

Samaneh Boroumand-Noughabi, MD

Assistant Professor

Department of Hematology and Blood Banking, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

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Educational Qualifications

2018-2020	Fellowship program of Hematopathology, Shiraz University of Medical Sciences Shiraz, Iran
2013	Iranian National Board of Anatomical and Clinical Pathology, Ministry of Health and Medical Education Tehran, Iran
2009-2013	Medical Specialty Program of Pathology, Mashhad University of Medical Sciences Mashhad, Iran
2001-2009	Doctor of Medicine (MD) Mashhad University of Medical Sciences Mashhad, Iran

Honors and Awards

2009	First – Ranked (Highest GPA) among 120 Graduated Medical Students Mashhad University of Medical Sciences Mashhad, Iran
2013	First – Ranked (highest score in final exam) among 8 Graduated Pathology Residents of Year 2013 Mashhad University of Medical Sciences Mashhad, Iran
2006	Ranked 8 th in the Iranian Pre-internship Examination for Medical Students among all Country –wide medical student contestants (among 1500 medical students) Ministry of Health and Medical Education Tehran, Iran
2004	Ranked 7 th in the Iranian Basic Science Examination for Medical Students among all Country –wide medical student contestants (among 1500 medical students) Ministry of Health and Medical Education Tehran, Iran

Academic Appointments	
January 2016-now	Assistant Professor, Department of Hematology and Blood Banking, Faculty of Medicine, Mashhad University of Medical Sciences Mashhad, Iran
2021-now	Director, Flow cytometry Lab., Dr Sheikh pediatric Hospital, Mashhad University of Medical Sciences Mashhad, Iran
2013-2015	Assistant Professor School of Medicine, Gonabad University of Medical Sciences Gonabad, Iran
2013-2015	Director, Laboratory of Panzdeh-e- Khordad Hospital, Gonabad University of Medical Sciences Gonabad, Iran
2013-2015	Co-Director, Laboratory of Bistodo-ye-Bahman Hospital, Gonabad University of Medical Sciences Gonabad, Iran

Non Academic Appointments	
2013-2015	Director, Jihad-e-Daneshgahi Medical Laboratory, Gonabad, Iran

Teaching & Training		
January 2016-now	Pathology Residents, Mashhad University of Medical Sciences, Mashhad, Iran	- Hematology and Blood Banking Courses (Lab & Lecture) - Immunohematology - Coagulation Disorders (Lab & Lecture)
January 2016-now	Hematology Students (for Master of Science Degree), Mashhad University of Medical Sciences, Mashhad, Iran	RBC Disorders (Lab & Lecture)
January 2016-now	Parasitology Students (for Master of Science Degree), Mashhad University of Medical Sciences, Mashhad, Iran	Hematology Course (Lab & Lecture)
January 2016-now	Laboratory Science Students (for Bachelor Degree), Mashhad University of Medical Sciences, Gonabad, Iran	- Hematology Course (Lab & Lecture) - Transfusion medicine
2013-2015	Medical Students, Gonabad University of Medical Sciences, Gonabad, Iran	General Pathology Course (Lab & Lecture)
2013-2015	Medical Students, Gonabad University of Medical Sciences, Gonabad, Iran	Systemic Pathology: Diseases of Organ Systems Course (Lab & Lecture)

2013-2015	Laboratory Science Students (for Bachelor Degree), Gonabad University of Medical Sciences, Gonabad, Iran	Pathology Course (Lecture)
2013-2015	Radiology Students (for Bachelor Degree), Gonabad University of Medical Sciences, Gonabad, Iran	Pathology Course (Lecture)
2013-2015	Nursing Students (for Master of Science degree) Gonabad University of Medical Sciences, Gonabad, Iran	Pathophysiology Course (Lecture)

Scientific Publications

Google scholar link:

<https://scholar.google.com/citations?hl=en&user=dBMxy4oAAAAJ>

Peer-Reviewed Journal Articles in English:

1. **Boroumand-Noughabi S**, Pashae A, Montazer M, Rahmati A, Ayatollahi H, Sadeghian MH, Keramati MR. **Investigating the expression pattern of the SETMAR gene transcript variants in childhood acute leukemia: Revisiting an old gene.** Journal of Pediatric Hematology/Oncology. 2023 Jul 17;45(5):e603-8.
2. Naghinezhad J, Alenabi A, Ayatollahi H, Sheikhi M, Sadeghian MH, Khoshnegah Z, **Boroumand-Noughabi S**. **Expression of DR4, DR5, FAS, Caspase-8 and, DDIAS Genes in AML Patients.** Medical Journal of the Islamic Republic of Iran. 2023;37.
3. Hosseini A, Ghorbani A, Alavi MS, Forouhi N, Rajabian A, **Boroumand-Noughabi S**, Sahebkar A, Eid AH. **Cardioprotective effect of Sanguisorba minor against isoprenaline-induced myocardial infarction in rats.** Frontiers in Pharmacology. 2023;14.
4. Ayatollahi H, **Boroumand-Noughabi S**, Ferns G, Sheikhi M, Siyadat P, Rostami M, Khoshnegah Z. **Evaluation of the expression of LC3-II and BECLIN1 genes of autophagy pathway in patients with hematological malignancies.** Caspian Journal of Internal Medicine. 2023;14(4):694.
5. Rezayat AA, Asadpour A, **Boroumand-Noughabi S**, Kabiri M, Moghadam EG, Javazm AN. **Investigation of the effects of oral dapoxetine on kidney function and histopathologic changes in male rats; an animal study and future perspectives.** Journal of Nephro pharmacology. 2023 Oct 27;13(1):e10633-.
6. Taghehchian N, Samsami Y, Maharati A, Zangouei AS, **Boroumand S**, Moghbeli M. **Molecular biology of microRNA-342 during tumor progression and invasion.** Pathology-Research and Practice. 2023 Jul 3:154672.
7. Rahmati A, Goshayeshi L, Amini N, Keramati MR, Taraz Jamshidi S, **Boroumand-Noughabi S**. **Platelet Count and Indices in Adult Patients Infected with Helicobacter pylori: a Retrospective Study of 1907 Patients.** SN Comprehensive Clinical Medicine. 2022 Nov 8;4(1):247.

8. Khoshnegah Z, Keramati MR, Taraz Jamshidi S, Karimi-Shahri M, **Boroumand-Noughabi S**. **Association between Laboratory Findings and Mortality of Hospitalized Patients with Covid-19 in Mashhad, Iran**. Journal of Advances in Medical and Biomedical Research. 2022 Oct 10;30(143):519-35.
9. Hosseini A, Safari MK, Rajabian A, **Boroumand-Noughabi S**, Eid AH, Al Dhaheri Y, Gumpricht E, Sahebkar A. **Cardioprotective Effect of Rheum turkestanicum Against Doxorubicin-Induced Toxicity in Rats**. Frontiers in Pharmacology. 2022 Jun 8;13:909079.
10. Rahmati A, Farhat AS, **Boroumand-Noughabi S**, Soleymani F, Keramati M. **Retrospective analysis of direct antiglobulin test positivity at tertiary academic hospital over 10 years**. Transfusion and Apheresis Science. 2022 Jun 1;61(3):103358.
11. **Boroumand-Noughabi S**, Rahmati A, Morovatdar N, Keramati M. **Significant decrease in the transfusion rates during the COVID-19 pandemic in the North East of Iran**. Transfus Clin Biol. 2022:181-2.
12. Hosseini A, Rajabian A, Sobhanifar MA, Alavi MS, Taghipour Z, Hasanpour M, Iranshahi M, **Boroumand-Noughabi S**, Banach M, Sahebkar A. **Attenuation of isoprenaline-induced myocardial infarction by Rheum turkestanicum**. Biomedicine & Pharmacotherapy. 2022 Apr 1;148:112775.
13. Mirzavi F, Rajabian A, **Boroumand-Noughabi S**, Hosseini A, Boroushaki MT, Hassanzadeh S. **Standardized extract of Sanguisorba minor attenuates injury in aging rat model via the Nrf2/HO-1 pathway**. Acta Neurobiologiae Experimentalis. 2022;82(4):433-41.
14. **Boroumand-Noughabi S**, Khoshnegah Z, Jamehdar SA, Ayatollahi H, Sheikhi M, Rostami M, Keramati MR. **Deregulation of the Expression of Beclin1 and Light Chain 3 (LC3), Autophagy-Related Genes, in COVID-19 Patients**. Medical Journal of the Islamic Republic of Iran. 2022;36.
15. Ansari L, Mahdinezhad MR, Rakhshandeh H, Hosseini A, **Boroumand Noughabi S**, Gholami N, Rajabian A. **Acute and sub-acute toxicity assessment of the standardized extract of Sanguisorba minor in vivo**. Journal of Complementary and Integrative Medicine. 2021 Dec 6;19(4):987-97.
16. **Boroumand-Noughabi S**, Keramati MR, Sadrzadeh Z, Asadi Z, Taraz Jamshidi S. **Extra ordinary high blood lead levels in Mashhad, Iran: a one-year study in a referral center**. Physiology and Pharmacology. 2021 Jul 10;25(2):116-24.
17. Sadr-Nabavi A, **Bouromand-Noughabi S**, Tayebi-Meybodi N, Dadkhah K, Amini N, Meindl A, Abbaszadegan MR. **Non-collagenous extracellular matrix protein dermatopontin may play a role as another component of transforming growth factor- β signaling pathway in colon carcinogenesis**. Iranian Journal of Basic Medical Sciences. 2021 Apr;24(4):444.
18. Monabati A, Safaei A, Mokhtari M, Nematollahi P, Faghih M, **Boroumand-Noughabi S**. **Histopathological and clinical features of nodular lymphocyte-predominant Hodgkin lymphoma and their impact on prognosis: first report from Iran**. Journal of Hematopathology. 2020; 13, 143–152.

