

Sara Bagherieh

Curriculum Vitae

Updated Version

سارا باقریه

Personal Information

First Name: Sara

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Academic Background

Isfahan University of Medical Sciences (MUI), Isfahan, Iran - Student of Medicine

Sep 2018 – Present

I am currently a last-year medical student and the second rank of my class with a GPA of 3.78/4.

I have also been a research assistant at Isfahan Neuroscience Research Center, Isfahan cardiovascular research center (in collaboration with WHO), and Universal Scientific and Educational Research Network (USERN) at Tehran University of Medical Sciences (TUMS).

Farzanegan High School, Isfahan, Iran - High School Diploma - Biology

Sep 2014 – Jul 2018

Valedictorian

Honors & Awards

2024	Comprehensive Pre-internship (Clinical Medicine) Examination	National Rank of 8
2023	RSNA & SIIM org. NIIC-RAD course	Certificate of Completion
2022	RSNA & SIIM org. NIIC-RAD course	Scholarship Awardee
2021	Comprehensive Pre-clerkship (Basic Sciences) Examination	Top 2.5% nationally
2019	Proposal Competition, MUI Summer School of Research	Winner
2018	National University Entrance Exam for Sciences	Ranked 13th
2018	National University Entrance Exam for Foreign Languages	Ranked 3rd

Research Experience

Published Articles:

* *corresponding role.*

1. Shiri I, Salimi Y, Mohammadi Kazaj P, **Bagherieh S**, Amini M, Saberi Manesh A, Zaidi H. Deep Radiogenomics Sequencing for Breast Tumor Gene-Phenotype Decoding Using Dynamic Contrast Magnetic Resonance Imaging. *Mol Imaging Biol.* 2025 Feb;27(1):32-43. doi: 10.1007/s11307-025-01981-x. Epub 2025 Jan 15. PMID: 39815134; PMCID: PMC11805855.
2. Valizadeh P, Jannatdoust P, Pahlevan-Fallahy MT, Hassankhani A, Amoukhteh M, **Bagherieh S**, Ghadimi DJ, Gholamrezanezhad A. Diagnostic accuracy of radiomics and artificial intelligence models in diagnosing lymph node metastasis in head and neck cancers: a systematic review and meta-analysis. *Neuroradiology.* 2025 Feb;67(2):449-467. doi: 10.1007/s00234-024-03485-x. Epub 2024 Nov 11. PMID: 39527265; PMCID: PMC11893643.
3. Valizadeh P, Jannatdoust P, Ghadimi DJ, **Bagherieh S**, Hassankhani A, Amoukhteh M, Adli P, Gholamrezanezhad A. Predicting lymph node metastasis in thyroid cancer: systematic review and meta-analysis on the CT/MRI-based radiomics and deep learning models. *Clin Imaging.* 2025 Mar;119:110392. doi: 10.1016/j.clinimag.2024.110392. Epub 2024 Dec 24. PMID: 39742800.
4. Naser Moghadasi A, Mirmosayyeb O, **Bagherieh S**, Sahraian MA, Ghajarzadeh M. Computerized cognitive rehabilitation in patients with multiple sclerosis (MS): A systematic review and meta-analysis. *Caspian J Intern Med.* 2024 Oct 19;16(1):9-19. doi: 10.22088/cjim.16.1.9. PMID: 39619744; PMCID: PMC11607107.
5. Shaygannejad V, Mirmosayyeb O, **Bagherieh S**, Shaygan P, Ghajarzadeh M. The Efficacy of Fingolimod and Interferons in Controlling Disability and Relapse Rate in Patients with Multiple Sclerosis: A Systematic Review and Meta-Analysis. *Int J Prev Med.* 2024 Jan 30;14:131. doi: 10.4103/ijpvm.ijpvm_12_22. PMID: 38449687; PMCID: PMC10916411.
6. Shiri I, Salimi Y, Sirjani N, Razeghi B, **Bagherieh S**, Pakbin M, Mansouri Z, Hajianfar G, Avval AH, Askari D, Ghasemian M, Sandoughdaran S, Sohrabi A, Sadati E, Livani S, Iranpour P, Kolahi S, Khosravi B, Bijari S, Sayfollahi S, Atashzar MR, Hasanian M, Shahhamzeh A, Teimouri A, Goharpey N, Shirzad-Aski H, Karimi J, Radmard AR, Rezaei-Kalantari K, Oghli MG, Oveisi M, Vafaei Sadr A, Voloshynovskiy S, Zaidi H.

