



ISTANBUL AYDIN UNIVERSITY FACULTY OF PHARMACY

E-NEWSLETTER

1 SEPTEMBER – 30 SEPTEMBER 2026



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FACULTY OF PHARMACY

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Orientation Program Held for First-Year Students in the Turkish and English Programs



An orientation program for first-year students entering our Faculty's Turkish and English programs was held on September 21, 2026, in the Orange Hall of Block D. Asst. Prof. Dr. Merve Ataman, Head of the Turkish Program, and Asst. Prof. Dr. Tuğçe Tüccar, Head of the English Program, introduced the Faculty and outlined the academic programs. The IT Department provided information about the digital systems students will use. The Faculty's student representative and student clubs also shared their experiences and activities, helping new students become familiar with life at the Faculty.



FACULTY OF PHARMACY

September

Research by Our Faculty Member Prof. Dr. Sevgi Karakuş Published in a Q1 Journal

The study titled “Design, Synthesis and Molecular Docking Studies of Some Novel Hydrazone Derivatives Based on Trimetazidine as Selective and Potent AChE Inhibitors” by Prof. Dr. Sevgi Karakuş, a faculty member in the Department of Pharmaceutical Chemistry, was published in Drug Development Research, a Q1 journal.

Drug Development Research

WILEY

DRUG DEVELOPMENT RESEARCH

RESEARCH ARTICLE OPEN ACCESS

Design, Synthesis and Molecular Docking Studies of Some Novel Hydrazone Derivatives Based on Trimetazidine as Selective and Potent AChE Inhibitors

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ABSTRACT

Alzheimer's disease (AD) is a progressive neurodegenerative disease, and cholinergic dysfunction is considered one of the fundamental pathological factors of this disease. Guided by the clinically used acetylcholinesterase (AChE) inhibitor donepezil, we explored trimetazidine dihydrochloride as an accessible starting scaffold to generate donepezil-like features and to develop new anti-AD candidates. Accordingly, 20 novel hydrazone derivatives were designed and synthesized based on trimetazidine dihydrochloride, and their structures were confirmed by spectroscopic methods. The compounds were evaluated for in vitro inhibition of AChE and butyrylcholinesterase (BChE) using donepezil and tacrine as reference inhibitors, respectively. Several derivatives displayed pronounced AChE inhibition, whereas most compounds showed weak or negligible activity toward BChE, indicating a generally favorable AChE-selective profile. Among the series, compounds **3p**, **3q** and **3r** exhibited selective inhibitory activity against AChE comparable to donepezil, with IC₅₀ values of 0.030 ± 0.001 µM, 0.085 ± 0.003 µM and 0.034 ± 0.001 µM, respectively. To rationalize the observed activity trends, molecular docking studies were performed, suggesting that the most active ligands adopt donepezil-like binding modes spanning the catalytic and peripheral anionic sites and are further stabilized by π-π/π-cation contacts and hydrogen-bonding interactions within the active gorge. Overall, these findings identify trimetazidine-derived hydrazone-hydrazones as a promising chemotype for the development of selective AChE inhibitors and provide a basis for further optimization and advanced biological validation.



