Noor Ghiasvand

A brief CV- 2025

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Education:

- Ph.D, Genetics, UC Davis, Ca, USA, 1974-1979.
- BS, Biological Sciences, Tabriz University, Iran, 1970-1974

Employment:

- Assistant Prof. of Genetics, School of Med. Shahi Beheshti University of Medical Sciences, School of Medicine, Tehran, Iran, March 1980-May 2004.
- Associate Prof. of Genetics, Neuroscience Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran, June 2005-July 2006
- Assistant Prof. of Genetics, Grand Valley State University, Allendale, MI 49401, USA, Aug 2006- Aug 2023.
- Retired and Honorary Professor of the, Neuroscience Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran, December 2024 -present.

Professional services:

- Setting up and directing a PCR-based genetic test facility for prenatal diagnosis and carrier detection of congenital blindness (NCRNA) at Neurosciences Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran, 2011-2019.
- Establishing and Chairing a Genetic Center at Biochemistry Department, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran, 1983-1996. We gradually expanded the number and expertise of our faculty and in 1907, this center separated from the Biochemistry Department and was recognized as the Department of Medical Genetics, an academic unit at School of medicine, Shahid Beheshti Univ of Med Sciences, Tehran, Iran.

- Providing medical genetic services including karyotyping, genetic counseling and PKU screening at the Genetic Center, School of Medicine, Beheshti University of Medical Sciences, Tehran, Iran. 1985-1996
- Establishing and Chaired the Office of Education Evaluation at the Office of Vice-Chancellor in Academic Affairs, Shahid Beheshti University of Medical Sciences, School of Medicine, Tehran, Iran, 1987-1988.

Post Doctoral Training Programs in:

- Human Molecular Genetics, Kellogg Eye Center, University of Michigan, Ann Arbor, MI, USA- 2001-2003.
- Human Molecular Genetics, School of Medicine, Washington University, St. Louis, MO, USA. -1996-2000.
- Medical Cytogenetics, All India Institute of Medical Sciences, New Delhi, India. Jan- June 1983.

Awards:

- 2013 Research award granted by the Razi Research Festival on Medical Sciences, Tehran, Iran, for a research project looking for other possible genes and mutations involved with the development of optic nerve in humans.
- 2012 The top award of distinction for the application of our findings in basic science research in the field for disease prevention. We had practically made the congenital blindness in Norther Khorasan province preventable, by educating the high risk population and also offering them free carrier detection, prenatal diagnosis and genetic counseling services.
- 2012 An award granted by Razi Foundation for identifying the causative gene for congenital blindness prevalent in Norther Khorasan province, Iran.
- Compassion Medal granted by the people of Chaharborj, Esfarayen, Iran in 2010 for discovering the gene and developing a genetic diagnostic test for the congenital blindness (NCRNA) which has devastated this population for decades. Application of this inexpensive diagnostic test could uproot this disease in the affected population, and by its modification this disease could be uprooted in other parts of the world.
- National Institute of Health grants 5F33-EY06846-02, to support mapping the NCRNA gene, 1997.
- Research award granted by the Ministry of Health and Medical Education, Iran, 1995.
- Four teaching awards for" excellence in teaching" granted in four different years by Beheshti University of Medical Sciences 1990, 1991, 1992, and 1993.
- Teaching award granted by the Ministry of Health and Medical Education, Iran, 1992.
- Award for the best oral presentation: 11th National Congress of Mutagenesis of India, Othmania University, Heydarabad, India, March 1983.

- The Razi Research award for identifying the gene causing NCRNA. Tehran, Iran, 2013.
- Iranian Academy of Medical Sciences award for publishing a paper in Nature Neuroscience, with immediate health applications. Tehran, Iran, 2014.

Courses taught:

- BIO 120 Lab ✧
- BIO 328: Biomedical Ethics
- BIO 355: Human genetics* ✧
- BIO 375: Principles of Genetics * ✧
- BIO 376: Genetic Laboratory ✧
- BIO 411: Genetics of Development and Cancer ✧
- Medical genetics*
- Genetic counseling*
- Molecular genetics*
- Courses taught in Iran*
- Courses taught in GVSU ✧

Presentations:

- Consanguinity Negatively Affects Scholastic Success. Poster, 68th Annual Meeting of American Society of Human Genetics,. Vancouver Canada, Oct. 2016
- Consanguinity Negatively Affects Scholastic Success. Oral presentation. CLAS Research Colloquium, GVSU, Allendale, MI 3/17/2016,
- Consanguinity Negatively Affects Scholastic Success. Poster, Matt Sinclair, Fatemeh Rashidi, Abigail Cousino, Noor Ghiasvand. GVSU Student Scholars Day, 2016
- Strabismus and Consanguinity; poster: Abigail Cousino, Matt Sinclair, Fatemeh Rashidi, Noor Ghiasvand. GVSU, Student Scholars Day, 2016.
- Noor Ghiasvand: Students can achieve even more: when challenged and coached they enjoy learning on their own. Lilly National Conference on College and University Teaching and Learning. Traverse City, MI, USA. 10/19/2013.
- Noor Ghiasvand: Evolutionary Medicine VS Racial Medicine, Why it Matters. Series of Evolution for Everyone seminars. GVSU, Allendale, MI, USA. 11/1/2013
- Genetic mapping of the gene for congenital retinal nonattachment, Poster, 40th Congress of Human Genetics American Society of Human Genetics, Denver, Co. USA, Oct. 1999.