Differential privacy preserved federated learning for prognostic modeling in COVID-19 patients using large multi-institutional chest CT dataset. *Med Phys*. 2024 Jul;51(7):4736-4747. doi: 10.1002/mp.16964. Epub 2024 Feb 9. PMID: 38335175.

7. Valizadeh P, Jannatdoust P, Pahlevan-Fallahy MT, **Bagherieh S**, Adli P, Amoukhteh M, Hassankhani A, Matcuk GR Jr, Gholamrezanezhad A. Diagnostic performance of dual-energy computed tomography in detecting anterior cruciate ligament injuries: a systematic review and meta-analysis. *Skeletal Radiol*. 2024 Nov 21. doi: 10.1007/s00256-024-04833-x. Epub ahead of print. PMID: 39570423.
8. Hajianfar G, Hosseini SA, **Bagherieh S**, Oveisi M, Shiri I, Zaidi H. Impact of harmonization on the reproducibility of MRI radiomic features when using different scanners, acquisition parameters, and image pre-processing techniques: a phantom study. *Med Biol Eng Comput*. 2024 Aug;62(8):2319-2332. doi: 10.1007/s11517-024-03071-6. Epub 2024 Mar 27. PMID: 38536580; PMCID: PMC11604802.
9. **Bagherieh S**, Arefian NM, Ghajarzadeh M, Tafreshinejad A, Zali A, Mirmosayyeb O, Safari S. Olfactory dysfunction in patients with Parkinson's disease: A systematic review and meta-analysis. *Curr J Neurol*. 2023 Oct 7;22(4):249-254. doi: 10.18502/cjn.v22i4.14530. PMID: 38425360; PMCID: PMC10899541.
10. Mirmosayyeb O, Ghaffary EM, Dehghan MS, Ghoshouni H, **Bagherieh S**, Barzegar M, Shaygannejad V. Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease and COVID-19: A Systematic Review. *J Cent Nerv Syst Dis*. 2023 Mar 29;15:11795735231167869. doi: 10.1177/11795735231167869. PMID: 37008248; PMCID: PMC10063869.
11. Shahidi R, Baradaran M, Asgarzadeh A, **Bagherieh S**, Tajabadi Z, Farhadi A, Korani SS, Khalafi M, Shobeiri P, Sadeghsalehi H, Shafieioun A, Yazdanifar MA, Singhal A, Sotoudeh H. Diagnostic performance of MRI radiomics for classification of Alzheimer's disease, mild cognitive impairment, and normal subjects: a systematic review and meta-analysis. *Aging Clin Exp Res*. 2023 Nov;35(11):2333-2348. doi: 10.1007/s40520-023-02565-x. Epub 2023 Oct 6. PMID: 37801265.
12. Shaygannejad V, Mirmosayyeb O, Shaygannejad A, Vaheb S, **Bagherieh S**, Askari M, Ghajarzadeh M. Social support and anxiety correlation with resilience in patients with multiple sclerosis during COVID-19 pandemic. *Curr J Neurol*. 2023 Oct

7;22(4):217-220. doi: 10.18502/cjn.v22i4.14525. PMID: 38425354; PMCID: PMC10899534.

