Partners HealthCare System
Research Consent Form

Subject Identification

General Consent Form Template
Version Date: January 2019

Protocol Title: Randomized, Placebo-Controlled Parallel Group Clinical Trial of Nicotinamide Riboside to evaluate NAD+ Levels in Individuals with Persistent Cognitive and Physical Symptoms After Covid-19 Illness
("Long-Covid")

NCT04809974

Principal Investigator: Edmarie Guzmán-Vélez, PhD

Site Principal Investigator: N/A

Description of Subject Population: Individuals who had COVID-19 and are experiencing residual and persisting neurological and physical symptoms.

About this consent form

Please read this form carefully. It tells you important information about a research study. A member of our research team will also talk to you about taking part in this research study. People who agree to take part in research studies are called "subjects." This term will be used throughout this consent form.

Partners HealthCare System is made up of Partners hospitals, health care providers, and researchers. In the rest of this consent form, we refer to the Partners system simply as "Partners."

If you decide to take part in this research study, you must sign this form to show that you want to take part. We will give you a signed copy of this form to keep.

Key Information

Taking part in this research study is up to you. You can decide not to take part. If you decide to take part now, you can change your mind and drop out later. Your decision won't change the medical care you get within Partners now or in the future.

The following key information is to help you decide whether or not to take part in this research study. We have included more details about the research in the Detailed Information section that follows the key information.

Why is this research study being done?

In this research study we want to learn more about whether taking Niagen (also known as Nicotinamide riboside, or NR), a daily supplement containing a form of Vitamin B3, will improve recovery of cognitive function, mood, and physical health in people who were infected with COVID-19 and are currently experiencing "brain fog" and other neurological and physical symptoms (so called "long-COVID"). We also want to understand how the cognitive function, mood, and physical health of people with long-COVID differ from those who fully recovered from COVID-19.

How long will you take part in this research study?

If you have long-COVID and decide to join this research study, it will take you close to 6 months to complete the study. During this time, we will ask you to make approximately 6 study visits to MGH at 149 13th Street in Charlestown, MA. Visits will take from 2 to 5 hours, depending on whether you participate in the optional sub-study. We will also call you on the phone after your last visit to check in with you and ask how you are doing.

What will happen if you take part in this research study?

If you decide to join this research study, the following things will happen:

- Blood draws (done at 6 office visits)
- Finger prick (done at 5 office visits)
- Surveys about your mood and physical symptoms (done at all visits)
- Assessments looking at your memory and thinking skills (done at most visits)
- Daily activity tracking using a Fitbit, which will measure your daily activity, heart rate, and sleep (done throughout the study)
- Neurological and physical examination (done at 3 visits).
- Optional Magnetic Resonance Imaging (MRI), which shows the structure and function of your brain (2 visits)
- You will be taking Niagen, the study supplement, twice a day every day with food
- Estimated duration for each visit: Screening – 3 hours, Baseline – 4-5 hours, Follow up visits – 2 hours, Final visit – 4-5 hours

Why might you choose to take part in this study?

We cannot promise any benefits to you from taking part in this research study. However, possible benefits may include improvements in your thinking skills, physical health, daily mood, and

activity levels, as well as our understanding of long-COVID. Others who were infected with COVID-19 may also benefit in the future from what we learn in this study.

Why might you choose NOT to take part in this study?

Taking part in this research study has some risks and requirements that you should consider carefully.

Important risks and possible discomforts to know about include discomfort or stress from study assessments such as blood draws, MRIs (optional), physical assessments, or cognitive assessments. Niagen is well tolerated by most people but side effects may include mild nausea, skin rash, hot flashes, leg cramps and increased bruising.

A detailed description of side effects, risks, and possible discomforts can be found later in this consent form in the section called "What are the risks and possible discomforts from being in this research study?".

Other things to consider are the time commitment for this study. You will be required to attend several in person office visits to the Charlestown Navy Yard MGH campus, most of which will be every 5 weeks. You will also be asked to wear a Fitbit activity tracker on your wrist every day.

What other treatments or procedures are available for your condition?

There are currently no treatments or procedures that are available to specifically improve recovery of COVID-19.

If you have questions or concerns about this research study, whom can you call?

You can call us with your questions or concerns. Our telephone numbers are listed below. Ask questions as often as you want.

