

External Sources

Best Poster Award (2 nd place), Carolina Neurostimulation Conference	2018
Travel Award, Carolina Neurostimulation Conference	2018
Poster Highlights Oral Presentation, NYC Neuromodulation	2017
Neuromuscular Plasticity Scholar, University of Florida	2013
Travel Award, Parkinson's Disease Foundation	2014

Research and Scholarship

External Grants and Contracts (completed)

National Center of Neuromodulation for Rehabilitation (NCNM4R) Pilot Project Grant

Role: Co-Principal Investigator

PI: Bernadette Gillick, PhD, MSPT, PT

"Comparing two montages of transcranial direct current stimulation in unilateral cerebral palsy"

Direct costs: \$34,244

Competitive Supplement: \$7,500

Salary and research support

07/01/2018-05/31/2020

NIH StrokeNet Regional Coordinating Center

Role: Post-doctoral Fellow

PI: Mustapha Ezzedine, MD; Co-PI: Kamakshi Lakshminarayan, MBBS, PhD, MS

University of Minnesota

2019-2020

Salary and travel

Post-doctoral Associate

PI: Bernadette Gillick, PhD, MSPT, PT

Australian Cerebral Palsy Alliance

Perinatal Stroke: Understanding Brain Reorganization through Infant Neuroexcitability and Neuroimaging", 3/2016-3/2017

Direct Costs: \$100,000

Salary and research support

Post-doctoral Associate

PI: Bernadette Gillick, PhD, MSPT, PT

NIH/NICHD: K01 HD078484-01A1

"Novel Neuromodulatory Intervention in the Rehabilitation of Pediatric Hemiparesis", 9/2014-8/2019

Salary and research support

TL1 pre-doctoral fellow

PI: Bradley Evanoff, MD

NIH/NCATS (UL1TR000449 and TL1TR000448)

"Washington University Institute of Clinical and Translational Science", 5/2014-4/2016

Stipend and research support

Pre-doctoral trainee
PI: Gammon Earhart, PhD, PT
NIH/NICHHD: T32HD007434
"Doctoral Training Program in Movement Science", 4/2014-4/2016

“Perinatal Stroke: Identifying targets for Neuromodulation Interventions through Multi-Modal Cortical Excitability Mapping”

PI: Bernadette Gillick, PhD, MSPT, PT

Role: Intricately involved with study design, writing, editing of proposal

8/1/2019-7/30/2021

Publications

Impact Analytics

<i>h</i> -Index	Total Publications	First/Last Author Publications	Total Citations	First/Last Author Citations
6	25	13	103	39

Peer-Reviewed Publications

*indicates co-first authorship

Book Chapters

1. Chen M, Cline CC, Frost KL, Kimberley TJ, **Nemanich ST**, ...Lim KO, He B. “Advances and Challenges in Transcranial Magnetic Stimulation (TMS) Research on Motor Systems” In Book: Engineering in Medicine. January 2019

Original Research Articles

1. Keller-Ross M, Chantigian DP, **Nemanich S**, Gillick BT. “The Influence of Combined Transcranial Direct Current Stimulation and Bimanual Training on Blood Pressure and Heart Rate in Children with Cerebral Palsy Due to Perinatal Stroke.” Pediatr Phys Ther. In Press, 2020
2. Nawshin T, Behan M, **Nemanich S***, Kowalski J, Sutter E, Francis S, Dubinsky J, Freese R, Rudser K, Gillick B. “A Crossed-Disciplinary Evaluation of Parental Perceptions Surrounding Pediatric Non-Invasive Brain Stimulation Research.” Int J Pharm Healthcare Market. In Press, 2020
3. Rich TL, **Nemanich ST***, Chen CY, Sutter EN, Feyma T, Krach LE, Gillick BT. “Ipsilateral corticospinal tract excitability contributes to the severity of mirror movements in unilateral cerebral palsy: A case series” Clin EEG Neurosci. 51(3): 185-190, PMID: 31912767
Impact Factor: 1.822 Times Cited: 0
4. Kowalski JK, **Nemanich ST**

7. **Nemanich ST**, Rich TL, Chen CY, Menk JS, Rudser K, Chen M, Meekins G, Gillick BT. "Influence of combined transcranial direct current stimulation and motor training on corticospinal excitability in children with unilateral cerebral palsy". Front Hum Neurosci. 2019. 13:137. PMID: 31105541
Impact Factor: 2.871 Times Cited: 1
8. **Nemanich ST**, Rich TL, Gordon AG, Friel K, Gillick BT. "Bimanual skill learning after transcranial direct current stimulation in children with unilateral cerebral palsy: a brief report". Dev Neurorehabil. 2019. Apr 3: 1-5, [Epub ahead of print]. PMID: 30943373
Impact Factor: 2.05 Times Cited: 8.

22. Whitehead TD, ***Nemanich ST**, Dence C, Shoghi KI. A PET-

7. Gillick B*, Rich T; Chen CY, **Nemanich S**, Rudser, Menk J, Ward M, Meekins G, Krach L, Feyma T. "Combined transcranial direct current stimulation and constraint-induced movement therapy intervention in children with unilateral cerebral palsy: Behavioral and neurophysiological findings from a randomized clinical trial". American Academy of Cerebral Palsy and Developmental Medicine Annual Meeting. Montreal, Quebec, Canada, 2017.
8. Rich T*, Krach L, Chen CY, **Nemanich S**, Meekins G, Ward M, Feyma T, Gillick B. "Safety and feasibility of a synergistic non-invasive brain stimulation and constraint-induced movement therapy clinical trial in children with unilateral cerebral palsy". American Academy of Cerebral Palsy and Developmental Medicine Annual Meeting. Montreal, Quebec, Canada, 2017.
9. **Nemanich ST***, Rich T, Lixandrao M, Chen CY, Meekins G, Feyma T, Ward M, Krach L, Gillick B.

10. **Nemanich ST**, Kowalski JL*, Chen M, Zorn E, Georgieff M, Gillick BT. "Longitudinal assessment of cortical excitability in an infant with perinatal brain injury". North American Neuromodulation Society,

28.

Service and Outreach

Current Membership and Offices in Professional Organizations

American Society of Neurorehabilitation	2017-Present
American Occupational Therapy Association	2020-Present

Editorships/Journal Reviewer Experience

Ad-Hoc Reviewer (number of reviews)

1. Experimental Brain Research, 2020 (1)
2. Disability and Rehabilitation, 2019 (1), 2020 (1)
3. European Journal of Cancer Care, 2019 (1)
- 4.

Washington University in St. Louis (graduate student)

University-wide Service

1. Graduate Research Symposium judge. February 23, 2016.
2. Student representative to the Graduate School Council. September 2015-April 2016
3. Student representative to the Graduate Student Senates. September 2013-April 2014

Community Outreach Activities

1. Speaker, St. Louis chapter of American Parkinson's Disease Association support group
February 19th, 2013, January 20th, 2015
2. Judge, Saint Louis City Science Fair, April 24th, 2013