

## CV

**1 .Name  
Surname** : Ayberk Akat

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**Email** :akatayberk@gmail.com

**2. Date of  
Birth** :17.03.1986

**3. Title** :Dr. (Ph.D. in Bioengineering)

### 4.Education History

Degree	Subject	University	Year
Bachelors	Biology	Trakya University	2004-2008
Masters	Bioengineering	Yıldız Technical University	2009-2011
PhD	Bioengineering	Yıldız Technical University	2011-2018

**Master's Thesis:** Isolation, Cloning and Analysis of the Gene Encoding Enolase Enzyme from *Theileria annulata* for Medicine and Vaccine Design Studies

Mentor: Prof. Dr. Dilek Balik

**Ph.D. Thesis:** Investigation of polymorphisms on certain genes which are associated with bronchopulmonary dysplasia among Turkish population

Mentor: Prof. Dr. Dilek Balik

### 5. Academic Awards.

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### 6. Masters and PhD Dissertations (Theses).

#### 6.1 Master Theses.

#### 6.2 PhD Theses.

### 7. Publications.

#### 7.1 International journals and published articles.

- Akat, A., Karaöz, E. A systematic review of cell therapy modalities and outcomes in cerebral palsy. *Mol Cell Biochem* (2024). <https://doi.org/10.1007/s11010-024-05072-3>
- Akat, A., Karaöz, E., 2023. Cell Therapy Strategies on Duchenne Muscular Dystrophy: A Systematic Review of Clinical Applications. *Stem Cell Rev and Rep* (2023). <https://doi.org/10.1007/s12015-023-10653-8>
- Akat A, Karaöz E, 2023. "Cell therapies for autism spectrum disorder: a systematic review of clinical applications", *Middle East Current Psychiatry*; <https://doi.org/10.1186/s43045-023-00363-9>
- Bozkurt MF, Bhaya MN, Dibekoğlu C, Akat A, Ateş U, Erbaş O, 2022. "Mesenchymal stem

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cells have ameliorative effect on the colitis model via Nrf2/HO-1 pathway”, *Acta Cir Bras.* 2022;37(07):e370704; <https://doi.org/10.1590/acb370704>

- Akat A, Semerci SY, Uğurel OM, Erdemir A, Danhaive O, Çetinkaya M, Turgut-Balık D 2021. “Bronchopulmonary dysplasia and wnt pathway-associated single nucleotide polymorphisms”, *Pediatric Research*; <https://doi.org/10.1038/s41390-021-01851-6>
- Cayir E, Erdemir A, Ozkan E, Topuzogullari M, Bolat ZB, Akat A, Turgut-Balik D. “Cloning of intron-removed enolase gene and expression, purification, kinetic characterization of the enzyme from *Theileria annulata*”. *Mol Biotechnol.* 2014 Aug; 56(8):689-96. doi: 10.1007/s12033-014-9747-z.
- N. Erçelen, B. Öztürk, H. Cömert, M. Diken, M. Gültomruk, H. Coşkun, A. Akat, "Allelic Frequencies of Mutations in Blood Coagulation Factor Genes (Factor V, Factor II) and Methylenetetrahydrofolate Reductase (MTHFR) in 201 Turkish Patients with Venous Thrombosis Complications", *Molecular and Genetic Medicine* , "8:1", 1-5 pp., Şubat-2014, DOI: 10.4172/1747-0862.1000093

### **7.2 Conference Presentations at International Scientific meeting.**

- Akat A., Aktaş M., Dumanlı N., Turgut-Balık D., “Isolation, Cloning and Nucleotide Sequence Analysis of Enolase Gene from *Theileria annulata*”. 36th FEBS Congress, Biochemistry for Tomorrow’s Medicine, Torino, Italy, 2011
- E Cayir, A Erdemir, E Ozkan, M Topuzogullari, Z Bolat, A Akat, Turgut-Balik D. Kinetic characterization of enolase enzyme from *Theileria annulata*: TUE-442, *The Febs Journal*, 281, 579-580 2014

### **7.3 International book publications or participation in book chapters.**

- Karaöz E, Günel G and Akat A, 2017. “Stem Cell Approaches in Urooncology”, *Urooncology Book (2. Edition)*, Editors: Haluk Özen, Levent Türkeri, Yaşar Bedük, Çağ Çal. Urooncology Association Publications, pages: 113-133, Ankara, 2017.
- Karaoz E, Akat A; “Chapter 11: Umbilical Cord Blood Derived Mesenchymal Stem Cells”, *Umbilical Cord Blood Applications and Banking for Hematologists*, Turkish Hematology Association. February 2016 / 6, 1, ISSN: 2146-6408
- Akat A., Turgut-Balık D., “Bölüm 6: Mutasyonlar”, *Moleküler Biyoloji*, Nobel Yayınevi, Ankara, 2012

### **7.4 Articles published in national journals.**

- Akat A, Semerci SY, Uğurel OM, Erdemir A, Çetinkaya M, Balık DT 2018. “Genotyping and analysis of rs3771150 polymorphism to investigate an association with bronchopulmonary dysplasia incidence in Turkish population”, *FNG & Bilim Tıp Dergisi* 2018;4(1):1-6
- Akat A., Aktaş M., Dumanlı N., Turgut-Balık D. , “Isolation, cloning and sequence analysis of enolase enzyme encoding gene from *Theileria annulata* for assessment of important residues of this enzyme”. *Kafkas Üniversitesi Veteriner Fakültesi Dergisi*, 20 (2): 243-248, 2014 DOI: 10.9775/kvfd.2013.9932

### **7.5 Participations in national published scientific meetings.**

- Akat A., Turgut-Balik D., “Effects of Using Different Enzymes on the Amplification of Enolase Gene from *Theileria annulata* ”. 1st National Molecular Biology and Biotechnology Congress, Antalya, Turkey, October, 26-29 2010.
  - Erdemir A., Akat A., Turgut-Balik D., “Optimization Studies to Improve Transformation Efficiency During Cloning of Lactate Dehydrogenase Gene from *Theileria annulata*”. 1st National Molecular Biology and Biotechnology Congress, Antalya, Turkey, October, 26-29
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2010.

**7.6 Other Publications.**

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**8. Projects**

- 2011 – 2016 Yildiz Technical University Scientific Research Projects “Intron removal, Isolation, expression and analysis by site directed mutagenesis of the gene encoding enolase enzyme from Theileria annulata. Project no: 2011-0704-kap03, Research personnel”
- 2010 – 2015 Yildiz Technical University Scientific Research Projects “Isolation and cloning of the gene encoding lactate dehydrogenase enzyme from apicomplexa parasites to be used in drug design studies. Project no: 2010-07-04-kap01, Research personnel”

**9. Administrative Duties.**

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**10. Memberships in Scientific Organizations**

Royal Society of Biology

Turkish Biochemical Society

British Society for Gene and Cell Therapy

Clean Room Technologies Association, ICCCS

**11. Awards.**

28th National Neonatology Congress 2020, Clinical Oral Presentation, “Investigating the Role of Genetics in Bronchopulmonary Dysplasia from Five Different SNPs to One Single Gene”. (Best Presentation Award)

**12 Undergraduate and graduate level courses taught in the last two years.**

Academic Year	Term	Course title	Weekly Hours		Number of Students
			Theoretical	Practical	
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