

# Ph.D/ Saltanat Aghayeva

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## Genetic Resoruces Institute

*Doctoral course for the preparation of Doctor of Sciences*

Baku/Azerbaijan

2018-currently

## ANAS, Physiology Institute

*Doctor of Philosophy in Biology/PhD*

Baku/Azerbaijan

2007-2010

## Azerbaijan Pedagogical University

*Chemistry-Biology*

Baku/Azerbaijan

1989-1994

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## Work experience

### Western Caspian University

*Head of the Department of Natural Sciences*

Baku/Azerbaijan

2022- present

### Khazar University

*Head of the Department of Life Sciences*

Baku/Azerbaijan

2022

### Genetic Resoruces Institute, Department of Biochemical Genetics and Genomics

*Leading scientific researcher*

Baku/Azerbaijan

2016–Present

### Azerbaijan State Pedagogical University and Azerbaijan State Pedagogical College

*Head teacher*

Baku/Azerbaijan

2003–2022

A substitute head teacher on teaching of “Human and animal anatomy, physiology” and “Fundamentals of medical knowledge” subjects

### ANAS, Physiology Institute, neurophysiology laboratory of training

*Scientist*

Baku/Azerbaijan

2007– 2013

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## Activity

- I have studied the changes in the amount of biological monoamines in different structures of the brain under the influence of electromagnetic waves and the effect of this change on adaptive processes, learning and memory, and behavioral processes in the body by conducting biochemical research on rats in the neurophysiology laboratory of training of Physiology Institute of ANAS.
- There has been conducted genetic polymorphism research of Azerbaijan-Turkey olive varieties in cooperation with Genetic Resources Institute of ANAS and Uludag University of Turkey in 2017-2020.
- At the moment, I am engaged in the research of biochemical and genetic polymorphism of some hereditary diseases in the laboratory of human genetics of Genetic Resources Institute of ANAS.
- In addition to scientific research, my pedagogical activity have also been continuing.

- During my work experience, my scientific articles related to my research have been published in local and foreign journals and I was awarded with certificates at conferences.
- I have supervised the scientific work by the master student of Genetic Resources Institute of ANAS - E.K. Guliyeva, on “Biochemical, molecular-genetic study of the disease in newborns diagnosed with hemolytic jaundice” (defended - 2021)

## **Skills**

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**Languages:** Russian (excellent), English (average), Turkish (excellent), Azerbaijani (mother tongue)

**Technologies:** Msc office programs (MS Word, MS Excel, MS Power Point), Outlook, Windows XP, Windows Vista, Win7, Canva, Prezzi, Adobe Acrobat

## **Training and Seminars**

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- Methods of applying SSR and AFLP marker technologies used for genetic diversity research, as well as methods of analysis and associative mapping of Single Nucleotide Polymorphisms (SNP) obtained by Sequence-based Genotyping using the Tassel S program

Date of participation: 13.05.2017-02.06.2017

Location: Bursa, Turkey, Uludag University

- Expedition to study the biodiversity of wild plants in Mugla-Dalyan with professor-doctoral staff of Uludag University

Date of participation: 25.10.2017-30.10.2017;

Location: Mugla, Turkey

- Active teaching methods

Date of participation: 11.02.2017-15.02.2017;

Location: Baku, Azerbaijan, Azerbaijan State Pedagogical University

- Examination of genetic diversity by the method of New Generation Sequencing Technology

Date of participation: 22.01.2018-27.01.2018;

Location: Baku, Azerbaijan, ANAS, Institute of Genetic Resources

- Bioinformatic and statistical analysis of next-generation sequencing data

Date of participation: 29.05.2018-32.05.2018;

Location: Baku, Azerbaijan, ANAS, Institute of Genetic Resources

- YNS methods

Date of participation: 04.11.2021-11.11.2021;

Location: Bursa, Turkey, Uludag University

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## **Conferences and Events:**

