

Prof. Ayten Karataş

Personal Information

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Address: İstanbul Teknik Üniversitesi, Fen Edebiyat Fakültesi, Moleküler Biyoloji ve Genetik Bölümü, Maslak, İstanbul

Education Information

Doctorate, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (YI) (Tezli), Turkey 1994 - 2000

Postgraduate, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (YI) (Tezli), Turkey 1991 - 1993

Undergraduate, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Biyolojik Bilimler Bölümü, Turkey 1986 - 1991

Foreign Languages

English

Dissertations

Doctorate, Molecular biology and genetics of dipeptide biosynthesis: The system is an essential component of quorum-sensing global regulation, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (YI) (Tezli), 2000

Postgraduate, Studies on heavy metal resistance system and accumulation of metals in *Kluyveromyces marxianus*, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Biyoteknoloji (YI) (Tezli), 1993

Research Areas

Life Sciences, Biotechnology, Environmental Biotechnology, Microbial Biotechnology, Microbiology, Bacteriology, Molecular Biology and Genetics, Microbial Genetics, Natural Sciences

Academic Titles / Tasks

Professor, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2013 - Continues
Associate Professor, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2008 - 2013

Assistant Professor, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2002 - 2007

Research Assistant, Orta Doğu Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Biyolojik Bilimler Bölümü, 1993 - 2001

Academic and Administrative Experience

İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, 2016 - Continues

İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, 2006 - 2008

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

- I. **A functional coating to enhance antibacterial and bioactivity properties of titanium implants and its performance in vitro**
Doymus B., Kerem G., Yazgan Karatas A., K k F. N. ,  NDER S.
JOURNAL OF BIOMATERIALS APPLICATIONS, vol.35, no.6, pp.655-669, 2021 (Journal Indexed in SCI)
- II. **Rapid and sensitive detection of Salmonella spp. in raw minced meat samples using droplet digital PCR**
Oz Y. Y. , Sonmez O. I. , Karaman S.,  Z E., Unal C. B. , Karatař A.
EUROPEAN FOOD RESEARCH AND TECHNOLOGY, vol.246, no.10, pp.1895-1907, 2020 (Journal Indexed in SCI)
- III. **Analysis of a bac operon-silenced strain suggests pleiotropic effects of bacilysin in Bacillus subtilis**
ERTEKİN O., Kutnu M., Taskin A. A. , Demir M., Karatař A.,  ZCENGİZ G.
JOURNAL OF MICROBIOLOGY, vol.58, no.4, pp.297-313, 2020 (Journal Indexed in SCI)
- IV. **Elimination of antibiotic resistance in treated urban wastewater by iron-based advanced oxidation processes**
Alaton İ., Karatas A., Pehlivan  ., Hanci T.
DESALINATION AND WATER TREATMENT, vol.172, pp.235-253, 2019 (Journal Indexed in SCI)
- V. **Bacterial cellulose-reinforced boron-doped hydroxyapatite/gelatin scaffolds for bone tissue engineering**
Atila D., Karatař A., Evcin A., KESKİN D., TEZCANER A.
CELLULOSE, vol.26, no.18, pp.9765-9785, 2019 (Journal Indexed in SCI)
- VI. **Diatom shell incorporated PHBV/PCL-pullulan co-electrospun scaffold for bone tissue engineering**
DALGIÇ A. D. , Atila D., Karatař A., TEZCANER A., KESKİN D.
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.100, pp.735-746, 2019 (Journal Indexed in SCI)
- VII. **Heterologous expression and characterization of a high redox potential laccase from Coriolopsis polyzona MUCL 38443**
Pinar O., Tamerler C., Karatař A.
TURKISH JOURNAL OF BIOLOGY, vol.41, no.2, pp.278-292, 2017 (Journal Indexed in SCI Expanded)
- VIII. **Enterobacter Strains Might Promote Colon Cancer**
Yurdakul D., YAZGAN-KARATAS A., Sahin F.
CURRENT MICROBIOLOGY, vol.71, no.3, pp.403-411, 2015 (Journal Indexed in SCI)
- IX. **In Bacillus subtilis lutR is part of the global complex regulatory network governing the adaptation to the transition from exponential growth to stationary phase**
İrig l  ., Korođlu T.,  zt rk B., AT K., OP K., Karatař A.
MICROBIOLOGY-SGM, vol.160, pp.243-260, 2014 (Journal Indexed in SSCI)
- X. **Tailoring Fluorescence Signatures of GFP-Nanoparticle Complexes**
Y CA E., Hnilova M., Karatař A., Tamerler C.
NEW BIOTECHNOLOGY, vol.29, 2012 (Journal Indexed in SCI)
- XI. **Multifunctional protein enabled patterning on arrayed ferroelectric material**
Hnilova M., Xiaoyan L., Y CA E., Jia C., Gresswell C., Wilson B., Karatař A., Kitamura K., Ohuchi F., Tamerler C.
ACS Appl Mater Interfaces, vol.4, no.4, pp.1865-1871, 2012 (Journal Indexed in SSCI)
- XII. **The novel gene yvfI in Bacillus subtilis is essential for bacilysin biosynthesis**
Koroglu T. E. , KURT-GUR G., UNLU E. C. , YAZGAN-KARATAS A.
ANTONIE VAN LEEUWENHOEK INTERNATIONAL JOURNAL OF GENERAL AND MOLECULAR MICROBIOLOGY, vol.94, no.3, pp.471-479, 2008 (Journal Indexed in SCI)
- XIII. **Sporulation specific expression of the yvgW cadA gene and the effect of blockage on spore properties in Bacillus subtilis**
 yk  İ., Karatař A.
GENE, vol.382, pp.71-78, 2006 (Journal Indexed in SSCI)
- XIV. **The effects of insertional mutations in ComQ comP srfA spo0H spo0A and abrB genes on bacilysin**

