Curriculum Vitae

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- **2021-now** Associate Prof. in the University of Social Welfare and Rehabilitation Sciences
- **2015-2021** Assistant Prof. in the University of Social Welfare and Rehabilitation Sciences

- **2014-2015** Post doc researcher in the University of Tehran/ Iran National Science Foundation (INSF).

- **2008-2013** PhD student in Cell and Molecular Biology, School of Biology, University College of Science, University of Tehran, Tehran, Iran.

Average of final examination marks: 17.83 (out of 20). Board exam: 17 (out of 20).

Title of Thesis: Linkage analysis in Iranian patients afflicted with Amyotrophic Lateral Sclerosis (ALS) and Autosomal Recessive Congenital Ichthyosis (ARCI)
Supervisors: Dr. Elahe Elahi

- **2005-2007** M.Sc. Student in Cell and Molecular Biology, School of Biology, University College of Science, University of Tehran, Tehran, Iran.

Average of final examination marks: 18.81 (out of 20)

Title of Thesis: Mutation screening of *M1S1* (*TACSTD2*) gene in Iranian patients afflicted with Gelatinous Drop-like corneal dystrophy (GDLD)
Supervisors: Dr. Elahe Elahi

- **1994-1997** B.Sc. Student in Biology, Department of Biology, Shahid Chamran University of Ahvaz, Ahvaz, Iran. Average of final examination marks: 17.75 (out of 20)

- **1990-1993** Bentolhoda High School, Dezfool, Iran. Average of final examination marks: 19.2 (out of 20)

Teaching Experience
Teacher of Biology at high Schools in several cities in Iran, **Sept. 1997-2013.**

Teacher of genetics at the College of Environment; Karaj, 2012-2013
Teacher of human genetics, cancer genetics, genetic engineering, advanced molecular genetics, advanced genetic engineering, advanced cancer genetics, bioinformatics and genetics of mitochondria at the University of University of Social Welfare and Rehabilitation Sciences; Tehran, Iran, 2014-now

Research Experience

- Genetic analysis of Iranian patients affected to Gelatinous Drop-like corneal dystrophy, Granular, Avellino and Lattice corneal dystrophies.
- Genetic analysis of Iranian patients affected to Juvenile open-angle glaucoma (JOAG).
- Hybridization of multiplex PrASE products to oligonucleotide spotted microarrays (Microarray in Juvenile open-angle glaucoma (JOAG) patients).
- Genetic analysis of Iranian patients affected to Autosomal recessive Congenital Ichthyosis patients.
- Linkage analysis in Iranian patients affected to Amyotrophic Lateral Sclerosis (ALS), Autosomal Recessive Congenital Ichthyosis (ARCI), neurodegeneration with brain iron accumulation (NBIA), Neimann-Pick C disease patients, ….
- Exome sequencing of Iranian Amyotrophic Lateral Sclerosis (ALS), Neimann-Pick C, Parkinson disease, hyperinsulinemic hypoglycemia, neuropathies, Brown-Vialetto-Van Laere syndrome (BVVL), FAHR disease, and Hereditary Spastic Paraplegia (HSP) patients.
- Repeat-primed PCR for hexanucleotide expansions in *C9orf72* gene among Iranian ALS and PD patients.
- DNA barcoding in fish.
- Southern blotting for Facioscapulohumeral muscular dystrophy (FSHD) patients.
- Genetic study of muscular dystrophies; limb girdle muscular dystriphies, Sarcoglycanopathies …
- Evaluating of transcriptome and gene expression alteration in a family with hereditary spastic paraplegia (HSP) using RNA-sequencing method.
- Searching for the disease-causing variant in a family affected with CMT and myopathies.

Workshop and Training

- Participation in an advanced course on “Genetic Association Studies”, taught by Heather J. Cordell (Institute of Human Genetics, Newcastle University, UK) at the Research Center for

Gastroenterology and Liver Diseases, Shaheed Beheshti University of Medical Sciences, Tehran, Iran, Jan. 24-25 2007.

- Participation in an advanced course on Neurological disease. Imam hospital, Tehran, Iran, 1390/9/2. Tehran, Iran, 1390/9/2.
- Participation in Applications of FISH technique workshop. University of Social welfare and Rehabilitation Sciences. 1398.
- Participation in Array CGH workshop. University of Social welfare and Rehabilitation Sciences. 1398.
- Participation in CRISPR/Cas workshop. University of Social welfare and Rehabilitation Sciences. 1398.
- Participation in Tertiary for exome sequencing workshop. University of Social welfare and Rehabilitation Sciences. 1398.
- Participation in RNA-sequencing workshop. University of Social welfare and Rehabilitation Sciences. 1398.
- Participation in Drosophila melanogaster workshop. University of Social welfare and Rehabilitation Sciences. 1398.

Publications

Articles:

1. **Alavi A**, Elahi E, Tehrani MH, Amoli FA, Javadi MA, Rafati N, Chiani M, Banihosseini SS, Bayat B, Kalhor R, Amini SS. Four mutations (three novels, one founder) in *TACSTD2* among Iranian GDLD patients. *Invest Ophthalmol Vis Sci*. 2007; 48(10):4490-7.

2. **Alavi A**, Elahi E, Amoli FA, Tehrani MH. Exclusion of *TACSTD2* in an Iranian GDLD pedigree. *Mol Vis.* 2007; 13:1441-5.

3. **Alavi A**, Elahi E, Rahmati-Kamel M, Karimian F, Rezaei-Kanavi M. Mutation Screening of *TGFBI* in Two Iranian Avellino Corneal Dystrophy Pedigrees. *Clin Experiment Ophthalmol.* 2008; 36(1):26-30.

4. Bayat B, Yazdani SH, **Alavi A**, Chiani M, Chitsazian F, Khoramian Tusi B, Suri F, Narooie-Nejhad M, Sanati MH, Riazzudin S, Elahi E. Contributions of *MYOC* and *CYP1B1* mutations to JOAG. *Mol Vis.* 2008; 14:508-17.

5. **Alavi A**, Mirshams Shahshahani M, Elahi E. Manifestation of diffuse yellowish keratoderma on the palms and soles in autosomal recessive congenital ichthyosis patients may be indicative of mutations in *NIPAL4*. *J Dermatol.* 2012; 39(4):375-81.

6. **Alavi A,** Nafissi S, Rohani M, Zamani B, Sedighi B, Shamshiri H, Fan JB, Ronaghi M, Elahi E. Genetic analysis and SOD1 mutation screening in Iranian amyotrophic lateral sclerosis patients.

Neurobiol Aging. 2013; 34(5):1516.e1-8.

7. Ansari Dezfouli M, Alavi A, Rohani M, Rezvani M, Nekuie T, Klotzle B, Tonekaboni SH, Shahidi GA, Elahi E **(* These two authors contributed equally to this manuscript).** *PANK2* and *C19orf12* mutations are common causes of neurodegeneration with brain iron accumulation. *Mov Disord.* 2013; 28(2):228-32.

8. Ansari Dezfouli M, Jaberi E, **Alavi A**, Rezvani M, Shahidi GA, Elahi E, Rohani M, Pantothenate kinase 2 mutation with eye-of-the-tiger sign on magnetic resonance imaging in three siblings. *Ir J neurol.* 2012; 11(4): 1-4.

9. Alavi A, Nafissi S, Shamshiri H, Malakooti Nejad M, Elahi E. Identification of mutation in *NPC2* by exome sequencing results in diagnosis of Niemann-Pick disease type C. *Mol Genet Metab.* 2013; 110(1-2): 139–144.

10. **Alavi A,** Nafissi S, Rohani M, Shahidi GA, Zamani B, Shamshiri H, Safari I, Elahi E. Repeat expansion in C9ORF72 is not a major cause of ALS among Iranian patients. *Neurobiol Aging.* 2014; 35(1): 267.e1e267.e7

11. **Alavi A,** Khani M, Nafissi S, Shamshiri H, Elahi E. An Iranian FALS patient with p.Val48Phe mutation in exon 2 of the *SOD1* gene: a clinical and genetic report. The Iranian Journal of Basic Medical Sciences (Iran J Basic Med Sci), Vol. 17, No. 10, Oct 2014

12. **Alavi A**, Shamshiri H, Nafissi S, Khani M, Klotzle B, Fan J, Steemers F, Elahi E. HMSN-P caused by p.Pro285Leu mutation in TFG is not confined to patients with Far East ancestry. *Neurobiol Aging.* 2015*;* 36: 1710-1716

13. Khani M, **Alavi A**, Nafissi S, Elahi E. Observation of p.Asn86Ser causing mutation in SOD1 in an Iranian ALS patient and evidencing absence of genotype/phenotype correlation for this mutation. *Iran J Neurol* 2015; 14(3).

