-style-type: none"><li>• Lisans; Ain Shams University,</li><li>• Y. Lisans; Ulm University</li><li>• Doktora; Heidelberg University</li><li>• Doktora Sonrası;</li><li>• Dr. Öğr. Üyesi; Tulane University</li></ul>	Moleküler Parazitoloji
<b>Osman AKÇAKIR, PhD</b>	<ul style="list-style-type: none"><li>• Lisans; University of Toronto,</li><li>• Y. Lisans; University of Waterloo,</li><li>• Doktora; Univ. Illinois-Urbana Champagne,</li><li>• Doktora Sonrası; Univ. Michigan,</li></ul>	Biyofizik
<b>Mehmet DOYMAZ, PhD</b>	<ul style="list-style-type: none"><li>• Lisans; Ankara Üniversitesi,</li><li>• Y. Lisans ve Doktora; University of Tennessee,</li><li>• Doktora Sonrası; Mount Sinai Sch Med.</li><li>• Doktora Sonrası; UCLA</li></ul>	Mikrobiyoloji

Öğretim Üyesi	Eğitim	Çalışma Alanı
<b>M. Aziz HATİBOĞLU, MD</b>	<ul style="list-style-type: none"><li>• Tıp Fakültesi; Ankara University</li><li>• İhtisas; S.B. Okmeydanı E.A. Hastanesi,</li><li>• Doktora Sonrası; The University of Texas, M.D. Anderson Cancer Center,</li></ul>	Nöroşirürji
<b>Mohammad Asif KHAN</b>	<ul style="list-style-type: none"><li>• Lisans; National University of Singapore,</li><li>• Y.Lisans; National University of Singapore</li><li>• Doktora; National University of Singapore</li><li>• Doktora Sonrası; Johns Hopkins, Singapore &amp; National University of Singapore</li><li>• Dr. Öğr. Üyesi; Perdana University</li></ul>	Biyoinformatik
<b>Matteen RAFIQI, PhD</b>	<ul style="list-style-type: none"><li>• Lisans; SK University of Ag. Sci &amp; Tech</li><li>• Yüksek Lisans; Vaginen Univ.</li><li>• Doktora; Max Planck Ins. Univ. Chicago,</li><li>• Doktora Sonrası; McGill University</li></ul>	Gelişimsel Biyoloji
<b>Serdar UYSAL, PhD</b>	<ul style="list-style-type: none"><li>• Lisans; Marmara Üniv, İstanbul Technical University</li><li>• Y.Lisans ve Doktora; University of Chicago,</li><li>• Doktora Sonrası; Harvard Univ.</li></ul>	Biyofizik

Uzman Arařtırmacı	Eđitim	Çalıřma Alanı
<b>Lena Mahmud AZAR, PhD</b>	<ul style="list-style-type: none"><li>Lisans; Tabriz University, Tabriz, Iran.</li><li>Y. Lisans; Azad Univ. Science and Research Branch, Tehran, Iran.</li><li>Doktora; Hacettepe University</li></ul>	Biyokimya
<b>Mohd KAMIL, PhD</b>	<ul style="list-style-type: none"><li>Lisans; Integral University Lucknow, India</li><li>Y. Lisans; Integral University Lucknow, India</li><li>Doktora; Integral University Lucknow, India</li></ul>	Moleküler Parazitoloji
<b>Laila KIANIFARD, PhD</b>	<ul style="list-style-type: none"><li>Lisans; Urmia University, Iran</li><li>Y. Lisans; Urmia University, Iran</li><li>Doktora; Urmia University, Iran</li></ul>	Biyokimya
<b>Pricilla Gomez POLO, PhD</b>	<ul style="list-style-type: none"><li>Lisans; University of Santiago de Compostela</li><li>Y. Lisans; University of Leida, Spain</li><li>Doktora; University of Leida, Spain</li></ul>	Geliřimsel Biyoloji



Uzman Arařtırmacı	Eđitim	Çalıřma Alanı
<b>Elif KARAASLAN, PhD</b>	<ul style="list-style-type: none"><li>Lisans; Bolu İzzet Baysal University,</li><li>Y.Lisans; Istanbul University,</li><li>Doktora; Istanbul University,</li></ul>	Mikrobiyoloji
<b>Ehsan SARAYLOO, PhD</b>	<ul style="list-style-type: none"><li>Lisans; Iranian University of Science and Technology</li><li>Y. Lisans; Sharif University of Technology</li><li>Doktora; Koç University,</li></ul>	Biyoteknoloji
<b>řeyma Hande TEKARSLAN řAHİN, PhD</b>	<ul style="list-style-type: none"><li>Lisans; Istanbul University,</li><li>Y.Lisans; Istanbul University,</li><li>Doktora; Istanbul University,</li><li>Doktora Sonrası; Ludwig-Maximilians- University,</li></ul>	Moleküler Parazitoloji
<b>Imran KHAN, PHD</b>	<ul style="list-style-type: none"><li>Lisans; Integral University Lucknow, India,</li><li>Y.Lisans; VIT University, Vellore, India</li><li>Doktora; Integral University Lucknow, India</li></ul>	Geliřimsel Biyoloji

İsim
Sevim Nur Akyüz
Habibe Nur Atmaca
Pınar Burak
Muhammet Çelik-
Nesibe Selma Çetin-PhD
Gözde Deveci-PhD
Hilal Hekimoğlu
Gizem İğdeli-PhD
Büşra Karaçam
Elif Karaman-PhD
Sercan Keskin-PhD
Ümit Yaşar Kın-PhD
Nihan Sultan Milat-MSc
Sinem Ünal
Merve Yazıcı-PhD

