Stanford



Helen Bronte-Stewart, MD, MS

John E. Cahill Family Professor, Professor of Neurology and Neurological Sciences (Adult Neurology) and, by courtesy, of Neurosurgery

CLINICAL OFFICE (PRIMARY)

- **Stanford Neuroscience Health Center**

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Bio

BIO

Dr. Helen Bronte-Stewart is the John E Cahill Family Professor in the department of Neurology and Neurological Sciences. She is a neurologist, neurophysiologist and movement disorders specialist, who has used her training in mathematics and physics, bioengineering, neurology, movement disorders, and single unit electrophysiology in primates to develop a rigorous translational program in motor control research in human subjects with movement disorders. Dr. Bronte-Stewart is the Director of the Human Motor Control and Neuromodulation Laboratory, where she has developed computerized, quantitative measurements of motor behavior, which are being implemented in a wide range of Movement Disorders. She is also the Co-Director of the Stanford Balance Center, Her research investigates the brain's contribution to abnormal movement in human subjects, using synchronous brain recordings and quantitative kinematics, and how these are modulated with different frequencies and patterns of neurostimulation. Dr. Bronte-Stewart's team was the first in the United States to implant a sensing neurostimulator, from which they can record brain signals directly, and use the patient's own neural activity to drive the first closed loop neurostimulation studies in Parkinson's disease. This work has led to her team receiving a BRAIN Initiative grant to perform the first closed loop deep brain stimulation studies for gait impairment and freezing of gait in Parkinson's disease. She is the Global Lead Investigator for the first pivotal international multicenter trial of adaptive DBS in Parkinson's disease – the ADAPT-PD trial.

CLINICAL FOCUS

- movement disorders
- Clinical Neurophysiology

ACADEMIC APPOINTMENTS

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

ADMINISTRATIVE APPOINTMENTS

- Director, Stanford Movement Disorders Center, (1999- present)
- Division Chief, Movement Disorders division, Department of Neurology and Neurological Sciences, (1999- present)
- Co-director, Stanford Balance Center, (2010- present)

PROFESSIONAL EDUCATION

- Fellowship: UCSF Medical Center (1992) CA
- Medical Education: Perelman School of Medicine University of Pennsylvania (1984) PA
- Residency: Hospital of the University of Pennsylvania (1988) PA
- Internship: Hospital of the University of Pennsylvania (1985) PA
- Board Certification: Neurology, American Board of Psychiatry and Neurology (1991)
- BA, University of York, England , Mathematics and physics
- MSE, University of Pennsylvania , Bioengineering
- MD, University of Pennsylvania , Medicine

LINKS

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

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research focus is human motor control and brain pathophysiology in movement disorders. Our overall goal is to understand the role of the basal ganglia electrical activity in the pathogenesis of movement disorders. We have developed novel computerized technology to measure fine, limb and postural movement. With these we are measuring local field potentials in basal ganglia nuclei in patients with Parkinson's disease and dystonian and correlating brain signalling with motor behavior.

CLINICAL TRIALS

- Combined STN and NBM Deep Brain Stimulation for Mild Cognitive Impairment in Parkinson's Disease, Recruiting
- Adaptive Closed Loop Neuromodulation and Neural Signatures of Parkinson's Disease, Not Recruiting
- Bilateral Closed Loop Deep Brain Stimulation for Freezing of Gait Using Neural and Kinematic Feedback, Not Recruiting
- Effects of Deep Brain Stimulation (DBS) Frequency on Neural Synchrony, Not Recruiting
- Neural Signatures of Parkinson's Disease, Not Recruiting
- Automated Image-Guided Programming of Deep Brain Stimulation (DBS) for Parkinson's Disease, Not Specified

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Dillan Newbold, Fayed Rassoulou

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (PhD Program)
- Neurosciences (PhD Program)

Publications

PUBLICATIONS

- **Reduced pre-movement subthalamic beta desynchronization marks motor deficit in Parkinson's disease.** *Brain communications*
  Seo, G., Wilkins, K. B., Bronte-Stewart, H. M.
  2026; 8 (4): fcag245

- **Long-Term Personalized Adaptive Deep Brain Stimulation in Parkinson Disease: A Nonrandomized Clinical Trial.** *JAMA neurology*
  Bronte-Stewart, H. M., Beudel, M., Ostrem, J. L., Little, S., Almeida, L., Ramirez-Zamora, A., Fasano, A., Hassell, T., Mitchell, K. T., Moro, E., Gostkowski, M., Chattree, G., de Bie, et al
  2025

- **Remote real time digital monitoring fills a critical gap in the management of Parkinson's disease.** *NPJ Parkinson's disease*
  Negi, A. S., Karjagi, S., Parisi, L., Daley, K. W., Abay, A. K., Gala, A. S., Wilkins, K. B., Hoffman, S. L., Ferris, M. S., Zahed, H., Chattree, G. M., Palushaj, B., Bronte-Stewart, et al
  2025; 11 (1): 239

- **Beta burst-driven adaptive deep brain stimulation for gait impairment and freezing of gait in Parkinson's disease.** *Brain communications*
  Wilkins, K. B., Petrucci, M. N., Lambert, E. F., Melbourne, J. A., Gala, A. S., Akella, P., Parisi, L., Cui, C., Kehnemouyi, Y. M., Hoffman, S. L., Aditham, S., Diep, C., Dorris, et al
  2025; 7 (4): fcaf266

- **Conversion of Mild Cognitive Impairment to Alzheimer's Disease is Associated with Lateral Tract Degeneration of the Nucleus Basalis of Meynert**
  Casselton, C., Wilkins, K., Seo, G., Howard, T., Abay, A., Negi, A., Crockett, R., Bronte-Stewart, H.
  LIPPINCOTT WILLIAMS & WILKINS.2025

- **Closing the loop in DBS: A data-driven approach.** *Parkinsonism & related disorders*
  Acharyya, P., Daley, K. W., Choi, J. W., Wilkins, K. B., Karjagi, S., Cui, C., Seo, G., Abay, A. K., Bronte-Stewart, H. M.
  2025: 107348

- **N2GNet tracks gait performance from subthalamic neural signals in Parkinson's disease.** *NPJ digital medicine*
  Choi, J. W., Cui, C., Wilkins, K. B., Bronte-Stewart, H. M.
  2025; 8 (1): 7

- **N2GNet tracks gait performance from subthalamic neural signals in Parkinson's disease.** *Research square*
  Choi, J. W., Cui, C., Wilkins, K., Bronte-Stewart, H.
  2024

- **Sensing data and methodology from the Adaptive DBS Algorithm for Personalized Therapy in Parkinson's Disease (ADAPT-PD) clinical trial.** *NPJ Parkinson's disease*
  Stanslaski, S., Summers, R. L., Tonder, L., Tan, Y., Case, M., Raike, R. S., Morelli, N., Herrington, T. M., Beudel, M., Ostrem, J. L., Little, S., Almeida, L., Ramirez-Zamora, et al
  2024; 10 (1): 174

- **The digital signature of emergent tremor in Parkinson's disease.** *NPJ Parkinson's disease*
  Gala, A. S., Wilkins, K. B., Petrucci, M. N., Kehnemouyi, Y. M., Velisar, A., Trager, M. H., Bronte-Stewart, H. M.
  2024; 10 (1): 147

