GILLCICK PEDIATRIC RESEARCH LAB
Bernadette Gillick, PhD, MSPT, PT

OUR MISSION
We believe that all children with cerebral palsy have the potential to influence their level of function throughout their lifetime, applying the latest advances in neuroscience with rehabilitation.

Upcoming Study: Two-Handed Therapy and Brain Stimulation in Children with Stroke
My dissertation research intends to study one form of non-surgical brain stimulation (transcranial Direct Current Stimulation-tDCS) paired with two-handed therapy focused on the child's goals. This study will be done in a camp setting. When a child has a stroke, connections in the brain are impacted influencing the child's development. The brain then begins to recover and re-organize these connections. This study will help us learn which type of therapy paired with tDCS is beneficial for children considering how the brain re-organizes after stroke.

-Tonya Rich, PhDs, MA, OTR/L

Brain Stimulation and Hand Training Study Update
We are nearing the conclusion of our Brain Stimulation and Hand Training in Children with Hemiparesis Study. Twenty participants, both locally and from across the nation, have been enrolled in our 2-week research camps over the last two years. We will conclude the study after the final follow-up visits in December 2016 and are excited to build upon the results for future studies. A special thank you to all of the families and study participants as well as Gillette Children’s Specialty Healthcare for partnering with the University of Minnesota on this important work.

Study Website: http://www.rehabmedicine.umn.edu/research/research-studies/participate-research/brain-stimulation-hand-training

-Dr. Bernadette Gillick

NEW TEAM MEMBER
Sam Nemanich, PhD, MSCI, is the newest member of the Gillick Pediatric Laboratory, joining the group as a post-doctoral associate. Sam earned his PhD in Movement Science and M.S. in Clinical Investigation from Washington University in St. Louis (WUSTL). There his work focused on movement dysfunction in people with Parkinson's disease, and involved the use of motion capture and eye tracking technology to measure movement. With a background in engineering and clinical research, Sam is excited to learn more about neuroimaging and neuromodulation to study brain and movement function in children who have experienced a stroke. Sam and his spouse Sarah are also new parents of an 8 month old son Theodore, and they are ready to begin exploring Minneapolis as a family.

-Bernadette Gillick
From the parent of a study participant:

“There is no doubt the knowledge gained will benefit thousands and thousands in the years to come. I don’t have to tell you that our son had a great time at the camp. The format for camp was everything we’d hoped. Control group or treatment group, we thought that daily therapy sessions would be valuable, something we’ve always wanted to do. I’ve started teaching him to cast a fly rod right handed. After two minutes he declares “I thought this was supposed to be hard.” I’ve got my work cut out. The great thing is he believes ‘righty’ can do it.

“It was great to talk with people who so obviously care so much about the kids and what they are dealing with, who are working out new and effective strategies to maximize their potential. It is reassuring to see such talented people dedicating their time and energy to this field. We are more optimistic than ever for our son’s future and for others who are dealing with the effects of perinatal stroke.”