



# ÇAĞATAY TARHAN

## ASST. PROF.

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Yoksis Researcher ID: 119038



### Supported Projects

1. TARHAN Ç., ÇALICI S. Z., ÖZDEN B., Project Supported by Higher Education Institutions, NAA40 MUTASYONUNUN Schizosaccharomyces pombe'de HÜCRE YAŞLANMA MEKANİZMALARI ÜZERİNE ETKİLERİNİN İNCELENMESİ, 2022 - 2024
2. Çalıcı S. Z., Özden B., Tarhan Ç., Project Supported by Higher Education Institutions, NAA40 MUTASYONUNUN Schizosaccharomyces pombe'de HÜCRE YAŞLANMA MEKANİZMALARI ÜZERİNE ETKİLERİNİN İNCELENMESİ, 2022 - 2024
3. TARHAN Ç., MIRAJ H., Project Supported by Higher Education Institutions, Antidiyabetik İlaç Metforminin Schizosaccharomyces pombe'de Gen Anlatım Profili Üzerine Etkisi, 2022 - 2023
4. TARHAN Ç., ULUDAĞ H., Project Supported by Higher Education Institutions, Schizosaccharomyces pombe'de B-Hidroksibütirat Keton Cisimciğinin Hücre Yaşlanması Etkisi Üzerine Çalışmalar, 2020 - 2021
5. TARHAN Ç., ŞEYLAN C., Project Supported by Higher Education Institutions, Schizosaccharomyces pombe'de Metformin'in Hücre Yaşlanması Etkisi Üzerine Çalışmalar, 2020 - 2021
6. TARHAN Ç., Project Supported by Higher Education Institutions, Epigenetics and Applications in Plants, 2016 - 2017
7. KARAER UZUNER S., ÇOBAN F., TARHAN Ç., ÖZDEMİR E., Project Supported by Higher Education Institutions, GİDALARDA TATLANDIRICI OLARAK KULLANILAN FRUKTOZ ŞURUBUNUN HÜCRE YAŞLANMASI ÜZERİNE ETKİLERİ, 2016 - 2017
8. 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
9. KARAER UZUNER S., ISENI T., YANIK A., TARHAN Ç., Project Supported by Higher Education Institutions, Schizosaccharomyces pombe'de Branched Chain Amico Acid Aminotransferase (Eca39) Geninin Yaşılanma Üzerindeki Etkisinin Araştırılması, 2016 - 2016
10. 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

### Jury Memberships

Doctoral Examination, Doctoral Examination, Bezmiâlem Vakıf Üniversitesi, July, 2020

Committee Of Expert, Committee Of Expert, Istanbul University, September, 2019

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, May, 2019

Post Graduate, Post Graduate, Hacettepe Üniversitesi, January, 2019

Committee Of Expert, Committee Of Expert, Istanbul University, March, 2018

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

1. **Synbiotic supplementation ameliorates anxiety and myocardial ischaemia–reperfusion injury in hyperglycaemic rats by modulating gut microbiota**  
Tarhan Ç.  
EXPERIMENTAL PHYSIOLOGY, vol.28, pp.1-14, 2024 (SCI-Expanded)
2. **Metformin extends the chronological lifespan of fission yeast by altering energy metabolism and stress resistance capacity.**  
Şeylan C., Tarhan Ç.  
FEMS yeast research, vol.23, 2023 (SCI-Expanded)
3. **Transcriptome sequencing and screening of genes related to glucose availability in Schizosaccharomyces pombe by RNA-seq analysis**  
Tarhan Ç., Çakır Ö.  
GENETICS AND MOLECULAR BIOLOGY, vol.44, no.3, 2021 (SCI-Expanded)
4. **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., Palabıyık B.  
DNA AND CELL BIOLOGY, vol.38, pp.1427-1436, 2019 (SCI-Expanded)
5. **Nutritional and health benefits of legumes and their distinctive genomic properties**  
Çakır Ö., Uçarlı C., Tarhan Ç., Pekmez M., Turgut Kara N.  
Ciencia E Tecnologia De Alimentos, vol.39, no.1, pp.1-12, 2019 (SCI-Expanded)
6. **EVRİMSEL DİNAMİKLERİN MEYDAN OKUYAN ÖZNESİ OLARAK HIV TARHAN Ç.**  
Toplum ve Hekim, vol.31, no.5, pp.371-375, 2016 (SCI-Expanded)
7. **Does copper stress lead to spindle misposition-dependent cell cycle arrest?**  
Tarhan C., Sarikaya A. T.  
GENETICS AND MOLECULAR RESEARCH, vol.11, no.4, pp.3824-3834, 2012 (SCI-Expanded)
8. **Expression of Human A4V Mutant Cu,Zn Superoxide Dismutase in Schizosaccharomyces pombe: Investigations of its Toxic Properties**  
Karaer S., Tarhan C., Pekmez M., HAMAD İ., Arda N., Sarikaya A. T.  
BIOCHEMICAL GENETICS, vol.48, no.1-2, pp.113-124, 2010 (SCI-Expanded)
9. **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)
10. **Fission yeast as a model for ALS disease**  
Karaer Uzuner S., Tarhan Ç., Hamad İ., Pekmez M., Arda E. Ş. N., Topal Sarıkaya A.  
Journal Of Biotechnology, vol.2, no.131, pp.250, 2007 (SCI-Expanded)

