

# MOHAMADREZA AGHANOORI

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## Positions:

2023-present **Faculty member** at the dept of Molecular Medicine, National Institute of Genetic Engineering and Biotechnology, Tehran, Iran.

2019-present **Postdoctoral fellow**, Department of Medical Genetics, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada.  
Research lab supervisor: Dr. Guang Yang  
Project: *Translational regulation of genes involved in brain development in autism and rare neurodevelopmental disorders*

2019-2020 **Postdoctoral fellow**, Division of Neurodegenerative Disorders, St Boniface Research Centre, Winnipeg, MB, Canada.  
Research lab supervisor: Prof. Paul Fernyhough  
Project: *Endogenous IGF-1 gene regulation and its link to ATP production in rat sensory neurons/HEK293 cells under hyperglycemic condition*

2014-2015 **Research & development advisor/scientist**, Roya Bio Gene Company, Tehran, Iran

Directors: Dr. Ahmad Ebrahimi & Parmiss Hamidi

## EDUCATION

- 2015-2019     **PhD in neuroscience**, Department of Pharmacology and Therapeutics, University of Manitoba, and Division of Neurodegenerative Disorders, St Boniface Research Centre, Winnipeg, MB, Canada.  
Supervisor: Prof. Paul Fernyhough  
Thesis: *Mechanism of Insulin/IGF-1 regulation of mitochondrial function and nerve repair in diabetic neuropathy* (Date of Graduation: October 15<sup>th</sup>, 2019).
- 2009-2012     **M.Sc. in Human Genetics**, Department of Human Genetics, Shiraz University of Medical Sciences, Shiraz, Iran.  
Supervisor: Dr. Hamedreza Goodarzi  
Thesis: *Early sex determination using free fetal DNA in maternal blood*.
- 2005-2009     **BSc in Cellular and Molecular Biology-Genetics**, Department of Genetics, Shahid Chamran University of Ahvaz, Ahvaz, Iran.

## HONORS/AWARDS/SCHOLARSHIPS

- 2022/05 Dr. Shahriary Award for top-talented researcher, BoniadMelliNokhbegan, Tehran, Iran.
- 2021/05 Striking image competition, Cumming School of Medicine, University of Calgary, 1<sup>st</sup> place in ACHRI and 2<sup>nd</sup> place in general.
- 2020/09-2023/09 Canadian Institutes of Health Research (CIHR) fellowship, government of Canada, CA\$40000 plus CA\$5000 research allowance pre year.
- 2020/06-2022/06 Cumming School of Medicine (CSM) Postdoctoral Scholarship, University of Calgary, CA\$25000
- 2020/08-2022/08 Alberta Children's Hospital Research Institute Postdoctoral Fellowship, University of Calgary, CA\$25000 per year.
- 2019/6 Manitoba Medical Service Foundation Award for excellence in research, Major Award, University of Manitoba, CA\$1000.
- 2019/6 CIHR National Poster Competition, University of Manitoba, honorable mention.
- 2019/6 Manitoba Health Research Poster Competition, University of Manitoba, Travel Award, CA\$1000.
- 2019/6 Manitoba Health Research Poster Competition, University of Manitoba, 1<sup>st</sup> place poster presentation award, CA\$200.
- 2019/6 Nick Shepel Travel Award, Division of Neurodegenerative Disorders, St. Boniface Hospital Research Center, Winnipeg, CA\$640, Travel Award.
- 2019/3 Deer Lodge Hospital Staff Association Memorial Fund Grants, University of Manitoba, CA\$1000.

