

Prof. AYŞE GÜL GÖZEN

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Education Information

Doctorate, Michigan State University, Mikrobiyoloji, United States Of America 1987 - 1994

Under Graduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, Turkey 1982 - 1986

Foreign Languages

English, C1 Advanced

Research Areas

Life Sciences, Microbiology, Bacteriology, Natural Sciences

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2014 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2008 - 2014

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 1995 - 2008

Lecturer PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 1995 - 1995

Professional Experience

Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2019 - Continues

Deputy Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2014 - 2017

Deputy Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2006 - 2009

Deputy Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 1996 - 1998

Courses

MOLECULAR BIOLOGY, Under Graduate, 2019 - 2020, 2020 - 2021
MICROBIAL ECOLOGY, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021
MICROBIOLOGY, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021
MICROBIOLOGY LABORATORY, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021
BACTERIAL DIVERSITY, Under Graduate, 2018 - 2019, 2019 - 2020
GENERAL BIOLOGY I, Under Graduate, 2018 - 2019
INTRODUCTION TO GENETICS, Under Graduate, 2017 - 2018
GENERAL BIOLOGY II, Under Graduate, 2017 - 2018

Advising Theses

Son Ç. D. , Gözen A. G. , Expression of genes encoding fundamental copper homeostasis proteins in copper resistant *Escherichia coli* mutants, Post Graduate, T.UYANIK(Student), 2019
Son Ç. D. , Gözen A. G. , Expression of the genes encoding important transport system proteins in silver resistant *Escherichia coli* mutants, Post Graduate, G.UYANIK(Student), 2019
GÖZEN A. G. , Impact of antibiotic induced gut microbiota alteration on cognitive abilities and behaviours of mice, Doctorate, T.CEYLANI(Student), 2018
GÖZEN A. G. , Molecular adaptations in cadmium and lead resistant environmental species, Doctorate, E.ŞEYMA(Student), 2017
GÖZEN A. G. , Characterization of heavy metal resistant bacteria using infrared spectroscopy together with chemical pattern recognition techniques, Doctorate, R.GURBANOV(Student), 2016
GÖZEN A. G. , Comparison of optical measurements for better ni tracking in bacteria, Post Graduate, S.SUNGUR(Student), 2015
GÖZEN A. G. , Heavy metal-induced structural and functional changes in clinical and environmental acinetobacter isolates, Doctorate, T.ÖZAKTAŞ(Student), 2015
GÖZEN A. G. , Monitoring of cobalt adaptation of environmental bacterial isolates using ATR-FTIR spectroscopy, Post Graduate, M.KARDAŞ(Student), 2014
GÖZEN A. G. , Evaluation of biodeterioration in Nemrut Mount Monument and temple of Augustus by using various techniques, Post Graduate, E.SIRT(Student), 2011
GÖZEN A. G. , Molecular analysis of beta lactamases in clinical *Acinetobacter baumannii* isolates from intensive care units, Doctorate, A.ÜSKÜDAR(Student), 2011
GÖZEN A. G. , Selective quantification of viable *Escherichia coli* cells in biosolids upon propidium monoazide treatment by quantitative PCR, Doctorate, B.TAŞKIN(Student), 2011
GÖZEN A. G. , A study on cobalt adaptation and memory retention of freshwater bacteria isolates, Post Graduate, G.ÇITIR(Student), 2010
GÖZEN A. G. , Multiple antibiotic resistance of surface mucus dwelling bacterial populations in freshwater fish, Post Graduate, T.ÖZAKTAŞ(Student), 2007
GÖZEN A. G. , Polymerase chain reaction (PCR) for detection of *Borrelia burgdorferi sensu lato*, Post Graduate, Z.DUMAN(Student), 2007
GÖZEN A. G. , Identification of *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis* from sputum samples of patients with community acquired pneumonia by polymerase chain reaction, Post Graduate, A.ÜSKÜDAR(Student), 2005
GÖZEN A. G. , Isolation and partial characterization of aquatic bacteria from lake Eymir, Post Graduate, D.AY(Student), 2001
GÖZEN A. G. , Extracellular protease activity of thermophilic bacteria isolated from Turkish soils and hot springs, Post Graduate, F.SEDA(Student), 2000
GÖZEN A. G. , Isolation and optimisation of growth conditions of thermophilic bacteria from Turkish soils and hot springs, Post Graduate, Ç.DEVRİM(Student), 1999
GÖZEN A. G. , Growth responses of culturable soil microbe populations to different wheat cultivars and carbon sources, Post Graduate, B.KOÇAK(Student), 1998