14. Khani M, Shamshiri H, **Alavi A,** Nafissi S, Elahi E. Identification of novel TFG mutation in HMSN-P pedigree: Emphasis on variable clinical presentations. *J Neurol Sci.* 2016; 369:318-23. doi: 10.1016/j.jns.2016.08.035

15. **Alavi A,** Malakouti Nejad M, Shahidi G, Elahi E. Mutations in *C19orf12 and* intronic repeat expansions in *C9orf72* not observed in Iranian Parkinson's disease patients. *Neurobiol Aging.* 2017;

54: 214.e11-214.e12. DOI: 10.1016/j.neurobiolaging.2017.03.020.

16. Rohani M, Shahidi G, **Alavi A**, Lang A, Yousefi N, Razme S, Fasano A. Tremor-dominant pantothenate kinase-associated neurodegeneration. Movement Disorders Clinical Practice. 2017;4(5): 772-774. DOI: 10.1002/mdc3.12512.

17. **Alavi A*,** Esmaeili S, Nilipour Y, Nafissi S, Tonekaboni SH, Zamani G, Ashrafi MR, Kahrizi K, Najmabadi H, Jazayeri F. LGMD2E is the most common type of sarcoglycanopathies in the Iranian population. J Neurogenet. 2017; 31(3):161-169. DOI: 10.1080/01677063.2017.1346093.

18. Rohani M, Lang AE, Sina F, Elahi E, Fasano A, Hardy J, Bras J, **Alavi A***. Action myoclonus and seizure in Kufor-Rakeb syndrome. Movement Disorders Clinical Practice. 2018; 5(2): 195-199. DOI: 10.1002/mdc3.12570.

19. **Alavi A**, Esmaeili S, Nafissi S, Kahrizi K, Najmabadi H. Genotype and phenotype analysis of 43 Iranian Facioscapulohumeral muscular dystrophy patients; evidence for anticipation. Neuromuscul Disord. 2018 Apr;28(4):303-314. doi: 10.1016/j.nmd.2018.01.001.

20. Nozari A, Aghaei-Moghadam E, Zeinaloo A, Mollazadeh R, Majnoon M, **Alavi A**, Ghasemi Firouzabadi S, Mohammadzadeh A, Banihashemi S, Nikzaban M, Najmabadi H, Behjati F. A novel splicing variant in FLNC gene responsible for a highly penetrant familial dilated cardiomyopathy in an extended Iranian family. Gene 659 (2018) 160–167.

21. Nozari A, Aghaei-Moghadam E, Zeinaloo A, **Alavi A,** Ghasemi Firouzabadi S, Minaee S, Eskandari Hesari M, Behjati F. A Pathogenic Homozygous Mutation in Pleckstrin Homology Domain of *RASA1* Gene Responsible for Familial Tricuspid Atresia in an Iranian Consanguineous Family. Cell Journal (Yakhteh) Volume 21, Number 1, Spring 2019 (Apr-Jun), Serial Number: 81.

22. Rohani M, Fasano A, Lang AE, Javanparast L, RahimiBidgoli MM, **Alavi A***. Pantothenate Kinase Associated Neurodegeneration mimicking Tourette Syndrome. Neurol Sci. 2018 Oct;39(10):1797-1800.

23. Khani M; **Alavi A**; Shamshiri H; Zamani B; Hassanpour H; Kazemi MM; Nafissi S; Elahi E. Mutation screening of SLC52A3, C19orf12, and TARDBP in Iranian ALS patients. *Neurobiol Aging.* 2019 Mar;75:225.e9-225.e14. doi: 10.1016/j.neurobiolaging.2018.11.003.

24. Rohani M, Fasano A, Haji Akhoundi F, Haeri G, Lang AE, RahimiBidgoli MM, Javanparast L, Zamani B, Shahidi G, **Alavi A*.** Beta-propeller protein associated neurodegeneration (BPAN); the first report of three patients from Iran with de novo novel mutations. Parkinsonism and Related Disorders. 2018 Nov 13. pii: S1353-8020(18)30496-6. doi: 10.1016/j.parkreldis.2018.11.012.
25. Rahmani B, Fekrmandi F, Ahadi K, Ahadi T, **Alavi A**, Ahmadiani A, Asadi S. A novel nonsense mutation in WNK1/HSN2 associated with sensory neuropathy and limb destruction in four siblings of a large Iranian pedigree. BMC Neurol. 2018 Nov 29;18(1):195. doi: 10.1186/s12883-018-1201-6.

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28. Khani M, Shamshiri H, Fatehi F, Rohani M, Haghi Ashtiani B, Haji Akhoundi F, **Alavi A**, Moazzeni HR, Taheri H, Tolou Ghani M, Javanparast L, Hashemi SS, Haji Seyed Javadi R, Heidari M, Nafissi S, Elahi E. Problematic differential diagnosis of ARHSP and JALS in some families with SPG11 mutations. Mol Genet Genomic Med. 2020 Jul;8(7):e1240. doi: 10.1002/mgg3.1240.

29. Hajati R, Rahimi Bidgoli MM, Rohani M, **Alavi A***. An Overview of Neurodegeneration with Brain Iron Accumulation (NBIA) syndromes and the disease status in Iranian population. Tehran University Medical Journal. 2020;78(2);58-68.

30**. Alavi A**, Mokhtari M, Hajati R, Davarzani A, Fasano A, Lang AE, Rohani M. Late-Onset Mitochondrial Membrane Protein-Associated Neurodegeneration With Extensive Brain Iron Deposition. Mov Disord Clin Pract. 2019 Nov 30;7(1):120-121. doi: 10.1002/mdc3.12868.

31. Pashaei M, Rahimi Bidgoli MM, Zare-Abdollahi D, Najmabadi H, Haji-Seyed-Javadi R, Fatehi F, **Alavi A***. The second mutation of *SYCE1* gene associated with autosomal recessive non-obstructive azoospermia. J Assist Reprod Genet. 2020 Feb;37(2):451-458. doi: 10.1007/s10815-019-01660-1.

32. **Alavi A**, Darki F, Bidgoli MMR, Zare-Abdollahi D, Moini A, Shahshahani MM, Fischer J, Elahi E. Mutation in ALOX12B likely cause of POI and also ichthyosis in a large Iranian pedigree. Mol Genet Genomics. 2020 Jul;295(4):1039-1053. doi: 10.1007/s00438-020-01663-z.

33. Rahimi Bidgoli MM, Javanparast L, Rohani M, Najmabadi H, Zamani B**, Alavi A***. CAPN1 and hereditary spastic paraplegia: a novel variant in an Iranian family and overview of the genotype-phenotype correlation. Int J Neurosci. 2020 May 13:1-13. doi: 10.1080/00207454.2020.1763344.

34. Bushehri A, Zare-Abdollahi D, **Alavi A**, Dehghani A, Mousavimikala M, Khorram Khorshid HR. Identification of PROS1 as a Novel Candidate Gene for Juvenile Retinitis Pigmentosa. Int J Mol Cell Med. 2019 Summer;8(3):179-190. doi: 10.22088/IJMCM.BUMS.8.3.179.

35. Fattahi M, Bushehri A, **Alavi A**, Asghariazar V, Nozari A, Ghasemi Firouzabadi S, Motamedian Dehkordi P, Javid M, Farajzadeh Valiliou S, Karimian J, Behjati F. Bi-allelic Mutations in ALDH5A1 is associated with succinic semialdehyde dehydrogenase deficiency and severe intellectual disability. Gene. 2020 Jul 1:144918. doi: 10.1016/j.gene.2020.144918.