- 2019/3 International Society for Neurochemistry (ISN) meeting-2019 in Montreal, CA\$1140, Travel Award.
- 2019/3 CAN-ACN 2019 Meeting in Toronto, IBRO CA\$500, Travel Award.
- 2019/1 Dept. of Pharmacology and Therapeutics, University of Manitoba, CA\$350, Travel Award.
- 2018/12 The Deepak and Ratna Bose Prize, pharmacology and therapeutics annual award, CA\$300, University of Manitoba, Award.
- 2018/9-2019/9 University of Manitoba Graduate Fellowship (UMGF) – CA\$18000, University of Manitoba, Scholarship.
- 2018/7 University of Manitoba Graduate Studies Association, CA\$500, Travel Award.
- 2018/6 Faculty of Graduate Studies, University of Manitoba, CA\$750, Travel Award.
- 2018/6 Manitoba Poster Competition-Research day at the University of Manitoba, 2nd place, silver award.
- 2017/11 DREAM diabetes meeting at the University of Manitoba, 3<sup>rd</sup> place poster presentation award.
- 2017/8 Division of Neurodegenerative Disorders award of excellence, CA\$1500, Award.
- 2017/7 Faculty of Graduate Studies, University of Manitoba, CA\$500, Travel Award.
- 2017/6 CAN-ACN 2017 Meeting in Montreal, IBRO CA\$500, Travel Award.
- 2017/5 Dept. of Pharmacology and Therapeutics, University of Manitoba, CA\$700, Travel Award.
- 2016/9-2017/9 University of Manitoba International Graduate Students Scholarship (IGSS) – CA\$5,513.82, University of Manitoba, Scholarship.
- 2015/9-2016/9 University of Manitoba International Graduate Students Entrance Scholarship (IGSES) – CA\$5,448.44, The University of Manitoba, Scholarship.
- 2012/10 Stipend of the national foundation of top talents (Bonyade Mellie Nokhbegan) for being a top-talented student during my master studies, Tehran, Iran.
- 2010/6 **18<sup>th</sup> Rank** in Biology Olympiad among 15811 examinees in the National Students Olympiad, Iran.
- 2010/4 Admission to Shiraz University of Medical Sciences gaining the **24<sup>th</sup> Rank** in the major of **Human Genetics** among examinees of Master's degree Nationwide Medical-University Entrance Examination, Iran.
- 2009/8 Admission to Shahid Beheshti University gaining the **15<sup>th</sup> rank** in the major of **Genetics** among 15811 examinees who had participated in Master's degree Nationwide University Entrance Examination, Iran.
- 2009/8 **Ranked 5<sup>th</sup>** in Microbiology, **8<sup>th</sup>** in Biotechnology, **15<sup>th</sup>** in Cellular and Molecular Biology and **20<sup>th</sup>** in Biochemistry among all participants in Master's degree Nationwide University Entrance Examination, Iran.
- 2005/6 Top talented student in high school Arak, Iran, Award.

## PUBLICATIONS

- S Kedia\*, **MR Aghanoori\***, K Burns, M Subha, D Kopp, S Erickson, X Chen, M Hua, U Perez, G Yang. Cycles of ubiquitination and deubiquitination determine neural stem cell alternative transitions by regulating P-body dynamics. Cell Reports 2022. \*Co-first author.
- G Lester Sequiera, N Sareen, A Srivastava, **MR Aghanoori**, M Moudgil, EA Rub, P Fernyhough, C Greenberg, S Dhingra. Evaluation of iPSC-based clinical trial suitability platform for a patient of Leigh-like syndrome. Science Advances 2022.
- CG Jolivalt, **MR Aghanoori**, MC Navarro-Diaz, MM Han, G Sanchez, L Guernsey, D Quach, K Johe, P Fernyhough, NA Calcutt. Enhancement of Mitochondrial Function by the Neurogenic Molecule NSI-18 Accompanies Reversal of Peripheral Neuropathy and Memory Impairment in a Rat Model of Type 2 Diabetes. Journal of Diabetes Research 2022.
- **MR Aghanoori**<sup>#</sup>, P Agarwal, E Gauvin, R Nagalingam, R Bonomo, V Yathindranath, D Smith, C Jolivalt, N Calcutt, M Jones, M Czubyrt, D Miller, V Dlinisky, V Aubert, P Fernyhough. CEBP $\beta$  regulation of endogenous IGF-1 in adult sensory neurons can be mobilized to overcome diabetes-induced deficits in bioenergetics and axonal outgrowth. Cellular and molecular life sciences 2022. #Corresponding author.
- **MR Aghanoori**, V Margulets, DR. Smith, L Kirshenbaum, D Gitler and P Fernyhough. Sensory neurons derived from diabetic rats exhibit deficits in functional glycolysis and ATP that are ameliorated by IGF-1. Molecular Metabolism 2021.
- MJ MacPherson, SL Erickson, D Kopp, P Wen, **MR Aghanoori**, A Vitobello, Q Thomas<sup>6</sup>, N Gold, W Brucker, L Amlie-Wolf, K Gripp, O Bodamer, L Faivre, XC Wei, Q Long, AM Innes, G Yang. Nucleocytoplasmic Transport of RNA-Binding Proteins Regulates Neural Stem Cell Fates. Cell Reports 2021.
- A Stamenkovic, K O'Hara, D Nelson, T Maddaford, A Edel, G Maddaford, E Dibrov, **MR Aghanoori**, L Kirshenbaum, P Fernyhough, M Aliani, G Pierce, A Ravandi. Oxidized phosphatidylcholines cause ferroptosis in cardiomyocytes during ischemia/reperfusion injury. American journal of physiology (AJP)-heart and circulatory physiology 2021.
- K Hemati, MY Karimi, A Hosseinzadeh, M Abolmaali, N Najjar, **MR Aghanoori**, V Nikoui. Induction of analgesia using Atorvastatin in experimental diabetic neuropathy through NMDA receptor and inflammatory cytokine inhibition. Iranian red crescent medical journal (IRCMJ) 2021.
- S Dastghaib, P Sravan Kumar, S Aftabi, G Damera, A Dalvand, A Sepanjnia, M Kiumarsi, **MR Aghanoori**, S Singh Sohal, S R Ande, J Alizadeh, P Mokarram, S Ghavami, P Sharma, A Zeki. Mechanisms targeting the unfolded protein response in asthma. American Journal of Respiratory Cell and Molecular Biology 2021; 64(1):29-38.

