Curriculum Vitae, Harvard Medical School Format

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Name: Amar Dhand

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Department of Neurology
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Education:

2001	A.B. Magna cum Laude	Biology modified with Psychological and Brain Sciences (major); English (minor)	Dartmouth College
2006	D.Phil. Rhodes scholar	Educational Studies (Supervisor: Geoffrey Walford)	Oxford University
2008	M.D.	Medicine	Harvard Medical School

Postdoctoral Training:

07/08-07/09	Intern	Internal Medicine	University of California, San Francisco
07/09-07/12	Resident	Neurology	University of California, San Francisco
07/12-07/13	Fellow	Neurohospitalist Medicine	University of California, San Francisco

Faculty Academic Appointments:

07/13-07/16	Assistant Professor	Neurology	Washington University School of Medicine
07/13-07/16	Assistant Professor	George Warren Brown School of Social Work	Washington University in St. Louis
07/16-present	Assistant Professor	Neurology	Harvard Medical School
07/16-present	Visiting Assistant Professor	Computer and Information Science	Northeastern University
11/19-present	Associate Professor	Neurology	Harvard Medical School

Appointments at Hospitals/Affiliated Institutions:

07/13-07/16	Attending Neurologist	Neurology General and Stroke	Barnes-Jewish Hospital
07/16-present	Associate Neurologist	Hospital Neurology, Stroke and Cerebrovascular Diseases	Brigham and Women's Hospital

Major Administrative Leadership Positions:

Local

2014	Chair and Conference Organizer, Washington University Landau Speaker Committee	Washington University School of Medicine
2016-present	Secretary of Division Meetings, Division of Neurohospitalist Medicine	Brigham and Women's Hospital
2017-present	Co-founder, Neuroscience Internal Brigham Study Section (NIBSS)	Brigham and Women's Hospital
2019	Chair and Conference Organizer, Physicians Who Do Network Science: A Symposium	Brigham and Women's Hospital

National

2011-2013	Representative, Neurology Residency Review Committee	American Council of Graduate Medical Education (ACGME)
2012	Representative, Neurology Milestones Committee	American Council of Graduate Medical Education (ACGME)

International

2012-2017, 2019-present	Member, Canadian Western Region Rhodes Selection Committee	Rhodes Scholarship Trust

Committee Service:

Local

2002-2003	Harvard Search Committee for Dean of Medical Education 2002-2003	Harvard Medical School Student Representative
2011-2012	Neurology Education Committee 2011-2012	University of California, San Francisco Resident Representative
2013-2014	Neurology Medical Students Committee 2013-2014	Washington University School of Medicine Faculty Representative
2014-2016	Neurology Residents as Teachers Committee 2014-2016	Washington University School of Medicine Faculty Representative
2016-present	Hospital Neurology Division 2016-present	Brigham and Women's Hospital Secretary
2018-present	Partners Human Research Committees (IRBs) 2018-present	Brigham and Women's Hospital Faculty Member

Regional

2014	St. Louis Harvard College Interview Committee 2014	Harvard College Regional Interviewer
2017-present	Partners Stroke Quality Leaders Committee 2017-present	Partners Healthcare BWH Faculty Representative

National and International

2011-2013	Residency Review Committee	American Council of Graduate Medical Education (ACGME)
	2011-2013	Committee Member
2012	Neurology Milestones Committee	American Council of Graduate Medical Education (ACGME)
	2012	Committee Member
2012-2017	Canadian Western Region Rhodes Selection Committee	Rhodes Scholarship Trust
	2012-2019	Committee Member

Professional Societies:

2009-present	**American Academy of Neurology**	
	2009-present	Member, Neurohospitalist section
	2014-2018	Medical Education Research Committee
2011-2013	**California Neurology Society**	
	2011-2013	State Resident Representative
2013-present	**American Heart Association**	
	2013-present	Member, Stroke Association
	2019-present	Delegate, National Diversity Leadership
2013-present	**Neurohospitalist Society**	Member
2013-present	**American Neurological Association**	Member
2016-present	**International Network for Social Network Analysis**	Member

Grant Review Activities:

2014-2018	Medical Education Research Grants Review Committee	American Academy of Neurology
	2014-2018	Member

Editorial Activities:

Ad hoc Reviewer:

New England Journal of Medicine
Circulation
Neurology
JAMA Neurology
Neurocritical Care
Neurohospitalist
Journal of Stroke and Cerebrovascular Disease
Archives of Physical Medicine and Rehabilitation
Journal of Medical Case Reports
Oxford University Press
Ethnography and Education

Other Editorial Roles:

1999-2001	Co-Founder and Editor-in-chief	Dartmouth Undergraduate Journal of Science

2014-present	Editorial board member	The Neurohospitalist

Honors and Prizes:

1999	Ernest T. Saeger 1914 Scholarship	Dartmouth College	Academic scholarship
2000	Barry Goldwater National Scholarship	Barry Goldwater Foundation	Academic scholarship
2001	Presidential Scholar	Dartmouth College	Academic scholarship for research
2001	Christopher G. Reed Biologist Award	Dartmouth College	Academic scholarship for outstanding biology research
2001	Raw W. Smith Award for Community Service	Dartmouth College	Outstanding community service
2001	Alfred K. Priest Fellowship for study at Harvard University	Dartmouth College	Academic scholarship
2003	Rhodes Scholarship, Canada	Rhodes Scholarship Trust	Academic scholarship
2008	Rose Seegal Prize for best paper on community and medicine	Harvard Medical School	
2011	Annual Meeting Resident Scholarship	American Academy of Neurology	
2011	Clinical Teaching Excellence Award for Cherished Housestaff	University of California, San Francisco	
2012	Alpha Omega Alpha	ΑΩΑ, University of California, San Francisco	Honor society in medicine
2014, 2015	Neurology Clerkship Student Teaching Award Honor Roll	Washington University School of Medicine	
2015	Excellence in Skills Lab Teaching Award	Washington University in St. Louis	
2015	Best Doctors in America	Best Doctors, Inc.	Excellence in patient care
2016	Best Doctors in America	Best Doctors, Inc.	Excellence in patient care

Report of Funded and Unfunded Projects

Funding Information:

Past

1998 Visuospatial processing in Parkinson's Disease
First Year Summer Research Grant, Dartmouth College
PI ($5000)
The goal was to use cognitive neuroscience methods to show the impact of Parkinson's disease on higher visual processing pathways compared to normal controls.

2002 A culturally appropriate peer education model for Vietnam
Paul Dudley White/Andrew Sellard Travelling Fellowship, Harvard Medical School
PI ($5000 and travel costs)
I worked with the Center for Disease Control Field Station in Hanoi to research and develop a Vietnamese model of peer education.

2003-2006 Peer learning among a group of heroin addicts in India
The Rhodes Trust, Oxford University

PI ($150,000)
This was an ethnographic study to examine the range of peer learning practices such as poetry and street medicine engaged by heroin addicts in New Delhi.

2008 The culture of neurology in a hospital in Beijing: An ethnographic study
Paul Dudley White/Andrew Sellard Travelling Fellowship, Harvard Medical School
PI ($5000 and travel costs)
I studied the diagnostic and management methods of neurologists at Capital Medical University in Beijing.

2010-2011 Ethnography of the clinical practice of neurology
Flexible Residency in Neurology, University of California, San Francisco
PI ($35,000 salary support)
I studied the diagnostic process of experienced neurologists in Northern California.

2014-2016 Social networks and stroke recovery
AHA Mentored Clinical & Population Research Award 14CRP20080001
PI ($154,000)
The aims are to evaluate the change of social networks after ischemic stroke and assess whether initial network characteristics influence recovery outcomes.

2015-2016 Improving stroke recovery using body worn cameras
Clinical and Translational Research Funding Program, Barnes-Jewish Hospital
PI ($50,000)
This grant aims to determine the accuracy of body worn camera images to capture social interactions when used by stroke survivors.

Current

2015-2020 Impact of Social Network Structure on Stroke Recovery
NIH/K23 K23HD083489
Principal Investigator
The major goals are to train in clinical research, determine the evolution of social networks after stroke, and assess the impact of networks on patient reported recovery outcomes.

2018-2020 Study of social networks and their inter-relations with diet, physical activity, and obesity.
Pilot and Feasibility Award, Boston Nutrition Obesity Research Center
Principal Investigator
The goal of this research study is to examine the interplay of social networks, physical activity, and diet in relation to obesity.

2018-2019 Social networks of football players: Association with functional, cardiac, and cognitive outcomes.
Football Players Health Study, Harvard University
Principal Investigator
The goal of this research study is to assess the social network characteristics of retired professional football players, and the relationship to functional, cardiac, and cognitive outcomes.

