



Assist. Prof. Dr. NURCAN VARDAR YEL

Bakırköy Health Campus

+90 (212) 709 45 28 / 5024

Interview Hours: Çarşamba- 13:00 - 15:00

nurcan.vardar@altinbas.edu.tr

EDUCATIONAL INFORMATION

Degree	University	Department	Year(s)
Doctoral Degree	Istanbul Technical University	Molecular Biology-genetics and Biotechnology (Phd)	2011 - 2017
Master's Degree	Istanbul Technical University	Molecular Biology-genetics and Biotechnology (Master's) (with Thesis)	2009 - 2011
Bachelor's Degree	Halic University	Department of Molecular Biology and Genetics	2004 - 2008

RESEARCH AREAS

enzyme and microbial technology

ACADEMIC DUTIES

Duty	University	Area	Year(s)
Doctor Faculty Member	Altınbas University		2018 -
Teaching Assistant	Istanbul Kemerburgaz University		2017 -

ADMINISTRATIVE DUTIES

Duty	University	Year(s)
Head of Medical Laboratory Techniques Programme	Altınbas University	2026 -
Scientific Research Projects Commission Membership	Altınbas University	2026 -

ACADEMIC AND PROFESSIONAL MEMBERSHIPS

Organisation	Membership	Year(s)
--------------	------------	---------

NON-UNIVERSITY EXPERIENCE

Country	Organisation	Duty	Year(s)
---------	--------------	------	---------

BOOKS

Fen Bilimleri ve Matematikte Uluslararası Araştırmalar

TÜTÜNCÜ HAVVA ESRA, VARDAR YEL NURCAN

Serüven Yayınevi, 978-625-6399-06-8, 2023

Scientific Book Chapter(s)

50 Soruda Tıbbi Laboratuvar Teknikerliği

KARADAYI ŞÜKRİYE, VARDAR YEL NURCAN, GÖNENÇ SULTAN CANSU

NOBEL, 9786052065884, 2022

Textbook All

ARTICLES

ARTICLES**Recent advances of structure, function, and engineering of carboxylesterases for the pharmaceutical industry: A minireview**

SÜRMELİ YUSUF, VARDAR YEL NURCAN, TÜTÜNCÜ HAVVA ESRA
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, 2025

International DOI: <https://doi.org/10.1016/j.ijbiomac.2025.142206>

Machine learning techniques for differentiating psychrophilic and non-psychrophilic bacterial α/β hydrolase enzymes

NURCAN VARDAR YEL
BIOLOGIA, 2025

International DOI: <https://doi.org/10.1007/s11756-025-01920-9>

Marine Microalgae *Schizochytrium* sp. S31: Potential Source for New Antimicrobial and Antibiofilm Agent

Hammadi Al-Ogaidi Doaa Abdullah, KARAÇAM SEVİNÇ, GURBANOV RAFİG, VARDAR YEL NURCAN
Current Pharmaceutical Biotechnology, 2024

International DOI: [10.2174/0113892010291960240223054911](https://doi.org/10.2174/0113892010291960240223054911)

Lipases for targeted industrial applications, focusing on the development of biotechnologically significant aspects: A comprehensive review of recent trends in protein engineering

VARDAR YEL NURCAN, SÜRMELİ YUSUF, TÜTÜNCÜ HAVVA ESRA
International Journal of Biological Macromolecules, 2024

International DOI: [10.1016/j.ijbiomac.2024.132853](https://doi.org/10.1016/j.ijbiomac.2024.132853)

Regiospecific Oxidation of Chlorobenzene to 4-Chlororesorcinol, Chlorohydroquinone, 3-Chlorocatechol and 4-Chlorocatechol by Engineered Toluene o-Xylene Monooxygenases

Yanık-Yıldırım Cansu, Phul Onkar K., Roth Owen S., Tlatelpa Areli, Soria-P Gerardo, VARDAR YEL NURCAN, Schara Gonul
Applied and Environmental Microbiology, 2022

