İSTANBUL AYDIN UNIVERSITY

VOCATIONAL SCHOOL OF HEALTH SERVICES
E-BULLETIN

FEBRUARY 2026

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VOCATIONAL SCHOOL OF HEALTH SERVICES

PROGRAMS

- ORAL AND DENTAL HEALTH
- OPERATING ROOM SERVICES
- ANESTHESIA
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- DIALYSIS
- PHARMACY SERVICES
- ELECTRONEUROPHYSIOLOGY
- PHYSIOTHERAPY
- FIRST AND EMERGENCY AID
- AUDIOMETRY
- OPTICIANS
- ORTHOPEDIC PROSTHETICS AND ORTHOTICS
- PATHOLOGY LABORATORY TECHNIQUES
- PERFUSION TECHNIQUES
- RADIOTHERAPY
- SOCIAL SERVICES
- MEDICAL DOCUMENTATION AND SECRETARIAL
- MEDICAL IMAGING TECHNIQUES
- MEDICAL LABORATORY TECHNIQUES

VOCATIONAL SCHOOL OF HEALTH SERVICES

MEDEK Information Meeting

Program heads and lecturers of the Physiotherapy, Medical Imaging Techniques, Medical Documentation and Secretariat, Pharmacy Services, and Social Services programs participated in the “MEDEK Journey to Quality in Education” meeting held under the hosting of Yıldız Technical University.At the meeting, which took place on February 12, 2026 at 14:00 at Yıldız Technical University Davutpaşa Campus, the processes that should be taken into consideration in the quality journey were conveyed with great meticulousness by the MEDEK administrators.

OPERATING ROOM SERVICES PROGRAM

MEDEK Evaluator Training

Our Operating Room Services Program Head, Lecturer Zeliha OKUR, along with our instructors Lecturer Zeynep EKŞİ and Lecturer Elif SARI ÖZBAY, successfully completed the Evaluator Training program organized online by the Vocational Education Evaluation and Accreditation Association (MEDEK) on February 7, 2026.

The training covered accreditation processes, program evaluation criteria, and current approaches to quality assurance systems. This participation contributes to strengthening our program's quality-oriented educational philosophy and continuous improvement efforts. Our program continues its work with determination to promote a culture of quality assurance and accreditation at the institutional level.

PHYSIOTHERAPY PROGRAM

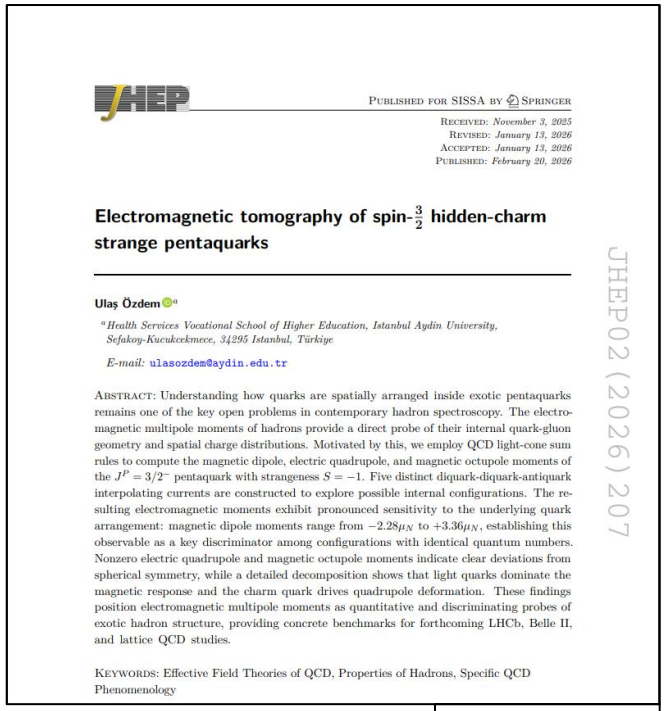
Webinar

The Physiotherapy Program of SHMYO organized a webinar titled “Rehabilitation Techniques in Dogs” on February 26, 2026, featuring Dr. Neyran Altınkaya (BScPT, PhD, CCRP) as the speaker, and moderated by Lecturer Barış Celbek.