- **Comprehensive real time remote monitoring for Parkinson's disease using Quantitative DigitoGraphy.** *NPJ Parkinson's disease*
  Hoffman, S. L., Schmiedmayer, P., Gala, A. S., Wilkins, K. B., Parisi, L., Karjagi, S., Negi, A. S., Revlock, S., Coriz, C., Revlock, J., Ravi, V., Bronte-Stewart, H.
  2024; 10 (1): 137

- **No laughing white matter: Reduced integrity of the cortical cholinergic pathways in Parkinson's disease-related cognitive impairment.** *Neurobiology of disease*
  Crockett, R. A., Wilkins, K. B., Aditham, S., Brontë-Stewart, H. M.
  2023: 106243

- **Kinematic adaptive deep brain stimulation for gait impairment and freezing of gait in Parkinson's disease.** *Brain stimulation*
  Melbourne, J. A., Kehnemouyi, Y. M., O'Day, J. J., Wilkins, K. B., Gala, A. S., Petrucci, M. N., Lambert, E. F., Dorris, H., Diep, C., Herron, J. A., Bronte-Stewart, H. M.
  2023
- **Hope vs. Hype: Closed loop technology will provide more meaningful improvement vs. directional leads in deep brain stimulation.** *Parkinsonism & related disorders*
  Bronte-Stewart, H., Merola, A.
  2023: 105452
- **No Laughing White Matter: Cortical Cholinergic Pathways and Cognitive Decline in Parkinson's Disease.** *medRxiv : the preprint server for health sciences*
  Crockett, R. A., Wilkins, K. B., Aditham, S., Brontë-Stewart, H. M.
  2023
- **The Sequence Effect Worsens Over Time in Parkinson's Disease and Responds to Open and Closed-Loop Subthalamic Nucleus Deep Brain Stimulation.** *Journal of Parkinson's disease*
  Kehnemouyi, Y. M., Petrucci, M. N., Wilkins, K. B., Melbourne, J. A., Bronte-Stewart, H. M.
  2023
- **Bradykinesia and its progression are related to inter-hemispheric beta coherence.** *Annals of neurology*
  Wilkins, K. B., Kehnemouyi, Y. M., Petrucci, M. N., Anderson, R. W., Parker, J. E., Trager, M. H., Neuville, R. S., Koop, M. M., Velisar, A., Blumenfeld, Z., Quinn, E. J., Bronte-Stewart, H. M.
  2023
- **Unraveling the complexities of programming neural adaptive deep brain stimulation in Parkinson's disease.** *Frontiers in human neuroscience*
  Wilkins, K. B., Melbourne, J. A., Akella, P., Bronte-Stewart, H. M.
  2023; 17: 1310393
- **Quantitative Digitography Measures Motor Symptoms and Disease Progression in Parkinson's Disease.** *Journal of Parkinson's disease*
  Wilkins, K. B., Petrucci, M. N., Kehnemouyi, Y., Velisar, A., Han, K., Orthlieb, G., Trager, M. H., O'Day, J. J., Aditham, S., Bronte-Stewart, H.
  2022
- **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
- **A validated measure of rigidity in Parkinson's disease using alternating finger tapping on an engineered keyboard.** *Parkinsonism & related disorders*
  Trager, M. H., Wilkins, K. B., Koop, M. M., Bronte-Stewart, H.
  2020; 81: 161–64
- **Perspective: Evolution of Control Variables and Policies for Closed-Loop Deep Brain Stimulation for Parkinson's Disease Using Bidirectional Deep-Brain-Computer Interfaces.** *Frontiers in human neuroscience*
  Bronte-Stewart, H. M., Petrucci, M. N., O'Day, J. J., Afzal, M. F., Parker, J. E., Kehnemouyi, Y. M., Wilkins, K. B., Orthlieb, G. C., Hoffman, S. L.
  2020; 14: 353
- **Modulation of beta bursts in subthalamic sensorimotor circuits predicts improvement in bradykinesia.** *Brain : a journal of neurology*
  Kehnemouyi, Y. M., Wilkins, K. B., Anidi, C. M., Anderson, R. W., Afzal, M. F., Bronte-Stewart, H. M.
  2020
- **Directional Adaptive Deep Brain Stimulation: An Initial Report of Safety, Tolerability, and Effectiveness.** *Movement disorders : official journal of the Movement Disorder Society*
  Beudel, M., Herrington, T. M., Little, S., Ostrem, J. L., Almeida, L., Ramirez-Zamora, A., Fasano, A., Hassell, T., Mitchell, K. T., Moro, E., Gostkowski, M., Stanslaski, S., Summers, et al
  2026
- **ANA Investigates: Adaptive Deep Brain Stimulation.** *Annals of neurology*
  Lizarraga, K. J., Goss, A. L., Hurley, J., Bronte-Stewart, H. M.

2026; 100 (2): 233-234

- **ANA Investigates: Adaptive Deep Brain Stimulation** *ANNALS OF NEUROLOGY*
  Lizarraga, K. J., Goss, A. L., Hurley, J., Bronte-Stewart, H. M.
  2026
- **N2G calibrator: a cross-subject adversarial learning framework for neural signal-driven gait tracking in Parkinson's disease.** *Communications engineering*
  Choi, J. W., Bronte-Stewart, H. M.
  2026
- **Mobile EEG assessment of inhibitory control during dual-task walking in Parkinson's disease.** *Parkinsonism & related disorders*
  Lizarraga, K. J., Patelaki, E., Kim, M., Kim, J., McDermott, M. P., Weber, M. T., Hallett, M., Okun, M. S., Bronte-Stewart, H. M., Schifitto, G., Freedman, E. G., Foxe, J. J.
  2026; 147: 108317
- **Proceedings of the 13th annual deep brain stimulation think tank: the evolving landscape.** *Frontiers in human neuroscience*
  Fleeting, C. R., Moraud, E. M., Uğurbil, K., Wang, D. D., Neumann, W. J., Kühn, A. A., Voon, V., Pikov, V., Welter, M. L., Fox, M. D., Rolston, J. D., Malekmohammadi, M., Pathak, et al
  2026; 20: 1770451
- **Real-Time Kinematic Adaptive Deep Brain Stimulation Safely Reduces Gait Impairment and Freezing of Gait in Parkinson's Disease.** *medRxiv : the preprint server for health sciences*
  Karjagi, S., Kehnemouyi, Y. M., Petrucci, M. N., Parisi, L., Lambert, E. F., Melbourne, J. A., Akella, P., Wilkins, K. B., O'Day, J., Dorris, H. J., Diep, C., Gala, A. S., Cui, et al
  2026
- **At home monitoring of chronic adaptive deep brain stimulation for Parkinson's disease.** *Brain stimulation*
  Cui, C., Choi, J. W., Karjagi, S., Wilkins, K. B., Negi, A., Bronte-Stewart, H. M.
  2026: 103028
- **Subthalamic deep brain stimulation alleviates the gait sequence effect and freezing of gait in Parkinson's disease.** *Parkinsonism & related disorders*
  Cui, C., Je, G., Wilkins, K. B., Schulte, T., Bronte-Stewart, H. M.
  2025: 108062
- **The effect of subthalamic nucleus deep brain stimulation on speech metrics in Parkinson's disease.** *Parkinsonism & related disorders*
  Je, G., Akella, P., Wilkins, K. B., Bronte-Stewart, H. M.
  2025; 140: 108053
- **Lateral thinking: Neurodegeneration of the cortical cholinergic system in Alzheimer's disease.** *Neurobiology of disease*
  Crockett, R. A., Casselton, C., Howard, T. M., Wilkins, K. B., Seo, G., Brontë-Stewart, H. M.
  2024: 106677
- **The Role of MRI-Visible Perivascular Spaces for Cognitive Dysfunction in Aging with Neuroinflammatory and Neurodegenerative Disorders**
  Muller-Oehring, E., Hachandra, D., Younes, K., Peterson, E. T., Winer, J., Cobigo, Y., Rosen, H., Young, C. B., Bronte-Stewart, H. M., McGlynn, L., Poston, K. L., Schulte, T.
  WILEY.2024: S234-S235
- **Lateral Thinking: Pathway Specific Neurodegeneration of the Cortical Cholinergic System in Alzheimer's Disease.** *medRxiv : the preprint server for health sciences*
  Crockett, R. A., Casselton, C., Howard, T. M., Wilkins, K. B., Seo, G., Brontë-Stewart, H. M.
  2024
- **An individualized tractography pipeline for the nucleus basalis of Meynert lateral tract.** *Imaging neuroscience (Cambridge, Mass.)*
  Crockett, R. A., Wilkins, K. B., Zeineh, M. M., McNab, J. A., Henderson, J. M., Buch, V. P., Brontë-Stewart, H. M.
  2024; 2
- **Proceedings of the 11th Annual Deep Brain Stimulation Think Tank: pushing the forefront of neuromodulation with functional network mapping, biomarkers for adaptive DBS, bioethical dilemmas, AI-guided neuromodulation, and translational advancements.** *Frontiers in human neuroscience*

