

Mitra Afshari, MD MPH
Rush University

CURRICULUM VITAE

Name: Mitra Afshari, MD, MPH

Position: Assistant Professor of Neurology

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EDUCATION

2002 - 2006	Northwestern University	BS	Biomedical Engineering, graduated with honors	Thesis work in biomimetic chemistry under Dr. SonBinh Nguyen.
2007 - 2012	Feinberg School of Medicine, Northwestern University	MD	Medicine	
2007 - 2012	Graduate Program in Public Health, Northwestern University	MPH	Public Health	Thesis work in Sudden Unexpected Death in Epilepsy (SUDEP) under Dr. Stephen Schuele.
2012 - 2013	Feinberg School of Medicine, Northwestern University	Internship	Internal Medicine	
2013 - 2016	Feinberg School of Medicine, Northwestern University	Residency	Neurology	Member of the inaugural resident class of <i>McGaw Global Health Clinical Scholars</i> .
2016 - 2018	University of California, San Francisco	Fellowship	Movement Disorders	

PRIMARY POSITIONS HELD

2018-present Rush University, Department of Neurology
Parkinson's Disease and Movement Disorders Program
Assistant Professor of Neurology

LICENSES, CERTIFICATION

2012 Medical License, The Medical Board of Illinois
2016 Medical License, The Medical Board of California
2016 DEA Certification Number (active)
2016 Board Certification, American Board of Psychiatry & Neurology
2018 Medical License (active), The Medical Board of Illinois

HONORS AND AWARDS

2006	Student Award for Excellence in Research <i>Research Project: A Catechol-Functionalized (Salphen)Zn^{II} Molecular Tweezer: Synthesis and Application as an Artificial Enzyme for Acyl-Transfer Reaction.</i> <i>Awarded to one graduating senior in Biomedical Engineering.</i>	Department of Biomedical Engineering, Northwestern University
2006	Student Award for Excellence in Design <i>Senior Project: Shoulder Dystocia Simulation Mannequin--The Sally Doll.</i>	Department of Biomedical Engineering, Northwestern University
2008	Feinberg Office of Minority and Cultural Affairs Student Grant <i>Awarded to pursue culturally-sensitive research in Uganda.</i>	Feinberg School of Medicine, Northwestern University
2008	Program in Public Health Grant <i>Awarded to pursue Public Health research in Uganda.</i>	Graduate Program in Public Health, Northwestern University
2008	Student "Voices from the Field" Symposium <i>Chosen to present field research work on infant HIV diagnostics in Uganda.</i>	Feinberg School of Medicine, Northwestern University
2008	"Feinberg Spotlight" <i>Chosen to be featured on the School of Medicine website for research work in Uganda.</i>	Feinberg School of Medicine, Northwestern University
2009	Public Health Travel Fund <i>Awarded to attend the 6th Annual Unite for Sight Global Health & Innovation Summit at Yale University.</i>	Graduate Program in Public Health, Northwestern University

2010	Runner-up team, 2010 Social Entrepreneurship in Health & Wellness Competition, sponsored by the CHEST Foundation	Kellogg School of Management, Northwestern University
2011	Global Health Initiative Travel Grant <i>Awarded to pursue a clinical service trip in the Himalayan region of India.</i>	Center for Global Health, Feinberg School of Medicine, Northwestern University
2011	International Health Fellowship <i>Awarded to pursue an infectious disease research project in Uganda.</i>	Center for Global Health, Feinberg School of Medicine, Northwestern University
2012	2012 International Emory Global Health Competition <i>Chosen to be a member of the first-ever Northwestern team to compete.</i>	Emory Global Health Institute, Emory University
2015	Travel Award <i>Awarded to one Neurology resident chosen by our residency program to travel to the annual AAN conference, during my PGY3 year.</i>	American Academy of Neurology
2015	McGaw Global Health Clinical Scholars <i>Chosen as one of the founding members to participate in this training program.</i>	Center for Global Health, Feinberg School of Medicine, Northwestern University
2015	Acute Stroke Door-to-Needle Time Achievement Award <i>Awarded for a door-to-needle time of 18 minutes.</i>	Department of Neurology, Feinberg School of Medicine, Northwestern University
2017	Medtronic Healthcare Professional-in-Training Grant <i>Awarded to attend the Advanced Deep Brain Stimulation for Movement Disorders Conference in Grenoble, France in October 2017</i>	Medtronic
2018	MDS-PAS Fellowship Scholarship	International Parkinson and Movement Disorder Society