36. Farajzadeh Valilou S, **Alavi A**, Pashaei M, Ghasemi Firouzabadi S, Shafeghati Y, Nozari A, Hadipour F, Hadipour Z, Maghsoodlou Estrabadi B, Gholamreza Noorazar S, Banihashemi S, Karimian J, Fattahi M, Behjati F. Whole-Exome Sequencing Identifies Three Candidate Homozygous Variants in a Consanguineous Iranian Family with Autism Spectrum Disorder and Skeletal Problems. Mol Syndromol. 2020 Jun;11(2):62-72. doi: 10.1159/000506530. Epub 2020 Mar 11.

37. Haeri G, Akhoundi FH, **Alavi A**, Abdi S, Rohani M. Endocrine Abnormalities in a Case of Neurodegeneration with Brain Iron Accumulation. Mov Disord Clin Pract. 2020 Jun 24;7(6):706-707. doi: 10.1002/mdc3.12990. eCollection 2020 Aug.

38. Kuźma-Kozakiewicz M, Andersen PM, Elahi E, **Alavi A**, Sapp PC, Morita M, Żekanowski C, Berdyński M. Putative founder effect in the Polish, Iranian and United States populations for the L144S SOD1 mutation associated with slowly uniform phenotype of amyotrophic lateral sclerosis. Amyotroph Lateral Scler Frontotemporal Degener. 2020 Aug 10:1-6. doi: 10.1080/21678421.2020.1803359.

39. Khani M, Taheri H, Shamshiri H, Moazzeni H, Hardy J, Bras JT, InanlooRahatloo K, **Alavi A**, Nafissi S, Elahi E. Deep geno- and phenotyping in two consanguineous families with CMT2 reveals *HADHA* as an unusual disease-causing gene and an intronic variant in GDAP1 as an unusual mutation. J Neurol. 2021 Feb;268(2):640-650. doi: 10.1007/s00415-020-10171-4.

40. Vafaee-Shahi M, Ghasemi S, Ghahvechi Akbar M, Tahernia L, Davarzani A, Hajati R, Zare-Abdollahi D, **Alavi A***. Giant axonal neuropathy: The first Iranian case with a variation in the gigaxonin gene and a glance to the other cases. Curr J Neurol 2020; 19(4): 200-10.

41. Hashemi SS, Zare-Abdollahi D, Bakhshandeh MK, Vafaee AR, Abolhasani S, InanlooRahatloo K, DanaeeFard F, Farboodi N, Rohani M, **Alavi A***. Clinical Spectrum in Multiple Families with

Primary COQ10 Deficiency. Am J Med Genet A. 2021 Feb;185(2):440-452. doi: 10.1002/ajmg.a.61983.

42. Darbari E, Zare-Abdollahi D, **Alavi A**, Rezaei Kanavi M, Feizi S, Hosseini SB, Baradaran-Rafii A, Ahmadieh H, Issazadeh-Navikas S, Elahi E. A mutation in DOP1B identified as a probable cause for autosomal recessive Peters anomaly in a consanguineous family. Mol Vis. 2020 Nov 25;26:757-765. eCollection 2020.

43. Khani M, Shamshiri H, Taheri H, Hardy J, Bras JT, Carmona S, Moazzeni H, **Alavi A**, Heshmati A, Taghizadeh P, Nilipour Y, Ghazanfari T, Shahabi M, Okhovat AA, Rohani M, Valle G, Boostani R, Abdi S, Eshghi S, Nafissi S, Elahi E. BVVL/ FL: features caused by SLC52A3 mutations; WDFY4 and TNFSF13B may be novel causative genes. Neurobiol Aging. 2021 Mar;99:102.e1-102.e10.

44. Haeri G, Hajiakhoundi F, **Alavi A**, Ghiasi M, P. Munhoz R, Rohani M. Congenital ichthyosis in a case of spinocerebellar ataxia type 34; a novel presentation for a known mutation. Mov Disord Clin Pract. 2021 Jan 11;8(2):275-278.

45. Khani M, Shamshiri H, Moazzeni HR, Taheri H, Ahmadieh H**, Alavi A,** Nafissi S, Elahi E. A case of adult onset Sandhoff disease that mimics Brown-Vialetto-Van Laere syndrome. Neuromuscul Disord. 2021 Jun;31(6):528-531.

46. Pashaei M, Davarzani A, Hajati R, Zamani B, Nafissi S, Larti F, Nilipour Y, Rohani M, **Alavi A*.** Description of clinical features and genetic analysis of one ultra-rare (SPG64) and two common forms (SPG5A and SPG15) of hereditary spastic paraplegia families. J Neurogenet. 2021 Mar-Jun;35(2):84-94.

47. Hajati R, Emamikhah M, Danaee Fard F, Rohani M, **Alavi A*.** Neurodegeneration with brain iron accumulation and a brief report of the disease in Iran. Canadian Journal of Neurological Sciences. Can J Neurol Sci. 2021 Jun 4:1-14.

48. Emamikhah M, Aghavali S, Moghadas F, Munhoz RP, Lang AE, **Alavi A**, Rohani M. Spinocerebellar Ataxia 40: Another Etiology Underlying Essential Tremor Syndrome. Mov Disord Clin Pract. 2021 May 25;8(6):944-946.

49. Hashemi SS, Hajati R, Davarzani A, Rohani M, DanaeeFard F, Rahimi Bidgoli MM, Fatehi F,

Kariminejad A, Najmabadi H, Nafissi S, **Alavi A*.** Anticipation can be more common in hereditary spastic paraplegia with SPAST mutations than it appears. Can J Neurol Sci. 2021 Aug 6:1-29. doi: 10.1017/cjn.2021.188.

50. Taghizadeh P, Salehi S, Heshmati A, Houshmand SM, InanlooRahatloo K, Mahjoubi F, Sanati MH, Yari H, **Alavi A**, Jamehdar SA, Dabiri S, Galehdari H, Haghshenas MR, Hashemian AM, Heidarzadeh A, Jahanzad I, Kheyrani E, Piroozmand A, Mojtahedi A, Nikoo HR, Rahimi Bidgoli MM, Rezvani N, Sepehrnejad M, Shakibzadeh A, Shariati G, Seyyedi N, MohammadSaleh Zahraei S, Safari I, Elahi E. Study on SARS-CoV-2 strains in Iran reveals potential contribution of co-infection with and recombination between different strains to the emergence of new strains. Virology. 2021 Oct;562:63-73.

51. Alonso-Pérez J, González-Quereda L, Bruno C, Panicucci C, **Alavi A,** Nafissi S, Nilipour Y, Zanoteli E, de Augusto Isihi LM, Melegh B, Hadzsiev K, Muelas N, Vílchez JJ, Dourado ME, Kadem N, Kutluk G, Umair M, Younus M, Pegorano E, Bello L, Crawford TO, Suárez-Calvet X, Töpf A, Guglieri M, Marini-Bettolo C, Gallano P, Straub V, Díaz-Manera J. Clinical and genetic spectrum of a large cohort of patients with δ-sarcoglycan muscular dystrophy. Brain. 2021 Sep 13:awab301. doi: 10.1093/brain/awab301. Epub ahead of print. PMID: 34515763.

52. Davarzani A, Shahrokhi A, Hashemi SS, Ghasemi A, Habibi Kavashkohei MR, Farboodi N, Lang AE, Ghiasi M, Rohani M, **Alavi A**. The second family affected with a PRDM8-related disease. Neurol Sci. 2022 Jan 16. doi: 10.1007/s10072-021-05815-w.

53. Daneshafrooz N, Joghataei MT, Mehdizadeh M, **Alavi A**, Barati M, Panahi B, Teimourian S, Zamani B. Identification of let-7f and miR-338 as plasma-based biomarkers for sporadic Amyotrophic Lateral Sclerosis using meta-analysis and empirical validation. Scientific Reports. 2022 Jan 26;12(1):1373.

54. Saghi M, InanlooRahatloo K, **Alavi A**, Kahrizi K, Najmabadi H. Intellectual disability associated with craniofacial dysmorphism due to POLR3B mutation and defect in spliceosomal machinery. BMC Med Genomics. 2022 Apr 18;15(1):89. doi: 10.1186/s12920-022-01237-5.