OPTICIANS PROGRAM

Article

The study titled “Electromagnetic Tomography of Spin-3/2 Hidden-Charm Strange Pentaquarks” by Assoc. Prof. Ulaş Özdem from the Opticianry Program has been published in the Journal of High Energy Physics.



JHEP

Published for SISSA by Springer

Received: November 3, 2025
Revised: January 13, 2026
Accepted: January 13, 2026
Published: February 20, 2026

Electromagnetic tomography of spin-$\frac{3}{2}$ hidden-charm strange pentaquarks

Ulaş Özdem [a]

[a] Health Services Vocational School of Higher Education, Istanbul Aydin University, Sefakoy-Kucukcekmece, 34295 Istanbul, Türkiye

E-mail: ulasozdem@aydin.edu.tr

Abstract: Understanding how quarks are spatially arranged inside exotic pentaquarks remains one of the key open problems in contemporary hadron spectroscopy. The electromagnetic multipole moments of hadrons provide a direct probe of their internal quark-gluon geometry and spatial charge distributions. Motivated by this, we employ QCD light-cone sum rules to compute the magnetic dipole, electric quadrupole, and magnetic octupole moments of the $J^P = 3/2^-$ pentaquark with strangeness $S = -1$. Five distinct diquark-diquark-antiquark interpolating currents are constructed to explore possible internal configurations. The resulting electromagnetic moments exhibit pronounced sensitivity to the underlying quark arrangement: magnetic dipole moments range from $-2.28\mu_N$ to $+3.36\mu_N$, establishing this observable as a key discriminator among configurations with identical quantum numbers. Nonzero electric quadrupole and magnetic octupole moments indicate clear deviations from spherical symmetry, while a detailed decomposition shows that light quarks dominate the magnetic response and the charm quark drives quadrupole deformation. These findings position electromagnetic multipole moments as quantitative and discriminating probes of exotic hadron structure, providing concrete benchmarks for forthcoming LHCb, Belle II, and lattice QCD studies.

Keywords: Effective Field Theories of QCD, Properties of Hadrons, Specific QCD Phenomenology

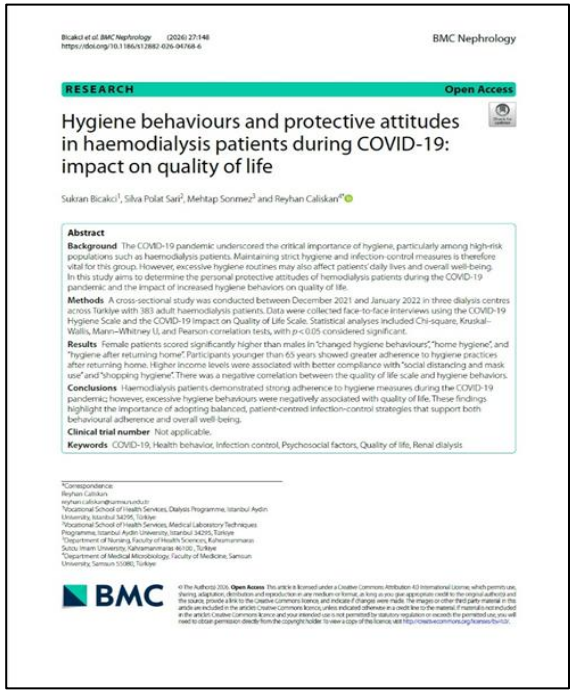
JHEP02(2026)207

SCI-E (Q1)

MEDICAL LABORATORY TECHNIQUES PROGRAM

Web of Science Q2 Publication Achievement

Assistant Professor Dr. Silva Polat Sarı, a faculty member of our university, has been featured in the internationally respected journal BMC Nephrology (indexed in Web of Science Q2) with the study titled “Hygiene Behaviours and Protective Attitudes in Haemodialysis Patients During COVID-19: Impact on Quality of Life.”



