



**CURRICULUM VITAE**

Name and Surname: Nermin Akçalı  
Academic Title: Assistant Professor  
Work Address:  
Email: nakcali@biruni.edu.tr  
Area of Expertise: Cytogenetic  
Genetic Disorders  
Genetics  
Medical Genetics  
Molecular Biology and Genetics  
Temel Bilimler > Yaşam Bilimleri > Moleküler Biyoloji ve Genetik > Genetik Ve Kalıtım

Degree	Department/Program	University	Year
Doctorate	TIBBİ GENETİK (DR)	Afyonkarahisar Health Sciences University	2022
Master's Degree	TIBBİ GENETİK (YL) (TEZLİ)	Afyonkarahisar Health Sciences University	2019
Master's Degree	TIBBİ GENETİK (YL) (TEZLİ) (TIP)	Afyon Kocatepe University	2018
Bachelor's Degree	BİYOLOJİ BÖLÜMÜ	Afyon Kocatepe University	2011

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

Evaluation of Chromosomal Alterations Considered as Polymorphic Variants in Couples with Recurrent Pregnancy Loss

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

Analysis of Genetic Variations in Individuals with Neural Tube Defects

Position Title	Workplace	Year
Assistant Professor	Biruni University	2023-Continues

Roles in Projects:

1. *Investigation of the Effects of High Fructose and Hyperbaric Oxygen Therapy (HBOT) on Methylation, Expression, and Protein Levels of the Mitochondrial ND5 Gene in Rat Liver*, Project Supported by Higher Education Institutions, Akçalı N. (Executive), 2025-Continues.

2. *Comparison of the Antifungal Effects of Garlic and Titanium Dioxide Nanoparticle-Based Mouthwashes and Their Impact on the Surface Properties of Denture Base Materials Produced by Different Manufacturing Methods*, Project Supported by Higher Education Institutions, Akçalı N., 2024-Continues.

3. *Application of Exosomes Derived from Inula viscosa in Combination with Paclitaxel on MCF-7 Cell Line: Investigation of Potential Anticancer Effects (Migration Inhibition, Apoptosis Induction, and Growth/Proliferation Inhibition) and the Role of miR-34a*, TUBA Project, Akçalı N., 2024-Continues.

4. *Integrated Cell and Genetic Infrastructure Development Project for Molecular Research*, Project Supported by Higher Education Institutions, Akçalı N., 2024-2025.
5. *Advanced Research Infrastructure Project for Cancer Studies Using Cell Culture and Plant Extracts*, Project Supported by Higher Education Institutions, Akçalı N. (Executive), 2024-2025.
6. *Investigation of Genetic Data in Patients with Neural Tube Defects*, Project Supported by Higher Education Institutions, Akçalı N., 2021-2023.
7. *The Relationship Between the Kisspeptin Gene and Endometrial Polyps*, Project Supported by Higher Education Institutions, Akçalı N., 2021-2022.
8. *Investigation of the Anticancer Potential of Natural Compounds Isolated from the Afyonkarahisar Endemic Plant *Thermopsis turcica* in Human Cancer Cell Lines*, Project Supported by Higher Education Institutions, Akçalı N., 2015-2019.
9. *Evaluation of Chromosomal Alterations Considered as Polymorphic Variants in Couples with Recurrent Pregnancy Loss*, Project Supported by Higher Education Institutions, Akçalı N., 2017-2019.
10. *Effect of Exogenous Lipoic Acid on NaCl-Induced Proteomic Changes in Canola (*Brassica napus L.*) Seedlings*, Project Supported by Higher Education Institutions, Akçalı N., 2013-2014.

Undergraduate and graduate level courses taught in the last two years (If offered, summer courses will also be added to the table):

Academic Year	Semester	Course Name	Weekly Hours		Number of Students
			Theoretical	Practical	
2025	Spring	Moleküler Teknikler ve Hücre Kültürü			
2025	Spring	Genomik ve Proteomik			
2025	Spring	Genetikte Yeni Nesil Yöntemler			
2025	Fall	Moleküler Teknikler ve Hücre Kültürü			
2025	Fall	Genomik ve Proteomik			
2025	Fall	Genetikte Yeni Nesil Yöntemler			