# Beykoz Konferansları 2019-2020

Speaker	Date & Time	Title
Dr. Caner Çağlar The Rockefeller University	19.10.2020 2.00PM	Neuronal Regulation of Food Intake and Body Weight
Assist. Prof. Dr. Fatih Akdemir Atatürk Üniversitesi	25.6.2020 2.00PM	Assay Development in Drosophila for Modeling Diseases
Assist. Prof. Dr. Cem Albayrak Koç Üniversitesi	17.6.2020 2.00PM	Biyotechonology with an Expanded Genetic Code
Prof. Dr. Vladimir Brusic, University of Nottingham Ningbo China	03.03. 2020 2.00PM	Single-cell transcriptomics - new opportunities for clinical medicine
Assoc. Prof. Dr. Mustafa Tunalı BVU Dış Hekimliği Fakültesi	27.02.2020 2.00PM	Geçmişten Günümüze Kan Konsantreleri ve Kullanım Alanları
Prof. Dr. Hasan Mandal TÜBİTAK Başkanı	14.02.2020 2.00PM	Bilim, Teknoloji ve Yenilik Ekosisteminde Durum Değerlendirmesi-TÜBİTAK Odaklı Yeni Süreçler
Assoc. Prof. Dr. Zeki Durak Yıldız Teknik Üniversitesi	9.01.2020 2.00PM	Understanding of Pathogenic, Spoilage and, Fermentation Microorganisms
Assist. Prof. Dr. Emel Sokullu Koç Üniversitesi	30.01.2020 2.00PM	Biophysical Questions in Neuroscience and Neurotechnologies
Dr. Tabrez Siddiqui Manitoba University, Kanada	14.12.2019 2.00PM	Molecular mechanisms of neuronal synapse development and plasticity
Assoc. Prof. Dr. Asif Khan Perdana Universtiy	31.10.2019 2:00PM	Bioinformatics and Big date: Are we ready



# Beykoz Konferansları 2020-2021

Speaker	Date & Time	Title
Prof. Batu Erman Sabancı University	December 20, 2020	Self versus nonself: Molecular choice and sibling rivalry among the ZBTB transcription factor family
Prof. Fikrettin Sahin Yeditepe Üniversitesi	February, 2021	Biotechnological approaches in cancer treatment
Prof. Mehmet Somel Orta Doğu Teknik Üniversitesi	March, 2021	TBD
Prof. Munir Aktas Fırat Üniversitesi	April, 2021	Rabies; Lessons on the Path to Control the Disease
Prof. Aykut Ozdarendeli Erciyes Üniversitesi	May, 2021	Vaccines against Crimean Congo Hemorrhagic Fever Virus
Prof. Fatih Toy Medipol University	June, 2021	TBD

- 21.12.2017 tarihinde müracaat
- 3 Ekim 2019'da Beykoz'a ziyaret ve inceleme
- Henüz karar sonuçlandırılmadı.

# PROJELER



	Kaynak	Proje Sayısı
Devam Eden	TUBİTAK & TUSEB	17
	BAP	32
Tamamlanan	TUBİTAK, TEYDEP & TUSEB	5
	BAP	22
Lab Kaynaklı	Ongoing	23
	<b>Total</b>	<b>99</b>

Yayınlar	Sayısı
Mevcut Öğr. Üyeleri	21
Diğer Öğr. Üyeleri	11
Yayın Hazırlığında	5
PubMed Toplamı	32





- Dr. Osman Akçakır (Biotechnology)
- Education; BSc. Uni. Toronto, Univ. Waterloo,
- PhD. Univ. Illinois @ Urbana-Champaign
- Post-Doc; Univ. Michigan, Ann Arbor, MI
- Field; Fizik, biyofizik,
- 5 publications,
- 7 patent

- Development of diagnostic technologies based on optical characteristics of normal and cancerous cells



<b>Araştırma Alanı</b>	Biyomedikal Optik, Kantitatif Faz Mikroskobu, Tanı sistemleri
<b>Personel</b>	1. Uzman Araştırmacı Tuğba Bal (16.10.2020 tarihinde görevinden ayrılmıştır).
<b>Projeler</b>	1. TÜBİTAK 1002; Kasım 2019; Title: An Investigation of the Relationship of Cellular Physical Properties with Metastatic Capacity in Breast Cancer Cells Using Quantitative Phase Microscopy. 2. BAP; 8.2019/18; Genetic Characterization of ..... 3. BAP; 09.2020/13; A Study of the Geometric .....

- Cem Albayrak, PhD
- BSc; Massachusetts Institute of Technology,
- MSc; Stanford University
- PhD; Stanford University
- Post Doc; ETH Zurich - Swiss Federal Institute of Technology
- Assist. Professor; Koç University, Istanbul

- Protein engineering, genetic code engineering





<b>Araştırma Alanı</b>	Protein Mühendisliği, Genetik Kod Mühendisliği
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Uzman Araştırmacı Ehsan Sarayloo- BVU</li><li>2. Gönüllü Öğrenci Yağmur Ersoy-KOÇ Üni.</li><li>3. Gönüllü Öğrenci Beste Tunalı-KOÇ Üni.</li><li>4. Gönüllü Öğrenci Selin Turan -KOÇ Üni.</li></ol>

## Projeler

### Devam Eden Projeler

1. TÜBİTAK Covid-19 Project; Nisan 2020; "Production of Recombinant IL-1Ra for Treating Cytokine Storm Related to Covid-19 Pneumonia". (Role: Researcher)
2. TÜBİTAK 2516; Mayıs 2019- Kasım 2021; (South Korea Bilateral Cooperation Grant); "Studying Oxygen Tolerance of the Hydrogenase Enzyme at a Molecular Level", (Role: PI)
3. TÜBİTAK 1001; Kasım 2018-Mayıs 2022; "Catalytic Biomaterial Synthesis by Selective Conjugation of Enzymes", (Role: PI)
4. TÜBİTAK 3501 Career; Mayıs 2018-Kasım 2021; "Investigation of Vascularization using Bioactive Biomaterials with Conjugated Growth Factors", (Role: PI)

### Tamamlanmış Projeler

1. Koç University Seed Research Fund (similar to BAP); Eylül 2018-Eylül 2020; "Cell-free synthesis of alternate affinity proteins", (Role: PI)
2. Fulya Akşit MS Thesis Title: *In Silico* and Experimental Determination of IL1 $\beta$ -Receptor Inhibitor Peptides. (completed at Koç University)