Bicakci et al. BMC Nephrology (2026) 27:148
https://doi.org/10.1186/s12882-026-04768-6

BMC Nephrology

RESEARCH Open Access

Hygiene behaviours and protective attitudes in haemodialysis patients during COVID-19: impact on quality of life

Sukran Bicakci[1], Silva Polat Sarı[2], Mehtap Sonmez[3] and Reyhan Caliskan[4*]

Abstract

Background The COVID-19 pandemic underscored the critical importance of hygiene, particularly among high-risk populations such as haemodialysis patients. Maintaining strict hygiene and infection-control measures is therefore vital for this group. However, excessive hygiene routines may also affect patients' daily lives and overall well-being. In this study aims to determine the personal protective attitudes of hemodialysis patients during the COVID-19 pandemic and the impact of increased hygiene behaviors on quality of life.

Methods A cross-sectional study was conducted between December 2021 and January 2022 in three dialysis centres across Türkiye with 383 adult haemodialysis patients. Data were collected face-to-face interviews using the COVID-19 Hygiene Scale and the COVID-19 Impact on Quality of Life Scale. Statistical analyses included Chi-square, Kruskal–Wallis, Mann–Whitney U, and Pearson correlation tests, with $p < 0.05$ considered significant.

Results Female patients scored significantly higher than males in "changed hygiene behaviours", "home hygiene", and "hygiene after returning home". Participants younger than 65 years showed greater adherence to hygiene practices after returning home. Higher income levels were associated with better compliance with "social distancing and mask use" and "shopping hygiene". There was a negative correlation between the quality of life scale and hygiene behaviors.

Conclusions Haemodialysis patients demonstrated strong adherence to hygiene measures during the COVID-19 pandemic; however, excessive hygiene behaviours were negatively associated with quality of life. These findings highlight the importance of adopting balanced, patient-centred infection-control strategies that support both behavioural adherence and overall well-being.

Clinical trial number Not applicable.

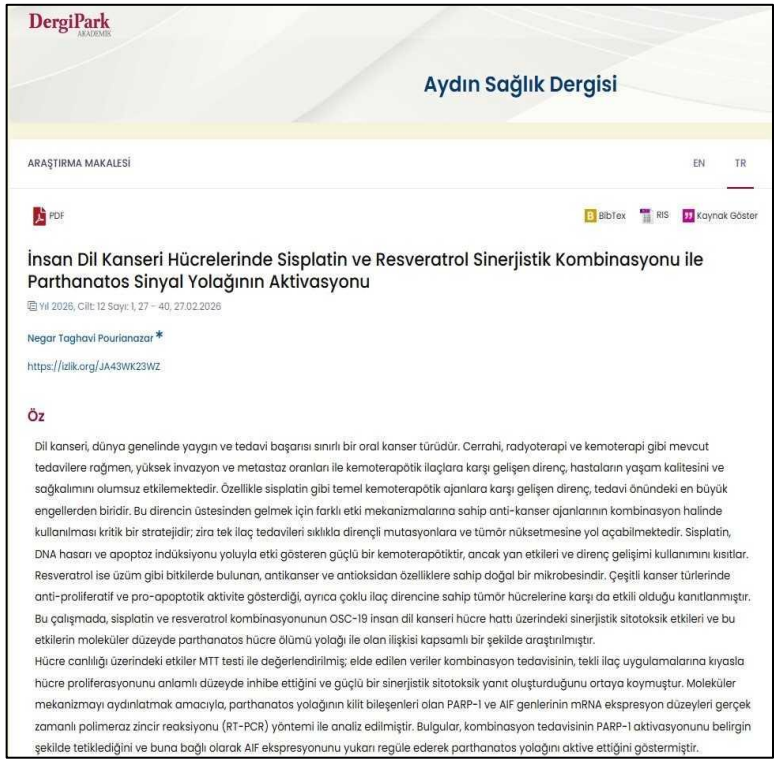
Keywords COVID-19, Health behavior, Infection control, Psychosocial factors, Quality of life, Renal dialysis

We congratulate our faculty member on this academic achievement and wish her continued success in her scientific endeavors.

