



Jaimie Henderson, MD

John and Jene Blume - Robert and Ruth Halperin Professor, Professor of Neurosurgery and, by courtesy, of Neurology and Neurological Sciences

CLINICAL OFFICE (PRIMARY)

- **Stanford Neuroscience Health Center**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Kathy Tsou

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Bio

CLINICAL FOCUS

- Functional Neurosurgery
- Movement Disorders
- Epilepsy
- Neurological Surgery
- Trigeminal Neuralgia
- Deep Brain Stimulation
- Neuromodulation

ACADEMIC APPOINTMENTS

- Professor - University Medical Line, Neurosurgery
- Professor - University Medical Line (By courtesy), Neurology
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Director, Stereotactic and Functional Neurosurgery, (2004- present)

PROFESSIONAL EDUCATION

- Fellowship: Loma Linda University Neurosurgery Training Programs (1995) CA
- Residency: Saint Louis University GME Verifications (1995) MO
- Internship: Rush University Medical Center General Surgery Residency (1989) IL
- Medical Education: Rush University Office of the Registrar (1988) IL

- Board Certification: Neurological Surgery, American Board of Neurological Surgery (2000)
- M.D., Rush Medical College, Medicine (1988)
- B.A., Washington University, St. Louis, Biology (1984)

LINKS

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interests encompass several areas of stereotactic and functional neurosurgery, including frameless stereotactic approaches for therapy delivery to deep brain nuclei; cortical physiology and its relationship to normal and pathological movement; brain-computer interfaces; and the development of novel neuromodulatory techniques for the treatment of movement disorders, epilepsy, pain, and other neurological diseases.

CLINICAL TRIALS

- BrainGate2: Feasibility Study of an Intracortical Neural Interface System for Persons With Tetraplegia, Recruiting
- FIH Study of NRTX-1001 Neural Cell Therapy in Drug-Resistant Unilateral Mesial Temporal Lobe Epilepsy, Recruiting

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Sasi Madugula

Doctoral Dissertation Co-Advisor (NonAC)

Alisa Levin, Benyamin Meschede-Krasa

Doctoral Dissertation Reader (NonAC)

Deniz Bingul, Erin Kunz

Doctoral (Program)

Chaofei Fan

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **A high-performance brain-computer interface for finger decoding and quadcopter game control in an individual with paralysis.** *Nature medicine*
Willsey, M. S., Shah, N. P., Avansino, D. T., Hahn, N. V., Jamiolkowski, R. M., Kamdar, F. B., Hochberg, L. R., Willett, F. R., Henderson, J. M.
2025
- **An Accurate and Rapidly Calibrating Speech Neuroprosthesis.** *The New England journal of medicine*
Card, N. S., Wairagkar, M., Iacobacci, C., Hou, X., Singer-Clark, T., Willett, F. R., Kunz, E. M., Fan, C., Vahdati Nia, M., Deo, D. R., Srinivasan, A., Choi, E. Y., Glasser, et al
2024; 391 (7): 609-618
- **Thalamic deep brain stimulation in traumatic brain injury: a phase 1, randomized feasibility study.** *Nature medicine*