- Autosomal recessive congenital retinal nonattachment, Poster, 38th Congress of Human Genetics, American Society of Human Genetics, San Francisco, Ca. USA, Oct. 1997.
- Phenotypic effects of gene transposition in prokaryotes: Oral presentation, 11th National Congress of Mutagenesis of India, Othmania University, Heydarabad, India, March 1983.
- In Iran, more than 10 oral presentations on different aspects of medical and human genetics, including human cytogenetics, genetic counseling, genetics of mental retardation and infertility.

Active research projects:

- Searching for mutations and novel genes involved with the development of optic nerve aplasia and hypoplasia in Iranian patients.
- Searching for mutations and novel genes involved with the development of anophthalmia.
- Estimating the frequency of optic nerve aplasia and hypoplasia in blind population of Iran.
- Impact of genetic factors on strabismus in patients referred to ophthalmology centers in Tehran, Iran.
- Studying the relationship between inbreeding and scholastic success in several populations in Tehran, Iran.
- Studying the effects of consanguinity on health issues in Iran
- Radiologic and Histopathological Investigation of the Neural Retina and Optic Nerves in Nonsyndromic Congenital Retinal Non-Attachment (NCRNA)
- Associated between Consanguinity and Sporadic Male Factor Infertility.

Short biography:

In my undergraduate work in Iran, I ranked first in my class and was granted a scholarship to seek a Ph.D. degree in the USA. In 1979 received a Ph.D. in genetics. To serve my payback to the Iranian Ministry of Education, joined Beheshti University of Medical Sciences; there taught medical genetics and established a genetic center.

My most rewarding project was the identification of the disease gene for an inherited blindness (RNANC) with high incidence in a founding population. The most satisfying consequence of finding this disease gene has been the development and application of an accurate PCR-based diagnostic test that has made it possible to prevent the birth of new affected individual in the affected population. I hope to be able to use this or a similar simple and inexpensive diagnostic test to identify further communities with the disease allele and help them to develop new preventive measures.

Publications:

- Joel B Miesfeld, Noor M **Ghiasvand**, Brennan Marsh-Armstrong, Nicholas Marsh-Armstrong , Eric B Miller , Pengfei Zhang , Suman K Manna , Robert J Zawadzki , Nadean L Brown , Tom Glaser. The Atoh7 remote enhancer provides transcriptional robustness during retinal ganglion cell development. Proc Natl Acad Sci U S A. 2020 Sep 1;117(35):21690-21700.
- **Ghiasvand** NM, Rudolph DD, Mashayekhi M, Brzezinski JA 4th, Goldman D, Glaser T. Deletion of a remote enhancer near ATOH7 disrupts retinal neurogenesis, causing NCRNA disease. Nat Neurosci. 2011 May;14(5):578-86.
- **Ghiasvand** NM, Aledavood A, Ghiasvand R, Seyedin Borojeny F, Aledavood AR, Seyed S, Miner M, Saeb Taheri GR. Prevalence of classical phenylketonuria in mentally retarded individuals in Iran. Journal of Inherited Metabolic Disease, December 2009, Volume 32, pp 283-287.
- Friedman JS, Ray JW, Waseem N, Johnson K, Brooks MJ, Hugosson T, Breuer D, Branham KE, Krauth DS, Bowne SJ, Sullivan LS, Ponjavic V, Gränse L, Khanna R, Trager EH, Gieser LM, Hughbanks-Wheaton D, Cojocaru RI, **Ghiasvand** NM, Chakarova CF, Abrahamson M, Göring HH, Webster AR, Birch DG, Abecasis GR, Fann Y, Bhattacharya SS, Daiger SP, Heckenlively JR, Andréasson S, Swaroop A. Mutations in a BTB-Kelch protein, KLHL7, cause autosomal-dominant retinitis pigmentosa. Am J Hum Genet. 2009 Jun;84(6):792-800.
- Abecasis GR, Yashar BM, Zhao Y, **Ghiasvand** NM, Zareparsi S, Branham KE, Reddick AC, Trager EH, Yoshida S, Bahling J, Filippova E, Elner S, Johnson MW, Vine AK, Sieving PA, Jacobson SG, Richards JE, Swaroop A. Age-related macular degeneration: a high-resolution genome scan for susceptibility loci in a population enriched for late-stage disease. Am J Hum Genet. 2004 Mar;74(3):482-94.
- **Ghiasvand** NM, Fleming TP, Helms C, Avisa A, Donis-Keller H. Genetic fine mapping of the gene for nonsyndromic congenital retinal nonattachment. Am J Med Genet. 2000 May 29;92(3):220-3.
- **Ghiasvand** NM, Kanis AB, Helms C, Sheffield VC, Stone EM, Donis-Keller H. Nonsyndromic congenital retinal nonattachment gene maps to human chromosome band 10q21. Am J Med Genet. 2000 Jan 17;90(2):165-8.
- **Ghiasvand** NM, Shirzad E, Naghavi M, Vaez Mahdavi MR. High incidence of autosomal recessive nonsyndromic congenital retinal nonattachment (NCRNA) in an Iranian founding population. Am J Med Genet. 1998 Jul 7;78(3):226-32.