COOK CHILDREN'S HEALTH CARE SYSTEM (CCHCS)
CONSENT FOR RESEARCH AND PERMISSION TO
USE OR DISCLOSE PROTECTED HEALTH INFORMATION

Title of Research: 6-Hz Primed Low and High-Frequency Repetitive Transcranial Magnetic Stimulation on Motor Function and Meta-Plasticity in Children with Cerebral Palsy: TMS-EEG Study

CCHCS Department: Jane and John Justin Neurosciences Center

Sponsor: Cook Children's

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This form is an invitation to take part in a research study. We do research studies to try to answer questions about how to prevent, diagnose, and treat a variety of conditions.

Please take your time reading this form and know that you are not alone if parts of it seem confusing. Talking to your doctor, family, or friends often helps. It also helps to write down your questions and concerns.

This information is for our adult participants. It is also for parents or guardians of children under 18 years of age. If you are a parent or guardian, the words "you, your, I, or me", in this form, refer to your child.

Key Information

The box below highlights key information about this study for you to consider when deciding if you want to volunteer to be in this study. Carefully consider this information and the more detailed information provided in the rest of this form. IT IS VERY IMPORTANT THAT YOU READ THE ENTIRE FORM.

Key Information for You to Consider
• **Voluntary Consent.** We are asking you to volunteer for a research study. It is up to you whether you choose to take part or not. You do not have to sign the consent form in order to receive care or treatment at Cook Children's. You can decide not to take part or stop taking part at any time. • **Purpose.** The purpose of this research is to investigates the therapeutic benefits, safety, and tolerability of repetitive transcranial magnetic stimulation (rTMS) for improving motor function and meta-plasticity in children with cerebral palsy (CP). This may help the development of rehabilitation for children with CP in the future. • **Duration.** It is expected that your participation in this study will take about 2-3 months. Your participation will require 3 separate behavioral assessment visits and 1 MRI visit if needed, each lasting about 2-3 hours, plus 10 separate and successive visits, each lasting about 60 to 90 minutes. • **Procedures and Activities.** We will ask you to come in for behavioral assessments, neurophysiological assessments, high-density electroencephalography (HD-EEG), magnetic resonance imaging (MRI), and repetitive transcranial magnetic stimulation (rTMS) sessions. • **Risks or Discomforts.** Possible risks and side effects are a part of all research studies. Some of the key risks could include feeling trapped in the MRI machine, the TMS may make your head or neck ache, and the HD-EEG may bother the skin on your head. **Read the entire form for additional potential risks or side effects related to this research study.** • **Benefits.** It is possible that you may benefit from taking part in this study; however, there is no guarantee that it will help you. • **Alternatives.** Taking part is voluntary and the only alternative is to not take part.

The rest of this consent form gives more detailed information about this study. Please read the rest of this form carefully. Please ask any questions that will help you decide whether you want to take part in this study.

Who Are We?

Different groups of people make up our research project. You may meet one or all of these people during the study.

Sponsor: The sponsor may be a person, organization, or company. The sponsor wants the study done. They develop the plan and often provide the funding.

The **Research Team:**

1. Principal Investigator (PI): The primary person who oversees the research study. He or she will answer any questions you may have about the research study.

2. Sub-Investigator (Sub-I): Other health care providers involved with the research study. Like the PI, they can answer any questions you may have about the research study.

3. Research Nurse Coordinator (RNC): This nurse works with the PI very closely during the research study. This nurse will review the activities which will take place during the research study with you. The nurse can answer any questions that you may have about the research study.

4. Clinical Research Coordinator (CRC): The person who works with the PI to enroll you in the research study. The CRC will also collect your information and send it to the sponsor of the study.

Why Are We Doing this Research?

We are asking you to take part in this research because you have CP. The purpose of this research is to investigate the therapeutic benefits, safety, and tolerability of rTMS for improving motor function and meta-plasticity in children with CP.

The purpose of this research is to investigate the effects of 6-Hz primed low and high-frequency rTMS on neural motor function and meta-plasticity, utilizing TMS-EEG as a core method. The use of the rTMS device in this study is considered investigational.

Through modulating cortical excitability, we expect that 6-Hz primed low and high-frequency rTMS will improve motor function and generate meta-plasticity in children with CP. This improvement in motor and induced meta-plasticity potentially leads to faster rehabilitation outcomes and reduced need for long-term care, which would benefit both patients and hospital systems by lowering treatment costs and improving resource allocation.

The sponsor of this study plans to include about 60 participants in this research. About 45 will be from Cook Children's.

How Do We Select Participants?

Not everyone can take part in a research study. The investigator thinks you may qualify based on your medical records. We may also use other information to find out if you can take part in the research study.

