

Meet Members of the Research Team



**Bernadette Gillick, PhD, MSPT, PT
Principal Investigator**

Bernadette Gillick is an Assistant Professor in Physical Therapy at the University of Minnesota and a pediatric physical therapist. Her research interests are in cortical plasticity and recovery from neurologic insult.



Sam Nemanich, PhD, MSCI

Sam is a post-doctoral associate in the Gillick Lab. He earned his PhD and Master's of Science in Clinical Investigation in Movement Science from Washington University in St. Louis. Sam is interested in development of movement function in children.

Additional Members of the Research Team



Michael Georgieff, MD
(Medical Director)



Raghavendra Rao, MD
(Medical Monitor)



Mo Chen, PhD
(Biomedical Engineer)



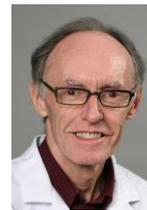
Jed Elison, PhD
(Infant Neuroimaging)



Bryon Mueller, PhD
(Biophysicist)



Kyle Rudser, PhD
(Biostatistician)



Jim Stinear, PhD
(Neuroscientist)

Contact Information

Gillick Pediatric Research Lab

z.umn.edu/gillicklab

Infant Research Study

Understanding how the brain continues to develop after injury



UNIVERSITY OF MINNESOTA

Driven to DiscoverSM

Using pictures of the brain and magnetic pulses, we can see how the cells that control movement in a baby's brain are connected.

Some babies experience brain injuries before or shortly after birth. These babies are at high risk of developing difficulties in movement due to changes in the brain. To provide treatment we first need to understand how the brain changes in infants who have had a brain injury.

The use of brain pictures and magnetic pulses have been studied in infants and also older children who had a brain injury around the time they were babies. The information gathered in these studies will help to build studies that focus on interventions and treatments with the goal to improve movement.

For this study, we will be taking a picture of your baby's brain in the MRI, while your baby is sleeping.

After the MRI we will apply the magnetic pulses (TMS) with a paddle that rests on your baby's head. You may hold your baby during the TMS.

In addition to the brain pictures and magnetic pulses, we will also analyze how your baby is moving with an assessment designed specifically for infants. We will share the information so you too can learn more about how your baby moves.

Families will receive \$25 after the first visit and \$75 after the second paid by Visa gift cards.

You are invited to participate in one, two or all of these parts.



**Contact study coordinator if interested in being a participant
(612-597-2163)**



**Visit 1 (2 hours)
MRI (Brain Imaging)**
U of MN

Center for Magnetic Resonance Research



**Visit 2 (2 hours)
Magnetic Pulses and
Movement Assessment**

U of MN Clinical Translational Science Institute



Please call us to learn more about this study with no obligation to participate. We also invite you to visit our lab and meet the team!

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