KEYWORDS/AREAS OF INTEREST

- Parkinson's Disease
- Neurostimulation and neuromodulation for the treatment of Parkinson's disease, tremor disorders, dystonia, and other movement disorders
- Deep brain stimulation
- Botulinum toxin injections, dystonia, spasticity
- Telemedicine, telehealth, teleneurology, telerehabilitation
- Palliative care

- Clinical outcomes research
- Medical education, curriculum development
- Quality-improvement
- Epidemiology, epigenetics, genetics and environment interaction

CLINICAL ACTIVITIES SUMMARY

I am a young Neurologist who is specializing in Parkinson's Disease (PD) and Movement Disorders (such as dystonia and tremor disorders). I completed my two-year Movement Disorders fellowship at the University of California, San Francisco (UCSF), both at the UCSF Movement Disorder and Neuromodulation Center and the San Francisco VA's Parkinson's Center of Excellence (SFVAMC PADRECC). My training at UCSF was under the guidance of academic Neurologists, Drs. Caroline Tanner, Jill Ostrem, Philip Starr, Paul Larson, Nicholas Galifianakis, Marta San Luciano, Ian Bledsoe, and Alexandra Nelson.

At UCSF, I trained at one of the leading and busiest multidisciplinary deep brain stimulation (DBS) centers in the world. I participated in the comprehensive care of patients with Movement Disorders, especially PD and dystonia, and was intimately involved in multidisciplinary consultations with Neurology, Neurosurgery, and Neuropsychiatry regarding surgical candidacy, follow-up treatment which includes advanced DBS programming, medication management, and more recently, even the practice of intestinal levodopa infusions (i.e. Duopa). I also participated in the botulinum toxin injection clinic, one of the busiest in northern California, and learned injection techniques and strategies from four different senior attendings with the use of electromyography as well as ultrasound in the treatment of dystonia, spasticity, blepharospasm, and hemifacial spasm.

At the SFVAMC PADRECC clinic, I was afforded two unique opportunities: training in **teleneurology**, where I conducted both follow-up and new patient evaluations over video, as well as training in advanced Movement Disorders care via our monthly **palliative care clinic**. The SFVAMC PADRECC is one of few centers that has championed telemedicine as part of standard clinical care, and they have innovated the use of telemedicine to evaluate potential DBS candidates across the country. UCSF is also a leading site for recent NIH-funded clinical projects aimed at developing palliative care for parkinsonian disorders, and the SFVAMC PADRECC has developed a monthly Supportive Care Clinic in which I trained in as a fellow.

In terms of innovation, telemedicine and palliative care for Movement Disorders has become a focus of my early career now. During my 2 years at UCSF, I helped my Fellowship Program Director, Dr. Nicholas Galifianakis, develop and implement a curriculum for a ***first-in-its-kind teleneurology rotation*** for UCSF Neurology senior residents at the SFVAMC. Along with our colleagues at Johns Hopkins University, Dr. Galifianakis and I have also partnered and launched a ***multidisciplinary palliative care telemedicine clinic for patients with atypical parkinsonian disorders***, a project that is ongoing and funded by the Movement Disorders Society (MDS). Dr. Galifianakis and I most recently partnered with the UCSF Physical Therapy department and developed a pilot study of ***“telerehabilitation” or “telephysical therapy”*** for early-PD patients to help prevent falls, funded by the Parkinson's Foundation.