Pending

2019-2024 SocialBit: Establishing the accuracy of a wearable sensor to detect social interactions after stroke
NIH/R01 R01 HD099176-01 – *scored at last review, pending council decision.*
Principal Investigator

The major goal is to determine the accuracy of a wearable sensor to detect social interactions after stroke and the relationship with measures of social isolation.

Report of Local Teaching and Training

Teaching of Students in Courses:

2002-2003	Student teacher training elective 1st and 2nd year medical students	Harvard Medical School 3 hours per week for 8 weeks
2003-2006	Neuroscience tutorial 1st-3rd year medical students	Oxford University 15 hours per week for 16 weeks
2015, 2016	Skills lab: Qualitative data analysis Students in Masters of Public Health	Washington University in St. Louis 15 hours over 3 days
2015	Social Network Analysis Graduate students in Public Health	Washington University in St. Louis 3 hours per week for 8 weeks
2017-2019	Management S-4150: Leadership Students at Harvard Summer School	Harvard Summer School 3 hours guest lecturer every year
2019	Neurology Clerkship, Stroke 2nd and 3rd year medical students	Harvard Medical School 1 hour lecturer every 3 months

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs):

2011	Stroke: A Clinical Approach Emergency medicine residents	University California, San Francisco 1 hour/week for 4 weeks
2014-	Neurology morning report Neurology residents	Washington University School of Medicine 45 minutes per week
2016-	Dhand Lab meetings Research fellows	Brigham and Women's Hospital 1 hour per week plus 1:1 time
2017	Stroke for Internists PGY 1-3 Internal Medicine Residents	Brigham and Women's Hospital, Medicine 1 hour per year
2017-present	Social networks and stroke outcomes PGY2-4 Neurology Residents	Massachusetts General Hospital, Neurology 1 hour per year

Clinical Supervisory and Training Responsibilities:

2013-2016	Neurology Inpatient Attending Washington University School of Medicine	10-12 weeks per year
2016-present	Neurology Inpatient Attending Brigham and Women's Hospital	10 weeks per year
2017-present	Preceptor, HMS MS3 students in Stroke Clinic Brigham and Women's Hospital	One half session per every other week

Laboratory and Other Research Supervisory and Training Responsibilities:

2014-	Principal Investigator, Dhand Lab. Mentoring trainees in research thinking, data science techniques, and presentation skills.	10 hours per week.

Formally Supervised Trainees:

2014-2016 Michael Tsiaklides, B.A., Clinical Research Coordinator.
Mentor when he was a research assistant.

	Two papers on social networks in neurology, one published in *Nature Communications.*
2015-2016	Ali Dalton, B.A. Software Engineer at Perchwell. Mentor when she was a research assistant. One paper on body cameras and stroke published in *J Stroke and Cerebrov Dis*.
2015-2018	Rupa Patel, M.D., Assistant Professor at Washington University School of Medicine. Mentor when she was an Assistant Professor. One paper on social networks in men who have sex with men in *LGBT Health*.
2015-2018	Beth Prusaczyk, Ph.D., Assistant Professor at Washington University in St. Louis. Mentor when she was a graduate student and Postdoctoral Research Fellow. One paper on interprofessional hospital networks in *Journal of Interprofessional Care*.
2016-present	Praveen Kumar, Ph.D., Assistant Professor at Boston College. Mentor when he was a graduate student and Assistant Professor. One paper on social networks for sustained use of clean cooking published in *Archives of Public Health*.
2016-2017	Jesse M Thon, M.D., Fellow in Advanced General, Autoimmune, Infectious Disease Neurology, Massachusetts General Hospital. Mentor when he was a Neurology Resident at Partners Neurology/HMS. One paper on clival metastasis published in BMJ Case Report.
2016-2017	Simone Renault, B.A. Medical student at UCLA. Mentor when she was a research assistant. One paper on social networks in ALS published in *Annals of Neurology*.
2017-2018	Angela Kim, B.A. Medical student at SUNY Downstate. Mentor when she was a research assistant. One paper on social networks and stroke recovery in *Neurorehabilitation and Neural Repair*.
2017-present	Karin Li, B.A., Research Assistant. Mentor when she was a research assistant. One paper on social networks and stroke recovery in *Neurorehabilitation and Neural Repair*.
2017-present	Sam Snider, M.D., Neurocritical Care Fellow, Partners Neurology/HMS. Mentor on a data science approach to understand patient deteriorations in hospital. One paper under development.
2018-present	Abby Halm, B.A., Research Assistant Mentor when she was a research assistant. One paper on social networks and stroke systems of care under review.
2018-present	Liam McCafferty, B.A., Research Assistant. Mentor when he was a research assistant. One paper on social network and stroke recovery in *Neurorehabilitation and Neural Repair.*
2018-present	Lien Quach, PhD, MPH, MD, Research Scientist, Massachusetts Veterans Epidemiology, VA Boston Healthcare System. Mentor on her career development grant focusing on learning social network methods.
2018-present	Morgan Prust, M.D., Neurology Resident, Partners Neurology/HMS. Mentor on a project comparing social network metrics in stroke patients. One paper under development.
2018-present	Regan Bergmark, M.D., Instructor in Department of Surgery. Mentor on a NIH K23 application evaluating the impact of hospital networks on quality and health disparities.
2019-present	Ian Corbin, Ph.D. candidate, Research Scientist in Department of Neurology Mentor on translation of social network dynamics into clinical interventions.

