

## **Prof. Mahmut ÇALIŞKAN**

### **Personal Information**

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### **Education Information**

Post Doctorate, University of Leeds, Department Of Genetics, Genetik, United Kingdom 1997 - 1998

Doctorate, University of Leeds, Department Of Genetics, Genetik, United Kingdom 1993 - 1997

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Biology, Turkey 1987 - 1992

### **Foreign Languages**

English, C1 Advanced

### **Research Areas**

Life Sciences, Biotechnology, Molecular Biology and Genetics, Plant Molecular Genetics

### **Academic Titles / Tasks**

Professor, Istanbul University, Faculty of Science, Department of Biology, 2014 - Continues

Professor, Hatay Mustafa Kemal University, Fen Edebiyat Fakültesi, Biyoloji, 2006 - 2014

Associate Professor, Mustafa Kemal Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji, 2000 - 2005

Assistant Professor, Mustafa Kemal Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji, 1997 - 2000

Research Assistant, The University Of Leeds, Faculty Of Sciences, Department Of Genetics, 1993 - 1997

Research Assistant, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji, 1992 - 1993

### **Academic and Administrative Experience**

İstanbul Üniversitesi, Faculty of Science, Biyoteknoloji, 2019 - Continues

İstanbul Üniversitesi, Institute of Graduate Studies In Sciences, 2018 - Continues

Fakülte Yönetim Kurulu Üyesi, Istanbul University, Faculty Of Science, Department Of Biology, 2016 - 2021

Head of Department, Istanbul University, Faculty Of Science, Department Of Biology, 2015 - 2021

Fakülte Kurulu Üyesi, Istanbul University, Faculty Of Science, Department Of Biology, 2015 - 2021

Mustafa Kemal Üniversitesi, 1998 - 2014

Mustafa Kemal Üniversitesi, 2006 - 2009

Mustafa Kemal Üniversitesi, 2000 - 2006

Mustafa Kemal Üniversitesi, 1999 - 2002

## Courses

Yaşam II: Hücrelerden Organizmalara, Undergraduate, 2020 - 2021  
Bilimsel Araştırma Teknikleri ve yayın Etiği, Postgraduate, 2020 - 2021  
Yaşam I: Moleküllerden Hücrelere, Undergraduate, 2020 - 2021  
Genetics, Undergraduate, 2016 - 2017

## Advising Theses

Çalışkan M., Topçul M. R. , Gliotoksin'in Farklı Meme Kanseri Hücre Hatlarındaki Kinetik Etkilerinin Değerlendirilmesi, Postgraduate, G.ŞENOL(Student), 2020  
ÇALIŞKAN M., Determining the germin gene expression in auxin induced coleoptile growth, Postgraduate, Y.Fadhil(Student), 2018  
ÇALIŞKAN M., Verbascum pinetorum (Boiss.) O. Kuntze Bitki Ekstratının Antimikrobiyal ve Antioksidan Aktivitesinin Belirlenmesi, Postgraduate, M.Esen(Student), 2008

## Jury Memberships

Doctorate, Doktora Tez Savunma, Çeşitli Üniversiteler, June, 2008  
Associate Professor Exam, Doçentlik Sınav Jürisi, Çeşitli Üniversiteler, June, 2007  
Appointment Academic Staff, Akademik Kadroya Atama, Çeşitli Üniversiteler, June, 2001  
Post Graduate, Tez Savunma, Mustafa Kemal Üniversitesi, June, 2000

