

Curriculum Vitae

September 2023



Personal Profile:

- ✧ **Full name:** Mohammad Hossein Ahmadi
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- ✧ **Postal address:** Department of Laboratory Sciences, School of Paramedical and Rehabilitation Sciences, Mashhad University of Medical Sciences, Mashhad, Razavi Khorasan Province, Iran. Postal code: 9177948964.

Full detailed of my education courses:

1. High school of Natural Sciences from 2003 to 2007 in Sari, Iran

2. Academic Background (Higher Education)

- ✧ AD of *Laboratory Sciences* from 2007 to 2009 in Babol University of Medical Sciences, Mazandaran, Iran.
- ✧ BSc of *Laboratory Sciences* from 2010 to 2012 in Mashhad University of Medical Sciences in, Mashhad, Iran.
- ✧ MSc. of *Laboratory Hematology and Blood Transfusion Science* from 2012 to 2015 in High Institute for Research and Education in Transfusion Medicine, Tehran, Iran. The title of my thesis was “*Fetal RHD Genotyping in Plasma of Rh-Negative Pregnant Women by Real-Time PCR*”.
- ✧ Ph.D. of *Laboratory Hematology and Blood Transfusion Science* from 2016 to 2020 in High Institute for Research and Education in Transfusion Medicine, Tehran, Iran. The title of my thesis was “*Noninvasive Determination of Fetal RHD Genotype by Cell-free Fetal DNA and Using Real-Time PCR and Specific Probes with TaqMan based Technology*”.

Research Interests:

- ✧ Anemia (especially HDFN)
- ✧ Leukemia

- * Molecular hematology
- * Transfusion medicine and blood banking
- * Blood components preparation and qualification
- * Molecular Immunohematology (especially Blood Group Genotyping by Cell-free Fetal DNA).

Publications:

Papers:

- * **Ahmadi MH**, Hantuoshzadeh S, Okhovat MA, Nasiri N, Azarkeivan A, Amirizadeh N. *Fetal RHD Genotyping from Circulating Cell-Free Fetal DNA in Plasma of Rh Negative Pregnant Women in Iran*. *Indian J Hematol Blood Transfus*. 2015; 32(4): 447–453.
- * **Ahmadi MH**, Amirizadeh N, Hantushzadeh S, Okhovat MA, Sayyadi M, Valikhani A, et al. *Fetal RHD genotyping of RhD negative women by Real-Time PCR*. *Sci J Iran Blood Transfus Organ*. 2016; 13(1): 19-28.
- * Sayyadi M, Shaiegan M, Nikougofar Zarif M, Vaezi M, Malek Mohammadi A, **Ahmadi MH**, et al. *Platelet compatibility assessment between AML patients and platelet donors by flow cytometry*. *Sci J Iran Blood Transfus Organ*. 2016; 13(1): 29-27.
- * Valikhani A, Rezaei M.S, Alaei M, Poopak B, Amirizade N, **Ahmadi M.H**. *Study of ASXL1 gene mutation in Chronic Myelogenous Leukemia*. *Sci J Iran Blood Transfus Organ*. 2017; 13(4): 324-332.
- * **Ahmadi MH**, Amirizadeh N, Rabiee M, Rahimi-Sharbat F, Pourfathollah AA. *Noninvasive Fetal Sex Determination by Real-Time PCR and TaqMan Probes*. *Rep Biochem Mol Biol*. 2020; 9(3):315.
- * **Ahmadi MH**, Pourfathollah AA, Rabiee M, Amirizadeh N. *Noninvasive Prenatal Diagnosis of Fetal RHD Status Using Cell-free Fetal DNA in Maternal Plasma*. *J Reprod Health Med*. 2022;23(2):128-34.
- * Sadeghian H, Zarrinfar H, Safdari H, **Ahmadi MH**, Tahan M. *Increasing the antifungal effect of biosynthesized selenium nanoparticles using Aspergillus fumigatus*. *Journal of Knowledge & Health in Basic Medical Sciences*. 2023; 8: 40-51.
- * **Ahmadi MH**, Maleknia M, Javan MR, Abdolalian M, Golshahi F, Elham Vahabi. *Hematological Inflammatory Indicators in Women with Gestational Diabetes*. *Iranian Journal of Obstetrics, Gynecology and Infertility*. 2022; 25(9):40-50.

