



Sima Indubhai Patel, MD, FAES, FANA

Email: sipatel12@gmail.com

Identifying Information

2010 – 2012	Fellowship Cleveland Clinic Foundation Clinical Neurophysiology and Epilepsy
2007 – 2010	Residency Medical College of Wisconsin Neurology
2006 – 2007	Internship Medical College of Wisconsin Internal Medicine
2002-2006	M.D. Rush Medical College Chicago, IL
2001	B.A. University of Illinois, Champaign Community Health w/ Concentration on Health Administrations

Board Certifications

- American Board of Psychiatry and Neurology (no. 56430)
- Epilepsy Board Certification (no. 653)

Medical Licenses

- Minnesota Medical License 10/2023-present. Board License Number 55133
- South Dakota 6/8/2023 - 3/01/2025. Board License Number 14460
- North Dakota 5/4/2023 - 10/11/2025. Board License Number 19791
- Iowa 7/03/2023-10/1/2024. License Number: MD-51660
- Nebraska 5/9/2023-10/1/2024. Board License Number CP189
- Illinois 5/9/2023- 7/31/2026. Board License Number 036.164636

Academic Appointments

6/2024 – present	Associate Professor, Neurology University of Minnesota, Twin Cities
2019 – 5/2024	Assistant Professor, Neurology University of Minnesota, Twin Cities
2013 – 2019	Adjunct Assistant Professor, Neurology University of Minnesota, Twin Cities

Professional Employments

11/2024 – present	Director of Epilepsy and Video EEG, Hennepin County Medical Center Minneapolis, Minnesota
2013 – 9/2024	Staff Epileptologist University of Minnesota Physicians/M-Health. Minneapolis, Minnesota
2015 – 2017	Staff Neurologist (Adjunct Role) Hennepin County Medical Center. Minneapolis, Minnesota
2012 – 2013	Staff Epileptologist MINCEP Epilepsy Care. Minneapolis, Minnesota
2001 – 2002	Education Advocate AmeriCorps, Chicago, IL
2001	Organizer, Ambulatory and Community Health Network, Chicago, IL
2000	Chemistry Teaching Assistant at University of Illinois, Urbana Champaign, IL
1999-2000	Organic Chemistry and Organic Chemistry Tutor at Office of Minority Student Affairs at University of Illinois, Urbana Champaign, IL

Hospital Privilege and Staff

10/28/2024-Present	Hennepin County Medical Center. Minneapolis, MN
12/1/2012- 9/2024	Fairview Main Hospital and Southdale Hospital. Minneapolis, MN
6/01/2015-6/30/2017	Hennepin County Medical Center. Minneapolis, MN
9/20/2012-11/30/2013	Children Hospital and Clinic. Minneapolis, MN
6/27/2012-6/30/2013	Gillette Hospital. Minneapolis, MN
9/20/2012-11/30/2013	Abbott Hospital. Minneapolis, MN
7/1/2010-7/1/2012	Cleveland Clinic Main Campus Hospital. Cleveland, OH
7/1/2006-7/1/2010	Froedtert Hospital. Milwaukee, WI

Updated 11/2025

7/1/2006-7/1/2010

Milwaukee Veteran Affairs Hospital. Milwaukee, WI

Academic Administrative Appointments

2021-2024	Diversity, Equity, Leadership Medical School Council Member, University of Minnesota, Twin Cities
2021-2024	Neurology Diversity, Equity, Inclusion Committee Member, Neurology Diversity, Equity, Inclusion Committee Member
2021-2024	Center for Women in Medicine and Science Salary Resource and Leadership Action Group Lead
2019-2021	Center for Women in Medicine and Science Salary Resource and Leadership Action Group Member
2016-2023	Sub-Director, Neurology Resident Epilepsy Education

Copyright

2024	Ictal and Post-Ictal Seizure Behavioral Testing "ROAR Testing" Intellectual Property Title: Seizure Behavioral Testing Protocol (ROAR) Technology No: 2023-105 University of Minnesota https://license.umn.edu/product/seizure-behavioral-testing-protocol-roar IP Status: Copyright. Researcher: Sima I. Patel, MD
------	--

Honors and Awards

2022	2nd place research platform presentation Women in Medicine Summit
2021	She for She, Honorable Mention. Women in Medicine Summit. National Gender Equity Award
2020	University of Minnesota Gender Equity Award Center for Women in Medicine and Science 2020
2017-2020	Rothenberger Leadership Academy (Emerging Physician Leaders), Three-year leadership program for identified leaders at the University of Minnesota, nominated by Dr. Vitek, Neurology Chair as the representative of the Neurology Department.
2009 – 2010	Medical College of WI Outstanding Medical Student Teacher
2002 – 2006	McGaw Scholar, Scholarship for Medical Education
1999 – 2001	James Scholar Academic Honor and Research Achievement Award
1997 – 2001	National Collegiate Scholar, Academic Honor Society
1997 – 2006	OLIVER Scholar, Scholarship and Academic Achievement Award

