

AmirHussein Abdolalizadeh Saleh, M.D.

AmirHussein is a medical doctor and a postdoctoral research fellow in the Neuromodulation Research Training Group (RTG 2783) at Carl von Ossietzky University of Oldenburg. His primary research interests involve uncovering the biological underpinnings of neurological and psychiatric disorders using advanced neuroimaging tools, including structural, functional, and diffusion MRI. As a postdoctoral researcher, he focuses on network-level markers that predict responses to non-invasive brain stimulation in Parkinson's disease and stroke.



WORK EXPERIENCE

10/2022 - NOW

Postdoctoral Research Associate

Carl von Ossietzky University Oldenburg, Oldenburg, Germany

GRK 2783: Neuromodulation of Motor and Cognitive Function in Brain Health and Disease

- Investigating network-based predictors of non-invasive brain stimulation
- Assisting PhD and MSc students in their projects
- Supervising master students' thesis

07/2013 - 07/2022

Researcher & Program Coordinator

Interdisciplinary Neuroscience Research Program,
Tehran University of Medical Sciences, Tehran, Iran

- Conducting research projects
- Mentoring junior researchers
- Organizing workshops and journal clubs

10/2016 - 04/2018

Medical Internship

Tehran University of Medical Sciences, Tehran, Iran

Wards: Internal, Surgery, Pediatrics, Ob/Gyn, Orthopedics, Neurology, Psychiatry, Infectious disease, Emergency medicine, Dermatology, Burns, Anesthesiology, ENT

EDUCATION

EDUCATION

M.D., TEHRAN UNIVERSITY OF MEDICAL SCIENCES (2010-2018)

- Thesis: Val158Met Heterozygosity is Associated with Greater Brain Atrophy Rates in Alzheimer's Disease Patients using ADNI Database
Supervisor: Dr. Maryam Noroozian

SKILLS AND COURSES

1. Structural MRI Analysis (FreeSurfer, FSL, ANTs)
2. Functional MRI Analysis (fMRIPrep, FreeSurfer-FSL, CONN)
3. Diffusion MRI Analysis (MRtrix, QSIprep, ExploreDTI, TRACULA, FSL)
4. Working with large imaging datasets (HCP, ADNI, PPMI, SchizConnect)
5. Statistical Analysis and programming using R
6. Statistical Analysis using SPSS
7. Programming and analysis using Python
8. Experience in Deep Learning (PyTorch)
Neuromatch Academy Deep Learning (Course/Project) – Summer 2021
9. Lesion Network Mapping
10. Working with High Performance Computing Clusters
11. Teaching: Neuroscience Research Tools, Basic & Clinical Neuroscience
12. Designing MRI Protocol (Structural/DWI/fMRI)
13. Clinical Patient Assessment and Exam (Neurological, Psychiatric, etc.,)
14. Research Mentorship
Alzheimer's Disease Projects, Students' Scientific Research Center, 2018
15. Experience in Working with Lab Animals (Mice)
16. Advanced Search, Research Design & Proposal Writing
17. Interpersonal communication and team work skills
18. Professional use of word processing and reference manager software e.g. Microsoft Office and End Note
19. Languages:
English (Fluent/TOEFL Score: 109/120),
Farsi/Persian (Native),
Turkish/Azeri (Native),
German (B1).