MEDICAL LABORATORY TECHNIQUES PROGRAM

Publication in Aydın Health Journal

Assistant Professor Dr. Negar Taghavi Pourianazar's article titled "Activation of the Parthanatos Signaling Pathway by the Synergistic Combination of Cisplatin and Resveratrol in Human Tongue Cancer Cells" has been published in Aydın Health Journal. The study demonstrated that the combination therapy exhibited increased cytotoxic effects compared to single treatments, and that this effect is associated with the parthanatos cell death mechanism.



DergiPark AKADEMİK

Aydın Sağlık Dergisi

ARAŞTIRMA MAKALESİ EN TR

PDF BibTex RIS Kaynak Göster

İnsan Dil Kanseri Hücrelerinde Sisplatin ve Resveratrol Sinerjistik Kombinasyonu ile Parthanatos Sinyal Yolağının Aktivasyonu

Yıl 2026, Cilt: 12 Sayı: 1, 27 – 40, 27.02.2026

Negar Taghavi Pourianazar *

https://izlik.org/JA43WK23WZ

Öz

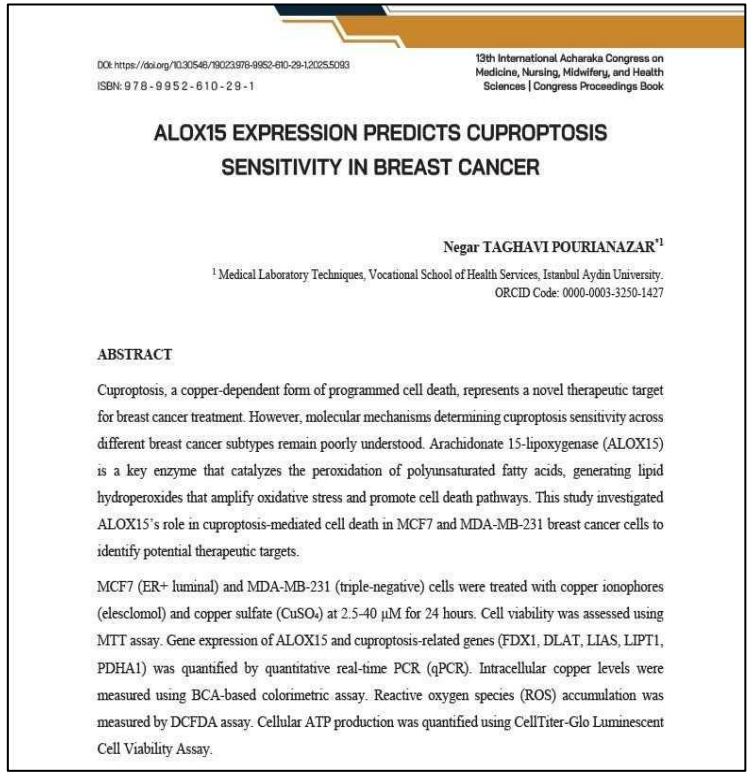
Dil kanseri, dünya genelinde yaygın ve tedavi başarısı sınırlı bir oral kanser türüdür. Cerrahi, radyoterapi ve kemoterapi gibi mevcut tedavilere rağmen, yüksek invazyon ve metastaz oranları ile kemoterapötik ilaçlara karşı gelişen direnç, hastaların yaşam kalitesini ve sağkalımını olumsuz etkilemektedir. Özellikle sisplatin gibi temel kemoterapötik ajanlara karşı gelişen direnç, tedavi önündeki en büyük engellerden biridir. Bu direncin üstesinden gelmek için farklı etki mekanizmalarına sahip anti-kanser ajanlarının kombinasyon halinde kullanılması kritik bir stratejidir; zira tek ilaç tedavileri sıklıkla dirençli mutasyonlara ve tümör nüksetmesine yol açabilmektedir. Sisplatin, DNA hasarı ve apoptoz indüksiyonu yoluyla etki gösteren güçlü bir kemoterapötiktir, ancak yan etkileri ve direnç gelişimi kullanımını kısıtlar. Resveratrol ise üzüm gibi bitkilerde bulunan, antikanser ve antioksidan özelliklere sahip doğal bir mikrobesindir. Çeşitli kanser türlerinde anti-proliferatif ve pro-apoptotik aktivite gösterdiği, ayrıca çoklu ilaç direncine sahip tümör hücrelerine karşı da etkili olduğu kanıtlanmıştır. Bu çalışmada, sisplatin ve resveratrol kombinasyonunun OSC-19 insan dil kanseri hücre hattı üzerindeki sinerjistik sitotoksik etkileri ve bu etkilerin moleküler düzeyde parthanatos hücre ölümü yolağı ile olan ilişkisi kapsamlı bir şekilde araştırılmıştır.