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Glu-370 in the large subunit influences the substrate binding, allosteric, and heat stability properties of potato ADP-glucose pyrophosphorylase**  
Seferoglu A. B. , Gul Ş., Dikbas U. M. , Baris I., Koper K., Caliskan M., Cevahir G., Kavakli I. H.  
PLANT SCIENCE, vol.252, pp.125-132, 2016 (Journal Indexed in SCI)
- II. **Phylogenetic Analysis and Characterization of Lipolytic Activity of Halophilic Archaeal Isolates**  
Ozcan B., Ozyilmaz G., Cihan A., Cokmus C., Caliskan M.  
MICROBIOLOGY, vol.81, no.2, pp.186-194, 2012 (Journal Indexed in SCI)
- III. **Isolation, Characterization and Phylogenetic Analysis of Halophilic Archaea from a Salt Mine in Central Anatolia (Turkey)**  
Yildiz E., Ozcan B., Caliskan M.  
POLISH JOURNAL OF MICROBIOLOGY, vol.61, no.2, pp.111-117, 2012 (Journal Indexed in SCI)
- IV. **GENETIC DIVERSITY IN PLANTS Preface**  
Caliskan M.  
GENETIC DIVERSITY IN PLANTS, 2012 (Journal Indexed in SCI)
- V. **GENETIC DIVERSITY IN MICROORGANISMS Preface**  
Caliskan M.  
GENETIC DIVERSITY IN MICROORGANISMS, 2012 (Journal Indexed in SCI)
- VI. **Antimicrobial and antioxidant activities of the various extracts of Verbascum pinetorum Boiss. O. Kuntze (Scrophulariaceae)**  
Ozcan B., Esen M., Caliskan M., Mothana R. A. , Cihan A. C. , Yolcu H.  
EUROPEAN REVIEW FOR MEDICAL AND PHARMACOLOGICAL SCIENCES, vol.15, no.8, pp.900-905, 2011 (Journal Indexed in SCI)

Indexed in SCI)

- VII. **The Roles of Germin Gene Products in Plants Under Salt Stress**  
Caliskan M.  
ABIOTIC STRESS RESPONSE IN PLANTS - PHYSIOLOGICAL, BIOCHEMICAL AND GENETIC PERSPECTIVES, pp.297-320, 2011 (Journal Indexed in SCI)
- VIII. **Antimicrobial and Antioxidant Activities of Various Extracts of *Verbascum antiochium* Boiss. (Scrophulariaceae)**  
Ozcan B., Yilmaz M., Caliskan M.  
JOURNAL OF MEDICINAL FOOD, vol.13, no.5, pp.1147-1152, 2010 (Journal Indexed in SCI)
- IX. **Effective antibacterial and antioxidant properties of methanolic extract of *Laurus nobilis* seed oil**  
Ozcan B., Esen M., Sangun M. K. , Coleri A., Caliskan M.  
JOURNAL OF ENVIRONMENTAL BIOLOGY, vol.31, no.5, pp.637-641, 2010 (Journal Indexed in SCI)
- X. **A plasma membrane H(+)-ATPase gene is germination-induced in wheat embryos**  
ÇALIŞKAN M., Bashiardes S., Cuming A. C.  
AFRICAN JOURNAL OF BIOTECHNOLOGY, vol.9, no.3, pp.268-272, 2010 (Journal Indexed in SCI)
- XI. **Characterization of extracellular esterase and lipase activities from five halophilic archaeal strains**  