#### Articles Published in Other Journals

1. **Functional Annotation of Uncharacterised Proteins Whose Expression Patterns Affect the Lifespan under Metformin Treatment in Fission Yeast**  
Tarhan Ç., Çalıcı Z., Özden B.  
European Journal of Biology, vol.82, no.2, pp.196-211, 2023 (Scopus)

2. **Evaluation of Proteins Released to Medium in Yeast-Bacteria Co-culture System**  
Yanık A., Tarhan Ç.  
Journal of advanced research in natural and applied sciences (Online), vol.9, no.2, pp.488-498, 2023 (Peer-Reviewed Journal)
3. **Effects of Scilla autumnalis Extracts on U87-MG Human Glioblastoma Cells**  
Pekmez M., Tarhan Ç., Zeytunluoğlu A., Turan M., Mete Ş. B., Köseler A.  
Kafkas Tıp Bilimleri Dergisi, vol.11, no.2, pp.299-306, 2021 (Peer-Reviewed Journal)
4. **Palmiye yağı ve kanser gerçeği**  
Ertan H., Ari Ş., Günaydin K., Karagöz A., Turgut Kara N., Ay M., Tarhan Ç.  
Herkese Bilim Teknoloji, vol.47, pp.6-7, 2017 (Non Peer-Reviewed Journal)

## Books & Book Chapters

1. **Astrobiyoloji Evrendeki Yaşamı Anlamak**  
Tarhan Ç.  
Alfa Basım Yayımları, İstanbul, 2023
2. **Yaşlanmanın Moleküler Temelleri**  
Tarhan Ç.  
in: Geleceğin Yeni Sahipleri Yaşlılar, Ahmet AKGÜL Nur Elçin BOYACIOĞLU Sera YİĞİTER, Editor, İÜC Yaynevi, İstanbul, pp.13-20, 2023
3. **Genes That Make Us**  
Tarhan Ç.  
Metis Yayınları, İstanbul, 2022
4. **Virüslerin İnsan Evrimindeki Rolü**  
Tarhan Ç.  
in: Pandemi ve Covid - 19, Selim Badur, Şadi Yenen, Editor, Ayrıntı Yayınları, İstanbul, pp.302-310, 2020
5. **Serengeti Yasaları**  
TARHAN Ç.  
Gingko Bilim Kitabevi, İstanbul, 2019
6. **GENİŞLEMİŞ FENOTİP**  
TARHAN Ç.  
Alfa Basım Yayımları, İstanbul, 2018
7. **Evrimsel Yeniliklerin Moleküler Temelleri**  
TARHAN Ç.  
in: Evrimin Işığında, Altınyıldız N.E. ve Akış I., Editor, Yazılıama, İstanbul, pp.58-70, 2016
8. **Epigenetics and Applications in Plants**  
TARHAN Ç., TURGUT KARA N.  
in: Plant Omics: Trends and Applications, Hakeem, Khalid Rehman, Tombuloglu, Huseyin, Tombuloglu, Güzin, Editor, Springer International Publishing, Zürich, pp.255-270, 2016
9. **Özgürlüğün Evrimi**  
TARHAN Ç.  
Alfa Basım Yayımları, İstanbul, 2015
10. **Genetik Analize Giriş**  
TARHAN Ç.  
Palme Yayınevi, İstanbul, 2014
11. **Hayvanlar Ne İster (Hayvan Bilinci, Hayvan Refahı ve İnsanın Esenliği)**  
TARHAN Ç.  
Alfa, İstanbul, 2013
12. **Üçüncü Şempanze**  
TARHAN Ç.