Hücre canlılığı üzerindeki etkiler MTT testi ile değerlendirilmiş; elde edilen veriler kombinasyon tedavisinin, tekli ilaç uygulamalarına kıyasla hücre proliferasyonunu anlamlı düzeyde inhibe ettiğini ve güçlü bir sinerjistik sitotoksik yanıt oluşturduğunu ortaya koymuştur. Moleküler mekanizmayı aydınlatmak amacıyla, parthanatos yolağının kilit bileşenleri olan PARP-1 ve AIF genlerinin mRNA ekspresyon düzeyleri gerçek zamanlı polimeraz zincir reaksiyonu (RT-PCR) yöntemi ile analiz edilmiştir. Bulgular, kombinasyon tedavisinin PARP-1 aktivasyonunu belirgin şekilde tetiklediğini ve buna bağlı olarak AIF ekspresyonunu yukarı regüle ederek parthanatos yolağını aktive ettiğini göstermiştir.

MEDICAL LABORATORY TECHNIQUES PROGRAM

13th International “Acharaka” Congress on Medicine, Nursing, Midwifery, and Health Sciences

Assistant Professor Dr. Negar Taghavi Pourianazar presented an oral paper titled “ALOX15 Expression Predicts Cuproptosis Sensitivity and Clinical Outcomes in Breast Cancer” at this congress. The study has been published as a full paper. The research evaluated the relationship between ALOX15 expression, sensitivity to cuproptosis, and clinical prognosis.



DOI: https://doi.org/10.30546/19023978-9952-610-29-1202S.5093
ISBN: 978-9952-610-29-1
13th International Acharaka Congress on Medicine, Nursing, Midwifery, and Health Sciences | Congress Proceedings Book

ALOX15 EXPRESSION PREDICTS CUPROPTOSIS SENSITIVITY IN BREAST CANCER

Negar TAGHAVI POURIANAZAR[*1]
[1] Medical Laboratory Techniques, Vocational School of Health Services, Istanbul Aydin University.
ORCID Code: 0000-0003-3250-1427

ABSTRACT

Cuproptosis, a copper-dependent form of programmed cell death, represents a novel therapeutic target for breast cancer treatment. However, molecular mechanisms determining cuproptosis sensitivity across different breast cancer subtypes remain poorly understood. Arachidonate 15-lipoxygenase (ALOX15) is a key enzyme that catalyzes the peroxidation of polyunsaturated fatty acids, generating lipid hydroperoxides that amplify oxidative stress and promote cell death pathways. This study investigated ALOX15's role in cuproptosis-mediated cell death in MCF7 and MDA-MB-231 breast cancer cells to identify potential therapeutic targets.

MCF7 (ER+ luminal) and MDA-MB-231 (triple-negative) cells were treated with copper ionophores (elesclomol) and copper sulfate ($CuSO_4$) at 2.5-40 µM for 24 hours. Cell viability was assessed using MTT assay. Gene expression of ALOX15 and cuproptosis-related genes (FDX1, DLAT, LIAS, LIPT1, PDHA1) was quantified by quantitative real-time PCR (qPCR). Intracellular copper levels were measured using BCA-based colorimetric assay. Reactive oxygen species (ROS) accumulation was measured by DCFDA assay. Cellular ATP production was quantified using CellTiter-Glo Luminescent Cell Viability Assay.