Local Invited Presentations:

2006 Using learning theory to understand access in ethnographic research
Education, Oxford (no sponsor)
2009 Emergency Medical Services-Bases Community Stroke Education: Study Review
Neurology, UCSF (no sponsor)
2009 Carotid and vertebral artery transluminal angioplasty study: Study Review
Neurology, UCSF (no sponsor)
2009 Maintaining ethnographic practices during medical residency
Medical Anthropology, UCSF (no sponsor)
2010 History of the neurological examination
Internal Medicine, UCSF (no sponsor)
2010 Case presentation for Dr. Martin Samuels
Neurology, UCSF (no sponsor)
2010 Localization theory
Neurology, UCSF (no sponsor)
2011 39 year old man with right facial droop
Neurology, UCSF (no sponsor)
2011 Status epilepticus
Neurology, UCSF (no sponsor)
2011 Stroke: A Clinical Approach
Neurology, UCSF (no sponsor)
2011 The pathophysiology of spasticity
Neurology, UCSF (no sponsor)
2011 Neurology of the tongue
Neurology, UCSF (no sponsor)
2012 Observations on the practice of diagnosis in neurology
Neurology, UCSF (no sponsor)
2012 Inherited Muscle Diseases of Childhood
Neurology, UCSF (no sponsor)
2012 NMDA Receptor Limbic Encephalitis
Neurology, UCSF (no sponsor)
2012 Functional disorders in Neurology
Neurology, UCSF (no sponsor)
2013 Diagnostic practice of community neurologists
Neurology, UCSF (no sponsor)
2013 The Neurology of Itch
Neurology, UCSF (no sponsor)
2013 Grand rounds case discussant
Neurology, WUSM (no sponsor)
2014 International Stroke Conference 2014: Thrombosis after pregnancy
Neurology, WUSM (no sponsor)
2014- Evidence-based approach to risk factor management in stroke
Neurology, WUSM (no sponsor)
2015 What did I learn at ISC? Disability trajectories
Neurology, WUSM (no sponsor)
2015 Evidence-based practice in Inpatient Neurology
Neurology, WUSM (no sponsor)
2015 Neurological emergencies for Internists
Internal Medicine, WUSM (no sponsor)
2015 Social networks and hospital arrival after ischemic stroke
Neurology, WUSM (no sponsor)
2015 Neurology Grand Rounds: Social networks and stroke outcomes
Neurology, WUSM (no sponsor)

2016 International Stroke Conference 2016 Review
Neurology, WUSM (no sponsor)
2016 Neurological Emergencies for Rehabilitation Physicians
Rehabilitation Medicine, WUSM (no sponsor)
2016 Hospital Networks
Center for Complex Network Research, Northeastern (no sponsor)
2016 Social Networks and Health Outcomes
Channing Center of Network Medicine, BWH (no sponsor)
2017 Social Networks and Neurological Outcomes
Neurology, BWH (no sponsor)
2017 Social Networks and Stroke Outcomes
Stroke Conference, MGH (no sponsor)
2017 Social Networks and Stroke Outcomes
Stroke Quality Leaders Conference, Partners (no sponsor)
2017 Stroke for Internists
Medical Residents Conference, BWH (no sponsor)
2017 Social Networks and Stroke Outcomes
Neurology for the Non-Neurologist, Kennebunkport, Maine (no sponsor)
2017 Social Networks and Stroke Recovery
Harvard 25th Annual Update in Neurology, BWH (no sponsor)
2017 Social Networks and Stroke Recovery
Stroke Camp, BWH (no sponsor)
2018 Social Networks and Stroke Recovery
Neurorecovery Group, MGH (no sponsor)
2018 Social Networks and Stroke Recovery
Stroke Camp, BWH (no sponsor)
2018 Networks Science and Stroke Outcomes
Stroke Conference, MGH (no sponsor)
2018 Hospital networks and the foodome
Network Science Institute, Northeastern (no sponsor)
2018 Personal Network Study
Football Players Health Study, HMS (no sponsor)