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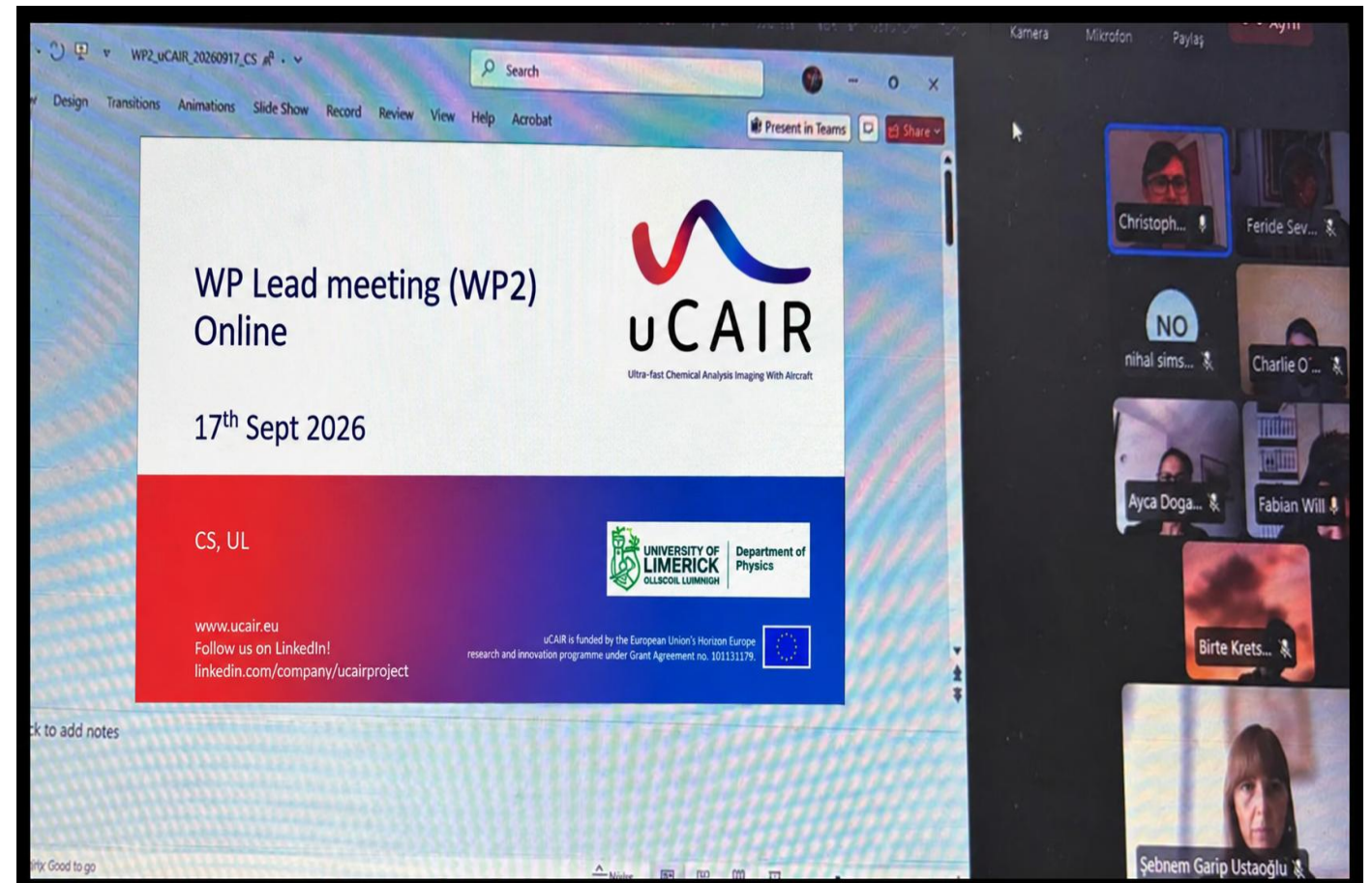


FACULTY OF PHARMACY

September

Our Vice Dean, Assoc. Prof. Dr. Şebnem Garip Ustaoglu, Attended the Work Package Leaders' Meeting of the EU-Funded uCAIR Project

Our Vice Dean and faculty member in the Department of Biochemistry, Assoc. Prof. Dr. Şebnem Garip Ustaoglu, participated online in the Work Package Leaders' Meeting of the EU-funded "Chemical Analysis Imaging with Raman (uCAIR)" project on 17 September 2026. She serves as a principal investigator and lead of a work package in the project, which is being carried out under HORIZON-CL4-2023-DIGITAL-EMERGING-01. The work conducted within her work package was presented at the meeting.