I am joining the Neurology faculty at Rush University as a Movement Disorders specialist as of August 2018, where I will be seeing a variety of Movement Disorders referrals and will be significantly involved in their DBS program. I will be a part of the multidisciplinary DBS at Rush where I will be evaluating patients from within our practice and outside for DBS, performing post-operative DBS programming, and managing their longterm care. I will also be performing botulinum toxin injections for the treatment of dystonia and other Movement Disorders.

MEMBERSHIPS

- 2005 - 2006 Tau Beta Pi Honors Engineering Society
- 2013 - present American Academy of Neurology
- 2016 - present International Parkinson and Movement Disorder Society (MDS), Young Members Group

SERVICE TO PROFESSIONAL PUBLICATIONS

- 2018 - present Reviewer, *Movement Disorders Clinical Practice*
- 2017 - 2018 Co-reviewer, 2 publications with Dr.Jill Ostrem of UCSF for *JAMA Neurology*

INVITED PRESENTATIONS

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|-----------|--|-------------------------|
| 2014 | <i>Neuroanatomy Case Presentation: Acute Meningoencephalomyelitis</i>
Department of Neurology, Northwestern University | Presenter
(resident) |
| 2015 | <i>Diffuse Leptomeningeal Rosai-Dorfman Disease--Case of a 22 year old woman who presented with acute right-sided acute hearing loss, pain, and tinnitus</i>
Grand Rounds, Department of Neurology, Northwestern University | Presenter
(resident) |
| 2015 | <i>Neuroanatomy Case Presentation: Hemiballismus</i>
Department of Neurology, Northwestern University | Presenter
(resident) |
| 2015-2016 | <i>Morbidity & Mortality Conference for General Neurology Service</i>
Department of Neurology, Northwestern University | Presenter
(resident) |
| 2015-2016 | <i>Morbidity & Mortality Conference for Stroke Service</i>
Department of Neurology, Northwestern University | Presenter
(resident) |
| 2016 | <i>Basics of Neuroradiology</i>
Medical Student Neurology Clerkship, Department of Neurology, Northwestern University | Presenter
(resident) |
| 2016 | <i>Motivators and Barriers to Exercise in Parkinson's Disease</i>
Grand Rounds, Department of Neurology, Northwestern University | Presenter
(resident) |
| 2016 | <i>Intracranial Dural Arteriovenous Fistulas--Case of a 28 year old man who presented with acute ataxia, dysarthria, and trouble breathing</i>
Grand Rounds, Department of Neurology, Northwestern University | Presenter
(resident) |
| 2016 | <i>Transcranial MRI-guided Focused Ultrasound Lesioning: A review of the literature for essential tremor</i>
Basal Ganglia Journal Club, University of California, San Francisco | Presenter
(fellow) |

2017	<i>The Gut & PD: Connections between Microbiota and PD Pathogenesis</i> Movement Disorders Interest Group, University of California, San Francisco	Presenter (fellow)
2017	<i>Zonisamide in Movement Disorders: A review of the literature</i> UCSF-UCLA Joint PADRECC Journal Club	Presenter (fellow)
2017	<i>MR Imaging Guidelines in Deep Brain Stimulation</i> Bay Area Basal Ganglia Club, San Francisco, California	Presenter (fellow)
2018	<i>A review of Extended-Release Amantadine ER for Levodopa-Induced Dyskinesias in PD—The EASE-LID Study</i> UCSF-UCLA Joint PADRECC Journal Club	Presenter (fellow)
2018	<i>New Disease-Modifying Drug Trials for Parkinson's Disease</i> Bay Area Basal Ganglia Club, San Francisco, California	Presenter (fellow)