Standard Tests and Procedures

Based on your health condition, these are the tests and procedures we would normally do. Some of these may also be a part of the research study.

They are:

- Magnetic Resonance Imaging (MRI)
- HD-EEG (High Density Electroencephalography)

Research Tests or Procedures

We will perform the following tests and procedures specifically for this research study:

- **Behavioral Tests**

Gross Motor Function Classification System (GMFCS)

The Gross Motor Function Classification System (GMFCS) is a standardized tool used to assess and classify the motor function of children with CP and other motor impairments. It provides a framework for evaluating gross motor abilities and determining the level of functional limitation based on observed performance and capability.

Gross Motor Function Measure (GMFM-88)

The **Gross Motor Function Measure (GMFM-88)** is a comprehensive assessment tool designed to evaluate and track gross motor function in children with CP. It comprises 88

items divided into five dimensions: lying and rolling, sitting, crawling and kneeling, standing and walking, running and jumping. Each item assesses specific motor tasks, and scores can be used to calculate raw and percentage scores for each dimension and an overall GMFM-88 score. This measure helps clinicians and researchers monitor motor development, assess the effectiveness of interventions, and guide treatment planning.

Modified Ashworth Scale (MAS)

The Modified Ashworth Scale (MAS) is a clinical assessment tool used to measure muscle spasticity, particularly in individuals with neurological conditions such as CP. It evaluates the resistance of a muscle to passive stretch, which provides insight into the severity of spasticity. The MAS quantifies muscle spasticity by assessing the resistance when a muscle is passively stretched. This assessment helps understand the degree of spasticity and its impact on the individual's motor function.

Mirror Movement Assessment Scale (MMAS)

The Mirror Movement Assessment Scale (MMAS) is designed to evaluate MM, where involuntary movements in one limb mirror those in the opposite limb. It assesses these movements' frequency, amplitude, and impact on functional tasks. The MMAS helps understand the extent of mirror movements in individuals with neurological conditions such as CP, monitor changes over time, and evaluate the effectiveness of therapeutic interventions.

Assisting Hand Assessment (AHA)

An assessment instrument called the AHA gauges and characterizes how kids with upper limb disabilities work together with their non-affected hand when using their afflicted hand or aiding hand. Together with the other exams (behavioral assessment and somatosensory evaluation), the test will be administered to children between the ages of 18 months and 12 years. The AHA evaluates how naturally and spontaneously the youngster handles objects when they are playing. Each kid will play for fifteen minutes, handling and investigating items from the Small Kids AHA test kit, either before or after the scanning process. A member of the study team will administer the AHA and score it afterward. The AHA score is a number between 22 and 88, indicating a complete lack of use of the hand or use of the hand as efficiently as one would expect. After that, a Rasch-analysis will convert the AHA scores to equal interval unit logics.

Manual Ability Classification System (MACS)

The children between the ages of four and eighteen will be administered the MACS test. The MACS is designed to gauge how well children with cerebral palsy typically perform manual tasks during everyday encounters. The MACS outlines five levels based on the child's independence in handling things, and whether or not they require assistance to carry out particular tasks. Items utilized in the exam include eating utensils, clothing, and writing pens. All of the items are age- and situationally-appropriate for children. Given that every etiology can typically be categorized into one of the five stages, the test covers a wide range of CP types. The five levels comprise an ordinal scale from I (handles items successfully and readily) to V (does not handle objects and has severely limited ability to do even simple activities). A study team member qualified to administer the MACS will do so, and another member who was blind to the participant's diagnoses will grade the results afterward.

Assessment of Motor and Process Skills (AMPS)

A person's performance quality in instrumental or personal daily life activities is assessed using the AMPS test. While completing these tasks, subjects are tested in situations that are familiar or relevant to them. The test gauges how well the person can complete these actions independently, without needing assistance, with greater physical effort, at a lower efficiency, or clumsiness. Subjects who struggle with everyday tasks and are three years of age or older will take the test. A study team member qualified to administer the AMPS will do so, and another member who was blind to the participant's diagnoses will grade the results afterward.

Melbourne Assessment of Unilateral Upper Limb Function (MUUL)

Children with CP can have their unilateral upper-extremity function evaluated with the MUUL. It evaluates the range, accuracy, dexterity, and fluency of movements to determine the quality of upper limb movement. Children are given a variety of objects to manipulate, and each movement element is assigned a distinct score. Thirty item scores are used in total. A research team member qualified to administer the MUUL will do so, and another person who was blind to the participant's diagnoses will grade the results afterward—the children who will take the test range in age from five to fifteen.

