

Assoc. Prof. MERT KARAOĞLAN

Personal Information

Office Phone: [+90 446 224 0088](tel:+904462240088)

Email: mert.karaoglan@erzincan.edu.tr

Web: <https://avesis.ebyu.edu.tr/mert.karaoglan>

Address: Erzincan Üniversitesi Mühendislik-Mimarlık Fakültesi Gıda Mühendisliği Bölümü, Yalnızbağ Yerleşkesi ERZİNCAN

International Researcher IDs

ORCID: 0000-0002-8280-3282

Publons / Web Of Science ResearcherID: GUH-2477-2022

ScopusID: 54796629800

Yoksis Researcher ID: 257508

Education Information

Doctorate, Akdeniz University, Institute Of Science, Gıda Mühendisliği Abd, Turkey 2012 - 2016

Postgraduate, Akdeniz University, Institute Of Science, Gıda Mühendisliği Abd, Turkey 2010 - 2012

Undergraduate, Akdeniz University, Faculty Of Engineering, Department Of Food Engineering, Turkey 2005 - 2010

Dissertations

Doctorate, Pichia Pastoris Etanol Metabolizması Üzerine Çalışmalar, Akdeniz University, Faculty Of Engineering, Department Of Food Engineering, 2016

Postgraduate, Pichia Pastoris Alkol Oksidaz (AOX1 ve AOX2) Genlerinin İnaktif Edilmesi ve Elde Edilen Suşun Rekombinant Protein Üretiminde Kullanılması, Akdeniz University, Faculty Of Engineering, Department Of Food Engineering, 2012

Research Areas

Food Engineering, Life Sciences, Biotechnology, Bioreactor, Microbial Biotechnology, Molecular Biology and Genetics

Academic Titles / Tasks

Associate Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Gıda Mühendisliği Bölümü, 2024
- Continues

Assistant Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Gıda Mühendisliği Bölümü, 2018
- Continues

Assistant Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Gıda Mühendisliği Bölümü, 2016
- 2018

Academic and Administrative Experience

Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi, Erzincan Binali Yildirim University, Mühendislik-Mimarlık

Fakültesi, Gıda Mühendisliği Bölümü, 2021 - Continues

Deputy Head of Department, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Gıda Mühendisliği Bölümü, 2021 - Continues

Rectorate Commissioner, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Gıda Mühendisliği Bölümü, 2021 - Continues

Bölüm Akademik Teşvik Değerlendirme Komisyonu Üyesi, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Gıda Mühendisliği Bölümü, 2020 - Continues

Assistant Director of the Institute, Erzincan Binali Yildirim University, Fen Bilimleri Enstitüsü, 2018 - 2020

Courses

Biyoteknolojide Ayırma ve Saflaştırma Yöntemleri, Postgraduate, 2020 - 2021, 2019 - 2020

Maya ve Küf Mantarlarının Endüstriyel Biyoteknolojisi, Postgraduate, 2020 - 2021, 2019 - 2020

Genel Mikrobiyoloji, Undergraduate, 2021 - 2022, 2020 - 2021

Besin Ögesi Etkileşimi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Besin Mikrobiyolojisi, Undergraduate, 2020 - 2021, 2019 - 2020

