

Dr. Mahsa Parviz

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EDUCATION

- Post-Graduate Certificate, Applied Biostatistics
 Harvard Medical School Clinical and Translational Science Center Boston, MA (2015 2016)
- Program director: Brian Healy, PhD
- M.D./Ph.D., Neurobiology Candidate
 Hanvard Medical School/Graduate School
 - Harvard Medical School/Graduate School of Arts and Sciences Boston, MA (2008 2015)
 - Dissertation title: "Disorders of GABA metabolism: SSADH and GABA-transaminase deficiencies."
 - 2013 and 2014 Harvard Medical School Innovation Fellows Program Scholar (award accepted 2013-2014 and 2014-2015, declined 2015-2016).
 - Research Sub-Award Recipient for MD/PhD program, Harvard Clinical and Translational Science Center (NIH grant number 1 UL1 RR025758).
- B.S., Global Business, minor in Neuroscience University of Texas at Dallas – Richardson, TX (2011)
 - 2007 State of Texas Highest Ranking Graduate Scholarship, Texas Education Agency
- Honors High School Diploma
 - Willow Bend Academy Plano, TX (2007)
 - Class of 2007 Valedictorian

RESEARCH & CLINICAL EXPERIENCE

Instructor – Department of Surgery

Harvard Medical School (2015 - 2017)

• Seminars and lectures in General Surgery, Genetics, Neurology, Internal Medicine, and Pediatrics.

• Research Director – Department of Surgery

Harvard Medical School/Brigham and Women's Hospital - Laboratory for Surgical and Metabolic Research (2015 - 2016)

- Hospital and academic appointment by Chief Medical Officer Dr. Stanley G. Ashley.
- Received a generous bequest of the Harvard-based laboratory which formerly belonged to a leading transplant surgery innovator, the late Dr. Francis D. Moore, and continued independent research towards fulfilling residency requirements, collaborated with industry and academic institutions, mentored 4 M.D. fellows in General Surgery and 4 undergraduate students and one medical student over the time span of one year.

• Clinical Research Scientist

- The Epilepsy and Clinical Neurophysiology Center at Boston Children's Hospital (2014 2016)
- Received the merit-based William G. Lennox Scholars in Medicine Award at Harvard Medical School for research of pediatric neurotransmitter disorders under the mentorship of Dr. Phillip L. Pearl, M.D, HMS William G. Lennox Chair and Professor of Neurology and Boston Children's Hospital Director of The Epilepsy and Clinical Neurophysiology Center.
- Brief overview of experience includes patient database oversight, manuscript preparation, textbook chapter editing, observing patients in the Epilepsy Center, identification of mutations in the *ALDH5A1* gene, construction of national posters and research involvement in the development of an NIH-funded phase II clinical trial of SGS-727 therapy in SSADH deficiency (NCT02019667).

Research Scientist

The Tannous Laboratory at Massachusetts General Hospital Department of Neurology (2014 - 2015)

• In vivo and in vitro experimentation of two novel drug therapeutics for glioma stem cell therapy in the MGH Experimental Therapeutics and Molecular Imaging Laboratory under the guidance of Dr. Bakhos Tannous, Ph.D., and Dr. Christian Badr, Ph.D.

• Visiting Research Scholar

The Saint-Geniez Laboratory at Schepens Eye Research Institute (2014 - 2015)

• Conducted dry Age-related Macular Degeneration (AMD) research and investigated the phagocytotic pathway of photoreceptor outer segment (POS) and fetal human retinal pigment epithelium.

Research Committee Member

Crimson Care Collaborative - Massachusetts General Hospital Revere Pediatrics (2013)

• Performed data analysis working as a member of the Harvard Medical School student-faculty free clinic.

PROFESSIONAL & RELEVANT EXPERIENCE

• Founder

Mahsa Parviz, LC. d/b/a/ Parviz Pharmaceuticals and Health Systems (2014 - Present)

• <u>Developed clinical research organization in 2014 through funding by Harvard Medical School's Center for Primary Care Innovation Fellows</u> <u>Program</u> (merit-based selection criteria) in conjunction with Brigham and Women's Hospital under the mentorship of HMS professor Dr. Rose M. Kakoza, M.D., M.P.H.