55. Hashemi N, Nejad Shahrokh Abadi R, **Alavi A**, Tavasoli A, Rohani M. A Mild Form of Neurodegeneration with Brain Iron Accumulation attributed to Coenzyme A Synthase Mutation. Movement Disorders Clinical Practice, 2023, 10(2), pp. 331–334.

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57. Habibi Kavashkohie MR, DanaeeFard F, Rohani M, **Alavi A***. *RNASEH2B*-related neurodegenerative diseases: the first report of an Iranian case and a systematic review. Pediatric Neurology. Under Revision.

58. Sadr Z, Ghasemi A, Rohani M, **Alavi A***. NMNAT1 and hereditary spastic paraplegia (HSP): Expanding the phenotypic spectrum of NMNAT1 variants. Neuromuscular Disorders, 2023, 33(4), pp. 295–301.

59. Sadr Z, Zare-Abdollahi D, Rohani M , **Alavi A***. A founder mutation in *COQ7*, p.(Leu111Pro), causes pure hereditary spastic paraplegia (HSP) in the Iranian population. Neurological Sciences, 2023.

61. Ghasemi A, Tavasoli AR, Khojasteh M, Rohani M, **Alavi A***. Description of Phenotypic Heterogeneity in a *GJC2*-Related Family and Literature Review. Molecular Syndromology. 2023. https://doi.org/10.1159/000529678

60. Asadi-Pooya AA, Simani L, Asadollahi M, Rashidi FS, Ahmadipour E, **Alavi A**, Roozbeh M, Akbari N, Firouzabadi N. Potential role of *FKBP5* single-nucleotide polymorphisms in functional seizures. Epilepsia Open. 2023 Feb 24. doi: 10.1002/epi4.12716.

61. Ghasemi A, Sadr Z, Babanejad M, Rohani M, **Alavi A***. Copy Number Variations in Hereditary Spastic Paraplegia-Related Genes: Evaluation of an Iranian Hereditary Spastic Paraplegia Cohort and Literature Review. Molecular Syndromology, 2023, https://doi.org/10.1159/000531507.

62. Hashemi N, Abadi RNS, **Alavi A**, Rohani M, Ghasemi A, Tavasoli AR. The first reports of *FA2H*-associated neurodegeneration from two unrelated Iranian families. Neurol Sci. 2023 Jul 6. doi: 10.1007/s10072-023-06932-4. Epub ahead of print. PMID: 37410270.

63. Eissazadeh N, **Alavi A**, Lang AE, Rohani M, Emamikhah M, Khoeini T. A new genetic variant, presenting as young onset rapidly progressive dementia and parkinsonism. Parkinsonism and Related Disorders. https://www.prd-journal.com/article/S1353-8020(23)00928-8/fulltext

64. Sadr Z, Rohani M, Jamali P, **Alavi A**. A case report of concurrent occurrence of two inherited axonopathies within a family: the benefit of whole-exome sequencing. Int J Neurosci, 2023 Sep

15;1-6. doi: 10.1080/00207454.2023.2260091 .

65. Amini E, Rohani M, Lang AE, Azad Z, Habibi SAH, **Alavi A**, Shahidi G, Emamikhah M, Chitsaz A. Estimation of Ambulation and Survival in Neurodegeneration with Brain Iron Accumulation Disorders. Mov Disord Clin Pract. 2024 Jan;11(1):53-62. doi: 10.1002/mdc3.13933.

66. Ghasemi A, Eslami Ardakani M, Togha M, Yazdi N, Lang AE, Amini E, Rohani M, **Alavi A**. A Novel Homozygous Variant in the *MCOLN1* Gene Associated With Severe Oromandibular Dystonia and Parkinsonism. Can J Neurol Sci. 2024 Mar 27:1-9. doi: 10.1017/cjn.2024.47.

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Variant of Spinocerebellar Ataxia With Axonal Neuropathy 1 (SCAN1) in the Middle East: A Systematic Review. Pediatr Neurol. 2025 Mar;164:41-52. doi:10.1016/j.pediatrneurol.2024.12.011. Epub 2024 Dec 30. PMID: 39848142.

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مقالات فارسی:

۱. رضا حاجتی، محمدمسعود رحیمی بیدگلی، محمد روحانی، **آفاق علوی***. مروری بر سندرمهای " تخریب و تحلیل عصبی همراه با تجمع آهن در مغز" و وضعیت آن در ایران. نشریه دانشکده پزشکی دانشگاه علوم پزشکی تهران » اردیبهشت ۱۳۹۹ شماره ۲.

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Conference Abstracts (Poster presentations):

1. **Alavi A**, Javadi M, Rafati N, Bayat B, Banoei MM, Elahi E. Novel missense mutation in *M1S1* gene in Iranian Gelatinous Drop-Like Corneal Dystrophy (GDLD) patients. European Human Genetics Conference, Amsterdam-The Netherlands, May 6–9, 2006.

2. **Alavi A**, Hosseini Tehrani M, Asadi Amoli F, Elahi E. Y184C Missense mutation in *TACSTD2* in an Iranian Gelatinous Drop-like Corneal Dystrophy (GDLD) pedigree. The 2nd International Congress of Biochemistry and Molecular Biology, Shiraz-Iran, Oct 29-Nov 1, 2007.

3. Nezari H, Kalhor R, Banihosseini SS, Suri F, **Alavi A**, Zargar SJ, Ahmadian A, Elahi E. Hybridization of multiplex PrASE products to oligonucleotide spotted microarrays. The 2nd International Congress of Biochemistry and Molecular Biology, Shiraz-Iran, Oct 29-Nov 1, 2007.

4. Banihosseini S, Kazemi MH, Shojaee SM, **Alavi A**, Shahidi G, Sina F, Zamani B, Sadeghi H, Parsa K, Elahi E. Mutation screening of exon 3 of Parkin gene in a young cohort of Iranian PD patients. European Human Genetics Conference, Barcelona-Spain, May 31–June 3, 2008.

5. **Alavi A**, Heidary Arash E, Inanloo K, Banihosseini S, Elahi E. Estimation of *CFTR* mutation carrier frequency based on known frequency of p.F508del in Iranian neonates. European Human Genetics Conference, Gothenburg-Sweden, June 12–15, 2010.

6. **Alavi A**, Mirshams Shahshahani M, Moazzeni HR, Elahi E. Homozygousity mapping in a large Iranian pedigree affected with Autosomal Recessive Congenital Ichthyosis (ARCI) reveals linkage to region encompassing *NIPAL4*/Ichthyn. European Human Genetics Conference, Amsterdam-The Netherlands, June 12–15, 2011.

7. Suri F, Zargar SJ, Yazdani S, **Alavi A**, Elahi E. One genotype-six different phenotype: variable expression not incomplete penetrance. 15 National & 3rd International Conference of Biology, Tehran-Iran, August 19-21, 2008.

8. Inanloo K, Elahi E, **Alavi A**, Jaberi E. Mutation Screening of *MEF2A* Gene in Iranian afflicted with Coronary Artery Disease. The First International Student Congress on Cell and Molecular Medicine, Shiraz-Iran. February 17-19, 2011.

9. **Alavi A,** Mirshams Shahshahani M, Malakooti Nejad M, Rasooli P, Elahi E. Homozygousity mapping in one Iranian pedigree affected with Autosomal Recessive Congenital Ichthyosis (ARCI) reveals linkage to region 17p13 and mutation in *ALOX12B* gene. European Human Genetics Conference, Nürnberg-Germany, June 23-26, 2012.

10. **Alavi A,** Mirshams Shahshahani M, Safari I, Elahi E. Homozygousity mapping in 2 autosomal recessive congenital ichthyosis pedigrees reveals linkage to regions 5q33 and 17p13. 2012; 17th Iranian and 5th international Biology congress, Kerman-Iran, September 4-6, 2012.

11. Malakouti Nejad M, **Alavi A,** Hashemi M, Shahidi GA, Elahi E. Mutation screening of *ATP13A2* in early onset Iranian Parkinson's disease patients. European Human Genetics Conference, Nürnberg-Germany, June 23-26, 2012.

12. **Alavi A,** Elahi E, Nafissi S, Shamshiri H, Houshmand M, Malakooti Nejad M. Exome sequencing revealed a *NPC2* mutation in an Iranian Niemann Pick C-type 2 disease family. European Human Genetics Conference, Paris-France, June 8-11, 2013.