PUBLICATIONS

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| PAPERS
(SORT ON DATE) | <ol style="list-style-type: none">1. Y. Deng, A. Abdolalizadeh, K. Fakhar, T. Schmitt, K. Witt, C. Gießing, J. Rieger, C. Thiel, Domain-Specific Functional Network Adaptations Supporting Dual-Task Performance in Older Adults (Preprint), bioRxiv 2025 (link).2. D. Kristanto, DR De Castro, A. Abdolalizadeh, The Research Landscape of Dynamic Functional Connectivity in Parkinson's Disease: Systematic Review and Interactive Tool (Preprint), bioRxiv 2025 (link).3. A. Al-Naji, A. Abdolalizadeh, D. Kristanto, Morphometric Latent Factors in Autism and Their Association with Receptor Profiles and Behavior (Preprint), bioRxiv 2025 (link).4. F. Rostami, S. Soltani, J. Grafmann, R. Heyrani, A. Yazdanpanah, A. Jahanbakhshi, |
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- A. Vahabie, SV. Shariat, **A. Abdolalizadeh**, FS. Mirfazeli, Risky Choices After Frontal Brain Injury: Differential Effects in Self vs Other-Decision Contexts (Preprint), bioRxiv 2025 ([link](#)).
5. H. Seyedmirzaei, A. Khaboushan, **A. Abdolalizadeh**, M.H. Aarabi, Microstructural alterations of cerebellar peduncles in multiple sclerosis: a diffusion tensor imaging study, *Acta Neurologica Belgica*, Jun 2026 ([link](#)).
 6. **A. Abdolalizadeh**, K. Moradi, M.A.D. Ohadi, F.S. Mirfazeli, R. Rajimehr, Larger left hippocampal presubiculum is associated with lower risk of antisocial behavior in healthy adults with childhood conduct history, *Scientific Reports*, Apr 2023 ([link](#)).
 7. **A. Abdolalizadeh**, M.A.D. Ohadi, A.S. Bayani Ershadi, M.H. Aarabi, Graph Theoretical Approach to Brain Remodeling in Multiple Sclerosis, *Network Neuroscience*, Sep 2022 ([link](#)).
 8. **A. Abdolalizadeh**, S. Mohammadi, M.H. Aarabi, The Forgotten Tract of Vision in Multiple Sclerosis: Vertical Occipital Fasciculus, Its Fiber Properties, and Visuospatial Memory, *Brain Structure & Function*, 2022 ([link](#)).
 9. **A. Abdolalizadeh**, S. Nabavi, Visual Attention and Poor Sleep Quality, *Frontiers in Neuroscience*, 2022 ([link](#)).
 10. Ashraf-Ganjouei A, Moradi K, Faghani S, **Abdolalizadeh A**, Khomeijani-Farahani M, Fatehi F, *Alzheimer's Disease Neuroimaging Initiative*, The Transition of Mild Cognitive Impairment Over Time: An AV45- and FDG-PET Study of Reversion and Conversion Phenomena, *Current Alzheimer's Research*, 2021 ;18(9):721-731 ([link](#)).
 11. **AmirHussein Abdolalizadeh**, Hamidreza Ostadrahimi, Mohammad Amin Dabbagh Ohadi, Seyed AmirHussein Saneei, Amir Sasan Bayani Ershadi, White matter microstructural associates of apathy-avolition in schizophrenia, *Journal of Psychiatric Research*, Volume 142, 2021, Pages 110-116 ([link](#)).
 12. A. Saberi, **A. Abdolalizadeh**, E. Mohammadi, M. Nahayati, H. Bagheri, B. Shekarchi, J. Kargar, Thalamic shape abnormalities in patients with multiple sclerosis-related fatigue, *NeuroReport*: April 7, 2021 - Volume 32 - Issue 6 - p 438-442 doi: 10.1097/WNR.0000000000001616 ([link](#)).
 13. K. Moradi, Sh. Faghani, **A. Abdolalizadeh**, M. Khomeijani-Farahani, A. Ashraf-Ganjouei, for the *Alzheimer's Disease Neuroimaging Initiative*. Biological Features of Reversion from Mild Cognitive Impairment to Normal Cognition: A Study of Cerebrospinal Fluid Markers and Brain Volume. *Journal of Alzheimer's Disease Reports*, 1 Jan. 2021 : 179 – 186 ([link](#)).
 14. A. Ashraf-ganjouei, K. Moradi, M.H. Aarabi, **A. Abdolalizadeh**, S.Z. Kazemi, A. Kasaeian, Z. Vahabi, The Association Between REM Sleep Behavior Disorder and Autonomic Dysfunction in Parkinson's Disease. *Journal of Parkinson's Disease*, 1 Jan. 2021 : 747 – 755 ([link](#)).
 15. **A. Abdolalizadeh**, H. Ostadrahimi, B. Mohajer, A. Darvishi, M. Sattarian, N. Abbasi, Microstructural Correlates of Attention Deficit in Schizophrenia: A Multi-Center Study, *Psychiatry Research Neuroimaging*, Aug 2020 ([link](#)).
 16. Mahsa Mayeli, Seyed Mohammad Mirshahvalad, Vajiheh Aghamollaii, Abbas Tafakhori, **Amirhussein Abdolalizadeh**, Farzaneh Rahmani, *Alzheimer's Disease Neuroimaging Initiative*, Plasma Neurofilament Light Chain Levels Are Associated with Cortical Hypometabolism in Alzheimer Disease Signature Regions, *Journal of*
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- Neuropathology & Experimental Neurology, Aug 2019 [\(link\)](#).
17. Amene Saghazadeh, Bahar Ataeinia, Kimia Keynejad, **Amirhussein Abdolalizadeh**, Armin Hirbod-Mobarakeh, Nima Rezaei, Anti-inflammatory cytokines in autism spectrum disorders: A systematic review and meta-analysis, Cytokine, 2019 [\(link\)](#).
 18. A. Saghazadeh, B. Ataeinia, K. Keynejad, **A. Abdolalizadeh**, A. Hirbod-Mobarakeh, N. Rezaei, A meta-analysis of pro-inflammatory cytokines in autism spectrum disorders: Effects of age, gender, and latitude, Journal of Psychiatric Research, 2019 [\(link\)](#).
 19. P. Heydarpour, A. Manouchehrinia, O. Beiki, S.E. Mousavi, **A. Abdolalizadeh**, M. Moradi-Lakeh, M.A. Sahraian, Smoking and worsening disability in multiple sclerosis: A meta-analysis, Acta Neurologica Scandinavica, Feb 2018 [\(link\)](#).
 20. N. Abbasi, B. Mohajer, S. Abbasi, P. Hasanabadi, **A. Abdolalizadeh**, R. Rajimehr, Relationship between cerebrospinal fluid biomarkers and structural brain network properties in Parkinson's disease, Movement Disorders, March 2018 [\(link\)](#).
 21. Mohajer, B., Abbasi, N., Pishgar, F., **Abdolalizadeh, A.H.**, Ebrahimi, H., Razaviyoun, T., Mohebbi, F., Eskandarieh, S., Sahraian, M.A. HLA-DRB1 polymorphism and susceptibility to multiple sclerosis in the Middle East North Africa region: A systematic review and meta-analysis Journal of Neuroimmunology, 2018 [\(link\)](#).
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CONFERENCE PAPERS AND PRESENTATIONS