- ✱ Razmi M, Mehdipour tavana M, **Ahmadi MH**, Saeedzarandi M, Kazerooni M, Amirlatifi S, et al. *Long non coding-RNAs as a potential player in pathogenesis of gestational trophoblastic disease*. Galen Medical Journal. Accepted and in press.
- ✱ Naderi M, , Sahar Najafi, **Ahmadi MH**, Ramezani Siakhulak F, Sadeghi-Bojd Y, et al. *Evaluation of Factors influencing the birth of Thalassemia in Family Members with Thalassemia Major in Southeast Iran in 2021*. Journal of Advanced Biomedical Sciences. 2023;13(1): 68-80.
- ✱ **Ahmadi MH**, Sharifi Z, Ghasemi A, Abbasian S. *Occult hepatitis B in Iranian blood donors, an overview of the challenges: A narrative review*. Health Science Reports. 2023 Aug;6(8):e1466.

Books:

- ✱ Translation to Farsi: ***Blood donor counselling: implementation guidelines***. World Health Organization 2014.
- ✱ Translation to Farsi: ***Basic & Applied Concepts of Blood Banking and Transfusion Practices, Fourth Edition***. Elsevier Inc. 2017.
- ✱ ***Essentials in Immunohematology Laboratory (Blood Bank)***, First edition. Idehnovin pub. 2021.
- ✱ ***A Case Study of Hematological Diseases Associated With Myeloid Neoplasms***. First edition. Mashhad University of Medical Sciences. 2022.
- ✱ ***A Case Study of Hematological Diseases Associated with Lymphoid Neoplasms from a Laboratory Perspective***. First edition. Mashhad University of Medical Sciences. 2022.
- ✱ ***Principles of Basic Tests in Hematology Laboratory***. First edition. Mashhad University of Medical Sciences. 2022.
- ✱ ***An introduction to different types of light and electron micro scopes***. First edition. Mashhad University of Medical Sciences. 2022.
- ✱ ***Algorithm of blood group systems***. First edition. Mashhad University of Medical Sciences. 2023.

Congress presentation:

- ✱ **Ahmadi MH**, Amirizadeh N, Azarkeivan A, Valikhani A, Sayyadipoor F, Navidrouyan Mo, Navidrouyan Ma. *Fetal RhD Genotyping in Plasma of Rh Negative Pregnant Women*

by *Real-Time PCR*. 25th Regional Congress of the International Society of Blood Transfusion. London, United Kingdom, June & July 2015 (Poster).