## PUBLICATIONS

### A. Articles published in international peer-reviewed journals:

- A1. Aslan E. S., Eslamkhah Taghizad M., Akçalı N., Yavaş C., Karcioğlu Batur L., Sengenc E., Yüksel A., "Marinesco-Sjögren Syndrome: A Novel SIL1 Variant with In Silico Analysis and Review of the Literature", *Life*, vol. 15, no. 12, 2025.
- A2. Aslan E. S., Yavaş C., Akçalı N., Eslamkhah S., Meral G., Karcioğlu Batur L., "The functional correlation between mir-16-5p and BIRC5 gene in colorectal cancer: integrated analysis of transcriptomics and in vitro validation", *Molecular Biology Reports*, vol. 52, no. 1, 2025.
- A3. Essebbar I., Yavaş C., Akçalı N., Karcioğlu Batur L., Eslamkhah S., Köseoğlu A. E., Aslan E. S., "In Silico Identification of Antigenic Peptides and multi-epitope Vaccine Design against *Trichomonas Vaginalis*", *Acta Parasitologica*, vol. 70, no. 174, 2025.
- A4. Akçalı N., Yıldız S. H., Özdemir Erdoğan M., Eslamkhah S., Elmas M., Pehlivan A., Solak M., "Whole exome-based variant profiling and functional network characterization in neural tube defects", *Child's Nervous System*, vol. 41, no. 225, 2025.
- A5. Eslamkhah S., Aslan E. S., Yavaş C., Akçalı N., Karcioğlu Batur L., Abuaisha A., Yildirim E. E., Solak M., White K. N., "Mpox virus (MPXV): comprehensive analysis of pandemic risks, pathophysiology, treatments, and mRNA vaccine development", *Naunyn-Schmiedeberg's Archives of Pharmacology*, 2025.
- A6. Aslan E. S., Akçalı N., Yavaş C., Eslamkhah S., Gur S., Karcioğlu Batur L., "Enhancing the Chemosensitivity of MKN-45 Gastric Cancer Cells to Docetaxel via B7H6 Suppression: A Novel Therapeutic Strategy", *Life*, vol. 14, no. 12, 2024.
- A7. Paltacı Ş. İ., Kayacık Günday Ö., Özdemir Erdoğan M., Fırat F., Yalçın G. Ş., Akçalı N., "Analysis of the immunohistochemical and genetic expression pattern of kisspeptin in endometrial polyps", *Ceska Gynekol*, vol. 89, no. 4, pp. 1-9, 2024.
- A8. Paltacı Ş., Günday Ö. K., Erdoğan M., Fırat F., Yalçın G., Akçalı N., "Analysis of the immunohistochemical and genetic expression pattern of kisspeptin in endometrial polyps Analýza imunohistochemického a genetického vzorce exprese kisspeptinu v endometriálních polypech", *Ceska Gynecologie*, vol. 89, no. 4, pp. 269-277, 2024.

**A9.** Yıldız M., Terzi H., Yıldız S. H., Varol N., Özdemir Erdoğan M., Kasap M., Akçalı N., Solak M., "Proteomic analysis of the anticancer effect of various extracts of endemic thermopsis turcica in human cervical cancer cells", *Turkish Journal of Medical Sciences*, vol. 50, no. 8, pp. 1993-2004, 2020.

**A10.** Yıldız M., Akçalı N., Terzi H., "Proteomic and biochemical responses of canola Brassica napus L. exposed to salinity stress and exogenous lipoic acid", *JOURNAL OF PLANT PHYSIOLOGY*, vol. 1, no. 179, pp. 90-99, 2015.

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

**B1.** Yıldırım D., Dönmez S., Er A., Akçalı N., YENİ NESİL DİZİLEMENİN NADİR HASTALIKLARDAKİ ROLÜ, In: *EGE 14th INTERNATIONAL CONFERENCE ON APPLIED SCIENCES*, İzmir, Turkey, 2025, pp. 459-468.

**B2.** Cantürk S. S., Uzundurkan Y., Özcan Z. N., Keser Ü. G., Davşan L. T., Karcıoğlu Batur L., Yavaş C., Aslan E. S., Eslamkhah S., Akçalı N., Crispr/Cas9 İle Düzenlenmiş Kök Hücrelerin Hemofili A Hastalığının Tedavisindeki Potansiyeli, In: *14. Uluslararası Araştırmalar Kongresi (ICAR)*, İstanbul, Turkey, 2024.

**B3.** Işıksal E. N., Özgül F., Sarı M. N., Kılıç T., Kıpıyoldaş Z., Karcıoğlu Batur L., Aslan E. S., Akçalı N., Yavaş C., Resveratrol'ün Epigenetik Yolakları Ve Meme Kanseri Üzerindeki Etkileri, In: *14. Uluslararası Araştırmalar Kongresi (ICAR)*, İstanbul, Turkey, 2024.