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

2014	<i>8th Annual John Hopkins Dystonia and Spasticity Practicum</i> Rush University and John Hopkins University, Chicago, IL
2015	<i>International Parkinson & Movement Disorders Society School of Young Neurologists</i> Emory University, Atlanta, GA
2015	<i>American Academy of Neurology (AAN) 67th Annual Meeting</i> Washington, DC
2015	<i>American Academy of Neurology (AAN) 68th Annual Meeting</i> Vancouver, BC
2015	<i>New Frontiers in the Diagnosis and Management of Movement Disorders</i> Northwestern University, Chicago, IL
2016	<i>A Comprehensive Review of Movements Disorders for the Clinical Practitioner</i> Aspen, CO
2016	<i>5th Annual Cleveland Clinic Comprehensive Neurotoxin Course for Neurological Conditions</i> Cleveland Clinic, Cleveland, OH
2016-2018	"Bay Area Basal Ganglia Club" (UCSF, Stanford, Parkinson's Institute, Kaiser and other community Movement Disorders Specialists), San Francisco, CA
2016-2018	UCSF Movement Disorders Interest Group, San Francisco, CA
2017-2018	<i>1st and 2nd Annual UCSF Movement Disorders Research Retreat</i> San Francisco, CA
2017	<i>50th Annual UCSF Recent Advances in Neurology Conference</i> San Francisco, CA

- 2017 *2017 International Congress of Parkinson's Disease & Movement Disorders*
Vancouver, BC
- 2017 *Advanced Deep Brain Stimulation for Movement Disorders Conference*
Institut des Neurosciences, Grenoble, France
- 2017 *Allergan Neuroscience Regional Botulinum Toxin Injection Training Cadaver Course*
Allergan, Irvine, CA
- 2017 *6th Annual Comprehensive Neurotoxin Course for Neurological Conditions*
Cleveland Clinic, Cleveland, OH
- 2017 *Medtronic DBS Graduating Fellows Program*
Minneapolis, MN
- 2018 *American Academy of Neurology (AAN) 70th Annual Meeting*
Los Angeles, CA
- 2018 *Parkinson Study Group (PSG) 29th Annual Meeting and Symposium*
Jersey City, NJ
- 2018 *2nd Pan-American Parkinson's Disease and Movement Disorders Congress (MDS-PAS)*
Miami, FL

DEPARTMENTAL SERVICE

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|-------------|---|---|
| 2008 - 2009 | Medical school admissions committee member | Feinberg School of
Medicine,
Northwestern
University |
| 2016 - 2018 | Teleneurology resident rotation: curriculum design, implementation, and instruction | University of
California, San
Francisco |

COMMUNITY AND PUBLIC SERVICE

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|-------------|---|-----------------|
| 2007 - 2009 | Chicago Youth Programs Pediatric Clinic
Feinberg School of Medicine, Northwestern University
<i>Lead a weekly free Pediatric clinic for underserved children.</i> | Coordinator |
| 2007 - 2008 | Chicago Youth Programs Art Program
Feinberg School of Medicine, Northwestern University
<i>Lead a weekly afterschool arts program for underserved children.</i> | Coordinator |
| 2008 | 1st Annual Alternative Spring Break
Feinberg School of Medicine, Northwestern University
<i>Planned and participated in a weeklong service trip to a Native American community in South Dakota.</i> | Founding member |

2011	Rural Medicine in Mexico Oaxaca, Mexico <i>Worked in underserved Primary Care clinics in Puerto Escondido, Mexico, developed and delivered Public Health talks on infectious disease vector control and maternal and child health.</i>	Founding member
2011	Himalayan Health Exchange Himachal Pradesh, India <i>Embarked on a 30-day expedition through the Himalayan Mountains, setting up clinics at 7 sites to provide healthcare for local underserved populations.</i>	Participant

CONTRIBUTIONS TO DIVERSITY

I am a 1st-generation immigrant from Iran and one of 3 sisters. My parents immigrated to the United States from their home in Iran during the Iranian Revolution in order to unlock educational opportunities for their daughters, making many sacrifices in their own careers and personal lives. From a young age, I was taught the values of hard work and perseverance, and that you must earn your opportunities. My very humble beginnings allow me to be able to connect with a diverse range of patients and professionals. And a significant portion of my work thus far reflects how I gravitate towards those who are underserved and underprivileged, as seen in my community service, Public Health, and Global Health work.

Of note, while in medical school, I spearheaded a student group called the Health Disparities Taskforce. Our group worked to educate students about disparities in health and healthcare access. I helped to organize an inaugural 2-week speaker series of leaders in this field from around the nation, which has since become a part of the 1st year medical school core curriculum.