Research and Scholarship

Research

2024	Reflex Mechanism Underlying Syncope. Case Series Dr. Benditt
2023-2025	Reliability Study on ROAR Seizure Testing Protocol and Feasibility Study. Principal Investigator Sima Patel and Co-PI Thomas Henry, David Darrow, and Alex Herman. Advisor

to Amerta Bai (neurology resident), Keshin Vishan, and Daniel Pyzdrowki (UMN medical student). Mitch Mueller (Premed undergraduate student)

- 2022 – 2025** Standardized Seizure Testing Protocol and Feasibility Study. **Principal Investigator Sima Patel** and Co-PI Thomas Henry, David Darrow, and Alex Herman. Advisor to Amerta Bai (neurology resident), Paul Wang, Keshin Vishan, and Daniel Pyzdrowki (UMN medical student)
- 2022 – 2024** DEI chair experience at University of Minnesota. **Principal Investigator Sima Patel** and Co PI Katie Lingras. Grant \$20,000
- 2021 – 2023** Characterization of the use and extent of concentration fluctuation of lamotrigine in postmenopausal women with epilepsy. **Co-Principal Investigator Sima Patel** and Dr. Angela Birnbaum and mentor to Charul Avachat graduate student pharmacy. Building Interdisciplinary Research Careers in Women's Health (BIRCWH)/Women's Health Research program. Grant \$35,000
- 2020 – 2023** Antiepileptic Drug Levels and Age. Study 00010793, Advisor to Stephanie Reeder (Neurology PGY4 and Epilepsy Fellowship candidate), **Advisor and Co-investigator Sima Patel** Grant \$15,000
- 2020 – 2022** Center for Women in Medicine and Science (CWIMS) Focus Group for Women Faculty Career Advancement. **Co-investigator and Advisor** to Corinne Praska (Medical Student)
- 2020 –2023** Health Science Faculty COVID-19 Survey: Investigating Gender Differences in the Impacts of UMN COVID-19 Response on Work, Life, and Academic Productivity. **Principal Investigator Sima Patel**
- 2020 – 2021** Antiepileptic Drug Levels and Post-Partum Toxicity in Women with Epilepsy. Advisor to Leslie Siegel (pharmacy student, graduated 2020 to residency) and Co-investigator
- 2019 – 2024** Women in Neurology Gender Equity Study. Advisor to Cynthia Zheng (UMN), Ailing Yang (Harvard), and Annie He (Harvard). Multi-site (19 Neurology centers) Gender Equity Study. **Principal Investigator Sima Patel**
- 2019 – 2020** Principal Investigator. UCB Pharma. EP0092 and EP0093 Study. [Trial ended due to poor outcome data]
- 2019 – 2020** Principal Investigator. NCGS. XENON Study. [Site participation was withdrawn due to COVID]
- 2019 - 2022** CBD pharmacokinetics Study. Co-investigator
- 2016 – 2023** Influence of genetic variants on anti-seizure drugs in epilepsy patients. Co-investigator, IRB CR00008125. Advisor to Alise Carlson (medical student graduated 2015).
- 2010-2012** **Principal Investigator Sima Patel**, Cleveland Clinic Neurological Institute Research Project Pilot Grant, Impact of Hormone Sensitivity and Reproductive Status on Surgical Outcome on Women with Intractable Focal Epilepsy. Grant \$10,000
- 2003-2004** Incidence of breast cancer in women using mobile mammography in Chicago, IL.
- 2001** Stress management among health care providers working with high-risk HIV patients in University of Illinois. Chicago, IL
- 2001** Healthcare needs of minority and international students survey in University of IL.

Publications

Peer-Reviewed Publications

1. Sharma, R., Leppik, I., Henry, T., Walzacak, T., **Patel, S.**, & McGovern, R. (2025, November). *The case of a 28-year-old woman with medically refractory focal epilepsy* [Case report]. InterACTN.org. <https://interactn.org>
Sima Patel was Co-Senior Author
2. Tang, M., Bai, A., Ferreira, F. R. M., Pati, S., Walczak, T., Miller, B., Benthoo, O., Henry, T., Leppik, I., Shams, M., Sha, Z., Sanger, Z., Netoff, T. I., Lisko, T., Naik, A., McGovern, R. III, & **Patel, S.** (in press). Refractory

status epilepticus treated with bilateral pulvinar deep brain stimulation: A case study. *Annals of Clinical and Translational Neurology*. **Sima Patel was Senior Author**

