

CURRICULUM VITAE

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Degree	Department/Program	University	Year
Doctorate	MOLEKÜLER BİYOLOJİ VE GENETİK (DR)	İstanbul University	2023
Master's Degree	MOLEKÜLER BİYOLOJİ VE GENETİK (YL) (TEZLİ)	İstanbul University	2016
Bachelor's Degree	MOLEKÜLER BİYOLOJİ VE GENETİK BÖLÜMÜ	İstanbul University	2014

PUBLICATIONS

A. Articles published in international peer-reviewed journals:

- A1.** Selcan A., Demirgan S., Şengelen A., Oran D. S., Aksüt Y., Yüzbaşıoğlu-öztürk G., Öztürk-gürgen H., Kargı-gemici E., Gülçubuk A., "Prolonged sevoflurane exposure induces exaggerated and persistent cognitive decline in old rats with pre-existing impairment by increasing hippocampal mitochondrial dysfunction and apoptosis", *NeuroToxicology*, vol. 116, 2026.
- A2.** Demirgan S., Şengelen A., Aksüt Y., Ögütçü İ., Oran D. S., Solak-kumaş S., Paşaoğlu H. E., Akyol O., Erkalp K., Önay-uçar E., "Intranasal rosmarinic acid reduces cognitive and hippocampal damage from repeated neonatal isoflurane exposure by regulating apoptotic/oxidative/inflammatory responses, and heat-shock and 14-3-3 proteins", *NeuroToxicology*, vol. 114, 2026.
- A3.** Ozan G., Sar Sancaklı H., Batu S., Gurbuz Yurtsever A., Erdal M., Şengelen A., Onay Ucar E., Ozel Yildiz S., Bicak B., Kecel Gunduz S., "Efficacy of theaflavin-based dental varnishes against erosive demineralization and matrix metalloproteinase expression", *Odontology*, vol. 114, no. 2, pp. 924-938, 2026.
- A4.** Suna G., Erdemir E., Hamur B., Aksüt Y., Şengelen A., Pekmez M., Eğlence-bakır S., Şahin M., Karakuş E., "Integrated fluorescent sensing of hypochlorite using a carbazole platform: cellular imaging, environmental monitoring, and smartphone analysis", *Microchemical Journal*, vol. 219, 2025.
- A5.** Göksoy M. A., Aksüt Y., Şengelen A., Arda N., "Water-based propolis enhances 5-fluorouracil drug efficiency in gastric and colorectal cancer cells through cell stress response, anti-migratory, and apoptotic effects regardless of p53 status", *Medical Oncology*, vol. 42, no. 10, 2025.
- A6.** Erkalp K., Demirgan S., Şengelen A., Oran D. S., Ögütçü İ., Gencel-güler C., Erkalp S., Demirgan E. B., Kumaş-solak S., Yelmen N. vd., "Acute Normovolemic Hemodilution Changes the Aquaporin Expression Profile in Specific Tissues and Induces Apoptotic and Inflammatory Processes in a Rat Model", *Medicina (Lithuania)*, vol. 61, no. 9, 2025.
- A7.** Yıldırım E., Şengelen A., Yücel O., Aksüt Y., Ögütçü İ., Bayrakçı A., Gencel-güler C., Güneş U., İldeş C., Pekmez M. vd., "Methotrexate-loaded Sr-BDC metal-organic frameworks attenuate glioblastoma and cervical-carcinoma cells and spheroids' growth and motility by reducing the inflammation-EMT axis and inducing apoptosis", *Journal of Drug Delivery Science and Technology*, vol. 111, 2025.
- A8.** Yılmaz M., Şengelen A., Aksüt Y., Palabıyık B., Önay-uçar E., Karaer Uzuner S., "Glucose starvation induces tau phosphorylation leading to cellular stress response in fission yeast", *Archives of Microbiology*, vol. 207, no. 7, 2025.
- A9.** Pekmez M., Mete Ş. B., Aksüt Y., Ögütçü İ., Baştürk F. N., Gerçek Y. C., Şengelen A., "Fatty acid synthase inhibitor cerulenin attenuates glioblastoma progression by reducing EMT and stemness phenotypes, inducing oxidative and ER stress response, and targeting PI3K/AKT/NF-κB axis", *Medical Oncology*, vol. 42, no. 5, 2025.
- A10.** Okutan E., Güleç İ., Şengelen A., Karagöz-güzey F., Eren B., Tufan A., Özcan T. B., Önay-uçar E., "Aloperine treatment attenuates acute spinal cord injury by reducing oxidative, inflammatory, and apoptotic responses via PI3K/AKT/NF-κB signaling in a rat contusion model", *Neuroscience Letters*, vol. 854, 2025.