TEACHING SUMMARY

During my undergraduate years, I realized my love for teaching and this is now fueling my desire to be an academic Neurologist. I was chosen by my professors to act as a Teacher's Assistant for two undergraduate courses in the Department of Biomedical Engineering and the Department of Asian & African Languages: Biothermodynamics and Elementary Farsi, respectively. In medical school, I led a student group of likeminded 2nd year students to develop "mock" anatomy practical examinations for our class. When I decided on Neurology as my specialty, I wrote an educational piece for the Residents & Fellows 'Pearls & Oysters' section of *Neurology* with my faculty mentor during my 4th year of medical school. During residency, I was involved in many educational activities as well: I spearheaded the creation of our residency's clinical pocket 'Neurology Survival Guide,' worked as a Neurology Problem-Based Learning instructor for 1st and 2nd year medical students for 2 years, and lead multiple lumbar-puncture training workshops for medical students.

During my fellowship at UCSF, in addition to being involved in the development and implementation of UCSF's resident Teleneurology curriculum with my fellowship program director, Dr. Nicholas Galifianakis, I have been a leader with regards to improving the educational experience. For the Teleneurology rotation, I developed a survey-based observational study of residents who rotated through this curriculum to evaluate efficacy, barriers, and knowledge-base of telemedicine, ultimately with the goal to improve the rotation (being submitted for publication to the Residents & Fellows section of *Neurology*). For the

fellowship, I worked alongside Dr. Galifianakis to develop and launch 2 new fellows' teaching conferences: "Hot Topics in Movement Disorders" and the "Gaps Conference." I also worked alongside Dr. Nijee Luthra, the newest junior Movement Disorders faculty at UCSF, to draft and edit a "Fellows' Handbook" for our incoming fellows. This is a 30-page guide that includes details on several logistical considerations for the fellowship and clinic (schedules, phone numbers, billing, coding, genetic testing, specialty medication orders, etc.) as well as guides on providing Movement Disorders patients at the SFVAMC and UCSF with the best resources (advanced care, support groups, etc.).

FORMAL TEACHING

Academic Year	Course Title	Teaching Contribution	School	Class Size
2005 - 2006	Biothermodynamics	Teacher's Assistant	Department of Biomedical Engineering, Northwestern University	75 undergraduates
2005 - 2006	Elementary Farsi	Teacher's Assistant	Department of Asian & African Languages, Northwestern University	3 undergraduates
2014 - 2015	Problem-Based Learning Course, Neurology section	Instructor	Feinberg School of Medicine, Northwestern University	8 1st and 2nd year medical students
2015 - 2016	Lumbar Puncture Training	Instructor	Feinberg School of Medicine, Northwestern University	6 3rd and 4th year medical students
2016-2018	Teleneurology	Instructor	Department of Neurology, Division of Movement Disorders, University of California, San Francisco	11 3 rd and 4 th year Neurology residents

RESEARCH SUMMARY

During my undergraduate years, I completed a rigorous curriculum in Biomedical Engineering where I graduated with Departmental Honors and was recognized at my graduation for my research work in biomimetic synthetic chemistry. During medical school, I completed a combined MD-MPH during my 4 years, ultimately completing my MPH research thesis work on Sudden Unexplained Death in Epilepsy (SUDEP). However, during my years in medical school, I also traveled to Mexico, India, and Uganda in my dedication to Global Health for both clinical and research-related trips. One of these projects involved contributing to the initial field research required to launch a novel point-of-care, rapid infant HIV diagnostic device in Uganda, bridging my Biomedical Engineering, Medical, and Public Health backgrounds. This work was funded by the Grand Challenges in Global Health Grants of the Bill & Melinda Gates Foundation and was presented at multiple conferences relevant to HIV. The device has now been developed and piloted abroad by Biomedical Engineering Professor Dr. David Kelso at Northwestern University.

