ARASH NAZERI

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EDUCATION

M.D. Tehran University of Medical Sciences, Tehran, Iran   June 2013

HONORS AND AWARDS

Centre for Addiction and Mental Health Fellowship Award   2014
Toronto, ON, Canada, 50,000$

Multiple Sclerosis International Federation's (MSIF) Du Pré Grant   2011
London, UK, £2750

Ranked 3rd in the National "Basic Sciences Examination" among   2008
Iranian Medical Students
Ministry of Health and Medical Education, Iran

Gold Medal in the 7th National Olympiads of Biology   2004
Tehran, Iran

RESEARCH EXPERIENCE

Centre for Addiction and Mental Health, Toronto, ON   September 2013-now
Postdoctoral Fellow, Kimel Family Translational Imaging Genetics Lab
Advisor: Dr. Aristotle N. Voineskos
- Voxel-wise analysis of gray matter microstructure (gray matter-based spatial statistics [GBSS]) and neurite orientation dispersion and density imaging (NODDI)
- Genome-wide interaction analysis (G × E) in Parkinson's disease clinical and radiological progression
- Superficial white matter correlates of cognitive aging
- Voxel-wise mediation analysis compatible with threshold free cluster enhancement algorithm
- Resting-state functional MRI connectivity analysis in aging and major psychoses

Tehran University of Medical Sciences, Tehran Iran   2010 to 2013
Research Project Manager, Multiple Sclerosis Research Center

Advisor: Dr. Mohammad Ali Sahraian
- Cross-modal Research Initiative for Multiple Sclerosis & Optic Neuritis (CRIMSON): Study design, MRI protocol setup, image analysis, patient recruitment, and physical examination

Montreal Neurological Institute, Montreal, QC   June 2011 to July 2011
Visiting Researcher, Brain Imaging Centre
Advisor: Douglas L. Arnold
- Magnetization Transfer Ratio (MTR) imaging and its applications in multiple sclerosis research
- Clinical trial research design

Centre for Addiction and Mental Health, Toronto, ON   April 2011 to June 2011
Practicum Student, Kimel Family Translational Imaging Genetics Lab
Advisor: Dr. Aristotle N. Voineskos
- Alterations of superficial white matter in schizophrenia
- White matter deficits in psychopathic offenders

PUBLICATIONS

First-Author Journal Publications

1. **Nazeri A**, Chakravarty MM, Rotenberg DJ, Rajji TK, Rathi Y, Michailovich OV, Voineskos AN (2015) Functional Consequences of Neurite Orientation Dispersion and Density in Humans across the Adult Lifespan. *Journal of Neuroscience* 35:1753-1762.

2. **Nazeri A**, Chakravarty MM, Rajji TK, Felsky D, Rotenberg DJ, Mason M, Xu LN, Lobaugh NJ, Mulsant BH, Voineskos AN (2015) Superficial white matter as a novel substrate of age-related cognitive decline. *Neurobiology of Aging*.

3. **Nazeri A**, Ganjgahi H, Roostaei T, Nichols T, Zarei M, Alzheimer's Disease Neuroimaging Initiative (2014) Imaging proteomics for diagnosis, monitoring and prediction of Alzheimer's disease. *NeuroImage* 102:657-665

4. Roostaei T*, **Nazeri A***, Sahraian MA, Minagar A (2014) The Human Cerebellum: A Review of Physiologic Neuroanatomy. *Neurologic Clinics* 32:859-869.

5. **Nazeri A**, Heydarpour P, Sadaghiani S, Sahraian MA, Burkly LC, Bar-Or A (2014) A further TWEAK to multiple sclerosis pathophysiology. *Molecular Neurobiology* 49:78-87.

6. **Nazeri A**, Chakravarty MM, Felsky D, Lobaugh NJ, Rajji TK, Mulsant BH, Voineskos AN (2013) Alterations of superficial white matter in schizophrenia and relationship to cognitive performance. *Neuropsychopharmacology* 38:1954-1962.

7. Hoppenbrouwers SS*, **Nazeri A***, de Jesus DR, Stirpe T, Felsky D, Schutter DJLG, Daskalakis ZJ, Voineskos AN (2013) White matter deficits in psychopathic offenders and correlation with factor structure. *PloS ONE* 8:e72375.