Gıda Endüstrisinde Enzim Uygulamaları, Postgraduate, 2021 - 2022

Prebiyotik ve Probiyotik Mikroorganizmalar, Postgraduate, 2020 - 2021

Moleküler Biyoteknoloji, Postgraduate, 2019 - 2020

Hijyen ve Sanitasyon, Associate Degree, 2017 - 2018

Jury Memberships

Doctoral Examination, Doctoral Examination, Akdeniz Üniversitesi, January, 2022

Doctoral Examination, Doctoral Examination, Akdeniz Üniversitesi, January, 2022

Doctoral Examination, Doctoral Examination, Akdeniz Üniversitesi, July, 2020

Post Graduate, Post Graduate, Atatürk Üniversitesi, June, 2020

Doctorate, Nour Ben BADER'in Doktora Tez Savunması, Akdeniz Üniversitesi, December, 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Isolation and Characterization of Lytic Bacteriophages Specific to Foodborne Pathogenic *Pseudomonas aeruginosa* and Use as a Biopreservative in Chicken Meat**
YILMAZ N., Yildirim Z., Sahin T. S., KARAOĞLAN M.
Food and Bioprocess Technology, 2024 (SCI-Expanded)
- II. **Alternative secretory signal sequences for recombinant protein production in *Pichia pastoris***
KARAOĞLAN M.
Enzyme and Microbial Technology, vol.168, 2023 (SCI-Expanded)
- III. **Improvement of recombinant L-Asparaginase production in *Pichia pastoris***
ERDEN KARAOĞLAN F., KARAOĞLAN M.
3 Biotech, vol.13, no.5, 2023 (SCI-Expanded)
- IV. **Applicability of the heterologous yeast promoters for recombinant protein production in *Pichia pastoris***
Erden Karaoğlan F., Karaoğlan M.
Applied Microbiology and Biotechnology, vol.106, no.21, pp.7073-7083, 2022 (SCI-Expanded)
- V. **Deletion analysis of *Pichia pastoris* alcohol dehydrogenase 2 (ADH2) promoter and development of synthetic promoters.**
ERDEN KARAOĞLAN F., KARAOĞLAN M., Yılmaz G., Yılmaz S., İNAN M.

Biotechnology journal, vol.17, no.2, 2022 (SCI-Expanded)

- VI. **Partial purification and characterization of a recombinant beta-mannanase from *Aspergillus fumigatus* expressed in *Aspergillus sojae* grown on carob extract**
Karahalil E., Germec M., Karaođlan M., Yatmaz E., Coban H. B., İnan M., Turhan İ.
BIOMASS CONVERSION AND BIOREFINERY, vol.10, no.4, pp.1189-1205, 2020 (SCI-Expanded)
- VII. **Effect of codon optimization and promoter choice on recombinant endo-polygalacturonase production in *Pichia pastoris***
KARAOĐLAN M., ERDEN KARAOĐLAN F.
ENZYME AND MICROBIAL TECHNOLOGY, vol.139, 2020 (SCI-Expanded)
- VIII. **Identification of major ADH genes in ethanol metabolism of *Pichia pastoris***
Karaoglan M., Erden-Karaoglan F., Yilmaz S., İNAN M.
Yeast, vol.37, no.2, pp.227-236, 2020 (SCI-Expanded)
- IX. **Cloning and expression of pullulanase from *Bacillus subtilis* BK07 and PY22 in *Pichia pastoris***
ERDEN KARAOĐLAN F., KARAKAŞ BUDAK B., KARAOĐLAN M., İNAN M.
PROTEIN EXPRESSION AND PURIFICATION, vol.162, pp.83-88, 2019 (SCI-Expanded)
- X. **Comparison of ADH3 promoter with commonly used promoters for recombinant protein production in *Pichia pastoris***
Karaoglan M., Karaoglan F. E., İNAN M.
PROTEIN EXPRESSION AND PURIFICATION, vol.121, pp.112-117, 2016 (SCI-Expanded)
- XI. **Functional analysis of alcohol dehydrogenase (ADH) genes in *Pichia pastoris***
Karaoglan M., Karaoglan F. E., İNAN M.
BIOTECHNOLOGY LETTERS, vol.38, no.3, pp.463-469, 2016 (SCI-Expanded)
- XII. **Screening of signal sequences for extracellular production of *Aspergillus niger* xylanase in *Pichia pastoris***
Karaoglan M., Yildiz H., İnan M.
Biochemical Engineering Journal, vol.92, pp.16-21, 2014 (SCI-Expanded)
- XIII. **Effects of Baking and Boiling on the Nutritional and Antioxidant Properties of Sweet Potato [*Ipomoea batatas* (L.) Lam.] Cultivars**
DİNÇER C., Karaoglan M., Erden F., Tetik N., TOPUZ A., ÖZDEMİR F.
PLANT FOODS FOR HUMAN NUTRITION, vol.66, no.4, pp.341-347, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Enhanced Production and Therapeutic Evaluation of TP4 Peptide in *Pichia pastoris* Against Hepatocellular Carcinoma HUH-7 Cells**
KILINÇ S., KARAOĐLAN M., KUZUCU M.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 2024 (Peer-Reviewed Journal)
- II. **Bakteriyel Kaynaklı Lipaz Geninin *Pichia pastoris*'te Klonlanması, Ekspresyonu ve Rekombinant Enzimin Saflaştırılması**
Erden Karaođlan F., Karaoglan M.
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.4, pp.2209-2222, 2022 (Peer-Reviewed Journal)
- III. **Extracellular Production and Purification of the β -glucanase in *Pichia pastoris* Expression System**
Karaođlan M., Erden Karaođlan F.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.14, no.2, pp.620-630, 2021 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Mikrobiyal Gelişim ve Beslenme**
İNAN M., KARAOĐLAN M., ERDEN F., YILMAZ S.