Ozcan B., Ozyilmaz G., Cokmus C., Caliskan M.  
JOURNAL OF INDUSTRIAL MICROBIOLOGY & BIOTECHNOLOGY, vol.36, no.1, pp.105-110, 2009 (Journal Indexed in SCI)
- XII. **IN VITRO ANTIMICROBIAL AND ANTIOXIDANT ACTIVITIES OF VARIOUS EXTRACTS OF *Salvia microstegia* (BOISS.) ET. BAL. FROM ANTAKYA, TURKEY**  
Ozcan B., Esen M., Coleri A., Yolcu H., Caliskan M.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.18, pp.658-662, 2009 (Journal Indexed in SCI)
- XIII. **Salt stress causes a shift in the localization pattern of germin gene expression**  
ÇALIŞKAN M.  
GENETICS AND MOLECULAR RESEARCH, vol.8, no.4, pp.1250-1256, 2009 (Journal Indexed in SCI)
- XIV. **Genetic variation of Atlantic horse mackerel (*Trachurus trachurus*) in the Turkish waters**  
Turan C., Ozturk B., Caliskan M., DÜZGÜNEŞ E., Gurlek M., Yaglioglu D., Hazar D., Sevenler S.  
CAHIERS DE BIOLOGIE MARINE, vol.50, no.3, pp.207-213, 2009 (Journal Indexed in SCI)
- XV. **Comparison of chemical composition of the essential oil of *Laurus nobilis* L. leaves and fruits from different regions of Hatay, Turkey**  
Sangun M. K. , Aydin E., Timur M., Karadeniz H., Caliskan M., Ozkan A.  
JOURNAL OF ENVIRONMENTAL BIOLOGY, vol.28, no.4, pp.731-733, 2007 (Journal Indexed in SCI)
- XVI. **Characterization of extremely halophilic Archaea isolated from saline environment in different parts of Turkey**  
Ozcan B., Cokmus C., Coleri A., Caliskan M.  
MICROBIOLOGY, vol.75, no.6, pp.739-746, 2006 (Journal Indexed in SCI)
- XVII. **Isoenzyme variation in two allopatric populations of *Hedysarum pogonocarpum* Boiss. (Fabaceae), a Turkish endemic**  
ÇALIŞKAN M., Yavuz A., Aktoklu E.  
BIOCHEMICAL SYSTEMATICS AND ECOLOGY, vol.34, no.2, pp.119-126, 2006 (Journal Indexed in SCI)
- XVIII. **Phylogenetic relationships of nine mullet species (*Mugilidae*) in the Mediterranean Sea**  
Turan C., Caliskan M., Kucuktas H.  
HYDROBIOLOGIA, vol.532, pp.45-51, 2005 (Journal Indexed in SCI)
- XIX. **Localization of germin genes and their products in developing wheat coleoptiles**  
ÇALIŞKAN M., Ozcan B., Turan C., Cuming A.  
JOURNAL OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, vol.37, no.3, pp.339-342, 2004 (Journal Indexed in SCI)
- XX. **Formation of wheat (*Triticum aestivum* L.) embryogenic callus involves peroxide-generating germin-like oxalate oxidase**  
ÇALIŞKAN M., Turet M., Cuming A.  
PLANTA, vol.219, no.1, pp.132-140, 2004 (Journal Indexed in SCI)