- ✱ **Ahmadi MH**, Sayyadi M, Yaghoobi R. *Noninvasive RHD genotyping by RhD negative maternal plasma*. 7th International Congress of Laboratory and Clinic. Tehran, Iran, February 2015 (Poster).
- ✱ **Ahmadi MH**, Amirizadeh N: *Non-invasive determination of fetal RHD genotyping using RhD negative maternal plasma: A review*. International congress on blood; disease and clinical administration, Yasooj, Iran, May 2015 (Oral).
- ✱ Ramezani F, **Ahmadi MH**. *Non-invasive determination of fetal platelet antigen's genotype using cell-free fetal DNA (cffDNA)*. 5th National & 1st International Congress on Novel & Innovative Laboratory Technologies, Tehran, Iran, October 2017 (Poster).
- ✱ **Ahmadi MH**, Amirizadeh N. *Evaluation the SRY to Confirm the Presence of Fetal DNA in the Fetal RHD Genotyping Using cffDNA*. 35th International Congress of the International Society of Blood Transfusion. Toronto, Canada, June 2018 (Poster).
- ✱ **Ahmadi MH**, Pourfathollah A, Rabiee M, Amirizadeh N. *Noninvasive Prenatal Determination of Fetal RHD Status Using Cell-Free Fetal Dna In Plasma of RhD Negative Pregnant Women*. 36th International Congress of the International Society of Blood Transfusion. Virtual Congress, December 2020 (Poster).
- ✱ **Ahmadi MH**, Rezaeeyan H, Maleknia M, Javan MR, Abdolalian M, et al. *Evaluation of Inflammatory Indices in Gestational Diabetes Mellitus of Pregnant Women*. 13th International Congress of Medical Laboratory and Clinic, February 2022 (Poster).
- ✱ **Ahmadi MH**, Amirizadeh N, Pourfathollah A. *Confirmation of the presence of fetal DNA in noninvasive genotyping of fetal blood groups*. 37th International Congress of the International Society of Blood Transfusion. Virtual Congress, June 2022 (Poster).
- ✱ **Ahmadi MH**, Hosseini M. *Enhancing the antifungal effect of biosynthesized selenium nanoparticles using Aspergillus fumigatus*. 2nd Global Conference on Advanced Nanotechnology & Nanomaterials, June 2022 (Poster).
- ✱ **Ahmadi MH**, Maleknia M, Khoshbakht R, Rezaeeyan H. *Evaluation of the Predictive Value of Neutrophil to Lymphocyte and Platelet to Lymphocyte Ratio in Predicting Immune Thrombocytopenic Purpura (ITP)*. 1st international congress of biomarkers, February 2023 (Poster).
- ✱ Vahabzadeh R, Bagheri S, **Ahmadi MH**. *Free mitochondrial DNA DAMPs in blood products associated with adverse transfusion reactions*. The 2nd International Laboratory Diagnostics Congress, February 2023 (Oral).
- ✱ Hajiabadi F, Bagheri S, **Ahmadi MH**. *Evaluation of mitochondrial DNA level among different blood products*. The 2nd International Laboratory Diagnostics Congress, February 2023 (Oral).

- ✱ Sohrabian S, Badeleh F, **Ahmadi MH**. *Investigation of Hematological and Coagulation Indices in Patients with Pulmonary Thromboembolism*. The 2nd International Laboratory Diagnostics Congress, February 2023 (Poster).
- ✱ Izadi S, Karimi MA, **Ahmadi MH**. *Evaluating of Hematologic Inflammatory Markers in Multiple Myeloma: A Narrative Review*. The 1st laboratory science student congress of Shahid Beheshti University of Medical Sciences, December 2022 (Poster).
- ✱ Karimi MA, Izadi S, **Ahmadi MH**. *Metformin and Treatment of Acute Myeloid Leukemia: A Narrative Review*. The 1st laboratory science student congress of Shahid Beheshti University of Medical Sciences, December 2022 (Poster).
- ✱ **Ahmadi MH**, Sadeghi-Bojd Y, Amirizadeh N, Oodi A. *Genotyping of weak D phenotype among blood donors in Southeast Iran*. 33rd Regional International Society of Blood Transfusion Congress in Gothenburg, Sweden, June 2023 (Poster).

Research projects:

Row	Title	Role	Status	Thesis
1	Evaluation of genes expression of sphingolipids metabolism pathway (Sphingosine kinase1 and Acid ceramidase) in patients with acute myeloid leukemia versus healthy control group	Executive	The Performance	Yes
2	Evaluation of exposure to formaldehyde and its relationship with blood parameters in personnel of pathology laboratories of teaching hospitals of Mashhad University of Medical Sciences.	Colleague	The Performance	No
3	Evaluation of molecular and non-molecular indicators in patients with hepatitis C	Colleague	The Performance	No
4	Investigating the relationship between the storage time of blood products and rate and type of adverse blood transfusion reactions	Executive	The Performance	No
5	The relationship between molecular and non-molecular laboratory findings of SARS-COV-2 virus infection in patients with Covid-19	Colleague	Finished	No
6	Biosynthesis of silver nanoparticles using Berberis integerrima and Evaluation of its synergistic effect with conventional antibiotics against multidrug-resistant (MDR) Acinetobacter baumannii and Pseudomonas aeruginosa	Colleague	Finished	No