- Schiff, N. D., Giacino, J. T., Butson, C. R., Choi, E. Y., Baker, J. L., O'Sullivan, K. P., Janson, A. P., Bergin, M., Bronte-Stewart, H. M., Chua, J., DeGeorge, L., Dikmen, S., Fogarty, et al
2023
- **A high-performance speech neuroprosthesis.** *Nature*
Willett, F. R., Kunz, E. M., Fan, C., Avansino, D. T., Wilson, G. H., Choi, E. Y., Kamdar, F., Glasser, M. F., Hochberg, L. R., Druckmann, S., Shenoy, K. V., Henderson, J. M.
2023
 - **High-performance brain-to-text communication via handwriting.** *Nature*
Willett, F. R., Avansino, D. T., Hochberg, L. R., Henderson, J. M., Shenoy, K. V.
2021; 593 (7858): 249–54
 - **Deep posteromedial cortical rhythm in dissociation.** *Nature*
Vesuna, S., Kauvar, I. V., Richman, E., Gore, F., Oskotsky, T., Sava-Segal, C., Luo, L., Malenka, R. C., Henderson, J. M., Nuyujukian, P., Parvizi, J., Deisseroth, K.
2020
 - **Hand Knob Area of Premotor Cortex Represents the Whole Body in a Compositional Way.** *Cell*
Willett, F. R., Deo, D. R., Avansino, D. T., Rezaii, P., Hochberg, L. R., Henderson, J. M., Shenoy, K. V.
2020
 - **High performance communication by people with paralysis using an intracortical brain-computer interface.** *eLife*
Pandarinath, C., Nuyujukian, P., Blabe, C. H., Sorice, B. L., Saab, J., Willett, F. R., Hochberg, L. R., Shenoy, K. V., Henderson, J. M.
2017; 6
 - **Clinical translation of a high-performance neural prosthesis.** *Nature medicine*
Gilja, V., Pandarinath, C., Blabe, C. H., Nuyujukian, P., Simeral, J. D., Sarma, A. A., Sorice, B. L., Perge, J. A., Jarosiewicz, B., Hochberg, L. R., Shenoy, K. V., Henderson, J. M.
2015; 21 (10): 1142-1145
 - **Multi-gesture drag-and-drop decoding in a 2D iBCI control task.** *Journal of neural engineering*
Gusman, J. T., Hosman, T., Crawford, R., Singer-Clark, T., Kapitonava, A., Kelemen, J., Hahn, N., Henderson, J. M., Hochberg, L., Simeral, J., Vargas-Irwin, C.
2025
 - **"Quality over quantity:" smaller, targeted lesions optimize quality of life outcomes after MR-guided focused ultrasound thalamotomy for essential tremor.** *Frontiers in neurology*
Buch, V. P., Purger, D., Datta, A., Wang, A., Barbosa, D., Chodakiewitz, Y., Lev-Tov, L., Li, C., Halpern, C., Henderson, J., McNab, J. A., Bitton, R. R., Ghanouni, et al
2024; 15: 1450699
 - **Measuring instability in chronic human intracortical neural recordings towards stable, long-term brain-computer interfaces.** *Communications biology*
Pun, T. K., Khoshnevis, M., Hosman, T., Wilson, G. H., Kapitonava, A., Kamdar, F., Henderson, J. M., Simeral, J. D., Vargas-Irwin, C. E., Harrison, M. T., Hochberg, L. R.
2024; 7 (1): 1363
 - **A flexible intracortical brain-computer interface for typing using finger movements.** *bioRxiv : the preprint server for biology*
Shah, N. P., Willsey, M. S., Hahn, N., Kamdar, F., Avansino, D. T., Fan, C., Hochberg, L. R., Willett, F. R., Henderson, J. M.
2024
 - **An accurate and rapidly calibrating speech neuroprosthesis.** *medRxiv : the preprint server for health sciences*
Card, N. S., Wairagkar, M., Iacobacci, C., Hou, X., Singer-Clark, T., Willett, F. R., Kunz, E. M., Fan, C., Nia, M. V., Deo, D. R., Srinivasan, A., Choi, E. Y., Glasser, et al
2024
 - **Measuring instability in chronic human intracortical neural recordings towards stable, long-term brain-computer interfaces.** *bioRxiv : the preprint server for biology*
Pun, T. K., Khoshnevis, M., Hosman, T., Wilson, G. H., Kapitonava, A., Kamdar, F., Henderson, J. M., Simeral, J. D., Vargas-Irwin, C. E., Harrison, M. T., Hochberg, L. R.

