

## Asst. Prof. Semian KARAER UZUNER

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-2914-7431

Publons / Web Of Science ResearcherID: A-8946-2018

Yoksis Researcher ID: 58869

### Education Information

Doctorate, Istanbul University, Institute of Graduate Studies In Sciences, Biyoloji Anabilim Dalı-Moleküler Biyoloji Genetik Programı, Turkey 1994 - 2001

Postgraduate, Istanbul University, İ.Ü.Fen Bilimleri Enstitüsü, Biyoloji Anabilim Dalı-Moleküler Biyoloji Programı, Turkey 1990 - 1992

Undergraduate, Istanbul University, Faculty Of Science, Department of Biology, Turkey 1978 - 1982

### Certificates, Courses and Trainings

Other, Türk Müziği sertifikalı eğitim kursu, İstanbul Üniversitesi, 2014

Education Management and Planning, Ölçme Ve Değerlendirme, İstanbul Üniversitesi Hasan Ali Yücel Eğitim Fakültesi, 2012

Education Management and Planning, Pedagogik Formasyon Sertifikası, İstanbul Üniversitesi Hasan Ali Yücel Eğitim Fakültesi, 2003

### Dissertations

Doctorate, Schizosaccharomyces pombe'de İnozin Monofosfat Dehidrogenaz (gua1) Geninin Klonlanması ve Yapısal Analizi, Istanbul University, Biyoloji Bölümü, Moleküler Biyoloji Ve Genetik , 2001

Postgraduate, Schizosaccharomyces pombe'de Arginin Biosentezi ile ilişkili Bazı Genlerin Haritalanması, Istanbul University, Biyoloji Bölümü, Moleküler Biyoloji Ve Genetik , 1992

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Istanbul University, Faculty of Science, Moleküler Biyoloji ve Genetik Bölümü, 2018 - Continues

Assistant Professor, Istanbul University, Faculty of Science, Moleküler Biyoloji ve Genetik Bölümü, 2007 - 2018

## Academic and Administrative Experience

Deputy Head of Department, Istanbul University, Faculty Of Science, Moleküler Biyoloji ve Genetik Bölümü, 2013 - 2018

## Courses

Bitirme Projesi II, Undergraduate, 2023 - 2024  
StajI, Undergraduate, 2022 - 2023  
StajII, Undergraduate, 2022 - 2023  
maya teknolojisi, Postgraduate, 2023 - 2024, 2022 - 2023  
genetik mühendisliği, Undergraduate, 2023 - 2024  
Gönüllülük çalışmaları, Undergraduate, 2023 - 2024  
Bitirme Projesi I, Undergraduate, 2023 - 2024  
Maya Genetiği Yöntemleri, Postgraduate, 2022 - 2023  
Biyotetik, Undergraduate, 2022 - 2023, 2021 - 2022  
Maya Biyoteknolojisi, Undergraduate, 2022 - 2023, 2019 - 2020  
Genetik Mühendisliği, Undergraduate, 2016 - 2017

## Advising Theses

Karaer Uzuner S., Hücre iskeleti proteini Rlc1 ile ER stresi arasındaki ilişkinin Schizosaccharomyces pombe'de araştırılması, Postgraduate, R.sakallı(Student), Continues  
Karaer Uzuner S., Schizosaccharomyces pombe'nin Alzheimer hastalığı için model organizma olarak geliştirilmesi, Doctorate, M.YILMAZER(Student), 2021  
Karaer Uzuner S., the effect of tunicamycin on wortmannin resistant Shizosacchoromyces pombe mutants, Postgraduate, m.yemenici(Student), 2020  
Karaer Uzuner S., Schizosaccharomyces pombe'de Glukoz Metabolizmasının Biyoinformatik ve Transkriptomik Analizi, Postgraduate, M.Tan(Student), 2018  
Karaer Uzuner S., Ortam koşullarının Schizosaccharomyces pombe'de Rec12 Gen Anlatımı ve Homolog Rekombinasyon Üzerine Etkisi, Postgraduate, D.Yılmaz(Student), 2016  
Karaer Uzuner S., Schizosaccharomyces pombe'de gua1 geninin Knock-out tekniği ile delesyona uğratılması, Postgraduate, M.Yilmazer(Student), 2014