7	Evaluation of anti-leukemic effect of biosynthesized selenium nanoparticles on chronic myeloid leukemia (CML) cell line	Executive	The Performance	Yes
8	Evaluation of hematological and biochemical indices in cardiac patients undergoing surgery by CABG and PCI methods	Executive	The Performance	No
9	Evaluation of hematological and biochemical markers in thrombotic thrombocytopenic purpura (TTP) patients	Executive	The Performance	No
10	Evaluation of GADD45 gene expression as a tumor suppressor in patients with acute myeloid leukemia (AML)	Executive	The Performance	No
11	The assessment of clinical manifestation and glucocorticoid use in hospitalized COVID-19-associated mucormycosis in Ghaem and Imam-Reza hospitals compared to control group	Colleague	The Performance	Yes
12	Evaluation of the diagnostic value of platelet to lymphocyte and neutrophil to lymphocyte ratio indices in the development of Immune thrombocytopenic purpura (ITP)	Executive	Finished	No
13	Evaluation of Rh Blood Group Genotype in Thalassemia Major Patients of SARVAR Hemophilia and Thalassemia Center in Mashhad	Executive	The Performance	No
14	Evaluation of the predictive value of platelet-to-lymphocyte and neutrophil to lymphocyte ratio indices in the incidence of gestational diabetes	Executive	Finished	No
15	Evaluation of the relationship between ABO and Rh blood groups and susceptibility to coronavirus, and predictive value of indices, NLR PLR and MLR with the severity of COVID-19 in Persian cohort, Mashhad	Colleague	The Performance	No
16	Evaluation of antiviral effect of two antimicrobial peptides Nisin and P10 on human herpes simplex viruses 1	Colleague	Finished	Yes

Participation in Congress, Conference, Seminar, Symposium, and Workshops:

- ✧ As a participant in the 27th Regional Congress of the *International Society of Blood Transfusion*, Copenhagen, Denmark, June 2017.
- ✧ As a participant in one day *Patient Blood Management conference* in Iranian Blood Transfusion Organization, Tehran, Iran, November 2014.
- ✧ As a participant in the *Hemovigilance conference* in Mazandaran medical university, Mazandaran, Iran, December 2014.
- ✧ *Peripheral Blood Smear from normal to leukemia conference* in Avicenna Research Institute of Medical Sciences, Tehran, Iran, January 2015.
- ✧ *The novel practical approaches diagnosis, monitoring, and treatment of hematological malignancies Symposium*, Shahid Beheshti medical university, Tehran, Iran, December 2014.
- ✧ *Next Generation Sequencing workshop* for 8 hours in 7th international congress of Laboratory and Clinic, Tehran, Iran, February 2015.
- ✧ *The diagnosis of Hematological malignancies workshop* for 8 hours in Iran medical university, Tehran, Iran, May 2016.
- ✧ *Scientific Writing and Search and Type of Studies workshop* for 24 hours in the 10th Neonatal Hematology congress, Tehran, Iran, September 2017.
- ✧ *High Resolution Melting analysis workshop* for 16 hours in Iran Institute Pastor, Tehran, Iran, January 2018.
- ✧ *Real-Time PCR (CYBR Green) workshop* for 8 hours in High Institute for Research and Education in Transfusion Medicine, Tehran, Iran, February 2019.
- ✧ *Application of flow cytometry and cytochemistry in the diagnosis of hematologic malignancies* for 8 hours in High Institute for Research and Education in Transfusion Medicine, Tehran, Iran, February 2019.
- ✧ *Morphology of peripheral blood cells and bone marrow and its reporting principles* for 16 hours in Iran University of Medical Sciences, Tehran, Iran, December 2019.
- ✧ *Systematic review and meta-analysis workshop in medical science research* for 18 hours in Mashhad University of Medical Sciences, Mashhad, Iran, February 2021.