Other Journal Publications

8. Eshaghi A, Riyahi-Alam S, Saeedi R, Roostaei T, **Nazeri A**, et al. (2015) Classification algorithms with multi-modal data fusion could accurately distinguish neuromyelitis optica from multiple sclerosis. *NeuroImage: Clinical*.

9. Esteghamati A, Noshad S, **Nazeri A,** Khalilzadeh O, Khalili M, Nakhjavani M (2012) Patterns of fruit and vegetable consumption among Iranian adults: a SuRFNCD-2007 study. *British Journal of Nutrition* 108:177-181.

10. Felsky D, Voineskos AN, Lerch JP, **Nazeri A**, Shaikh SA, Rajji TK, Mulsant BH, Kennedy JL (2012) Myelin-associated Glycoprotein gene and brain morphometry in schizophrenia. *Frontiers in Psychiatry* 3.

11. Eshaghi A, Riyahi-Alam S, Roostaei T, Haeri G, Aghsaei A, Aidi MR, Pouretemad HR, Zarei M, Farhang S, Saeedi R, **Nazeri A**, et al. (2012) Validity and reliability of a Persian translation of the Minimal Assessment of Cognitive Function in Multiple Sclerosis (MACFIMS). *The Clinical Neuropsychologist* 26:975-984.

12. Esteghamati A, Noshad S, Khalilzadeh O, Morteza A, **Nazeri A**, et al. (2011) Contribution of serum leptin to metabolic syndrome in obese and nonobese subjects. *Archives of Medical Research* 42:244-251.

13. Shearer AE, Hildebrand MS, Bromhead CJ, Kahrizi K, Webster JA, Azadeh B, Kimberling WJ, Anousheh A, **Nazeri A**, et al. (2009) A novel splice site mutation in the RDX gene causes DFNB24 hearing loss in an Iranian family. *American Journal of Medical Genetics Part A* 149:555-558.

Journal Papers in Review

14. Roostaei T, Sadaghiani S, Park MTM, Noshad S, Mashhadi R, Salehi MJ, Naghibzadeh M, Moghadasi AN, Owji M, Doosti R, Hashemi Taheri AP, Shakouri Rad A, Azimi A, Chakravarty MM, Voineskos, AN, **Nazeri A***, Sahraian MA* (2015) Channelopathy-related SCN10A gene variant predicts cerebellar dysfunction in multiple sclerosis. *Neurology*, Revision Submitted.

Presented Conference Papers:

1. **Nazeri A**, Chakravarty MM, Rotenberg DJ, Rajji TK, Rathi Y, Michailovich OV, Voineskos AN. "Functional Consequences of Neurite Orientation Dispersion and Density

in Humans across the Adult Lifespan." *International Society for Magnetic Resonance in Medicine Annual Meeting (ISMRM),* 2015. *Neuro Power Pitch.*

2. Ganjgahi H*, **Nazeri A***, Roostaei T, Eshaghi A, Oghabian MA. "Concurrent analysis of structural MRI and proteomics data using parallel ICA in Alzheimer's disease." *Organization for Human Brain Mapping Annual Meeting (OHBM),* 2011. *iPoster.*

Other Conference Papers:

3. Abdolalizadeh A, **Nazeri A**, Roostaei T, Sahraian MA, Sadaghiani S, Mohajer B, Aarabi MH. "Statistical Brain Network Analysis in Female Relapsing Remitting Multiple Sclerosis Patients Using Diffusion Tensor Imaging." *International Society for Magnetic Resonance in Medicine Annual Meeting (ISMRM),* 2015.

4. Roostaei T, Felsky D, **Nazeri A**, Voineskos AN, for the Alzheimer's Disease Neuroimaging Initiative. "Genetic modifiers of the relationship between brain beta-amyloid burden and cognitive performance in Alzheimer's disease: a genome-wide interaction study". *Society of Biological Psychiatry Annual Scientific Meeting (SOBP),* 2015.

5. Roostaei T, **Nazeri A**, Felsky D, Chakravarty MM, Voineskos AN, for the Alzheimer's Disease Neuroimaging Initiative. "Genetic Correlates of the Homocysteine Risk Pathway for Alzheimer's Disease: A Genome-Wide Interaction Study." *Society of Biological Psychiatry Annual Scientific Meeting (SOBP),* 2015.

