



CURRICULUM VITAE

Name and Surname: Mine ÇAĞLAYAN
Academic Title: Assistant Professor
Work Address:
Email: mcaglayan@biruni.edu.tr
Area of Expertise: Health Sciences
Pharmaceutical Toxicology
Pharmacology and Therapeutics
Professional Sciences

Degree	Department/Program	University	Year
Doctorate	FARMASÖTİK TOKSİKOLOJİ (DR)	İstanbul University	2021
Master's Degree	FARMASÖTİK TOKSİKOLOJİ (YL) (TEZLİ)	İstanbul University	2016
Bachelor's Degree	BİYOLOJİ BÖLÜMÜ	İstanbul University	2012

Master's Thesis Title (abstract attached) and Thesis Supervisor(s):

Bisfenol A'nın farklı hücre kültürlerinde DNA metilasyonu ve histon modifikasyonları üzerine etkilerinin araştırılması

Doctoral Thesis/Proficiency Study/Medical Specialization Thesis Title (abstract attached) and Supervisor(s):

Bisfenol a ve analoglarının endoplazmik retikulum stresi üzerine etkilerinin hücre kültüründe incelenmesi

Position Title	Workplace	Year
Assistant Professor	Biruni University	2022-Continues

Roles in Projects:

1. Gıda Boyası Tartrazin ve Gıda Emülgatörü P80'in Potansiyel Toksik Etkilerinin in vitro Değerlendirilmesi, TUBITAK Project, Çağlayan M., 2025-Continues.
2. Endemik Verbascum degenii Hal. (Scrophulariaceae) Türünün LPS ile İndüklenen Akciğer Epitel Hücrelerinde Anti-inflamatuar, Yara İyileştirici ve Hücre Stres Üzerine Etkilerinin Araştırılması, Project Supported by Higher Education Institutions, Çağlayan M., 2025-Continues.
3. Yaygın Olarak Kullanılan Triazol Grubu Fungisit Penkonazolün Sitotoksik Etki Potansiyelinin Allium Cepa Test Sistemi Kullanılarak Araştırılması, TUBITAK Project, Çağlayan M., Yılmaz S. (Executive), 2024-Continues.
4. Nöroblastoma ve Prostat Kanseri Hücrelerinde Gen Spesifik DNA Metilasyonu ve Histon Modifikasyonu Üzerine Bisfenol A'nın Etkileri, TUBITAK Project, Sancar S., Arda Pirinççi B. P., Karaman E. F., Özal Coşkun C., Çağlayan M., Özden S. (Executive), 2015-2018.

5. *Endokrin Sistem Üzerine Etkili Kimyasalların Toksisitelerinde Histon Modifikasyonlarının Rolü*, Project Supported by Higher Education Institutions, Çağlayan M., Özden S. (Executive), 2014-2016.

6. *Bisfenol A'nın Farklı Hücre Kültürlerinde DNA Metilasyonu ve Histon Modifikasyonları Üzerine Etkilerinin Araştırılması*, Project Supported by Higher Education Institutions, Çağlayan M., Özden S. (Executive), 2014-2016.

7. *Endokrin Bozucu Kimyasalların Toksisitelerinde Epigenetik Mekanizmaların Rolü*, Project Supported by Higher Education Institutions, Çağlayan M., Özden S. (Executive), 2013-2015.

Administrative Duties:

1. Other Academic Position - Biruni University (2024 - Continues)
2. Other Academic Position - Biruni University (2023 - Continues)
3. Other Academic Position - Biruni University (2023 - Continues)

Awards:

1. First prize for poster presentation. Ozden S., Senyildiz M., Karaman E. F. Global and gene-specific promoter DNA methylation profiles of bisphenol A in HepG2 cells. (2015)

PUBLICATIONS

A. Articles published in international peer-reviewed journals:

A1. Çağlayan M., "The effect of neonicotinoid insecticides and triazole fungicides on prostate cancer progression via CYP enzymes, miRNAs, and TF-mediated disruption of steroidogenesis: An integrated in silico approach.", *Toxicology and industrial health*, 2025.