Jebsen-Taylor Hand Function Test (JHFT)

Weighted and non-weighted hand function tasks are used in the JHFT to evaluate fine motor abilities. The seven items on the exam assess everyday life skills like writing a brief phrase, stacking objects, and picking up objects of different sizes and weights. The participant's time to complete each item on the exam determines its score, which is then

added up to get the final result. Six to eighteen-year-old subjects will use the assessment. A study team member qualified to administer the JHFT will do so, and a member who was blind to the participant's diagnosis will score the test afterward.

Canadian Occupations Performance Measure (COPM)

Using the COPM interview technique, both the subject and a research team member can candidly identify areas of their daily routines that they would like to change. After ranking the significance of these activities on a 10-point rating scale, the participant chooses which two to address using intervening techniques. After that, they graded how well they performed on each problem, with a certified research team member to conduct the interview, assigning a score of 1 to 10. It is advised that the participants be mature enough—typically older than six—to comprehend their motor and sensory limitations.

Goal Attainment Scale (GAS)

The GAS results in choosing a standard goal (eating with a spoon, for example) and standardizing the goal scaling (e.g., spoon does not shake). This makes it possible to calculate the degree to which the subject's goals are achieved. The priority (0 – not important, 3 – very important) and complexity (0 – not tough, 3 – very difficult) of the goals determine their value. Each patient will receive a customized assessment to see how well they are doing in reaching their objectives.

Besta Scale

Reaching is measured with the Besta scale to evaluate upper limb function. Hemiplegic patients are used in this way to compare the affected and unaffected sides of their limbs. Transitioning from rest to reaching toward an object or from rest to reaching from hand to mouth are examples of reaching tasks. Each arm completes each activity three times. Attached to the upper extremities, 3D retroreflective markers track joint and segment motion when paired with high-speed infrared cameras to create a three-dimensional patient reconstruction for in-depth motion analysis. Accuracy of reach, upper extremity range of motion, compensatory patterns, and motion symmetry relative to the unaffected limb will all be objectively determined by analysis.

Burke Fahn Marsden Dystonia Rating Scale (BFMDRS)

The BFMDRS comprises two distinct subscales: the movement subscale and the disability subscale. It is a dystonia rating scale. The Burke Fahn Marsden Movement Scale (BFMMS), a movement subscale, rates nine body regions from 0 to 4. The degree of dystonia

symptoms in each location is assessed, and the areas are then weighted by a factor of 0.5 to 1.0 (the arms and legs being heavier than the neck, for example). The sum of the products from every category results in a maximum rating of 120. Burke Fahn Marsden Disability Scale (BFMDS), a disability subscale, is based on functional markers that are reported on daily activities by the patient and/or caregiver. The scores are assigned from 0 (totally dependent) to 30 (independent). When combined, these two subscales provide a rating that indicates the severity of dystonia.

Barry Albright Dystonia Scale (BADS)

BADS evaluates secondary dystonia using a 5-point rating system across eight body areas. It was created using the BFMMS as a model and administered similarly to provide patients with secondary dystonia with a global dystonia score. Since it fills in the gaps left by the BFMMS, it can measure posturing and involuntary movements that may not be represented in function but rather in the patient's comfort. Since it doesn't weigh sections like the BFMMS, is the highest possible score.

Finger Tapping Task

A keyboard tapping task measuring low-level motor ability and psychomotor speed. Modeled after the Finger Tapping or Oscillation task from the Reitan Test Battery. Participants tap a key as quickly as possible for multiple trials, testing dominant and/or non-dominant hand.

Task Fitt's Law Task

Classic motor control task measuring the speed-accuracy tradeoff in rapid aimed movements. Tests the relationship between movement time, distance, and target size, following Fitts' Law (MT = a + b*log2(2D/W)). Participants rapidly move the mouse cursor from a home position to rectangular targets of varying sizes and distances. Each trial begins at the home position on the left side of the screen. When ready, participants move to the target rectangle as quickly as possible. Movement time and accuracy are recorded for each trial.

Pursuit Rotor

Motor tracking task requiring continuous tracking of a moving target with mouse or touch input. Measures motor coordination and learning.

Time Tapping Task

Motor timing task measuring self-paced tapping consistency across multiple trials. Participants tap at a self-paced even rate following a visual entrainment period. After

seeing a flashing cross that demonstrates the target tapping rate, participants must maintain that rhythm for a sustained period (default 180 seconds per trial). The task assesses low-level motor timing ability and may be sensitive to fatigue, sleep deprivation, and motor control deficits.

Simple Reaction Time

A simple reaction time task where a single stimulus (an 'X' or mouse button prompt) appears at a specifiable delay from the previous response. Measures basic alertness and motor response speed across multiple blocks with breaks.