1. A. Abdolalizadeh, D. Rodriguez De Castro, C. Thiel, Impact of Automated Stroke Lesion Segmentation on Structural Network Dysconnectivity, DGKN Congress 2026, Augsburg, Germany.
 2. Y. Deng, A. Abdolalizadeh, T. Schmitt, C. Thiel, Functional connectivity in cognitive-motor dual tasks: a comparison of neural mechanisms in healthy older and younger adults, DGKN Congress 2025, Frankfurt, Germany.
 3. A. Abdolalizadeh, S. Rosemann, M Tahmasian, C. Thiel, White matter microstructural alterations associated with REM-sleep behavior disorder in prodromal Parkinson's disease: a fixel-based analysis, DGKN Congress 2025, Frankfurt, Germany.
 4. A. Abdolalizadeh, M. Burkhardt, C. Gießing, C Thiel, Dopamine-driven functional network dynamics: Unraveling network flexibility in Parkinson's disease, DGKN Congress 2024, Frankfurt, Germany.
 5. A. Sanei, S. Badr, H. Ostadrahimi, A. Abdolalizadeh, Apathy in Schizophrenia: Diffusion MRI Study, Iranian Human Brain Mapping Annual Meeting, Tehran, Iran, 2019.
 6. A. Abdolalizadeh, E. Youssefi, Dopamine Pathway Association with Brain Shrinkage Rates in Alzheimer's Disease and Mild Cognitive Impairment, 18th Annual Research Congress for Iranian Medical Students, Oral Presentation, Qazvin, Iran, 2017.
 7. A. Abdolalizadeh, N. Abbasi, B. Mohajer, Functional Dysconnectivity in Autism Spectrum Disorder Revealed by Network-based Statistics, International Society for Magnetic Resonance in Medicine (ISMRM) annual meeting (Oral Presentation), Singapore, 2016.
 8. A. Abdolalizadeh, N. Abbasi, B. Mohajer, Default Mode Network Integrity and
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Brain Atrophy Rates in Patients with Alzheimer's Disease and Mild Cognitive Impairment: The Role of Catechol-o-Methyltransferase Val158Met Variant, American Academy of Neurology (AAN) annual meeting, Vancouver, BC, Canada, 2016.