MEDICAL LABORATORY TECHNIQUES PROGRAM

8th International Uludağ Scientific Research Congress (21–22 February 2026 / Bursa)

Assistant Professor Dr. Negar Taghavi Pourianazar presented an oral paper titled “β-Catenin-Dependent Regulation of Midkine Expression: Therapeutic Resistance Phenotype and Effective Strategy of Combination Therapy in Luminal A and Triple-Negative Breast Cancer” at the congress. The study has been published as a full paper and investigates the relationship between β-catenin-dependent regulation of midkine, therapeutic resistance, and the potential efficacy of combination therapies.


CERTIFICATE

OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

Assist. Prof. Dr. Negar TAGHAVI POURIANAZAR

in oral and technical presentation recognition and appreciation of research contributions to

8st INTERNATIONAL ULUDAĞ SCIENTIFIC RESEARCH CONGRESS
21-22 FEBRUARY 2026 / BURSA, TURKIYE

with the paper entitled

B-Catenin-Dependent Regulation Of Midkine Expression:Therapeutic Resistance Phenotype And Effective Strategy Of Combination Therapy In Luminal A and Triple-Negative Breast Cancer

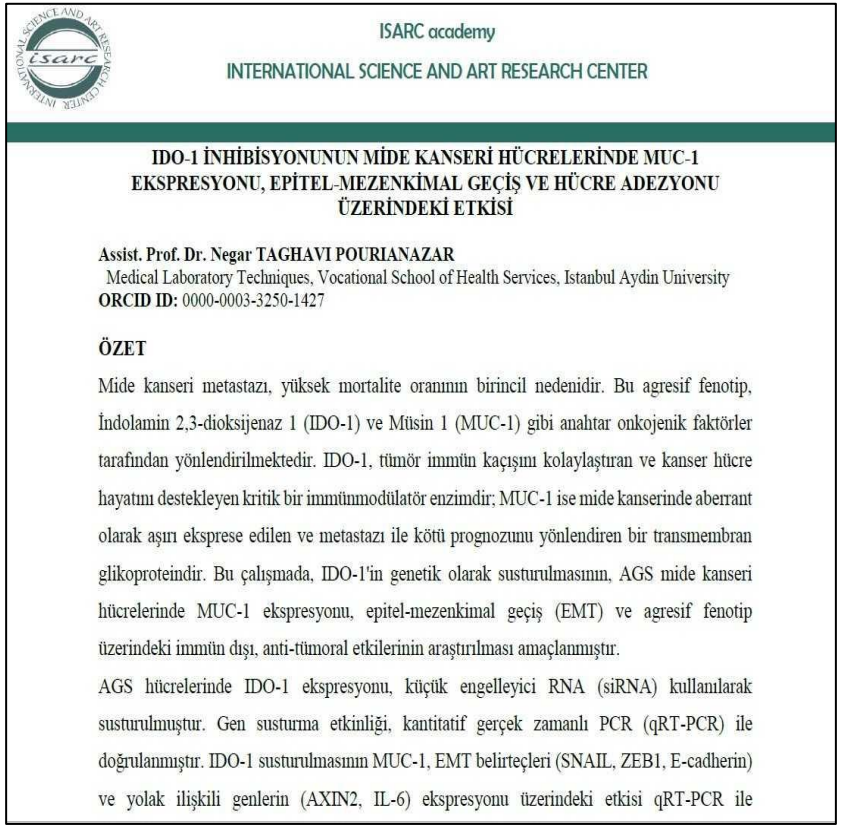
Prof. Dr. Mustafa METE

CONGRESS PRESIDENT

MEDICAL LABORATORY TECHNIQUES PROGRAM

6th International Üsküdar Scientific Research Congress (24–25 February 2026 / İstanbul)

Assistant Professor Dr. Negar Taghavi Pourianazar presented an oral paper titled “The Effect of IDO-1 Silencing on MUC-1 Expression, Epithelial-Mesenchymal Transition, and Cell Adhesion in Gastric Cancer Cells”. The study investigated the effects of IDO-1 silencing on the epithelial-mesenchymal transition (EMT) process and cell adhesion mechanisms in gastric cancer cells.