13. Ebrahimi N, Kazemzadeh K, Moases Ghaffary E, Afshari-Safavi A, **Bagherieh S**, Thapa S, Shaygannejad V, Mirmosayyeb O. Sexual and urinary dysfunctions among patients with neuromyelitis optica spectrum disorder (NMOSD): A systematic review. *Rare*. Available online 3 November 2023. <https://doi.org/10.1016/j.rare.2023.100009>.
14. Mirmosayyeb O, Ebrahimi N, Shekarian A, Afshari-Safavi A, Shaygannejad V, Barzegar M, **Bagherieh S***. Prevalence of dysphagia in patients with multiple sclerosis: A systematic review and meta-analysis. *J Clin Neurosci*. 2023 Feb;108:84-94. doi: 10.1016/j.jocn.2023.01.006. Epub 2023 Jan 9. PMID: 36630841.
15. Mirmosayyeb O, Ebrahimi N, Barzegar M, Afshari-Safavi A, **Bagherieh S***, Shaygannejad V. Olfactory dysfunction in patients with multiple sclerosis; A systematic review and meta-analysis. *PLoS One*. 2022 Apr 19;17(4):e0266492. doi: 10.1371/journal.pone.0266492. PMID: 35439251; PMCID: PMC9017946.
16. **Bagherieh S**, Ghoshouni H, Bostan F, Afshari-Safavi A, Badihian S, Barzegar M, Shaygannejad V, Mirmosayyeb O. Incidence, prevalence, and characteristics of heart failure among patients with multiple sclerosis: A systematic review and meta-analysis. *Mult Scler Relat Disord*. 2022 Mar;59:103665. doi: 10.1016/j.msard.2022.103665. Epub 2022 Feb 4. PMID: 35150980.
17. Shobeiri P, **Bagherieh S**, Mirzayi P, Kalantari A, Mirmosayyeb O, Teixeira AL, Rezaei N. Serum and plasma levels of brain-derived neurotrophic factor in individuals with eating disorders (EDs): a systematic review and meta-analysis. *J Eat Disord*. 2022 Jul 18;10(1):105. doi: 10.1186/s40337-022-00630-w. PMID: 35850718; PMCID: PMC9295529.
18. Roohafza H, **Bagherieh S**, Feizi A, Khani A, Yavari N, Saneian P, Teimouri Z, Sadeghi M. How is type D personality associated with the major psychological outcomes in noncardiac chest pain patients? *Personal Ment Health*. 2022 Feb;16(1):70-78. doi: 10.1002/pmh.1527. Epub 2021 Sep 10. PMID: 34505402.
19. Ghoshouni H, **Bagherieh S**, Parvizinia M, Askari M, Sadeghi M, Mirmosayyeb O. Unraveling the Mystery of COVID-19 Postvaccination Myocarditis: A Systematic

Review of Current Cases. *Int J Clin Pract.* 2022 Jan 31;2022:2438913. doi: 10.1155/2022/2438913. PMID: 35685560; PMCID: PMC9159134.

20. Roohafza H, Noohi F, Hosseini SG, Alemzadeh-Ansari M, **Bagherieh S**, Marateb H, Mansourian M, Mousavi AF, Seyedhosseini M, Farshidi H, Ahmadi N, Yazdani A, Sadeghi M. A Cardiovascular Risk Assessment Model According to Behavioral, Psychosocial and Traditional Factors in Patients With ST-Segment Elevation Myocardial Infarction (CRAS-MI): Review of Literature and Methodology of a Multi-Center Cohort Study. *Curr Probl Cardiol.* 2022 Feb 19:101158. doi: 10.1016/j.cpcardiol.2022.101158. Epub ahead of print. PMID: 35192872.
21. Roohafza H, Yavari N, Feizi A, Khani A, Saneian P, **Bagherieh S**, Sattar F, Sadeghi M. Determinants of depression in non-cardiac chest pain patients: a cross sectional study. *Korean J Pain.* 2021 Oct 1;34(4):417-426. doi: 10.3344/kjp.2021.34.4.417. PMID: 34593659; PMCID: PMC8494964.
22. Roohafza H, Saneian P, Feizi A, Khani A, Yavari N, **Bagherieh S**, Shafiei M, Masoumi G, Sadeghi M. What Predict Self-rated Health: A Cross-sectional Study Among Men and Women with Non-cardiac Chest Pain. *J Clin Psychol Med Settings.* 2022 Oct 27. doi: 10.1007/s10880-022-09916-2. Epub ahead of print. PMID: 36303095.
23. Mirmosayyeb O, Shaygannejad V, **Bagherieh S**, Hosseinabadi AM, Ghajarzadeh M. Prevalence of multiple sclerosis (MS) in Iran: a systematic review and meta- analysis. *Neurol Sci.* 2022 Jan;43(1):233-241. doi: 10.1007/s10072-021-05750-w. Epub 2021 Nov 17. PMID: 34787755.
24. Mirmosayyeb O, Moases Ghaffary E, Mazdak M, Bagheri Z, **Bagherieh S**, Shaygannejad V. Is Myasthenia Gravis a Real Complication of the COVID-19 Vaccine? A Case Report-Based Systematic Review. *Can J Infect Dis Med Microbiol.* 2022 Sep 17;2022:5009450. doi: 10.1155/2022/5009450. PMID: 36164665; PMCID: PMC9509275.
25. Mirmosayyeb O, Ghaffary EM, **Bagherieh S**, Barzegar M, Dehghan MS, Shaygannejad V. Post COVID-19 infection neuromyelitis optica spectrum disorder (NMOSD): A case report-based systematic review. *Mult Scler Relat Disord.* 2022 Apr;60:103697. doi: 10.1016/j.msard.2022.103697. Epub 2022 Feb 19. PMID: 35306242.

