Curriculum Vita

Samira Raminfard

Mailing Address: Keshavarz Blvd. Gharib St. Imam Khomeini Hospital Complex, Medical Imaging Center, Advanced Diagnostic and Interventional Radiology Research Center (ADIR)
E-Mail: samira.raminfard@gmail.com

Education

2013-2019: PhD in Neuroscience. Tehran University of Medical Sciences, Tehran, Iran.
Title of thesis: Determination of Brain Metabolic Map Usin Magnetic Resonance Spectroscopy in Primary Brain Tumors.
Supervised by Dr. Mohammad Ali Oghabian

2008-2011: MSc in Anatomical sciences. Shiraz University of Medical Sciences, Shiraz, Iran.
Title of thesis: High- fat diet effect on the neurogenesis in the hypothalamus of adult male mice
Supervised by Dr. Mohammad Reza Namavar

2000-2005: BSc in Radiology. Tabriz University of Medical Sciences, Tabriz, Iran.

Professional Experiences

2023-Present: Advanced Diagnostic and Interventional Radiology Research Center (ADIR), Tehran University of Medical Sciences, Tehran, Iran

2019-2022: Neuroimaging and analysis group, Tehran University of Medical Sciences, Tehran, Iran

- Clinical Manager
- Analyzer of pre-surgical planning images

2011-2013: Islamic Azad University of Urmia, Urmia, Iran

- Lecturer of Anatomy

2004-2007: Aftab radiology center, Tabriz, Iran

- Technician of radiology

2002-2003: Asadabadi hospital, Tabriz, Iran

- Technician of radiology

Research Interests

- Neuro-Imaging
- Magnetic Resonance Spectroscopy (MRS)
- Metabolic Tumor Mapping
- Glioma
- Brain Metabolites
- Pre-surgical planning
- Targeted tumor diagnosis
- Neuroanatomy

Skills and Abilities

Advanced Neuroimaging:

- MRS, DTI, fMRI, Perfusion

Software:

- TARQUIN, SIVIC, jMRUI, ExploreDTI, FSL, SPM

Publications

1. Irandoost SA, Badv RS, Oghabian MA, Yarali B, Malamiri RA, Hashemi H, **Raminfard S**, Ebrahimi T, Mohammadi M, Ashrafi MR. Non-invasive Electrical Source Imaging for Localizing Epileptiform Discharges in Children with Focal Epilepsy Based on Developing Country's Limitations. Innovative Journal of Pediatrics. 2023 Dec 31(In Press).
2. Hajikarim-Hamedani A, Heidari A, Sadat-Shirazi MS, Mahboubi S, **Raminfard S**, Khalifeh S, Zarrindast MR. The role of lateral habenula NMDA receptors in tramadol-induced conditioning. Behavioural Pharmacology. 2023 Aug 30;34(5):243-50.
3. Abbaszadeh F, Jorjani M, **Raminfard S**, Mehrabi S. Astaxanthin ameliorates spinal cord edema and astrocyte activation via suppression of HMGB1/TLR4/NF-κB signaling pathway in a rat model of spinal cord injury. Naunyn-Schmiedeberg's Archives of Pharmacology. 2023 May 5:1-2.
4. Alimohamadi M, Pour-Rashidi A, Larijani A, Rahmani M, Hendi K, **Raminfard S**, Ajam H, Gerganov V. Perioperative seizure in patients undergoing brain mapping under awake craniotomy for language-related eloquent region gliomas: a prospective study. Journal of Neurosurgical Sciences. 2023 May 9.
5. Alimohamadi M, Pour-Rashidi A, Digaleh H, Zibadi HA, Hendi K, **Raminfard S**, Rahmani M, Larijani A, Shirani M. Disparity of primary and secondary language outcomes

in bilingual patients undergoing resection of glioma of the speech-related regions. World Neurosurgery. 2023 May 23.