Jury Memberships

Award, Üstün Başarılı Genç Bilim İnsanı Ödülleri (TUBA-GEBİP), Middle East Technical University, August, 2020
Committee Of Expert, Committee Of Expert, Middle East Technical University, January, 2020

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

- I. **Discrimination of heavy metal acclimated environmental strains by chemometric analysis of FTIR spectra**
Kepenek E. S. , Severcan M., GÖZEN A. G. , SEVERCAN F.
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.202, 2020 (Journal Indexed in SCI)
- II. **Genetic Diversity of OXA-like Genes in Multidrug-Resistant Acinetobacter baumannii Strains from ICUs**
Guclu A. U. , GÖZEN A. G.
CLINICAL LABORATORY, vol.66, no.10, pp.2015-2019, 2020 (Journal Indexed in SCI)
- III. **Methylation, sugar puckering and Z-form status of DNA from a heavy metal-acclimated freshwater *Gordonia* sp.**
Gurbanov R., Tuncer S., Mingu S., Severcan F., Gözen A. G.
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY, vol.198, 2019 (Journal Indexed in SCI)
- IV. **Molecular characterization of acutely and gradually heavy metal acclimated aquatic bacteria by FTIR spectroscopy**
Kepenek E. S. , GÖZEN A. G. , Severcan F.
JOURNAL OF BIOPHOTONICS, vol.12, no.5, 2019 (Journal Indexed in SCI)
- V. **Comparison of microbially induced calcium carbonate precipitation eligibility using *sporosarcina pasteurii* and *bacillus licheniformis* on two different sands**
Sarıçiçek Y. E. , Gurbanov R., Pekcan O., Gözen A. G.
GEOMICROBIOLOGY JOURNAL, vol.36, pp.42-52, 2019 (Journal Indexed in SCI)
- VI. **Aspects of silver tolerance in bacteria: infrared spectral changes and epigenetic clues**
Gurbanov R., Ozek N. S. , Tunçer S., Severcan F., Gözen A. G.
JOURNAL OF BIOPHOTONICS, vol.11, 2018 (Journal Indexed in SCI)
- VII. **Rapid classification of heavy metal-exposed freshwater bacteria by infrared spectroscopy coupled with chemometrics using supervised method**
Gurbanov R., Gözen A. G. , Severcan F.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.189, pp.282-290, 2018 (Journal Indexed in SCI)
- VIII. **Quick Discrimination of Heavy Metal Resistant Bacterial Populations Using Infrared Spectroscopy Coupled with Chemometrics**
Gurbanov R., Ozek N. S. , Gözen A. G. , Severcan F.
ANALYTICAL CHEMISTRY, vol.87, pp.9653-9661, 2015 (Journal Indexed in SCI)
- IX. **FTIR spectroscopy offers hints towards widespread molecular changes in cobalt-acclimated freshwater bacteria**
Kardaş M., Gözen A. G. , Severcan F.
AQUATIC TOXICOLOGY, vol.155, pp.15-23, 2014 (Journal Indexed in SCI)
- X. **Comparison of culture and PCR methods in detection of *haemophilus influenzae*, *streptococcus pneumoniae* and *moraxella catarrhalis* in children with otitis media with effusion Efüzyonlu orta kulak iltihabi olan çocuklarda *haemophilus influenzae*, *streptococcus pneumoniae* ve *moraxella catarrhalis* saptanmasında, kültür ve pcr yöntemlerinin karşılaştırılması**
Baysallar M., Güçlü A. Ü. , Yetiser S., Kiliç A., GÖZEN A. G. , Açikel C.
Türkiye Klinikleri Journal of Medical Sciences, vol.33, no.1, pp.54-58, 2013 (Journal Indexed in SCI Expanded)
- XI. **High level multiple antibiotic resistance among fish surface associated bacterial populations in non-**

aquaculture freshwater environment

ÖZAKTAŞ T., TAŞKIN B., GÖZEN A. G.