Johnson, K. A., Dosenbach, N. U., Gordon, E. M., Welle, C. G., Wilkins, K. B., Bronte-Stewart, H. M., Voon, V., Morishita, T., Sakai, Y., Merner, A. R., Lazaro-Munoz, G., Williamson, T., Horn, et al

2024; 18: 1320806

- **An individualized tractography pipeline for the nucleus basalis of Meynert lateral tract** *Imaging Neuroscience*

  Crockett, R. A., Wilkins, K. B., Zeineh, M. M., McNab, J. A., Henderson, J. M., Buch, V. P., Brontë-Stewart, H. M.

  2024: 1–13.

- **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

- **The Effect of Deep Brain Stimulation on the Sequence Effect in Speech in Parkinson's Disease**

  Je, G., Wilkins, K. B., Melbourne, J. A., Bronte-Stewart, H. M.

  WILEY.2023: S185

- **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

- **Transcutaneous Afferent Patterned Stimulation for Essential Tremor: Real-World Evidence with Long Term Follow-Up.** *Tremor and other hyperkinetic movements (New York, N.Y.)*

  Lu, C., Khosla, D., Kent, A., Bronte-Stewart, H. M., Rosenbluth, K. H.

  2023; 13: 29

- **Adaptive DBS Algorithm for Personalized Therapy in Parkinson's Disease: ADAPT-PD clinical trial methodology and early data**

  Bronte-Stewart, H., Beudel, M., Ostrem, J. L., Fasano, A., Almeida, L., Hassell, T., Moro, E., Gostkowski, M., Mitchell, K. T., Hainque, E., Sarangmat, N., Stanslaski, S., Tonder, et al

  LIPPINCOTT WILLIAMS & WILKINS.2023

- **Episodic memory deficit in HIV infection: common phenotype with Parkinson's disease, different neural substrates.** *Brain structure & function*

  Fama, R., Müller-Oehring, E. M., Levine, T. F., Sullivan, E. V., Sassoon, S. A., Asok, P., Brontë-Stewart, H. M., Poston, K. L., Pohl, K. M., Pfefferbaum, A., Schulte, T.

  2023

- **Assessing inertial measurement unit locations for freezing of gait detection and patient preference.** *Journal of neuroengineering and rehabilitation*

  O'Day, J., Lee, M., Seagers, K., Hoffman, S., Jih-Schiff, A., Kidzinski, L., Delp, S., Bronte-Stewart, H.

  2022; 19 (1): 20

- **Concurrent stimulation and sensing in bi-directional brain interfaces: a multi-site translational experience.** *Journal of neural engineering*

  Ansó, J., Benjaber, M., Parks, B., Parker, S., Oehrn, C. R., Petrucci, M., Gilron, R., Little, S., Wilt, R., Bronte-Stewart, H., Gunduz, A., Borton, D., Starr, et al

  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

- **Neurofunctional characteristics of executive control in older people with HIV infection: a comparison with Parkinson's disease.** *Brain imaging and behavior*

  Müller-Oehring, E. M., Hong, J. Y., Poston, K. L., Brontë-Stewart, H. M., Sullivan, E. V., McGlynn, L., Schulte, T.

  2022

- **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

- **The effects of mood and cognition on daily functioning and quality of life in older people living with HIV and people with Parkinson's disease.** *Neuropsychology*
  Patel, S. S., Muller-Oehring, E. M., DeVaughn, S., Fama, R., Bronte-Stewart, H. M., Poston, K. L., Schulte, T.
  2021

- **Ramp Rate Evaluation and Configuration for Safe and Tolerable Closed-Loop Deep Brain Stimulation.** *International IEEE/EMBS Conference on Neural Engineering : [proceedings]. International IEEE EMBS Conference on Neural Engineering*
  Petrucci, M. N., Wilkins, K. B., Orthlieb, G. C., Kehnemouyi, Y. M., O'Day, J. J., Herron, J. A., Bronte-Stewart, H. M.
  2021; 2021: 959-962

- **Gait Parameters Measured from Wearable Sensors Reliably Detect Freezing of Gait in a Stepping in Place Task.** *Sensors (Basel, Switzerland)*
  Diep, C., O'Day, J., Kehnemouyi, Y., Burnett, G., Bronte-Stewart, H.
  2021; 21 (8)

- **Differential Effects of Pathological Beta Burst Dynamics Between Parkinson's Disease Phenotypes Across Different Movements.** *Frontiers in neuroscience*
  Neuville, R. S., Petrucci, M. N., Wilkins, K. B., Anderson, R. W., Hoffman, S. L., Parker, J. E., Velisar, A., Bronte-Stewart, H. M.
  2021; 15: 733203

- **Ramp Rate Evaluation and Configuration for Safe and Tolerable Closed-Loop Deep Brain Stimulation**
  Petrucci, M. N., Wilkins, K. B., Orthlieb, G. C., Kehnemouyi, Y. M., O'Day, J. J., Herron, J. A., Bronte-Stewart, H. M., IEEE
  IEEE.2021: 959-962