3. Avachat, C., Long, Y., Petersen, A., Birnbaum, A. K., & **Patel, S. I.** (in press). Age- and sex-associated variability in lamotrigine prescription patterns and clearance. *Epilepsia*. **Sima Patel was Senior Author**
4. Kosmopoulos, M., Reyes, J. L., **Patel, S.**, Simpson, H., Sutton, R., Keller, C., Thijs, R. D., Van Dijk, J. G., & Benditt, D. G. (2025). Stretch syncope in humans: Evidence for symptomatic neural reflex hypotension triggered by stretching of shoulder and upper back muscles. *Heart Rhythm*, xx, 1–8.
<https://doi.org/10.1016/j.hrthm.2025.03.166>
5. Durica, S.R., Miller, J., Zheng, C., Grewal, P., Zhao, C., Alexander, H.B., Shah, S., Delima, S.I.R., He, A., Yang, A., Nobleza, C.O.H.S., Sudhakar, P., Rodrigues, K., Abdennadher, M., Kung, D.H., Ayub, N., Frost, N., Nagpal, S., Zarroli, K., De Jesus, S., Brescia, N., Foldvary-Schaefer, N., Tormoehlen, L., Yoshii-Contreras, J., Bradshaw, D., Allendorfer, J.B., Westring, A.F., Silver, J.K., Alick-Lindstrom, S. and **Patel, S.I.**, 2024. Perceptions of lactation experience among neurology faculty and impact of lactation time on academic achievement at U.S. academic medical centers. *Journal of Women's Health*, Available at: <https://doi.org/10.1089/jwh.2024.0363>.
Sima Patel was Principal Investigator and Senior Author
6. **Patel, S.I.**, Grewal, P., Nobleza, C.O.H.S., Ayub, N., Ky, K.E., Kung, D.H., Shah, S., Abdennadher, M., Alexander, H.B., Frost, N., Rodrigues, K., Durica, S., Nagpal, S., Yoshii-Contreras, J., Zarroli, K., Sudhakar, P., Zhao, C., De Jesus, S., Bradshaw, D., Brescia, N., Foldvary-Schaefer, N., Tormoehlen, L., Gutmann, L., Mantri, S., Yang, A., He, A., Zheng, C., Fiecas, M., Silver, J.K., Westring, A.F., Alick-Lindstrom, S. and Allendorfer, J.B., 2024. Analysis of faculty gender and race in scholarly achievements in academic neurology. *Journal of Women's Health*, 33(11), pp.1464-1475. Published Online: 4 November 2024. Available at: <https://doi.org/10.1089/jwh.2024.1041>. OPEN ACCESS. **Sima Patel was Principal Investigator and Lead Author**
7. Hattab T, König SD, Carlson DC, Hayes RF, Sha Z, Park MC, Kahn L, **Patel S**, McGovern RA, Henry T, Khan F, Herman AB, Darrow DP. Assessing expert reliability in determining intracranial EEG channel quality and introducing the automated bad channel detection algorithm. *J Neural Eng*. 2024 Jul 26;21(4). doi: 10.1088/1741-2552/ad60f6. PMID: 38981500.
8. Greenfield LJ Jr, Mittal S, **Patel SI**, Nobleza COS, Bradshaw D. Furthering Female Faculty: An American Neurological Association/Association of University Professors of Neurology Perspective. *Ann Neurol*. 2024 May;95(5):827-830. doi: 10.1002/ana.26919. Epub 2024 Mar 19. PMID: 38501697.
9. Macheledt, K, Misono, S, Berge J, Lingras K, Pusalavidyasagar S, Misono S, Dwivedi R, **Patel SI**, McCarty C, Guo C, Ghebre R, MPH, Workload, Productivity, and Well-being of Faculty Leaders in Academic Medicine: Exploring the effects of time allocation and gender. *Journal of Academic Medicine*, to be submitted 3/2024.
10. **S.I. Patel**, R. Ghebre, R. Dwivedi, K. Macheledt, S. Watson, B.L. Duffy, E.A. Rogers, S. Pusalavidyasagar, C. Guo, S. Misono, M.D. Evans, K. Lingras, A. Kunin-Batson, C.A. McCarty, C. Sandoval-Garcia, N. Nakib, C. Johnson, S. Barker, S. Hutto, A.L. Church, V. Vezyys, A. Girard, S. Spencer, J.M. Berge, Academic clinician frontline-worker wellbeing and resilience during the COVID-19 pandemic experience: Were there gender differences? *Preventive Medicine Reports*, Volume 36, 2023, <https://doi.org/10.1016/j.pmedr.2023.102517>.
11. Lia D. Ernst, Ahmed M. Raslan, Angela Wabulya, Hae Won Shin, Sydney S. Cash, Jimmy C. Yang, Vishwanath Sagi, David King-Stephens, Eyiymisi C. Damisah, Alexander Ramos, Batool Hussain, Sheela Toprani, David M. Brandman, Kiarash Shahlaie, Kiran Kanth, Amir Arain, Angela Peters, John D. Rolston, Meaghan Berns, Sima I. Patel*, Utku Uysal. Responsive neurostimulation as a treatment for super-refractory focal status epilepticus: a systematic review and case series. *Journal of neurosurgery*, 140(1), 201-209.
<https://doi.org/10.3171/2023.4.JNS23367>. **Sima Patel was Co-Senior Author**
12. Abdennadher M, **Patel SI***, Dembny K, Edalatpour R, Weinberg J, Bartolini L, Ganesh A, and Singhal D. Work, parenting, and well-being: An international survey of neurologists during the COVID-19 pandemic. *Neurology: Clinical Practice*. October 2023. Issue 13(5). <https://doi.org/10.1212/CPJ.0000000000200176>. **Sima Patel was Co-first author**

