

## Assoc. Prof. HASAN BUĞRA ÇOBAN

### Personal Information

Office Phone: [+90 412 286 52](tel:+9041228652)

Email: [bugra.coban@deu.edu.tr](mailto:bugra.coban@deu.edu.tr)

Web: [https://İzmir Uluslararası Biyotıp ve Genom Enstitüsü](https://izmir.ululararasi-biyotip-ve-genom-enstitusu.deu.edu.tr/)

Address: İzmir Uluslararası Biyotıp ve Genom Enstitüsü Dokuz Eylül Üniversitesi, Balçova, İzmir

### International Researcher IDs

ORCID: 0000-0001-6654-6573

Publons / Web Of Science ResearcherID: AAG-8131-2019

ScopusID: 56113914300

Yoksis Researcher ID: 279234

### Education Information

Undergraduate, Anadolu University, Open Education Faculty, Department Of Sociology, Turkey 2018 - 2022

Doctorate, Pennsylvania State University, Engineering, Agricultural And Biological Engineering Department, United States Of America 2011 - 2014

Postgraduate, Ege University, Fen Bilimleri Enstitüsü, Biyomühendislik (YI) (Tezli), Turkey 2007 - 2009

Undergraduate, Ege University, Faculty Of Engineering, Biyomühendislik Bölümü, Turkey 2001 - 2007

### Foreign Languages

English, C2 Mastery

### Dissertations

Doctorate, Production of phenylpyruvic acid and phytase by microbial fermentation, Pennsylvania State University, Agricultural And Biological Engineering Department, 2014

Postgraduate, Zeytin karasuyundan mikrobiyal lipaz üretimi, Ege University, Fen Bilimleri Enstitüsü, Biyomühendislik (YI) (Tezli), 2009

### Research Areas

Health Sciences, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Dokuz Eylül University, İzmir Uluslararası Biyotıp ve Genom Enstitüsü, 2023 - Continues

Lecturer, Dokuz Eylül University, İzmir Uluslararası Biyotıp ve Genom Enstitüsü, 2018 - 2023

### Academic and Administrative Experience

## Courses

PROTEİN BİOCHEMİSTRY AND BİOTECHNOLOGY, Postgraduate, 2020 - 2021, 2019 - 2020, 2017 - 2018

SEMİNAR, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

INTRODUCTION TO BIOPROCESS ENGINEERING, Postgraduate, 2020 - 2021

## Jury Memberships

Post Graduate, Post Graduate, Gebze Teknik Üniversitesi, March, 2024

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

- I. **Production of protease with *Bacillus megaterium* DSM32: Partial characterisation of the enzyme and modelling of the production**  
Çoban H. B.  
Acta Alimentaria, vol.51, no.2, pp.228-240, 2022 (SCI-Expanded)
- II. **Evaluation of the inhibitory effect of 5-hydroxymethylfurfural (HMF) on ethanol fermentation by using immobilized *Saccharomyces cerevisiae* in stirred-tank bioreactor and mathematical modeling**  
Erkan S. B., Çoban H. B., TURHAN İ.  
FUEL, vol.317, 2022 (SCI-Expanded)
- III. **Evaluation of various mathematical models for cell growth and high bioconversion potent protease production of *Microbacterium* sp. in shake flask fermentations**  
ÇOBAN H. B.  
BIOMASS CONVERSION AND BIOREFINERY, vol.12, no.4, pp.1353-1359, 2022 (SCI-Expanded)
- IV. **Investigation of the inhibitory effects of furfural and hydroxymethylfurfural on the production of *Aspergillus niger* inulinase and modeling of the process**  
Gurler H. N., ÇOBAN H. B., TURHAN İ.  
BIOMASS CONVERSION AND BIOREFINERY, 2022 (SCI-Expanded)
- V. **Partial purification and characterization of a recombinant beta-mannanase from *Aspergillus fumigatus* expressed in *Aspergillus sojae* grown on carob extract**  
Karahalil E., Germec M., KARAOĞLAN M., YATMAZ E., ÇOBAN H. B., İNAN M., TURHAN İ.  
BIOMASS CONVERSION AND BIOREFINERY, vol.10, no.4, pp.1189-1205, 2020 (SCI-Expanded)
- VI. **Organic acids as antimicrobial food agents: applications and microbial productions**  
ÇOBAN H. B.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.43, no.4, pp.569-591, 2020 (SCI-Expanded)
- VII. **Partial purification and characterization of a recombinant  $\beta$ -mannanase from *Aspergillus fumigatus* expressed in *Aspergillus sojae* grown on carob extract**  
Karahalil E., Germeç M., Karaoğlan M., Yatmaz E., Çoban H. B., İnan M., Turhan İ.  
Biomass Conversion and Biorefinery, vol.10, pp.1189-1205, 2019 (SCI-Expanded)
- VIII. **A current approach to the control of filamentous fungal growth in media: microparticle enhanced cultivation technique**  
Karahalil E., ÇOBAN H. B., TURHAN İ.  
CRITICAL REVIEWS IN BIOTECHNOLOGY, vol.39, no.2, pp.192-201, 2019 (SCI-Expanded)
- IX. **Optimization of dilute acid pretreatment of barley husk and oat husk and determination of their chemical composition**  
Demirel F., Germec M., ÇOBAN H. B., TURHAN İ.