WATER RESEARCH, vol.46, no.19, pp.6382-6390, 2012 (Journal Indexed in SCI)

- XII. **Selective Quantification of Viable Escherichia coli Bacteria in Biosolids by Quantitative PCR with Propidium Monoazide Modification**
Taskin B., GÖZEN A. G. , Duran M.
APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol.77, no.13, pp.4329-4335, 2011 (Journal Indexed in SCI)
- XIII. **Synthesis of 2-aziridinyl phosphonates by modified Gabriel-Cromwell reaction and their antibacterial activities**
Doğan Ö., Babiz H., Gözen A. G. , Budak S.
EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol.46, pp.2485-2489, 2011 (Journal Indexed in SCI)
- XIV. **Indirect organogenesis from bud explants of Juniperus communis L.: Effects of genotype, gender, sampling time and growth regulator combinations**
KOCER Z. A. , GÖZEN A. G. , ÖNDE S., KAYA Z.
DENDROBIOLOGY, vol.66, pp.33-40, 2011 (Journal Indexed in SCI)
- XV. **Use of Fourier transform infrared spectroscopy for rapid comparative analysis of Bacillus and Micrococcus isolates**
Garip S., Gozen A. G. , Severcan F.
FOOD CHEMISTRY, vol.113, no.4, pp.1301-1307, 2009 (Journal Indexed in SCI)
- XVI. **Impact of food concentration on diel vertical migration behaviour of Daphnia pulex under fish predation risk**
Beklioğlu M., Gözen A. G. , Yildirim F., Zorlu P., Önde S.
HYDROBIOLOGIA, vol.614, pp.321-327, 2008 (Journal Indexed in SCI)
- XVII. **Fish and mucus-dwelling bacteria interact to produce a kairomone that induces diel vertical migration in Daphnia**
Beklioglu M., Telli M., Gozen A. G.
FRESHWATER BIOLOGY, vol.51, pp.2200-2206, 2006 (Journal Indexed in SCI)
- XVIII. **Role of planktonic bacteria in biodegradation of fish-exuded kairomone in laboratory bioassays of diel vertical migration**
Beklioglu M., Cetin A. G. , Zorlu P., Ay-Zog D.
ARCHIV FÜR HYDROBIOLOGIE, vol.165, pp.89-104, 2006 (Journal Indexed in SCI)
- XIX. **Polymerase chain reaction vs. conventional culture in detection of bacterial pneumonia agents**
Guclu A., Baysallar M., Gozen A. G. , Kilic A., Balkan A., Doganci L.
ANNALS OF MICROBIOLOGY, vol.55, no.4, pp.313-316, 2005 (Journal Indexed in SCI)
- XX. **Development of biotechnology education in Turkey**
Severcan F., Ozan A. G. , Haris P.
BIOCHEMICAL EDUCATION, vol.28, no.1, pp.36-38, 2000 (Journal Indexed in SCI)
- XXI. **Persistence of isoflavones formononetin and biochanin A in soil and their effects on soil microbe populations**
Ozan A. G. , Safir G., Nair M.
JOURNAL OF CHEMICAL ECOLOGY, vol.23, no.2, pp.247-258, 1997 (Journal Indexed in SCI)
- XXII. **CHARACTERIZATION OF UREASE FROM SPOROSARCINA-UREAE**
Mccoy D., Cetin A. G. , Hausinger R.
ARCHIVES OF MICROBIOLOGY, vol.157, pp.411-416, 1992 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **The effects of repeated antibiotic administration to juvenile BALB/c mice on the microbiota status and animal behavior at the adult age**
Ceylani T., Jakubowska-Dogru E., Gurbanov R., Teker H. T. , Gözen A. G.