2024

- **A real-time, high-performance brain-computer interface for finger decoding and quadcopter control.** *bioRxiv : the preprint server for biology*
Willsey, M. S., Shah, N. P., Avansino, D. T., Hahn, N. V., Jamiolkowski, R. M., Kamdar, F. B., Hochberg, L. R., Willett, F. R., Henderson, J. M.
2024
- **Brain control of bimanual movement enabled by recurrent neural networks.** *Scientific reports*
Deo, D. R., Willett, F. R., Avansino, D. T., Hochberg, L. R., Henderson, J. M., Shenoy, K. V.
2024; 14 (1): 1598
- **Plug-and-Play Stability for Intracortical Brain-Computer Interfaces: A One-Year Demonstration of Seamless Brain-to-Text Communication.** *Advances in neural information processing systems*
Fan, C., Hahn, N., Kamdar, F., Avansino, D., Wilson, G. H., Hochberg, L., Shenoy, K. V., Henderson, J. M., Willett, F. R.
2023; 36: 42258-42270
- **Stimulation of the thalamus for arousal restoral in temporal lobe epilepsy (START) clinical trial**
Blumenfeld, H., Yadav, T., Zhang, Z., Benjamin, C., DaCosta, K., Christison-Lagay, K., Damisah, E., Derry, A., Gummadavelli, A., Hirsch, L., Oriol, M., Litvinov, B., Spencer, et al
WILEY.2023: 52
- **Subject and Family Perspectives from the Central Thalamic Deep Brain Stimulation Trial for Traumatic Brain Injury: Part II.** *Cambridge quarterly of healthcare ethics : CQ : the international journal of healthcare ethics committees*
Fins, J. J., Wright, M. S., Shulman, K. S., Henderson, J. M., Schiff, N. D.
2023: 1-24
- **Pseudo-linear Summation explains Neural Geometry of Multi-finger Movements in Human Premotor Cortex.** *bioRxiv : the preprint server for biology*
Shah, N. P., Avansino, D., Kamdar, F., Nicolas, C., Kapitonava, A., Vargas-Irwin, C., Hochberg, L., Pandarinath, C., Shenoy, K., Willett, F. R., Henderson, J.
2023
- **An Individualized Tractography Pipeline for the Nucleus Basalis of Meynert Lateral Tract.** *medRxiv : the preprint server for health sciences*
Crockett, R. A., Wilkins, K. B., Zeineh, M. M., McNab, J. A., Henderson, J. M., Buch, V. P., Brontë-Stewart, H. M.
2023
- **Translating deep learning to neuroprosthetic control.** *bioRxiv : the preprint server for biology*
Deo, D. R., Willett, F. R., Avansino, D. T., Hochberg, L. R., Henderson, J. M., Shenoy, K. V.
2023
- **A brain-computer typing interface using finger movements.** *International IEEE/EMBS Conference on Neural Engineering : [proceedings]. International IEEE EMBS Conference on Neural Engineering*
Shah, N. P., Willsey, M. S., Hahn, N., Kamdar, F., Avansino, D. T., Hochberg, L. R., Shenoy, K. V., Henderson, J. M.
2023; 2023
- **Long-term unsupervised recalibration of cursor BCIs.** *bioRxiv : the preprint server for biology*
Wilson, G. H., Willett, F. R., Stein, E. A., Kamdar, F., Avansino, D. T., Hochberg, L. R., Shenoy, K. V., Druckmann, S., Henderson, J. M.
2023
- **Interim Safety Profile From the Feasibility Study of the BrainGate Neural Interface System.** *Neurology*
Rubin, D. B., Ajiboye, A. B., Barefoot, L., Bowker, M., Cash, S. S., Chen, D., Donoghue, J. P., Eskandar, E. N., Friebs, G., Grant, C., Henderson, J. M., Kirsch, R. F., Marujo, et al
2023
- **Plug-and-Play Stability for Intracortical Brain-Computer Interfaces: A One-Year Demonstration of Seamless Brain-to-Text Communication**
Fan, C., Hahn, N., Kamdar, F., Avansino, D., Wilson, G. H., Hochberg, L., Shenoy, K. V., Henderson, J. M., Willett, F. R., Oh, A., Neumann, T., Globerson, A., Saenko, et al
NEURAL INFORMATION PROCESSING SYSTEMS (NIPS).2023
- **Subject and Family Perspectives from the Central Thalamic Deep Brain Stimulation for Traumatic Brain Injury Study: Part I.** *Cambridge quarterly of healthcare ethics : CQ : the international journal of healthcare ethics committees*
Fins, J. J., Wright, M. S., Henderson, J. M., Schiff, N. D.