CELLULOSE, vol.25, no.11, pp.6377-6393, 2018 (SCI-Expanded)

- X. **Phytase as a Diet Ingredient: From Microbial Production to Its Applications in Food and Feed Industry**  
ÇOBAN H. B., Demirci A.  
MICROBIAL PRODUCTION OF FOOD INGREDIENTS AND ADDITIVES, vol.5, pp.33-55, 2017 (SCI-Expanded)
- XI. **Applied Research Perspectives of Alpha-Keto Acids: From Production to Applications**  
ÇOBAN H. B., Demirci A.  
FOOD BIOSYNTHESIS, VOL 1, pp.427-447, 2017 (SCI-Expanded)
- XII. **ENHANCED PHENYLPYRUVIC ACID PRODUCTION WITH PROTEUS VULGARIS BY OPTIMIZING OF THE FERMENTATION MEDIUM**  
ÇOBAN H. B., Demirci A., Patterson P. H., Elias R. J.  
ACTA ALIMENTARIA, vol.45, no.1, pp.1-10, 2016 (SCI-Expanded)
- XIII. **Enhancement and modeling of microparticle-added Rhizopus oryzae lactic acid production**  
ÇOBAN H. B., Demirci A.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.39, no.2, pp.323-330, 2016 (SCI-Expanded)
- XIV. **Enhanced phenylpyruvic acid production with Proteus vulgaris in fed-batch and continuous fermentation**  
ÇOBAN H. B., Demirci A., Patterson P. H., Elias R. J.  
PREPARATIVE BIOCHEMISTRY & BIOTECHNOLOGY, vol.46, no.2, pp.157-160, 2016 (SCI-Expanded)
- XV. **IMPROVED SUBMERGED ASPERGILLUS FICUUM PHYTASE PRODUCTION IN BENCH-TOP BIOREACTORS BY OPTIMIZATION OF FERMENTATION MEDIUM**  
ÇOBAN H. B., Demirci A.  
ACTA ALIMENTARIA, vol.44, no.4, pp.549-560, 2015 (SCI-Expanded)
- XVI. **Enhanced Aspergillus ficuum phytase production in fed-batch and continuous fermentations in the presence of talcum microparticles**  
ÇOBAN H. B., Demirci A., TURHAN İ.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.38, no.8, pp.1431-1436, 2015 (SCI-Expanded)
- XVII. **Microparticle-enhanced Aspergillus ficuum phytase production and evaluation of fungal morphology in submerged fermentation**  
ÇOBAN H. B., Demirci A., TURHAN İ.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.38, no.6, pp.1075-1080, 2015 (SCI-Expanded)
- XVIII. **Enhanced submerged Aspergillus ficuum phytase production by implementation of fed-batch fermentation**  
ÇOBAN H. B., Demirci A.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.37, no.12, pp.2579-2586, 2014 (SCI-Expanded)
- XIX. **Screening of phenylpyruvic acid producers and optimization of culture conditions in bench scale bioreactors**  
ÇOBAN H. B., Demirci A., Patterson P. H., Elias R. J.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.37, no.11, pp.2343-2352, 2014 (SCI-Expanded)
- XX. **Screening of phytase producers and optimization of culture conditions for submerged fermentation**  
ÇOBAN H. B., Demirci A.  
BIOPROCESS AND BIOSYSTEMS ENGINEERING, vol.37, no.4, pp.609-616, 2014 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Modification of Aspergillus niger ATCC 11414 Growth For The Enhancement of Protease Production By The Effect Of Natural Microparticles**  
Çoban H. B.  
Middle East Journal of Science, vol.8, no.2, pp.99-105, 2022 (Peer-Reviewed Journal)
- II. **Axinella damicornis süngerinden izole edilen sucul bakterilerin proteaz üretkenliklerinin**

araştırılması ve üretilen proteaz enziminin kısmi karakterizasyonu

ÇOBAN H. B.