HD-EEG (High Density Electroencephalography)

We will use HD-EEG to record your brain activity. Here, a cap containing small discs (electrodes) will be placed on your head. HD-EEG has been safely used on children in the hospital for clinical and research purposes for over 30 years without any harmful side effects. It is known to be safe and causes little discomfort.

TMS (Transcranial magnetic stimulation)

We will use TMS to measure the excitability of your brain. TMS is a technique that makes a current in the brain using a magnetic field to pass the scalp and the skull safely. In TMS, a current passes through a coil of copper wire that is in plastic and held over your head. This coil looks like a circle or a figure of eight and is held by a member of the research team above your head. As the current passes through the coil, it makes a magnetic field that can go through your scalp and skull and will create a current in the brain. There is a clicking noise when current passes though the coil, but the magnetic field and the current in the brain are not painful. However, some discomfort may occur from the contraction of scalp muscles or the activation of nearby nerves. The TMS session will last ~1 hour with the actual scan time lasting around ~45 minutes. You will sit in an armchair with several small discs (electrodes) placed on your hands.

Magnetic Resonance Imaging (MRI)

An MRI scan will be performed on participants who have not had an MRI within 4-6 months. An MRI is another medical imaging technique that we will use to take pictures of your brain. MRI is generally considered a harmless imaging tool because it does not use radiation such as x-rays. We will provide non-magnetic clothing that you can change into for the scan. If you are uncomfortable entering the scan room by yourself, a parent/guardian may be allowed to sit in the scan room with you and will also be given

non-magnetic clothing to change into. The entire MRI session will last ~1 hour, with the actual scan time lasting ~30 minutes. We recommend coming in during natural nap time in order to sleep through the scan.

rTMS (Transcranial magnetic stimulation)

rTMS, similar to TMS, delivers multiple magnetic pulses in a rhythmic or repetitive sequence over a period of time. The repeated stimulation is designed to have longer-lasting effects on brain activity, potentially influencing brain plasticity and function. rTMS is commonly used as a therapeutic tool in conditions like depression, anxiety, and neurological disorders such as CP. In the training session, you will be asked to come in our lab for 10 successive days (not including weekends). The training will be lasting about 60 to 90 minutes each day.

Your information will only be used for this study and will not be used or shared for other research studies in the future.

Randomization

You will get 1 of 3 different treatment plans. A process called randomization decides the treatment plan you get. Randomization means that the treatment you get is by chance. It is a lot like flipping a coin or pulling numbers from a hat, except that a computer does it. This is to make sure that there are about the same number of people on each treatment plan. You and your investigator do not pick your treatment plan.

You have an equal chance of being in either treatment plan.

Placebo

In this research study, one group gets a "placebo". The placebo looks like the drug we use in the study, but does not contain the drug. If you are in the placebo group, you do not get the real brain stimulation. This means that you will not get the real brain stimulation and your condition may get better, worse, or stay the same.

Research Groups

Research participants will be divided into the following groups:

- A sham group: will receive rTMS by positioning the coil perpendicular to the scalp without delivering active stimulation.
- An experimental group 1: participants in this group will receive active low-frequency rTMS.
- An experimental group 2: participants in this group will receive active high-frequency rTMS.

We will firstly assign you to a research group by computer-generated random sequence. After all study procedures are completed, we will let you and your child know whether your child received the real or sham (placebo) treatment.

Optional Studies

There are optional sub-studies that are part of the main study. You can choose whether or not you would like to take part in these sub-studies. If you choose to not take part in the sub-studies, you can still be in the main study.

We would like to have the option to show videos of some of our participants as they go through all the imaging and behavior tests. These videos will show your face, but will not have any other identifiers. The videos would be used for educational, research and/or professional presentations and/or publications. Taking part in this optional portion of the study includes the use and/or disclosure of you protected health information (PHI). If you do not agree to the use and/or disclosure of your PHI, you would not be able to take part in any optional portion of the study that requires use and/or disclosure of your PHI (your face), but could still take part in the main study.

Taking part in optional sub-studies includes the use and/or disclosure of your protected health information (PHI). If you do not agree to the use and/or disclosure of your PHI, you would not be able to take part in any optional sub-studies that require use and/or disclosure of your PHI, but could still take part in the main study.

Please read the sentence below carefully. Then let us know your choice by circling "Yes" or "No". Please sign and date next to your choice.

I agree to take part in video recording for educational, research and/or professional presentations and/or publications and agree to the use and/or disclosure of my PHI for this sub-study.

Yes / No / N/A Signature_____ Date_____

Length of Research Study

You will be in this research for about 2-3 months.

Stopping the Study

It may be necessary to stop taking part in this study if:

1. Your condition does not change or gets worse.
2. You are not able to follow the study requirements.
3. The research study is no longer safe for you.
4. Another treatment may be more helpful.
5. The study stops for safety reasons.
6. Cook Children's is no longer taking part in the study.