- Incorporated Wyoming-based LLC in 2016 for which I oversee all SOPs, NDAs, compliance, regulatory affairs, legal affairs, outreach efforts and
 presentations to industry leaders with special emphasis on industry drug development and multidisciplinary health care redesign.
- Recruited and trained team of physicians, medical assistants, nurses, graduate and medical students for an initial pilot phase of the advanced, centralized, multidisciplinary high-risk care management program.
- U.S. NPI: 1679045041 registered for Mahsa Parviz provider specialty in Plastic and Reconstructive Surgery (physician/general surgery) and Research Study (organization); Durable Medical Equipment distribution license # 1001962 active in State of Texas.

• Founder

STEPS to Health, Inc. (2013 - Present)

- Developed academic research organization in 2013 through funding by Harvard Medical School's Center for Primary Care Innovation Fellows <u>Program</u> (merit-based selection criteria) in unison with Boston Children's Hospital under the mentorship of HMS professor Dr. Jennifer K. Cheng, M.D.
- Incorporated in 2015 as a Massachusetts-based non-profit corporation for which I serve as PI/Study director of several parallel clinical trials with oversight of pre-clinical trials.
- Developed validated clinical tools, health coach training curriculum, and co-authored guidebook on implementing our health coaching model for use at universities and hospitals across the nation and worldwide.
- Recruited and trained team of 6 Harvard undergraduates and 3 graduate students for initial pilot phase of health coaching program where at-risk families of obese and over-weight pediatric patients were educated on how to adopt healthy behaviors and the physician health goals were monitored.
- Co-Founder

Pharmaceutical Products of America, Corp. (2012 - 2014)

• Incorporated compounding pharmacies and diagnostic facilities in Dallas/Ft. Worth metroplex.

• Co-Founder

Zelletek, LLC (2008 - 2013)

- Managed day-to-day operations of the nascent biotechnology company specializing in biosensor development and real-time cell culture assays for toxicity testing in drug development and personalized cancer treatment.
- Established and maintained relations with academic institutions and research corporations such as George Mason University, Stanford University and Plexon Inc.

• Senior Advisory Board Member & Private Consultant

UNT Center for Network Neuroscience (2007 - 2018)

- Conducted audits, maintained primary responsibility of research facility for announced/unannounced FDA and USDA audits, and oversaw all matters pertaining to compliance, legal, and regulatory requirements for home laboratory, external clinical trials, and satellite facilities.
- Private consultant for clinical trials and commercialization of drugs and biomedical devices to industry leaders, including Fortune 100 buyers.
- Completed J-Term project from Dec. 2013 Jan. 2014 conducting independent research and developing continuous glucose monitoring device for use in cell culture and delivered educational presentation on diabetes mellitus and synopsis of specific parameters which were to be improved upon integrating the new continuous glucose monitoring system to Department of Biological Science and research team.