A2. Yılmaz S., Fidan H., Çağlayan M., Stankov S., Yazar S., Stoyanova A., "Exploring the chemical composition and anti-cancer potential of *Matricaria recutita* L. essential oil", *Zeitschrift für Naturforschung - Section C Journal of Biosciences*, 2025.

A3. Yazar S., Beyzi E., Stankov S., Çağlayan M., Burcu Külahcı M., Stoyanova A., Yılmaz S., "Bioactive potential of *Origanum heracleoticum* L. essential oil: Chemical composition and its antimicrobial and anticancer properties", *Journal of Essential Oil-Bearing Plants*, 2025.

A4. Çağlayan M., "In silico analysis to predict the carcinogenicity and mutagenicity of a group of triazole fungicides", *İstanbul Journal of Pharmacy*, vol. 54, no. 205, 2024.

A5. Çağlayan M., Ozden S., "Potential impacts of bisphenols on prostate cells: An overview of cytotoxicity, proliferation, oxidative stress, apoptosis, and ER-stress response activation", *Food and Chemical Toxicology*, vol. 184, 2024.

A6. Çağlayan M., "Alteration on global and genespecific DNA Methylation and global Histone Modifications in HepG2 Cells in Response to BPA", *İstanbul Journal of Pharmacy*, vol. 46, pp. 97-114, 2022.

A7. Çağlayan M., "Alteration in Global DNA Methylation after Bisphenol A Exposure in MCF-7 Cells.", *İstanbul Journal of Pharmacy*, vol. 45, pp. 153-164, 2022.

A8. Daci A., Ozen G., Karaman E. F., Teskin O., Çağlayan M., Celik Z., Ozden S., Dashwood M., Uydes Dogan B. S., Topal G., "In Vitro Effects of Eicosapentaenoic and Docosahexaenoic Acid on the Vascular Tone of a Human Saphenous Vein: Influence of Precontractile Agents", *Annals of Vascular Surgery*, vol. 64, pp. 318-327, 2020.

A9. Fatma Karaman E., Çağlayan M., Sancar-bas S., Özal Coşkun C., Arda-pirincci P., Ozden S., "Global and region-specific post-transcriptional and post-translational modifications of bisphenol A in human prostate cancer cells", *Environmental Pollution*, vol. 255, 2019.

A10. Çağlayan M., Kilinc A., Ozden S., "Investigation of the genotoxic and cytotoxic effects of widely used neonicotinoid insecticides in HepG2 and SH-SY5Y cells", *Toxicology and Industrial Health*, vol. 34, no. 6, pp. 375-383, 2018.

A11. Çağlayan M., Alpertunga B., Ozden S., "DNA methylation analysis in rat kidney epithelial cells exposed to 3-MCPD and glycidol", *Drug and Chemical Toxicology*, vol. 40, no. 4, pp. 432-439, 2017.

A12. Çağlayan M., Karaman E. F., Bas S. S., Pirincci P. A., Ozden S., "Effects of BPA on global DNA methylation and global histone 3 lysine modifications in SH-SY5Y cells: An epigenetic mechanism linking the regulation of chromatin modifying genes", *Toxicology in Vitro*, vol. 44, pp. 313-321, 2017.

B. Papers presented at international scientific meetings and published in proceedings:

B1. Çağlayan M., Glyphosate and the Gut: An In Silico Toxicogenomic Approach to Healthy Human Microbiome-Related Disease Pathways, In: *12th International Congress of the Turkish Society of Toxicology*, İstanbul, Turkey, 2025.