<b>Çalışma Alanı</b>	Sıtma parazitlerinin immünolojisi ve moleküler biyolojisi
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Uzman Araştırmacı Mohd Kamil</li><li>2. Uzman Araştırmacı Hande Tekarslan</li><li>3. Araştırma Görevlisi Gözde Deveci- BVU</li><li>4. Araştırma Görevlisi Ümit Yaşar Kına- BVU</li><li>5. TÜBİTAK Bursiyeri Habibe Nur Atmaca- Ondokuz Mayıs Üni.</li><li>6. TÜBİTAK Bursiyeri Pınar Burak- BVU</li><li>7. TÜBİTAK Bursiyeri Sinem Ünal- İstanbul Üni.</li><li>8. TÜBİTAK Bursiyeri Sevim Nur Akyüz- İstanbul Üni.</li></ol>

<b>Projeler</b>	<b>Devam Eden Projeler</b>
	1. TÜBİTAK 1001; 'Karaciğer Evresindeki Sıtma Parazitleri Eksporom Proteinlerinin İşlevsel Karakterizasyonu'. Ocak 2020-Ocak 2023.
	2. BAP 12.2019/13; 'Multiplex Targeting of .....
	3. BAP; 12.2019/12; 'Viral Vectored .....
	4. BAP; 07.2020/7 'Novel Enzyme .....
	5. BAP; 08.2020/20; 'Characterization of the .....
	6. BAP; 8.2019/18; 'Genetic Characterization of.....



## Projeler

### Tamamlanmış Projeler

1. BAP; 6.2018/18; Establishing the CRISPR/Cas9 platform to generate live attenuated malaria vaccines by deleting essential malarial genes.
2. BAP; 9.2018/12; Recombinant protein expression of conserved plasmodium egress proteins as targets for the development of novel malaria therapy vaccines and diagnostic reagents.
3. BAP; 12.2018/17; Genetic Characterization of Autophagy Related Genes in Regulation of Malarial Autophagy. BVU December 2018- December 2019.
4. BAP; 9.2018/19; Development of Novel Phototransformable Fluorescent Transgenic Parasite Model System by Using CRIPR-Cas9.
5. Tulane University; Temmuz 2015-Nisan 2019; TNPRC-NIH Pilot Studies Grant, DNA-Vaccination against Plasmodium Liver Stage Exported Proteins in Presence of Prior SIV Infection.
6. Tulane University; Temmuz 2015-Aralık 2017; NIH-NIAID R21 Grant, Selection of the Determinants of Plasmodium Sporozoite Infectivity and Motility.

## Yayınlar

1. "Synthetic DNA Vaccines Adjuvanted with pIL-33 Drive Liver-Localized T Cells and Provide Protection from Plasmodium Challenge in a Mouse Model." Reeder, SM, EL Reuschel, MA Bah, K Yun, NJ Tursi, KY Kim, J Chu, FI Zaidi, I Yilmaz, RJ Hart, B Perrin, Z Xu, L Humeau, DB Weiner and **A. S. I. Aly**, Vaccines. 2020 Jan 10;8(1). pii: E21.
2. "Phenotypic Analysis of Rodent Malaria Parasite Asexual and Sexual Blood Stages and Mosquito Stages Analysis of Rodent Malaria Parasite Asexual and Sexual Blood Stages and Mosquito Stages" **A. S. I. Aly**, **G. Deveci**, **I. Yilmaz**, A. Abraham, A. Golshan, R. J. Hart. JOVE, Published: May 30, 2019.
3. "Administration of Nicotine Exacerbates the Quinine-induced Structural and Functional Alterations of Testicular Tissue in Adult Rats: An Experimental Study." Kianifard, D, SMM Shoar, **A. S. I. Aly**, L Kianifard, F Rezaee Urology Journal, 2019, 5 January 2019, Page 5884.
4. "Highly Sensitive and Rapid Characterization of the Development of Synchronized Blood Stage Malaria Parasites Via Magneto-Optical Hemozoin Quantification" Pukanicsik, M., P. Molnar, A. Orban, A. Butykai, L. Marton, I. Kezsmarki, B. G. Vertessy, **M. Kamil**, A. Abraham and **A. S. I. Aly**. Biomolecules. 2019 Oct 7;9(10):579. doi: 10.3390/biom9100579.



- Mehmet Z. Doymaz (Microbiology)
- Education; Ankara Üniv,
- MSc, PhD; Univ. Tennessee,
- Post-Doc; Mount Sinai Med Sch.
- Fellowship; Univ. California Los Angeles
- Field; Temel ve Klinik Mikrobiyoloji,
- 51 publication,
- 24 Projecs

- Viral Immunology, diagnostics; Crimean-Congo Hemorrhagic Fever Virus



<b>Çalışma Alanı</b>	Kırım Kongo-Hemorajik Ateş Virüsünün İmmünolojik ve Virolojik Yönleri
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Uzman araştırmacı Dr. Elif Karaaslan- İstanbul Üni.</li><li>2. Araştırma Görevlisi Nesibe Selma Çetin - BVU</li><li>3. Araştırma Görevlisi Merve Yazıcı- İstanbul Üni.</li><li>4. Araştırma Görevlisi Sercan Keskin- BVU</li><li>5. Teknisyen Esmahan Avcı</li><li>6. Teknisyen Burcu Nur Aydın- İstanbul Üni</li></ol>



## Projeler

### Devam Eden Projeler

1. TÜBİTAK 1003; Eylül 2020; 'Development of nanoparticle based carrier systems containing immunochemotherapeutic agents against visceral leishmaniasis'. Co-investigative Project with Yıldız Technical University. Project No; 216S612
2. TUSEB; Ekim 2020; 'SARS-CoV-2 virüsüne karşı, virüs benzeri partiküller (virüs like particles- VLP) temelinde aşı üretilmesi'.
3. BAP; 4.2019/12; 'Investigation of .....
4. BAP; 05.19/01; 'Hepatit B Virüsü.....