Teaching in workshops:

- ✧ *Blood Group Genotyping* for 8 hours in Fourth International Congress of Blood Transfusion Medicine, Blood Group Genotyping Central Lab, Iran Blood Transfusion Organization, September 2018.

Reviewer for academic journals:

- ✧ Journal of Pediatric Hematology and Oncology
- ✧ Transfusion and Apheresis Science
- ✧ Advanced Biomedical Research
- ✧ Jundishapur Journal of Chronic Disease Care
- ✧ The Iranian Journal of Obstetrics, Gynecology and Infertility
- ✧ Journal of Advanced Biomedical Sciences

Works and Teaching Experiences:

- ✧ As a laboratory technician at Shohada Hospital in Behshahr, from August 2012 to May 2014.
- ✧ Working with laboratory animals at the Pasteur Institute of Iran.
- ✧ University lecturer from January 2015 to February 2019 in Azad University, Babol medical branch, Mazandaran, Iran.
- ✧ University lecturer from September 2017 to June 2020 in Azad University, Sari medical branch, Mazandaran, Iran.
- ✧ University assistant professor from October 2020 until now in Mashhad University of Medical Sciences, Razavi Khorasan, Iran.

Technical skills competencies:

- ✧ Fulfill routine and specific laboratory hematology and blood bank tests
- ✧ DNA extraction and purification
- ✧ PCR and Real-Time PCR technique
- ✧ Gel electrophoresis
- ✧ Cell Culture & Sub culture, Stem Cell Culture, Stem Cell Freezing & De freezing
- ✧ ELISA (Enzyme-Linked Immunosorbent Assay)
- ✧ ICDL (International Computer Driving License) and good familiarity with required software such as SPSS, MedCalc, EndNote, Chromas, Oligo
- ✧ Ability in working with computer and search engines

Membership of professional societies:

- ✧ Iranian Scientific Society of Blood Transfusion

- ✧ International Society of Blood Transfusion (ISBT)

Honors and awards:

1. Academic:

- ✧ Achieving first place among Laboratory Science associate graduates (2009).
- ✧ Achieving second place among Ph.D. graduates in Laboratory Hematology and Blood Transfusion Sciences (2020).

2. National cultural competitions:

- ✧ The *second person* in the field of Tartil (Quran) in the Twenty-sixth Quran and Etrat Festival of the Ministry of Health, Treatment and Medical Education across the country, Tehran University of Medical Sciences (2022).
- ✧ The *first person* in the field of Prayer Reading (Monajat Khani) in the Twenty-fifth Quran and Etrat Festival of the Ministry of Health, Treatment and Medical Education across the country, Shahid Beheshti University of Medical Sciences (2021).
- ✧ The *first person* in the field of Prayer Reading (Monajat Khani) in the third national cultural festival of students of medical universities across the country, Golestan University of Medical Sciences (2011).
- ✧ The *third person* in the field of Quran (Tartil) in the 14th Quranic festival for students of medical universities across the country, Mazandaran University of Medical Sciences (2009).
- ✧ The *fourth person* in the field of Prayer Reading (Monajat Khani) in the first cultural festival of students of medical universities across the country, Isfahan University of Medical Sciences (2009).
- ✧ The *fourth person* in the field of Quran (Tartil) in the 13th Quranic festival for students of medical universities across the country, Mazandaran University of Medical Sciences (2006).

References:

- ✧ **Dr. Aliakbar Pourfathollah**
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- ✧ **Dr. Naser Amirizadeh**
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