- **Perspective: Evolution of Control Variables and Policies for Closed-Loop Deep Brain Stimulation for Parkinson's Disease Using Bidirectional Deep-Brain-Computer Interfaces** *FRONTIERS IN HUMAN NEUROSCIENCE*
  Bronte-Stewart, H. M., Petrucci, M. N., O'Day, J. J., Afzal, M., Parker, J. E., Kehnemouyi, Y. M., Wilkins, K. B., Orthlieb, G. C., Hoffman, S. L.
  2020; 14

- **A Closed-loop Deep Brain Stimulation Approach for Mitigating Burst Durations in People with Parkinson's Disease.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*
  Petrucci, M. N., Anderson, R. W., O'Day, J. J., Kehnemouyi, Y. M., Herron, J. A., Bronte-Stewart, H. M.
  2020; 2020: 3617–20

- **Demonstration of Kinematic-Based Closed-loop Deep Brain Stimulation for Mitigating Freezing of Gait in People with Parkinson's Disease.** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference*
  O'Day, J. J., Kehnemouyi, Y. M., Petrucci, M. N., Anderson, R. W., Herron, J. A., Bronte-Stewart, H. M.
  2020; 2020: 3612–16

- **Alterations of Brain Signal Oscillations in Older Individuals with HIV Infection and Parkinson's Disease.** *Journal of neuroimmune pharmacology : the official journal of the Society on NeuroImmune Pharmacology*
  Muller-Oehring, E. M., Hong, J., Hughes, R. L., Kwon, D., Bronte-Stewart, H. M., Poston, K. L., Schulte, T.
  2020

- **Quantitative Digitography Measures Fine Motor Disturbances in Chronically Treated HIV Similar to Parkinson's Disease** *Frontier in Aging Neuroscience*
  Prabhakar, V., Martin, T., Müller-Oehring, E. M., Goodcase, R., Schulte, T., Poston, K. L., Brontë-Stewart, H. M.
  2020: 539598

- **Data-Driven Prediction of Freezing of Gait Events From Stepping Data.** *Frontiers in medical technology*
  Parakkal Unni, M., Menon, P. P., Livi, L., Wilson, M. R., Young, W. R., Bronte-Stewart, H. M., Tsaneva-Atanasova, K.
  2020; 2: 581264

- **Demonstration of Kinematic-Based Closed-loop Deep Brain Stimulation for Mitigating Freezing of Gait in People with Parkinson's Disease**
  O'Day, J. J., Kehnemouyi, Y. M., Petrucci, M. N., Anderson, R. W., Herron, J. A., Bronte-Stewart, H. M., IEEE
  IEEE.2020: 3612–16

- **A Closed-loop Deep Brain Stimulation Approach for Mitigating Burst Durations in People with Parkinson's Disease**
  Petrucci, M. N., Anderson, R. W., O'Day, J. J., Kehnemouyi, Y. M., Herron, J. A., Bronte-Stewart, H. M., IEEE

IEEE.2020: 3617–20

- **The turning and barrier course reveals gait parameters for detecting freezing of gait and measuring the efficacy of deep brain stimulation.** *PloS one*
  O'Day, J. n., Syrkin-Nikolau, J. n., Anidi, C. n., Kidzinski, L. n., Delp, S. n., Bronte-Stewart, H. n.
  2020; 15 (4): e0231984
- **Gait variability is linked to the atrophy of the Nucleus Basalis of Meynert and is resistant to STN DBS in Parkinson's disease.** *Neurobiology of disease*
  Wilkins, K. B., Parker, J. E., Bronte-Stewart, H. M.
  2020: 105134
- **Neural Closed loop deep brain stimulation for freezing of Gait.** *Brain stimulation*
  Petrucci, M. N., Neuville, R. S., Afzal, M. F., Velisar, A. n., Anidi, C. M., Anderson, R. W., Parker, J. E., O'Day, J. J., Wilkins, K. B., Bronte-Stewart, H. M.
  2020
- **Safety of Plasma Infusions in Parkinson's Disease.** *Movement disorders : official journal of the Movement Disorder Society*
  Parker, J. E., Martinez, A. n., Deutsch, G. K., Prabhakar, V. n., Lising, M. n., Kapphahn, K. I., Anidi, C. M., Neuville, R. n., Coburn, M. n., Shah, N. n., Bronte-Stewart, H. M.
  2020
- **Cognitive and motor deficits in older adults with HIV infection: Comparison with normal ageing and Parkinson's disease.** *Journal of neuropsychology*
  Müller-Oehring, E. M., Fama, R. n., Levine, T. F., Hardcastle, C. n., Goodcase, R. n., Martin, T. n., Prabhakar, V. n., Brontë-Stewart, H. M., Poston, K. L., Sullivan, E. V., Schulte, T. n.
  2020
- **Proceedings of the Sixth Deep Brain Stimulation Think Tank Modulation of Brain Networks and Application of Advanced Neuroimaging, Neurophysiology, and Optogenetics.** *Frontiers in neuroscience*
  Ramirez-Zamora, A., Giordano, J., Boyden, E. S., Gradinaru, V., Gunduz, A., Starr, P. A., Sheth, S. A., McIntyre, C. C., Fox, M. D., Vitek, J., Vedam-Mai, V., Akbar, U., Almeida, et al
  2019; 13: 936
- **Proceedings of the Sixth Deep Brain Stimulation Think Tank Modulation of Brain Networks and Application of Advanced Neuroimaging, Neurophysiology, and Optogenetics** *FRONTIERS IN NEUROSCIENCE*
  Ramirez-Zamora, A., Giordano, J., Boyden, E. S., Gradinaru, V., Gunduz, A., Starr, P. A., Sheth, S. A., McIntyre, C. C., Fox, M. D., Vitek, J., Vedam-Mai, V., Akbar, U., Almeida, et al
  2019; 13
- **Reply to letter to the editor "Adaptive DBS in Parkinson's disease: Headlines, perspectives and challenges".** *Brain stimulation*
  Velisar, A., Bronte-Stewart, H.
  2019
- **Establishing a framework for neuropathological correlates and glymphatic system functioning in Parkinson's disease.** *Neuroscience and biobehavioral reviews*
  Sundaram, S., Hughes, R. L., Peterson, E., Muller-Oehring, E. M., Bronte-Stewart, H. M., Poston, K. L., Faerman, A., Bhowmick, C., Schulte, T.
  2019
- **Dual threshold neural closed loop deep brain stimulation in Parkinson disease patients.** *Brain stimulation*
  Velisar, A., Syrkin-Nikolau, J., Blumenfeld, Z., Trager, M. H., Afzal, M. F., Prabhakar, V., Bronte-Stewart, H.
  2019
- **Information Processing Deficit in Older Adults With HIV Infection: A Comparison With Parkinson's Disease** *NEUROPSYCHOLOGY*
  Sundaram, S., Mueller-Oehring, E. M., Fama, R., Bronte-Stewart, H. M., Poston, K. L., Goodcase, R., Martin, T., Prabhakar, V., Karpf, J., Schulte, T.
  2019; 33 (2): 157–68
- **Neuromodulation targets pathological not physiological beta bursts during gait in Parkinson's disease** *NEUROBIOLOGY OF DISEASE*
  Anidi, C., O'Day, J. J., Anderson, R. W., Afzal, M., Syrkin-Nikolau, J., Velisar, A., Bronte-Stewart, H. M.
  2018; 120: 107–17