in: Endüstriyel Mikrobiyolojiye Giriş, Turhan İ, Editor, Palme Yayın Dağıtım, Ankara, pp.21-45, 2015

II. Mikrobiyal Metabolizma

İNAN M., ERDEN F., YILMAZ S., KARAOĞLAN M.

in: Endüstriyel Mikrobiyolojiye Giriş, Turhan İ, Editor, Palme Yayın Dağıtım, Ankara, pp.46-74, 2015

III. Mikrobiyal Hücre Yapısı ve Fonksiyonu

İNAN M., YILMAZ S., KARAOĞLAN M., ERDEN F.

in: Endüstriyel Mikrobiyolojiye Giriş, Turhan İ, Editor, Palme Yayın Dağıtım, Ankara, pp.5-20, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. Development of Synthetic Pichia pastoris Alcohol Dehydrogenase (ADH) Promoters**
Erden Karaoğlan F., Karaoğlan M., Yılmaz G., İnan M.
The 35th International Specialized Symposium on Yeasts, Antalya, Turkey, 21 - 25 October 2019, pp.45
- II. Evaluation and Characterization of Heterologous Yeast Promoters in Pichia pastoris for Recombinant Protein Production**
Erden Karaoğlan F., Karaoğlan M.
5 th European Conference on Science, Art Culture, Ankara, Turkey, 28 - 29 September 2019, pp.1
- III. Recombinant Production of Chitin Deacetylase (CDA) in Pichia Pastoris**
Karaoğlan M., Erden Karaoğlan F.
5th EUROPEAN CONFERENCE ON SCIENCE ART & CULTURE, Ankara, Turkey, 28 - 29 September 2019, pp.80
- IV. Expression of Full-Length and Mature -Amylase from Bacillus sp. in P. pastoris and Characterization of the Recombinant Enzyme**
Karaoğlan M., Erden Karaoğlan F.
INTERNATIONAL CONFERENCE ON AGRONOMY AND FOOD SCIENCE & TECHNOLOGY, İstanbul, Turkey, 20 - 21 June 2019, pp.367
- V. Heterologous Expression of Aspergillus niger Pectinase Gene in Pichia pastoris and its characterization**
Karaoğlan M., Erden Karaoğlan F.
INTERNATIONAL CONFERENCE ON AGRONOMY AND FOOD SCIENCE & TECHNOLOGY, İstanbul, Turkey, 20 - 21 June 2019, vol.1, no.1, pp.262
- VI. Metabolic Engineering of Pichia pastoris for Lactic Acid Production**
Ayas F., Karaoglan M., Inan M.
Pichia 2016, Antalya, Turkey, 3 - 06 April 2016, vol.1, no.1, pp.52
- VII. Characterization of ethanol metabolism genes in Pichia pastoris**
KARAOGLAN M., ERDEN KARAOGLAN F., INAN M.
Pichia 2016, Antalya, Turkey, 3 - 06 April 2016, vol.1, no.1, pp.16
- VIII. Cloning and Expression of Pullulanase from Bacillus subtilis BK07 and PY22 in Pichia pastoris**
Erden Karaoğlan F., Karaoğlan M., Inan M., Karakaş B.
Pichia 2016, Antalya, Turkey, 3 - 06 April 2016, pp.55
- IX. Microbial Mannanase Production with Different Fermentation Methods And Characterization Of Enzyme-Produced**
Yatmaz E., Turhan İ, Karaoğlan M., Inan M., Karahalil E., Germeç M.
Northeast Agricultural & Biological Engineering Conference, Delaware, United States Of America, 12 - 15 July 2015, vol.1, no.1, pp.2
- X. Large scale protein production process with Pichia pastoris ADH3 promoter**
Karaoglan M., Erden Karaoglan F., Inan M.
8th Conference on Recombinant Protein Production RPP8, Palma, Spain, 22 - 24 April 2015, vol.1, no.1, pp.82
- XI. Utilization of Alcohol Dehydrogenase (ADH3) Promoter for Recombinant Protein Expression in Pichia pastoris**
Karaoglan M., Erden F., Turhan I, Inan M.