- XXI. **Protective effect of clinoptilolite on lead toxicity in common carp *Cyprinus carpio***  
Tepe Y., Akyurt I., Ciminli C., Mutlu E., Caliskan M.  
FRESENIUS ENVIRONMENTAL BULLETIN, vol.13, no.7, pp.639-642, 2004 (Journal Indexed in SCI)
- XXII. **Identification of germin isoforms in wheat callus**  
ÇALIŞKAN M., Turet-Sayin M., Turan C., Cuming A.  
CEREAL RESEARCH COMMUNICATIONS, vol.32, no.3, pp.355-361, 2004 (Journal Indexed in SCI)
- XXIII. **Isolation and localization of new germination-related sequences from wheat embryos**  
ÇALIŞKAN M., Bashiardes S., Ozcan B., Cuming A.  
JOURNAL OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, vol.36, no.6, pp.580-585, 2003 (Journal Indexed in SCI)
- XXIV. **Spatial specificity of H<sub>2</sub>O<sub>2</sub>-generating oxalate oxidase gene expression during wheat embryo germination**  
Caliskan M., Cuming A.  
PLANT JOURNAL, vol.15, no.2, pp.165-171, 1998 (Journal Indexed in SCI)
- XXV. **Spatial specificity of H<sub>2</sub>O<sub>2</sub>-generating oxalate oxidase gene expression during wheat embryo development**  
Çalışkan M., Cuming A.  
Plant Journal, vol.15, pp.161-175, 1998 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **ORGANOSULFUR COMPOUNDS OF ALLIUM TUNCELIANUM (KOLLMANN) OZHATAY, B.MATHEW & ŞİRANECİ EXTRACTS BY SPME/GC-MS AND DETERMINING THEIR CYTOTOXIC EFFECT ON HELA CELLS**  
GERÇEK Y. C. , AKMAN G., MORGİL H., ÇALIŞKAN M., ÖZ G.  
International Journal of Advances in Science Engineering and Technology, vol.5, no.2, pp.53-58, 2017 (Refereed Journals of Other Institutions)
- II. **Investigation of the Mechanism of Physiological Tolerance in Lentil (*Lens culinaris Medik.*) Cultivars under Drought Stress Conditions**  
Çalışkan M., Öz G., Morgil Gerçek H., Gerçek Y. C.  
European Journal of Biology, pp.31-35, 2017 (International Refereed University Journal)
- III. **Investigation of Cytotoxic Effects of Some Novel Synthesized Iminothiazolidinone Derivatives on HeLa Cell Line (CCL2)**  
Tuğcu F., TOPÇUL M. R. , ÇETİN İ., ÜNLÜ Y. S. , GERÇEK Y. C. , MORGİL H., ÇALIŞKAN M., ÖZ G.  
IUFS JOURNAL OF BIOLOGY, vol.1, no.75, pp.15-33, 2016 (International Refereed University Journal)
- IV. **Genetic variation of Atlantic horse mackerel *Trachurus trachurus* in the Turkish waters**  
Çalışkan M., Turan C., Öztürk B., Düzgüneş E.  
Cahiers de Biologie Marine, pp.207-213, 2009 (Refereed Journals of Other Institutions)
- V. **Spatial localization of germin-like oxalate oxidase genes in developing wheat shoots**  
Çalışkan M., Özcan B., Cuming A., Turan C.  
Biotech & Biotech Equip, vol.1, pp.10-14, 2004 (Refereed Journals of Other Institutions)
- VI. **A novel application for determination of germin gene products in situ**  
Çalışkan M., Cuming A., Özcan B.  
Biotech & Biotech Equip, vol.2, pp.22-26, 2003 (Refereed Journals of Other Institutions)
- VII. **Apoptosis: programlanmış hücre ölümleri**  
ÇALIŞKAN M.  
TURKISH JOURNAL OF BIOLOGY, vol.24, pp.31-35, 2001 (Refereed Journals of Other Institutions)
- VIII. **In situ localization of germin gene expression during auxin induced callus formation**  
ÇALIŞKAN M.  
TURKISH JOURNAL OF BIOLOGY, vol.25, pp.387-396, 2001 (Refereed Journals of Other Institutions)
- IX. **Germin, an oxalate oxidase, has a function in many aspects of plant life**