During residency, I contributed to multiple publications/poster presentations across Neurology subspecialties. I graduated my residency having submitted 5 of the 7 publications/poster presentations produced from members of my graduating class over the course of our residency.

Below is a summary of my latest research work in the field of Movement Disorders. My current research interests in Movement Disorders include the epidemiology of PD, clinical trials, telemedicine, Neurology education and curriculum development, palliative care in Movement Disorders, and quality-improvement strategies.

Exercise in Parkinson's Disease

Principal Investigator

2016

During my final year of residency, I pursued a cross-sectional survey-based study into the motivators and barriers that impact exercise participation in PD. I was able to collect 215 surveys from PD patients over 4 months and draw important conclusions that were then presented at the 20th International Congress of Parkinson's Disease and Movement Disorders in Berlin in June 2016. This work was published in the *Journal of Parkinson's Disease* in November 2017.

Parkinson's Disease Inpatient Orderset

Principal Investigator

2015-ongoing

I contributed to a hospital quality-improvement project where we have created and now launched the first-ever PD-specific inpatient orderset at Northwestern Memorial Hospital. A previous retrospective chart review of PD inpatients had found that in one year, 50.5% of this patient population experienced medication errors or did not get their medications at all. This orderset tries to combat this issue and includes: medication reconciliation, PD-specific medications with various dosing options, a list of contraindicated medications for PD patients, built-in nursing alerts for medication administration, safety-related orders, and PD-specific physical and occupational therapy orders. The preliminary results of this project were presented at the *29th Parkinson Study Group Meeting* in May 2017, and final results will be presented at the *2018 International Congress of Parkinson's Disease and Movement Disorders* in Hong Kong, China.

Clinical Trial of Immunotherapy in Parkinson's Disease

Site Study Clinician

2017-ongoing

Sponsor: F. Hoffman-La Roche, Ltd.

"A Randomized, double-blind, placebo-controlled, 52-week phase II study to evaluate the efficacy of intravenous RO7046015 (PRX002) in participants with early Parkinson's Disease with a 52-week blinded extension." (PASADENA), PROTOCOL BP39529

While at UCSF, I was a study site clinician on the one of the first Phase II trials of a monoclonal antibody directed against an epitope in the C-terminus of human α -synuclein in early-stage Parkinson's Disease under the principal investigators Drs. Caroline Tanner and Jill Ostrem and sponsored by Roche. I was able to attend the Investigator's Meeting for this study and was heavily involved in the IRB application process and logistical planning of the study implementation as this was actually one of our division's first clinical drug trials. As a study clinician, I assisted in the recruitment, screening, enrollment, and evaluations of the first

several subjects, including performing common PD-specific rating scales, skin biopsies, and lumbar punctures.

Imaging-Guided DBS Programming Support Tool

Site Study Clinician

2017-ongoing

Sponsor: NIH-NINR (R01 grant)

I was leading UCSF's efforts as part of a multicenter trial that is testing the efficacy of an imaging-guided DBS programming support tool developed by Professor Christopher Butson from the University of Utah, who had partnered alongside our Movement Disorders colleague at the University of Florida, Gainesville, Dr. Michael Okun. This trial is funded by an R01 grant from the National Institute of Health-National Institute of Nursing Research (NIH-NINR). This iPad-based support tool brings patients' own post-DBS imaging via computational modeling to the bedside to predict the volume-of-tissue-activated with different DBS stimulation parameters, making the DBS programming process easier and more time-efficient.

Teleneurology Curriculum for Neurology Residents

Co-Principal Investigator

2017-ongoing

Alongside Dr. Nicholas Galifianakis, a champion in the work of telemedicine in Neurology, I have been involved in the development and implementation of a "Teleneurology" curriculum for senior Neurology residents, one of the first-in-its-kind. We have also developed and launched a survey-based observational study of residents to evaluate efficacy, barriers, and knowledge-base on telemedicine before and after this rotation. And we presented our results of this study at the 70th Annual American Academy of Neurology Meeting in Los Angeles in April 2018 and the 2nd Pan-American Parkinson's Disease and Movement Disorders Congress. In Miami in June 2018. I have been approached by several residency program directors for guidance as they develop their own rotations, and we are drafting a manuscript of our work for the Residents & Fellows section of *Neurology*.