European Biotechnology Congress 2014, Lecce, Italy, 15 - 18 May 2014, vol.1, no.1, pp.1

- XII. **Identification and Characterization of Alcohol dehydrogenase genes in Pichia pastoris**
INAN M., KARAOĞLAN M., ERDEN F.
Pichia 2014, Protein Expression Conference, San Diego, California, United States Of America, 2 - 05 March 2014, vol.1, no.1, pp.42
- XIII. **Functional Characterization of ADH genes from Pichia pastoris**
Karaoglan M., Erden F., Inan M.
VI. th International Bioengineering Congress "Human Welfare, Aydın, Turkey, 12 - 15 November 2013, vol.1, no.1, pp.75
- XIV. **Development of Alcohol Oxidase (AOX) Defective Strains of Pichia pastoris for Recombinant Protein Production**
Karaoglan M., Inan M.
VI. th International Bioengineering Congress "Human Welfare, Aydın, Turkey, 12 - 15 November 2013, vol.1, no.1, pp.74
- XV. **Development of Pichia pastoris host strain for recombinant protein production**
INAN M., KARAOĞLAN M., YILMAZ S.
VI. th International Bioengineering Congress "Human Welfare, Aydın, Turkey, 12 - 15 November 2013, vol.1, no.1, pp.42
- XVI. **Screening of Signal Sequences for Extracellular Production of A. niger Xylanase in Pichia pastoris**
Yıldız H., Karaoglan M., Inan M.
VI. th International Bioengineering Congress "Human Welfare, Aydın, Turkey, 12 - 15 November 2013, vol.1, no.1, pp.73
- XVII. **Characterization of methanol expression regulatory protein (Mxr2) of Pichia pastoris**
Inan M., Karaoglan M.
26th International Conference on Yeast Genetics and Molecular Biology, Frankfurt, Germany, 29 August - 03 September 2013, vol.1, no.2, pp.106

Supported Projects

KARAOĞLAN M., ERDEN KARAOĞLAN F., Project Supported by Higher Education Institutions, Pichia pastoris Mayasında Rekombinant Thaumatin Üretimi Kolon Kromatografisi ile Saflaştırılması ve Karakterizasyonu, 2022 - Continues

Karaoğlan M., Erden Karaoğlan F., TUBITAK Project, D-Galakturonik Asitin Biyoteknoloji Alanında Katma Değeri Yüksek Ürün Üretiminde Kullanım İmkanlarının Araştırılması, 2022 - 2025

Karaoğlan M., Erden Karaoğlan F., TUBITAK Project, Pichia pastoris aldehit dehidrogenaz (ALD) genlerinin karakterizasyonu ve asetat metabolizmasındaki rollerinin araştırılması, 2019 - 2023

KARAOĞLAN M., ERDEN KARAOĞLAN F., Project Supported by Higher Education Institutions, Pichia pastorişte rekombinant Liçenaz Üretimi ve Saflaştırılması, 2019 - 2023

ERDEN KARAOĞLAN F., KARAOĞLAN M., Project Supported by Higher Education Institutions, Lipaz enziminin Pichia pastoris Ekspresyon Sisteminde Rekombinant Üretimi Saflaştırılması ve Karakterizasyonu, 2019 - 2023