Alfa Basım Yayın, İstanbul, 2013

13. **Moleküler Hücre Biyolojisi**  
TARHAN Ç.  
Palme Yayın Dağıtım, İstanbul, 2012
14. **Derin Homoloji ve Evrimsel Yeniliklerin Ortaya Çıkışındaki Rolü**  
TARHAN Ç.  
in: Evrim Sürüyor, Durmuş Z.Ö. ve Akiş I., Editor, Yazılıma, İstanbul, pp.103-113, 2012

#### Refereed Congress / Symposium Publications in Proceedings

1. **Pioglitazone Increase Healthspan Possibly by Reducing Oxidative Stress in Fission Yeast**  
Çalıcı S. Z., Tarhan Ç., Özden B.  
IX. International Congress of Molecular Medicine, İstanbul, Turkey, 18 - 20 December 2023, pp.16-17
2. **ANALYSIS OF UPREGULATED-UNCHARACTERIZED GENES INFLUENCING LIFESPAN UNDER METFORMIN TREATMENT IN FISSION YEAST**  
Tarhan Ç., Çalıcı Z., Özden B.  
3rd INTERNATIONAL CONGRESS ON CONTEMPORARY SCIENTIFIC RESEARCH held on August 7-8, 2023 / Adana, Türkiye, Adana, Turkey, 7 - 08 August 2023, pp.54-55
3. **ANALYSIS OF UPREGULATED-UNCHARACTERIZED GENES INFLUENCING LIFESPAN UNDER METFORMIN TREATMENT IN FISSION YEAST**  
Tarhan Ç., Çalıcı S. Z., Özden B.  
3. INTERNATIONAL CONGRESS ON CONTEMPORARY SCIENTIFIC RESEARCH, Adana, Turkey, 7 - 08 August 2023, pp.282
4. **Effects of The Active Ingredient of Green Tea Epigallocatechin gallate (EGCG) Polyphenol on Cell Metabolism and Aging**  
Tarhan Ç., Çetin B. N.  
5th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2022), Ankara, Turkey, 23 - 25 November 2022, pp.113
5. **Puccinellia distans - A potential plant to reveal boron toxicity and salt tolerance mechanisms**  
Hakki E. E., Pandey A., Khan M. K., Hamurcu M., Celik O., Gezgin S., Atmaca E., Inanc M., Gumus T., Cakir O., et al.  
European Biotechnology Congress, Valencia, Spain, 11 - 13 April 2019, vol.305
6. **A genome-wide screen for wortmannin and hydrogen peroxide resistant mutants in Schizosaccharomyces pombe**  
Yilmazer M., Kartal B., Tarhan Ç., Özkarabaci İ., Akçaalan S., Özkan E., Karaer Uzuner S., Arican 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
7. **METFORMIN INCREASES LIFESPAN BY COMPLICATED MECHANISMS IN SCHIZOSACCHAROMYCES POMBE**  
SEYLAN C., KOÇ İ., TARHAN Ç.  
7th International Congress of the Molecular Biology Association of Turkey, İstanbul, Turkey, 27 - 29 September 2019, pp.18
8. **Effect of beta-hydroxybutyrate in aging process Schizosaccharomyces pombe**  
Uludağ H., TARHAN Ç., ÇAKIR Ö., Ataözü M.  
7th international congress of The molecular Biology association of Turkey, İstanbul, Turkey, 27 - 29 September 2019, pp.81
9. **Evrimde Moleküler Süreçler**  
TARHAN Ç.  
V. Evrim Bilim ve Eğitim Sempozyumu 2015, İstanbul, Turkey, 19 - 20 December 2015, pp.1-2
10. **Absence of the Indy protein homolog prolongs the life span in the presence of high glucose levels in Schizosaccharomyces pombe**