Dr. Guzmán-Vélez is the person in charge of this research study. You can call her at 617-643-6107 Monday through Friday from 8 am -5 pm. You can also call Dr. Steven Arnold at 617-653-5607 Monday through Friday from 8 am -5 pm, or Alison McManus, DNP at 617-643-4848 Monday through Friday from 8 am to 4 pm or at 619-322-7177 anytime.

If you have questions about the scheduling of appointments or study visits, call the study coordinators Isabel Abril at 617-726-9915 or Cody Reynolds at 617-724-5540.

If you want to speak with someone **not** directly involved in this research study, please contact the Partners Human Research Committee office. You can call them at 857-282-1900.

You can talk to them about:

- Your rights as a research subject
- Your concerns about the research
- A complaint about the research
- Any pressure to take part in, or to continue in the research study

Detailed Information

Why is this research study being done?

We are doing this research study to find out if Niagen can help people who had COVID-19 and have since been experiencing "brain fog" or difficulties with thinking, as well as worsening changes and physical symptoms, and learn more about the nature of long-COVID.

Niagen is approved by the U.S. Food and Drug Administration (FDA) under a New Dietary Ingredient Notification (NDIN). The FDA has also reviewed Niagen as Generally Recognized as Safe (GRAS) for use in vitamin waters, protein shakes, nutrition bars, gum chews, and powdered beverages. While Niagen has not been approved specifically for use in COVID-19 "long-haulers", previous studies in humans have demonstrated its safety and tolerability.

This research study will compare Niagen to placebo. The placebo looks exactly like Niagen but contains no Niagen. During the study, we may give you Niagen for most of the study or placebo first and later Niagen. Placebos are used in research studies to see if the results are due to the study drug or due to other reasons.

Who will take part in this research?

We are asking you to take part in this research study because you were infected with COVID-19 at least two months ago and continue to experience several COVID19-realted symptoms. Some people who had COVID-19 report continuing to experience symptoms that started when they were infected, including difficulties with concentration and other thinking skills, fatigue, loss of smell/taste, and others, which often interfere with their daily lives. Only women who are not of pregnant or planning to become pregnant in the next 7 months will be allowed to participate in this study.

About 200 subjects will take part in this research study, all of whom will be participating at Massachusetts General Hospital (MGH). The McCance Foundation are paying for this research to be done.

What will happen in this research study?

If you choose to take part in this study, we will ask you to sign this consent form before we do any study procedures. This will be done at your first visit. If you are unsure what any of these procedures are, please look at the end of this section for a brief description or ask a member of the study team to explain the procedure to you.

Screening Visit

The Screening Visit will take about 3 hours. At this visit, we will do some tests and procedures to see if you qualify to take part in this research study. The study doctor will review the results of these tests and procedures. If you don't qualify, the study doctor will tell you why.

At this visit, we will:

- Ask you about your medical history and current symptoms
- Ask about what medications you are taking
- Conduct a neurological and physical evaluation
- Conduct a short cognitive assessment
- A SARS-CoV-2 PCR test
- Ask you to complete questionnaires about neuropsychiatric symptoms, sleep, physical activity and others.
- Measure vital signs.
- Explain how to use the FitBit during the trial
- Give you supplement and explain how you should take it throughout the trial.

We will be asking you to use your personal smartphone, tablet or computer to connect the Fitbit. If you do not have a device compatible with the Fitbit, one will be provided to you.

Everyone who takes part in this study will be given Niagen for most of the duration of the study and others Niagen for some weeks and placebo during other weeks. The placebo looks like Niagen but contains no active drug. You and the study doctor won't know when you are taking Niagen and when you are taking the placebo, but the study doctor can find out if necessary.

<u>Taking the Study Supplement</u>
We will give you a supply of study supplement to take home with you.

You will take the study supplement by mouth twice a day with food for 22 weeks. It is important for you to follow our instructions about how to take the study supplement. We will provide enough study supplement for you to take until your next visit, along with a few extra capsules as back up. You will be asked to bring any unused study supplement with you to your next study visit.