## Projeler

### Tamamlanmış Projeler

1. TÜBİTAK 1003; Ekim 2014-Ekim 2018; 'Development of serological diagnostic methods for Crimean-Congo Hemorrhagic Virus'. 36 months. 951.673,00 TL.
2. TÜBİTAK 1001; Mayıs 2018- Mayıs; 2020 'Analysis of immunological properties non-structural proteins of Crimean-Congo Hemorrhagic Fever Virus'. 320.680,00 TL.
3. BAP; 12.2018/12; 'Investigation of immunogenicity of Crimean Congo Hemorrhagic Fever Virus nucleoprotein coupled with IMX313 peptide'.
4. BAP; 4.2019/12; 'Funds for Research Projects, Title: Investigation of antigenic similarities between Hazara virus nucleoprotein and Crimean Congo hemorrhagic fever virus nucleoprotein in terms of cellular response'.
5. BAP; 6.2017/28; 'Production of Crimean Congo hemorrhagic fever virus kelkit strain glycoproteins in eukaryotic expression system'.
6. BAP; 12.2018/11; 'Production and evaluation of activities of cetuximab as a biosimilar molecule'.
7. BAP; 6.2017/27; 'Production of Hazara JC280 nucleoprotein in eukaryotic P. pastoris.'

## Yayınlar

1. Discordance between Serum Neutralizing Antibody Titers and the Recovery from COVID-19. Kalkan Yazıcı M, Koç MM, Çetin NS, Karaaslan E, Okay G, Durdu B, Sümbül B, Doymaz MZ. J Immunol. 2020 Nov 15;205(10):2719-2725.
2. Geographical and temporal distribution of SARS-CoV-2 clades in the WHO European Region. Alm E, Broberg EK, Connor T, Hodcroft EB, Komissarov AB, Maurer-Stroh S, Melidou A, Neher RA, O'Toole Á, Pereyaslov D; WHO European Region sequencing laboratories and GISAID EpiCoV group\*; January to June 2020. Euro Surveill. 2020 Aug;25(32):2001410.
3. A Current microbiological picture of Mycobacterium isolates from Istanbul, Turkey. Sumbul B, Doymaz MZ. Pol J Microbiol. 2020;69(2):1-7.
4. Comparison of antibacterial activities of polymyxin B and colistin against multidrug resistant Gram negative bacteria, Infectious Diseases. Doymaz, M. Z., & Karaaslan, E. (2019). Infectious Diseases, 51(9), 676-682.
5. Hand, Foot, and Mouth Disease Caused by Coxsackievirus A6: A Preliminary Report from Istanbul. Ceylan, A. N., Turel, O. Z. D. E. N., Gultepe, B. S., Inan, E. L. I. F., Turkmen, A. V., & Doymaz, M. Z. (2019). Polish Journal of Microbiology, 68(2), 165-171.
6. Cross-Reactive anti-Nucleocapsid Protein (NP) Immunity against Crimean Congo Hemorrhagic Fever Virus (CCHFV) and Hazara virus (HAZV) in multiple species. Yazıcı M., Karaaslan, E, Çetin, N.S, Hasanoğlu, S, Güney, F, Doymaz, MZ, Submitted.
7. Detailed Analysis of the Capacity of Crimean Congo Hemorrhagic Fever Virus (CCHFV) Nucleocapsid Protein (NP) to Induce Humoral and Cellular Immune Response. Karaaslan, E, Çetin, N. S, Hasanoğlu, S, Güney, F, Kılıç, AO. Doymaz, MZ, Submitted.



- M. Aziz Hatibođlu (Molecular Biology)
- Education; Ankara University, Medical School,
- Residency; Okmeydanı E.A. Hastanesi , Nöroşirurji Kliniđi,
- Fellowship; University of Texas, M.D. Anderson Cancer Center,
- 52 publications,

- Neuro-oncology, clinical neurosurgery
- Glial tumors; treatment, diagnostics, pathogenesis, biomarkers





<b>Çalışma Alanı</b>	Glial tümörlerin etiyołoji, tanı ve tedavi yöntemlerinin analizi
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Uzman Araştırmacı Imran Khan- BVU</li><li>2. Araştırma Görevlisi Büşra Karaçam, BVU</li><li>3. Teknisyen Burçe Elbasan BVU</li><li>4. Gönüllü Sadaf Mahfooz</li></ol>

## Projeler

### Devam Eden Projeler

1. Türk Genom Projesi-Beyin tümörlü hastaların genetik incelemesinin yapılması. Türkiye Sağlık Enstitüleri Başkanlığı.
2. BAP; 3.2019/3; In vivo glioblastoma .....
3. BAP; 4.2019/25; Investigating the molecular .....
4. BAP; 4.2019/24; A preliminary study to .....
5. BAP; 4.2019/26; Glioma kanser kök .....
6. BAP; 4.2019/27; Glial tümörlerde .....
7. BAP; 6.2019/15; Isolation of .....
8. BAP; 6.2019/18; Isolation of .....
9. BAP; 6.2019/11; Glial tümörlü .....
10. BAP; 6.2019/14; Glial tümörlü .....

## Projeler

### Devam Eden Projeler

11. BAP; 6.2019/17; Glial tümörlü .....
12. BAP; 02.2020/05; Santral Sinir Sistem .....
13. BAP; 02.2020/09; Beyin Metastazı Nedeniyle .....
14. BAP; 08.2020/08; Glioma kaynaklı eksozom .....
15. BAP; 08.2020/10; Developing Gamma Knife .....
16. BAP; 09.2020/15; Gliomalı Hastalarda .....
17. Submitted; Şubat, 2020; Designing a novel multi-epitope .....
18. Submitted; Şubat 2020; Mechanisms of cytomegalovirus-mediated .....