13. **Alavi A,** Elahi E, Malakooti Nejad M, Homozygosity mapping in an Iranian pedigree affected with muscular dystrophy limb girdle (LGMD) reveals linkage to 2p12-14 and 10q25-26 chromosomes. 3rd International Student Biotechnology Congress, Tehran-Iran, May 6-8, 2013.

14. Malakouti Nejad M, Elahi E, Jaberi E, **Alavi A**, Hashemi M, Shahidi G. disease caused by a novel ATP13A2 truncating mutation. European Human Genetics Conference, Paris-France, June 8-11, 2013.

15. **Alavi A**, Elahi E, Khani M, Malakooti Nejad M. Homozygosity mapping in an Iranian pedigree affected with muscular dystrophy limb girdle (LGMD) reveals linkage to chromosome 2p12-14 and a mutation in Dysferlin gene. European Human Genetics Conference, Milan-Italy, May 31- June 3, 2014.

16. Malakouti Nejad M, Elahi E, **Alavi A**, Shahidi G. Repeat expansion in C9ORF72 is not a common cause of Parkinson's disease among Iranian patients. European Human Genetics Conference, Milan-Italy, May 31- June 3, 2014.

17. **Alavi A**, Jaberi E, Elahi E, Nafissi S, Shamshiri H, Rohani M. Clinical application of whole exome sequencing in diagnosis of undiagnosed inherited diseases. First international & 13th Iranian genetics congress, Tehran-Iran, May 24-26, 2014. **Best presentation Poster in first international & 13th Iranian genetics congress**

18. Khani M, Elahi E, **Alavi A**, Nafissi S, Shamshiri H. TARDBP mutations are not a common cause of amyotrophic lateral sclerosis in Iranian patients. First international & 13th Iranian genetics congress, Tehran-Iran, May 24-26, 2014.

19. Suri F, **Alavi A**, Elahi E, Shamshiri H. Homozygosity mapping used for identification of disease-causing genes in heterogenic disorders. First international & 13th Iranian genetics congress, Tehran-Iran, May 24-26, 2014.

20. Homozygosity mapping in an Iranian pedigree affected with early onset Parkinson's disease (EOPD) and linkage to chromosome 6. 2nd International Conference on Parkinson's Disease &Movement Disorders. USA-Chicago, November 28-30, 2016.

21. Khani M, Elahi E, **Alavi A**, Nafissi S, Malakooti Nejad M. Screening of TARDBP in Iranian amyotrophic lateral sclerosis (ALS) patients. European Human Genetics Conference, Milan-Italy, May 31- June 3, 2014.

22. **Alavi A**, Elahi E, Shamshiri H, Nafissi S, Moghadam A. HMSN-P is a new type of neuronopathy caused by mutation in TFG gene. European Human Genetics Conference, Glasgow, Scotland-United Kingdom, June 6-9, 2015.

23. **Alavi A**, Elahi E, Shamshiri H, Nafissi S. HMSN-P: is a new type of neuronopathy caused by mutation in TFG gene; is not confined to patients with Far East ancestry. The 5th International Congress on Neuropathic Pain (NeuPSIG). France-Nice, May 14-17, 2015.

24. Malakouti Nejad M, Elahi E, **Alavi A**, Shahidi G. Screening for *C9ORF72* repeat expansions among Iranian patients with Parkinson's disease. First international & 13th Iranian genetics congress, Tehran-Iran, May 24-26, 2014.

25. Esmaeili S, **Alavi A***, Nafissi S. Phenotypic presentations of Iranian Patients affected to Facioscapulohumeral muscular dystrophy (FSHD). Second International & Fourteenth Iranian Genetics Congress. Tehran-Iran, May 21-23, 2016.

26. **Alavi A**, Elahi E, Malakooti Nejad M, Shahidi GA. Homozygosity mapping in an Iranian pedigree affected with early onset Parkinson's disease (EOPD) and linkage to chromosome 6. 2th international conference on Parkinson's disease and movement disorders. Phoenix, USA, Dec 05-07, 2016.

27. Khani M, Elahi E, Shamshiri H, **Alavi A**, Nafissi S. P.Gly269Val mutation in TFG identified as cause of disease in second Iranian HMSN-P pedigree. 5th Basic and clinical neuroscience congress, Tehran-Iran, December 7-9, 2016.

28. **Alavi A**, Esmaeili S, …… FSHD. 3nd International Conference on Parkinson's Disease & Movement Disorders. USA-Chicago, September 25-26, 2017.

29. Javanparast L, Rahimi Bidgoli MM, **Alavi A**, Rohani M. Clinical features and results of genetic analysis of three Iranian patients affected to pantothenate kinase associated neurodegeneration (PKAN). 6th Basic and clinical neuroscience congress, Tehran-Iran, December 20-22, 2017.

30. **Alavi A,** Ghorbanpour E , Pourmajidian M, Elahi E,d, Shahidi G. Linkage to a new locus on chromosome 6 in an Iranian pedigree diagnosed with early onset Parkinson's disease (EOPD). 2nd International Conference on Chronic Diseases. Berlin, Germany, June 25-26, 2018.

31. Ghorbanpour E, Rahimi Bigoli MM, Javanparast L, **Alavi A**, Rohani M. Genotype and phenotype analysis of two unrelated patients with Beta-Propeller protein-Associated Neurodegeneration (BPAN). 5th International Conference on Parkinson's Disease & Movement Disorders. Baltimore, Maryland, USA, October 19-20, 2018.

32. **Alavi A,** Pashaei M, Rahimi Bidgoli MM, Javan Parast L, Rohani M, Fatehi F, Nafissi S, Kahrizi K, Najmabadi H. Hereditary spastic paraplegia (HSP) is more heterogeneous than it appears. European Conference of Human Genetics. Milan, Italy June 16-19 2018.

33. Javan Parast L, **Alavi A,** Rahimi Bidgoli MM, Pashaei M, Rohani M, Fatehi F, Nafissi S, Kahrizi K, Najmabadi H. Identification of causative genes (three known and one novel) in four unrelated Iranian families affected to hereditary spastic paraplegia (HSP) using whole exome sequencing. 3rd international and 15th national Iranian genetics congress. Tehran, Iran. May 13-15, 2018.

34. Fattahi M, **Alavi A,** Ghasemi Firouzabadi S, NozariA, Farajzadeh Valilou S, Karimian J, Crosby A, Behjati F. Whole exome sequencing identified a novel ALDH5A1 variant associated with SSADH Deficiency in an Iranian family with autism. 3rd international and 15th national Iranian genetics congress. Tehran, Iran. May 13-15, 2018.

35. Javadi Golrodbari F, **Alavi A,** Kazemi Nasab S, Kahrizi K, Najmabadi H. Identification of novel genes in ten patients with Neuromuscular disease who have no mutations in known genes by reanalyzing data of whole exome sequencing. 3rd international and 15th national Iranian genetics congress. Tehran, Iran. May 13-15, 2018.

36. Rahimi Bidgoli MM, **Alavi A***, Javan Parast L, Pashaei M, Fatehi F. Exome sequencing reveals *SYCE1* mutation associated with autosomal recessive azoospermia in an Iranian family; the second report in the worldwide. 8TH Yazd international congress & student award in Reproductive medicine & third congress of reproductive genetics. Yazd, Iran. April 19-21, 2019.

37. Rahimi Bidgoli MM, **Alavi A***, Rohani M, Javan Parast L, Pashaei M, Fatehi F, Nafissi S, Kahrizi K, Najmabadi H. Genetics heterogeneity and novel genes in autosomal recessive Hereditary Spastic Paraplegia (AR-HSP). European Human Genetics Conference, Gothenburg, Sweden. June 15–18, 2019.

38. Davarzani A, Hajati-Kenarsari R, Zare-Abdollahi D, Vafaei Shahi M, **Alavi A***. Clinical and genetic analysis of an Iranian patient affected with Giant axonal neuropathy. 20th Annual Research congress of Iranian Medical Sciences Students. Kermanshah, Iran, 5-8 Sahrivar 1398.