2022; 31 (4): 419-443

- **Changes In The Cerebello-thalamo-cortical Network After MR-guided Focused Ultrasound Thalamotomy.** *Brain connectivity*
Thaler, C., Tian, Q., Wintermark, M., Ghanouni, P., Halpern, C., Henderson, J., Airan, R., Zeineh, M., Goubran, M., Leuze, C., Fiehler, J., Butts Pauly, K., McNab, et al
2022
- **A Retrospective Cohort Study of Implantable Pulse Generator Surgical Site Infections After Deep Brain Stimulation Surgery With an Antibacterial Envelope.** *Neuromodulation : journal of the International Neuromodulation Society*
Sayadi, J. J., Rodrigues, A. J., Patel, N. A., Ayer, A., Henderson, J. M.
2022
- **Next-generation BCIs: Brain-to-text Communication via Attempted Handwriting**
Willett, F. R., Avansino, D. T., Hochberg, L. R., Henderson, J. M., Shenoy, K. V., IEEE
IEEE.2022
- **Proceedings of the 10th annual deep brain stimulation think tank: Advances in cutting edge technologies, artificial intelligence, neuromodulation, neuroethics, interventional psychiatry, and women in neuromodulation.** *Frontiers in human neuroscience*
Wong, J. K., Mayberg, H. S., Wang, D. D., Richardson, R. M., Halpern, C. H., Krinke, L., Arlotti, M., Rossi, L., Priori, A., Marceglia, S., Gilron, R., Cavanagh, J. F., Judy, et al
2022; 16: 1084782
- **Proceedings of the Ninth Annual Deep Brain Stimulation Think Tank: Advances in Cutting Edge Technologies, Artificial Intelligence, Neuromodulation, Neuroethics, Pain, Interventional Psychiatry, Epilepsy, and Traumatic Brain Injury.** *Frontiers in human neuroscience*
Wong, J. K., Deuschl, G., Wolke, R., Bergman, H., Muthuraman, M., Groppa, S., Sheth, S. A., Bronte-Stewart, H. M., Wilkins, K. B., Petrucci, M. N., Lambert, E., Kehnemouyi, Y., Starr, et al
2022; 16: 813387
- **Experience and consensus on stimulation of the anterior nucleus of thalamus for epilepsy.** *Epilepsia*
Fasano, A., Eliashiv, D., Herman, S. T., Lundstrom, B. N., Polnerow, D., Henderson, J. M., Fisher, R. S.
2021
- **Lack of progression of beta dynamics after long-term subthalamic neurostimulation.** *Annals of clinical and translational neurology*
Anderson, R. W., Wilkins, K. B., Parker, J. E., Petrucci, M. N., Kehnemouyi, Y., Neuville, R. S., Cassini, D., Trager, M. H., Koop, M. M., Velisar, A., Blumenfeld, Z., Quinn, E. J., Henderson, et al
2021
- **Effects of Peripheral Haptic Feedback on Intracortical Brain-Computer Interface Control and Associated Sensory Responses in Motor Cortex** *IEEE TRANSACTIONS ON HAPTICS*
Deo, D. R., Rezaei, P., Hochberg, L. R., Okamura, A. M., Shenoy, K., Henderson, J. M.
2021; 14 (4): 762-775
- **Altered sense of self during seizures in the posteromedial cortex.** *Proceedings of the National Academy of Sciences of the United States of America*
Parvizi, J., Braga, R. M., Kucyi, A., Veit, M. J., Pinheiro-Chagas, P., Perry, C., Sava-Segal, C., Zeineh, M., van Staalduinen, E. K., Henderson, J. M., Markert, M.
2021; 118 (29)
- **Home Use of a Percutaneous Wireless Intracortical Brain-Computer Interface by Individuals With Tetraplegia** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Simeral, J. D., Hosman, T., Saab, J., Flesher, S. N., Vilela, M., Franco, B., Kelemen, J. N., Brandman, D. M., Ciancibello, J. G., Rezaei, P. G., Eskandar, E. N., Rosler, D. M., Shenoy, et al
2021; 68 (7): 2313-2325
- **Empiricism and Rights Justify the Allocation of Health Care Resources to Persons with Disorders of Consciousness.** *AJOB neuroscience*
Giacino, J. T., Bodien, Y. G., Zuckerman, D., Henderson, J., Schiff, N. D., Fins, J. J.
2021; 12 (2-3): 169-71
- **In Pursuit of Agency Ex Machina: Expanding the Map in Severe Brain Injury.** *AJOB neuroscience*
Fins, J. J., Wright, M. S., Giacino, J. T., Henderson, J., Schiff, N. D.
2021; 12 (2-3): 200-202