13. Wang, Paul, Dona, Allison; Khetarpal, Nikita; Reeder, Stephanie; Robertson, Jetter; **Patel, Sima**. EEG Correlates of Spikes in Intracranial Pressure Caused by Transient Ventriculoperitoneal Shunt Malfunction. *Journal of Clinical Neurophysiology* 40(6):p 562-565, September 2023. DOI: 10.1097/WNP.0000000000001002. **Sima Patel was Senior Author and advisor to Paul Wang.**
14. Berge J, Lingras K, Pusalavidyasagar S, Misono S, Dwivedi R, **Patel SI**, McCarty C, Guo C, Ghebre R, MPH Intersectionality and COVID-19: Academic Medicine Faculty's Lived Experiences of Well-Being, Workload, and Productivity During the Pandemic. *Journal of Women's Health* (2002). 2023 Dec;32(12):1351-1362. DOI: 10.1089/jwh.2023.0045. PMID: 37930683.
15. Ghannam M, Beran A, Ghazaleh D, Lyerla R, Al-Assadi R, Ferderer T, Elahian B, Henry T, **Patel SI**, and Berry B. "Insulinoma as a potential insidious presenter in medical refractory epilepsy." *Neuroendocrinology Letters* 41, no. 1 (2020): 46-52. **Sima Patel was Senior Author and advisor Brent Berry.**
16. **Patel SI**, Pennell PB. Management of epilepsy during pregnancy: an update. *Therapeutic Advances in Neurological Disorders*. 2015 Dec; online. Impact factor of the journal: 3.14, contribution main author.
17. **Patel SI**, Brinbaum AK, Cloyd JC, Leppik IE. Intravenous and Intramuscular Formulations of Antiseizure Drugs in the Treatment of Epilepsy. *CNS Drugs*. 2015 Dec; 29 (12): 1009-22. Impact factor of the journal: 5.11, contribution main author.
18. Leppik IE, **Patel SI**. Intramuscular and rectal therapies of acute seizures. *Epilepsy & Behavior*. 2015 Dec; 49: 307-312, 2015. Impact factor of the journal: 2.25, contribution main author.
19. Rathore JS, Jehi LE, Fan Y, **Patel SI**, Foldvary-Schaefer N, Ramirez MJ, Busch RM, Obuchowski NA, Tesar GE. Validation of the Patient Health Questionnaire-9 (PHQ-9) for depression screening adults with epilepsy. *Epilepsy and Behavior*. 2014 Aug; 37: 215-20. Impact factor of the journal: 2.25, times cited: 23, contribution 89 subject recruitment/interviewed and edited paper.

Manuscripts in Preparation

20. Perception of gender equity and experience of women neurology faculty. Target journal: *Neurology*. Pending submission 2025-2026.
21. Parental leave and impact of academic predictive academic neurology, pending submission. 2025-2026
22. Lacosamide: Evaluating Pharmacokinetics in Older Adults with Epilepsy. Pending submission 2026.
23. Baclofen toxicity in adult patients with acute kidney injury with EEG pattern of burst suppression: treated with hemodialysis. Pending resubmission 2026

Physician and Patient Education Material

24. **Patel SI**. Epilepsy and Pharmacogenomics. Patient and Physician Newsletter University of Minnesota Physicians/MINCEP Epilepsy Newsletter. Pending. Winter 2018.
25. **Patel SI**. Anti-Seizure Drug Compliance. Patient and Physician Newsletter University of Minnesota Physicians/MINCEP Epilepsy Newsletter. September 2016.
26. **Patel SI**. Drugs and Effects on Fetal Development: Summary of the Latest Studies. University of Minnesota Health/MINCEP Epilepsy Newsletter. June 2013.
27. **Patel SI**. Project UPLIFT for Patients with Epilepsy. Patient Newsletter. April 2014.

Chapters in Books

28. Illamola S, **Patel SI**, Birnbaum A. Treating Women with Epilepsy Book Chapter. 2019
29. **Patel SI**, Foldvary N. Hormones and Seizures Chapter. *Women with epilepsy: a practical management handbook*. Publisher: Cambridge, United Kingdom: Cambridge University Press, 2014.

Non-Peer-Reviewed Publications

30. Berge, J and **Patel, SI** Center for Women and Medicine Minnesota Magazine 2021.

31. **Patel, SI** and Rohr-Kirchgraber, T. Domestic and Gun Violence. The American Medical Women's Association. Blog. 11/28/2018. <https://www.amwa-doc.org/domestic-and-gun-violence-the-american-medical-womens-association-amwa/>

Presentations at Local Professional Meetings, Conferences, Institutions, etc.