- M Aghaei, S Dastghaib, S Aftabi, **MR Aghanoori**, J Alizadeh, P Mokarram, P Mehrbod, M Ashrafizadeh, A Zarrabi, KD. McAlinden, MS. Eapen, SS. Sohal, P Sharma, AA. Zeki and S Ghavami. The ER Stress/UPR Axis in Chronic Obstructive Pulmonary Disease and Idiopathic Pulmonary Fibrosis. Life 2021, 11(1), 1.
- A Saleh, MG Sabbir, **MR Aghanoori**, DR Smith, SKR Chowdhury, L Tessler, J Brown, K Frizzi, NA Calcutt and P Fernyhough. Muscarinic antagonists signal via Ca<sup>2+</sup>/calmodulin-dependent protein kinase kinase  $\beta$  to augment mitochondrial function and enhance axonal repair of sensory neurons. Molecular Neurobiology 2020; 57(6): 2521–2538.
- S Amiri, S Dastghaib, M Ahmadi, P Mehrbod, F Khadem, H Behrooj, **MR Aghanoori**, F Machaj, M Ghamsari, J Rosik, A Hudecki, A Afkhami, M Hashemi, MJ Los, P Mokarram, T Madrakian and S Ghavami. Betulin and its derivatives as novel compounds with different pharmacological effects. Biotechnology Advances 2020; 38: 107409.
- **MR Aghanoori**, DR Smith, S Shariati, A Ajisebutu, A Nguyen, F Desmond, C Jesus, X Zhou, NA Calcutt, M Aliani and P Fernyhough. Insulin-like growth factor-1 activates AMPK to augment mitochondrial function and correct neuronal metabolism in sensory neurons in type 1 diabetes. Molecular Metabolism 2019; 20: 149-165.
- P Lu, A Kamboj, SK Roy Chowdhury, A Hogan-Cann, **MR Aghanoori**, P Fernyhough, and CM Anderson. Poly (ADP-ribose) polymerase-1 inhibits mitochondrial respiration by suppressing PGC-1 $\alpha$  activity in neurons. Neuropharmacology 2019; 107:755.
- **MR Aghanoori**, DR Smith, SR Chowdhury, MG Sabbir, NA Calcutt and P Fernyhough. Insulin prevents aberrant mitochondrial phenotype in sensory neurons of type 1 diabetic rats. Experimental Neurology 2017; 297:148-157.
- **MR Aghanoori**, GM Shahriary, M Safarpour, A Ebrahimi. Diagnosis of human sulfite oxidase deficiency through exome sequencing: A case report with a mutations/variations analysis approach. Egyptian J of Medical Human Genetics 2016; 17(1):131-136.
- **MR Aghanoori**, GM Shahriary, M Khorrami, M Sayyadi, Y Yazdani, S Yazdani, MR Akhond, HR Goodarzi, Algorithm-based fetal gender determination using X and Y mini-STRs at early gestational ages. Jentashapir J of Health Research 2016; 7(1):e29365.
- H Salehi, **MR Aghanoori**, S Shahmohammadlu, B Hosseini, S Mitchell, M Mahmudi, K Djafarian, Body Composition in Iranian boys with autism spectrum disorders. Paediatrica Croatica 2015; 59;159-65.
- M Abtahi, Z Mohammadi, B Hatef, M Amini, M Khorrami, **MR Aghanoori**, Antifungal effect of Flavonoid extract of Trachyspermum Ammi plant on the gene expression of pro-inflammatory cytokines such as IL-18 and TNF-a in articular chondrocyte cells. Biosciences Biotechnology Research Asia 2015; 12(3):2081-2087.
- **MR Aghanoori**, B Mirzaei, M Tavallaei. MiRNA molecular profiles in human medical conditions: Connecting lung cancer and lung development phenomena, Asian Pacific J of Cancer Prevention 2014; 15(22):9557-9565.