## Projeler

### Tamamlanan Projeler

1. BAP; 9.2018/22, Identifying the role of radiation dosing on the radio-resistance related biomarkers in glioma cell line.
2. BAP; 9.2018/23; Bevacizumab ile tek fraksiyon veya hipofraksiyon Gamma Knife tedavisi ile kombinasyonunun U87 glioma hücre kültüründe etkinliklerinin karşılaştırılması.
3. BAP; 11.2018/26; U87 glioma hücre hattında etkin kemoterapi kombinasyon tedavisinin araştırılması.
4. BAP; 6.2015/22; Deneysel fare beyin tümörü modellerinde stereotaktik radyocerrahinin (Gamma knife) etkinliğinin araştırılması Thymoquinone'un radyosensitizer etkisinin incelenmesi.
5. BAP; 9.2015/23; CURCUMİN'in glioblastoma hücreleri üzerine sitotoksik, genotoksik ve apoptotoik etkilerinin araştırılması.
6. BAP; 12.2015/36; Meningiömlü hastalarda Phh3 ve Pstat3 ekspresyonlarının incelenmesi, klinik ve radyolojik parametrelerle korelasyonu.
7. BAP; 3.2016/8; Glioblastomlarda ve BRAF V600 E mutasyonu BRAF VE1 immunreaktivitesi.

## Projeler

### Tamamlanan Projeler

8. BAP; 5.2016/16; İn vitro glioma modelinde, gamma kufe tedavisinin etkinliđinin thymoquinine ile arttırılmasının araştırılması.
9. BAP; 6.2016/25; Medroksiprogesteron asetat ve gamma kufe radyocerrahinin rat intrakraniyal glioma modelindeki antitümör özelliklerinin ve bu etkilere eşlik eden immünpatolojik deđişimlerin incelenmesi.
10. BAP; 1.2017/30; Anvirzel ve gamma kufe tedavilerinin glioma hücreleri üzerinde etkilerinin in vitro araştırılması.
11. BAP; 1.2017/31; Stereotaktik radyocerrahi ve tüm beyin ışınlamasını beyin tümörlü hastalarda uygulandıđında sistemik immünite üzerine olan etkilerinin deđerlendirilmesi ve karşılaştırılması.
12. BAP; 5.2017/5; Genistein'in in vitro glioma hücre kültürü üzerindeki radyosensitizer etkinliđinin deđerlendirilmesi.

## Yayınlar

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2. Herbal Medicine for Glioblastoma: Current and Future Prospects (2020). Imran Khan, Sadaf Mahfooz, Mustafa Aziz Hatiboglu. Medicinal Chemistry
3. Can COVID-19 induce glioma tumorigenesis through binding cell receptors (2020). Imran Khan, Mustafa Aziz Hatiboglu. Medical Hypotheses
4. Adaptive radiosurgery based on two simultaneous dose prescriptions in the management of large renal cell carcinoma brain metastases in critical areas: Towards customization (2020). Georges Sinclair, M. Stenman, H. Benmakhlouf, P. Johnstone, P. Wersäll, M. Lindskog, M. A. Hatiboglu, U. Harmenberg. Surgical Neurology International.
5. Coronavirus pandemic: how is neurosurgical-oncology practice affected? (2020) Hatiboglu, M.A., Sinclair, G. British Journal of Neurosurgery.
6. Metastatic renal cell carcinoma to the brain: optimizing patient selection for gamma knife radiosurgery (2020). Stenman M, Benmakhlouf H, Wersäll P, Johnstone P, Hatiboglu MA, Mayer-da-Silva J, Harmenberg U, Lindskog M, Sinclair G., Acta Neurochirurgica.
7. Considerations for future novel human-infecting coronavirus outbreaks (2020). Georges Sinclair, Philippa Johnstone, Mustafa Aziz Hatiboglu. Surgical Neurology International.



## Bilimsel Kongre Toplantılarda Sunumlar

1. Targeting Glioblastoma: The Current State of Different Therapeutic Approaches (2020). Imran Khan, Sadaf Mahfooz, Elif Burçe Elbasan, Büşra Karaçam, Mustafa Namık Öztanır, Mustafa Aziz Hatiboglu. Current Neuropharmacology. (Under Revision) Hipofraksiyon Gamma Knife radyocerrahinin nüks gliyal tümörlerde miR-17 ve miR-124 aracılığı ile anti-tümör etkisinin gösterilmesi (Poster). Mustafa Aziz Hatibođlu, Imran Khan, Kerime Akdur, Elif Burçe Elbasan, Büşra Karaçam, Yusuf Cicek, Sadaf Mahfooz, Ayten Sakarcan, Güven, Engin, Fahri Akbas. 34. Türk Nöroşirürji Derneđi Bilimsel Kongresi.
2. Gliyal tümörlü hastalarda moleküler düzeyde HHV6/8, mikroRNA ve sitokinlerin varlığının incelenmesi ve prognoza etkisinin araştırılması (2020). Büşra Karaçam, Elif Burçe Elbasan, İmran Khan, Sadaf Mahfooz, Sadık Tokar, Ganime Çoban, Kerime Akdur, Ayten Şakarcan, Mustafa Namık Öztanır, Mehmet Ziya Doymaz, Mustafa Aziz Hatibođlu. 14. Ulusal Tıbbi Genetik Kongresi.
3. Hipofraksiyon Gamma Knife radyocerrahinin nüks gliyal tümörlerde miR-17 ve miR-124 aracılığı ile anti-tümör etkisinin gösterilmesi (2020) (Poster). Mustafa Aziz Hatibođlu, Imran Khan, Kerime Akdur, Elif Burçe Elbasan, Büşra Karaçam, Yusuf Cicek, Sadaf Mahfooz, Ayten Sakarcan, Güven, Engin, Fahri Akbas. 34. Türk Nöroşirürji Derneđi Bilimsel Kongresi.
4. Likit Biyopsi ile Glial Tümörlü Hastalarda Kanda Serberst Bulunan DNA'nın Gösterilmesi (2020) (Poster), Mustafa Aziz Hatibođlu, Büşra Karaçam, Elif Burçe Elbasan, Kerime Akdur, Sadaf Mahfooz, Ayten Şakarcan, Sadık Tokar, Güven Gönen, Engin Can, Imran Khan. 34. Türk Nöroşirürji Derneđi Bilimsel Kongresi.
5. Expressions of Immune-Related Tumor Suppressor MicroRNAs in Glioma Patients Undergoing Hypo-Fractionated Radiotherapy (2019). Imran Khan, Arife Nalli, Kerime Akdur, Yusuf Cicek, Sadaf Mahfooz, Ayten Sakarcan, Fahri Akbas, Mustafa Aziz Hatiboglu. The Immuno-Oncology 2019 World Congress, Barcelona, Spain.
6. Thymoquinone enhances the sensitivity of B16-F10 melanoma cell line to Gamma Knife radiosurgery (2019). Mustafa Aziz Hatiboglu, Abdurrahim Kocyigit, Eray Metin Guler, Kerime Akdur, Imran Khan, Arife Nalli, Ersin Karatas, and Saffet Tuzgen. 14th Meeting of the European Association of Neuro-Oncology (EANO 2019) Lyon, France.