- **Commentary: Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines for Deep Brain Stimulations for Obsessive Compulsive Disorder: Update of the 2014 Guidelines.** *Neurosurgery*
Henderson, J. M.
2021
- **The Neural Representation of Force across Grasp Types in Motor Cortex of Humans with Tetraplegia.** *eNeuro*
Rastogi, A., Willett, F. R., Abreu, J., Crowder, D. C., Murphy, B. A., Memberg, W. D., Vargas-Irwin, C. E., Miller, J. P., Sweet, J., Walter, B. L., Rezaii, P. G., Stavisky, S. D., Hochberg, et al
2021
- **Decoding spoken English from intracortical electrode arrays in dorsal precentral gyrus.** *Journal of neural engineering*
Wilson, G. H., Stavisky, S. D., Willett, F. R., Avansino, D. T., Kelemen, J. N., Hochberg, L. R., Henderson, J. M., Druckmann, S., Shenoy, K. V.
2020; 17 (6): 066007
- **Power-saving design opportunities for wireless intracortical brain-computer interfaces.** *Nature biomedical engineering*
Even-Chen, N., Muratore, D. G., Stavisky, S. D., Hochberg, L. R., Henderson, J. M., Murmann, B., Shenoy, K. V.
2020
- **Impact of skull density ratio on efficacy and safety of magnetic resonance-guided focused ultrasound treatment of essential tremor** *JOURNAL OF NEUROSURGERY*
D'Souza, M., Chen, K. S., Rosenberg, J., Elias, W., Eisenberg, H. M., Gwinn, R., Taira, T., Chang, J., Lipsman, N., Krishna, V., Igase, K., Yamada, K., Kishima, et al
2020; 132 (5): 1392–97
- **Speech-related dorsal motor cortex activity does not interfere with IBCI cursor control.** *Journal of neural engineering*
Stavisky, S. D., Willett, F. R., Avansino, D. T., Hochberg, L. R., Shenoy, K. V., Henderson, J. M.
2020; 17 (1): 016049
- **Neural Representation of Observed, Imagined, and Attempted Grasping Force in Motor Cortex of Individuals with Chronic Tetraplegia.** *Scientific reports*
Rastogi, A. n., Vargas-Irwin, C. E., Willett, F. R., Abreu, J. n., Crowder, D. C., Murphy, B. A., Memberg, W. D., Miller, J. P., Sweet, J. A., Walter, B. L., Cash, S. S., Rezaii, P. G., Franco, et al
2020; 10 (1): 1429
- **Improved Vim targeting for focused ultrasound ablation treatment of essential tremor: A probabilistic and patient-specific approach.** *Human brain mapping*
Su, J. H., Choi, E. Y., Tourdias, T. n., Saranathan, M. n., Halpern, C. H., Henderson, J. M., Pauly, K. B., Ghanouni, P. n., Rutt, B. K.
2020
- **Neural ensemble dynamics in dorsal motor cortex during speech in people with paralysis.** *eLife*
Stavisky, S. D., Willett, F. R., Wilson, G. H., Murphy, B. A., Rezaii, P., Avansino, D. T., Memberg, W. D., Miller, J. P., Kirsch, R. F., Hochberg, L. R., Ajiboye, A. B., Druckmann, S., Shenoy, et al
2019; 8
- **Anatomic and Thermometric Analysis of Cranial Nerve Palsy after Laser Amygdalohippocampotomy for Mesial Temporal Lobe Epilepsy.** *Operative neurosurgery (Hagerstown, Md.)*
Huang, Y., Leung, S. A., Parker, J. J., Ho, A. L., Wintermark, M., Patel, S. H., Pauly, K. B., Kakusa, B. W., Beres, S. J., Henderson, J. M., Grant, G. A., Halpern, C. H.
2019
- **Volitional control of single-electrode high gamma local field potentials by people with paralysis** *JOURNAL OF NEUROPHYSIOLOGY*
Milekovic, T., Bacher, D., Sarma, A. A., Simeral, J. D., Saab, J., Pandarinath, C., Yvert, B., Sorice, B. L., Blabe, C., Oakley, E. M., Tringale, K. R., Eskandar, E., Cash, et al
2019; 121 (4): 1428–50
- **Robot-assisted versus manual navigated stereoelectroencephalography in adult medically-refractory epilepsy patients.** *Epilepsy research*
Kim, L. H., Feng, A. Y., Ho, A. L., Parker, J. J., Kumar, K. K., Chen, K. S., Grant, G. A., Henderson, J. M., Halpern, C. H.
2019; 159: 106253
- **Impact of skull density ratio on efficacy and safety of magnetic resonance-guided focused ultrasound treatment of essential tremor.** *Journal of neurosurgery*