6. Hosseini SM, Hassanpour M, Masoudnia S, Iraji S, **Raminfard S**, Nazem-Zadeh M. CTtrack: A CNN+ Transformer-based framework for fiber orientation estimation & tractography. Neuroscience Informatics. 2022 Dec 1;2(4):100099.
7. Javadi SA, Mosallami Aghili SM, Javadi AM, **Raminfard S**. Methods to Improve Fiber Reconstruction at DTI-Based Tractography in the Area of Brain Tumor: Case Illustration and Literature Review. Iranian Journal of Neurosurgery. 2022 Aug 10;8:2-.
8. Simani L, Ramezani M, Ahmadi N, Abbaszadeh F, **Raminfard S**, Shojaei M, Zoghi A, Karimialavijeh E, Aghamiri SH, Pakdaman H. The effect of Atorvastatin on the blood-brain barrier biomarkers in acute intracerebral hemorrhage, a pilot clinical trial. Brain Hemorrhages. 2022 Jul 30.
9. Malek M, Rahmani M, Pourashraf M, Amanpour-Gharaei B, Zamani N, Farsi M, Ahmadinejad N, **Raminfard S**. Prediction of Lymphovascular Space Invasion in Cervical Carcinoma using Diffusion Kurtosis Imaging. Cancer Treatment and Research Communications. 2022 Apr 14:100559.
10. Hendi K, Rahmani M, Larijani A, Zibadi HA, Raminfard S, Moharari RS, Gerganov V, Alimohamadi M. Changes in Cognitive Functioning After Surgical Resection of Language-related, Eloquent-area, High-grade Gliomas Under Awake Craniotomy. Cognitive and Behavioral Neurology. 2022 Jun 1;35(2):130-9.
11. Razavi F, **Raminfard S**, Kalantar H, Sisakhti M, Batouli SA. A probabilistic atlas of the pineal gland in the standard space. Frontiers in Neuroinformatics. 2021;15:19.
12. Simani L, **Raminfard S**, Asadollahi M, Roozbeh M, Ryan F, Rostami M. Neurochemicals of limbic system and thalamofrontal cortical network: Are they different between patients with idiopathic generalized epilepsy and psychogenic nonepileptic seizure? Epilepsy & Behavior. 2020 Nov 1; 112:107480.
13. Meknatkhah S, Dashti PS, Raminfard S, Rad HS, Mousavi MS, Riazi GH. The Changes in 1 H-MRS Metabolites in Cuprizone-Induced Model of Multiple Sclerosis: Effects of Prior Psychological Stress. Journal of Molecular Neuroscience. 2021 Apr;71:804-9.
14. Hendi K, Rahmani M, Rouhi Larijani A, Raminfard S, Digale H, Farzin M, Moharari R, Shirani M, Amirjamshidi A, Alimohamadi M. Cognitive Function in Patients with Dominant Hemisphere Glioma in Sina Hospital in 2018. Iranian Journal of Surgery. 2019 27(2), 10-19.
15. **Raminfard S**, Haghighatkhah H, Alimohamadi M, Yoonessi A, Arbabi F, Batouli SA, Oghabian M. Assessment of Residual Tumor After Resection of Glioma: A Magnetic Resonance Spectroscopic Study. Archives of Neuroscience. 2019 Aug 15;6 (Brain Mapping).
16. Hashemi M, Gharaylou Z, Sepand MR, Hamedi SS, **Raminfard S**, Alimohamadi M, Sherkatkhamene N, Zarepour L, Hadjighassem M. Apoptosis induced by Viola odorata extract in human glioblastoma multiforme. Archives of Neuroscience. 2019 Jan 31;6(1).

17. Azizi S, Marzbani H, **Raminfard S**, Birgani PM, Rasooli AH, Mirbagheri MM. The impact of an anti-gravity treadmill (AlterG) training on walking capacity and corticospinal tract structure in children with cerebral palsy. In2017 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) 2017 Jul 11 (pp. 1150-1153). IEEE.
18. Sadeghi AZ, Jafari AH, Oghabian MA, Salighehrad HR, Batouli SA, **Raminfard S**, Ekhtiari H. Changes in effective connectivity network patterns in drug abusers, treated with different methods. Basic and clinical neuroscience. 2017 Jul;8(4):285.
19. Esnaashari SS, Raminfard S, Gharaylou Z, Hosseinzadeh S. More Precise Mapping of Gliobalstoma Based on a Nanoprobe-Decorated Drug Molecule. Journal of Advanced Medical Sciences and Applied Technologies. 2016 Mar 1;2(1):176-80.
20. Namavar, Mohammad Reza, **Samira Raminfard**, Zahra VojdaniJahromi, and Hassan Azari. "The Effects of High-Fat Diet on the Mouse Hypothalamus: A Stereological Study." Neurostereology: Unbiased Stereology of Neural Systems (2014): 211-219.
21. Namavar MR, **Raminfard S**, Jahromi ZV, Azari H. Effects of high-fat diet on the numerical density and number of neuronal cells and the volume of the mouse hypothalamus: a stereological study. Anatomy & cell biology. 2012 Sep;45(3):178.