SELECTED PEER-REVIEWED PUBLICATIONS*, BOOK CHAPTERS* AND PROFESSIONAL MEMBERSHIPS*

- Parviz M, Vogel K, Gibson KM, Pearl PL. <u>Disorders of GABA metabolism: SSADH and GABA-transaminase deficiencies</u>. J Pediatr Epilepsy. 2014;3(4):217-227. <u>Publisher's Version</u>
- Parviz M, Kaptain GJ, Vincent DA, Sheehan JP, Laws ER. <u>Transsphenoidal Approaches for the Extracapsular Resection of Midline Suprasellar</u> and Anterior Cranial Base Lesions: Revision. Neurosurgery. 2015;(49):94-101.
- Pearl PL, Parviz M, Vogel K, Schreiber J, Theodore WH, Gibson KM. <u>Inherited disorders of gamma-aminobutyric acid metabolism and advances</u> in <u>ALDH5A1 mutation identification</u>. Dev Med Child Neurol. 2015;57(7):611-7.
- Yuskaitis CJ, Parviz M, Loui P, Wan CY, Pearl PL. <u>Neural Mechanisms Underlying Musical Pitch Perception and Clinical Applications Including</u> <u>Developmental Dyslexia</u>. Curr Neurol Neurosci Rep. 2015;15(8):574.
- Lapalme-Remis S, Lewis E, De Meulemeester C, Chakraborty P, Gibson KM, Torres CH, Guberman A, Salomons G, Jakobs C, Ali-Ridha A, Parviz M, Pearl PL. <u>Natural history of succinic semialdehyde dehydrogenase deficiency through adulthood.</u> Neurology. Aug 12 2015.
- Pearl PL, Koenig MK, Riviello J, Christie M. Bain J, Averill K, Chung WK, Chiriboga CA, Hodgeman R, Parviz M, Gibson KM. <u>Novel Intervention in</u> <u>Gaba-transaminase Deficiency</u>. Annals of Neurology. 78:S177-S178 Oct 1 2015.
- Pearl PL, Parviz M, Hodgeman R, Gibson KM. <u>Succinic semialdehyde dehydrogenase deficiency</u>. In: Reimschisel T (ed.) MedLink Neurology. San Diego, California: MedLink Corporation; Apr 16, 2016.
- Pearl PL, Parviz M, Hodgeman R, Gibson KM. <u>GABA-transaminase deficiency</u>. In: Reimschisel T (ed.) MedLink Neurology. San Diego, California: MedLink Corporation; May 3, 2015.
- Attri SV, Singhi P, Wiwattanadittakul N, Goswami JN, Sankhyan N, Salomons GS, Roullett J, Hodgeman R, Parviz M, Gibson KM, Pearl PL. <u>Incidence and Geographic Distribution of Succinic Semialdehyde Dehydrogenase (SSADH) Deficiency.</u> In: JIMD Reports, Volume 34. Berlin, Germany: Springer Nature; Nov 5 2016.
- Pearl PL, Parviz M. Chapter 61: Overview of Seizures and Epilepsy in Children. In: Swaiman's Pediatric Neurology: Principles and Practice, 6e. Elsevier Health Sciences. Mar 16 2017.

- Pearl PL, Parviz M. Chapter 76: Inherited Metabolic Epilepsies. In: Swaiman's Pediatric Neurology: Principles and Practice, 6e. Elsevier Health Sciences. Mar 16 2017.
- Parviz M, Parviz M, From Bench to Bedside: Reducing Novel Therapeutic Platforms to Practice. In: Bloom BH (ed.) Medicine and Materials Express. Vol. 1. 1st ed. Boston: Harvard Health Publications; 2011. pp. 735-751. Publisher's Version
- Parviz M, Parviz M. From Bench to Bedside: Drug Development Methods in Personalized Medicine. In: Bloom BH (ed.) Medicine and Materials Express. Vol. 1. 1st ed. Boston: Harvard Health Publications; 2011. pp. 752-763. Publisher's Version
- Parviz M, Parviz M. From Bench to Bedside: Microelectrode Arrays in Personalized Medicine. In: Bloom BH (ed.) Medicine and Materials Express. Vol. 1. 1st ed. Boston: Harvard Health Publications; 2011. pp. 764-779. Publisher's Version
- Parviz M, Parviz M. From Bench to Bedside: CRISPR and Gene Editing in Personalized Medicine. In: Bloom BH (ed.) Medicine and Materials • Express. Vol. 1. 1st ed. Boston: Harvard Health Publications; 2011. pp. 780-787. Publisher's Version
- Massachusetts Medical Society
- American Neurological Association
- American Academy of Neurology
- MedLink
- American Heart Association
- American Society of Cytopathology
- Harvard Federalist Society