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- Education; Biotechnology BSc, National University of Singapore ,
- MSc & PhD; Bioinformatics, National University of Singapore,
- Field; Bioinformatics
- 51 yayın,
- 9 Proje
- **2232 TÜBİTAK Leader Investigator Program**
- Data warehousing for biology
- Vaccine Informatics
- Venom Informatics
- Viral Informatics
- Immunoinformatics



<b>Çalışma Alanı</b>	Biyoenformatik
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Yüksek Lisans Öğrencisi Muhammet Çelik (TÜBİTAK Bursiyeri) Konya Gıda ve Tarım Üni.</li><li>2. Yüksek Lisans Öğrencisi Hilal Hekimoğlu (TÜBİTAK Bursiyeri) İstanbul Üni.</li><li>3. Teknisyen Gökçen Şahin</li></ol>

## Projeler

### Devam Eden Projeler

1. TÜBİTAK Uluslararası Lider Araştırmacılar Bursu 2232; Ocak 2020; The development of a Viral Variome Analyzer (ViVA) with application to surveillance, diagnostics, drug design and vaccine target discovery.
2. BAP; 20200823; Cheminformatics-based, .....
3. Structure-based assessment of two .....
4. Novel Coronavirus (nCoV): Acute Respiratory.....
5. Investigating possible inhibitors against .....
6. Large-scale analysis of B-cell .....
7. LAMP-SARS-CoV-2 DNA vaccine .....
8. Mapping and characterising .....
9. Dissecting the dynamics of Severe .....
10. Mapping T-cell epitopes in the Severe .....

<b>Projeler</b>	<b>Devam Eden Projeler</b>
	11. Bioinformatics-based selection.....
	12. Mapping and characterization of .....
	13. Investigation of gut microbiome .....
	14. Investigation on the roles of .....
	15. Development of AI-powered .....
	16. Delineating shared transcriptomic .....
	17. Application and optimization of .....
	18. Comparative genomics analysis of.....
	19. Meta-ome for homology search. ....
20. Mapping the minimal set of .....	

## Devam Eden Projeler

### Projeler

21. Dissecting the dynamics of Crimean-Congo haemorrhagic fever virus protein sequence diversity. In-house project; cost will be covered under the TUBITAK 2232 Programme
22. Dissecting the dynamics of Lassa virus protein sequence diversity. In-house project; cost will be covered under the TUBITAK 2232 Programme
23. Dissecting the dynamics of Zika virus protein sequence diversity . In-house project; cost will be covered under the TUBITAK 2232 Programme
24. Dissecting the dynamics of Rabies lyssavirus protein sequence diversity. In-house project; cost will be covered under the TUBITAK 2232 Programme
25. Dissecting the dynamics of Influenza A (H7N9) virus protein sequence diversity. In-house project; cost will be covered under the TUBITAK 2232 Programme
26. Dissecting the dynamics of Ebolavirus protein sequence diversity. In-house project; cost will be covered under the TUBITAK 2232 Programme
27. Dissecting the dynamics of Chikungunya virus protein sequence diversity. In-house project; cost will be covered under the TUBITAK 2232 Programme



## Yayınlar

1. Dynamics of Influenza A (H5N1) virus protein sequence diversity. Abd Raman HS, Tan S, August JT, Khan AM. PeerJ, Volume 7, 27.05.2020. <https://peerj.com/articles/7954/>.
2. Developing critical thinking in STEM education through inquiry-based writing in the laboratory classroom. Jeon AJ, Kellogg D, Khan MA, Tucker-Kellogg G. Biochemistry and Molecular Biology Education 03.08.2020. <https://doi.org/10.1002/bmb.21414>.
3. Correlation of host inflammatory cytokines and immune-related metabolites, but not viral NS1 protein, with disease severity of dengue virus infection. Soe HJ, Manikam R, Raju CS, Khan MA, Sekaran SD PLoS One, Volume 15, 07/08/2020. <https://doi.org/10.1371/journal.pone.0237141>.
4. Studying Viral Sequence Diversity at Any Given Rank of Taxonomy Lineage by Use of An Alignment-independent Approach  
Chong LC, Lim WL, Ban, KHK, Choi SB and Khan MA. International Virus Bioinformatics Meeting 2020, Bern/Switzerland, 08-09.10.2020.
5. An alignment-independent approach for the study of pathogen sequence diversity at any given rank of taxonomy lineage  
Chong LC, Lim WL, Ban, KHK, Choi SB and Khan MA. Perdana University Research Day, Malaysia, 09.07.2020.
6. Identification of putative HLA supertype-restricted T-cell epitopes in the spike glycoprotein of SARS-CoV-2. Lim WC and Khan AM. Perdana University Research Day, Malaysia, 09.07.2020.
7. GOBLET: fostering international collaboration for Learning, Education and Training in Computational Biology and Bioinformatics. Rivas JDLas, D'Elia D, Korpelainen E, McGrath A, Khan AM, Brazas MD, Attwood TK, van Gelder CWG & the GOBLET Consortium Intelligent Systems for Molecular Biology, Virtual, 13-16.07.2020.