19. Monabati A, Safaei A, Mokhtari M, **Boroumand-Noughabi S**, Faghih M, Nematollahi P. **Mantle cell lymphoma: pathologic and immunophenotyping study of 50 cases and correlation with survival—a single institute experience.** *Journal of Hematopathology*. 2020; 13, 153–158.
20. S Salimifard, FK Kiani, FS Eshaghi, S Izadi, K Shahdadnejad, A Masjedi, M Heydari, A Ahmadi, M Hojjat-Farsangi, H Hassannia, H Mohammadi, **S Boroumand-Noughabi**, MR Keramati, F Jadidi-Niaragh . **Codelivery of BV6 and anti-IL6 siRNA by hyaluronate-conjugated PEG-chitosan-lactate nanoparticles inhibits tumor progression.** *Life Sciences*. 2020 Nov 1; 260:118423.
21. Akhavan Rezayat A, Asadpour AA, **Boroumand Noughabi S**, Ahmadnia H, Mohseni H, Broomand I, Dadgar Moghadam M. **Effects of Chronic Use of Methylphenidate on Spermatogenesis and Sexual Hormones in Adult Male Rats.** *Nephro-Urology Monthly*. 2020 May 31;12(2).
22. Tafazzoli Z, Hosseinienezhad M, **Boroumand-Noughabi S**, Layegh P, Vahabi-Amlashi S, Ghanizadeh S. **Cutaneous Bronchogenic Cyst in a 3-Year-Old Girl: A Case Report.** *Journal of Isfahan Medical School*. 2020 May 21;38(569):201-5.
23. MH Sadeghian, P Davoudi, AH Jafarian, H Ayatollahi, MR Keramati, H Rahimi, **S Boroumand-Noughabi**, M Davoudi. **Evaluation of Cytoplasmic Nucleophosmin1 and P27 Expressions in Acute Myeloid Leukemia and Their Relationship with Clinicopathological Findings.** *J Biochem Tech*. 2019; Special Issue (2): 125-130.
24. H Norasteh, M Sh, MR Nikravesht, **S Boroumand-Noughabi**, F Beheshti. **Effects of Bene (Pistacia atlantica) on Histopathology of Testis, Sperm Chromatin Quality and Stress Oxidative in Busulfan-Induced Infertile Mice.** *Pharm Sci* 2019 25 (1), 24-30
25. Boroushaki MT, Fanoudi S, Mollazadeh H, **Boroumand-Noughabi S**, Hosseini A. **Reno-protective effect of Rheum turkestanicum against gentamicin-induced nephrotoxicity.** *Iran J Basic Med Sci*. 2019 Mar;22(3):328-333.
26. Mohammadi S, Kianmehr M, Mohammadi M, Fahimian Z, Karimimanesh E, Farazifar M, Nakhaei Z, Golamneshad N, Bolourifard B, Gholamin M, Mansouri A, Mahmoodi M RS, Soleymanifard S, **Boroumand-Noughabi S**, Ghandy N, Delshad A, Mohammadzadeh F, Norasteh H, Ghayour-Mobarhan M, Ferns GA. **Correlation between expression of CatSper1,2 and sperm parameters in the gamma irradiated adult mouse testis.** *Int J Radiat Biol*. 2019 Jun;95(6):691-696.
27. Heidari AR, **Boroumand-Noughabi S**, Nosratabadi R, Lavi Arab F, Tabasi N, Rastin M, Mahmoudi M. **Acylated and deacylated quillaja saponin-21 adjuvants have opposite roles when utilized for immunization of C57BL/6 mice model with MOG35-55 peptide.** *Mult Scler Relat Disord*. 2019 Apr;29:68-82. doi: 10.1016/j.msard.2019.01.025.
28. Sh. Mohammadi, M Gholamin, M. Mohammadi, A. Mansouri, R. Mahmoodian, S. Attari, S.M. Kebriaei, B. Zibaei, M. Roshanaei, F. Daneshvar, M. Khandehro, M.A. Khodadadegan, A. Delshad, F. Mohammadzadeh, Mostafa Peyvandi, Majid Ghayour-Mobarhan, Shima Tavallaie, **Samaneh Boroumand-Noughabi**, Gordon A.A. Ferns. **Down-regulation of CatSper 1 and CatSper 2 genes by lead and mercury.** *Environmental Toxicology and Pharmacology*. 59 (2018) 82–86