- **MR Aghanoori**, H Vafaei, H Kavoshi, S Mohammadi, HR Goodarzi. Sex determination using free fetal DNA at early gestational ages: a comparison between a modified mini-STR genotyping method and real-time PCR. American J of Obstetrics and Gynecology 2012; 207:202.e1-8.
- GM Shahriary, H Galehdari, A Jalali, F Zanganeh, SMR Alavi, **MR Aghanoori**. CYP2E1\*5B, CYP2E1\*6, CYP2E1\*7B, CYP2E1\*2, and CYP2E1\*3 allele frequencies in the Iranian population. Asian Pacific J of Cancer Prevention 2012; 13(12):6505-10.

#### PAPERS IN PREPARATION

- **MR Aghanoori**, J Epp, L Williams, G Yang. Celf2 patient variant causes higher neuronal activity and aberrant dendritic spine development in the mouse cortex.
- **MR Aghanoori**, F Nobakht, E Harvey, M Subha, S Kedia, L William, M Hua, G Yang. Rbms1 regulates Csde1 translation to fine tune cortical layering during brain development in mice.
- S Amiri, **MR Aghanoori**, DR Smith, MG Sabbir and P Fernyhough. Antimuscarinic drugs exhibit biased agonism at the M1 muscarinic receptor.

#### CONFERENCE ABSTRACTS (refereed abstracts)

##### Oral Presentations

- **MR Aghanoori**. Celf2 patient mutation disrupts neuronal activity and dendrite development in the mouse cortex. Medical Genetics Seminar Series-May 2022, Calgary, Alberta, Canada (Oral Presentation).
- **MR Aghanoori**. Mechanism of IGF-1/Insulin regulation of mitochondria in diabetic neuropathy. (انجمن اعصاب دانشگاه علوم پزشکی شهید بهشتی) May 2022 (Webinar).
- **MR Aghanoori**, G Yang. Celf2 patient mutation disrupts neuronal activity and dendrite development in the mouse cortex. BMB Advance meeting-April 2022, Calgary, Alberta, Canada (Oral Presentation).
- **MR Aghanoori**, DR Smith, P Agarwal, VW Dolinsky, V Yathindranath, DW Miller and P Fernyhough. Sensory Neuron-derived IGF-1 Augments Neurite Outgrowth And This Autocrine/paracrine Pathway Is Suppressed in Diabetes. Peripheral Nerve Society (PNS) meeting-June 2019, Genoa, Italy (Oral Presentation).
- **MR Aghanoori**, V Margulets, L Kirshenbaum, D Gitler and P Fernyhough. FRET-based Real Time ATP Measurements in Sensory Neurons of Normal or Diabetic Rats. Peripheral Nerve Society (PNS) meeting-June 2019, Genoa, Italy (Oral Presentation).
- **MR Aghanoori**, K Daliri, Expression profiling of NLGN3, SHANK3, SLC6A4, NRXN1, GABRB3, CNTNAP2, MECP2 genes in patients with symptoms of Autism

Spectrum Disorder (ASD): A guide to diagnosis and treatment. The 1<sup>st</sup> international and 5<sup>th</sup> annual congress of Iranian Neurogenetic Society-Novemeber 2011, Tehran, Iran (Oral Presentation).