biosynthesis in *Bacillus subtilis*

Karataş A., Çetin S., ÖZCENGİZ G.

BBA- gene structure and function, vol.1626, pp.51-56, 2003 (Journal Indexed in SSCI)

XV. **Bacilysin biosynthesis by a partially purified enzyme fraction from *B. subtilis***

Karataş A., ÖZCENGİZ G., Erkan Ö., KILINÇ K., Mohamed A M., N Gürdal A.

Enzyme Microb Tech, vol.29, pp.400-406, 2001 (Journal Indexed in SSCI)

XVI. **Tn10 insertional mutations of *Bacillus subtilis* that block the biosynthesis of bacilysin**

Yazgan A., ÖZCENGİZ G., MARAHIEL M.

BIOCHIMICA ET BIOPHYSICA ACTA-GENE STRUCTURE AND EXPRESSION, vol.1518, pp.87-94, 2001 (Journal Indexed in SCI)

XVII. **Multiple drug resistance patterns and plasmid profiles of non typhi *Salmonellae* in Turkey**

Karataş A.

Epidemiol Infect, vol.121, pp.303-330, 1998 (Journal Indexed in SSCI)

XVIII. **SUBCELLULAR-DISTRIBUTION OF ACCUMULATED HEAVY-METALS IN *SACCHAROMYCES-CEREVISIAE* AND *KLUYVEROMYCES-MARXIANUS***

YAZGAN A., ÖZCENGİZ G.

BIOTECHNOLOGY LETTERS, vol.16, no.8, pp.871-874, 1994 (Journal Indexed in SCI)

XIX. **STUDIES ON METAL RESISTANCE SYSTEM IN *KLUYVEROMYCES-MARXIANUS***

YAZGAN A., ÖZCENGİZ G., ALAEDDINOĞLU N.

BIOLOGICAL TRACE ELEMENT RESEARCH, vol.38, no.2, pp.117-127, 1993 (Journal Indexed in SCI)

Supported Projects

Arslan Alaton İ., Karataş A., Ölmez Hancı T., Project Supported by Higher Education Institutions, Kentsel Nitelikli Atkısularda Antibiyotik Direncinin Demir Bazlı Homojen ve Heterojen İleri Oksidasyon Prosesleri ile Kontrolü, 2018 - 2019

Karataş A., Project Supported by Higher Education Institutions, *B. subtilis*'de Olgunlaşmış Biyofilm Yapısında Basilisin Üreten Hücrelerin Belirlenmesi, 2017 - 2019

Karataş A., Project Supported by Higher Education Institutions, Enzimatik Uygulamalar ile Tekstil Boya Giderimi, 2016 - 2018

Karataş A., Project Supported by Higher Education Institutions, *B. subtilis*'de Transkripsiyonel Faktör SinR'nin Basilisin Biyosentetik Operonu Üzerine Etkisi, 2016 - 2018

Karataş A., Project Supported by Higher Education Institutions, *Corioliopsis polyzona* Cplcc3 Lakkazına ait tam boy cDNA'nın elde edilmesi ve maya ekspresyon vektörüne klonlanması, 2016 - 2018

Karataş A., Project Supported by Higher Education Institutions, REGULATORY EFFECTS OF COMA AND SPOOA PROTEINS ON THE LUTR EXPRESSION IN *B. SUBTILIS*, 2015 - 2018

Karataş A., Project Supported by Higher Education Institutions, *Bacillus Subtilis* Biyofilm Oluşumunda, GntR Tip Transkripsiyonel Faktör Lutr In Regülasyonel Rolü, 2014 - 2018

Karataş A., Project Supported by Higher Education Institutions, Complex Regulatory Systems Operating in Bacilysin Biosynthesis in *Subtilis*, 2012 - 2018