39. Hajati-Kenarsari R, Davarzani A, Rohani M, **Alavi A***. Mitochondrial Membrane Protein Associated Neurodegeneration (MPAN) with an extensive and atypical pattern of brain iron deposition. 20th Annual Research congress of Iranian Medical Sciences Students. Kermanshah, Iran, 5-8 Sahrivar 1398.

40. Hajati, A. Davarzani, S. Hashemi, M. Rahimi Bidgoli, L. Javan Parast, M. Pashaei, F. DanaeeFard, H. Najmabadi, M. Rohani, F. Fatehi, S. Nafissi, **A. Alavi*.** Genetic analysis of 50 unrelated cases affected with hereditary spastic paraplegia (HSP): a novel candidate gene. European Human Genetics Conference (Virtual), Vienna, Austria. June 6-9, 2020.

41. Hashemi SS, Zare-Abdollahi D, InanlooRahatloo D, DanaeeFard F, Rohani M, **Alavi A*.** Three families affected to primary COQ10 deficiency: Importance of whole exome sequencing in diagnosis of this group of disorders. 21th annual research congress of Iranian medical sciences Students, Babol, Iran. 21-24 Mordad 1399. **Best poster**

42. DanaeeFard F, Hashemi SS, Davarzani A, Hajati R, Rahimi Bidgoli MM, Rohani M, **Alavi A*.** Autosomal dominant hereditary spastic paraplegia (AD-HSP), the SPAST gene variations and evidence for anticipation. Genetics heterogeneity and novel genes in

Hereditary Spastic Paraplegia. 4rd international and 16th national Iranian genetics congress. GC2020, Iran/Italy. Sep 30-Oct 2, 2020. **Best poster**

43. Rahimi Bidgoli MM, Alavi A*, Davarzani A, Hajati R, Hashemi SS, Javan Parast L, Pashaei M, Najmabadi H, Rohani M. Genetics heterogeneity and novel genes in Hereditary Spastic Paraplegia. 4rd international and 16th national Iranian genetics congress. GC2020, Iran/Italy. Sep 30-Oct 2, 2020. **Best poster**

44. Davarzani A, Hashemi SS, Danaee Fard F, Rohani M, Nafissi SH, **Alavi A*.** Autosomal dominant hereditary Spastic paraplegia: evidence for anticipation in the SPG4. European Human Genetics Confrence. June 12-15, 2021.

45. Mahshid Fattahi, **Afagh Alavi,** Saghar Ghasemi Firouzabadi, Ahoura Nozari, Saeed Farajzadeh Valilou, Javad Karimian, Androw Crosby, Farkhondeh Behjati. Whole exome sequencing identified a novel ALDH5A1 variant associated with SSADH dificiency in an Iranian family with autism. 3rd international & 15th Iranian Genetics congress. May 13-15, 2018. Tehran- Iran.

46. Behjati F, Ghasemi Firouzabadi S, kariminejad R, Vameghi R, Banihashemi S, Jamali P, Firouzkouhi Moghaddam M, Farbod Mofidi Tehrani H, Dehghani H, Karimian J, Farajzadeh Valilou S, Fattahi Nafchi M, Pashaei M, **Alavi A,** Crosby A, Najmabadi H. Copy Number Variation (CNV) analysis and Next generation Sequencing (NGS), in some Iranian Patients with Autism. 3rd International & 15th Iranian Genetics Congress. May 13-15 2018.

47. Khani M, Elahi E*, Nafissi S, **Alavi A**, Moazzeni H, Shamshiri H, Taheri H, Tolou Ghani M. Genetic studies on patients affected with six related neurodegenerative diseases. 4rd international and 16th national Iranian genetics congress. GC2020, Iran/Italy. Sep 30-Oct 2, 2020.

48. Darbari E, Elahi E*, Issazadeh-Navikas S, Zare-Abdollahi D, Alavi A, Rezaei Kanavi M, Feizi S, Baradaran-Rafie A, Hosseini SB. A new Peter's anomaly causative gene identified. 4rd international and 16th national Iranian genetics congress. GC2020, Iran/Italy. Sep 30-Oct 2, 2020.

49. Genetic heterogeneity of hereditary spastic paraplegia (HSP) in Iranian population. Ghasemi A, **Alavi A*,** DanaeeFard F, Rohani M, Nafissi S. Genetic heterogeneity of hereditary spastic paraplegia (HSP) in Iranian population. 10th Neuroscience congress, December 22-24, 2021. Tehran, Iran.

50. Danaee Fard F, Habibi MR, Rohani M, **Alavi A*.** The Clinical Spectrum of RNASEH2B-related neurological disorders and a Network of Clinical Findings for a differential diagnosis. 10th Neuroscience congress, December 22-24, 2021. Tehran, Iran.

51. Ghasemi A, **Alavi A*,** Bababnejad M, Rohani M. The important role of copy-number variations in hereditary spastic paraplegia. International conference on Human Genetics and Genomics. December 1-2, 2021. Yazd, Iran.

52. Ghasemi A, **Alavi A*.** The role of the SYCE1 gene in the male and female fertility: A literature review. 9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics. May 20-21, 2021. Yazd, Iran.

53. Ghasemi A, DanaeeFard F, Davarzani A, Hajati R, Babanejad M, Rohani M, **Alavi A*.** Genetics heterogeneity and novel genes in a cohort of Iranian patients with hereditary

spastic paraplegia (HSP). European Human Genetics Conference. June 11-14, 2022. Vienna, Austria.

54. Soleimani P, Ghasemi A, Zare-Abdollahi D, **Alavi A***. A founder mutation in the COQ7 gene, may result in a pure form of Hereditary Spastic Paraplegia (HSP). European Human Genetics Conference. June 1-4, 2024. Germany, Berlin.

55. Ghasemi A, Khojasteh M, Soleimani P, Rohani M, **Alavi A***. Autosomal recessive than autosomal dominant forms of FAHR syndrome are more severe as well as, more prevalent in the Iranian population. 31st congress of neurology and clinical electrophysiology of Iran. May 14-17, 2024. Tehran, Iran.

56. Sadr Z, Ghasemi A, Davarzani A, Rohani M, **Alavi A***. Advantage of whole exome sequencing (WES) for identification of disease-causing variant in less known genes for hereditary spastic paraplegia (HSP). 6th international and 18th Iranian genetics congress. May 21-23, 2024. Tehran, Iran.

57. …….

Full articles presented at conferences (Oral presentations):

1. **Alavi A**, Javadi MA, Rafati N, Bayat B, Banoei MM, Elahi E. Two novel putative disease-causing mutations in *M1S1* gene in Iranian Gelatinous Drop-like Corneal Dystrophy (GDLD) patients. 9th Iranian Genetics Congress, Tehran-Iran, May 20-22, 2006.

2. **Alavi A**, Elahi E, Mirshams Shahshahani M, Inanloo K, Moazzeni HR. Mutation in Ichthyn/*NIPAL4* is the cause of Autosomal recessive Congenital Ichthyosis in a large Iranian family with yellowish palmoplantar keratoderma. The first International Student Congress on Cell and Molecular Medicine (ISCCMM), Shiraz-Iran, February 17-19, 2011.
   Best presentation award in 1st International Congress on Cell and Molecular Medicine

3. **Alavi A,** Mirshams Shahshahani M, Malakooti Nejad M, Elahi E. Homozygousity mapping in two large Iranian pedigrees affected with autosomal recessive congenital ichthyosis (ARCI) reveals linkage to regions 5q33 and 17p13. 2011. The 1th international and 5th Annual Congress of Iranian Neurogenetic Society, Tehran-Iran, November 23-25, 2011.

4. Malakouti Nejad M, **Alavi A,** Hashemi M, Shahidi GA, Elahi E. Novel *ATP13A2* mutation associated with early onset Parkinson's disease. Basic and clinical neuroscience congress, Tehran-Iran, November 7-9, 2012.

5. **Alavi A**, Elahi E, Nafissi S, Roohani M, Zamani B, Sedighi B, Shamshiri H, Malakooti Nejad M. Genetic analysis and *SOD1* mutation screening in Iranian amyotrophic lateral sclerosis patients (ALS). The 6th Annual Congress of Iranian Neurogenetic Society. Kerman-Iran, December 8-13, 2012.