29. Mohammadi S, Gholamin M, Mansouri A, Mahmoodian R. S, Babazadeh, B, Kebriaei, S, M. Zibaei B, Roshanaei M, Daneshvar F, Khandehro M, Khodadadegan M A, Delshad A, Mohammadzadeh F, Mohammadi M, Sadeghi S, Shoeibi S, **Boroumand-Noughabi, S**, Ghayour-Mobarhan M, Tavallaie S, Vafaei A and Ferns GAA. **Effect of cadmium and nickel on expression of CatSper 1 and 2 genes in mice.** Toxin reviews. 2018 Jul 3;37(3):216-22.
30. Najafi M, Abbaszadegan MR, Rad A, Dastpak M, **Boroumand-Noughabi S**, Forghanifard MM. **Crosstalk between SHH and stemness state signaling pathways in esophageal squamous cell carcinoma.** Journal of cell communication and signaling. 2017 Jun 1;11(2):147-53.
31. Meysam Moghbeli, Somaye Chavoshi, Mahmud Tavallaie, Ezzat Dadkhah, Reza Raeissosadati, Moein Farshchian, Mohsen Towliat Kashani, Azita Ganji, Ali Jangjoo, **Samaneh Boroumand Noughabi**, Mohammad Reza Abbaszadegan. **Guanylyl Cyclase C as a tumor marker for detection of circulating tumor cells in the peripheral blood of colorectal cancer patients.** Int J Cancer Ther Oncol. 2016; 4(4):4411.
32. Mohammad Mahdi Forghanifard, Elham Emami Vahid, Ezzat Dadkhah, Mehran Gholamin, **Samaneh Boroumand Noughabi**, Martha Ghahraman, Mehdi Farzadnia, Mohammad Reza Abbaszadegan. **Loss of heterozygosity and microsatellite instability as predictive markers among Iranian esophageal cancer patients.** Iran J Basic Med Sci 2016; 19:726-733.
33. Hassan Boustani, Hossein Ayatollahi, Hossein Rahimi, **Samaneh Boroumand-Noughabi**, Masoumeh Gharib, Mohammad Alidadi, Arezoo Shajiei, Mohammad Hadi Sadeghian. **Expression of BCL2L12 in acute leukemia patients: Potential association with clinical and prognostic factors.** J Bas Res Med Sci 2016; 3(2):11-19
34. Mojtaba Ameli, **Samaneh Boroumand-Noughabi**, Leila Gholami-Mahtaj. A 14-Year-Old Boy with Torsion of the Epididymal Cyst. Case Reports in Urology. Volume 2015, Article ID 731987. <http://dx.doi.org/10.1155/2015/731987>.
35. Amir Hossein Jafarian, Nema Mohammadian Roshan, Abbas Ali Omid, **Samaneh Boroumand-Noughabi**. Papillary Glioneuronal Tumor: A Case Report and a Brief Review. International Journal of Medical and Pharmaceutical Case Reports. 2015; 2 (3), 70-75.
36. AH Jafarian, A Omid-Ashrafi, N Mohamadian-Roshan, M Karimi-Shahri, Kiarash Ghazvini, **Samaneh Boroumand-Noughabi**. **Association of Epstein Barr virus deoxyribonucleic acid with lung carcinoma.** Indian Journal of Pathology and Microbiology. 2013; 56 (4), 359.
37. Mohammad Mahdi Forghanifard, Meysam Moghbeli, Reza Raeisossadati, Alireza Tavassoli, Afsaneh Javdani Mallak, **Samaneh Boroumand-Noughabi**, Mohammad Reza Abbaszadegan. **Role of SALL4 in the progression and metastasis of colorectal cancer.** Journal of Biomedical Science.2013; 20(1):6.
38. **Samaneh Boroumand-Noughabi**, Hamid Reza Sima, Kamran Ghaffarzadehgan, Mostafa Jafarzadeh, Hamid Reza Raziee, Hanieh Hosseinneshad, Omeed Moaven, Mohammad Taghi Rajabi-Mashhadi, Amir Abbas Azarian, Mojtaba Mashhadinejad, Jalil Tavakkol-