- ÇALIŞKAN M.  
TURKISH JOURNAL OF BIOLOGY, vol.24, pp.717-724, 2000 (Refereed Journals of Other Institutions)
- X. **Germin-like oxalate oxidase activity increase in auxin-treated wheat coleoptiles**  
Çalışkan M., Cuming A.  
TURKISH JOURNAL OF BOTANY, vol.24, pp.329-335, 2000 (Refereed Journals of Other Institutions)
- XI. **Temporal and spatial determination of germin biosynthesis in wheat tissues**  
Çalışkan M., Cuming A.  
TURKISH JOURNAL OF BIOLOGY, vol.24, pp.775-782, 2000 (Refereed Journals of Other Institutions)
- XII. **The Metabolism of Oxalic acid**  
Çalışkan M.  
Turkish Journal Of Biology, vol.24, pp.103-106, 2000 (Refereed Journals of Other Institutions)
- XIII. **Monitoring of germin synthesis by pre-absorbed anti-germin serum**  
Çalışkan M., Cuming A.  
TURKISH JOURNAL OF BIOLOGY, vol.24, pp.271-278, 2000 (Refereed Journals of Other Institutions)

## **Books & Book Chapters**

- I. **The Recent Topics in Genetic Polymorphisms**  
Çalışkan M. (Editor), Öz G. (Editor), Erol O. (Editor)  
Intechopen Publication, London, 2020
- II. **Carbohydrate**  
Çalışkan M., Kavaklı İ. H. , Öz G.  
Intech Publication, Rijeka, 2017
- III. **Genetik Mühendisliği ve Biyoteknoloji**  
ÇALIŞKAN M.  
in: Brock Mikroorganizmaların Biyolojisi, Prof. Dr. Cumhuri Çökmüş, Editor, Palme Yayın Dağıtım, Ankara, pp.315-346, 2016
- IV. **Bacteria ve Archaea Genetiği**  
ÇALIŞKAN M.  
in: Brock Mikroorganizmaların Biyolojisi, Prof. Dr. Cumhuri Çökmüş, Editor, Palme Yayın Dağıtım, Ankara, pp.291-314, 2016
- V. **Molecular Approaches to Genetic Diversity**  
Çalışkan M., Öz G., Kavaklı İ. H. , Özcan B.  
Intech, Rijeka, 2015
- VI. **Genetic Diversity in Plants**  
Çalışkan M.  
Intech Publication, Rijeka, 2012
- VII. **The Molecular Basis of Plant Genetic Diversity**  
Çalışkan M.  
Intech Publication, Rijeka, 2012
- VIII. **Analysis of Genetic Variation in Animals**  
Çalışkan M.  
Intech Publication, London, 2012
- IX. **Genetic Diversity in Microorganisms**  
Çalışkan M.  
Intech Publication, Rijeka, 2012
- X. **The Roles of Germin Gene Products in Plants Under Salt Stress**  
ÇALIŞKAN M.  
in: Abiotic Stress Response in Plants - Physiological, Biochemical and Genetic Perspectives, Shanker A, Venkateswarlu B, Editor, Intech Publication, Rijeka, pp.297-319, 2011

## XI. Hücrelerin Dokulara Dönüşmesi

ÇALIŞKAN M.

in: Moleküler Hücre Biyolojisi, Geçkil H, Özmen M, Yeşilada Ö, Editor, Wh Bedford, Freeman & Worth Publishing Group, Ankara, pp.801-846, 2011

## XII. Evrim Modelleri

ÇALIŞKAN M.

in: Evrim, Kence A, Bozcuk AN, Editor, Sinauer Associates, Inc. , Ankara, pp.43-65, 2008

## Refereed Congress / Symposium Publications in Proceedings

### I. Thuja orientalis L. Bitkisinin Uçucu Yağ İçeriklerinin GC-MS ile Belirlenmesi

ÖZ G., ÇALIŞKAN M., GERÇEK Y. C. , Tuğcu T.

2. Ulusal botanik Kongresi, Afyon, Turkey, 25 - 28 August 2015, vol.1, no.1, pp.64

### II. Ticari Mısır Örneklerinde Genetiği Değiştirilmiş Ürünlerin Belirlenmesi

ÖZ G., Morgil H., Ünlü Y. S. , Barış D. İ. , ÇALIŞKAN M.

Ulusal Botanik Kongresi, İstanbul, Turkey, 25 - 28 October 2014, pp.19

## Supported Projects

ÇALIŞKAN M., MORGİL H., TOYDEMİR G., ÇAPANOĞLU GÜVEN E., ÖZ G., GERÇEK Y. C. , KARAMAN K., Project Supported by Higher Education Institutions, Giresun ve Çevresinde Yayılış Gösteren Kiraz Gen Kaynaklarının Fitokimyasal Analizleri Antioksidan Aktivitelerinin Tayin Edilmesi ve İn Vitro Biyoyararlılığının İncelenmesi, 2019 - Continues

ÇALIŞKAN M., ERKAN M. B. , TAŞÇI T., Project Supported by Higher Education Institutions, Embriyonik Fibroblast Hücrelerinde Arsenikle İndüklenmiş Genotoksik Ve Apoptotik Mekanizmalar Üzerine N-asetilsisteinin Etkileri, 2018 - Continues

ÇALIŞKAN M., AKKÜLAH ŞENOL G., Project Supported by Higher Education Institutions, Gliotoksin'in Farklı Meme Kanseri Hücre Hatlarındaki Kinetik Etkilerinin Değerlendirilmesi, 2019 - 2020

