

## **Assoc. Prof. Haydar Karakaya**

### **Personal Information**

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**Address:** Ondokuz Mayıs Üniversitesi, Fen Fakültesi, Biyoloji Bölümü, Atakum, SAMSUN TÜRKİYE

### **International Researcher IDs**

ScholarID: iGHd6qcAAAAJ

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Publons / Web Of Science ResearcherID: AAB-8832-2020

ScopusID: 6602509367

Yoksis Researcher ID: 21633

### **Education Information**

Doctorate, The University of Warwick, Faculty of Sciences, Department of Biological Sciences, England 1991 - 1996

Postgraduate, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, Biyoloji (Yl) (Tezli), Turkey 1987 - 1990

Undergraduate, Ondokuz Mayıs University, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Turkey 1982 - 1985

### **Foreign Languages**

English, C1 Advanced

### **Certificates, Courses and Trainings**

Occupational Health and Safety, İş Sağlığı ve Güvenliği, Ondokuz Mayıs Üniversitesi, 2020

### **Dissertations**

Doctorate, Molecular Genetic Analysis of the zwf Region of Cyanobacterial Genomes, The University of Warwick, Faculty of Sciences, Department of Biological Sciences, 1996

Postgraduate, Ordu-Çambaşı yaylasının subalpin ve alpin vejetasyonu üzerinde floristik ve fitososyolojik bir araştırma, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, Biyoloji (Yl) (Tezli), 1990

### **Research Areas**

Microbiology, Genetic Engineering, Microbial Genetics, Natural Sciences

### **Courses**

VİROLOJİ, Undergraduate, 2021 - 2022, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

GENETİK, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019  
REKOMBİNANT DNA TEKNOLOJİSİ, Undergraduate, 2021 - 2022  
PROKARYOTİK GENETİK, Postgraduate, 2021 - 2022, 2018 - 2019, 2016 - 2017, 2014 - 2015, 2013 - 2014  
MOLEKÜLER BİYOTEKNOLOJİ, Doctorate, 2021 - 2022  
MOLEKÜLER BİYOLOJİ, Undergraduate, 2020 - 2021, 2018 - 2019  
BAKTERİ FİZYOLOJİSİ, Postgraduate, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2015 - 2016, 2014 - 2015, 2013 - 2014  
İLERİ MOLEKÜLER GENETİK, Doctorate, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2014 - 2015, 2013 - 2014  
MOLEKÜLER GENETİK LAB, Undergraduate, 2019 - 2020, 2018 - 2019, 2014 - 2015, 2013 - 2014  
GENEL GENETİK LAB, Undergraduate, 2019 - 2020, 2018 - 2019, 2014 - 2015, 2013 - 2014  
GENEL GENETİK, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2015 - 2016, 2014 - 2015, 2013 - 2014  
MOLEKÜLER GENETİK, Undergraduate, 2019 - 2020, 2018 - 2019, 2016 - 2017, 2014 - 2015, 2013 - 2014  
GEN KLONLAMA, Postgraduate, 2018 - 2019, 2016 - 2017, 2014 - 2015, 2013 - 2014  
REKOMBİNANT DNA VE GENETİK MÜHENDİSLİĞİ, Undergraduate, 2017 - 2018  
MOLEKÜLER GENETİK LAB., Undergraduate, 2017 - 2018  
Mikrobiyal Moleküler Genetik, Undergraduate, 2016 - 2017  
Moleküler Genetik Laboratuvar, Undergraduate, 2016 - 2017  
MODERN BİYOLOJİ VE GENETİK, Undergraduate, 2014 - 2015  
BİYOTEKNOLOJİ, Undergraduate, 2014 - 2015, 2013 - 2014  
BİYOTEKNOLOJİYE GİRİŞ, Undergraduate, 2014 - 2015, 2013 - 2014  
GEN MÜHENDİSLİĞİ, Doctorate, 2013 - 2014

