



Biography

Dr. Hossein Mohammadi is an Assistant Professor in Medical Imaging, with a focus on Neuroimaging. He received his Ph.D. in 2025 from the Isfahan University of Medical Sciences (IUMS), Iran. He currently serves as an Assistant Professor at the Medical & Paramedical School, Ardabil University of Medical Sciences (ARUMS), Iran. Dr. Mohammadi's research is centered on neuroimaging and neuroscience, with particular emphasis on brain mapping, the design of cognitive tasks, and the development and analysis of multimodal imaging datasets. His work also includes research on brain tumors and associated image processing methodologies, aiming to improve quantitative imaging approaches for better characterization of neural structures and clinical conditions. He is the author and contributor of more than seven peer-reviewed scientific publications and actively engages in research activities that integrate advanced imaging techniques with computational image analysis.

Curriculum Vitae

Dr. Hossein Mohammadi

PhD in Medical Imaging

Assistant Professor

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Personal

- Date of birth: 1 Jan 1993

- Place of birth: Khalkhal, Iran
- Sex: Male
- Nationality: Iranian
- Status: Married

Educations

- 1- 2019-2025, Isfahan University of Medical Sciences: Isfahan, Iran (Ph.D. in Medical Imaging), **Thesis title:** Investigating human rapid memory learning with simultaneous MRS-EEG methods
- 2- 2016-2019, Tehran University of Medical Sciences, Tehran, Iran (M.Sc. in Medical Imaging), **Thesis title:** Efficacy of drug treatment (sertraline) and cognitive-behavioral therapy in patients with generalized anxiety disorder using MRS of the brain
- 3- 2012-2016, Tabriz University of Medical Sciences, Tabriz, Iran (B.Sc. in Radiology)

Publications

1. [Mohammadi H](#), Changizi V, Riyahi Alam N, Rahiminejad F, Soleimani S, Qardashi A. Measurement of Post-Treatment Changes in Brain Metabolites in Patients with Generalized Anxiety Disorder using Magnetic Resonance Spectroscopy. *Journal of Biomedical Physics and Engineering*. 2020 Jul 25.
2. [Mohammadi H](#), Ariaei A, Ghobadi Z, Gorgich EA, Rustamzadeh A. Which neuroimaging and fluid biomarkers method is better in theranostic of Alzheimer's disease? An umbrella review. *IBRO Neuroscience Reports*. 2024 Feb 29.
3. Mohammadi S, Ghaderi S, [Mohammadi H](#), Fatehi F. Simultaneous increase of mean susceptibility and mean kurtosis in the substantia nigra as an MRI neuroimaging biomarker for early-stage Parkinson's disease: A systematic review and meta-analysis. *Journal of Magnetic Resonance Imaging*. 2024.
4. Cheshmi H, [Mohammadi H](#), Akbari M, Nasiry D, Rezapour-Nasrabad R, Bagheri M, Abouhamzeh B, Poorhassan M, Mirhoseini M, Mokhtari H, Akbari E. Human placental mesenchymal stem cell-derived exosomes in combination with hyperbaric oxygen synergistically promote recovery after spinal cord injury in rats. *Neurotoxicity Research*. 2023 Oct;41(5):431-45.
5. Ebrahimi Shah-abadi M, Ariaei A, [Mohammadi H](#), Shabani A, Rahmani Tanha R, Tavakolian Ferdousie V, Taheri A, Marzban M, Heydari M, Rustamzadeh A. Recent Advances and Future Directions in Imaging of Peripheral Nervous System: A Comprehensive Review for Therapeutics Approach. *Journal of Advances in Medical and Biomedical Research*. 2023 Oct 10;31(148):415-31.
6. [Mohammadi H](#), Jamshidi S, Khajehpour H, Adibi I, Rahimiforoushani A, Karimi S, Serej ND, Alam NR. Unveiling glutamate dynamics: Cognitive demands in human short-term memory learning across frontal and parieto-occipital cortex: A functional MRS study. *Journal of Biomedical Physics & Engineering*. 2024 Dec 1;14(6):519.
7. [Mohammadi H](#), Zargarani SJ, Khajehpour H, Adibi I, Rahimiforoushani A, Karimi S, Serej ND, Alam NR. Human short-term memory learning based on dynamic glutamate levels and oscillatory activities: concurrent metabolic and electrophysiological studies using event-related functional-MRS and EEG modalities. *Cognitive Processing*. 2026 May;27(2):365-84.