Palliative "Virtual Home Visits" in Atypical Parkinsonian Disorders

Co-Principal-Investigator

2017-ongoing

Sponsor: International Parkinson and Movement Disorder Society (MDS)

With UCSF being a leading site for recent NIH-funded clinical research aimed at developing multidisciplinary palliative care clinics for patients with advanced parkinsonism, I teamed up with Dr. Nicholas Galifianakis again and our colleague Alexander Pantelyat at Johns Hopkins University to launch an observational pilot study at UCSF aimed at delivering this type of care using telemedicine technology to atypical parkinsonian patients. We hope to demonstrate that "virtual" visits directly into the patient's home with a team consisting of a Movement Disorders specialist, nurse, chaplain, and social worker who focus on palliative care principles, can overcome the many barriers to accessing this type of care and improve other QOL measures for this patient population and their caregivers. This project is funded by the MDS; in fact, it was the single *telemedicine* clinical project to be funded by the MDS in 2017.

A Novel Telerehabilitation Strategy to Prevent Falls in in Parkinson's Disease

Sub-Investigator

2017-ongoing

Sponsor: Parkinson's Foundation

Drs. Tanner, Galifianakis, and I, along with our UCSF physical therapy colleagues, have developed an observational pilot study of "telerehabilitation" or "telephysical therapy" to prevent

falls in PD, which was funded by a Parkinson's Foundation Community Grant in Winter 2017 and is currently enrolling UCSF patients. Telerehabilitation is a novel concept in the telemedicine and physical therapy worlds that is growing in popularity. The goal of this study is to evaluate the feasibility, safety, and efficacy of delivering physical therapy remotely to PD patients using teleconferencing technology.

PEER-REVIEWED PUBLICATIONS

1. Cho, S-H, Gadzikwa T, **Afshari M**, Nguyen ST, Hupp JT. [Bis(catechol)salen]MnIII Coordination Polymers as Support-Free Heterogeneous Asymmetric Catalysts for Epoxidation. *European Journal of Inorganic Chemistry*. 2007; 31: 4863-4867.
2. **Afshari M**. Author, Step 1 Qmax, 2010 edition. Published by MedIQ Learning, LLC. Available at: <http://www.usmlerx.com>.
3. Schuele SU, **Afshari M**, Afshari ZS, Macken MP, Asconape J, Wolfe L, Gerard EE. Ictal central apnea as a predictor for sudden unexpected death in epilepsy. *Epilepsy & Behavior*. 2011; 22: 401-403.
4. **Afshari M**, Afshari ZS, Schuele SU. Pearls & Oysters: Hashimoto Encephalopathy. *Neurology*. 2012 May 29;78(22):e134-7.
5. **Afshari M**. A Case of a 24 year-old man with acute onset of bilateral vision loss. *Annals of Clinical and Translational Neurology*. interactn.org.
6. **Afshari M**, Yang A, Bega D. Motivators and barriers to exercise in Parkinson's Disease. *Journal of Parkinson's Disease*. 2017;7(4):703-711.
7. **Afshari M**, Galifianakis NG. Education Research: A Telemedicine Curriculum for Neurology Residents. *Neurology*. Resident & Fellow Section. In preparation.

BOOK CHAPTERS

1. **Afshari M**, Ostrem J, Starr P. Bilateral ventralis intermedius (Vim) thalamic deep brain stimulation (DBS) for medication-refractory orthostatic tremor. *Deep Brain Stimulation: A Case-Based Approach*. In: Chitnis S, Khemani P, Okun M, eds. Oxford University Press. In Submission.
2. **Afshari M**, Ostrem J, San Luciano M, Larson P. Rescue ventralis intermedius (Vim) thalamic deep brain stimulation (DBS) to address refractory tremor following subthalamic nucleus (STN) DBS with associated stimulation-induced dyskinesia. *Deep Brain Stimulation: A Case-Based Approach*. In: Chitnis S, Khemani P, Okun M, eds. Oxford University Press. In Submission.