**B4.** Akçalı N., Ataseven Kulalı M., Tutgun Onrat S., Epidemiological And Clinical Characteristics Of Children With Down Syndrome, In: *4th International Health Science and Life Congress*, Burdur, Turkey, 2021, pp. 533.

**B5.** Akçalı N., Yıldız M., Terzi H., Pehlivan E., KANOLA (Brassica napus L.) ÇEŞİTLERİNİN TOHUM ÇİMLENMESİ ÜZERİNE TUZLULUK, SICAKLIK VE FOTOPERİYODUN ETKİLERİ, In: *ULUSLARARASI KATILIMLI TÜRKİYE 5. TOHUMCULUK KONGRESİ*, Diyarbakır, Turkey, 2014, pp. 545.

#### **D. Articles published in national peer-reviewed journals:**

**D1.** Hocaoğlu R., Yavaş C., Akçalı N., Eslamkhah Taghızad M., Karcıoğlu Batur L., "Investigation of the wound healing effects of castor oil-based biocompatible greases on the HaCaT cell line", *Journal of Trends in Medical Investigation*, vol. 1, no. 3, pp. 77-83, 2025.

**D2.** Akçalı N., Yıldız S. H., Özdemir Erdoğan M., Solak M., Kanat Pektaş M., "Analysis Of Polymorphic Chromosome Variants In Couples With Recurrent Pregnancy Loss", *Sağlık Bilimlerinde İleri Araştırmalar Dergisi*, 2024.

**D3.** Jama I. A., Yavaş C., Karcıoğlu Batur L., Akçalı N., Eslamkhah S., Köseoğlu A. E., Aslan E. S., "Advanced Parental Age Association With The Development Of Autism Spectrum Disorder Meta-Analysis", *Biruni Health and Education Sciences Journal*, vol. 7, no. 1, pp. 29-41, 2024.

**D4.** Yıldız S. H., Şener Y. M., Akçalı N., Özdemir Erdoğan M., Yıldız M., "Kromozom Polimorfizmleri İle İnfertilite Arasındaki İlişkinin Analizi", *Afyon Kocatepe Üniversitesi Kocatepe Tıp Dergisi*, vol. 24, no. 2, pp. 173-178, 2023.

**D5.** Yıldız M., Terzi H., Akçalı N., "Tuz Stresi Altındaki Bitkilerin Metabolik Yollarındaki Proteom Değişimleri", *BİTLİS EREN ÜNİVERSİTESİ FEN BİLİMLERİ DERGİSİ*, vol. 3, no. 1, pp. 81-93, 2014.

**D6.** Yıldız M., Terzi H., Akçalı N., "Bitki Tuz Stresi Toleransında Salisilik Asit ve Poliaminler", *Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi*, vol. 14, no. 21002, pp. 7-22, 2014.

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

**E1.** Akçalı N., Elmas M., Karaosmanoğlu C., Yıldırım A., Çoban N., A Clinical Case of Trisomy X Syndrome, In: *ULUSAL TIBBİ BİYOLOJİ VE GENETİK KONGRESİ*, Muğla, Turkey, 2017, pp. 155.

**E2.** Akçalı N., Söylemez Z., Avcı K., Varol N., Özdemir Erdoğan M., A case of down syndrome with hemihypertrophy, In: *15. ULUSAL TIBBİ BİYOLOJİ VE GENETİK KONGRESİ*, Muğla, Turkey, 2017, pp. 160.

**E3.** Akçalı N., Elmas M., Söylemez Z., Solak M., Robertsonian translocation with 9. chromosome Pericentric inversion phenomenon that with recurrent pregnancy loss, In: *14. ULUSAL TIBBİ BİYOLOJİ VE GENETİK KONGRESİ*, Muğla, Turkey, 2015, pp. 387.

**E4.** Akçalı N., Yıldız M., Terzi H., The Effect of Exogenous Lipoic Acid on NaCl-Induced Proteomic Changes in Canola (Brassica napus L.) Seedlings, In: *1. ULUSAL BİTKİ FİZYOLOJİSİ SEMPOZYUMU*, Erzurum, Turkey, 2015, pp. 66.

**E5.** Akçalı N., Yıldız M., Terzi H., The Effect of Lipoic Acid on Salt Tolerance of Canola (Brassica napus L.) Seedlings Under Salt Stress, In: *22. ULUSAL BİYOLOJİ KONGRESİ*, Eskişehir, Turkey, 2014, pp. 594.