- B2.** Çağlayan M., Özden S., Bisphenol A and its analogs: Comparative study on the prostate cells (PNT1A and PC-3) via ER stress-mediated apoptosis, In: *57TH CONGRESS OF THE EUROPEAN SOCIETIES OF TOXICOLOGY*, Slovenia, 2023, pp. 130-130.
- B3.** Çağlayan M., Karaman E. F., Sancar S., Arda Pirinççi B. P., Özden S., Global DNA Methylation and Global Histone 3 Lysine Modifications in SH-SY5Y Cells: An Epigenetic Mechanism Linking the Regulation of Chromatin Modifying Genes., In: *10th Congress of Toxicology in Developing Countries*, Serbia, 2022.
- B4.** Karaman E. F., Çağlayan M., Özden S., Effects of Fumonisin B1 on Global DNA Methylation in HK-2 Cells., In: *53th Congress of the European Societies of Toxicology*, Slovakia, 2017.
- B5.** Karaman E. F., Çağlayan M., Özden S., Effects of Zearalenone on the Metabolic Pathways and its relation to the Epigenetic Mechanisms in HepG2 Cells., In: *53th Congress of the European Societies of Toxicology*, Slovakia, 2017.
- B6.** Özden S., Çağlayan M., Karaman E. F., Sancar S., Arda Pirinççi B. P., Toksikolojide Epigenetik Mekanizmalar: Endokrin Bozucu Kimyasallardan Bisfenol A, In: *IV. Toksikoloji Sempozyumu*, Turkey, 2017.
- B7.** Karaman E. F., Çağlayan M., Sancar S., Arda Pirinççi B. P., Özden S., Alteration on DNA Methylation of Rassf1, CyclinD2 and p16 Genes and Global DNA Methylation and Histone Modifications in Human Hepatocarcinoma Cells in Response to BPA, In: *52th Congress of the European Societies of Toxicology*, Spain, 2016.
- B8.** Çağlayan M., Karaman E. F., Sancar S., Özal Coşkun C., Arda P., Özden S., Global and region-specific post-transcriptional and post-translational modifications of bisphenol A in human prostate cancer cells, In: *52. congress of the european societies toxicology*, sevilla, Spain, 2016, pp. 237-237.
- B9.** Çağlayan M., Karaman E. F., Sancar S., Özal Coşkun C., Arda B. P., Özden S., Global and region-specific post-transcriptional and post-translational modifications of bisphenol A in human prostate cancer cells, In: *52nd Congress of the European Societies of Toxicology (EUROTOX 2016)*, Spain, 2016.
- B10.** Özden S., Çağlayan M., Karaman E. F., Global and gene-specific promoter DNA methylation profiles of bisphenol A in HepG2 cells, In: *9th Congress of the Turkish Society of Toxicology with the participation of the Hellenic Society of Toxicology*, İzmir, Turkey, 2015.
- B11.** Özhan G., Çağlayan M., Özden S., DNA Methylation Profiles of Bisphenol A in Human Neuroblastoma Cells., In: *13th European ISSX Meeting*, Turkey, 2015.
- B12.** Çağlayan M., Özden S., Does DNA Methylation From Epigenetic Mechanisms Play A Role in Personalized Medicine?, In: *International Symposium on Advances in Predictive & Personalized Medicine (APPM2015)*, İstanbul, Turkey, 2015.
- B13.** Alpertunga B., Çağlayan M., Özden S., The role of DNA methylation alterations in 3-MCDP and Glycidol induced toxicity in rat kidney epithelial cells., In: *50th Congress of the European Societies of Toxicology*, United Kingdom, 2014.
- B14.** Çağlayan M., Alpertunga B., Özden S., Alteration in Global DNA Methylation after Bisphenol A Exposure in MCF-7 cells., In: *50th Congress of the European Societies of Toxicology*, United Kingdom, 2014.

E. Papers presented at national scientific meetings and published in proceedings:

- E1.** Çağlayan M., Özden S., Bitkisel İlaç Hammaddelerinde Epigenetiğin Rolü: Gen Ekspresyonu ve mikroRNA'lar, In: *XXII. Bitkisel İlaç Hammaddeleri Toplantısı*, Turkey, 2016.