	HONORS		
2005	Science & Technology Young Achiever, American Collegiate Accreditation Association		
2007	State of Texas Highest Ranking Graduate Scholarship, Texas Education Agency		
2007	The Gerald D. Cagle Prize for Research and Development, Alcon		
2007	Southern Methodist University President's Scholarship (declined)		
2007	U Michigan Medical Scholarship (declined)		
2007	Baxter Foundation / Stanford Medical School Scholarship (declined)		
2008-2012	Research Sub-Award Recipient, Harvard Clinical and Translational Science Center (NIH grant number 1 UL1 RR025758)		
2010	Mannick Research Award		
2010	Peter Bent Brigham Scholar		
2012	Graduate Travel Scholarship for Academic Distinction and Service from FIRE (a non-profit organization of advocates in		
	higher education), Harvard University		
2012	Graduate Travel Scholarship for Healthcare Policy Reform from the Leadership Institute, Harvard University		
2012-2013	Clare Booth Luce Ladies Scholarship for Leadership, Harvard University		
2013	Robert Osteen Teaching Award, Harvard Medical School		
2013-2015	Innovation Fellows Program Award, Harvard Medical School (accepted 2013-14 and 2014-15, declined 2015-16)		
2013-2018	Research Sub-Award Recipient, Harvard Clinical and Translational Science Center (NIH grant number 1 UL1 TR001102)		
2013-2018	Research Sub-Award Recipient, Harvard Medical School and Boston Children's Hospital (NIH/NINDS clinical trial identifier NCT02019667)		
2014-2016	The William G. Lennox Scholars in Medicine Award, Harvard Medical School and Boston Children's Hospital		
2014	Health Accelerator Challenge Top Ideator, Harvard Medical School and Harvard Business School		
2015	Partners in Excellence Award, Brigham and Women's Hospital		
2015	Kessler Young Faculty Award, Brigham and Women's Hospital		
2015	Simonian-Murray Prize for Research Excellence in Surgery, Brigham and Women's Hospital		
2015	Excellence in Teaching Award, Harvard Medical School		
2016-2017	Editorial Board Award for Medical Advancement, MedLink Neurology		
2016-2018	Expert Reviewer Award for Rare Disease Research, Orphanet		
RESEARCH SUPPORT			

Ongoing Research Support

Departmental Grant (Restricted); Neurology Boston Children's Hospital Evaluation of Pediatric Neurotransmitter Disorders Role: Co-Investigator	Pearl, Phillip L. (PI)	07/01/14 – 07/01/19
Completed Research Support		
NCT02019667 NIH/NINDS Phase 2 Clinical Trial of SGS-742 Therapy in Succinic Semialdehyde Dehyd Role: Co-Investigator and Trial Coordinator	Theodore, William H. (PI) rogenase Deficiency	12/10/13 – 11/30/18
Departmental Grant (Restricted); Biological Sciences University of North Texas Center for Network Neuroscience Role: Co-Investigator	Gross, Guenter W. (PI)	04/01/17 – 05/31/18

1UL1TR001102; 1TL1TR001101; 1KL2TR001100 NIH/NCATS Harvard Clinical and Translational Science Center Role: Co-Investigator	Nadler, Lee M. (PI)	09/26/13 – 04/30/18	
Departmental Grant (Unrestricted); Surgery Brigham and Women's Hospital Laboratory for Surgical and Metabolic Research Role: Co-Investigator	Ashley, Stanley W. (PI)	07/01/11 – 06/30/17	
1R01DK084064 NIH/NIDDK Surgical Modulation of Intestinal Nutrient Transport Role: Co-Investigator	Tavakkoli, Ali (PI)	09/30/11 – 08/31/16	
Innovation Fellows Program Award Kakoza, Rose M. (PI) 10/01/14 – 09/30/15 Harvard Medical School A Pilot Complex Care Management Team for Highly Complex and Chronically Comorbid Diabetic Patients (Restructuring and Ambulatory ICU in a Large Academic Medical Center) Role: Co-Investigator			
William G. Lennox Scholars in Medicine Award Harvard Medical School Advancing mutational identification and analyzing disorders of GABA metabolism: SSAI Role: PI	Parviz, Mahsa (PI) DH and GABA-transaminase deficiencies	07/01/14 – 05/31/15	
Young Clinician Award CIMIT/Boston Biomedical Innovation Center (NCAI/NHLBI) Development of a Minimally Invasive Endoluminal Therapy for the Metabolic Complicati Role: Co-Investigator	Sheu, Eric G. (PI) ons of Obesity	04/01/14 – 04/01/15	
Innovation Fellows Program Award Harvard Medical School Students as Health Coaches in a Team-Based, Patient-Centered Obesity Care Model Role: Co-Investigator	Cheng, Jennifer K. (PI)	10/01/13 – 09/30/14	