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- International conference “Fundamentals of Neurology in medicine and psychology”; *Sudak, Ukraine/2009*
- International conference “Mechanism of physiological systems of regulation of objects in the process of adaptation to the environment” *Saint Petersburg, Russia/2010*
- Congress of young scientists *Baku, Azerbaijan/2012*
- Current Problems of Modern Science Republican Scientific Conference dedicated to the 90th anniversary of H. Aliyev *Lankaran, Azerbaijan/2013*
- III Republican innovative idea fair conference of young scientists *Baku, Azerbaijan/2013*
- Congress of the Society of Physiologists *Baku, Azerbaijan/2017*
- “Uşaqlıq dövrünün irsi sinir xəstəlikləri” beynəlxalq konfransı *Baku, Azerbaijan/2018*
- “Inherited nervous diseases of childhood” international conference *Tbilisi, Georgia /2019*
- “Methods of improving the quality of Web teaching” international conference; *West Caspian University* *Baku, Azerbaijan/2020*
- Science, Education, Innovation: Current issues and modern aspects at the 1st International scientific and practical conference: “Sequencing studies of Duchenne hereditary muscular disease in the patients of the Republic of Azerbaijan” *Tallin, Estonia/2020*
- “Global Science and Innovation 2020: Central Asia” scientific-practical conference: “Research of Duchenne Muscular Dystrophy hereditary disease on the population of the Republic of Azerbaijan” *Astana, Kazakhstan/2020*
- Report at the international conference: “Problems of human genetics and genetic diseases” *Baku, Azerbaijan/2020*
- Report entitled “Forms of remote organization of natural sciences in inclusive students at the forum of the republican chemistry-biology teachers *Baku, Azerbaijan/2021*

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## **Major Publications**

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1. Saltanat Aghayeva., Elsevar Asadov. Study of biochemical and molecular polymorphisms of glucose-6-phosphate dehydrogenase enzyme. *Pharmaceutical Negative Results*, v 14, №2, p.1032–1035. 2023
2. Aghayeva Saltanat, Huseynova Lala, Hagverdiyeva Raya Combined Mutations of DMD and CFTR Genes in an Azerbaijani Family. *ijlpr* 2021; doi 10.22376/ijpbs/lpr.2021.11.3.L (Web of Science IF 0, 956)
3. Sevin Teoman Duran., Saltanat Aghayeva., Zeynal Akparov., Ayaz Mammadov., Rana Asgarova., Osman Yasar Uslu., Osman Kirikoglu., Ufuk Tan Duran., Meryem Ipek., Erdogan Barut., Sezai Ercisli., Gulce Ilhan., Ahmet Ipek. Genetic variation and relationships between Azerbaijani and Turkish olive genetic resources. *Molecular Biology Reports* (2021)
4. Агаева С.А., Мамедов А.М., Мамедбейли А.К., Валиева Л.С. Новые мутации в гене дистрофина у больных мышечной дистрофией дюшенна. Современная наука: актуальные проблемы теории и практики. Серия: Естественные и технические науки №7 июль 2021 г. DOI 10.37882/2223 – 2966.2021.07.02
5. Aghayeva Saltanat. Research of Duchenne Muscular Dystrophy hereditary disease on the population of the Republic of Azerbaijan. «Глобальная наука и инновация 2020: Центральная Азия» № 5(10). Август 2020 серия «Медицинские Науки» р.137-141. ISSN 2664-2271.
6. Aghayeva Saltanat. Sequencing studies of Duchenne hereditary muscular disease in the patients of the Republic of Azerbaijan. Proceedings of the 1st International Scientific and Practical Conference Science, Education, Innovation: Topical issues and modern aspects. N 2(38) p.819-824 Tallin, Estonia., 2020
7. S.A. Aghayeva. Molecular-genetic study of gene mutations in patients with hereditary muscular dystrophy. *Azərbaycan Tibb Universitetinin jurnalı.*, C 1., s. 18-21., 2020 DOI: <https://doi.org/10.28942/amuj.v1i3.3>