- 3/15/2025** Association of Indian Neurologist in American (AINA). Academic Achievements and Women in Neurology, What Will Help Us Advance. Virtual. Number of Attendee: 13.
- 2/27/2025** The Heersink School of Medicine chapter of the American Medical Women's Association Factors Affecting Faculty Achievements - Insights from 19 Academic Neurology Centers. Virtual. Number of Attendees 20. Feature article: <https://www.uab.edu/medicine/news/latest-news/bridging-the-gap-a-conversation-with-allendorfer-and-patel-on-barriers-to-scholarly-achievements-for-underrepresented-faculty>
- 11/22/2024** Anti-seizure Medications and Case with Dr. Jeannie Conway. University of Minnesota Neurology Resident Lecture. Number of residents and medical students. In Person presentation. Number of attendees 23
- 11/8/2024** Women and Epilepsy. University of Minnesota Neurology Resident Lecture. Number of residents and medical students. In Person Presentation. Number of attendees 23
- 10/11/2023** DEI chair experience at University of Minnesota Medical School. Dean's Lecture. Number of attendees: 100, virtual at Minneapolis Minnesota
- 7/7/2023** Impact of Gender and Race in Academic Neurology. Indiana University Grand Rounds. Number of Attendee 55 (neurology faculty and residents)
- 9/10/2023** Women in Academic Neurology Gender Gaps, American Neurological Association Annual Conference. Number of attendees: 75. Physicians, Neurologist, Residents. In person meeting at Annual Meeting.
- 8/21/2013** Epilepsy and New Onset Seizure lecture. Minnesota Physician Assistant Association Conference. In person presentation. 75 attended mid-level providers.
- 4/4/2023** Impact of Gender and Race in Academic Neurology. Wake forest University Grand Rounds. Number of Attendee 45 (neurology faculty and residents)
- 2/3/2023** Impact of COVID on frontline workers and gender gaps. University of Minnesota Neurology Grand Rounds. Number of attendees: 45.
- 11/19/2022** Women Issues in Epilepsy. University of Minnesota Neurology Resident Lecture. Number of residents and medical students. Number of attendees 23
- 9/20/2022** Gender Equity, UMN Experience. ZWIMS Zucker School of Medicine at Hofstra. Number of Attendee 50 (neurology faculty and residents). Virtual.
- 9/16/2022** "Frontline clinician's wellbeing and resiliency during COVID pandemic" Women in Medicine Summit. Number of attendees 50
- 9/29/2021** Gender Equity Talk for UMN Surgery Form with Dr. Jerica Berge. Number of Attendees: 20
- 11/20/2020** Women Issues in Epilepsy. University of Minnesota Neurology Resident Lecture. The number of residents and medical student's attendees was 20.
- 11/13/2020** Epilepsy Practical Cases with Anti-seizure Drugs. Neurology resident lecture. Number of residents, medical students, and fellow attendees was 20.
- 9/26/2019** Workshop on Career Strategic Career Development with Dr. Termuhlen (Associate Dean) at UMN Center for Women in Medicine and Science Retreat. Number of Attendees: 40
- 9/7/2018** Women with Epilepsy and Pregnancy Clinical Management Issues. University of Minnesota Neurology Grand Rounds. Number of attendees 42
- 6/4/2018** EEG overview for Neurology PGY-2. University of Minnesota Neurology Resident Education. Number of neurology residents 6.

Updated 11/2025

- 6/15/2017** EEG review. University of Minnesota Neurology resident lecture. Number of residents, medical students, and fellow attendees 6.
- 11/18/2016** Epilepsy Practical Cases with Anti-seizure Drugs. University of Minnesota Neurology resident lecture. The number of residents, medical students, and fellow attendees was 20.
- 11/4/2016** Epilepsy Surgery Overview. University of Minnesota Neurology resident lecture. The number of residents, medical students, and fellow attendees was 20.
- 9/16/2016** VNS programming session. University of Minnesota Neurology resident lecture. Number of residents, medical student, and fellow attendees 10.
- 5/14/2016** Epilepsy Update lecture. Seizure the Day Conference by Epilepsy Advocacy and Employment Group. Number of mid-level providers attendees 25.
- 11/25/2015** Seizures and Epilepsy lecture. University of Minnesota. Number of medical student and Residents attendees 40.
- 11/2015** Neuroradiology EEG Conference. University of Minnesota. Number of faculty, resident, medical student, and fellow attendees 40.
- 8/29/2014** Women with Epilepsy. University of Minnesota Neurology resident lecture. Number of residents, medical students, and fellow attendees 21.
- 7/18/2014** Epilepsy Surgery Overview. University of Minnesota Neurology resident lecture. Number of residents, medical students, and fellow attendees 21.
- 7/11/2014** Women with Epilepsy and Menopause. University of Minnesota Neurology Grand Rounds. Number of attendees 39.