## Posters

- **MR Aghanoori**, G Yang. Celf2 patient mutation disrupts neuronal activity and dendrite development in the mouse cortex. BMB Advance meeting-April 2022, Calgary, Alberta, Canada.
- S Amiri, **MR Aghanoori** and P Fernyhough. Antimuscarinic drugs exhibit biased agonism at the M1 muscarinic receptor. British Pharmacological Society (BPS) meeting-April 2020, London, UK. (poster accepted).
- **MR Aghanoori**, V Margulets, L Kirshenbaum, D Gitler and P Fernyhough. Real Time Analysis of ATP Levels in DRG Neurons Derived from Normal or Diabetic Rats. International Society for Neurochemistry (ISN) meeting-August 2019, Montreal, Canada.
- D Smith, G Sanchez, **MR Aghanoori**, K Johe, N Calcutt, C Jolivalt, P Fernyhough. NSI-189 enhances neurite outgrowth and mitochondrial function in sensory neurons and reverses peripheral neuropathy in ZDF rats. International Society for Neurochemistry (ISN) meeting-August 2019, Montreal, Canada.
- **MR Aghanoori**, DR Smith, P Agarwal, VW Dolinsky, V Yathindranath, DW Miller and P Fernyhough. Sensory Neuron-derived IGF-1 Augments Neurite Outgrowth And This Autocrine/paracrine Pathway Is Suppressed in Diabetes. Peripheral Nerve Society (PNS) meeting-June 2019, Genoa, Italy.
- **MR Aghanoori**, V Margulets, L Kirshenbaum, D Gitler and P Fernyhough. FRET-based Real Time ATP Measurements in Sensory Neurons of Normal or Diabetic Rats. Peripheral Nerve Society (PNS) meeting-June 2019, Genoa, Italy.
- **MR Aghanoori**, DR Smith, P Agarwal, VW Dolinsky, V Yathindranath, DW Miller and P Fernyhough. Autocrine/paracrine IGF-1 in DRG Neurons Drives Neurite Outgrowth and Is Suppressed in the Diabetic State. Manitoba Neuroscience Network (MNN) meeting-June 2019, Winnipeg, Canada.
- **MR Aghanoori**, DR Smith, P Agarwal, VW Dolinsky, V Yathindranath, DW Miller and P Fernyhough. Autocrine/paracrine IGF-1 in DRG Neurons Drives Neurite Outgrowth and Is Suppressed in the Diabetic State. Canadian Association for Neuroscience (CAN) meeting-May 2019, Toronto, Canada.
- **MR Aghanoori**, DR Smith, MG Sabbir, and P Fernyhough. IGF-1 upregulates AMPK activity through which enhances mitochondrial function and neurite outgrowth in adult sensory neurons. Peripheral Nerve Society-July 2018, Baltimore, USA.
- **MR Aghanoori**, MG Sabbir, DR Smith and P Fernyhough. IGF-1 activates AMPK to bidirectionally regulate mitochondrial function in adult sensory neurons. Canadian Association for Neuroscience-2018, Vancouver, BC, Canada.

- GL Sequiera, N Sareen, **MR Aghanoori**, S Mangat, P Sidhu, E Abu-El Rub, M Moudgil, P Fernyhough, C Rockman-Greenberg, S Dhingra. iPSC based multisystemic-disease models from patients of mitochondrial disorder display varied disease progression in different cell types. International Society for Heart Research-November 2018, Halifax, Canada.
- **MR Aghanoori**, MG Sabbir, DR Smith and P Fernyhough. IGF-1 optimizes mitochondrial function through AMP-activated protein kinase in adult sensory neurons. Experimental Biology-July 2018 (ASPET section), San Diego, USA.
- **MR Aghanoori** and P Fernyhough. IGF-1 optimizes mitochondrial function through AMPK in adult sensory neurons. DREAM diabetes-Nov 2017, Winnipeg, Canada.
- **MR Aghanoori**, DR Smith, Chowdhury SR, MG Sabbir, NA Calcutt, and P Fernyhough. Insulin prevents aberrant mitochondrial phenotype in sensory neurons of type 1 diabetic rats. Canadian Association for Neuroscience-May 2017, Montreal, Canada.
- **MR Aghanoori** and P Fernyhough. Insulin enhances AMPK activity and mitochondrial function in adult sensory neurons. NeuroDiab XXVI meeting-2016, Bucharest, Romania.
- **MR Aghanoori** and P Fernyhough. Insulin enhances mitochondrial function through up-regulation of AMPK activity in DRG neurons. Manitoba Neuroscience Network-2016, University of Manitoba, Canada.
- HR Goodarzi, **MR Aghanoori**, Y Yazdani, GM Shahriary, S Abbaszadeh, S Yazdani. Sex determination using free fetal DNA at early gestational ages: A comparison between a modified mini-STR genotyping method and Real-Time PCR. ASHG 63<sup>rd</sup> Annual Meeting-October 2013, Boston, USA.
- M TONDAR, S Yazdani, **MR Aghanoori**, Y Yazdani, F Ghasemvand, L Heidary Rad, N Gholamazad. Determination of ADP, Thrombin, and Aspirin platelet stimulation by evaluation the role of phosphatidylserine as an Annexin V binding molecule. World Conference of In Vitro Biology-June 2012, Bellevue, Washington, USA.
- S Yazdani, **MR Aghanoori**, Y Yazdani, M Tondar, D ZareiShirazi. Determination of novel biomarkers by detecting variable gene expression in acute myeloid leukemia patients. 3<sup>rd</sup> International Conference on Stem Cells and Cancer (ICSCC): Proliferation, Differentiation and Apoptosis-October 2012, New Delhi, India.
- S Yazdani, **MR Aghanoori**, Y Yazdani, M Tondar, D ZareiShirazi. Determination of coexpression of CD49d and aldehyde dehydrogenase type II as novel markers of leukemic stem cells in acute myeloid leukemia patients. 23rd International Medical Sciences Student Congress (IMSSC)-May 2012, Istanbul, Turkey.
- **MR Aghanoori**, K Daliri, Expression profiling of NLGN3, SHANK3, SLC6A4, NRXN1, GABRB3, CNTNAP2, MECP2 genes in patients with symptoms of Autism Spectrum Disorder (ASD): A guide to diagnosis and treatment. The 1<sup>st</sup> international and 5<sup>th</sup> annual congress of Iranian Neurogenetic Society-November 2011, Tehran, Iran.



