



Helen Bronte-Stewart, MD, MS

John E. Cahill Family Professor, Professor of Neurology and, by courtesy, of Neurosurgery at the Stanford University Medical Center

Neurology & Neurological Sciences

CLINICAL OFFICES

- **Stanford Neuroscience Health Center**

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Bio

CLINICAL FOCUS

- movement disorders
- Neurology

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Neurology & Neurological Sciences
- Professor - Med Center Line (By courtesy), Neurosurgery
- Member, Bio-X
- 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

- 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
- Fellowship: UCSF Medical Center CA
- 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 dystonia and correlating brain signalling with motor behavior.

CLINICAL TRIALS

- Adaptive Closed Loop Neuromodulation and Neural Signatures of Parkinson's Disease, Recruiting
- Effects of Deep Brain Stimulation (DBS) Frequency on Neural Synchrony, Not Recruiting
- Neural Signatures of Parkinson's Disease, Not Recruiting

Teaching

COURSES

2016-17

- Dance, Movement and Medicine: Immersion in Dance for PD: DANCE 100, NENS 222 (Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Ross Anderson, Matthew Petrucci, Ashley Rawls, Kevin Wilkins

Doctoral Dissertation Reader (NonAC)

Johanna O'Day

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (Phd Program)
- Neurosciences (Phd Program)

Publications

PUBLICATIONS

- **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
- **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
- **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
- **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
- **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., Herron, J., Velisar, A., Blumenfeld, Z., Trager, M. H., Chizeck, H. J., Brontë-Stewart, H.
2016
- **High Frequency Deep Brain Stimulation and Neural Rhythms in Parkinson's Disease** *NEUROPSYCHOLOGY REVIEW*
Blumenfeld, Z., Bronte-Stewart, H.
2015; 25 (4): 384-397
- **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)
- **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): 1750-58
- **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
- **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
- **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
- **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
- **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., Miller, K. J., Blumenfeld, Z., Williams, N. R., Ravikumar, V. K., Lee, K. E., Kakusa, B., Sacchet, M. D., Wintermark, M., Christoffel, D. J., Rutt, B. K., Bronte-Stewart, H., Knutson, et al
2018; 115 (1): 192–97
- **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
- **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
- **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
- **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

- **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*
Brockner, 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
- **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 QoI 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., Tarsy, M. D., Vitek, J. L., Starr, P. A., Okun, M. S.
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- **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., Tchong, 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.
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- **The North American survey of placement and adjustment strategies for deep brain stimulation** *STEREOTACTIC AND FUNCTIONAL NEUROSURGERY*
Ondo, W. G., Bronte-Stewart, H.
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- **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.
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- **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
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2003; 99 (3): 566-571
- **Surgical therapy for dystonia.** *Current neurology and neuroscience reports*
Bronte-Stewart, H.
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- **Parkinson's Disease: Surgical Options.** *Current treatment options in neurology*
Bronte-Stewart, H.
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.
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Kilgore, S. M., Bronte-Stewart, H.
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Silverberg, G. D., Heit, G., Huhn, S., Jaffe, R. A., Chang, S. D., Bronte-Stewart, H., Rubenstein, E., Possin, K., Saul, T. A.
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- **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.
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2000; 15 (1): 36-47
- **Rhythmic cortical 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*
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