The research team will decide if stopping the study is necessary and will talk with you about other treatment options. **Taking part in this research study is voluntary.**

- You may choose not to take part.
- You may stop at any time.
- If you decide to stop, Cook Children's will continue to provide the standard (regular) treatment available, just as before.

If you completely withdraw from participation in this study, you should know that all of the data collected to the point of your withdrawal will remain part of the study and cannot be removed. It is not possible to remove the data in order for the study to remain scientifically valid.

If at a later date, you decide that you do not wish to undergo any further research interventions, it may be possible for you to withdraw from the research intervention portion of this study, but continue to allow the study team to collect follow-up information about you. If you choose to withdraw from the research intervention part of the study, you will be given a choice as to whether you will allow the research team to continue to collect the follow-up information.

If you completely withdraw from participation in this study and no longer want your samples used for research tests, please talk to a member of the research team about having your samples destroyed. You should know that any data collected from research already done on your samples will remain part of the study and cannot be removed.

Risks & Side Effects of this Research Study

Possible risks and side effects are a part of all research studies. We can list the risks and side effects we know about, but there may be others we do not know about at this time.

The known risks and side effects associated with this research study are:
The procedures used in this study have minimal risks. Some children might complain about discomfort. If you show any sign of discomfort, we will briefly pause the measurements.

HD-EEG electrodes and the cap may be uncomfortable and you may begin to complain. We will attempt to correct the problem at hand and will resume the testing when you feel comfortable to continue. If you wish to end the study, you can do so without penalty.

Hundreds of children have previously received a TMS or rTMS. Using this magnet can put a person in danger of having a seizure since it sends electromagnetic pulses through the brain. However, in the past, seizures have only happened in adult humans and animals when the magnet was employed for consecutive high-frequency impulses at a sustained level. No children previously administered rTMS by the scientists experienced seizures or other notable neurologic problems. Numerous studies have shown that most children tolerate rTMS well. The various stimuli that can be used fall well within the boundaries of the most recent globally recognized safety standards. During the TMS session, the machine may make a loud clicking noise that occurs when the machine is being used, but will cause you no harm. Earplugs will be used in the laboratory to prevent this possible negative effect. There may be some uncomfortable feelings in your head or your nerves during the procedure. Afterwards, you may have a headache or ringing in ears, but these will go away shortly. If during the rTMS session you get nervous or upset, we will stop the scan.

MRI is a harmless imaging technique because it does not involve ionizing radiation, such as x-rays. There are however some risks with MRI that are easy to avoid but which you should be aware of. These potential risks very rarely cause harm when an MRI is performed within established guidelines by trained technicians. MRI uses a powerful magnet to make images. Therefore, persons with metal implants, such as certain types of surgical clips or pacemakers should not have an MRI. Other metal objects such as keys, pocketknives, or some types of jewelry must be removed prior to entrance to the magnet room. These objects can be pulled towards the magnet at very high speeds and can cause serious injury. You will be screened for these objects. In addition to a large magnet, the MRI scanner also uses radio frequency waves that can, on rare occasions, cause a mild warming sensation. The MRI scanner also makes loud banging noises during the scanning session. During the MRI study you will be given earplugs to reduce the noise heard from the scanner. It is also possible that the

magnetic fields in the scanner can cause some nerve and muscle twitching in the arms and legs. Such effects are extremely rare but possible. Some people simply find it uncomfortable and/or claustrophobic to lie in the closed space of the MRI scanner. If during the MRI, you get nervous or upset, the procedure will be stopped. Although there are no known long-term harmful effects from having an MRI scan performed, it is always possible that there are long-term effects that are not presently known.

Other risks of the MRI involve how much heat is put into a person's tissue from the radio energy from the scanner. If too much heat is put into your body, this can become dangerous if your body is not able to remove it as quickly as it's being absorbed. However, the MRI scanner has multiple safety features in place that protect the participants from too much of this radio energy. In addition, since the MRI is a large magnet, there is a risk of activating your nerves, causing you to shake or feel uncomfortable. In order to avoid this, there are limits to how long participants can be in the scanner, and these limits will be observed.

No sedation will be used for the research MRIs to be obtained for this study.

When imaging subjects, there is always the risk of discovering a potential abnormality. The MRI being performed for this study is designed to only answer research questions and is not used for any medical diagnoses. The research images are not substitutes for what a doctor would order and may not show problems that might be picked up by clinically indicated medical images. Your research images, however, will be examined by a trained radiologist or clinician within one week of the exam. If the radiologist/clinician believes that the research study may show an unexpected abnormality, he/she may recommend that you contact your physician for further follow-up. All information generated from the research imaging will become part of your medical records.