ERDEN KARAOĞLAN F., KARAOĞLAN M., Project Supported by Higher Education Institutions, Rhizomucor miehei L-Asparaginaz Enziminin P pastoris'te Rekombinant Üretimi, 2017 - 2020

Erden Karaoğlan F., Karaoğlan M., TUBITAK Project, Heterolog Maya Promotorlarının Pichia pastoris ile Rekombinant Protein Üretiminde Değerlendirilmesi ve Karakterizasyonu, 2017 - 2019

KARAOĞLAN M., ERDEN KARAOĞLAN F., ÇANKAYA M., KUZUCU M., Project Supported by Higher Education Institutions, Pichia pastoris Mayasında Rekombinant Pektinaz Üretimi ve Enzimin Karakterizasyonu, 2017 - 2019

ERTUGAY M. F., ERDEN KARAOĞLAN F., AYGÜN T., KARAOĞLAN M., ŞAHİN Ö., Project Supported by Higher Education Institutions, Gıda Mühendisliği Bölümü Öğrenci Laboratuvarı Altyapı Projesi, 2017 - 2019

İnan M., TUBITAK Project, Pichia Pastoris Alkol Dehidrogenaz Genlerinin Karakterizasyonu ve Rekombinant Protein Üretiminde Kullanılması, 2012 - 2015

Karaoğlan M., İnan M., Project Supported by Higher Education Institutions, Pichia Pastoris Alkol Oksidaz (Aox1 Ve Aox2)

Genlerinin İnaktif Edilmesi Ve Elde Edilen Suşun Rekombinant Protein Üretiminde Kullanılması, 2011 - 2012

Patent

İnan M., Karaoğlan M., Erden Karaoğlan F., Determination of regulatory DNA regions of alcohol dehydrogenase 3 (ADH3) promoter and design of synthetic promoters for recombinant protein production, Patent, CHAPTER A Human Needs, The Invention Registration Number: US11643663B2 , Standard Registration, 2023

Activities in Scientific Journals

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Committee Member, 2021 - Continues

Memberships / Tasks in Scientific Organizations

KOSGEB, Member of Science Committee, 2021 - Continues, Turkey

Scientific Refereeing

BIOTECH STUDIES, National Scientific Refreed Journal, August 2022

MEDİTERRANEAN AGRICULTURAL SCIENCES (AKDENİZ ÜNİVERSİTESİ ZİRAAT FAKÜLTESİ DERGİSİ), National Scientific Refreed Journal, April 2022

HACETTEPE JOURNAL OF BIOLOGY AND CHEMİSTRY, National Scientific Refreed Journal, July 2020

American Journal of Biochemistry and Biotechnology, Other Indexed Journal, January 2018

American Journal of Biochemistry and Biotechnology, Other Indexed Journal, January 2017

American Journal of Biochemistry and Biotechnology, Other Indexed Journal, January 2016

Journal of Microbial & Biochemical Technology, Other Indexed Journal, August 2015

Tasks In Event Organizations

İnan M., Karaoğlan M., Erden Karaoğlan F., Karakaş Budak B., Pichia 2016 Conference, Scientific Congress, Antalya, Turkey, Nisan 2016

Metrics

Publication: 36

Citation (WoS): 78

Citation (Scopus): 172

H-Index (WoS): 5

H-Index (Scopus): 7

Congress and Symposium Activities

5 th European Conference on Science, Art Culture, Attendee, Ankara, Turkey, 2019

INTERNATIONAL CONFERENCE ON AGRONOMY AND FOOD SCIENCE & TECHNOLOGY, Attendee, İstanbul, Turkey, 2019

Pichia 2016, Attendee, Antalya, Turkey, 2016

European Biotechnology Congress 2014, Attendee, Italy, 2014

VI. th International Bioengineering Congress "Human Welfare, Attendee, Aydın, Turkey, 2013

Scholarships

BİDEB-2211-Yurtiçi Doktora Bursu, TÜBİTAK, 2012 - 2016