CONFERENCE ABSTRACTS

1. Latigo M, **Afshari M**, Palamountain K, Kelso D. Exploring the feasibility of introducing rapid infant HIV testing in Ugandan prevention-of-mother-to-child-transmission (PMTCT) clinics. 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention. Cape Town, South Africa, 2009.

2. Latigo M, **Afshari M**, Palamountain K, Kelso D. Can single sample infant HIV test devices handle current test volumes in Ugandan health facilities? 1st International Workshop on HIV Pediatrics. Cape Town, South Africa, 2009.
3. **Afshari M**, Latigo M, Palamountain K, Kelso D. Assessing the need for rapid point-of-care infant HIV testing in Ugandan PMTC clinics. 137th Annual American Public Health Association Meeting and Exposition Student Poster Session. Philadelphia, PA, 2009.
4. **Afshari M**, Schuele S. Ictal central apnea as a predictor for SUDEP. American Epilepsy Society Annual Meeting. San Antonio, TX, 2010.
5. **Afshari M**, Raizer J. Diffuse Leptomeningeal Rosai-Dorfman Disease: A Case Report. American Academy of Neurology 67th Annual Meeting. Washington, D.C., 2015.
6. Nadkarni N, **Afshari M**, Kim M. "Spot Sign" After Trauma Suggestive of Venous Sinus Rupture: A Case Report. American Academy of Neurology 68th Annual Meeting. Vancouver, Canada, 2016.
7. Culler G, **Afshari M**, Maas M. Dural Arteriovenous Fistula, medullary edema, and Ondine's Curse: A Case Report. American Academy of Neurology 68th Annual Meeting. Vancouver, Canada, 2016.
8. **Afshari M**, Kianirad Y, Bega M. MOVE-PD Study: Motivators and Other Variables for Exercising in Parkinson's Disease. 2016 International Congress of Parkinson's Disease and Movement Disorders. Berlin, Germany, 2016.
9. Larson D, **Afshari M**, Kianirad Y, Ellinger LK, Zadikoff Z. Development of a Parkinson's Disease-specific Admission Orderset. 29th Annual Parkinson Study Group Annual Meeting & Symposium on Etiology, Pathogenesis, and Treatment of Parkinson's Disease and Other Movement Disorders. Jersey City, NJ, 2018.
10. Larson D, **Afshari M**, Kianirad Y, Ellinger LK, Zadikoff Z. Development of a Parkinson's Disease-specific Admission Orderset. 70th Annual American Academy of Neurology Meeting. Los Angeles, CA, 2018.
11. Larson D, **Afshari M**, Kianirad Y, Ellinger LK, Zadikoff Z. Development and Study of a Parkinson's Disease-specific Admission Orderset. 2018 International Congress of Parkinson's Disease and Movement Disorders. Hong Kong, China, 2018. *Accepted.*
12. **Afshari M**, Galifianakis NB. Developing a First-of-its-Kind Telemedicine Rotation for Neurology Residents. 70th Annual American Academy of Neurology Meeting. Los Angeles, CA, 2018.
13. **Afshari M**, Galifianakis NB. Developing a First-of-its-Kind Telemedicine Rotation for Neurology Residents. 2nd Pan-American Parkinson's Disease and Movement Disorders Congress. Miami, FL, 2018.
14. **Afshari M**, Galifianakis NB, Butala A, Pantelyat A, Guenther J. Palliative Virtual Home Visits for Atypical Parkinsonian Disorders. 2018 International Congress of Parkinson's Disease and Movement Disorders. Hong Kong, China, 2018. *Accepted.*
15. **Afshari M**, Galifianakis NB, Park CK, Patel M, Bhide H, Tanner CM. *A Novel Telerehabilitation Strategy to Prevent Falls in Parkinson's Disease*. 2018 International Congress of Parkinson's Disease and Movement Disorders. Hong Kong, China, 2018. *Accepted.*