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INTERNATIONAL SCIENCE AND ART RESEARCH CENTER

IDO-1 İNHİBİSYONUNUN MİDE KANSERİ HÜCRELERİNDE MUC-1 EKSPRESYONU, EPİTEL-MEZENKİMAL GEÇİŞ VE HÜCRE ADEZYONU ÜZERİNDEKİ ETKİSİ

Assist. Prof. Dr. Negar TAGHAVI POURIANAZAR
Medical Laboratory Techniques, Vocational School of Health Services, Istanbul Aydin University
ORCID ID: 0000-0003-3250-1427

ÖZET

Mide kanseri metastazı, yüksek mortalite oranının birincil nedenidir. Bu agresif fenotip, İndolamin 2,3-dioksijenaz 1 (IDO-1) ve Müsin 1 (MUC-1) gibi anahtar onkojenik faktörler tarafından yönlendirilmektedir. IDO-1, tümör immün kaçışını kolaylaştıran ve kanser hücre hayatını destekleyen kritik bir immünmodülatör enzimdir; MUC-1 ise mide kanserinde aberrant olarak aşırı eksprese edilen ve metastazı ile kötü prognozunu yönlendiren bir transmembran glikoproteindir. Bu çalışmada, IDO-1'in genetik olarak susturulmasının, AGS mide kanseri hücrelerinde MUC-1 ekspresyonu, epitel-mezenkimal geçiş (EMT) ve agresif fenotip üzerindeki immün dışı, anti-tümoral etkilerinin araştırılması amaçlanmıştır.

AGS hücrelerinde IDO-1 ekspresyonu, küçük engelleyici RNA (siRNA) kullanılarak susturulmuştur. Gen susturma etkinliği, kantitatif gerçek zamanlı PCR (qRT-PCR) ile doğrulanmıştır. IDO-1 susturulmasının MUC-1, EMT belirteçleri (SNAIL, ZEB1, E-cadherin) ve yolak ilişkili genlerin (AXIN2, IL-6) ekspresyonu üzerindeki etkisi qRT-PCR ile

MEDICAL LABORATORY TECHNIQUES PROGRAM

9th International Boğaziçi Scientific Research Congress (27–28 February 2026 / İstanbul)

Assistant Professor Dr. Negar Taghavi Pourianazar presented an oral paper titled “Synergistic Cytotoxicity of Probucol and Cisplatin Combination in Breast Cancer Cells via Mitochondrial Dysfunction and Oxidative Stress”, and the study has been published as a full paper. The research demonstrated that the combination therapy induces synergistic cytotoxicity through mitochondrial dysfunction and oxidative stress.


CERTIFICATE

OF PARTICIPATION

This certificate is proudly presented to

Assist. Prof. Dr. Negar TAGHAVI POURIANAZAR

in oral and technical presentation recognition and appreciation of research contributions to
9st INTERNATIONAL BOĞAZİÇİ SCIENTIFIC RESEARCH CONGRESS
27-28 FEBRUARY 2026 / İSTANBUL, TÜRKİYE
with the paper entitled

Synergıstıc Cytotoxıcıty Of Probucol And Cısplatın Combınatıon In Breast Cancer Cells Vıa Mıtochondrıal Dysfunctıon And Oxıdatıve Stres

SEFA SALİH BİLDİRİCİ
HEAD OF ISARC

SOCIAL SERVICES PROGRAM

World Quit Smoking Day Awareness Activity

Our Social Work Program students, in collaboration with the Güngören branch of the Turkish Green Crescent (Yeşilay), carried out an important awareness activity for World No Tobacco Day. Information about the harms of smoking and other addictions was shared through indoor stands set up at Cemil Meriç Vocational and Technical Anatolian High School and Güngören Anatolian High School during break times. The activities of Yeşilay were introduced, and the event aimed to raise awareness and educate students. We congratulate our students and all Yeşilay volunteers for their contribution to fostering healthy and conscious future generations.

SOCIAL SERVICES PROGRAM

Introduction to First Aid for Social Work Students

Lecturer Zeynep YALNIZ, a valued faculty member of the Electroneurophysiology Program, provided an Introduction to First Aid training to our Social Work Program students. We thank her for sharing her valuable knowledge with our students.