Report of Regional, National and International Invited Teaching and Presentations

No presentations below were sponsored by outside entities.

Regional

2012 Recent Advances in Neurology: Clinicopathological Case Conference
San Francisco, CA
2017 Social Networks, Course Lecture at Harvard Summer School
2018 Natural Intelligence: Social Networks
Boston Society of Neurology and Neurosurgery
2018 Social Networks, Course Lecture at Harvard Summer School
2018 A Networked Life, Course Lecture at Harvard Summer School
2019 Social Networks and Health, Course Lecture at Harvard Summer School
2019 **Neurology Grand Rounds**: Social Networks and Stroke: Impact of Interpersonal Connections on Stroke Outcomes
University of Massachusetts Medical School, Worcester, MA
2019 **Neurology Grand Rounds**: Social Networks and Stroke: Impact of Interpersonal Connections on Stroke Outcomes
Boston Medical Center, Boston, MA

National

2014	Falls and their prevention Neurohospitalist Meeting, Denver, CO
2014	ICU/Stroke Research Seminar: Examining patients' social networks to improve stroke recovery Columbia University, New York, NY
2015	Patients' social networks influence timing of hospital arrival after stroke Center for Complex Network Research, Northeastern University
2015	**Neurology Grand Rounds**: Social networks and stroke outcomes Washington University School of Medicine, St. Louis, MO
2016	Understanding hospital networks to improve patient outcomes and reduce healthcare costs Effective Use of the R Language (EARL) Conference, Boston, MA.
2017	Webinar: Diagnostic Process in Neurology Society to Improve Diagnosis in Medicine
2017	**Neurology Grand Rounds**: Social Networks and Neurological Outcomes George Washington University, Washington, DC.
2017	**Neurology Grand Rounds**: Social Networks and Stroke Outcomes University of Pittsburgh Medical Center, Pittsburgh, PA
2019	ICU/Stroke Research Seminar: Social Networks and Stroke Outcomes Yale University, New Haven, CT
2019	**Neurology Grand Rounds**: Social Networks and Stroke: Impact of Interpersonal Connections on Hospital Arrival Time and Recovery Henry Ford Health System, Detroit, MI

International

2008	**Neurology Grand Rounds**: Deep learning in medicine: Ideas for teachers and students Capital Medical University, Beijing, China
2014	**Neurology Grand Rounds**: Examining patients' social networks to improve stroke recovery University of Saskatchewan, Saskatoon, Canada
2015	Patients' social networks influence timing of hospital arrival after stroke Effective Use of the R Language (EARL) Conference, London, England.
2018	Social networks and stroke rehabilitation, Rehabilitation Medicine, VU University Medical Center, Amsterdam, Netherlands
2019	Social networks and global health, NIH Fogarty International Center, Global Environmental and Occupational Health Workshop, Udaipur, India

Report of Clinical Activities and Innovations

Current Licensure and Certification:

2010-2014	Licensed Physician, California Medical License (A111868)
2012	Diplomate, American Board of Neurology and Psychiatry
2013-2016	Licensed Physician, Missouri Medical License (2013015294)
2016-present	Licensed Physician, Massachusetts Medical License (266766)

Practice Activities:

2013-2016	Inpatient Neurology Service Attending	Barnes-Jewish Hospital	4-6 weeks per year

2013-2016	Inpatient Neurology Consult Service Attending	Barnes-Jewish Hospital	4-6 weeks per year
2013-2016	Inpatient Neurology Stroke Service Attending	Barnes-Jewish Hospital	4-6 weeks per year
2013-2016	Outpatient Neurology Clinics, General and Stroke	Barnes-Jewish Hospital	½ per week
2016-present	Inpatient Neurology Service Attending	Brigham and Women's Hospital	10 weeks per year
2016-present	Outpatient Neurology Clinics, Stroke	Brigham and Women's Hospital	½ day per week