Mediterranean Agricultural Sciences, vol.33, no.2, pp.223-229, 2020 (Peer-Reviewed Journal)

## Books & Book Chapters

**I. Phytase as a Diet Ingredient: From Microbial Production to Its Applications in Food and Feed Industry**

Çoban H. B., Demirci A.

in: Microbial Production of Food Ingredients and Additives, Alina Maria Holban, Alexandru Mihai Grumezescu, Editor, Academic Press , Massachusetts, pp.33-55, 2017

**II. Applied Research Perspectives of Alpha-Keto Acids: From Production to Applications**

Çoban H. B., Demirci A.

in: Food Biosynthesis, Alexandru Mihai Grumezescu, Alina Maria Holban, Editor, Academic Press , Massachusetts, pp.427-447, 2017

## Refereed Congress / Symposium Publications in Proceedings

**I. Reducing the Amount of Caffeine in Coffee by Fermentation**

ÇOBAN H. B.

13th International Scientific Research Congress (UBAK), Ankara, Turkey, 12 March 2022

**II. Doğal mikropartiküllerin hücre sel büyüme morfolojisine etkisi ile fungal proteaz üretiminin iyileştirilmesi**

ÇOBAN H. B.

6. Uluslararası Akademik Araştırmalar Kongresi'ne (ICAR), Turkey, 23 August 2021

**III. Mathematical modeling of protease production by Microbacterium arborescens and statical evaluation of model predictions**

ÇOBAN H. B.

IV. International Icontech Symposium on Innovative Surveys in Positive Science, Turkey, 18 July 2021

**IV. Investigation of protease productivity of marine bacteria isolated from Axinella damicornis sponge and partial characterization of produced protease**

ÇOBAN H. B.

International Eurasian Conference on Biotechnology and Biochemistry, Turkey, 16 - 18 December 2020

**V. MAKÜLER KORNEA DİSTROFİSİNİN TEDAVİSİNDE KULLANILMAK ÜZERE MMP-1 VE MMP-13'xxÜN REKOMBİNANT ÜRETİMİ**

kaya s. g., ÇOBAN H. B., YILDIRIM C. A., kalyoncu s.

V. Türkiye in Vitro Diyagnostik Sempozyumu: Sağlık Biyoteknolojisi, Turkey, 19 - 21 February 2020

**VI. Conversion of phenylalanine to phenylpyruvic acid by microbial fermentation**

ÇOBAN H. B., Demirci A., Patterson P., Elias R.

Society of Industrial Microbiology and Biotechnology Annual Meeting, United States Of America, 24 July 2014

**VII. Production of phytase by microbial submerged fermentation and optimization of process conditions**

ÇOBAN H. B., Demirci A.

Society of Industrial Microbiology and Biotechnology Annual Meeting, Aydın, Turkey, 11 August 2013

## Supported Projects

Çoban H. B., Uslu G., Yakişan R., Karataş A., Vural M. E., Akça N., Keskin B., Kaplan Bilmez Y., Han Y., TAGEM Tarımsal Araştırmalar ve Politikalar Genel Müdürlüğü Projesi, İpek Üretim Tesislerinde Atık Sularından ve Koza Çepezlerinden

İpek Proteini Serisinin Elde Edilmesi ve Ekonomik Yönden Değerlendirilmesi, 2021 - 2023

ÇOBAN H. B., Project Supported by Higher Education Institutions, Proteaz enziminin bakteriyel kaynaklı üretiminin optimizasyonu, kısmi saflaştırması ve modellenmesi (hastane önlük ve çarşafalarının temizliğinde kullanılan deterjanların içeriğinde bulunan proteaz enziminin üretimi için ön çalışma), 2021 - 2022

Çoban H. B., Bedir E., Karaman O., TÜBİTAK Project, Bazı Potent Telomeraz Aktivatörlerinin Fungal Biyotransformasyon ile Üretimine Yönelik Proseslerin Optimizasyonu, Transformasyondan Sorumlu Enzimlerin Elde Edilmesi ve Karakterizasyonu, Üretilen Moleküllerin Rejeneratif Tıpta Kullanım Potansiyellerinin Araştırılması, 2020 - 2022

Çoban H. B., Yıldırım C. A., BAĞRIYANIK H. A., GÜVEN S., TÜBİTAK Project, Maküler Kornea Distrofisi için yeni bir topikal tedavi yönteminin geliştirilmesi, 2019 - 2022

## Metrics

Publication: 31

Citation (WoS): 342

Citation (Scopus): 320

H-Index (WoS): 10

H-Index (Scopus): 10

## Congress and Symposium Activities

6. Uluslararası Akademik Araştırmalar Kongresi'ne (ICAR), Attendee, Elazığ, Turkey, 2021

IV. International Icontech Symposium on Innovative Surveys in Positive Science, Attendee, Adana, Turkey, 2021

BioTechBioChem 2020, Attendee, Ankara, Turkey, 2020

## Scholarships

YLSY, Ministry of Education, 2009 - 2014

Erasmus Öğrenci Değişim Programı, Special Institutions and Organizations, 2004 - 2005