- D'Souza, M. n., Chen, K. S., Rosenberg, J. n., Elias, W. J., Eisenberg, H. M., Gwinn, R. n., Taira, T. n., Chang, J. W., Lipsman, N. n., Krishna, V. n., Igase, K. n., Yamada, K. n., Kishima, et al
2019: 1–6
- **Principled BCI Decoder Design and Parameter Selection Using a Feedback Control Model.** *Scientific reports*
Willett, F. R., Young, D. R., Murphy, B. A., Memberg, W. D., Blabe, C. H., Pandarinath, C. n., Stavisky, S. D., Rezaii, P. n., Saab, J. n., Walter, B. L., Sweet, J. A., Miller, J. P., Henderson, et al
2019; 9 (1): 8881
 - **Cortical control of a tablet computer by people with paralysis** *PLOS ONE*
Nuyujukian, P., Sanabria, J., Saab, J., Pandarinath, C., Jarosiewicz, B., Blabe, C. H., Franco, B., Mernoff, S. T., Eskandar, E. N., Simeral, J. D., Hochberg, L. R., Shenoy, K., Henderson, et al
2018; 13 (11)
 - **Brain-machine interface cursor position only weakly affects monkey and human motor cortical activity in the absence of arm movements.** *Scientific reports*
Stavisky, S. D., Kao, J. C., Nuyujukian, P., Pandarinath, C., Blabe, C., Ryu, S. I., Hochberg, L. R., Henderson, J. M., Shenoy, K. V.
2018; 8 (1): 16357
 - **Laser interstitial thermal therapy (LITT): Seizure outcomes for refractory mesial temporal lobe epilepsy.** *Epilepsy & behavior : E&B*
Le, S., Ho, A. L., Fisher, R. S., Miller, K. J., Henderson, J. M., Grant, G. A., Meador, K. J., Halpern, C. H.
2018; 89: 37–41
 - **Inferring single-trial neural population dynamics using sequential auto-encoders** *NATURE METHODS*
Pandarinath, C., O'Shea, D. J., Collins, J., Jozefowicz, R., Stavisky, S. D., Kao, J. C., Trautmann, E. M., Kaufman, M. T., Ryu, S. I., Hochberg, L. R., Henderson, J. M., Shenoy, K. V., Abbott, et al
2018; 15 (10): 805+
 - **A Comparison of Intention Estimation Methods for Decoder Calibration in Intracortical Brain-Computer Interfaces** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Willett, F. R., Murphy, B. A., Young, D., Memberg, W. D., Blabe, C. H., Pandarinath, C., Franco, B., Saab, J., Walter, B. L., Sweet, J. A., Miller, J. P., Henderson, J. M., Shenoy, et al
2018; 65 (9): 2066–78
 - **Awake versus asleep deep brain stimulation for Parkinson's disease: a critical comparison and meta-analysis** *JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY*
Ho, A. L., Ali, R., Connolly, I. D., Henderson, J. M., Dhall, R., Stein, S. C., Halpern, C. H.