26. Riazi A, Larry M, Mokhtari A, Abdali H, Asfia M, **Bagherieh S**. Giant High- Grade Immature Teratoma of the Central Nervous System (CNS) in an Infant: A Case Report. *Am J Case Rep*. 2021 Dec 24;22:e932752. doi: 10.12659/AJCR.932752. PMID: 34949754; PMCID: PMC8713080.
27. Barzegar M, Mirmosayyeb O, Ebrahimi N, **Bagherieh S**, Afshari-Safavi A, Hosseinabadi AM, Shaygannejad V, Asgari N. COVID-19 susceptibility and outcomes among patients with neuromyelitis optica spectrum disorder (NMOSD): A systematic review and meta-analysis. *Mult Scler Relat Disord*. 2022 Jan;57:103359. doi: 10.1016/j.msard.2021.103359. Epub 2021 Nov 1. PMID: 35158468; PMCID: PMC8558105.
28. Mirmosayyeb O, **Bagherieh S**, Shaygannejad V. Acute CNS demyelination in a subject with cerebellar ataxia following the first dose of COVID-19 vaccine; a case report. *Hum Vaccin Immunother*. 2021 Nov 2;17(11):4099-4101. doi: 10.1080/21645515.2021.1971920. Epub 2021 Oct 29. PMID: 34714721; PMCID: PMC8567291.
29. Bhattarai A, Shah S, **Bagherieh S**, Mirmosayyeb O, Thapa S, Paudel S, Gyawali P, Khanal P. Endothelium, Platelets, and Coagulation Factors as the Three Vital Components for Diagnosing Bleeding Disorders: A Simplified Perspective with Clinical Relevance. *Int J Clin Pract*. 2022 Aug 27;2022:5369001. doi: 10.1155/2022/5369001. PMID: 36101812; PMCID: PMC9440837.
30. Al-Zubaidi N, Mirmosayyeb O, Khatavi F, Barzegar M, **Bagherieh S**, Noorshargh P, Dehghani A, and Shaygannejad V. "Assessment of Retinal Nerve Fiber Layer (RNFL) and Retinal Ganglion Cell Layer (RGCL) Thickness in Radiologically Isolated Syndrome (RIS)." *Archives of Neuroscience* 10, no. 1 (2023).
31. Barzegar M, Houshi S, Sadeghi E, Hashemi MS, Pishgahi G, **Bagherieh S**, Afshari-Safavi A, Mirmosayyeb O, Shaygannejad V, Zabeti A. Association of Disease-Modifying Therapies with COVID-19 Susceptibility and Severity in Patients with Multiple Sclerosis: A Systematic Review and Network Meta-Analysis. *Mult Scler Int*. 2022 Sep 21;2022:9388813. doi: 10.1155/2022/9388813. PMID: 36187599; PMCID: PMC9519336.

32. Barzegar M, Manteghinejad A, **Bagherieh S**, Sindarreh S, Mirmosayyeb O, Javanmard SH, Shaygannejad V, Nasirian M. Risk and severity of SARS-CoV-2 reinfection among patients with multiple sclerosis vs. the general population: a population-based study. BMC Neurol. 2022 Oct 8;22(1):379. doi: 10.1186/s12883-022-02907-8. PMID: 36209055; PMCID: PMC9547099.
33. Barzegar, M., Manteghinejad, A., Afshari-Safavi, A., Mirmosayyeb, O., Nasirian, M., **Bagherieh, S.**, Mazaheri, S., Rahimi, M., zabeti, A., Javanmard, S. H., & Shaygannejad, V. Effectiveness of BBIBP-CorV vaccine in preventing SARS-CoV2 infection and severe outcomes in people living with multiple sclerosis: A population-based study. Multiple Sclerosis and Related Disorders. <https://doi.org/10.1016/j.msard.2023.104548>
34. **Bagherieh S**, Afshari-Safavi A, Vaheb S, et al. Worldwide prevalence of neuromyelitis optica spectrum disorder (NMOSD) and neuromyelitis optica (NMO): a systematic review and meta-analysis. Neurol Sci. 2023;44(6):1905-1915. doi:10.1007/s10072-023-06617-y
35. Mirmosayyeb O, Mohammadzamani M, **Bagherieh S**, et al. Neurosarcoidosis in an adult man with a family history of MS: A case report. Clin Case Rep. 2023;11(6):e7605. Published 2023 June 22. doi:10.1002/ccr3.7605
36. Hassanzadeh S, Mirmosayyeb O, Bagherieh S, Afshari-Safavi A, Barzegar M, Moases Ghaffary E, Shaygannejad V. Sociodemographic and Neuroimaging Evaluation of Patients with Multiple Sclerosis and Radiologically Isolated Syndrome in Isfahan, Iran. Archives of Neuroscience, <https://doi.org/10.5812/ans-137025>.
37. Thapa S, Bhattarai A, Shah S, Chand S, **Bagherieh S**, Mirmosayyeb O, Kumar Mishra Sh. Diagnostic Role of Tau Proteins in Amyotrophic Lateral Sclerosis: A Systematic Review and Meta-Analysis. Acta Neurologica Scandinavica 2023, <https://doi.org/10.1155/2023/2791622>.