- A11.** Sağlam-çifci E., Güleç İ., Şengelen A., Karagöz-güzey F., Eren B., Paşaoğlu H. E., Önay-uçar E., "The H4R antagonist, JNJ-777120 treatments ameliorate mild traumatic brain injury by reducing oxidative damage, inflammatory and apoptotic responses through blockage of the ERK1/2/NF-κB pathway in a rat model", *Experimental Neurology*, vol. 385, 2025.
- A12.** Aksüt Y., Şengelen A., Gürsoy D. M., Ögütçü İ., Kuvet Ö., Pekmez M., "Chrysin sensitizes glioblastoma cells and spheroids to temozolomide treatment by reducing EMT and stemness phenotypes, as well as targeting multidrug resistance proteins", *Frontiers in Pharmacology*, vol. 16, 2025.
- A13.** Bostancı F., Şengelen A., Aksüt Y., Yıldırım E., Ögütçü İ., Yücel O., Emik S., Gürdağ G., Pekmez M., "Indomethacin-encapsulated PLGA nanoparticles improve therapeutic efficacy by increasing apoptosis and reducing motility in glioblastoma cells", *Pharmaceutical Development and Technology*, vol. 30, no. 1, pp. 25-36, 2025.
- A14.** Şengelen A., Önay-uçar E., "Rosmarinic acid attenuates glioblastoma cells and spheroids' growth and EMT/stem-like state by PTEN/PI3K/AKT downregulation and ERK-induced apoptosis", *Phytomedicine*, vol. 135, 2024.
- A15.** Kargı-gemici E., Şengelen A., Aksüt Y., Akyol O., Şengiz-erhan S., Bay M., Önay-uçar E., Selcan A., Demirkan S., "Cerium oxide nanoparticles (nanoceria) pretreatment attenuates cell death in the hippocampus and cognitive dysfunction due to repeated isoflurane anesthesia in newborn rats", *NeuroToxicology*, vol. 105, pp. 82-93, 2024.
- A16.** Yücel O., Aksüt Y., Şengelen A., Yıldırım E., Emik S., Arda N., Gürdağ G., "Folate receptor-targeted indomethacin-loaded gold nanoparticles enhance drug chemotherapeutic efficacy in glioblastoma cells and spheroids", *Journal of Drug Delivery Science and Technology*, vol. 100, 2024.
- A17.** Önay Uçar E., Şengelen A., Mertoğlu Kamalı E., "Hsp27, Hsp60, Hsp70, or Hsp90 depletion enhances the antitumor effects of resveratrol via oxidative and ER stress response in human glioblastoma cells", *Biochemical Pharmacology*, vol. 208, 2023.
- A18.** Yılmaz H., Şengelen A., Demirkan S., Paşaoğlu H. E., Çağatay M., Erman İ. E., Bay M., Güneyli H. C., Önay-uçar E., "Acutely increased aquaporin-4 exhibits more potent protective effects in the cortex against single and repeated isoflurane-induced neurotoxicity in the developing rat brain", *Toxicology Mechanisms and Methods*, vol. 33, no. 4, pp. 279-292, 2023.
- A19.** Yayla-tunçer E., Şengelen A., Tan-recep B. Z., Şavluk Ö. F., Yılmaz A. A., Ceyran H., Önay-uçar E., "Acute Changes in Myocardial Expression of Heat Shock Proteins and Apoptotic Response Following Blood, delNido, or Custodiol Cardioplegia in Infants Undergoing Open-Heart Surgery", *Pediatric Cardiology*, vol. 43, no. 3, pp. 567-579, 2022.
- A20.** Akyol O., Demirkan S., Şengelen A., Güneyli H. C., Oran D. S., Yıldırım F., Haktanır D., Sevdı M. S., Erkalp K., Selcan A., "Mild Hypothermia via External Cooling Improves Lung Function and Alleviates Pulmonary Inflammatory Response and Damage in Two-Hit Rabbit Model of Acute Lung Injury", *Journal of Investigative Surgery*, vol. 35, no. 7, pp. 1472-1483, 2022.
- A21.** Güleç İ., Şengelen A., Karagöz-güzey F., Önay-uçar E., Eren B., Vahabova G., Karacan M., Özcan T. B., "The calcimimetic R-568 attenuates subarachnoid hemorrhage-induced vasospasm through PI3K/Akt/eNOS signaling pathway in the rat model", *Brain Research*, vol. 1765, 2021.
- A22.** Demirkan S., Akyol O., Temel Z., Şengelen A., Pekmez M., Ulaş O., Sevdı M. S., Erkalp K., Selcan A., "Intranasal levosimendan prevents cognitive dysfunction and apoptotic response induced by repeated isoflurane exposure in newborn rats", *Naunyn-Schmiedeberg's Archives of Pharmacology*, vol. 394, no. 7, pp. 1553-1567, 2021.
- A23.** Yücel O., Şengelen A., Emik S., Önay-uçar E., Arda N., Gürdağ G., "Folic acid-modified methotrexate-conjugated gold nanoparticles as nano-sized trojans for drug delivery to folate receptor-positive cancer cells", *Nanotechnology*, vol. 31, no. 35, 2020.
- A24.** Kıyga E., Şengelen A., Adıgüzel Z., Önay Uçar E., "Investigation of the role of quercetin as a heat shock protein inhibitor on apoptosis in human breast cancer cells", *Molecular Biology Reports*, vol. 47, no. 7, pp. 4957-4967, 2020.
- A25.** Önay Uçar E., Şengelen A., "Resveratrol and siRNA in combination reduces Hsp27 expression and induces caspase-3 activity in human glioblastoma cells", *Cell Stress and Chaperones*, vol. 24, no. 4, pp. 763-775, 2019.
- A26.** Demirkan S., Akyol O., Temel Z., Şengelen A., Pekmez M., Demirkan R., Sevdı M. S., Erkalp K., Selcan A., "Isoflurane exposure in infant rats acutely increase aquaporin 4 and does not cause neurocognitive impairment", *Bosnian Journal of Basic Medical Sciences*, vol. 19, no. 3, pp. 257-264, 2019.
- A27.** Şengelen A., Önay-uçar E., "Rosmarinic acid and siRNA combined therapy represses Hsp27 (HSPB1) expression and induces apoptosis in human glioma cells", *Cell Stress and Chaperones*, vol. 23, no. 5, pp. 885-896, 2018.