- **Information processing deficit in older adults with HIV infection: A comparison with Parkinson's disease.** *Neuropsychology*
  Sundaram, S., Muller-Oehring, E. M., Fama, R., Bronte-Stewart, H. M., Poston, K. L., Goodcase, R., Martin, T., Prabhakar, V., Karpf, J., Schulte, T.
  2018
- **Biophysical basis of subthalamic local field potentials recorded from deep brain stimulation electrodes** *JOURNAL OF NEUROPHYSIOLOGY*
  Maling, N., Lempka, S. F., Blumenfeld, Z., Bronte-Stewart, H., McIntyre, C. C.
  2018; 120 (4): 1932–44
- **Neuromodulation targets pathological not physiological beta bursts during gait in Parkinson's disease.** *Neurobiology of disease*
  Anidi, C. M., O'Day, J. J., Anderson, R. W., Afzal, M. F., Syrkin-Nikolau, J., Velisar, A., Bronte-Stewart, H. M.
  2018
- **Motor function impairment in chronic HIV is similar but less severe to that seen in Parkinson's disease**
  Bronte-Stewart, H., Prabhakar, V., Martin, T., Trager, M., Velisar, A., Koop, M., Muller-Oehring, E., Poston, K., Schulte, T.
  LIPPINCOTT WILLIAMS & WILKINS.2018
- **Sixty hertz subthalamic deep brain stimulation improves freezing of gait with less attenuation of beta band power than 140Hz stimulation**
  Anidi, C., O'Day, J., Afzal, M., Syrkin-Nikolau, J., Velisar, A., Bronte-Stewart, H.
  LIPPINCOTT WILLIAMS & WILKINS.2018
- **Efficacy of Subthalamic Neural Closed-loop Deep Brain Stimulation for Bradykinesia in Parkinson's Disease**
  Bronte-Stewart, H., Afzal, M., Velisar, A., Anidi, C.
  LIPPINCOTT WILLIAMS & WILKINS.2018
- **Evolving Applications, Technological Challenges and Future Opportunities in Neuromodulation: Proceedings of the Fifth Annual Deep Brain Stimulation Think Tank** *FRONTIERS IN NEUROSCIENCE*
  Ramirez-Zamora, A., Giordano, J. J., Gunduz, A., Brown, P., Sanchez, J. C., Foote, K. D., Almeida, L., Starr, P. A., Bronte-Stewart, H. M., Hu, W., McIntyre, C., Goodman, W., Kumsa, et al
  2018; 11: 734
- **Coordinated Reset Vibrotactile Stimulation Shows Prolonged Improvement in Parkinson's Disease** *MOVEMENT DISORDERS*
  Syrkin-Nikolau, J., Neuville, R., O'Day, J., Anidi, C., Koop, M., Martin, T., Tass, P. A., Bronte-Stewart, H.
  2018; 33 (1): 179–80
- **Closing the loop on impulsivity via nucleus accumbens delta-band activity in mice and man.** *Proceedings of the National Academy of Sciences of the United States of America*
  Wu, H. n., Miller, K. J., Blumenfeld, Z. n., Williams, N. R., Ravikumar, V. K., Lee, K. E., Kakusa, B. n., Sacchet, M. D., Wintermark, M. n., Christoffel, D. J., Rutt, B. K., Bronte-Stewart, H. n., Knutson, et al
  2018; 115 (1): 192–97
- **Subthalamic neural entropy is a feature of freezing of gait in freely moving people with Parkinson's disease** *NEUROBIOLOGY OF DISEASE*
  Syrkin-Nikolau, J., Koop, M., Prieto, T., Anidi, C., Afzal, M., Velisar, A., Blumenfeld, Z., Martin, T., Trager, M., Bronte-Stewart, H.
  2017; 108: 288–97
- **Sixty-hertz stimulation improves bradykinesia and amplifies subthalamic low-frequency oscillations.** *Movement disorders*
  Blumenfeld, Z., Koop, M. M., Prieto, T. E., Shreve, L. A., Velisar, A., Quinn, E. J., Trager, M. H., Brontë-Stewart, H.
  2017; 32 (1): 80-88
- **Model Predictive Control of Deep Brain Stimulation for Parkinsonian Tremor**
  Haddock, A., Velisar, A., Herron, J., Bronte-Stewart, H., Chizeck, H. J., IEEE
  IEEE.2017: 358–62
- **Subthalamic oscillations and phase amplitude coupling are greater in the more affected hemisphere in Parkinson's disease.** *Clinical neurophysiology*
  Shreve, L. A., Velisar, A., Malekmohammadi, M., Koop, M. M., Trager, M., Quinn, E. J., Hill, B. C., Blumenfeld, Z., Kilbane, C., Mantovani, A., Henderson, J. M., Brontë-Stewart, H.
  2017; 128 (1): 128-137
- **Subthalamic beta oscillations are attenuated after withdrawal of chronic high frequency neurostimulation in Parkinson's disease.** *Neurobiology of disease*

Trager, M. H., Koop, M. M., Velisar, A., Blumenfeld, Z., Nikolau, J. S., Quinn, E. J., Martin, T., Bronte-Stewart, H.
2016; 96: 22-30