Clinical Innovations:

Neurology Milestones	We created the Neurology Milestones in 2013-2014 to aid in evaluating neurology residents and residency programs by the Accreditation Council for the Graduate Medical Education (ACGME). The Neurology Milestones detail neurology-specific clinical domains that are relevant to neurological training and progression toward competence in independent practice. I was a neurology representative on the committee. Description published in the Journal of Graduate Medical Education 2014; 6(1 Suppl 1): 102-104.
Diagnosis monitoring tool for inpatient neurology	Diagnostic errors account for 40,000 to 80,000 deaths every year. The Institute of Medicine called for tools to monitor physicians' diagnostic process. We developed the first secure web application for clinicians to record and analyze their diagnostic process. This was implemented by the full neurohospitalist division at Washington University in St. Louis from 2014-2016. Results were published in The Neurohospitalist 2017; 7(3): 132-136.

Report of Technological and Other Scientific Innovations

2010-2014	NeuroBoard: A clinical teaching tool that is a dry erase map of the brain. It is copyrighted by the Regents of the University of California and it was sold internationally by the American Academy of Neurology.
2014	CardioBoard: A clinical teaching tool that is a dry erase map of the heart.
2018	Personal network instrument created by our lab was posted on REDCap Shared Library for international use. The codebase to analyze results is available on GitHub <https://github.com/AmarDhand/PersonalNetworks>.

Report of Education of Patients and Service to the Community

Activities

2017	Social Networks and Stroke Recovery Stroke Camp, a 2-day camp for stroke survivors.
2017	Social Networks and Stroke Recovery Stroke Survivors Evening Meeting
2018	Rehabbing Together: A Social Network Intervention After Stroke Stroke Camp, a 2-day camp for stroke survivors.

Educational Material for Patients and the Lay Community:
Patient educational material

2014	Hemicraniectomy Decision Aid	Booklet

Report of Scholarship

Peer reviewed publications in print or other media (underline indicates a mentee):

Research investigations

1. **Dhand A**, Birdi S, Rajput AH. (1998). Frequency of respiratory disorders and bradycardia in essential tremor—consideration of treatment. *Parkinsonism and Related Disorders*, 4(1), 7-10.

2. **Dhand A** (2006). The practice of poetry among a group of heroin addicts in India: Naturalistic peer learning. *Ethnography and Education*, 1(1), 125-141.

3. **Dhand A** (2006). The roles performed by peer educators during outreach among heroin addicts in India: Ethnographic insights. *Social Science and Medicine*, 63(10), 2674-2685.

4. **Dhand A** (2007). Using learning theory to understand access in ethnographic research. In G. Walford (Ed.), *Developments in Ethnographic Methodology* (Vol. 12), pp.1-25. Oxford, UK: Elsevier.

5. **Dhand A** (2009). Street 'doctory' among a group of heroin addicts in India: Naturalistic peer learning. *Ethnography and Education*, 4(1), 101-116.

6. Kamel H, Dhaliwal G, Navi BB, Pease AR, Shah M, **Dhand A**, Johnston SC, Josephson SA (2011). A randomized trial of hypothesis-driven vs screening neurological examination. *Neurology* 77(14), 1395-1400.

7. Grady E, Roise A, Barr D, Lynch D, Lee LBS, Daskivich T, **Dhand A,** Butler PD (2012). Defining scholarly activity in graduate medical education. *Journal of Graduate Medical Education* 4(4), 558-561.

8. **Dhand A**, Engstrom J, Dhaliwal G (2013). How experienced community neurologists make diagnoses during clinical encounters. *Neurology* 81(16), 1460-1466.
    - Chin NP (2013). Comment: The tribe in white coats. *Neurology* 81(16), 1465.
    - **Dhand A**, Engstrom J, Dhaliwal G (2014). Author response. *Neurology* 82(17), 1568.

9. **Dhand A**, Harp J, Borgatti SP (2014). Leadership in neurology: a social network analysis. *Annals of Neurology* 75(3), 342-350.