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

- I. **Effects of ScRgt1-Like DNA-binding transcription factor SpRgt1 (SPCC320.03) on Hexose transporters gene expression in Schizosaccharomyces pombe**  
Ibisoglu M. S., Tan M., YILMAZER M., Yilmaz S., Uzuner S. K., Topal-Sarikaya A., PALABIYIK B.  
Archives of Microbiology, vol.206, no.4, 2024 (SCI-Expanded)
- II. **Involvement of Sec71 and Ubp2 in tunicamycin-induced ER stress response in the fission yeast.**  
Yemenici M., Kartal Sural B., Karaer Uzuner S., Palabiyik B.  
Molecular biology reports, vol.49, no.6, pp.4719-4726, 2022 (SCI-Expanded)
- III. **Molecular Cloning, expression, purification and in silico epitope prediction of cobalamin-independent methionine synthase (Mor a 2), as a novel allergen from Morus alba pollen**  
Aksüt Y., Pekmez M., Karaer Uzuner S., Gelincik A., Büyüköztürk S., Arda E. Ş. N.  
ARCHIVES OF MEDICAL SCIENCE, vol.4, pp.1-26, 2022 (SCI-Expanded)

- IV. **Identification of Schizosaccharomyces pombe ird Mutants Resistant to Glucose Suppression and Oxidative Stress**  
Yilmazer M., Bayrak B., Kartal Sural B., Karaer Uzuner S., Palabiyik B.  
FOLIA BIOLOGICA, vol.67, pp.163-173, 2021 (SCI-Expanded)
- V. **HETEROLOGOUS EXPRESSION OF TAU PROTEIN IN FISSION YEAST AS A DISEASE MODEL**  
Yilmazer M., Uzuner S. K.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.29, no.10, pp.9218-9225, 2020 (SCI-Expanded)
- VI. **A Genome-Wide Screen for Wortmannin-Resistant Mutants in Schizosaccharomyces pombe: The Phosphorylation-Impaired Mutants Are Resistant to Signaling Defect**  
Yilmazer M., Kartal B., Tarhan C., Ozarabaci I., Akcaalan S., Ozkan E., Uzuner S. K., Arican E., Palabiyik B.  
DNA AND CELL BIOLOGY, vol.38, pp.1427-1436, 2019 (SCI-Expanded)
- VII. **CHEMICALLY INDUCED OXIDATIVE STRESS DECREASES HOMOLOGOUS RECOMBINATION RATE AND REC12 GENE EXPRESSION IN THE FISSION YEAST**  
Yilmaz D., Yilmazer M., Tumkaya T., Karaer Uzuner S.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.27, no.7, pp.4995-5000, 2018 (SCI-Expanded)
- VIII. **Role of glucose repression in the oxidative stress response of Schizosaccharomyces pombe: analysis of transcript levels of fbp1, hxx2, sod1 and ctt1 genes in sty1, atf1 and pap1 knock-out mutants**  
Palabiyik B., Jafari Ghods F., Karaer Uzuner S.  
TURKISH JOURNAL OF BIOLOGY, vol.40, no.4, pp.815-825, 2016 (SCI-Expanded)
- IX. **SILENCING OF G-PROTEIN alpha-SUBUNIT IN BARLEY (Hordeum vulgare L.) BY VIGS AND ITS EFFECT ON THE PLANT GROWTH**  
SHAHID M. Q., Ucarli C., Karlik E., Uzuner S., Gurel F.  
TURKISH JOURNAL OF FIELD CROPS, vol.20, no.2, pp.259-264, 2015 (SCI-Expanded)
- X. **Expression of Human A4V Mutant Cu,Zn Superoxide Dismutase in Schizosaccharomyces pombe: Investigations of its Toxic Properties**  
Karaer S., Tarhan C., Pekmez M., HAMAD I., Arda N., Sarikaya A. T.  
BIOCHEMICAL GENETICS, vol.48, no.1-2, pp.113-124, 2010 (SCI-Expanded)
- XI. **Expression of human cytochrome p450 3A4 gene in Schizosaccharomyces pombe**  
Palabiyik B., Karaer S., Arda N., Toker S., Temizkan G., Kelly S., Sarikaya A. T.  
BIOLOGIA, vol.63, no.3, pp.450-454, 2008 (SCI-Expanded)
- XII. **Expression of human cytochrome p450 3A4 gene in Schizosaccharomyces pombe. Biologia 63**  
Palabiyik B., KARAER UZUNER S., Arda N., Ertürk Toker s., Temizkan G., Kelly S., Topal Sarikaya A.  
BIOLOGIA, vol.63, no.3, pp.450-454, 2008 (SCI-Expanded)
- XIII. **The effect of superoxide dismutase deficiency on zinc toxicity in Schizosaccharomyces pombe**  
Tarhan C., Pekmez M., Karaer S., Arda N., Sarikaya A. T.  
JOURNAL OF BASIC MICROBIOLOGY, vol.47, no.6, pp.506-512, 2007 (SCI-Expanded)
- XIV. **Fission yeast as a model for ALS disease**  
Karaer Uzuner S., Tarhan Ç., Hamad İ., Pekmez M., Arda E. Ş. N., Topal Sarikaya A.  
Journal Of Biotechnology, vol.2, no.131, pp.250, 2007 (SCI-Expanded)
- XV. **effect of superoxide dismutase deficiency on zinc toxicity in Schizosaccharomyces pombe.**  
Tarhan Ç., Pekmez M., KARAER UZUNER S., Arda N., Tapal Sarikaya A.  
j.Basic Microbiol, vol.47, no.6, pp.506-512, 2007 (SCI-Expanded)
- XVI. **The 3' terminal sequence of inosine monophosphate dehydrogenase gene encode an active domain in Schizosaccharomyces pombe. Genetics and Molecular Biology**  
KARAER UZUNER S., Topal Sarikaya A., Arda N., Temizkan G.  
GENETICS AND MOLECULAR BIOLOGY, vol.29, no.3, pp.551-557, 2006 (SCI-Expanded)
- XVII. **The 3' terminal sequence of the inosine monophosphate dehydrogenase gene encodes an active domain in the yeast Schizosaccharomyces pombe**  
Karaer S., Sarikaya A. T., Arda N., Temizkan G.  
GENETICS AND MOLECULAR BIOLOGY, vol.29, no.3, pp.551-557, 2006 (SCI-Expanded)
- XVIII. **DISRUPTION of gene encoding 16 kDa subunit of Schizosaccharomyces pombe vacuolar H<sup>+</sup>ATPase.**