8. Aghayeva S.A. Genetic study of the Q6FD gene in the population of Azerbaijan Republic. News of ASPU. Mathematics and Natural Sciences Series (in Biological Sciences), 2020
9. Seltanat Aghayeva. Research milestones in a rare inherited disease of Duchenne muscular dystrophy. The scientific and Pedagogical News of Odlar Yurdu University №56., pз. 240-245, 2020 ISSN 1682-9123
10. Aghayeva Saltanat, Mammadov Ayaz, Rolfs Arndt, Skrahina Volha, Rasulov Elkhan, Guliyeva Elvira. Molecular Analysis of Glucose-6-Phosphate Dehydrogenase Gene Mutations in the Azerbaijan Republic. Khazar Journal of Science and Technology Vol. 1 №1 2020, 18-24 © Khazar University DOI: 10.5782/2520-6133.2020.4.1.18
11. Ahmet İpek, Sevin Teoman-Duran, Aghayeva Sıltanet. The study of olive plant grown in the territories of Azerbaijan and Turkey. Materials of multidisciplinary international conference: the changes in conditions of integration and isolation of ecosystems in the Pontocaspi and Caucasian region, phylogeny of living organisms, geology, ecology and geography. pp. 275-278. 2020 ISSN:2227-5118
12. Huseynova L.S., Aghayeva S.A., Mammadova S.N., Mahmudova P.A. (2019). Molecular genetic studies of the diseases Duchenne muscular dystrophy, Phenylketonuria, and Familial Mediterranean fever in the population of the Azerbaijan Republic. [SYLWAN., 163(5)]. ISI Indexed (IF-0,623) (Thomson Reuters) ISSN 0039-7660
13. Aghayeva S.A., Mammadov A.M., Mamedbeyli A.K., Rasulov E.M.(2019) Combination of two genetic disturbances: G6PD enzyme deficiency and Duchenne muscular dystrophy in one patient. Human Genome and Health, 2nd International Conference Tbilisi, Georgia. p.21
14. Aghayeva S.A., Mamedbeyli A.K., Rasulov E.M. (2018). Creatinkinase activities polymorphism study in three families with Duchenne muscular dystrophy from Azerbaijan republic. Journal of Pediatrics. Kazakhstan ISSN 1811-8666 N4(94), p.73-77
15. Aghayeva S.A., Huseynova L.S., Valiyeva G.A., Yusufova Kh., Badalova N.A. (2018) Genetic research of Duchenne muscular dystrophy and galactosemia from the Azerbaijan Republic. International Conference of European Academy of Science, November 20-28, Bonn, Germany. (ISBN 9781792197710)p.88
16. Aliyeva K.A., Mamedbeyli A.K., Aghayeva S.A., Huseynova L.S. (2018). Description of two families with inherited diseases as Duchenne muscular dystrophy and phenylketonuria from Azerbaijan Republik. Proceedings of the V International Scientific and Practical Conference. International Trends in Science and Technology. Vol.1, August 31, Warsaw, Poland, p.51-54
17. Aghayeva S.A., Huseynova L.S., Kichibekov B.R., Aliyeva K.A., Khalilov R.I., (2018). Inherited metabolic disease phenylketonuria and deficiency of g6pdenzyme in a family study. Deutscher Wissenschaftsherold • German Science Herald, N 2/2018(34-36). DDC-UDC 616.633.284/.466.26-008.9:575.224 DOI:10.19221/2018210
18. С.А.Агаева., З.Г.Мамедов Особенности изменения поведенческих реакций при воздействии ЭМИ КВЧ низкой интенсивности. IV Международный Междисциплинарный Конгресс «Нейронаука для медицины и психологии», Судак, 2008, с.198-199
19. С.А.Агаева., З.Г.Мамедов. Изменения содержания серотонина в различных структурах мозга крыс под влиянием модулированных ЭМИ КВЧ низкой интенсивности. V Международный Междисциплинарный Конгресс «Нейронаука для медицины и психологии», Судак, 2009, с.153-154
20. С.А.Агаева., Х. Ф.Бабаев, З.Г.Мамедов. Сравнительный анализ влияния ЭМИ КВЧ на уровень норадреналина и серотонина в коре головного мозга. Журн. Вестник МГОУ, серия «Естественные науки, 2010, № 2, стр.10-12.
21. С.А.Агаева., З.Г.Мамедов Изменения уровня биогенных моноаминов в коре головного мозга у крыс под влиянием модулированного ЭМИ КВЧ низкой интенсивности. Ж. Вестник МГОУ, серия «Естественные и технические науки», М., 2010, №2, Т.46, стр. 169-171.
22. С.А.Агаева., Х.Ф.Бабаев, З.Г.Мамедов Влияние ЭМИ КВЧ низкой интенсивности на содержание биогенных моноаминов и перекисное окисление липидов в головном мозге у крыс. Ж. Вестник МГОУ, серия “Естественные науки”, №4, 2011, с. 27-29

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