6. Rohani M, **Alavi A**, Zamani B, Elahi E. Familial ALS. The second Iranian congress of neuromuscular disorders and electrodiagnosis. Tehran-Iran, 4-8 July, 2012.

7. Elahi E, Nafissi S, Rohani M, **Alavi A**, Khani M, Shamshiri H. Genetics of ALS in Iran. First international & 13th Iranian genetics congress, Tehran-Iran, May 24-26, 2014.

8. **Alavi A**, Elahi E, Nafissi S, Rohani M, Khani M, Shamshiri H. Frequency of SOD1, C9orf72, and TARDBP mutations in Iranian ALS patients. 3rd Basic and clinical neuroscience congress, Tehran-Iran, October 29-31, 2014.

9. **Alavi A,** Elahi E, Malakooti Nejad M, Shahidi G. Homozygosity mapping in an Iranian pedigree affected with early onset Parkinson's disease (EOPD) and linkage to chromosome 6. The 8th Annual Congress of Iranian Neurogenetic Society, Ahvaz-Iran, January 21-23, 2015.

10. Elahi E, **Alavi A.** Amyotrophic lateral sclerosis (ALS). The 12th congress & workshop of rare diseases. Tehran-Iran, 26 Feb- 2 March, 2014.

11. Elahe E, **Alavi A**, Shamshiri H, Khani M, Nafissi S. Iranian patients affected with familial forms of neuromuscular disorders with mutations in TFG. 57Th annual meeting of the Japanese society of neurology. Japan-Kobe, May 18-21, 2016.

12. Yousefi N, **Alavi A**, Safari I, Elahi E. Obesity associated locus sought by linkage analysis and exome sequencing in an extended pedigree. 23 rd international student congress of (Bio) medical sciences. Netherlands- Groningen, 7-10, 2016.

13. Esmaeili S, **Alavi A*,** Nafissi S. Genetic diagnosis of facioscapulohumeral muscular dystrophy (FSHD) using southern blotting with non-radioactive probes. 1 national conference on new findings in biology. Iran-Zahedan, Nov 23-24, 2016.

14. Esmaeili S, **Alavi A*,** Kahrizi K, Najmabadi H, Nafissi S. Genetic analysis of 20 FacioScapuloHumeral muscular Dystrophy (FSHD) families using southern blotting with non-radioactive probes. 3th international conference on molecular medicine. Iran-Isfahan, Dec 15-16, 2016.

15. **Alavi A*.** LGMD2E is the most common type of sarcoglycanopathies in the Iranian population. Sep 15, 2017. سومین سمینار یک روزه ژنتیک پزشکی تشخیصی-تحقیقی

16. Khani M, Elahi E, Nafissi S, **Alavi A,** Shamshiri H, Taheri H, Tolou Ghani M, Moazzeni H. Identification of causative genes for the neurodegenerative diseases ALS, BVVL, Fazio Londe, CMT2 and HMSN-P. 3rd International & 15th Iranian Genetics Congress. May 13-15 2018.

17. Behjati F, Ghasemi Firouzabadi S, kariminejad R, Vameghi R, Banihashemi S, Jamali P, Firouzkouhi Moghaddam M, Farbod Mofidi Tehrani H, Dehghani H, Karimian J, Farajzadeh Valilou S, Fattahi Nafchi M, Pashaei M, **Alavi A,** Crosby A, Najmabadi H. Copy Number Variation (CNV) analysis and Next generation Sequencing (NGS), in some Iranian Patients with Autism. 3rd International & 15th Iranian Genetics Congress. May 13-15 2018.

18. **Alavi A*.** Genotype and phenotype analysis of 43 Iranian facioscapulohumeral muscular dystrophy patients. June 22, 2018. چهارمین سمینار یک روزه ژنتیک پزشکی (تشخیصی-تحقیقی)

19. **Alavi A,** Rahimi Bidgoli MM, Rohani M, Javan Parast L, Pashaei M, Fatehi F. Genetics heterogeneity of Hereditary Spastic Paraplegia (HSP) is more than it appears. Jan 25, 2019. پنجمین سمینار یک روزه ژنتیک پزشکی تشخیصی-تحقیقی

20. Rahimi Bidgoli MM, **Alavi A*,** Javan Parast L, Pashaei M, Rohani M, Nafissi S, Kahrizi K, Najmabadi H. Diagnostic rates of whole exome sequencing in Hereditary Spastic Paraplegia. 20th Annual Research congress of Iranian Medical Sciences Students. Kermanshah, Iran, 5-8 Sahrivar 1398.

21. Hashemi SS, Zare-Abdollahi D, InanlooRahatloo K, DanaeeFard F, Rohani M, **Alavi A***. Application of whole exome sequencing (WES) in clinical diagnosis; An example. International congress of Isfahan Biomedical Sciences. Sept. 26- Oct.1, 2020.

22. Mostafa Saghi, Kolsoum InanlooRahatloo, Afagh Alavi, Kimia Kahrizi, Hossein najmabadi. Differentially expressed genes and molecular pathways in Intellectual disability patients with mutation in Polr3b gene. International congress of Isfahan Biomedical Sciences. Sept. 26- Oct.1, 2020.

23. **Alavi A*,** Hajati-Kenarsari R, Davarzani A, Rohani **M.** Mitochondrial membrane protein-associated neurodegeneration (MPAN) with an extensive and atypical pattern of brain iron deposition.۱۳۹۸ ششمین سمینار یک روزه ژنتیک پزشکی (تشخیصی-تحقیقی)- تهران- ایران ۳۱ شهریور

24. **Alavi A*,** Hajati R, Davarzani A, Hashemi SS, Rohani M, Nafissi S. Autosomal dominant hereditary spastic paraplegia (AD-HSP): Evidence for anticipation in families with SPAST mutations. ۱۴۰۰ هفتمین سمینار یک روزه ژنتیک پزشکی تشخیصی-تحقیقیح کرستان- ایران- ۱۹ و ۲۰ فروردین

25. Alkhalifa A, Chen S, Filosto M, Cali E, Houlden H, Victor Sgobbi de Souza P**, Alavi A**, Nicita F, Tozza S, Cocozza S, Carboni N, Basak N, Brais B, Rouleau G, La Piana R. White matter involvement in SPG76. A systematic MRI review of 11 subjects. American Academy of Neurology Meeting which will take place in April 2022.

26. SPG4 and SPG11 are the most common types of hereditary spastic paraplegia (HSP) in Iran. هشتمین سمینار یک روزه ژنتیک پزشکی تشخیصی-تحقیقی- مشهد- ایران- ۱۱ و ۱۲ اسفند ماه ۱۴۰۰

27. Ghasemi A, Rohani M, Alavi A. Identification of *MCOLN1* and *C19orf12* gene variants in two Iranian families with brain iron accumulation. 4th Research Congress of Hormozgan Medical Sciences Students. 14-15 Feb. 2023.

28. Ghasemi A, Babanejad M, Rohani M, **Alavi A*.** Application of whole-exome sequencing to detect of copy number variations (CNVs) in hereditary spastic paraplegia (HSP), 23rd medical students annual national research congress & the 9th medical students international research congress, September 27-30, 2022

29. Ghasemi A, Sadr Z, Babanejad M, Rohani M, **Alavi A*.** Evaluation of whole exome sequencing (WES) efficiency in the genetic diagnosis of 85 Iranian families affected with hereditary spastic paraplegia (HSP), 5th international and 17th Iranian Genetic Congress, March 6-8, 2023

30. Ghasemi A, Rohani M, **Alavi A*.** Intrafamilial clinical heterogeneity in an Iranian multi-affected family with GJC2 gene mutation, 1st international symposium of walking on DNA toward clinics, April 25, 2023

31. Khojasteh M, **Alavi A*,** Ghasemi A, Soleimani P, Rohani M. Identification of two novel variants in the MYORG gene in the Iranian families affected to Primary familial brain calcification (PFBC), 1st annual student congress of medical sciences universities in Tehran, May 10-12, 2023

32. Sadr Z, **Alavi A*,** Ghasemi A, Babanejad M, Rohani M. The advantage of whole-exome sequencing for the detection of disease-causing variants in patients with hereditary spastic paraplegia, 1st annual student congress of medical sciences universities in Tehran, May 10-12, 2023

33. ….