- Akman G., Sarykaya A., Karaer S., Temizkan G.  
YEAST, vol.18, 2001 (SCI-Expanded)
- XIX. **Regulation of the expression of ade2 gene in fission yeast.**  
Temizkan G., Gunel T., Kig C., Karaer S.  
YEAST, vol.18, 2001 (SCI-Expanded)
- XX. **DISRUPTION of gene encoding 16 kDa subunit of Schizosaccharomyces pombe vacuolar H+ ATPase.**  
Akman G., Topal Sarıkaya A., Karaer Uzuner S., Temizkan G.  
Yeast, vol.18, pp.273, 2001 (SCI-Expanded)
- XXI. **Schizosaccharomyces pombe partial gua1 gene for IMP dehydrogenase.**  
Karaer S., Topal-Sarykaya A., Temizkan G.  
YEAST, vol.18, 2001 (SCI-Expanded)
- XXII. **A Rapid Technique For The Determination Of Furfural In The Fission Yeast Culture Media"**  
Karaer Uzuner S., Arda E. Ş. N., Topal Sarıkaya A., Palabiyik B., Temizkan G.  
BIOTECHNOLOGY & BIOTECHNOLOGICAL EQUIPMENT, vol.14, pp.47-49, 2000 (SCI-Expanded)
- XXIII. **An addition to the chromosome map of Schizosaccharomyces pombe the localization of gua genes**  
Oraler G., Olgun A., KARAER UZUNER S.  
CURRENT GENETICS, vol.17, pp.543-545, 1990 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Effects of Glucose on the Cellular Respiration in Fission Yeast Expressing Human GSK3 $\beta$  Gene**  
Yilmazer M., Karaer Uzuner S.  
TRAKYA UNIVERSITY JOURNAL OF NATURAL SCIENCES, vol.25, no.1, pp.1-10, 2024 (ESCI)
- II. **Generation of gua1 deletion using polymerase chain reaction (PCR)-mediated gene disruption method in fission yeast, Schizosaccharomyces pombe**  
YILMAZER M., PALABIYIK B., Topal Sarıkaya A., KARAER UZUNER S.  
AFRICAN JOURNAL OF BIOTECHNOLOGY, no.16, pp.1501-1506, 2017 (Peer-Reviewed Journal)
- III. **Intracellular scavenging activity of Trolox (6-hydroxy-2,5,7,8-tetramethylchromane-2-carboxylic acid) in the fission yeast, Schizosaccharomyces pombe**  
Hamad İ., Arda N., Pekmez M., Karaer Uzuner S., Temizkan G.  
journal of Natural Science, Biology and AMERICAN JOURNAL OF MEDICINE, vol.1, pp.16-21, 2010 (Peer-Reviewed Journal)