Afshari. **Soluble Fas might serve as a diagnostic tool for gastric adenocarcinoma.** BMC Cancer.2010; 10:275.

Peer-Reviewed Journal Articles in Persian:

39. Malihe Hasanzadehmofrad, Azam Sadat Hoseini-Hoshyar, Seied Majid Ghazanfari, **Samaneh Boroumand-Noughabi**. **Granulosa cell tumor associated with chondrosarcoma of iliac: A case report.** Quarterly Journal of Sabzevar University of Medical Sciences, 2012; 19(3):304-9.
40. سادات, محمدی, فاضل, سازگار, قاسم, ابراهیم زاده, غیور, برومند نوقابی. بررسی سمیت کبدی و کلیوی عصاره خرنبوب Ceratonia siliqua 2019 فصلنامه علمی پژوهشی گیاهان دارویی. Dec 10;18(72):267-73.

Published Abstracts in National Congresses:

1. **Samaneh Boroumand-Noughabi***, Mohammad Reza Keramati, Mohammad Hasan Aelami, Niloofar Malek, Shirin Taraz-Jamshidi, Mohammad Saeed Sasan. **Clinical and laboratory findings of disseminated BCGitis patients in Emam Reza hospital, between 1382 and 1396.** Patient safety and quality improvement.2018.
2. Amir Hossein Jafarian, Abbas Ali Omid, Kiarash Ghazvini, Nema Mohamadian Roshan, **Samaneh Boroumand-Noughabi**. **The comparison of Human papilloma virus in bronchogenic carcinoma and non-carcinomatous patients.** Iranian Journal of Medical Sciences, 2012; 3(2): 389.
3. AH Jafarian, A Omid-Ashrafi, Kiarash Ghazvini, N Mohamadian-Roshan, M Karimi-Shahri, A. Tabatabaee, M. Bagheri, **Samaneh Boroumand-Noughabi**. **Association of Epstein Barr virus deoxyribonucleic acid with lung carcinoma.** Iranian Journal of Medical Sciences, 2012; 3(2): 390.
4. Jalil Tavakkol-Afshari, **Samaneh Boroumand-Noughabi**, Hamid Reza Sima, Mostafa Jafarzadeh, Kamran Ghaffarzadehgan, Hanieh Hosseinneshad, Hamid Reza Raziee, Mojtaba Mashhadinejad, Abdoli T, Ghadri S, Saeidi R, Ahmadi S, Hakimi H. **Serum level of FAS and Fas-Ligand; a non-invasive diagnostic test for gastric adenocarcinoma.** Govareh, vol 13, supplement, autumn 2008.
5. AR Heidari, **S Boroumand-Noughabi**, R Nosratabadi, M Rastin, ... **P83: Central Neuropathic Pain Development in Experimental Autoimmune Encephalomyelitis C57BL/6 Mouse Model Induced by QS-21 Adjuvant.** The Neuroscience Journal of Shefaye Khatam, 2018 6 (2), 114-114

Formally Supervised Trainees:

1. Monireh Homae Far. MD. Pathology Resident. Mashhad University of Medical Sciences.
 - Mentor and Thesis advisor. Research in progress.
 - Thesis title: Evaluation of CD49d expression in patients with Chronic Lymphocytic Leukemia and correlation with other clinicopathological prognostic parameter
2. Elmira Teymouri. MD. Pathology Resident. Mashhad University of Medical Sciences.
 - Mentor and Thesis advisor. Research in progress.
 - Thesis title: Evaluation of the frequency of immunophenotypic markers in pediatric acute leukemias and its relationship with clinical and laboratory characteristics of patients in the north east of Iran within the time interval of April 2021 to August 2022

3. Azadeh Zareh. MD. Pathology Resident. Mashhad University of Medical Sciences.
 - Mentor and Thesis advisor. Related Manuscript prepared and submitted.
 - Thesis title: Evaluation of granzyme B gene expression in AML patients and its association with patient's survival
4. Mohammad Mehdi Aghaee. MD. Mashhad University of Medical Sciences.
 - Thesis Advisor, Research in progress.
 - Thesis title: Evaluation of the relationship between vaccination history with mortality of hospitalized patients with Covid-19 disease in Imam Reza Hospital in Mashhad city During the sixth corona peak in Ira
5. Maryam Khajavi. MSC in Experimental Hematology. Mashhad University of Medical Sciences.
 - Mentor and Thesis advisor. Related Manuscript prepared and submitted.
 - Thesis title: Evaluation of SLC38A1 gene expression in patients with acute leukemia versus healthy controls
6. Zahra Khoushnegah. MSC in Experimental Hematology. Mashhad University of Medical Sciences.
 - Mentor and Thesis advisor. Several Manuscripts are prepared.
 - Thesis title: Evaluation of the relationship between laboratory indicators with mortality of hospitalized patients with Covid-19 disease in Imam Reza Hospital in Mashhad city in 2022
 - Khoshnegah Z, Keramati MR, Taraz Jamshidi S, Karimi-Shahri M, Boroumand-Noughabi S. Association between Laboratory Findings and Mortality of Hospitalized Patients with Covid-19 in Mashhad, Iran. Journal of Advances in Medical and Biomedical Research. 2022 Oct 10;30(143):519-35.
 - Boroumand-Noughabi S, Khoshnegah Z, Jamehdar SA, Ayatollahi H, Sheikhi M, Rostami M, Keramati MR. Deregulation of the Expression of Beclin1 and Light Chain 3 (LC3), Autophagy-Related Genes, in COVID-19 Patients. Medical Journal of the Islamic Republic of Iran. 2022;36.
7. Jalal Naghinezhad. MSC in Experimental Hematology. Mashhad University of Medical Sciences.
 - Mentor and Thesis advisor. Related Manuscript is published.
 - Thesis title: Evaluation of gene expression of DDIAS anti-apoptotic protein in AML patients
 - Naghinezhad J, Alenabi A, Ayatollahi H, Sheikhi M, Sadeghian MH, Khoshnegah Z, **Boroumand-Noughabi S. Expression of DR4, DR5, FAS, Caspase-8 and, DDIAS Genes in AML Patients.** Medical Journal of the Islamic Republic of Iran. 2023;37.
8. Zahra Sadrzadeh. MD. Mashhad University of Medical Sciences.
 - Thesis advisor. Related Manuscript is published.
 - Thesis title: Lead toxicity frequency in patients referred to central laboratory of Imam Reza hospital and correlations between patient's lead blood level and their hematological and biochemical tests.
 - **Boroumand-Noughabi S**, Keramati MR, Sadrzadeh Z, Asadi Z, Taraz Jamshidi S. **Extra ordinary high blood lead levels in Mashhad, Iran: a one-year study in a referral center.** Physiology and Pharmacology. 2021 Jul 10;25(2):116-24.
9. Niloofar Malek. MD. Mashhad University of Medical Sciences.
 - Thesis advisor. The results presented in a national congress and the abstract is published.

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Memberships:

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| <ul style="list-style-type: none"> - European Association for Haematopathology (EH4HP) - Iranian Association for Pathology - Cancer Molecular Pathology Research Center, Mashhad University of Medical Sciences. |
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Research Interests:

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| <ul style="list-style-type: none"> - Cancer Pathogenesis and early detection - Acute Leukemia and Hematologic Malignancies - Toxic and therapeutic effects of medications, herbals and chemicals on body organs |
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