Will this Research Study Help Me?

You may receive the following benefits from this research:

- **Improvement in Motor Function:** This study's primary aim is likely to explore the efficacy of different rTMS protocols on motor function. Participants may experience improvements in motor control, coordination, and overall physical abilities, which could enhance their daily activities and quality of life.
- **Meta-Plasticity Enhancements:** The study may induce beneficial changes in the brain's ability to reorganize and adapt, potentially leading to long-term improvements in neural connectivity and motor function. These changes can be significant for children with CP, who often face challenges related to motor function.

- **Access to Cutting-Edge Therapies:** Participants in the study may receive access to innovative and advanced therapeutic interventions that are not yet widely available. This could provide them with unique treatment options that positively impact their condition.
- **Contribution to Scientific Knowledge:** By participating in this study, subjects and their families contribute to research that could benefit future children with CP. The findings from this study may help develop more effective treatments and interventions for others with similar conditions.

- **Monitoring and Support:** Medical professionals often closely monitor participants throughout the study, which can lead to early detection of any issues and provide additional support to the child and their family.

However, this research study may not help you at all. Your medical condition can get better, but it can also get worse. Your research team cannot guarantee that this study will help your condition.

We hope the information we learn from this research will help future patients with cerebral palasy.

What Are My Other Choices?

You may decide not to join this study.

Remember: You can always choose to stop taking part in the research study. If you want to stop, your PI and/or a member of the research team will explain how you can do this. Choosing not to participate in this study will not affect or change your standard medical care in any way. You will continue to receive the same level of care for your condition as you would if you were not in the study.

What are the Costs?

The sponsor of this research study will pay for all the procedures.

You (or your insurance company) are still responsible for the costs of standard (regular) medical care during this research study.

Standard (regular) medical care: This is the usual medical care you would need for your health condition if you were not taking part in this research study.

If you have any questions or concerns about the cost of your care, please talk with our CCHCS financial counselors or your investigator about this.

What Happens if I am Injured in this Research Study?

1. Cook Children's and the sponsor of this research study have not set aside any funds (money) to pay you in case you are injured as a result of taking part in this research study. In addition, Cook Children's has not set aside any funds to pay for your emergency medical treatment or ongoing medical care related to this research study. You or your insurance company may be responsible for costs associated with any necessary emergency medical treatment.

2. If you need continuing medical care and/or hospitalization, you or your insurance company may be responsible for these costs.

Payment or Reimbursement for being in this Research Study

Each research study is different. Some studies pay participants for their time and effort related to taking part in a research study, and some do not.

You will receive $50 for each assessment visit and $50 for MRI visit, amounting to $200 total if the assessment sessions, HD-EEG, TMS, and MRI are completed and we are able to collect any amount of data. This is to compensate you for the time you have spent preparing at home for this study, for transportation costs and for the time you will spend for each session. If we cannot start the measurements due to difficulties, or due to excessive head movement, then you will receive $25/incomplete session as compensation for your effort and time. If we collect any amount of HD-EEG data, you will receive the full amount of money so that you do not feel obliged to complete the study just to receive the money.

You will receive $25 for each training visit, amounting to $250 total if all the 10 training visits are completed. If you could not follow instructions to do scheduled training activities or you decide to stop the training in the middle, you would not be paid for that training visit.

You will be offered free parking at Cook Children's for each of your visits.

A company called 'Greenphire' will manage the study visit payments and a ClinCard, which is a debit card, will be provided to you (if you are 18 or older) or your parent (if you are under 18). When you complete a visit, the amount outlined in this Consent Form to be paid per visit

will be approved and added onto your ClinCard. The funds will typically be available for use within 15 business days. If you do not use your card within a 3-month period, it will automatically be assessed a $4.50 inactivity fee. However, you can call Greenphire at (866) 952-3795 and they will reverse the $4.50 fee. You will be issued one card for the duration of your participation in the study. If your card is lost or stolen, please call Greenphire at (866) 952-3795 or talk to your study coordinator about a replacement ClinCard.

In order for Greenphire to be able to reimburse you using the ClinCard, Greenphire will collect the following required information about you:

- Your name
- Birth date
- Address

By choosing to use the ClinCard service you are authorizing the release of this required information to Greenphire.

You also have the option of providing your contact details (cell phone number and/or email address) to Greenphire. You do not have to provide this information to be enrolled in the study or use a ClinCard. If you choose to provide it, you will be able to receive updates related to payment reminders and updates via text message and email message (standard text messaging rates will apply). If you choose to receive messages and decide at a later date that you want to stop these messages, you will have the ability to opt-out.

Please indicate below by circling "Yes" or "No" whether or not you will provide your contact details to Greenphire. Please sign and date next to your choice.