## **AD-HOC REVIEW**

- Active reviewer in the journals of *Molecular Neurobiology*, *Cellular and Molecular Life Sciences*, and *Molecular and Cellular Endocrinology*.
- I have also reviewed papers from *Nature Communications*, *Brain*, *Acta Neuropathologica*, *Experimental Neurology*, *Diabetes*, *Journal of Diabetes Investigation*, *Neurobiology of Disease* and *Molecular Brain*.

## **TEACHING:**

Instructor for graduate students in Advanced Genetics: Department of Medical Genetics, course MDSC641, Nov 2022.

Instructor for undergraduates in Human Genetics: Department of Medical Genetics, course CMMB413, Feb 2022.

## **BOOKS**

- First and corresponding author in a book chapter titled “Immunohistochemical analysis of the developing mouse cortex” of the book titled “Methods in Cell Biology” published on Elsevier, May 2022.
- Contributing author (Childhood neuroblastoma topic- MR Aghanoori) in a book chapter: The SAGE Encyclopedia of Cancer and Society, Second Edition, Graham A. Colditz, - Siteman Cancer Center, Washington University School of Medicine, Publisher: SAGE Publications, Inc. Publication Year: 2015, DOI: <http://dx.doi.org/10.4135/9781483345758>, Print ISBN: 9781483345734

## **PATENTs**

- 2013/3/11 Patenting “new method (algorithm) for fetal sex determination using maternal plasma” elicited from my Master’s thesis, Iran Patenting Administration Organization, Tehran, Iran, Patent no.:78929.

## **PROFESSIONAL INVOLVEMENT**

- 2022/8 Poster judge at the undergraduate health research symposium, University of Calgary, Calgary, Canada.
- 2020/9 Member of Graduate Science Education Internal Review Committee for Doctoral CIHR Scholarships, University of Calgary, AB, Canada.
- 2020/4 Member of Alberta Children’s Hospital Research Institute Review Committee for Master & Doctoral Scholarships, University of Calgary, AB, Canada.

- 2019/5 Poster judge at the undergraduate health research symposium, University of Manitoba, honorable mention.
- 2019/3 Science outreach experience at the St. Boniface hospital research center.
- 2018/4 Poster judge at the undergraduate health research symposium, University of Manitoba, honorable mention.
- 2018/6 Primer Design Workshop by myself for graduate students, dept. of anatomy and cell sciences, University of Manitoba, Winnipeg, Canada.
- 2017/5 Science outreach experience at the St. Boniface hospital research center.
- 2016-Present Mentoring/supervising thirteen undergraduate and four graduate students, and one lab technician in the lab. This includes designing projects, training the theoretical and experimental basics of DRG dissection, cell culture, Western blotting, Real-time PCR, gene cloning, Confocal microscopy and Seahorse XF analyzer, and supervision. Dr. Fernyhough's lab, Division of Neurodegenerative Disorders (DND), St. Boniface Research Center, Winnipeg, MB, Canada. 2016-current.
- 2009-2012 Research & Development of diagnostic kits for genetic disorders. RoyaBioGene Company, Tehran, Iran.
- 2010-2011 Genetic counseling assistant for genetic disorders, gestations and family marriages at Imam Reza Clinic, Shiraz University of Medical Sciences, Shiraz, Iran.