International DOI: [10.1128/aem.00358-22](https://doi.org/10.1128/aem.00358-22)

Investigation of The Activity of Lipase Variants on Different 4-Nitrophenyl Esters by Spectrophotometric Assay

VARDAR YEL NURCAN

Caucasian Journal of Science, 2021

International DOI: [10.48138/cjo.968723](https://doi.org/10.48138/cjo.968723)

Surface residues serine 69 and arginine 194 of metagenome-derived lipase influence catalytic activity

Özgen Fatma Feyza, VARDAR YEL NURCAN, Roth Owen Scott, Shahbaz Lersa Sayyad, Schara Gonul
BIOCHEMICAL ENGINEERING JOURNAL, 2019

International

Manipulation of a glycolytic regulator alters growth and carbon partitioning in the marine diatom *Thalassiosira pseudonana*

Abbriano Raffaella, VARDAR NURCAN, Yee Daniel, Hildebrand Mark
Algal Research, 2018

International DOI: [10.1016/j.algal.2018.03.018](https://doi.org/10.1016/j.algal.2018.03.018)

Comparison of Cell Disruption and Lipid Extraction Methods for Improving Lipid Content of *Schizochytrium* sp. S31

VARDAR NURCAN, Yelboga Emrah, TÜTER MELEK, GÜL-KARAGÜLER NEVİN

Journal of Molecular Biology and Biotechnology, 2017

International

Optimization of Cultivation and Supercritical Fluid Lipid Extraction Conditions of *Schizochytrium* sp. S31

VARDAR YEL NURCAN, Ayhan Yiğit, YELBOĞA EMRAH, Bahar Banu, TÜTER MELEK, GÜL KARAGÜLER NEVİN
International journal series in engineering science (IJSES), 2016

International

Cavity residue leucine 95 and channel residues glutamine 204, aspartic acid 211, and phenylalanine 269 of toluene o-xylene monooxygenase influence catalysis

Kurt Cansu, Sönmez Burcu, VARDAR NURCAN, Yıldırım Cansu, Schara Gönül
Applied Microbiology and Biotechnology, 2016

International DOI: [10.1007/s00253-016-7658-6](https://doi.org/10.1007/s00253-016-7658-6)

ARTICLES

Bacterial community composition of sediments from Artificial Lake Maslak, Istanbul, Turkey

ÇELİK BALCI NURGÜL, VARDAR NURCAN, Yelboga Emrah, GÜL-KARAGÜLER NEVİN

Environmental Monitoring and Assessment, 2012

International DOI: 10.1007/s10661-011-2368-0

Fosmid cloning, nucleotide sequence, and characterization of a beta-lactamase gene from subsurface isolates

VARDAR NURCAN, Schara Gönül

Journal of Microbiology, 2012

International DOI: 10.1007/s12275-012-2139-9

Machine Learning Approaches for Differentiating Thermophilic and Mesophilic Lipases

NURCAN VARDAR YEL

Gazi University Journal of Science Part A: Engineering and Innovation, 2024

National DOI: 10.54287/gujisa.1558391

Enhancement of Docosaehaenoic Acid Production by UV Mutagenesis Coupled with Flow Cytometry Screening in *Schizochytrium* sp. S31

NURCAN VARDAR YEL, Emrah Yelboğa, Nevin Gül Karagüler, Melek Tüter

Caucasian Journal of Science, 2024

International DOI: <https://doi.org/10.48138/cjo.1559402>

Machine learning-driven classification of acidic and alkaline enzymes in the α/β hydrolase family

Maryam Ahmed Abed Alghabawi, Nurcan Vardar-Yel

BIOLOGIA, 2026

International DOI: <https://doi.org/10.1007/s11756-025-02119-8>

PROCEEDINGS

Protein Mühendisliği ile Katma Değerli Maddeler Üreten Proses Teknolojilerin Geliştirilmesi