Refereed Congress / Symposium Publications in Proceedings

- I. **Development Of Direct Shear And Triaxial Test Procedures On Microbially Treated Sand Specimens**
Tunalı M., Duman E., SARIÇİÇEK Y. E. , PEKCAN O., GURBANOV R., GÖZEN A. G.
1st Mediterranean Young Geotechnical Engineers Conference, Muğla/Bodrum, Turkey, 23 - 24 September 2019, pp.73-80
- II. **CONFORMATIONAL CHANGES AND METHYLATION PROFILE IN DNA OF FRESHWATER BACTERIA ACCLIMATED TO TOXIC HEAVY METAL ENVIRONMENTS**
GURBANOV R., SARA M., TUNÇER S., CANER A., SEVERCAN F., GÖZEN A. G.
10th BalkanCongress of Microbiology – Microbiologia Balkanica 2017, SOFYA, Bulgaria, 16 - 18 November 2017
- III. **Thermal Study of Heavy Metal-Tolerant Gordonia, Acinetobacter and Microbacterium Species for Investigation of Bioremediation**
GURBANOV R., GÖZEN A. G. , SEVERCAN F.
ISEEP-2017 VIII. INTERNATIONAL SYMPOSIUM ONECOLOGY AND ENVIRONMENTAL PROBLEMS, Çanakkale, Turkey, 4 - 07 October 2017, pp.301
- IV. **DNA Methylation Patterns of Cadmium, Lead and Silver Tolerant Bacteria Isolated from the Surface Mucus of Freshwater Fish**
GURBANOV R., TUNÇER S., GÖZEN A. G. , SEVERCAN F.
ISEEP-2017 VIII. INTERNATIONAL SYMPOSIUM ONECOLOGY AND ENVIRONMENTAL PROBLEMS, Çanakkale, Turkey, 4 - 07 October 2017, pp.96
- V. **BRAIN BIOCHEMISTRY AND GUT MICROBIOTA (GM) INFLUENCED BY ANTIBIOTIC TREATMENT DURING ADOLESCENCE PERIOD OF MICE**
CEYLANI T., GURBANOV R., TEKER H. T. , JACUBOWSKA DOĞRU E., GÖZEN A. G.
VI. International Congress of Molecular Medicine Molecular medicine from the updates till the future, İstanbul, Turkey, 22 - 25 May 2017, pp.152
- VI. **BOWEL-BRAIN AXIS AFFECTED BY CEFOPERAZONE AND AMPICILLIN TREATMENT IN MICE**
CEYLANI T., GURBANOV R., TEKER H. T. , JACUBOWSKA DOĞRU E., GÖZEN A. G.
VI. International Congress of Molecular Medicine Molecular Medicine from the update still the future, İstanbul, Turkey, 22 - 25 May 2017, pp.71
- VII. **IR coupled chemometrics in environmental industrial and forensic studies**
GURBANOV R., GÖZEN A. G. , SEVERCAN F.
The 2nd International Congress of Forensic Toxicology– Industrial and Environmental Toxicology, Ankara, Turkey, 26 - 30 May 2016
- VIII. **IR coupled pattern recognition techniques for the classification of toxic metal tolerant bacteria**
GURBANOV R., ŞİMŞEK ÖZEK N., GÖZEN A. G. , SEVERCAN F.
MBD2015 - IV. International Congress of the Molecular Biology Association of Turkey, Ankara, Turkey, 27 - 29 November 2015, pp.189
- IX. **An ATR FTIR Spectroscopic Approach to Elucidate Biochemical Mechanisms in Heavy Metal Resistant Escherichia coli**
GURBANOV R., ŞİMŞEK ÖZEK N., GÖZEN A. G. , SEVERCAN F.
115th General Meeting of the American Society for Microbiology (ASM2015), NEW ORLEANS, United States Of America, 30 May - 02 June 2015, pp.136
- X. **Detection of Silver Associated Gross Molecular Changes in Acinetobacter**
ÖZAKTAŞ T., GÖZEN A. G. , SEVERCAN F.
115th General Meeting of the American Society for Microbiology (ASM2015), New Orleans, United States Of America, 30 May - 02 June 2015, pp.192
- XI. **The comparison of macromolecular changes in different acinetobacter isolates upon neomycin exposure**

Kanat T, GÖZEN A. G. , Severcan F.

FEBS EMBO 2014 Conference, Paris, France, 30 August - 04 September 2014, vol.281, pp.671

XII. Basal nutrient and hormonal requirements for direct organogenesis of Cedrus libani A. Rich

Hosseyni N., Ozan A. G. , Kaya Z.