9. A. Abdolalizadeh, B. Mohajer, N. Abbasi, Cerebrospinal Fluid Interleukin-8 is Associated with Poor Cognitive Scores in Alzheimer's Disease, 5th Symposium of World Federation of Neurosurgical Societies, Tehran, Iran, 2016.
10. A. Abdolalizadeh, A. Nazeri, T. Roostaie, S. Sadaghiani, B. Mohajer, M.H. Aarabi, Statistical Brain Network Analysis in Female Relapsing Remitting Multiple Sclerosis Patients Using Diffusion Tensor Imaging, International Society for Magnetic Resonance in Medicine (ISMRM) annual meeting, Toronto, 2015.
11. A. Abdolalizadeh, A. Nourinia, B. Mohajer, N. Abbasi, Small-World Network Properties in Schizophrenia, 16th National Iranian Medical Students Congress, Zanjan, Iran, 2015.
12. T. Roostaei, A. Nazeri, S.H. Sadaghiani, A. Abdolalizadeh, B. Mohajer, N. Javadian, A. Eshaghi, A.R. Naser Moghadasi, M. Owji, R. Doosti, A.R. Azimi, A. Shakouri Rad, M.A. Sahraian on behalf of CRIMSON Investigators Group, The ratio of T1w/T2w image intensities in deep grey matter as novel imaging biomarkers for multiple sclerosis, Multiple Sclerosis, 2013.
13. A. Kamalian, M.H. Aarabi, B. Mohajer, A. Abdolalizadeh, A Statistical Approach In Human Brain Connectome of Parkinson Disease Using Network Based Statistics, Organization for Human Brain Mapping (OHBM) annual meeting, Hawaii, 2015.
14. B. Mohajer, N. Abbasi, A. Abdolalizadeh, M.H. Aarabi, A.S. Bayani, M. Pishnamazi, rs17518584 polymorphism in CADM2 gene accelerates brain and hippocampal atrophy in Alzheimer's disease and Mild Cognitive Impairment patients, Society for Neuroscience Annual Meeting, Chicago, United States, 2015.
15. S. Bayani, A. Abdolalizadeh, N. Abbasi, B. Mohajer, M.H. Aarabi, MAPT gene polymorphism is associated with abnormal uncinate fasciculus integrity in normal population, Society for Neuroscience Annual Meeting, Chicago, United States, 2015.
16. N. Abbasi, A. Abdolalizadeh, B. Mohajer, Comparing Structural Network Characterization of Parkinson's Disease Patients with Scans with Evidence of Dopaminergic Deficit and Scans without Evidence of Dopaminergic Deficit, 5th Symposium of World Federation of Neurosurgical Societies, Tehran, Iran, 2016.
17. B. Mohajer, N. Abbasi, A. Abdolalizadeh, Exploring the Effect of Waist -Hip Ratio on Grey Matter Volume in Multiple Sclerosis, 5th Symposium of World Federation of Neurosurgical Societies, Tehran, Iran, 2016.

BOOKS

1. Introduction to Research: Where to Start, Coauthor, Teimourzadeh Publications, 2017.

TRANSLATIONS

Sep 2014 – Oct 2016

2. Clinical Neurology, 9th ed., MJ Aminoff et. al, Arjmand Pub.
 3. Basic and Clinical Pharmacology, 13th ed., BG Katzung, A Trevor,
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Arjmand Pub.

4. Tietz fundamentals of Clinical Chemistry and Molecular Diagnostics, 7th ed., CA Burtis et. al, Arjmand Pub.
5. Andreoli and Carpenter's Cecil Essentials of Medicine, 9th ed., RC Griggs et. al, Arjmand Pub.
6. The Washington Manual of Medical Therapeutics, 35th ed., P Bhat et. al, Arjmand Pub.
7. Bates' Guide to Physical Examination and History Taking, 12th ed., LS Bickley, Arjmand Pub.

WORKSHOPS & SEMINARS

1. Neuromatch Academy: Deep Learning, Summer 2021, Completed both tutorial and project.
2. International Society for Magnetic Resonance in Medicine (ISMRM) 7-day Annual Meeting, Singapore, 2016.
3. Organization for Human Brain Mapping (OHBM) 7-day Annual Meeting, Geneva, Switzerland, 2016.
4. Basics and Principles of Magnetic Resonance Imaging, Students' Scientific Research Center, Dec 2017.
5. fMRI analysis using FreeSurfer. The Institute for Research in Fundamental Sciences (IPM), Jan 2016.
6. Transcranial Direct Current Stimulation (tDCS) , The Institute for Addiction Sciences and Psychology (IRSA), Feb 2013.
7. Research Basics, Student's Scientific Research Center (SSRC), Feb 2011
8. Bioinformatics, Student's Scientific Research Center (SSRC), Feb 2012
9. Scientific Writing, Student's Scientific Research Center (SSRC), Jul 2012
10. International Multiple Sclerosis Congress, Iran, Oct 2013
11. 6th International Neurosurgical Congress, Milad Hospital, Tehran, June 2014.
12. An Introduction into PPMI database, Exceptional Talents Development Center, May 2017 (Instructor).

PERSONAL AWARDS AND HONORS

- Received Educational Stipend for International Society for Magnetic Resonance in Medicine (ISMRM) annual meeting, Singapore, 2016.
 - Ranked 5th among 143 chosen participants of National Medical Olympiad in Basic Sciences, Sep 2013
 - Best Short Presentation at National Iranian Medical Students' Congress, Zanjan, Iran, 2015 for "Small-World Network Properties in Schizophrenia".
 - Ranked 238 among >500K participants of the Iranian university entrance exam, Jul 2010.
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REFERENCES

PROF. DR. RER. NAT. CHRISTIANE THIEL

Full Professor

Cognitive Neurobiology, University of Oldenburg, Oldenburg, Germany

Christiane.Thiel@uni-oldenburg.de

DR. REZA RAJIMEHR

Cognitive Scientist

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