- **Auditory cueing in Parkinson's patients with freezing of gait. What matters most: Action-relevance or cue-continuity?** *NEUROPSYCHOLOGIA*
  Young, W. R., Shreve, L., Quinn, E. J., Craig, C., Bronte-Stewart, H.
  2016; 87: 54-62
- **Kinematic Adaptive Deep Brain Stimulation for Resting Tremor in Parkinson's Disease.** *Movement disorders : official journal of the Movement Disorder Society*
  Malekmohammadi, M. n., Herron, J. n., Velisar, A. n., Blumenfeld, Z. n., Trager, M. H., Chizeck, H. J., Brontë-Stewart, H. n.
  2016
- **Proceedings of the Fourth Annual Deep Brain Stimulation Think Tank: A Review of Emerging Issues and Technologies.** *Frontiers in integrative neuroscience*
  Deeb, W., Giordano, J. J., Rossi, P. J., Mogilner, A. Y., Gunduz, A., Judy, J. W., Klassen, B. T., Butson, C. R., van Horne, C., Deny, D., Dougherty, D. D., Rowell, D., Gerhardt, et al
  2016; 10: 38-?
- **Aging with HIV-1 Infection: Motor Functions, Cognition, and Attention--A Comparison with Parkinson's Disease.** *Neuropsychology review*
  DeVaughn, S., Müller-Oehring, E. M., Markey, B., Brontë-Stewart, H. M., Schulte, T.
  2015; 25 (4): 424-438
- **Editorial Comments to the Special Issue of Neuropsychology Review on the Basic Neuroscience and Neuropsychology of Selective Movement Disorders** *NEUROPSYCHOLOGY REVIEW*
  Schulte, T., Bronte-Stewart, H.
  2015; 25 (4): 369–70
- **High Frequency Deep Brain Stimulation and Neural Rhythms in Parkinson's Disease** *NEUROPSYCHOLOGY REVIEW*
  Blumenfeld, Z., Bronte-Stewart, H.
  2015; 25 (4): 384-397
- **Aging with HIV-1 Infection: Motor Functions, Cognition, and Attention - A Comparison with Parkinson's Disease** *NEUROPSYCHOLOGY REVIEW*
  DeVaughn, S., Mueller-Oehring, E. M., Markey, B., Bronte-Stewart, H. M., Schulte, T.
  2015; 25 (4): 424-438
- **Beta Oscillations in Freely Moving Parkinson's Subjects Are Attenuated During Deep Brain Stimulation** *MOVEMENT DISORDERS*
  Quinn, E. J., Blumenfeld, Z., Velisar, A., Koop, M. M., Shreve, L. A., Trager, M. H., Hill, B. C., Kilbane, C., Henderson, J. M., Bronte-Stewart, H.
  2015; 30 (13): 1750-1758
- **Beta oscillations in freely moving Parkinson's subjects are attenuated during deep brain stimulation.** *Movement disorders : official journal of the Movement Disorder Society*
  Quinn, E. J., Blumenfeld, Z., Velisar, A., Koop, M. M., Shreve, L. A., Trager, M. H., Hill, B. C., Kilbane, C., Henderson, J. M., Brontë-Stewart, H.
  2015; 30 (13): 1750-8
- **Task-rest modulation of basal ganglia connectivity in mild to moderate Parkinson's disease.** *Brain imaging and behavior*
  Müller-Oehring, E. M., Sullivan, E. V., Pfefferbaum, A., Huang, N. C., Poston, K. L., Bronte-Stewart, H. M., Schulte, T.
  2015; 9 (3): 619-638
- **Task-rest modulation of basal ganglia connectivity in mild to moderate Parkinson's disease** *BRAIN IMAGING AND BEHAVIOR*
  Mueller-Oehring, E. M., Sullivan, E. V., Pfefferbaum, A., Huang, N. C., Poston, K. L., Bronte-Stewart, H. M., Schulte, T.
  2015; 9 (3): 619-638
- **Long-term detection of Parkinsonian tremor activity from subthalamic nucleus local field potentials.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
  Houston, B., Blumenfeld, Z., Quinn, E., Bronte-Stewart, H., Chizeck, H.
  2015; 2015: 3427-3431
- **Proceedings of the Second Annual Deep Brain Stimulation Think Tank: What's in the Pipeline** *INTERNATIONAL JOURNAL OF NEUROSCIENCE*

Gunduz, A., Morita, H., Rossi, P. J., Allen, W. L., Alterman, R. L., Bronte-Stewart, H., Butson, C. R., Charles, D., Deckers, S., de Hemptinne, C., DeLong, M., Dougherty, D., Ellrich, et al
2015; 125 (7): 475-485

- **Sixty Hertz Neurostimulation Amplifies Subthalamic Neural Synchrony in Parkinson's Disease** *PLOS ONE*
  Blumenfeld, Z., Velisar, A., Koop, M. M., Hill, B. C., Shreve, L. A., Quinn, E. J., Kilbane, C., Yu, H., Henderson, J. M., Bronte-Stewart, H.
  2015; 10 (3)
- **Arrhythmokinesis is evident during unimanual not bimanual finger tapping in Parkinson's disease.** *Journal of clinical movement disorders*
  Trager, M. H., Velisar, A., Koop, M. M., Shreve, L., Quinn, E., Bronte-Stewart, H.
  2015; 2: 8-?
- **The effect of medication and the role of postural instability in different components of freezing of gait (FOG).** *Parkinsonism & related disorders*
  Nantel, J., Bronte-Stewart, H.
  2014; 20 (4): 447-451
- **Perceptual errors increase with movement duration and may contribute to hypokinesia in Parkinson's disease.** *Neuroscience*
  Koop, M. M., Hill, B. C., Bronte-Stewart, H. M.
  2013; 243: 1-13
- **Resting Beta Hypersynchrony in Secondary Dystonia and Its Suppression During Pallidal Deep Brain Stimulation in DYT3+ Lubag Dystonia.** *Neuromodulation*
  Whitmer, D., de Solages, C., Hill, B. C., Yu, H., Bronte-Stewart, H.
  2013; 16 (3): 200-205
- **Improved efficacy of temporally non-regular deep brain stimulation in Parkinson's disease** *EXPERIMENTAL NEUROLOGY*
  Brocker, D. T., Swan, B. D., Turner, D. A., Gross, R. E., Tatter, S. B., Koop, M. M., Bronte-Stewart, H., Grill, W. M.
  2013; 239: 60-67
- **DEFICITS IN VISUOSPATIAL PROCESSING CONTRIBUTE TO QUANTITATIVE MEASURES OF FREEZING OF GAIT IN PARKINSON'S DISEASE** *NEUROSCIENCE*
  Nantel, J., McDonald, J. C., Tan, S., Bronte-Stewart, H.
  2012; 221: 151-156
- **High frequency deep brain stimulation attenuates subthalamic and cortical rhythms in Parkinson's disease** *FRONTIERS IN HUMAN NEUROSCIENCE*
  Whitmer, D., de Solages, C., Hill, B., Yu, H., Henderson, J. M., Bronte-Stewart, H.
  2012; 6
- **Effect of medication and STN-DBS on postural control in subjects with Parkinson's disease** *PARKINSONISM & RELATED DISORDERS*
  Nantel, J., McDonald, J. C., Bronte-Stewart, H.
  2012; 18 (3): 285-289
- **Deep brain stimulation.** *Neurology. Clinical practice*
  Bronte-Stewart, H.
  2012; 2 (1): 67–71
- **New drugs/devices ? Deep brain stimulation (DBS)** *Neurology Clin Pract*
  Bronte-Stewart HM
  2012; 12 (2): 67 - 71
- **Maximal subthalamic beta hypersynchrony of the local field potential in Parkinson's disease is located in the central region of the nucleus** *JOURNAL OF NEUROLOGY NEUROSURGERY AND PSYCHIATRY*
  de Solages, C., Hill, B. C., Yu, H., Henderson, J. M., Bronte-Stewart, H.
  2011; 82 (12): 1387-1389
- **Human Subthalamic Neuron Spiking Exhibits Subtle Responses to Sedatives** *ANESTHESIOLOGY*
  MacIver, M. B., Bronte-Stewart, H. M., Henderson, J. M., Jaffe, R. A., Brock-Utne, J. G.
  2011; 115 (2): 254-264