Abstracts:

1. “Application of machine learning in the detection of Parkinson’s disease from DaT scans”, RSNA 109th Scientific Assembly and Annual Meeting
2. “Safety Evaluation of Fampiridine in Patients with Multiple Sclerosis as a Prospective Cohort Study”, Category: Therapy: Disease Modifying Abstract (Code: [MSC2023-A-1004])
3. “Prevalence and Incidence of Multiple Sclerosis in Isfahan Province, Iran: A 25-Year Population-Based Study” in the category of “Epidemiology of MS” (Code: P127 [MENACTRIMS 2022])
4. “Radiological Markers Capable of Differentiating Multiple Sclerosis from Neuromyelitis Optica Spectrum Disorder; a Systematic Review and Meta-Analysis” in the category of “MS Diagnosis” (Code: P407 [MENACTRIMS 2022])
5. Ghajarzadeh, M., Mirmosayyeb, O., Ebrahimi, N., Bagherieh, S., Moghadasi, A.N. and Sahraian, M.A., 2022, October. The effect of fampridine on cognition in patients with multiple sclerosis (MS): a systematic review and meta-analysis. In MULTIPLE SCLEROSIS JOURNAL (Vol. 28, No. 3_ SUPPL, pp. 907-908).

Skills & Abilities

Review Experience:

Journal name (number of reviews):

- International Journal of Cardiovascular Imaging (42)
- Journal of Clinical Neuroscience (28)
- Clinical Rheumatology (24)
- Clinical Case Reports (8)
- Human Vaccines & Immunotherapeutics (7)
- Multiple Sclerosis and Related Disorders (5)
- BMC Neurology (3)
- Cureus (3)
- Advanced Biomedical Research (2)
- BMC Public Health (2)
- Cancer Epidemiology (2)
- European Journal of Oral Sciences (2)
- Health Science Reports (2)
- Scientific Reports (2)
- Communications Medicine (1)
- European Journal of Clinical Pharmacology (1)
- European Journal of Neuroscience (1)
- Frontiers in Cardiovascular Medicine (1)
- Frontiers in Public Health (1)
- Global Transitions (1)

Languages:

Persian: Native Language

English: Full Professional Proficiency

Spanish: Limited Working Proficiency

Technical and Research-Related Skills:

Scientific Writing (Advanced)

SPSS (Advanced)

R Statistical Package (Novice)

Python Programming Language (Novice)

Machine Learning (Novice)

Microsoft Office package (Advanced)

Google Drive package (Advanced)

Mendeley (Advanced) & EndNote (Advanced)

Soft Skills:

- Coordinated, goal-directed, and intrigued by the idea of bridging medicine with computer sciences,
- Excellent teamwork, team management, and conflict resolution according to my colleagues,
- Perfect time management, punctuality, and passion for discovery!
- Flexibility and adaptation regardless of the prestige of the project/position/job.

Interests

Radiology, Radiomics, Neuro-imaging, Cancer Imaging, Precision Imaging, Computing in Medicine, Advanced Statistical Analysis, Applied Artificial Intelligence in Diseases and Conditions, Machine Learning in Medicine, Meta-analysis, Regression Analysis, Multivariate Analysis, Biostatistics, Survival Analysis, R Statistical Package, Python Programming, Data Wrangling.