Poster Abstract Presentations at Professional Meetings and Medical Conferences

- 4/2025** Stretched Out: Evidence Favoring a Reflex Mechanism Underlying Syncope Induced by Extension of Shoulder and Upper Back Muscles." for presentation at Heart Rhythm 2025 Meeting San Diego, CA.
- 11/2024 AHA** Systemic hypotension triggered by stretching of shoulder and upper back muscles: A possible basis for 'stretch-syncope' in humans. Kosmopoulos M, Reyes J, **Patel S**, Simpson H, Sutton R, Dijk J, Thijis R, Benditt D. American Heart Association 2024.
- 3/2024 AAMC** I've been building the plane while flying it: Insights from Department DEI Leaders.
- 4/2024 AAN** Feasibility of Behavioral Testing During Video EEG Monitoring with Seizure ROAR Testing Protocol.
- 4/2024 AAN** Burnout in Neurology (P2-10.001). American Academy of Neurology 2024. Guo, J., Gokcebel, S., Grewal, P., Alick-Lindstrom, S., Nobleza, C.O.H.S., Kung, D.H., Shah, S., Alexander, H.B., Frost, N., Rodrigues, K., Durica, S., Nagpal, S., Yoshii-Contreras, J., Zarroli, K., Sudhakar, P., Zhao, C., De Jesus, S., Bradshaw, D., Brescia, N., Foldvary-Schaefer, N., Tormoehlen, L., Gutmann, L., Mantri, S., Yang, A., He, A., Zheng, C., Fiecas, M., Silver, J.K., Westring, A.F., Allendorfer, J.B., **Patel, S.I.** and Ayub, N., 2024. Burnout in neurology. *Neurology*, 102(17_supplement_1). Available at: <https://doi.org/10.1212/WNL.0000000000204575>.
- Sima Patel is Principal Investigator for Women in Neurology Collaborative Study.**
- 4/2024 AAN** Parental Leave Experience for Academic Neurology Faculty at 19 Academic Centers (P5-2.006). He, A., Grewal, P., Rodrigues, K., Shah, S., Alexander, H.B., Yang, A., Ayub, N., Nobleza, C.O.H.S., Kung, D.H., Frost, N., Nagpal, S., Durica, S., Silver, J.K., **Patel, S.I.**, Allendorfer, J.B. and Alick-Lindstrom, S., 2024. Parental leave experience for academic neurology faculty at 19 academic centers. *Neurology*, 102(17_supplement_1). Presented at the American Academy of Neurology Annual Conference, 2024. Available at: <https://www.neurology.org/doi/abs/10.1212/WNL.0000000000203924>.

Sima Patel is Principal Investigator for Women in Neurology Collaborative Study.

- 4/2024 AAN** Perception of Lactation Experience Among Neurology Faculty and Impact on Productivity (P2-10.002). American Academy of Neurology Annual Conference 2024. Zheng, C., Durica, S., Nobleza, C.O., Ayub, N., Grewal, P., Allendorfer, J., Nagpal, S., Frost, N., Alexander, H., Alick-Lindstrom, S., Westring, A., Shah, S., Sudhakar, P., Abdennadher, M., Rodrigues, K., Kung, D.H., Foldvary-Schaefer, N., De Jesus, S., Bradshaw, D., Miller, J., and **Patel, S.I.**, 2024. Perception of lactation experience among neurology faculty and impact on productivity. *Neurology*, 102(17_supplement_1). Available at: <https://doi.org/10.1212/WNL.000000000205950>.
- Sima Patel is Principal Investigator for Women in Neurology Collaborative Study.**
- 4/2023 AAN** Impact of Gender and Race on Academic Achievements for Neurology Faculty (P5-2.001). American Academy of Neurology Annual Conference 2023. **Patel, S.**, Grewal, P., Nobleza, C.O.H.S., Ayub, N., Kung, D.H., Shah, S., Abdennadher, M., Alexander, H.B., Frost, N., Nagpal, S., Durica, S., Yoshii-Contreras, J., Zarroli, K., Sudhakar, P., Zhao, C., De Jesus, S., Bradshaw, D., Brescia, N., Foldvary-Schaefer, N., Tormoehlen, L., Mantri, S., Gutmann, L., Yang, A., He, A., Zheng, C., Howard, V., Silver, J.K., Westring, A.F., Alick-Lindstrom, S. and Allendorfer, J.B., 2023. Impact of gender and race on academic achievements for neurology faculty. *Neurology*, 100(17_supplement_2). Available at: <https://doi.org/10.1212/WNL.000000000203018>. **Sima Patel is Principal Investigator for Women in Neurology Collaborative Study.**
- 4/2023 AAN** Academic Vascular Neurology - Lingering Effect of Gender Inequity on Compensation, Career, and Burnout. AHA/ASA Annual Conference 2023. Grewal, P., Alick-Lindstrom, S., He, A., Zheng, C., **Patel, S.I.**, and Nobleza, C.O., 2023. Abstract WP93: Academic vascular neurology - lingering effect of gender inequity on compensation, career, and burnout. *Stroke*, 54(Suppl_1). Available at: https://doi.org/10.1161/str.54.suppl_1.WP93. **Sima Patel is Principal Investigator for Women in Neurology Collaborative Study.**
- 4/2023 AAN** Perception of Gender Equity by Neurology Faculty at 19 U.S. Academic Neurology Centers Annie He, Neishay Ayub, MD, Parneet Grewal, MD, Jane B. Allendorfer, PhD, Sasha Alick-Lindstrom, MD, Cynthia Zheng, Kim Eng Kee, MS, Halley B. Alexander, MD, Doris Kung, DO, Christa O'Hana Nobleza, MD, Natasha Frost, MD, Nicole Brescia, MD, Alyssa Westring, PhD, Julie Silver, MD, **Sima I. Patel**. American Academy of Neurology, 2023. **Sima Patel is Principal Investigator for Women in Neurology Collaborative Study.**
- 11/4/2023 AAMC** Macheledt K, **Patel S**, Dwivedi R, Pusalavidyasagar S, Church A, Guo C, Evans M, Spencer S, Berge J, Misono S: Academic Medicine Women Faculty Leaders During a Crisis: Workload, Productivity, and Well-being. Poster presented at: Learn Serve Lead 2023: THE AAMC Annual Meeting; Seattle, Washington.
- 12/2022 AES** Reeder, S. Birnabuam, A. Achvacht, C. **Patel, SI**. Discontinuation Characteristics in Older Adults with Epilepsy Taking Lacosamide. American Epilepsy Society Meeting.
- 9/24/2021 WIM** Considerations for Gender Equity and Strengthening Health Systems. Women in Medicine Summit. Spencer, S, Macheledt K, Pratt R, Ghebre R, Pusalavidyasagar S, MD; **Patel S**, Watson S, Berge J.
- 5/26/2020** Antiseizure Drug Adjustments During Pregnancy: A Retrospective Analysis. Siegel L, **Patel S**, Illamola S, Birnbaum A. American College of Clinical Pharmacy: UMN Virtual Symposium.
- 12/2019 AES** Use of Perampanel without blood level monitoring. Yonas I, Leppik I, Walczak T, Henry T, **Patel, S**, Birnbaum A. American Epilepsy Society Meeting 2019.
- 2018** CBD Absorption on EEG and Cognition. Leppik I, **Patel SI**, Birnbaum A, Karanam A, Marino S, Barkley C, Gramling-Aden M. Epilepsy, Mind and Brain in Brno, Czech Republic
- 2018** Quality Improvement Project on patient calls in outpatient clinics. Quraishi A, **Patel SI**, Millman C, Busch J. Enhanced Epilepsy Care and Support for MINEP Patients. University of Minnesota Research Day.
- 2013 AES** Overall Yield and Predictors of Seizure Occurrence in A Large Intensive Care Unit Video-EEG Monitoring Experience Walczak T, **Patel S**, Leppik I, Walczak EG, Gumnit R. American Epilepsy Society.