2018; 89 (7): 687–91
 - **Novel application of virtual reality in patient engagement for deep brain stimulation: A pilot study** *BRAIN STIMULATION*
Collins, M. K., Ding, V. Y., Ball, R. L., Dolce, D. L., Henderson, J. M., Halpern, C. H.
2018; 11 (4): 935–37
 - **Rapid calibration of an intracortical brain-computer interface for people with tetraplegia.** *Journal of neural engineering*
Brandman, D. M., Hosman, T. n., Saab, J. n., Burkhart, M. C., Shanahan, B. E., Ciancibello, J. G., Sarma, A. A., Milstein, D. J., Vargas-Irwin, C. E., Franco, B. n., Kelemen, J. n., Blabe, C. n., Murphy, et al
2018; 15 (2): 026007
 - **Decoding Speech from Intracortical Multielectrode Arrays in Dorsal "Arm/Hand Areas" of Human Motor Cortex**
Stavisky, S. D., Rezaii, P., Willett, F. R., Hochberg, L. R., Shenoy, K., Henderson, J. M., IEEE
IEEE.2018: 93–97
 - **Cortical control of a tablet computer by people with paralysis.** *PloS one*
Nuyujukian, P., Albites Sanabria, J., Saab, J., Pandarinath, C., Jarosiewicz, B., Blabe, C. H., Franco, B., Mernoff, S. T., Eskandar, E. N., Simeral, J. D., Hochberg, L. R., Shenoy, K. V., Henderson, et al
2018; 13 (11): e0204566
 - **Diffusion MRI tractography for improved transcranial MRI-guided focused ultrasound thalamotomy targeting for essential tremor** *NEUROIMAGE-CLINICAL*
Tian, Q., Wintermark, M., Elias, W., Ghanouni, P., Halpern, C. H., Henderson, J. M., Huss, D. S., Goubran, M., Thaler, C., Airan, R., Zeineh, M., Pauly, K., McNab, et al

2018; 19: 572–80

- **Stable long-term BCI-enabled communication in ALS and locked-in syndrome using LFP signals.** *Journal of neurophysiology*
Milekovic, T. n., Sarma, A. A., Bacher, D. n., Simeral, J. D., Saab, J. n., Pandarinath, C. n., Sorice, B. L., Blabe, C. n., Oakley, E. M., Tringale, K. R., Eskandar, E. n., Cash, S. S., Henderson, et al
2018
- **Diffusion MRI tractography for improved transcranial MRI-guided focused ultrasound thalamotomy targeting for essential tremor.** *NeuroImage. Clinical*
Tian, Q., Wintermark, M., Jeffrey Elias, W., Ghanouni, P., Halpern, C. H., Henderson, J. M., Huss, D. S., Goubran, M., Thaler, C., Airan, R., Zeineh, M., Pauly, K. B., McNab, et al
2018; 19: 572–80
- **Feasibility of Automatic Error Detect-and-Undo System in Human Intracortical Brain-Computer Interfaces.** *IEEE transactions on bio-medical engineering*
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