10. Luke DA, Carothers BJ, **Dhand A**, Bell RA, Moreland-Russell S, Sarli CC, Evanoff BA (2015). Breaking down silos: Mapping growth of cross-disciplinary collaboration in a translational science initiative. *Clinical and Translational Science* 8(2), 143-149.

11. **Dhand A**, Luke DA, Carothers BJ, Evanoff BA (2016). Academic Cross-Pollination: The role of disciplinary affiliation in research collaboration. *PLOS ONE* 11(1), p.e015916.

12. Ong CJ, **Dhand A**, Diringer MN (2016). Early withdrawal decision-making in patients with coma after cardiac arrest: A qualitative study of intensive care clinicians. *Neurocritical Care* 25(2), 258-265.

13. **Dhand A**, Dalton AE, Luke DA, Gage BF, Lee JM (2016). Accuracy of wearable cameras to track social interactions in stroke patients. *Journal of Stroke and Cerebrovascular Diseases*, 25(12), 2907-2910.

14. **Dhand A**, Bucelli R, Varadhachary A, Tsiaklides M, de Bruin G, Dhaliwal G (2017). Monitoring the diagnostic process on an inpatient neurology service. *Neurohospitalist*, 7(3): 132-136.

15. Kumar P, **Dhand A**, Tabak RG, Brownson RC, Yadama GN (2017). Adoption and sustained use of cleaner cooking fuels in rural India: A case control study protocol to understand household, network, and organizational drivers. *Archives of Public Health*, 75:70, doi 10.1186/s13690-017-0244-2.

16. Patel RR, Luke DA, Proctor EK, Powderly WG, Chan PA, Mayer KH, Harrison LC, **Dhand A** (2018). Sex venue-based network analysis to identify HIV prevention dissemination targets for men who have sex with men. *LGBT Health*, 5(1), 78-85.

17. **Dhand A**, Longstreth Jr WT, Chaves PHM, Dhamoon MS (2018). Social network trajectories in myocardial infarction versus ischemic stroke. *Journal of the American Heart Association*, 7(8), pii e008029, doi 10.1161/JAHA.117.008029.

18. **Dhand A**, White CC, Johnson C, Xia Z, De Jager P (2018). A scalable online tool for quantitative social network assessment reveals potentially modifiable social environmental risks. *Nature Communications,* 9(1), 3930-3939.

19. Prusaczyk B, Kripanlani S, **Dhand A.** (2019). Networks of hospital discharge planning teams and readmissions. *Journal of Interprofessional Care,* 33(1), 85-92.

20. **Dhand A**, Luke DA, Lang CE, Tsiaklides M, Feske S, Lee JM (2019). Social networks and risk of delayed hospital arrival after acute stroke. *Nature Communications*, 10: 1206-1214.

21. Ospina JP, Larson AG, Jililianhasanpous R, Williams B, Diez I, **Dhand A**, Dickerson B, Perez D (2019). Individual differences in social network size linked to nucleus accumbens and hippocampal volumes in functional neurological disorder: A pilot study. *Journal of Affective Disorders*, 258, 50-54.

22. **Dhand A**, Lang CE, Luke DA, Kim A, Li K, McCafferty L, Mu Y, Rosner B, Feske SK, Lee JM (2019). Social network mapping and functional recovery within 6 months of ischemic stroke. *Neurorehabilitation and Neural Repair*, 33(11), 922-932.

Scholarship without named authorship

1. Johnston SC, Easton JD, Farrant M, and the POINT Investigators* (2018). Clopidogrel and aspirin in acute ischemic stroke and high-risk tia. *New England Journal of Medicine*, 379(3): 215-225.

Reviews, chapters, case reports, and commentaries

1. **Dhand A**, Dhaliwal G. (2010). Examining patient conceptions: A case of metastatic breast cancer in an African American male to female transgender patient. *Journal of General Internal Medicine*, 25(2), 158-61.

2. **Dhand A**, Nakagama K, Nagpal S, Gelfand JM, Kim AS, Smith WS, Tihan T (2010). Cardiac rupture after intravenous t-PA administration in acute ischemic stroke. *Neurocritical Care* 13(2), 261-2.

3. **Dhand A**, Zhang X, Josephson SA (2010). Increasing aerobic exercise in the community: The adult playground in Beijing, China. *Archives of Neurology* 67(10), 1283.

4. **Dhand A** (2012). Right Brain: The case library as a tool to enhance clinical observation. *Neurology* 78(7): 512-513.