Updated 11/2025

- 2012 AAN** Are Menopausal Women with Refractory Epilepsy at Higher Risk for Mood Disorders and Suicide Risk? American Academy of Neurology. **Patel SI** and Nancy Foldvary. 2012 AND Cleveland Clinic Research Forum.
- 2012** Are Menopausal Women with Refractory Epilepsy at Higher Risk for Mood Disorders and Suicide Risk? **Patel SI** and Nancy Foldvary. Cleveland Clinic Research Forum.
- 2011 AES** Depression and quality of life in women with epilepsy during Menopause **Patel SI**, Foldvary-Schaefer N, Viguera A. American Epilepsy Society
- 2007** Cryptococcus Meningitis in the Normal Host. **Patel SI**. Medical College of Wisconsin Research Forum.

Teaching and Curriculum Development

University of Minnesota
Invited Lecture

- 2/2025 – present** Neurology resident EEG and Epilepsy Education. Hennepin County Medical Center. Minneapolis, MN
- 5/2016 – 2025** Neurology Resident Friday School Epilepsy Sub-Director. Organized epilepsy lecture block (11 lectures). Department of Neurology at University of Minnesota
- 2013 – 2024** Neurology resident education on seizure/epilepsy clinical care and video EEG interpretation for EEG/Epilepsy rotation. Department of Neurology at University of Minnesota
- 2/26/2016** Epilepsy Board Review Lecture for Neurosurgery Residents at University of Minnesota. Neurosurgery resident attendees 12

Curriculum Development

- 2025-present** Neurology Resident EEG/Epilepsy Curriculum development Hennepin Health Care System for University of Minnesota Neurology Residents and Medical Students
- New EEG curriculum with CME for providers and EEG technologist
- 2017 –2024** Neurology Resident EEG/Epilepsy Curriculum development and organization University of Minnesota
- New curriculum created with Dr. Henry Director of Epilepsy Fellowship
 - Since 2017 this impact over 60 learners
 - Engage in monthly epilepsy curriculum meetings to evaluate curriculum

Educational Collaborative Efforts and Activities

- 2024 - present** Neurology Residents EEG education on interpretation, video EEG reports, and epilepsy clinical management. Hennepin Health Care and Department of Neurology at University of Minnesota
- 2016 – 2024** Neurology medical student, resident, and Epilepsy Fellow preceptor for outpatient epilepsy clinical care
- 2013 – 2024** Neurophysiology and Epilepsy Fellows: Neurophysiology fellow supervision of video EEG (scalp and intracranial) interpretation, video EEG reports, and epilepsy clinical management. Department of Neurology at University of Minnesota