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- Education; SK University of Ag. Sci & Tech ,
- MSc-PhD; Vaginen Univ. Max Planck Ins. Univ. Chicago,
- Post Doc; McGill Univ.
- Field; Developmental Biology,
- 15 publications,
- Developmental and evolutionary biology endosymbiosis, interactions of microbiom and host.



<b>Çalışma Alanı</b>	Gelişimsel ve evrimsel biyoloji, endosimbioz ve konak-mikrobiyom arasındaki ilişki.
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Uzman Araştırmacı Priscila Gomez Polo BVU</li><li>2. Araştırma Görevlisi Nihan Sultan Milat, İstanbul Uni.</li><li>3. Teknisyen Esra Taylan BVU</li><li>4. Gönüllü Öğrenci Koray Kasan BVU</li></ol>

<b>Projeler</b>	<b>Devam Eden Projeler</b>
	1. BAP; 6.2018/20; 'Establishment of insect .....
	2. BAP; 11.2018/16; 'Identification of microbiome .....
	3. TÜBİTAK 1001; 09.2019-09.2022; 'Development of microorganisms against vector borne diseases by biotechnological and paratransgenetic Methods'. Serdar Uysal as main PI and <b>A. M. Rafiqi</b> as researcher.
	4. BAP; 12.2019/11; Experimental studies .....
	5. BAP; 20200822; Characterization of fungal .....
6. BAP; 20200822; Mechanism of segregation of .....	

## Yayınlar

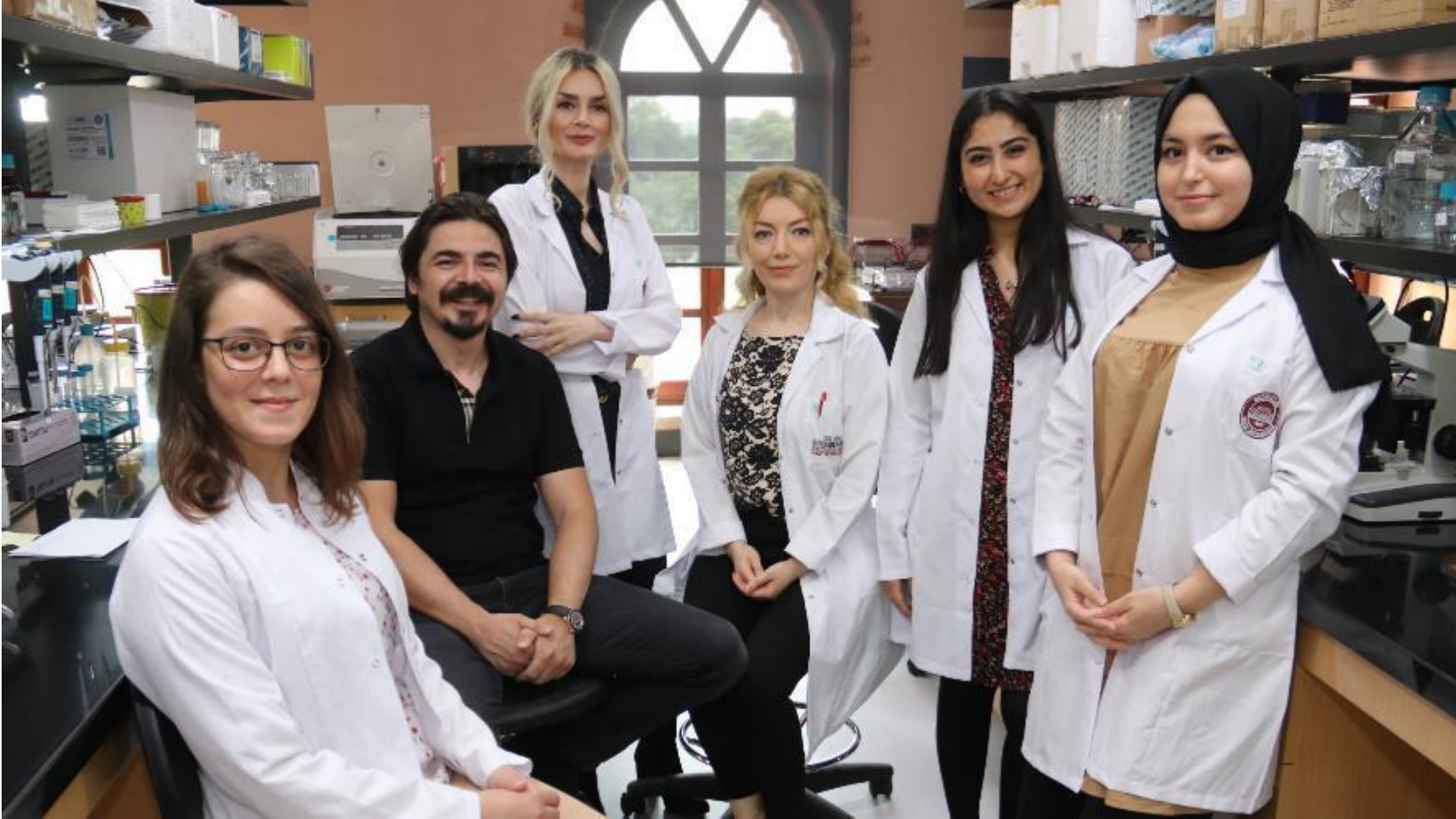
1. Origin and elaboration of a major evolutionary transition in individuality. **Rafiqi AM**, Rajakumar A, Abouheif E. Nature (IF. 24,360), 2020 Sep;585(7824):239-244
2. From egg to adult: a developmental table of the ant *Monomorium pharaonis* Pontieri L, Rajakumar A, **Rafiqi AM**, Stenbak LR, Abouheif E, Zhang G. Journal of Experimental Zoology Part B. Submitted
3. Embryonic, Larval and Pupal Development in the Carpenter Ant *Camponotus floridanus*. Chen TWL, **Rafiqi AM**, Fung BA, Lamouret T, Rajakumar A, Milat NS, Rajakumar R, Abouheif E. Journal of Experimental Zoology Part B. In preparation