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

- I. METAGENOMIC ANALYSIS OF THE TOXIN PRODUCING CYANOBACTERIAL COMMUNITY OF AKGOL LAKE IN TERME SAMSUN, TURKEY  
Karakaya H., Tokatlı Y.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.31, no.3A, pp.3289-3299, 2022 (SCI-Expanded)
- II. Effect of cysteine/serine changes to glucose-6-phosphate dehydrogenase of *Synechocystis* sp. PCC6803 in cell-free extracts  
Ozkul K., Karakaya H.  
EUROPEAN JOURNAL OF PHYCOLOGY, vol.54, no.4, pp.562-570, 2019 (SCI-Expanded)
- III. Characterisation of an *opcA* Mutant of the Unicellular Cyanobacterium *Synechocystis* sp PCC 6803  
Ozkul K., Karakaya H.  
CURRENT MICROBIOLOGY, vol.71, no.5, pp.572-578, 2015 (SCI-Expanded)
- IV. Analysis of glucose-6-phosphate dehydrogenase of the cyanobacterium *Synechococcus* sp PCC 7942 in the *zwf* mutant *Escherichia coli* DF214 cells  
Karakaya H., Erdem F., Ozkul K., Yilmaz A.  
ANNALS OF MICROBIOLOGY, vol.63, no.4, pp.1319-1325, 2013 (SCI-Expanded)
- V. 5,5-diethylbarbiturate complexes of silver with 2,2'-bipyridine and 3-(2-pyridyl)propanol: Syntheses, crystal structures, spectroscopic, thermal and antimicrobial activity studies  
YILMAZ F., YILMAZ V. T., Karakaya H., Bueyuekguengoer O.  
ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION B-A JOURNAL OF CHEMICAL SCIENCES, vol.63, no.2, pp.134-138, 2008 (SCI-Expanded)
- VI. Mutagenesis of the *tal* gene-encoding transaldolase in the Cyanobacterium, *Anabaena* sp PCC7120  
Karakaya H., Mann N. H.  
TURKISH JOURNAL OF BIOLOGY, vol.32, no.2, pp.135-141, 2008 (SCI-Expanded)
- VII. A Delta *zwf* (glucose-6-phosphate dehydrogenase) mutant of the cyanobacterium *Synechocystis* sp PCC 6803 exhibits unimpaired dark viability  
Karakaya H., Ay M. T., Ozkul K., Mann N. H.  
ANNALS OF MICROBIOLOGY, vol.58, no.2, pp.281-286, 2008 (SCI-Expanded)

- VIII. **Silver(I)-barbital based frameworks: Syntheses, crystal structures, spectroscopic, thermal and antimicrobial activity studies**  
 YILMAZ V. T., YILMAZ F., Karakaya H., Bueyuekguengoer O., Harrison W. T. A.  
*POLYHEDRON*, vol.25, no.15, pp.2829-2840, 2006 (SCI-Expanded)
- IX. **Multiple oligomeric forms of glucose-6-phosphate dehydrogenase in cyanobacteria and the role of OpcA in the assembly process**  
 Sundaram S., Karakaya H., Scanlan D. J., Mann N. H.  
*Microbiology*, vol.144, no.6, pp.1549-1556, 1998 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Investigations on isolation and characterisation of unicellular cyanobacteria in Uzun Lake and Cernek Lake, Samsun, Türkiye**  
 KARAKAYA H., ÖZKUL K.  
*Ordu University Journal of Science and Technology*, vol.12, no.2, pp.167-178, 2022 (Peer-Reviewed Journal)
- II. **Measurement of Glucose 6 phosphate Dehydrogenase Activity in Bacterial Cell free Extracts**  
 KARAKAYA H., ÖZKUL K.  
*BIO-PROTOCOL*, vol.6, no.19, 2016 (Peer-Reviewed Journal)
- III. **An Investigation on the Bacterial Contents of Natural Springs in a Rural Area of the Middle Blacksea Region in Turkey**  
 AQSO A., ÖZKUL K., KARAKAYA H.  
*Applied Ecology and Environmental Sciences*, vol.2, no.5, pp.123-129, 2014 (Peer-Reviewed Journal)
- IV. **The flora of the subalpine and alpine region of the çambaşı high plateau (Ordu) and its vicinity Çambaşı yayları (Ordu) ve çevresinin subalpin ve alpin bölgesinin florası**  
 Karakaya H., Kılıç M.  
*Turkish Journal of Botany*, vol.20, no.1, pp.65-74, 1996 (Scopus)
- V. **A comparison of gene organization in the zwf region of the genomes of the cyanobacteria Synechococcus sp. PCC 7942 and Anabaena sp. PCC 7120**  
 Newman J., Karakaya H., Scanlan D. J., Mann N. H.  
*FEMS Microbiology Letters*, vol.133, no.1-2, pp.187-193, 1995 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