Our Faculty Member Asst. Prof. Dr. Tuğçe Tüccar Conducted Research at the University of Belgrade under a COST Action

Asst. Prof. Dr. Tuğçe Tüccar of our Department of Pharmaceutical Microbiology conducted a 10-day research visit with the Sociomicrobiology Group at the University of Belgrade's Institute of Molecular Genetics and Genetic Engineering (IMGGE). The visit was supported by a Short-Term Scientific Mission (STSM) grant under COST Action CA23152 RegulatoryToolBox, of which she is a member. The study, conducted with group leader Prof. Lidija Šenerović, evaluated the efficacy of antimicrobial agents against biofilms.





FACULTY OF PHARMACY

September

Our Faculty Member Asst. Prof. Dr. Tuğçe Tüccar Visited the University of Belgrade to Explore Academic Collaboration

Asst. Prof. Dr. Tuğçe Tüccar of our Department of Pharmaceutical Microbiology visited the University of Belgrade's Faculty of Pharmacy and discussed opportunities for joint research with Assoc. Prof. Brankica Filipić of the Department of Microbiology and Immunology. She also met with the Faculty's Vice Dean, Prof. Aleksandra Buha Đorđević, to explore collaboration between the two faculties in academic mobility, joint projects, and the development of joint courses.



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Our Faculty Member Asst. Prof. Dr. Tuğçe Tüccar Attended the COST Action CA23152 Working Group Meeting

Asst. Prof. Dr. Tuğçe Tüccar of our Department of Pharmaceutical Microbiology attended the COST Action CA23152 Biofilm Regulatory ToolBox Working Group meeting on 10 September 2026. She contributed to the review of the Action's activities to date and the planning of its future activities.

Biofilm Regulatory Toolbox

Building Consensus on Biofilm Regulatory Decision Making

Group leaders

- Kasper Nørskov Kragh
Director of R&D, Symcel AB
Kasper.Kragh@Symcel.com
- Maria Salta
Dr. Endures PV
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- Jontana Allkja
University of Liverpool
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COST Action CA23152
10 September 2026
MC Meeting WG2
Ljubljana





FACULTY OF PHARMACY

September

Our Faculty Member Asst. Prof. Dr. Ömer Yedikaya Participated in the IPTS 2026 Symposium

Asst. Prof. Dr. Ömer Yedikaya, a faculty member in the Department of Pharmaceutical Technology, attended the 22nd International Pharmaceutical Technology Symposium (IPTS 2026), held in Ankara on September 9–11, 2026. The studies titled “Development of thermosensitive in situ gelling systems containing paliperidone-loaded nanostructured lipid carriers for intranasal administration” and “Formulation and evaluation of emulgel formulations including Sambucus nigra extracts,” to which he contributed as a researcher, were presented as posters at the symposium.



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FACULTY OF PHARMACY

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Project Involving Our Faculty Member Asst. Prof. Dr. Gizem Sena Elagöz Approved under Süleyman Demirel University's Scientific Research Projects Program

The project titled “Investigation of Spleen Toxicity Caused by Subchronic Oral Exposure to Flonicamid in Male Rats,” in which Assist. Prof. Dr. Gizem Sena Elagöz of our Department of Pharmaceutical Toxicology serves as a researcher, has been approved for funding by Süleyman Demirel University's Scientific Research Projects (BAP) Coordination Unit and has commenced.





FACULTY OF PHARMACY

September

TÜBİTAK 1002-A Project Led by Our Research Assistant Didem Nur Doğaner Approved

The project titled “Development of a Flexible Gold Electrode-Based Genosensor for the Detection of COVID-19-Associated miRNAs in Biological Fluids,” led by Res. Asst. Dr. Didem Nur Doğaner of our Faculty’s Department of Analytical Chemistry, has been approved for funding under the TÜBİTAK 1002-A Rapid Support Program.



Our Research Assistant Didem Nur Dođaner Successfully Completed Her PhD

Research Assistant Didem Nur Dođaner of our Faculty's Department of Analytical Chemistry has successfully completed her doctoral thesis, titled "Development of a Sensor Platform for the Detection of miRNA-1307-3p, a COVID-19 Biomarker," and earned her PhD.