Talks and Panels

1. The Role of Iranian Women in Brain Mapping, 7th Iranian Congress on Brain Mapping (ICBM), Tehran, Iran, 13&14 July 2023.
2. Clinical Application of DTI, ISMRM Iranian Chapter First Annual Meeting, Tehran, Iran, 24-26 August 2022.
3.
4. Anatomy of Brain Tracts and Tractography, Workshop on DTI and Tractography held in Neuroimaging and Analysis Group (NIAG), Research Center for Cellular and Molecular Imaging (RCMCI), Tehran, Iran, 17-19 November 2021.
5. Functional Neuroanatomy and Sectional Anatomy, Workshop on Imaging and analysis of fMRI data held in School of Advanced Technologies in Medicine, Isfahan, Iran, 3 March-2 Jun 2021.
6. Clinical Brain Mapping, Sharif Interdisciplinary Schools, Neuroscience and Cognitive Science Section, Tehran, Iran, 10 Aug 2020.
7. Clinical application of advanced neuroimaging techniques, Basic and Clinical Neuroscience Congress (BCNC), Tehran, Iran, 12-14 Dec 2018.
8. Tractography, Functional and Structural Brain Connectivity Workshop held in Neuroimaging and Analysis Group, Research Center for Cellular and Molecular Imaging (RCMCI), Tehran, Iran, 27-29 Dec 2017.

9. MR Spectroscopy and its Clinical Application, Basic and Clinical Neuroscience Congress (BCNC), Tehran, Iran, 20-22 Dec 2017.
10. Functional Neuroanatomy, Neuroscience of addiction & Functional MRI Workshop held in Neuroimaging and Analysis Group (NIAG), Research Center for Cellular and Molecular Imaging (RCMCI), 5-7 Jul 2016.
11. MRS Data Analysis, Magnetic Resonance Spectroscopy, Diffusion, Perfusion: Imaging and Data Analysis Workshop held in Neuroimaging and Analysis Group, Research Center for Cellular and Molecular Imaging (RCMCI), Tehran, Iran, 14-17 Feb 2017.
12. Neuro-chemistry and Physiology of Brain Metabolites, Magnetic Resonance Spectroscopy, Diffusion, Perfusion: Imaging and Data Analysis Workshop held in Neuroimaging and Analysis Group, Research Center for Cellular and Molecular Imaging (RCMCI), Tehran, Iran, 14-17 Feb 2017.
13. Anatomy of the Brain Tracts, Diffusion Tensor Imaging Workshop held in Neuroimaging and Analysis Group, Research Center for Cellular and Molecular Imaging (RCMCI), Tehran, Iran, 17-19 Feb 2016.

Poster Presentations

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1. Yasaman Bastanipour, Samira Raminfard, Mohammadali Oghabian. Differentiation between progression from pseudoprogression in glioblastoma using diffusion
2. Weighted imaging techniques. The 20th Iranian Congress of Radiographic Sciences, 2023, Tehran, Iran.
3. Sogol Meknatkhah, PouyaSharifi, Samira Raminfard, GholamhosseinRiazi. The Brain N-Acetyl-Aspartate Alterations due to Emotional Stress in Cuprizone-Induced Demyelination: An in vivo Proton Magnetic Resonance Spectroscopy Study at 3T. The 15th CBC Conference on Biophysical Chemistry, 2018, Gorgan, Iran.
4. PouyaSharifi, Samira Raminfard, GholamhosseinRiazi. Magnetic Resonance Spectroscopy Reveals Changes in the Brain Choline Concentrations of the Rat Demyelination Model: Detrimental Effects of Emotional Stress2nd International and 4th National IASBS Symposium in Biological Sciences, Structural Biology and Molecular Basis of Diseases, Department of Biological Sciences,ISABS, 2019,Zanjan, Iran.
5. Faramarzi A, Allahverdy A, Amiri M, Raminfard S, Siyah Mansoory M. P63: Automatic Detection of Glioblastoma Multiforme Tumors Using Magnetic Resonance Spectroscopy Data Based on Neural Network. The Neuroscience Journal of Shefaye Khatam. 2018 Apr 10;6(2):94-.
6. S. Raminfard, M.A. Oghabian, A.H. Batouli, H.R. Haghighatkhah, M. Alimohammadi, A. Yoonessi. Determination of metabolic map in post-operated gliomas. OHBM 2017, June 25-29, 2017, Vancouver, Canada.