### Books & Book Chapters

- I. **Schizosaccharomyces pombe inozin Monofosfat Dehidrogenaz (gua1) Geninin Klonlanması**  
KARAER UZUNER S.  
in: Temel ve İleri Moleküler Biyoloji Yöntemleri, Temizkan G., Arda N., Editor, Nobel Tıp Kitapevi Yayınları, İstanbul, pp.281-291, 2018
- II. **Bakterilerden Genom ve Plazmit DNA'sı İzolasyonu**  
Arı Ş., Karaer Uzuner S.  
in: Genetik Mühendisliğinde Kullanılan Yöntemler Uygulamalı Yaz Eğitimi Kitabı, Güler Temizkan, Editor, BİYOGEM, İstanbul, pp.19-27, 2002

### Refereed Congress / Symposium Publications in Proceedings

- I. **Effects of Metformin on Human GSK3 $\beta$  Gene Expression in Fission Yeast**  
Yilmazer M., Gökçay M., Canbazoglu S., Akkühah C., Karaer Uzuner S.

ICANAS 2024 7th International Conference on Advances in Natural and Applied Sciences, Antalya, Turkey, 17 - 20 April 2024, pp.123-124

- II. **Water-Based Propolis Prevents Protein Oxidation in Fission Yeast Grown At High Glucose Concentration**  
Kocameşe B., Aksüt Y., Karaer Uzuner S., Yilmazer M., Arda E. Ş. N.  
3. International Propolis Conference, İstanbul, Turkey, 9 - 11 November 2023, pp.66
- III. **Heterologous Expression of Human Gsk3B Gene in Schizosaccharomyces pombe**  
YILMAZER M., KARAER UZUNER S.  
V. International Conference on Agricultural, Biological and Life Science, 18 September 2023
- IV. **Hücre İskeletinde Rol Oynayan rlc1 Geninin pSGP572 Plazmidine Klonlanması**  
Sakallı R., YILMAZER M., KARAER UZUNER S.  
25. Ulusal Biyoloji Kongresi, 13 July 2023
- V. **Effects of Heterologous Tau Protein in Schizosaccharomyces pombe**  
YILMAZER M., KARAER UZUNER S.  
9. International Marmara Sciences Congress, Kocaeli, Turkey, 09 December 2022, pp.54
- VI. **A genome-wide screen for wortmannin in and hydrogen peroxide resistant mutants in Schizosaccharomyces pombe**  
Yilmazer M., Kartal B., Tarhan Ç., Özarabacı İ., Akçaalan S., Özkan E., Karaer Uzuner S., Arıcan E., Palabıyık B.  
7th International Congress of the Molecular Biology Association of Turkey, İstanbul, Turkey, 27 - 29 September 2019, vol.1, no.1, pp.163
- VII. **Schizosaccharomyces pombe'de Gua1 Geninin Knock-Out Tekniği ile Delesyona Uğratılması**  
YILMAZER M., KARAER UZUNER S., PALABİYİK B., Topal Sarıkaya A.  
18. Ulusal Biyoteknoloji Kongresi, Konya, Turkey, 18 - 19 December 2015, pp.258
- VIII. **"Allelic diversity in Hordeum spontaneum at the Dhn3 locus: a major dehydration stress-inducible gene in barley**  
Çaputlu S., UÇARLI C., Yörük E., KARAER UZUNER S., GÜREL A. F.  
Botany 2015, Edmonton, Canada, 25 - 29 July 2015, pp.367
- IX. **The effects of Astragalus chrysochlorus crude extract on cancer model of Schizosaccharomyces pombe cells**  
Karaer Uzuner S., Tarhan Ç., Arı Ş.  
Pombe 2013, 7th International Fission Yeast Meeting, London, United Kingdom, 1 - 04 June 2013, pp.188
- X. **Hydrocortisone effect on Schizosaccharomyces pombe's rad17+ gene expression.**  
TARHAN Ç., ŞATIR T. M., YILMAZER M., KARAER UZUNER S.  
EMBO Conference Pombe 2013 7th International Fission Yeast Meeting, Londra, United Kingdom, 1 - 04 May 2013, no.185, pp.323
- XI. **Fission yeast as a model for ALS disease**  
Karaer S., Tarhan C., Hamad I., Pekmez M., Arda N., Sarıkaya A. T.  
13th European Congress on Biotechnology (ECB 13), Barcelona, Spain, 16 - 19 September 2007, vol.131
- XII. **Protective effects of Trolox in the yeast Schizosaccharomyces pombe**  
Hamad I., Arda N., Pekmez M., Karaer S., Temizkan G.  
31st Congress of the Federation-of-European-Biochemical-Societies (FEBS), İstanbul, Turkey, 24 - 29 June 2006, vol.273, pp.166
- XIII. **RAPD Markırları ile DNA Parmakizi Çıkarılması**  
Albayrak (Çobanoğlu) G., Karaer Uzuner S., Topohan G., Palabıyık (Gemici) B., Can Ö., Gözükırmızı N.  
Biyoteknoloji ve Bitki Islahı, Kocaeli, Turkey, 17 - 19 April 1995, pp.157-162