- **Repetitive stepping in place identifies and measures freezing episodes in subjects with Parkinson's disease** *GAIT & POSTURE*
  Nantel, J., de Solages, C., Bronte-Stewart, H.
  2011; 34 (3): 329-333
- **Inclusion and Exclusion Criteria for DBS in Dystonia** *MOVEMENT DISORDERS*
  Bronte-Stewart, H., Taira, T., Valldeoriola, F., Merello, M., Marks, W. J., Albanese, A., Bressman, S., Moro, E.
  2011; 26: S5-S16
- **Deep Brain Stimulation in "On"-State Parkinson Hyperpyrexia** *NEUROLOGY*
  Klepitskaya, O., Cole, W., Henderson, J., Bronte-Stewart, H.
  2011; 76 (7): S69-S71
- **Immediate versus delayed switch from levodopa/carbidopa to levodopa/carbidopa/entacapone: effects on motor function and quality of life in patients with Parkinson's disease with end-of-dose wearing off** *Int J Neurosci*
  Lew MF, Somogyi M, McCague K, Welsh M, Lce Qol Study group
  2011; 121 (11): 605 - 13
- **Deep Brain Stimulation for Parkinson?s Disease. An expert consensus and review of key issues** *Archives of Neurology*
  Bronstein JM, Tagliati M., Alterman RL, the Deep Brain Study group
  2011; 68 (2): 165
- **Clinical Motor Outcome of Bilateral Subthalamic Nucleus Deep-Brain Stimulation for Parkinson's Disease Using Image-Guided Frameless Stereotaxy** *NEUROSURGERY*
  Bronte-Stewart, H., Louie, S., Batya, S., Henderson, J. M.
  2010; 67 (4): 1088-1093
- **Socioeconomic Trends in Deep Brain Stimulation (DBS) Surgery** *NEUROMODULATION*
  Lad, S. P., Kalanithi, P. S., Patil, C. G., Itthimathin, P., Batya, S., Bronte-Stewart, H., Boakye, M., Henderson, J. M.
  2010; 13 (3): 182-186
- **Bilateral symmetry and coherence of subthalamic nuclei beta band activity in Parkinson's disease** *EXPERIMENTAL NEUROLOGY*
  de Solages, C., Hill, B. C., Koop, M. M., Henderson, J. M., Bronte-Stewart, H.
  2010; 221 (1): 260-266
- **Hybrid Cars May Interfere with Implanted Deep Brain Stimulators** *MOVEMENT DISORDERS*
  Chen, C., Cole, W., Bronte-Stewart, H. M.
  2009; 24 (15): 2290-2291
- **Quantitative Lateralized Measures of Bradykinesia at Different Stages of Parkinson's Disease: The Role of the Less Affected Side** *MOVEMENT DISORDERS*
  Louie, S., Koop, M. M., Frenklach, A., Bronte-Stewart, H.
  2009; 24 (13): 1991-1997
- **Testing Objective Measures of Motor Impairment in Early Parkinson's Disease: Feasibility Study of an At-Home Testing Device** *MOVEMENT DISORDERS*
  Goetz, C. G., Stebbins, G. T., Wolff, D., DeLeeuw, W., Bronte-Stewart, H., Elble, R., Hallet, M., Nutt, J., Ramig, L., Sanger, T., Wu, A. D., Kraus, P. H., Blasucci, et al
  2009; 24 (4): 551-556
- **Excessive Postural Sway and the Risk of Falls at Different Stages of Parkinson's Disease** *MOVEMENT DISORDERS*
  Frenklach, A., Louie, S., Koop, M. M., Bronte-Stewart, H.
  2009; 24 (3): 377-385
- **A comparison of treatment thresholds in two large Parkinson?s disease clinical trial cohorts** *Movement Disorders*
  Marras C, Lang AE, Eberly SW, Oakes D, Fahn S, Schwid SR, Hyson C, Shoulson I; Parkinson Study Group DATATOP, PRECEPT investigators
  2009; 24 (16): 2370 - 8
- **The STN beta-band profile in Parkinson's disease is stationary and shows prolonged attenuation after deep brain stimulation** *EXPERIMENTAL NEUROLOGY*
  Bronte-Stewart, H., Barberini, C., Koop, M. M., Hill, B. C., Henderson, J. M., Wingeier, B.

2009; 215 (1): 20-28

- **A longitudinal program for biomarker development in Parkinson?s disease: a feasibility study** *Movement Disorders*
  Ravina B, Tanner C, Dieuliis D, Eberly S, Flagg E, Galpern WR, Fahn S, Goetz CG, Grate S, Kurlan R, Lang AE, Marek K, Kieburtz K, Oakes D, Elliott R, Shoulson I; Parkinson Study Group LABS-PD Investigators
  2009; 24 (14): 2081 - 90
- **Quantitative measures of fine motor, limb, and postural bradykinesia in very early stage, untreated Parkinson's disease** *MOVEMENT DISORDERS*
  Koop, M. M., Shivitz, N., Bronte-Stewart, H.
  2008; 23 (9): 1262-1268
- **The Role of Deep Brain Stimulation (DBS) in the Treatment of Postural Instability and Gait Disorders of Parkinson's Disease** *DEEP BRAIN STIMULATION IN NEUROLOGICAL AND PSYCHIATRIC DISORDERS*
  Bronte-Stewart, H.
  edited by Tarsy, M. D., Vitek, J. L., Starr, P. A., Okun, M. S.
  2008: 333–58
- **Mixed lineage kinase inhibitor CEP-1347 fails to delay disability in early Parkinson?s disease** *Neurology*
  The Parkinson's study group, PRECEPT investigators
  2007; 69: 1480- 1490
- **Bilateral subthalamic nucleus deep brain stimulation improves certain aspects of postural control in Parkinson's disease, whereas medication does not** *MOVEMENT DISORDERS*
  Shivitz, N., Miller Koop, M., Fahimi, J., Heit, G., Bronte-Stewart, H. M.
  2006; 21 (8): 1088-1097
- **Improvement in a quantitative measure of bradykinesia after microelectrode recording in patients with Parkinson's disease during deep brain stimulation surgery** *MOVEMENT DISORDERS*
  Koop, M. M., Andrzejewski, A., Hill, B. C., Heit, G., Bronte-Stewart, H. M.
  2006; 21 (5): 673-678
- **Practice parameter: Treatment of Parkinson disease with motor fluctuations and dyskinesia (an evidence-based review) Report of the Quality Standards Subcommittee of the American Academy of Neurology** *NEUROLOGY*
  Pahwa, R., Factor, S. A., Lyons, K. E., Ondo, W. G., Gronseth, G., Bronte-Stewart, H., Hallett, M., Miyasaki, J., Stevens, J., Weiner, W. J.
  2006; 66 (7): 983-995
- **Intra-operative STN DBS attenuates the prominent beta rhythm in the STN in Parkinson's disease** *EXPERIMENTAL NEUROLOGY*
  Wingeier, B., Tcheng, T., Koop, M. M., Hill, B. C., Heit, G., Bronte-Stewart, H. M.
  2006; 197 (1): 244-251
- **Quantitative measurements of alternating finger tapping in Parkinson's disease correlate with UPDRS motor disability and reveal the improvement in fine motor control from medication and deep brain stimulation.** *Movement disorders*
  Taylor Tavares, A. L., Jefferis, G. S., Koop, M., Hill, B. C., Hastie, T., Heit, G., Bronte-Stewart, H. M.
  2005; 20 (10): 1286-1298
- **Quantitative measurements of Parkinson's disease correlate alternating finger tapping in with UPDRS motor disability and reveal the improvement in fine motor control from medication and deep brain stimulation** *MOVEMENT DISORDERS*
  Tavares, A. L., Jefferis, G. S., Koop, M., Hill, B. C., Hastie, T., Heit, G., Bronte-Stewart, H. M.
  2005; 20 (10): 1286-1298
- **The North American survey of placement and adjustment strategies for deep brain stimulation** *STEREOTACTIC AND FUNCTIONAL NEUROSURGERY*
  Ondo, W. G., Bronte-Stewart, H.
  2005; 83 (4): 142-147
- **Microelectrode recording revealing a somatotopic body map in the subthalamic nucleus in humans with Parkinson disease** *JOURNAL OF NEUROSURGERY*
  Romanelli, P., Heit, G., Hill, B. C., Kraus, A., Hastie, T., Bronte-Stewart, H. M.
  2004; 100 (4): 611-618