VARDAR YEL NURCAN

9.Uluslararası Bilimsel Araştırmalar ve Yenilikçi Çalışmalar Sempozyumu (ISSRIS'21), 2021

International

Identification and In Silico Characterization of Novel Enzymes for PET and PUR Degradation

TÜTÜNCÜ HAVVA ESRA, VARDAR YEL NURCAN, SÜRME Lİ YUSUF

VI. International Enzyme and Bioprocess Days,

International

Computational Characterization of Unreviewed Proteins: A Bioinformatics Approach for Enzyme Discovery

TÜTÜNCÜ HAVVA ESRA, VARDAR YEL NURCAN, SÜRME Lİ YUSUF

COZYME,

International

Evaluation of Clinical Findings in Children with Acute Viral Hepatitis A

AKGÜN SELİN, VARDAR NURCAN, SUGEÇTİ SERKAN

XIII. Uluslararası Katılımlı Ekoloji ve Çevre Kongresi, 2017

International

Profiling of Complex Microbial Population in Soil Samples by Molecular Biology Techniques

VARDAR NURCAN, AKGÜN SELİN, SUGEÇTİ SERKAN

XIII. Uluslararası Katılımlı Ekoloji ve Çevre Kongresi, 2017

International

Evaluation of Carbon Monoxide Intoxication Among Patients Presenting with Nonspecific Symptoms to the Emergency Department

AKGÜN SELİN, VARDAR NURCAN, SUGEÇTİ SERKAN

XIII. Uluslararası Katılımlı Ekoloji ve Çevre Kongresi, 2017

International

PROCEEDINGS

Pestisitler ve Bazı Ağır Metallerin Toksik Etkileri İle Serbest Radikaller ve Antioksidanlar Arasındaki İlişki

SUGEÇTİ SERKAN, VARDAR NURCAN, AKGÜN SELİN

VI. National Congress of Molecular Biology and Biotechnology, 2017

National

Klinik Patojen Mikroorganizma Suşlarının Antibiyotiklere Karşı Oluşturduğu İnhibisyon Çaplarının Belirlenmesi ve Dirençli Suşlara Alternatif Yöntemler

SUGEÇTİ SERKAN, VARDAR NURCAN, KOÇER FERUDUN

XIII. Uluslararası Katılımlı Ekoloji ve Çevre Kongresi, 2017

International

Assessment of Knowledge Levels, Attitudes and Behaviors of a Training and Research Hospital Staff on Medical Waste Management and Occupational Health and Safety in Medical Wastes

SUGEÇTİ SERKAN, VARDAR NURCAN, AKGÜN SELİN

XIII. Uluslararası Katılımlı Ekoloji ve Çevre Kongresi,

International

Specification of microalgal oil derived from schizochytrium sp.S31 and its nutritional benefits

VARDAR NURCAN, Yelboga Emrah, GÜL-KARAGÜLER NEVİN, TÜTER MELEK

XIII. Congress of Ecology and Environment with International Participation, 2017

International

Production of High Omega-3 Content Schizochytrium sp. S31 in Bioreactor

VARDAR NURCAN, YELBOGA EMRAH, YİĞİT AYHAN, TÜTER MELEK, GÜL-KARAGÜLER NEVİN

VI. Ulusal Moleküler Biyoloji ve Biyoteknoloji Kongresi, 2017

National

Production of Heavy Metal-Free and High DHA Concentrated Omega-3 Fatty Acid and Supercritical Fluid Lipid Extraction

VARDAR NURCAN, YELBOGA EMRAH, BAHAR BANU

XIII. Uluslararası Katılımlı Ekoloji ve Çevre Kongresi, 2017

International

A novel beta-lactamase from subsurface sediments

VARDAR NURCAN, SCHARA GONUL

European Biotechnology Congress,

International

Machine Learning Strategies for Identifying Cold-Adapted α/β Hydrolase Enzymes

NURCAN VARDAR YEL

COZYME,

International

PROJECTS

Schizochytrium sp Organizmasından Omega-3 Yağ Asitlerinin Eldesine Yönelik Optimizasyon Çalışmaları (Researcher)