7. Samira Raminfard. Viola odorata arrests the proliferation of U87 cell line by mimicking as a potent inducer of apoptosis. 4th Basic and Clinical Neuroscience Congress, 23-25 December 2015, Tehran, Iran.
8. Samira Raminfard. More Precise mapping of Glioblastoma based on a novel targeted MRI contrast agent. 4th Basic and Clinical Neuroscience Congress, 23-25 December 2015, Tehran, Iran.
9. Raminfard S, Namavar MR, Vojdani Z, Azari H, Hassanpour A. High-fat diet effect on the neurogenesis in the hypothalamus of adult mice. 10th Iranian Anatomical sciences congress, 9-11 May 2012, Tehran, Iran.
10. Hassanpour A, Hassanpour A, Raminfard S, Pracha A. In vivo stem cell tracking. Iranian Congress on Biology and Applications of Stem Cells, 27-29 April 2011, Mashhad, Iran
11. Raminfard S, Namavar MR, Vojdani Z, Azari H. High Fat Diet Effect on the Density and Number of Neuron and Volume of Mouse Hypothalamus. 3rd congress of prevention and treatment of obesity, 16-18 November 2011, Tehran, Iran

Book Chapters

1. Raminfard, S., Izanlou, M. (2023). Preoperative Conventional and Advanced Neuroimaging for Awake Craniotomy <Conventional Neuroimaging, Advanced Neuroimaging, Preoperative Neuroimaging>. In: Pour-Rashidi, A., Aarabi, J. (eds) The Principles of Successful Awake Craniotomy. Springer, Singapore. https://doi.org/10.1007/978-981-99-2985-6_5
2. Samira Raminfard. Anatomical Localization, fMRI for clinical Applications, 2022 Royan-Pazhouh.
3. Samira Raminfard. Experimental and Task Design, fMRI for clinical Applications, 2022 Royan-Pazhouh.

Ongoing Projects

1. **Advisor**: Determining the accuracy of intravoxel incoherent motion (IVIM) imaging method in determining the biomolecular subtypes of brain gliomas (tums.ac.ir 1402-2-101-66850)
2. **Advisor**: Combining parameters of physiological brain images in glioma tumors to reach a single index (tums.ac.ir 1402-2-101-66613)

3. **Co-worker:** Developing a Diffusion Segmentation software for Volumetric Analysis of Ischemic Infarct, A Deep Learning Approach (tums.ac.ir- 1402-1-159-65477)
4. **Co-worker:** Pre-operative glioma tumor mapping using combination of MRS, Diffusion and Perfusion to assess precise tumor volume (tums.ac.ir- 99-3-424-51146)

Referee

1- 8th Basic and Clinical Neuroscience Congress
2- Frontiers in Biomedical Technologies (FBT)
3- Archives of Neuroscience
4- Epileptic Disorders

References

- Dr. Mohammad Ali Oghabian
  M A Oghabian
  Professor of Medical Physics
  Medical Physics and Biomedical Engineering Group
  Research Center for Molecular and Cellular Imaging
  Tehran University of Medical Sciences, Tehran, Iran
  oghabian@sina.tums.ac.ir

- Dr. Maysam Alimohammadi
  Assistant Professor of Neurosurgery
  Director of skull base and brain tumor program
  Sina hospital, Tehran University of Medical Sciences, Tehran, Iran.
  International Neuroscience Institute, Hannover, Germany
  alimohamadi59@gmail.com

- Dr. Mohammad Reza Namavar
  Associate Professor of Anatomical Sciences
  Department of Anatomy, School of Medicine
  Clinical Neurology Research Center
  Shiraz University of Medical Sciences, Shiraz, Iran
  namavarm@sums.ac.ir