- **The functional organization of the sensorimotor region of the subthalamic nucleus** *STEREOTACTIC AND FUNCTIONAL NEUROSURGERY*
  Romanelli, P., Bronte-Stewart, H., Heit, G., Schaal, D. W., Esposito, V.
  2004; 82 (5-6): 222-229
- **Possible necessity for deep brain stimulation of both the ventralis intermedius and subthalamic nuclei to resolve Holmes tremor - Case report** *JOURNAL OF NEUROSURGERY*
  Romanelli, P., Bronte-Stewart, H., COURTNEY, T., Heit, G.
  2003; 99 (3): 566-571
- **Surgical therapy for dystonia.** *Current neurology and neuroscience reports*
  Bronte-Stewart, H.
  2003; 3 (4): 296-305
- **Parkinson's Disease: Surgical Options.** *Current treatment options in neurology*
  Bronte-Stewart, H. n.
  2003; 5 (2): 131–47
- **Postural instability in idiopathic Parkinson's disease: the role of medication and unilateral pallidotomy** *52nd Annual Meeting of the American-Academy-of-Neurology*
  Bronte-Stewart, H. M., Minn, A. Y., Rodrigues, K., Buckley, E. L., Nashner, L. M.
  OXFORD UNIV PRESS.2002: 2100–2114
- **Outcome of pallidal surgery in primary versus secondary dystonia**
  Kilgore, S. M., Bronte-Stewart, H.
  LIPPINCOTT WILLIAMS & WILKINS.2002: A395
- **The cerebrospinal fluid production rate is reduced in dementia of the Alzheimer's type** *NEUROLOGY*
  Silverberg, G. D., Heit, G., Huhn, S., Jaffe, R. A., Chang, S. D., Bronte-Stewart, H., Rubenstein, E., Possin, K., Saul, T. A.
  2001; 57 (10): 1763-1766
- **Superior outcomes of bilateral STN DBS in IPD attributed to precise intraoperative localization techniques**
  Bronte-Stewart, H. M., Hill, B. C., McGuire, K., Minn, A. Y., Courtney, T. A., Heit, G.
  LIPPINCOTT WILLIAMS & WILKINS.2001: A279
- **Postural instability is common in patients with essential tremor and is improved after thalamic deep brain stimulation**
  Minn, A. Y., Bronte-Stewart, H. M.
  LIPPINCOTT WILLIAMS & WILKINS.2001: A24–A25
- **Postural instability in Parkinson?s Disease: Opposing effects of treatment on sensory and motor components** *Control of Posture and Gait*
  Nashner LM, Minn AY, Rodrigues K, Buckley EL, Bront-Stewart HM
  2001: 737 - 741
- **A physiological model of the effects of surgery on postural instability in Parkinson?s Disease and in Essential Tremor** *Control of Posture and Gait*
  Bront-Stewart HM, Minn AY, Nashner LM
  2001: 720 - 724
- **Concurrent Parkinson tremors** *JOURNAL OF PHYSIOLOGY-LONDON*
  Moore, G. P., Ding, L., Bronte-Stewart, H. M.
  2000; 529 (1): 273-281
- **Unilateral pallidotomy improves postural instability (PI) in patients with idiopathic Parkinson's disease (IPD) and improves the detrimental effect of medication on the vestibular control of posture**
  Bronte-Stewart, H., Rodrigues, K., Nashner, L.
  LIPPINCOTT WILLIAMS & WILKINS.2000: A457–A458
- **Central vestibular mechanisms of balance may be deficient in idiopathic parkinson's disease (IPD) and adversely affected by medication**
  Rodrigues, K., Nashner, L., Bronte-Stewart, H.
  LIPPINCOTT WILLIAMS & WILKINS.2000: A446

- **Quantitative digitography (QDG): A sensitive measure of digital motor control in idiopathic Parkinson's disease** *MOVEMENT DISORDERS*
  Bronte-Stewart, H. M., Ding, L., Alexander, C., Zhou, Y., Moore, G. P.
  2000; 15 (1): 36-47
- **Rhythmic coritcal activity and its relation to movement in normal subjects and patients with movement disorders** *Journal of Physiology*
  Conway BA, Halliday DA, Farmer SF, Bront-Stewart HM, Rosenberg JR
  1999; 518: 32 - 33
- **NEURAL BASIS FOR MOTOR LEARNING IN THE VESTIBULOOCULAR REFLEX OF PRIMATES .2. CHANGES IN THE RESPONSES OF HORIZONTAL GAZE VELOCITY PURKINJE-CELLS IN THE CEREBELLAR FLOCCULUS AND VENTRAL PARAFLOCCULUS** *JOURNAL OF NEUROPHYSIOLOGY*
  Lisberger, S. G., PAVELKO, T. A., BRONTESTEWART, H. M., Stone, L. S.
  1994; 72 (2): 954-973
- **PHYSIOLOGICAL-PROPERTIES OF VESTIBULAR PRIMARY AFFERENTS THAT MEDIATE MOTOR LEARNING AND NORMAL PERFORMANCE OF THE VESTIBULOOCULAR REFLEX IN MONKEYS** *JOURNAL OF NEUROSCIENCE*
  BRONTESTEWART, H. M., Lisberger, S. G.
  1994; 14 (3): 1290-1308
- **EXPRESSION OF MOTOR LEARNING IN THE RESPONSE OF THE PRIMATE VESTIBULOOCULAR REFLEX PATHWAY TO ELECTRICAL-STIMULATION** *JOURNAL OF NEUROPHYSIOLOGY*
  Broussard, D. M., BRONTESTEWART, H. M., Lisberger, S. G.
  1992; 67 (6): 1493-1508
- **PROPERTIES OF PATHWAYS THAT MEDIATE MOTOR LEARNING IN THE VESTIBULOOCULAR REFLEX OF MONKEYS** *SYMP ON THE BRAIN*
  Lisberger, S. G., Broussard, D. M., BRONTESTEWART, H. M.
  COLD SPRING HARBOR LABORATORY PRESS.1990: 813–822
- **PROPERTIES OF PATHWAYS THAT MEDIATE MOTOR LEARNING IN THE VESTIBULOOCULAR REFLEX OF MONKEYS** *COLD SPRING HARBOR SYMPOSIA ON QUANTITATIVE BIOLOGY*
  Lisberger, S. G., Broussard, D. M., BRONTESTEWART, H. M.
  1990; 55: 813-822
- **LACUNAR INFARCTION OF THE BASAL GANGLIA AS A COMPLICATION OF HEMOLYTIC-UREMIC SYNDROME - MRI AND CLINICAL CORRELATIONS** *CLINICAL PEDIATRICS*
  DiMario, F. J., BRONTESTEWART, H., Sherbotie, J., Turner, M. E.
  1987; 26 (11): 586-590