- TARHAN Ç., TOPAL SARIKAYA A., Malci A.  
Pombe 2013, 7th International Fission Yeast Meeting 24 – 29 June 2013 | London, UK, United Kingdom, 1 - 04 June 2013, pp.151
11. **The effects of Astragalus chrysochlorus crude extract on cancer model of Schizosaccharomyces pombe cells**  
Karaer Uzuner S., Tarhan Ç., Ari Ş.  
Pombe 2013, 7th International Fission Yeast Meeting, London, United Kingdom, 1 - 04 June 2013, pp.188
12. **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
13. **The effect of copper stress on expression of the ace2 gene in Schizosaccharomyces pombe, another piece of puzzle**  
Tarhan Ç., Jafari Ghods F., PALABIYIK B., Çetinkaya B., Topal Sarıkaya A.  
The 6th International Fission Yeast Meeting, United States Of America, 1 - 04 June 2011, vol.1, pp.225
14. **Does Copper Stress Affect the Organization of Microtubule in the Fission Yeast**  
TARHAN Ç., Topal SARIKAYA A.  
Power of Microbes in Industry and Environment, Central European Symposium on Industrial Microbiology and Microbial Ecology, Croatia, 1 - 04 October 2010, pp.1-2
15. **Gene Expression Profiling of Copper Induced Responses in the Fission Yeast**  
TARHAN Ç., Topal SARIKAYA A.  
The Fifth International Fission Yeast Meeting, Pombe 2009, Japan, 1 - 04 October 2009, pp.320
16. **Schizosaccharomyces pombe'de Bakır Stresine Bağlı Olarak Anlatım Genlerin Farklılık Gösterim Yöntemiyle Araştırılması**  
TARHAN Ç., Topal SARIKAYA A.  
Ulusal Maya Moleküler Biyolojisi ve Biyoteknolojisi Sempozyumu, Bursa, Turkey, 1 - 04 May 2008, pp.12
17. **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
18. **Studying on Zinc Toxicity and Antioxidant Defense Mechanism in Schizosaccharomyces pombe**  
TARHAN Ç., PEKMEZ M., Topal SARIKAYA A.  
The XXIInd International Conference on Yeast Genetics and Molecular Biology, Slovakia, 1 - 04 September 2005, pp.36
19. **The cloning and expression of human ALS mutant Cu,Zn SOD into Schizosaccharomyces pombe**  
Karaer Uzuner S., TARHAN Ç., Topal SARIKAYA A.  
The XXIInd International Conference on Yeast Genetics and Molecular Biology, Slovakia, 1 - 04 September 2005, pp.236
20. **Çinko Toksisitesi ve Antioksidan Savunma Mekanizmaları Üzerine Çalışmalar**  
TARHAN Ç., PEKMEZ M., Topal SARIKAYA A.  
XIV. Ulusal Biyoteknoloji Kongresi, Eskişehir, Turkey, 1 - 04 September 2005, pp.322
21. **Mayada farklı ortam koşullarının süperoksit dismutaz aktivitesi üzerine etkileri.**  
TARHAN Ç., Topal SARIKAYA A.  
XIII. Biyoteknoloji Kongresi, Çanakkale, Turkey, 1 - 04 August 2003, pp.294
22. **The Schizosaccharomyces pombe LYS7 gene is involved in copper metabolism.**  
Sarıkaya A., TARHAN Ç.  
21st International Conference on Yeast Genetics and Molecular Biology, Gothenburg, Sweden, 7 - 12 July 2003, vol.20
23. **Mayada hücre üremesi ve süperoksit dismutaz aktivitesi üzerine bakırın etkileri.**  
TARHAN Ç., Topal SARIKAYA A.  
XVI. Ulusal Biyoloji Kongresi, Malatya, Turkey, 1 - 04 September 2002, pp.48
24. **Mayada ağır metal duyarlılığı üzerine pH'nın etkileri**

AKMAN G., KIĞ C., TARHAN Ç., YAVUZ İ., Topal SARIKAYA A.  
XII. Biyoteknoloji Kongresi, Balıkesir, Turkey, 1 - 04 September 2001, pp.132

### Memberships / Tasks in Scientific Organizations

Türk Mikrobiyoloji Derneği, Member, 2008 - Continues

### Entrepreneurship Activities

Limited, İNSİTOGEN BİYOTEKNOLOJİ ARAŞ.GELİŞ.DANIŞ SAN. VE DIŞ TİC.LTD.ŞTİ , 04 July 2012, Founder Owner