System Infrastructure Development

Clinical Leadership Accomplishments and Quality Improvement Projects

2024 - Present

Hennepin County Medical Center. Minneapolis, Minnesota

- Neuroscience Deep Dive Committee- committee plays a key role in shaping the next decade of care and integrating innovative ideas into the development of a new hospital in downtown Minneapolis, which will serve the underserved communities in Twin Cities. 2025-2025. Multiple meetings, interdisciplinary collaboration, and systems leadership on video EEG and epilepsy care.
- Organized, established, implemented Status Epilepticus Intensive Care Unit algorithm with multidisciplinary team and integration in EPIC (Spring 2025)
- Organized, established, and implemented collaboration and workflow with Stratus for home video EEG for patients. 2024-2025
- Organized Status Epilepticus Protocol for Medical Emergency Team and Ambulatory Resuscitation at Hennepin Health Systemwide (Spring 2025)
- Organized and implemented Vagus Nerve Stimulator Workflow and collaboration with Liva Nova for Patient Education (1/2025)
- Organized and implemented workflow for pharmacist integration in Epilepsy Clinic Workflow (Winter 2024)
- Organized and implemented Women with Epilepsy and Pregnancy Clinical Management protocol. (Winter 2024)
- Created multiple clinical template notes for outpatient epilepsy care (H&P, progress note, pharmacy note, pregnancy progress note, EEG report) 2024.

2013 – 2024

University of Minnesota Medical Center/Fairview Hospital/MINCEP Epilepsy Clinic. EPIC EMR (electronic medical records) Implementation. Minneapolis, Minnesota

- Organized and implemented workflow for MINCEP/UMP Epilepsy clinic electronic medical records
- Created multiple clinical template notes for outpatient epilepsy care (H&P, progress note, pharmacy note, pregnancy progress note, EEG report).
- Organized and assisted in creating flow sheet for longitudinal data collection for clinical management, research use, internal quality assessment, and national AAN guideline measurements.
- Assisted in creating EPIC Adult Epilepsy Monitoring Unit admission order set
- Created and organized EPIC Adult Epilepsy Surgery order set

1/2013 – 2024

University of Minnesota Physicians, MINCEP Epilepsy Clinic Adult Epilepsy Service. Minneapolis, Minnesota

- Organized and implemented Women's Clinic with focus on pregnancy and epilepsy at MINCEP/UMP clinic.
- Organized and implemented UPLIFT (mindful based cognitive stress reduction) program for epilepsy patients with depression at MINCEP/UMP clinic for two years (2013-2015)
- Created and implemented inpatient nurse behavioral seizure testing protocol (ROAR). This is copyrighted and patented by Dr. Sima Patel and held and University of Minnesota.

- Organized education sessions for 6A and NICU nurses on epilepsy and behavioral seizure testing protocol (ROAR), 2 lectures per year from 2016-2018.

1/2013 – 5/2014

Pediatric Epilepsy Service Amplatz Children Hospital/MINCEP Epilepsy. Minneapolis, Minnesota

- Created and organized EPIC Pediatric Epilepsy Admission Order
- Created nurse behavioral seizure testing protocol (ROAR) for pediatric patients.

2/2018 – 9/2018

Quality Improvement Project for Outpatient Epilepsy Care: Objective of the project is to reduce outpatient calls from 400 to 300. University of Minnesota Medical Center/Fairview Hospital/MINCEP Epilepsy University of Minnesota Medical Center/Fairview Hospital/MINCEP Epilepsy

Membership in Professional Organizations

2023 – present Association of Indian Neurologist in America

2023 – present Fellow American Neurological Association

2019 – Present Fellow American Epilepsy Society

2010 – Present Member American Epilepsy Society

2006 – 2024 Member American Academy of Neurology

2018 – 2023 Member American Women Medical Association.

Service and Committee Leadership at National, Local, and Institutional Level

2026 – 2029 Chair of Governance Committee Board of Directors, Epilepsy Foundation of Minnesota

2024 – 2026 Vice Chair of Governance Committee Board of Directors, Epilepsy Foundation of Minnesota

2023 – 2026 Member of Board of Directors, Epilepsy Foundation of Minnesota

2022 – 2024 Diversity, Equity, Inclusion Council University of Minnesota Medical School

2022 – 2024 Chair Digital Advisory Committee American Epilepsy Society

2018 – 2024 University of Minnesota Center for Women in Medicine and Science Action Group Salary, Resource, and Leadership Equity

2020 – 2022 Vice Chair Digital Advisory Committee American Epilepsy Society

2020 – 2022 Vice Chair of Epilepsy Synapse American Academy of Neurology

2016 – 2022 Organizer and Volunteer for Women in Neurology Network.

2018 – 2021 Member American Women Medical Association, Committee for Gender Equity and Advocacy Committee

2012 – 2017 Board of Directors, Epilepsy Advocacy and Employment Group Minnesota