5. **Dhand A**, Aminoff MJ (2014). The neurology of itch. *Brain* 137(2), 313-322.

6. **Dhand A**, Landau WM (2014). Hemicraniectomy for middle-cerebral-artery stroke. *New England Journal of Medicine* 379(24), 2346.

7. Kang P, **Dhand A** (2015). Teaching video neuroimages: Movement of a paralyzed arm with yawning. *Neurology* 84(16), e118.

8. **Dhand A**, Feske S (2016). Caregivers and families of critically ill patients. *New England Journal of Medicine* 375(10), 1000.

9. **Dhand A**, Luke DA, Lang CE, Lee JM (2016). Social networks and neurological illness. *Nature Reviews Neurology* 12(10), 605-612.

10. Renault S, **Dhand A** (2017). Converse well-being of locked-in patients and caregivers. *Annals of Neurology* 82(3),490-491.

11. Lee C, Thon JM, **Dhand A** (2017). Clival metastasis from a gastrointestinal adenocarcinoma causing multiple cranial neuropathies. *BMJ Case Reports*, pii, bcr-2017-222725.

12. Maamari RN, Stunkel L, Kung NH, Ferguson CJ, Tanabe J, Schmidt RE, Dahiya S, **Dhand A**, Van Stavern GP, Rajagopal R, Harocopos GJ (2019). Acute posterior multifocal placoid pigment epitheliopathy complicated by fatal cerebral vasculitis. *J Neuroophthalmol*, 39(2), 260-267.

13. Zachrison K, **Dhand A**, Schwamm LH, Onnela J-P (2019). A network approach to stroke systems of care. *Circulation: Cardiovascular Quality and Outcomes,* 12(8), e005526, doi 10.1161/CIRCOUTCOMES.119.005526.

Non-peer reviewed scientific or medical publications/materials in print or other media

1. **Dhand A**, Douglas V (2010). Neurology. Le, Bushan, Bagga (Eds), *First Aid for the USMLE Step 3*. New York: McGraw Hill, 235-256.

2. **Dhand A**, Douglas V (2010). Ethics and Statistics. Le, Bushan, Bagga (Eds), *First Aid for the USMLE Step 3*. New York: McGraw Hill, 91-102.

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Narrative Report

I have been a nationally-funded clinician investigator since 2014, leading my own laboratory in the innovative area of social networks in neurological disease. I have served as the PI on 1 NIH K23 grant, 1 AHA grant, and 4 foundation grants. As a board-certified neurologist and Associate Professor of Neurology at Harvard Medical School, I supervise residents and medical students in inpatient and consult neurology services for 10-12 weeks per year. Currently, I spend 75% of my time on research and mentoring within the context of social networks and neurological disease.

In my clinical capacity, I have led innovative initiatives that have received national recognition. In 2013-2014, I was part of creating the Neurology Milestones with the ACGME. As the rubric to define the core domains of expertise of a graduating neurology resident, the Neurology Milestones have been adopted nation-wide. In 2014-2016, I created a diagnosis monitoring tool for inpatient neurology. This tool tracked the process of making a diagnosis by inpatient clinicians. The results were presented at national professional conferences and published in the *Neurohospitalist*. I was also the creator of the NeuroBoard, a hand-held dry erase map of the brain that serves as a teaching tool for trainees and patients. The tool was copyrighted by the Regents of the University of California and sold nationally and internationally by the American Academy of Neurology Store.

In my research capacity, I lead the Dhand Lab (www.dhandlab.com), a multi-disciplinary research group with an international reputation. We explore the longitudinal effects of social network risk factors underlying stroke. For this work, we've created new open source instruments for quantitative assessment of social networks in neurology patients. These instruments have been adopted for studies across diseases including traumatic brain injury, multiple sclerosis, amyotrophic lateral sclerosis, and prostate cancer. Our research has been nationally and internationally recognized as a new lens on neurological disease. I have discussed our work in 5 grand round presentations. Our work has been featured in national and international conferences, lay person outreach events, and public newspapers and radio shows. I have published 38 articles, including reports in high impact journals such as *Nature Communications*, *Annals of Neurology*, and *Neurology*.

A particular emphasis of mine throughout my career has been to mentor younger colleagues toward academic careers. Collectively, I have mentored 14 mentees who have published 5 first author papers in leading journals. They have also been successful in varied career paths including medical school, clinician investigator, and data scientist.