## Yayınlar

### Sunumlar

1. *Origin of a complex life form revealed: How bacteria and carpenter ants became one.* **AM Rafiqi**, Rajakumar A, Abouheif E. McGill University Bulletin
2. *Origin of a complex life form revealed: How bacteria and carpenter ants became one.* **AM Rafiqi**, Rajakumar A, Abouheif E. American Association for the Advancement of Science
3. *Origin of a complex life form revealed: How bacteria and carpenter ants became one.* **AM Rafiqi**, Rajakumar A, Abouheif E. *Futurity Magazine*, 4
4. *Origin of a complex life form revealed: How bacteria and carpenter ants became one.* **AM Rafiqi**, Rajakumar A, Abouheif E. Aljazeera Arabic.
5. *Da due a uno: scoperte le origini di una simbiosi misteriosa.* **AM Rafiqi**, Rajakumar A, Abouheif E. *Le Scienze* edizione italiana di Scientific American
6. *A long road to Major Transitions.* A Rajakumar, **Rafiqi AM**, Abouheif E. Nature Ecology and Evolution Community Blog



- Serdar Uysal (Biotechnology)
- Education; Marmara Üniv, İstanbul Teknik,
- PhD; Univ. Chicago,
- Post-Doc; Harvard Univ.
- Field; Protein Biochemistry, Biotechnology
- 11 publications,
- 4 Project

- Production of industrial enzymes by recombinant DNA and biotechnology methods



<b>Çalışma Alanı</b>	Prokaryotik ve ökaryotik konakçılarda endüstriyel enzimlerin ve biyobenzerlerin üretimi
<b>Personel</b>	<ol style="list-style-type: none"><li>1. Uzman Araştırmacı Lena Azar- BVU</li><li>2. TÜBİTAK Bursiyeri Leila Kianifard-</li><li>3. Araştırma Görevlisi Elif Karaman- BVU</li><li>4. Araştırma Görevlisi Gizem İğdeli-BVU</li><li>5. Teknisyen Elif Akpınar- BVU</li></ol>

## Projeler

### Devam Eden Projeler

1. TÜBİTAK-1001; 09.2019-09.2022; 'Development of *Bacillus* microorganisms against vector-borne diseases by biotechnological and paratransgenesis methods'.
2. TÜBİTAK-1001; 07.2020; (Revised and re-submitted); 'Synthesis of BITE molecules specific for EGFRvIII and IL-13Ra2 antigens to be used for the treatment of glioblastoma'.
3. TÜBİTAK-1004; 09.2020; Accepted, not started yet; 'Development of biomarkers and drugs for the monitoring and treating inflammasome mediated autoinflammatory diseases using advanced biotechnological methods (Development of antibody VHH libraries through immunizations)'.
4. BAP; 20200823; 'Determination of different .....

<b>Projeler</b>	<p><b>Tamamlanmış Projeler</b></p> <ol style="list-style-type: none"><li>1. TEYDEB 1511; Aralık 2015-Aralık 2017; 'Creation of biotechnological tools for the production of alpha-amylase, pullulanase and glycoamylase food enzymes in modified microorganisms and their pilot production.</li><li>2. KOSGEB R &amp; D, Innovation Application Program; Temmuz 2014-Temmuz 2015; 'Genetic Modification of <i>Bacillus licheniformis</i> bacteria for Industrial Enzyme Production by Basic Molecular and Microbiological Methods'-.</li><li>3. TEYDEB- SADE; Ocak 2019-Aralık 2021; 'Development of recombinant microorganisms for the production of imported enzymes for the food industry, optimization of production processes on a pilot and industrial scale'.</li><li>4. BAP; 11.2018/17; 'Recombinant production of CelTOS proteins of <i>Plasmodium</i> parasites for use in the development of anti-malaria biotechnological techniques'.</li></ol>
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Thomas Jefferson University  
Hospital Director of Clinical  
Research, Rothman Orthopaedic  
Institute



**Barry T. Rouse Ph.D.**  
Lindsay Young Distinguished  
Professor of Microbiology  
College of Arts & Sciences and  
Veterinary Medicine

First Meeting, Dec. 7-8, 2019, Beykoz  
Second Meeting Dec. 14th. 2020 on-line

- Kuruluş aşamasını tamamlamış bir Enstitü
- Hedef Personelin %70'lerini yakalamış durumda
- Üretkenliğe geçiş beklentisi
  - Yayın ve Projeler konusundaki üretkenliğin devamı
  - ERC Grantlarında başarı
  - Patent ve ürün çıktısı konusunda gelişim fırsatlarının değerlendirilmesi
  - TTO'yla yakın işbirliği

- Kurumsallığın yerleştirilmesi-Stratejik plan
  - Tanınırlık ve Branding konusunda çabaların artırılması
  - Web sitesi
  - Önemli toplantılara ev sahipliği
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  - Öğrenci ve Uzman araştırmacıların eğitim eksikliklerinin giderilmesi
  - Enstitünün İngilizce Moleküler Tıp Doktora programı
  - Bütünleşik MD-PhD Programı

- Kuruluşundan itibaren 2,5 yıl süre ve bu süreçte Enstitü hızlı adımlarla gelişmiştir.
- 2020 COVID-19 pandemi yılı
- Personelin İstihdamı konusunda ilerlemeler
- Yayın ve projeler konusunda üretkenlik
- Projeksiyon; Üretkenlik ve tanınırlık konusunda ilerlemeler
- Desteklerini her zaman yanımızda hissettiğimiz
  - Üst yöneticilerimiz
  - Mütevelli Heyeti
  - SAB üyelerinin emeęi ve çabası



# Nereden Nereye





# Nerden Nereye







*Sağlıkta İki Asırlık Tecrübe*

**TEŞEKKÜRLER**