## Other Publications

- I. **"Intracellular Scavenging Activity Of Trolox (6-Hydroxy-2, 5, 7, 8- Tetramethylchromane-2-Carboxylic Acid) In The Fission Yeast, Schizosaccharomyces Pombe",**

Hamad İ., Arda N., Pekmez M., KARAER UZUNER S., Temizkan G.  
Other, pp.16-2010, 2010

## Supported Projects

KARAER UZUNER S., ÇOBAN F., TARHAN Ç., ÖZDEMİR E., Project Supported by Higher Education Institutions, GIDALARDA TATLANDIRICI OLARAK KULLANILAN FRUKTOZ ŞURUBUNUN HÜCRE YAŞLANMASI ÜZERİNE ETKİLERİ, 2016 - 2017

PALABIYIK B., YILMAZER M., TARHAN Ç., KARAER UZUNER S., ARICAN E., ÖZCAN F. G., ERTURAN Z., ÖZARABACI İ., AKÇAALAN S., KARTAL B., Project Supported by Higher Education Institutions, İnsan hastalıklarının moleküler mekanizmalarının araştırılmasında Schizosaccharomyces pombe'nin model organizma olarak kullanılmasının optimizasyonu, 2015 - 2017

ARDA E. Ş. N., UÇARLI C., ARICAN E., ALBAYRAK G., GÜREL A. F., ARI Ş., ÇAKIR Ö., TEMEL A., PEKMEZ M., TARHAN Ç., et al., Project Supported by Higher Education Institutions, MOLEKÜLER BİYOTEKNOLOJİ LABORATUVARININ KURULMASI, 2013 - 2016

Topal Sarıkaya A., Palabıyık B., Karaer Uzuner S., TÜBİTAK Project, Mayada Heterolog Gen Ekspresyonu, 1996 - 1998

## Scientific Refereeing

Turkish Journal Of Biology, SCI Journal, October 2016

TÜBİTAK Project, April 2013

TÜBAV Bilim Dergisi, National Scientific Refreed Journal, May 2011

## Metrics

Publication: 42

Citation (WoS): 15

Citation (Scopus): 15

H-Index (WoS): 3

H-Index (Scopus): 2

## Congress and Symposium Activities

VI. International congress on Molecular Biology and Biotechnology, Attendee, Afyon, Turkey, 2017

18. ulusal Biyoteknoloji Kongresi, Attendee, Konya, Turkey, 2015

Araştırma günü etkinliği, Attendee, İstanbul, Turkey, 2013

7th International Fission Yeast Meeting, Attendee, Londra, United Kingdom, 2013

Yaşam bilimlerinde multidisipliner AR-GE ve İnovasyon sempozyumu, Attendee, İstanbul, Turkey, 2012

Journal of Biotechnology 13th European Congress on Biotechnology, Attendee, Spain, 2007

13 Th European Congress on Biotechnology Journal of Biotechnology, Attendee, Spain, 2007

XXIInd International Conference on Yeast Genetics and Molecular Biology, Attendee, Slovakia, 2005

XXth International Conference on Yeast Genetics and Molecular Biology, Attendee, Czech Republic, 2001

XX. International Conferance on Yeast Genetics and Molecular Biology, Attendee, Czech Republic, 2001

XXth International Conference on Yeast Genetics and Molecular Biology, Attendee, Czech Republic, 2001

The World Congress on Biotechnology, Attendee, Germany, 2000

Tenth International Symposium on Yeasts, 2, Attendee, Netherlands, 2000

The First International Fission Yeast Meeting, Attendee, United Kingdom, 1999

## **Scholarships**

TÜBİTAK Bilim Adamı Yetiştirme Bursu, TÜBİTAK, 1995 - 1998

## **Non Academic Experience**

İstanbul Üniversitesi Fen Fakültesi Biyoloji Bölümü