6. Sadaghiani S, **Nazeri A**, Roostaei T, Naghibzadeh G, Park MTM, Owji M, et al. "Clinical and radiologic correlates of quality of life measures in patients with relapse-onset multiple sclersosis." *Middle East North Africa Committee for Treatment and Research in Multiple Sclerosis (MENACTRIMS),* 2014.

7. Roostaei T, Sadaghiani S, Park MTM, Chakravarty MM, Salehi MJ, Doosti R, Azimi A, Shakouri Rad A, Hashemi Taheri AP, Moghadasi AN, Owji M, **Nazeri A**, Sahraian MA. "Central Cerebellar White Matter Contributes to Motor Coordination Deficits in Multiple Sclerosis." *European Federation of Neurological Societies and European Neurological Society Joint Congress (EFNS/ENS),* 2014.

8. Sadaghiani S, Park MTM, Javadian N, Roostaei T, Chakravarty MM, Lerch JP, Mashhadi R, Doosti R, Azimi A, Shakouri Rad A., Hashemi Taheri AP, Moghadasi AN, Owji M, Noorbakhsh F, **Nazeri A**, Sahraian MA. "Cognitive and Neural Correlates of Tnfrsf1a Gene Polymorphism (Rs1800693) in Multiple Sclerosis." *European Federation of Neurological Societies and European Neurological Society Joint Congress (EFNS/ENS),* 2014.

9. Roostaei T*, **Nazeri A***, Sadaghiani S, Abdolalizadeh A, Mohajer B, Javadian N, et al. "The Ratio of T1w/T2w Image Intensities in Deep Grey Matter as Novel Imaging

Biomarkers for Multiple Sclerosis." *European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS),* 2013.

10. Eshaghi A, Riyahi-Alam S, Saeedi R, Aghsaie A, Roostaei T, **Nazeri A**, et al. "Structural Substrates for Resting State Network Changes in Neuromyelitis Optica and Their Distinction from Multiple Sclerosis: A Multimodal Neuroimaging Study." *European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS),* 2013.

11. Eqlimi E, Riyahi-Alam N, Sahraian MA, Riyahi-Alam S, Roostaei T, **Nazeri A**, et al. "Resting State Functional Connectivity Analysis Based on Mutual Information Graphs for MS Patients." *Organization for Human Brain Mapping Annual Meeting (OHBM),* 2013.

12. Eshaghi A, Riyahi-Alam S, Roostaei T, Haeri G, Aghsaie A, Aidi MR, Pouretemad, HR, Zarei M, Farhang S, Saeedi R, **Nazeri A**, et al. "Validity and Reliability of Persian Minimal Assessment of Cognitive Function in Multiple Sclerosis." *Congress of European Federation of Neurological Societies (EFNS),* 2012.

13. Roostaei T*, **Nazeri A***, Eshaghi A, Shirazi A, Ganjgahi H. "Determining effects of ApoE4 allele on Alzheimer's disease structural brain network." *Organization for Human Brain Mapping Annual Meeting (OHBM),* 2011.

PRESENTATIONS AND INVITED LECTURES

Invited Presentation, "Microstructural underpinnings of schizophrenia and cognitive-aging", Schizophrenia Research Seminar, May 2015.

Invited Presentation, "Diffusion-weighted MRI Applications in Disease-associated Microstuctural Deficits of Gray matter", Temerty Centre for Therapeutic Brain Intervention, February 2015.

LANGUAGES

English: Fluent Speaker, Advanced Reading and Writing

Persian: Native Language

COMPUTER SKILLS

Programming Languages: MATLAB, BASH (UNIX shell)

Statistical Applications: R (Statistical programming language), SPSS (Statistical Package for Social Sciences)

Image Analysis: FSL (FMRIB Software Library), SPM (Statistical Parametric Mapping), ANTS (Advanced Normalization Tools), FreeSurfer, Caret, NODDI (neurite orientation dispersion and density imaging), Fusion ICA Toolbox, MRtrix

Genetic Analysis: PLINK, GWASTools

OTHER

Canadian Permanent Resident
Iranian Citizen
Date of Birth: June 27, 1987

REFERENCES

Dr. Aristotle N. Voineskos, Assistant Professor
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Department of Psychiatry, University of Toronto
250 College St, Toronto, ON
M5T 1R8, Canada
Phone: + 1 (416) 535 8501 +4378
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Multiple Sclerosis Research Center
Neurology Department, Tehran University of Medical Sciences
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