- I. **METAGENOMIC ANALYSIS OF SEASONAL BIODIVERSITY OF THE CYANOBACTERIAL COMMUNITY IN BALIK LAKE (19 MAYIS, SAMSUN)**  
 SAĞLAM M., KARAKAYA H.  
 IV. International Agricultural, Biological & Life Science Conference, Edirne, Turkey, 29-31 August 2022, Edirne, Turkey, 29 August 2022, pp.182
- II. **Effects of the opcA- mutation on glucose-6-phosphate dehydrogenase (G6PDH) Activity in Synechocystis sp.PCC6803**  
 AKSOY N., KARAKAYA H.  
 2nd International Eurasian Conference on Biological and Chemical Sciences, 28 - 29 June 2019
- III. **Metagenomic Analysis of the Toxin Producing Cyanobacterial Community in Akgöl Lake in Terme, Samsun**  
 VARLI Y., KARAKAYA H.  
 2nd International UNIDOKAP Black Sea Symposium on Biodiversity, Samsun, Turkey, 28 - 30 November 2018, pp.168
- IV. **Mutagenesis of the Cysteine Codons in the zwf Gene of Synechocystis sp PCC 6803 and Effect of the Mutations onto Glucose 6 phosphate Dehydrogenase G6PDH Activity**

- KARAKAYA H., ÖZKUL K.  
 14TH INTERNATIONAL SYMPOSIUM ON PHOTOTROPHIC PROKARYOTES, TÜBİNGEN, Germany, 2 - 06 August 2015,  
 pp.213
- V. **Investigations on the effects of *opcA* mutation in *Synechocystis* sp PCC 6803**  
 ÖZKUL K., KARAKAYA H.  
 III. CONGRESS OF THE MOLECULAR BIOLOGY ASSOCIATION, İzmir, Turkey, 10 - 12 September 2014
- VI. **Güvenyurt Köyü Ulubey Ordu Çivarındaki Bazı Doğal Su Kaynaklarının Bakteriyel İçeriklerinin  
 Geleneksel Kültür ve PCR Teknikleriyle Mevsimsel Analizi**  
 AQSO A., ÖZKUL K., KARAKAYA H.  
 22. ULUSAL BİYOLOJİ KONGRESİ, Eskişehir, Turkey, 23 - 27 June 2014, pp.882
- VII. **Glukoz 6 fosfat dehidrogenaz enzimini kodlayan *Synechococcus* sp PCC7942 zwf geninin zwf mutant  
 Escherichia coli hücrelerinde ekspresyonu ve enzim aktivitesinin analizi**  
 YILMAZ A., ERDEM F., ÖZKUL K., KARAKAYA H.  
 20. ULUSAL BİYOLOJİ KONGRESİ, Denizli, Turkey, 21 - 25 June 2010, pp.1001
- VIII. **Cernek ve Uzun Göl Samsun tek hücreli siyanobakterilerinin izolasyonu morfolojik ve moleküler  
 karakterizasyonu üzerine araştırmalar**  
 KÜBRA Ö., KARAKAYA H.  
 19. ULUAL BİYOLOJİ KONGRESİ, Trabzon, Turkey, 23 - 25 June 2008, pp.251
- IX. **Yabani Tip *Synechococcus* sp. PCC7942 Hücrelerinde DTT'nin G6PDH Aktivitesine Etkisi.**  
 ÇEBİ KILIÇOĞLU M., KARAKAYA H.  
 18. Ulusal Biyoloji kongresi. 26-30 Haziran 2006 Adnan Menderes Üniversitesi. Kuşadası/Aydın, Turkey, 26 - 30  