Yes / No Signature_____ Date_____

All of your information will be stored in a secure fashion and will not be shared with any third parties. It will be kept completely confidential.

Public Assistance Programs (Social Security, Medicaid, Medicare)

You are receiving payment(s) as a result of taking part in this study. You have been told how much **extra money** you can make (by your public assistance program) and still receive public assistance. If you make more than this amount, the government could remove you from the program. Research money that covers your costs is not usually considered to be **extra money**. There is a new law called the "Improving Access to Clinical Trials" Act that you should be aware of. If you are taking part in a research study which focuses on a rare disease such

as Cystic Fibrosis, Muscular Dystrophy, or other rare disease or condition, this law makes it possible for you to receive a certain amount of **extra money** and still qualify for your public assistance program.

If you are receiving public assistance from any type of program, please speak to a Cook Children's Financial Counselor. Please tell your Clinical Research Coordinator if you would like to talk with a Cook Children's Financial Counselor or call 682-885-4000 and ask to speak to a Financial Counselor. The Financial Counselor can tell you if these payments could cause you to become ineligible (or not to qualify) for the public assistance program.

Financial Disclosure Statement

- Cook Children's is receiving funding for this research study.
- These funds cover some or all of the expenses of the research study and research related activities.
- These funds pay the principal investigator and research study staff for some or all of their time and effort associated with running this study.

Will You Keep My Records Confidential?

The Health Insurance Portability and Accountability Act (HIPAA) limits the use and disclosure of your private Protected Health Information (PHI). This means by law, we cannot share your personal or medical information.

However, by signing this consent form, you are giving us permission to share this information. You are allowing us to give out some of your private records. It is important for you to know what information we will share. This information may include:

- History and diagnosis of your disease
- Current and previous treatments you received
- Other medical conditions that may affect your treatment
- Laboratory, radiology and pathology test results
- Follow-up information about your general health
- Status of your disease and late effects from treatments received
- Radiographs and/or photographs as needed to determine disease status
- Specimens, as outlined in the beginning of this form

Other Information that May be Used or Shared

This includes any information about your physical or mental health, your health care, or payment for your health care. It also includes your:

- Name
- County of residence
- Gender
- Diagnosis
- Disease Status
- Birth date
- Zip Code
- Race/Ethnicity
- Diagnosis Date

Who Will See My Information?

CCHCS will protect your protected health information (PHI). However, once you give us permission, we cannot absolutely guarantee this privacy, nor guarantee that your PHI will remain protected. For example, the law may require us to give information to the courts or the health department.

Depending on the study, your PHI and records may be shared with several groups including:

- Sponsor of this study: Cook Children's
- Representatives, agents, or third party contractors hired by the sponsor company or Cook Children's to help conduct or facilitate your participation in the research study.
- CCHCS Institutional Review Board (IRB) – a selected team of people who make sure that the rights of research participants are protected and respected.
- CCHCS Legal and Compliance Departments.
- Texas Medical Board
- Federal Food and Drug Administration (FDA).
- Federal Office for Human Research Protections (OHRP).

How Will You Use My Protected Health Information?

If you give us permission, the researchers may use or share your protected health information (PHI) for this research study. They may also use your information to develop new procedures or commercial products.

The researchers may report their findings about this research study in scientific journals or meetings, but these reports will not identify you.

What If I Do Not Give Permission?

If you refuse to give permission, you can still get standard, non-research health care from CCHCS. But, you would not be able to take part in this research study.

Can I Cancel My Permission?

You have the right, at any time, to cancel permission for the researchers to use or share your protected health information (PHI).

If you cancel your permission, you can still get standard, non-research health care from CCHCS. But, you would not be able to take part in this research study. Please talk with your PI and/or the research team about this because we will need to stop your participation in a manner that is safest for you.

To cancel permission, you must write to the Principal Investigator (PI) or the CCHCS Privacy Officer, at 801 Seventh Avenue, Fort Worth, TX, 76104. Or, you may email the CCHCS Privacy Officer at *mailto:*privacyofficer@cookchildrens.org.

How Long Can You Use or Share My Information?

There is no time limit for using your information. Unless you cancel your permission in writing, the Cook Children's researchers can continue to use or share your information indefinitely.

If you cancel your permission: As soon as you cancel your permission, we will stop the following research activities:

- Direct or indirect interactions with you that allowed us to gather data for the research study.
- Obtaining additional identifiable protected health information for the research study by collecting or receiving new information from other sources.

It is important that you understand that any information that was collected or shared for the research study before you withdrew your permission, may not be affected by cancelling your permission and withdrawing from the entire study or part of the study (including information that was sent to the sponsor). That information may continue to be retained, used, disclosed or analyzed to the extent necessary to protect the integrity of the research study.