Scientific research project supported by Higher Education Institutions, 28.04.2016 - 28.04.2017

National Completed

Lipaz Enziminin Protein Mühendisliği Yöntemleriyle Biyoproses Endüstrileri İçin Geliştirilmesi (Executive)

Scientific research project supported by Higher Education Institutions, 21.01.2021 - 19.01.2022

National Completed

Biyoinformatik Ve Moleküler Yaklaşım İle Plastik Bozunumunda Etkili Yeni Enzimlerin Bulunması Ve Karakterizasyonu (Researcher)

Tübitak 1001, 20.02.2025 -

National Continues

TEZP2022-2 : İspendere İçmeleri'nde Metagenomik Yaklaşım ile Mikrobiyal Populasyonun Belirlenmesi (Executive)

Scientific research project supported by Higher Education Institutions, 18.05.2023 - 22.11.2024

National Completed

PROJECTS

Asit maden sahalarının oluşumunu kontrol eden biyojeokimyasal faktörlerin araştırılması (Researcher)

TÜBİTAK Project, 06.01.2008 - 07.02.2010

National Completed

İ.T.Ü Maslak Göletinin Mikrobiyolojik Topluluğu ve Biyojeokimyasal Özelliklerinin Araştırılması (Researcher)

Scientific research project supported by Higher Education Institutions, 01.05.2009 - 01.05.2011

National Completed

THESIS SUPERVISION

DISCRIMINATION OF ACIDIC AND ALKALINE ALPHA/BETA HYDROLASE ENZYMES THROUGH DATA-DRIVEN MACHINE LEARNING APPROACHES

MARYAM AHMED ABED ALGHABAWI

2026 Master's Degree

Determination of microbial composition of thermal and mineralspring in Turkey by metagenomic method

NOURAN ADEL ABDELAZIM ABDELAZIZ

2024 Master's Degree

Antimicrobial and anti-biofilm activities of lipids extracted from Schizochytrium sp. S31 microalgae

DOAA ABDULLAH HAMMADI AL-OGAIDI

2022 Master's Degree

Optimization of cultivation conditions and engineering by random mutagenesis for high lipid production in Schizochytrium sp. S31

NURCAN VARDAR

2016 Doctorate

Investigation of biogeochemical and microbiological characteristics of acid mine drainage in Balıkesir-Balya region by molecular biology techniques

NURCAN VARDAR

2011 Master's Degree

COURSES

Course Type	Course Code	Course Name
Master's Degree	BMSE525	MOLECULER BIOLOGY
Bachelor's Degree	MBG 306	MOLEKÜLER BİYOLOJİDE KULANILAN YÖNTEMLER II
Bachelor's Degree	MBG 302	MOLEKÜLER BİYOLOJİDE KULANILAN YÖNTEMLER I
Associate Degree	ADS227	NANOBİYOTEKNOLOJİ
Associate Degree	TLT100	TEMEL LABORATUVAR BİLGİSİ VE UYGULAMALARI
Associate Degree	TLT203	TIBBİ BİYOLOJİ VE GENETİK
Associate Degree	TLT205	KLİNİK MİKROBİYOLOJİ
Associate Degree	TLT202	MOLEKÜLER BİYOLOJİ TEKNİKLERİ
Associate Degree	TLT290	STAJ
Master's Degree	BMSE551	SPECIAL TOPICS IN BIOMEDICAL SCIENCES II

PERSONAL INFORMATION

PERSONAL INFORMATION

CONTACT INFORMATION

Interview Hours: Çarşamba- 13:00 - 15:00

Bakırköy Health Campus

Kartaltepe Mah. İncirli Cad. No:11 Bakırköy - İstanbul

+90 (212) 709 45 28 / 5024