Karataş A., Project Supported by Higher Education Institutions, *B. SUBTILIS* TE PHR PEPTİTLERİNİN YVFL GEN EKSPRESYONU ÜZERİNE OLAN ETKİLERİ, 2010 - 2018

Karataş A., Project Supported by Higher Education Institutions, *Corioliopsis Polyzona*'dan Lakkaz Cdna'larının Klonlanması, *Pichia Pastoris* Suşunda İfade Edilmesi ve Rekombinant Lakkazların Karakterizasyonu, 2012 - 2017

Karataş A., Project Supported by Higher Education Institutions, *Corioliopsis polyzona* MUCL 38443 Suşunda, tam boy Cplcc2 Lakkaz cDNA'sının izolasyonu ve *Pichia pastoris* ekspresyon vektörüne klonlanması, 2015 - 2016

Karataş A., Project Supported by Higher Education Institutions, *Bacillus Subtilis*'te Yvfl Transkripsiyonel Faktörünün Direkt Kontrollü Altındaki Genlerin EMSA ve Kromatin İmmünoprecipitation Metodu İle Belirlenmesi, 2011 - 2015

Karataş A., Project Supported by Higher Education Institutions, *Enterobacter* Grubu Mikroorganizmaların Kolon Kanseri Kanseri Üzerindeki Etkileşimlerinin Araştırılması, 2010 - 2015

Karataş A., Project Supported by Higher Education Institutions, Pycnoporus Sanguineus MUCL 38531 suşunda Lakkaz Kodlayan IccI Geni Üzerinde Gerçekleştirilen Nokta Mutasyon Çalışmaları, 2013 - 2013

Karataş A., Project Supported by Higher Education Institutions, Basilisinin Bacillus Subtilis Saf Suşu 3610 Üzerine Etkileri, 2011 - 2013

Karataş A., Project Supported by Higher Education Institutions, Titanyum İmplant Malzemelerin Biyolojik Aktivitelerinde Pepitlerin Bağlayıcı Olarak Kullanılması, 2010 - 2012

Karataş A., Project Supported by Higher Education Institutions, B. Subtilis'de comK geninin bacA yvfH ile yvfl gen ekspresyonları Üzerindeki Düzenleyici Mekanizmasının belirlenmesi, 2010 - 2012

Karataş A., Project Supported by Higher Education Institutions, Electrophoretic Mobility shift Assay" bMetodu İle , ywfH geni üzerindeki Hlobal regülasyon Mekanizmasının belirlenmesi, 2010 - 2012

Karataş A., Project Supported by Higher Education Institutions, B.Subtilis'de yvfl Geninin Genom Ölçeğinde Analizi, 2009 - 2012

Karataş A., Project Supported by Higher Education Institutions, B.Subtilis'de Dipeptid Basilisin Biyosentezinin Genom Ölçeğinde Analizi, 2009 - 2012

Karataş A., Project Supported by Higher Education Institutions, Bacillus Suntilis'te bacA Mutant Sporların Karakterizasyonu, 2010 - 2011

Karataş A., Project Supported by Higher Education Institutions, BACİLLUS SUBTİLİS'TE YVFL MUTANT SPORLARIN KARAKTERİZAASYONU, 2010 - 2011

Karataş A., Project Supported by Higher Education Institutions, TN10 Manganez Metodu ile Bacilysin Biyosentezi ile İlgili Tüm Genlerin Belirlenmesi, 2004 - 2008

Activities in Scientific Journals

Turkish Journal Of Biology, Editor, 2018 - 2018

Turkish Journal of Biology, Editor, 2011 - 2011

Scientific Refereeing

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Istanbul Technical University, Turkey, September 2020

TUBITAK Project, March 2019

TUBITAK Project, March 2019

TUBITAK Project, August 2018

TUBITAK Project, August 2018

TUBITAK Project, April 2018

TUBITAK Project, March 2018

TUBITAK Project, March 2018

TUBITAK Project, February 2018

TUBITAK Project, October 2017

TUBITAK Project, August 2017

TUBITAK Project, August 2017

TUBITAK Project, June 2017

TUBITAK Project, June 2017

Applied Microbiology and Biotechnology, SCI Journal, May 2017

TUBITAK Project, May 2017

TUBITAK Project, April 2017

TUBITAK Project, August 2016

August 2016

TUBITAK Project, August 2016

August 2016

TUBITAK Project, June 2016

TUBITAK Project, April 2016

TUBITAK Project, June 2015

TUBITAK Project, April 2015

TUBITAK Project, August 2009

TUBITAK Project, August 2009

Scientific Consultations

IONTEK İlaç Biyoteknoloji Ürünleri, Scientific Consultancy, İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Moleküler Biyoloji Ve Genetik Bölümü, Turkey, 2014 - 2015

Citations

Total Citations (WOS):70

h-index (WOS):4