 June 2006
- X. ***Synechocystis* sp PCC6803 zwf geninin klonlanması ve mutasyonu**  
 KARAKAYA H., AY M. T., ÖZKUL K., MANN N. H.  
 18. ULUSAL BİYOLOJİ KONGRESİ, Aydın, Turkey, 26 - 30 June 2006, pp.46
- XI. **Yabani tip *Synechococcus* sp PCC7942 hücrelerinde DTT nin G6PDH aktivitesine etkisi**  
 ÇEBİ M., KARAKAYA H.  
 18. ULUSAL BİYOLOJİ KONGRESİ, Aydın, Turkey, 26 - 30 June 2006, pp.250-20
- XII. **Deniz suyunda *E. coli* ve *S. typhimurium* un uyku durumuna dormant girmesinde oksidatif stres ve  
 değişik dalga boyundaki işinlerin etkisi**  
 İDİL Ö., DARCAN C., KARAKAYA H., ÖZKANCA R.
- XIV. ULUSAL BİYOTEKNOLOJİ KONGRESİ, Eskişehir, Turkey, 31 August - 02 September 2005, pp.509
- XIII. **Deniz suyunda fotosensitizer olan metilen mavisi ve değişik dalga boyundaki işinlerin *E. coli* ve *S. typhimurium* un oksidatif stres enzim aktivitesi ile ilişkisi**  
 DARCAN C., İDİL Ö., KARAKAYA H., ÖZKANCA R.  
 XIV. ULUSAL BİYOTEKNOLOJİ KONGRESİ, Eskişehir, Turkey, 31 August - 02 September 2005, pp.511
- XIV. **zwf mutant *Escherichia coli* DF214 suşunun bir *Anabaena* sp PCC7120 zwf fragmenti taşıyan plazmid  
 ile genetik komplementasyonu üzerine araştırmalar**  
 KARAKAYA H., MANN N. H.  
 XIV. ULUSAL BİYOLOJİ KONGRESİ, Samsun, Turkey, 7 - 11 September 1998, vol.3, pp.100-113
- XV. ***Anabaena* sp PCC7120 suşunun transaldolaz geninin tal mutasyonu üzerine bir araştırma**  
 KARAKAYA H., MANN N. H.  
 XIV. ULUSAL BIYOLOJİ KONGRESİ, Samsun, Turkey, 7 - 10 September 1998, pp.80
- XVI. **Molecular Genetics Analysis on the Glucose 6 phosphate Dehydrogenase Gene zwf of *Anabaena* sp  
 PCC 7120**  
 KARAKAYA H., MANN N. H.  
 VIII. INTERNATIONAL SYMPOSIUM ON PHOTOTROPHIC PROKARYOTES, URBINO, Italy, 10 - 15 October 1994

## Supported Projects

Karakaya H., Project Supported by Higher Education Institutions, Balık Gölü (19 Mayıs, Samsun) siyanobakteri komünitesinin mevsimsel biyoçeşitliliğinin metagenomik analizi., 2020 - 2021

Karakaya H., Project Supported by Higher Education Institutions, Samsun Balık Gölü'nün *Microcystis* biyoçeşitliliğinin araştırılması, 2014 - 2017

## Metrics

Publication: 31

Citation (WoS): 66

Citation (Scopus): 63

H-Index (WoS): 4

H-Index (Scopus): 3

## Non Academic Experience

Antalya Aksu Öğretmen Lisesi

Public Corporation, Antalya Milli Eğitim Müdürlüğü, Aksu Öğretmen Lisesi