ÇALIŞKAN M., KAVAKLI H., ÖZ G., Project Supported by Higher Education Institutions, Carbohydrate, 2019 - 2019

ÖZ G., ÇALIŞKAN M., MORGİL H., GERÇEK Y. C. , KAVAKLI H., Project Supported by Higher Education Institutions, Kuraklık Stresi Altında Yetiştirilen Mercimek Lens culinaris Medik Bitkisinde Transkriptom (RNA-sek) Analizi, 2016 - 2018

ÖZ G., GERÇEK Y. C. , ÇALIŞKAN M., Project Supported by Higher Education Institutions, Glu370 in the large subunit influences the substrate bindingallosteric and heat stability properties of potato ADPglucosepyrophosphorylase, 2017 - 2017

ÇALIŞKAN M., TUBITAK Project, İmmobilize edilmiş halofilik arke izolatlarının hidrolitik enzim aktivitelerinin belirlenmesi, 2011 - 2012

ÇALIŞKAN M., TUBITAK Project, Mercimekte (Lens culinaris Medic.) nişasta sentezinde görev alan cDNA genlerinin izolasyonu ve karakterizasyonu, 2005 - 2008

ÇALIŞKAN M., TUBITAK Project, Oksalik asit metabolizmasının enzimatik, immünolojik ve moleküler genetik yöntemler ile araştırılması, 2005 - 2008

ÇALIŞKAN M., TUBITAK Project, Hatay bölgesindeki orak hücre anemili hastalarda MTHFR geninin C677T polimorfizminin araştırılması, 2006 - 2007

ÖZTÜRK B., ÇALIŞKAN M., TUBITAK Project, AKDENİZ, EGE, MARMARA VE KARADENİZ DE BULUNAN İSTAVRİT TÜRLERİ (TRACHURUS SPP.) POPULASYONLARININ GENETİK YAPI ANALİZİ VE FİLOGENETİK İLİŞKİLERİNİN BELİRLENMESİ, 2005 - 2007

ÇALIŞKAN M., TUBITAK Project, Türkiye'den izole edilen halofilik arkebakterilerin polar lipid profillerinin ve hücre morfolojilerinin belirlenmesi, 2005 - 2006

ÇALIŞKAN M., TUBITAK Project, Halofilik arkebakteri izolatlarının morfolojik özellikleri ve antibiyotiklere duyarlılıklarının belirlenmesi, 2004 - 2005

ÇALIŞKAN M., Other Supported Projects, Isolation of new germination related sequences from wheat embryos, 1994 -

1997

ÇALIŞKAN M., Other Supported Projects, Analysis of plasma membrane H<sup>+</sup>-ATPase gene expression during germination of wheat embryos, 1994 - 1997

## Activities in Scientific Journals

European Journal of Biology, Committee Member, 2015 - Continues

## Scientific Refereeing

European Journal of Biology, Other journals, May 2015

## Citations

Total Citations (WOS):417

h-index (WOS):11

## Scholarships

NATO B2 Yurt Dışı Doktora Sonrası Araştırma Bursu, TÜBİTAK, 2004 - 2004

Yurt Dışı Doktora Bursu, YOK, 1993 - 1998

## Awards

ÇALIŞKAN M., 2012 Yılı Bilimsel Yayın Ödülü, Mustafa Kemal Üniversitesi, June 2013

ÇALIŞKAN M., Kitap Çeviri Mansiyon Ödülü, TÜBA, July 2012

ÇALIŞKAN M., Kitap Çeviri Eser Ödülü, TÜBA, July 2011

ÇALIŞKAN M., Kitap Çeviri Eser Ödülü, TÜBA, July 2008

Çalışkan M., Yurt dışı araştırma desteği, Hatay Mustafa Kemal Üniversitesi,, June 2002

Çalışkan M., Yurd Dışı Bilimsel Toplantı Katılma Desteği, Tübitak, June 1999

## Artistic Activity

Çalışkan M., Bilimsel Görüntüleme teknikleri, Personal Exhibition, November 2017