SOCIAL SERVICES PROGRAM

Community Contribution Project

Our students participated in the “Knitting for You” campaign organized by the Protective Family and Child Association, creating scarves with their own efforts for children under state care. This project combined the fundamental principles of social work—social benefit and solidarity—with a hands-on activity. It aimed both to enhance our students’ professional awareness and to provide warm support to the children. We thank all the students who contributed to this meaningful project and the Protective Family and Child Association for their support.

FIRST AND EMERGENCY AID PROGRAM

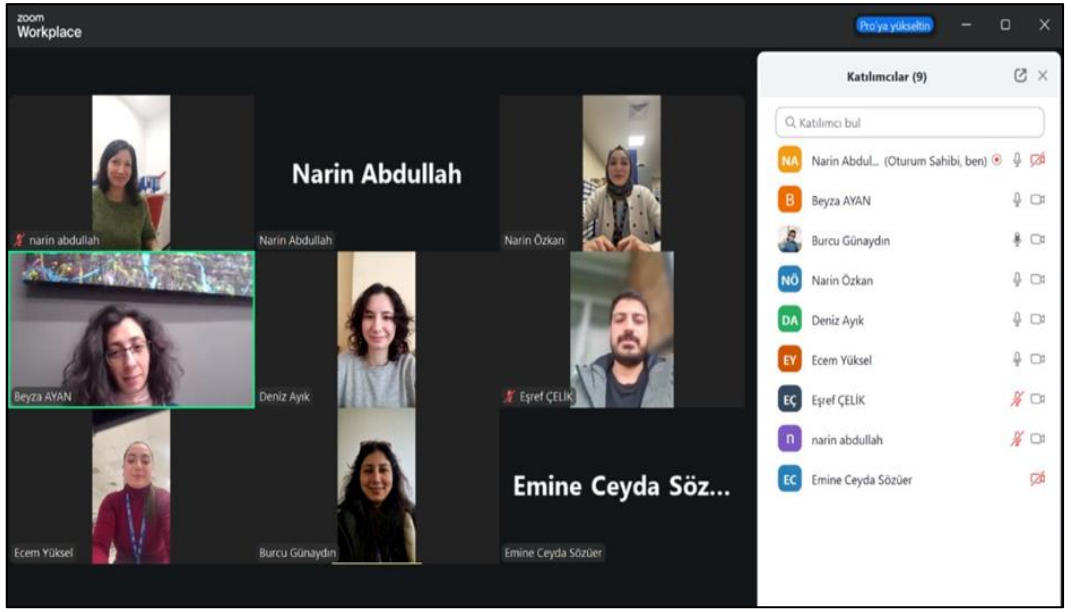
Club Promotion Event

Students of the First Aid Program successfully represented their newly established First Aid Club at the club promotion event, introducing the club and its activities to the university community.

PATHOLOGY LABORATORY TECHNIQUES PROGRAM

External Stakeholder Meeting

On Wednesday, February 25, 2026, the Pathology Laboratory Techniques Program held a meeting with the External Stakeholder Committee. The meeting included discussions on current industry needs, curriculum suggestions, and the status of our graduates.



PATHOLOGY LABORATORY TECHNIQUES PROGRAM

Clubs Festival and Booth Days

Between February 10–12, 2026, during the Clubs Festival and Booth Days held at Florya Campus, A Garden, Lecturer Beyza AYAN and students of the Pathology Laboratory Techniques Program visited the booths of program students who are club members.

PATHOLOGY LABORATORY TECHNIQUES PROGRAM

Pathology Laboratory Techniques Program Volleyball Event

On February 16, 2026, first-year students of the Pathology Laboratory Techniques Program organized a volleyball match at the T Block Indoor Sports Hall to boost class motivation and enhance communication among students.

COMMUNICATION

Florya Campus (Halit Aydın Campus)

Beşyol Neighborhood, İnönü Street, No: 38

G Block, Vocational School of Health Services

Sefaköy–Küçükçekmece / İSTANBUL,

TÜRKİYE

E-mail: info@aydin.edu.tr