Presentations

1. Magnetic Resonance Spectroscopy Reveals Metabolic Changes After Treatment. [Mohammadi H](#), Changizi V, Riyahi Alam N, Rahiminejad F, Soleimani S, Qardashi A. 4th Iranian Symposium on Brain Mapping updates (ISBM 2020).

2. MRS Study of Sertraline Administration in Comparison with Cognitive Behavior Therapy in Generalized Anxiety Disorder Patients. [Mohammadi H](#), Nader Riahi Alam, Nasim Dadashi, Vahid Changizi. Organization for Human Brain Mapping (OHBM 2021).
3. Glutamate Level Based Short Term Human Brain Plasticity Following Visual Memory Learning Using ER-MRS-EEG Modalities: Simultaneous Metabolic and Electrophysiological Studies. [Hossein Mohammadi](#), Shahriyar Jamshidi, Nasim Dadashi*, Nader Riyahi Alam*, Shaghayegh Karimi, Iman Adibi, Abbas Rahimi. World Molecular Imaging Congress (WMIC 2022).
4. Study of Human Short-Term Memory and Learning Using Combined MRS-EEG. [Hossein Mohammadi](#), Shahriyar Jamshidi, Nasim Dadashi*, Nader Riyahi Alam*, Shaghayegh Karimi, Iman Adibi, Abbas Rahimi. 29th Annual Meeting of the Organization of Human Brain Mapping, Montreal, Canada/ July 2023.

Technical Skills

1. Medical imaging (routine and contrast radiographs and dental, MRI, CT scan, nuclear medicine, etc.)
2. Processing of medical images including MRI, CT scan, PET, and multimodal images
3. Processing and quantification of MRS spectrum, fMRI signal, EEG, and...
4. History of multi-modality MRS-EEG-fMRI imaging at the National Brain Mapping Center
5. Familiar with MATLAB and Python programming and image and signal processing software like FSL, SPM, LCModel, EEGLAB, Brainstorm, ...

Work experiences

- 1- 1.5 years in the imaging department of Shahada Hospital in Tabriz (2016-2014)
- 2- 2 years in the imaging department of Rasoul Akram Hospital in Tehran (2018-2016)
- 3- 1 year in the imaging and angiography department of Tehran Shariati Hospital (2018-2017)
- 4- Teaching radiology, nursing, operating room, and midwifery students at Ardabil University of Medical Sciences (2020-2023)
- 5- Teaching units of "Advanced MRI imaging methods" for medical imaging doctoral students at the Department of Bioimaging, School of Advanced Technologies in Medicine, Isfahan University, Isfahan, Iran (2021)
- 6- Holding several workshops in the field of medical imaging, diagnosis of brain diseases by imaging, advanced methods of medical imaging, and analysis and processing of multimodality medical images in cooperation with the National Laboratory of Brain Mapping and other universities and institutions.

Scientific Memberships

- 1- Membership in the editorial board of "Salam Partokar" magazine in Tabriz University of Medical Sciences (2016-2015)
- 2- Member of the National Center for Brain Mapping Researchers Club (<https://nbml.ir/>) (2022)
- 4- Member of the World Molecular Imaging Society (<https://www.wmis.org/>) (2023)
- 5- Member of the working group of the Molecular Imaging Society (DEI Working Group) (2023)

Awards

1- Travel Award Winner at the 29th Annual Meeting of the Organization of Human Brain Mapping in Montreal, Canada, for an abstract entitled “Study of Human Short-Term Memory and Learning Using Combined MRS-EEG”/ July 2023