What Are My Rights as a Research Participant?

1. You have the right to find out about the release of your Protected Health Information.

2. You have the right to withdraw your participation in the research at any and all levels at any time.

3. You have the right to have all your questions and concerns addressed and answered to the best of our ability.

4. You have the right to any new information that becomes available during your participation in this research that may affect your health or willingness to continue in the research.

What Are My Responsibilities as a Research Participant?

The research team will monitor you closely while you are in this research. They will watch for any problems that may require additional medical care. It is your responsibility to do the following:

1. Ask questions about anything you do not understand.

2. Keep appointments.

3. Follow instructions.

4. Tell the research team if your telephone number changes.

5. Tell the research team before you take ***any*** new medicine.

6. Call 911 if you have an emergency or go to the nearest emergency room. Be sure to tell them that you are in this research.

What if I Have Questions or Problems?

If you have questions about this research study, you may call the Principal Investigator or any member of the research team at 682-885-3236. If you are injured, you may call the Principal Investigator or any member of the research team at 682-885-3236.

For information about your rights as a research participant, you may call the Cook Children's Institutional Review Board (IRB) at 682-885-1764.

A representative of the IRB may call you and ask about your experience with this research study. They want to make sure your rights as a research participant have been protected and respected. You have the right to answer or refuse to answer any questions the IRB may ask.

Return of Study Results

The MRI images and the behavioral tests and their respective results will be available to you as they will become part of your medical record. Other testing is for research purposes only and will not be given to you or become part of your medical record.

Informing Your Primary Doctor

We would like to tell your primary doctor that you are taking part in this research study. We want to make sure that you receive suitable (appropriate) medical care for your health condition, outside of this research study. So, it is important that your primary doctor is aware of your participation in this study. Please check one of the boxes below, so that we are aware of what you wish for us to do:

☐ Yes, please tell my primary doctor that I am taking part in this research study.
My primary doctor is _____
My primary doctor is located at _____
☐ No, do not tell my primary doctor that I am taking part in this research study.
☐ I do not have a primary doctor.
☐ My primary doctor is one of the research study investigators.
☐ The decision that I made when I was consented before has not changed. A new letter will not be sent to my primary doctor.

STATEMENT OF CONSENT and AUTHORIZATION

Your signature below means that you want (consent) to take part in this research study. It also means that you give permission (authorize) the CCHCS researchers to use and share (disclose) any of your Protected Health Information (PHI) that is related to this research.

You should not sign this form until you have had the opportunity to read it (or have it read to you) and have all your questions and concerns answered. You should not sign this form unless you have made a free and voluntary choice to be in the research and to give permission for your PHI to be used and shared.

Taking part in the research and giving permission for CCHCS researchers to use and share your PHI are voluntary. Refusing to take part or to give your permission will not result in any loss of benefits to which you are otherwise entitled. You will still be able to get standard, non-research health care from CCHCS.

You may withdraw from the research or cancel permission for your PHI to be used or shared at any time. Withdrawing from the research or canceling your permission will not result in any loss of benefits to which you are otherwise entitled. You will still be able to get standard, non-research health care from CCHCS.

Your signature below means:

- You have read the information above (or it has been read to you)
- You have received answers to your questions at this time
- You have freely decided to take part in this research
- You have freely given permission for CCHCS researchers to use or share your Protected Health Information for the purposes of this research.
- You are not giving up any of your legal rights.

_____
PRINTED NAME OF PARTICIPANT

_____ _____
SIGNATURE OF PARTICIPANT DATE

_____
PRINTED NAME OF LEGALLY
AUTHORIZED PARENT 1 OR GUARDIAN

_____ _____
SIGNATURE OF LEGALLY DATE

AUTHORIZED PARENT 1 OR GUARDIAN

_____
PRINTED NAME OF
PERSON OBTAINING CONSENT

_____ _____ _____
SIGNATURE OF PERSON DATE TIME
OBTAINING CONSENT

_____
PRINTED NAME OF WITNESS
(IF REQUIRED)

_____ _____
SIGNATURE OF WITNESS DATE
(IF REQUIRED)

NOTE: The Witness Signature above indicates that the witness has observed (Please check one of the following):

□ The informed consent conference involving the participant and the person obtaining consent.

□ The signing of this form by the participant (or legally authorized representative) and the person obtaining consent.

□ Both of the above.

OR:

□ The Witness Signature was not obtained because the participant and/or legally authorized representative are fluent in the language used in this consent and authorization form and is/are not illiterate.

NOTE: Informed consent must be obtained in language understandable to the participant. This requires use of either (i) a full, translated informed consent document approved by the CCHCS IRB, or (ii) a translated, IRB-approved "short form" a translator and witness for the consent process.