IXth International Congress of the International-Association-of-Plant-Tissue-Culture-and-Biotechnology,
JERUSALEM, Israel, 14 - 19 June 1998, vol.36, pp.53-56

Supported Projects

GÖZEN A. G. , UYANIK G., UYANIK T., ÖNDE S., Project Supported by Higher Education Institutions, Gümüşe Dirençli Escherichia coli Mutantlarında Transport Protein gen ifadelerinin RT-qPCR ile saptanması, 2018 - 2020

PEKCAN O., TUNALI M., YALÇIN Y., GÖZEN A. G. , Project Supported by Higher Education Institutions, ÜREOLİTİK BAKTERİLER KULLANILARAK İYİLEŞTİRİLEN KUMLU ZEMİNLERİN MÜHENDİSLİK ÖZELLİKLERİNİN İNCELENMESİ, 2017 - 2019

GÖZEN A. G. , Gurbanov R., Project Supported by Higher Education Institutions, Yüksek Metal Yoğunluklarına Alıştırılmış Çevresel Bakteri İzolatlarının Nükleik Asitlerinde Oluşan Değişimlerin Kızılötesi Spektroskopisi ve Gözetimsiz Örüntü Tanıma Teknikleri ile Araştırılması, 2017 - 2017

GÖZEN A. G. , BEKLİOĞLU M., KEPENEK E. Ş. , İZGÜ K. F. , GÜNDÜZ U., GÜRSEL M., DOĞAN M., ÖZCENGİZ G., BİLGİN C. C. , ÖNDE S., Project Supported by Higher Education Institutions, Kurşun ve Kadmiyum Ağır Metallerinin Yüksek Derişimlerine alıştırılmış Çevresel Bakterilerde Maruziyet Altındaki Fizyolojik Uyumlamanın Moleküler Kökenleri, 2016 - 2016

GÖZEN A. G. , BEKLİOĞLU M., İZGÜ K. F. , GÜRSEL M., DOĞAN M., ÖZCENGİZ G., BİLGİN C. C. , ÖNDE S., Project Supported by Higher Education Institutions, Tatlisu Acinetobacter türlerinin antibiyotik maruziyeti altında sergiledikleri moleküler değişimlerin belirlenmesi, 2015 - 2015

GÖZEN A. G. , Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

GÖZEN A. G. , ÖKTEM H. A. , FILİZ N., BUCAK T., COPPENS J. E. P. , KALVENAS J. E. , İZGÜ K. F. , BEKLİOĞLU M., BİRAND ÖZSOY A. C. , GÜNDÜZ U., et al., Project Supported by Higher Education Institutions, Sucul biofilm bakterilerinin arsenik, nikel ve kadmiyum dirençlerinin belirlenmesi ve moleküler karakterizasyonu, 2013 - 2014

GÖZEN A. G. , KEPENEK E. Ş. , Project Supported by Higher Education Institutions, BREVUNDIMONAS , KOCURIA , MICROBACTERIUM, GORDONIA VE PSEUDOMONAS BAKTERİLERİNDE KURŞUN VE CİVA DİRENCİNİN ARAŞTIRILMASI, 2013 - 2013

GÖZEN A. G. , GURBANOV R., Project Supported by Higher Education Institutions, LAKTİK ASİT BAKTERİLERİNİN RAF ÖMRÜNÜN UZATILMASI ÇALIŞMALARI, 2013 - 2013

GÖZEN A. G. , SUNGUR S., Project Supported by Higher Education Institutions, BREVUNDIMONAS SP., KOCURIA SP., MICROBACTERIUM OXYDANS, GORDONIA SP. VE P. ANGUİLİSEPTICA BAKTERİ SUŞLARINDA NİKEL DİRENCİNİN ARAŞTIRILMASI, 2013 - 2013

GÖZEN A. G. , Project Supported by Higher Education Institutions, Aziridinil Fosfatların Organik Sentezi Ve Antimikrobyal özelliklerinin Belirlenmesi, 2011 - 2013

GÖZEN A. G. , Project Supported by Higher Education Institutions, Tatl Su Balıklarının Yüzey Mukusunda Yaşayan Bakterilerin Çoklu Antibiyotik Dirençlerinin Genetik Analizi, 2012 - 2012

Scientific Refereeing

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, December 2020

Project Supported by Higher Education Institutions, BAP Guided, Ege University, Turkey, December 2020

TUBITAK Project, 1002 - Quick Support Program, TUBITAK, Turkey, October 2020

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, April 2020

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, December 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2019

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, October 2019

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP PhD, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP Other, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, May 2019

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, February 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2018

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, October 2018

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, June 2018

Citations

Total Citations (WOS):348

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