Contributor in research grant

1. Mutation screening of *M1S1* gene in Iranian Gelatinous Drop-Like corneal Dystrophy patients.

2. Linkage analysis in Iranian families affected with autosomal recessive congenital ichthyosis (ARCI). Pasteur institute

3. Linkage analysis in Iranian patients affected with Amyotrophic Lateral Sclerosis (ALS). Iran National Science Foundation (INSF).

4. Analysis of hexanucleotide expansions in *C9orf72* gene among Iranian patients affected with Amyotrophic Lateral Sclerosis (ALS). Tehran University of Medical Sciences (TUMS).

5. Identification of causative gene for an atypical neuromuscular disease with motor and sensory manifestations using linkage analysis and exome sequencing. Iran National Science Foundation (INSF).

6. Genetic analysis of 10 Iranian patients affected to FSHD (Facioscapulohumeral muscular dystrophy). Genetic Research Center (GRC)-Uneversity of Social Welfare and Rehabilitation Sciences (USWR).

7. Clinical and genetic study of 40 Iranian patients affected to Limb girdle muscular dystrophy type sarcoglycopathy. Iran National Science Foundation (INSF).

8. Finding of causative gene in an Iranian family affected to primary ovarian failure (POF) using whole exome sequencing (WES) and screening of candidate gene in other Iranian POF patients. National Elite Foundation (BMN).

9. Identification of disease causative gene in a large Iranian pedigree affected to primary ovarian failure (POF). Iran National Science Foundation (INSF).

10. Searching for causative genes in 10 Iranian patients affected to hereditary spastic paraplegia (HSP) using whole exome sequencing. Uneversity of Social Welfare and Rehabilitation Sciences (USWR).

11. Searching for causative genes in 50 Iranian patients affected to hereditary spastic paraplegia (HSP) using whole exome sequencing. GRC-USWR-**NIMAD**

12. Searching for causative genes in 15 Iranian patients affected to hereditary spastic paraplegia (HSP) using whole exome sequencing. Genetic Research Center (GRC).

13. Searching for causative genes in five Iranian patients affected to idiopathic calcification of basal ganglia (FAHR) using whole exome sequencing. Genetic Research Center (GRC).

14. Identification of known and novel variants of non-syndromic Retinitis Pigmentosa among 25 affected families referred from Province of Yazd, using Whole Exome Sequencing. Genetic Research Center (GRC). Genetic Research Center (GRC).

15. Genetic analysis of the second group of Iranian patients affected to idiopathic calcification of basal ganglia (FAHR)

16. Searching for the disease-causing variant in a family affected with a type of neurodegenerative disorder with brain iron accumulation, using whole exome sequencing (WES) technique. Genetic Research Center (GRC).

17. Identification of causative genes in 10 Iranian families affected to hereditary motor and sensory neuropathy using whole exome sequencing (NMRC).

18. Evaluating of transcriptome and gene expression alteration in a family with hereditary spastic paraplegia (HSP) using RNA-sequencing method (GRC).

19. Identification of causative genes in 10 Iranian families affected to hereditary motor and sensory neuropathy using whole exome sequencing (TUMS).

20. Investigation and Analysis of the Relationship between Clinical Symptoms and Molecular Features in at least 12 Iranian Patients with Polyneuropathy Caused by Mutations in the GDAP1 Gene (TUMS).

21. Study of the Genotype-Phenotype correlation in 10 Iranian Families with Charcot-Marie-Tooth Disease Due to Mutations in the MME Gene and Analysis of 6 Families with Shared Mutations (TUMS).

22. تخمین بازدهی آنالیز مجدد داده‌های توالی یابی کل اگزوم در ۱۰ بیمار ایرانی مبتلا به نوروپاتی توارثی که بـه تشـخیص ژنتیکـی نرسیده‌اند (TUMS)

23. Identification of genes and variants associated with leukodystrophy in 15 Iranian families affected by this disease using whole exome sequencing technique (GRC).

24. Searching for causative variants in a family affected to Charcot-Marie-Tooth (CMT) disease with previous inconclusive genetic results from the disease-specific genetic panel, using whole exome sequencing (WES)(GRC).

Research Interests

- Human Genetics
- Neurodegenerative diseases (Amyotrophic Lateral Sclerosis (ALS), hereditary spastic paraplegia (HSP), Neurodegeneration with brain Iron accumulation (NBIA), Parkinson Disease, Neuropathies, FAHR disease, Brown-Vialetto-Van Laere syndrome (BVVL)….).
- Muscular dystrophies (Facioscapulohumeral muscular dystrophy (FSHD) and limb girdle muscular dystrophies, Sarcoglycanopathies, …) and Myopathies.

- Genetic basis of infertility.
- Gene finding approaches (SNP genotyping, whole exome sequencing, ….)
- Investigation of transcriptome.

Awards

- Best researcher of the University of Social Welfare and Rehabilitation Sciences, ۱۳۹۸
- Best researcher of the University of Social Welfare and Rehabilitation Sciences, ۱۳۹۹
- استاد نمونه دانشگاه- اردیبهشت ۱۴۰۱
- محقق برتر دانشگاه (رتبه اول)- دیماه ۱۴۰۱
- دریافت جایزه‌ی تولید رسانه در دانشگاه- دیماه ۱۴۰۱
- رساله نمونه مقطع دکتری- آذرماه ۱۳۹۴
- 13th Iranian genetics congress. GC2014, Tehran-Iran. May 24-26, 2014. **Best poster**

- The first International Student Congress on Cell and Molecular Medicine (ISCCMM), Shiraz-Iran, February 17-19, 2011 **.Best oral presentation**

1. DanaeeFard F, Hashemi SS, Davarzani A, Hajati R, Rahimi Bidgoli MM, Rohani M, **Alavi A*.** Autosomal dominant hereditary spastic paraplegia (AD-HSP), the *SPAST* gene variations and evidence for anticipation. Genetics heterogeneity and novel genes in Hereditary Spastic Paraplegia. 4rd international and 16th national Iranian genetics congress. GC2020, Iran/Italy. Sep 30-Oct 2, 2020. **Best poster**

2. Rahimi Bidgoli MM**, Alavi A*,** Davarzani A, Hajati R, Hashemi SS, Javan Parast L, Pashaei M, Najmabadi H, Rohani M. Genetics heterogeneity and novel genes in Hereditary Spastic Paraplegia. 4rd international and 16th national Iranian genetics congress. GC2020, Iran/Italy. Sep 30-Oct 2, 2020. **Best poster**

3. Hashemi SS, Zare-Abdollahi D, InanlooRahatloo D, DanaeeFard F, Rohani M, **Alavi A*.** Three families affected to primary COQ10 deficiency: Importance of whole exome sequencing in diagnosis of this group of disorders. 21th annual research congress of Iranian medical sciences Students, Babol, Iran. 21-24 Mordad 1399. **Best poster**

4. Ghasemi A, Bababnejad M, Rohani M, **Alavi A***. The role of the copy-number variations in hereditary spastic paraplegia; A systematic review. 23th annual research congress of Iranian medical sciences Students, Ardabil, Iran. September 2022. **Best oral presentation**

5. Accepted Conference Fellowship of European Society of Human Genetics (ESHG) congress. 2018
6. Accepted Conference Fellowship of ESHG congress. 2020
7. Accepted Conference Fellowship of ESHG congress. 2022
8. Ghasemi A, Rohani M, **Alavi A***. Intrafamilial clinical heterogeneity in an Iranian multi-affected family with GJC2 gene mutation, 1st international symposium of walking on DNA toward clinics, April 25, 2023, **Best Key talk**

9. Ghasemi A, Rohani M, **Alavi A***. Identification of *MCOLN1* and *C19orf12* gene variants in two Iranian families with brain iron accumulation. 4th Research Congress of Hormozgan Medical Sciences Students. 14-15 Feb. 2023. **Best oral presentation**
10. Khojasteh M, **Alavi A***, Ghasemi A, Soleimani P, Rohani M. Identification of two novel variants in the MYORG gene in the Iranian families affected to Primary familial brain calcification (PFBC), 1st annual student congress of medical sciences universities in Tehran, May 10-12, 2023. **Best oral presentation**