Every Day:
You will have to do the following tasks each day throughout the study:

- Wear your Fitbit activity tracker
- Take your study supplement

About Every 4 Days:
We will ask you to do the following approximately every 4 days throughout the trial:

- Charge your Fitbit during a time when you are resting but not sleeping (such as while you are watching TV or reading)

Three Days per Week:
We will ask you to do the following tasks three days per week:

- Synchronize your Fitbit to your account

Visit at 2 weeks
At this visit, we will:

- Ask you about current symptoms
- Ask about changes in the medications you are taking
- Conduct a cognitive assessment
- Draw a blood sample
- Prick your finger to collect a few blood drops
- Ask you to complete questionnaires about neuropsychiatric symptoms, sleep, physical activity and others.
- Measure vital signs.
- Do an optional MRI
- Ask you how you are tolerating the study supplement
- See if you need any help with the study technology

Visit at 7 and 17 weeks
At this visit, we will:

- Ask you about current symptoms
- Ask about changes in the medications you are taking
- Draw a blood sample
- Prick your finger to collect a few blood drops
- Ask you to complete questionnaires about neuropsychiatric symptoms, sleep, physical activity and others.
- Measure vital signs.
- Conduct physical assessments
- Ask you how you are tolerating the study supplement
- See if you need any help with the study technology

Visit at 12 weeks
At this visit, we will:

- Ask you about current symptoms

- Ask about changes in the medications you are taking
- Conduct a short cognitive assessment
- Conduct a neurological and physical evaluation
- Draw a blood sample
- Prick your finger to collect a few blood drops
- Ask you to complete questionnaires about neuropsychiatric symptoms, sleep, physical activity and others.
- Measure vital signs.
- Conduct physical assessments
- Ask you how you are tolerating the study supplement
- See if you need any help with the study technology

Final study visit – 22 weeks
At this visit, we will:

- Ask you about current symptoms
- Ask about changes in the medications you are taking
- Conduct a neurological and physical evaluation
- Conduct a cognitive assessment
- Draw a blood sample
- Prick your finger to collect a few blood drops
- Ask you to complete questionnaires about neuropsychiatric symptoms, sleep, physical activity and others.
- Measure vital signs.
- Do an optional MRI
- Ask you how you are tolerating the study supplement

Telephone follow-up
Two weeks after you stop taking the supplement, you will receive a final follow-up call to review your participation and experience with the trial. Once the call is completed, your participation in the study is over.

Stopping the Study Early
If you decide to stop taking part in the study for any reason or if the study doctor finds it is necessary to remove you from the study, we will still ask you to make a final study visit. The study doctor may take you out of the study without your permission. This may happen because:

- The study doctor thinks it is best for you to stop taking the study supplement
- You can't make the required study visits
- You are unable to complete the study tasks or take the study drug as directed

- We stop doing the study for other reasons

If this happens, the study doctor will explain why you need to stop taking part in the study. We will ask you to complete a final study visit. This visit will also occur in-person at MGH.

At this visit, we will:

- Ask you about current symptoms
- Ask about changes in the medications you are taking
- Conduct a neurological and physical evaluation
- Conduct a cognitive assessment
- Draw a blood sample
- Prick your finger to collect a few blood drops
- Ask you to complete questionnaires about neuropsychiatric symptoms, sleep, physical activity and others.
- Measure vital signs.
- Do an optional MRI
- Ask you how you are tolerating the study supplement

Description of Study Procedures:

Neurological Examination: Check your senses, reflexes, strength, balance, and coordination at Screening, Week 12, and End of Study visits.

Physical Examination: The physical exams include examining your heart, lungs, gate, muscle strength, abdomen, and skin and will be performed at Screening, Week 12, and End of Study visits.

MRI Scan (Optional): You may be eligible to participate in an optional MRI sub-study. This sub-study consists of 2 optional MRI scans at 2 and 22 weeks. If you participate in this sub-study, we will take detailed pictures of your brain using an MRI. An MRI uses a strong magnet and radio waves to take these pictures. Since MRI uses a large magnet, people who have certain metal implants cannot have this scan. You will also be asked to remove all metal items before the scan.

The MRI scanner is a large machine shaped like a tube. You will lie on a narrow table and will be moved into the MRI tunnel. The tunnel is only a little larger than your body. You will be asked to lie still during the scan. Each MRI scan will take about 60 minutes.

The MRI makes loud banging noises as it takes pictures. We will give you earphones to reduce the noise. You will be able to hear and speak to the research staff at all times during the scan. We can stop the scan at any time, if needed, at any time.

Blood Draws: We will draw blood from a vein in your arm for standard laboratory tests and to determine how your body may be affected by the study supplement. Blood will be drawn for safety checks at Screening. We will draw about 1.3 tablespoon of blood at each visit for these tests. If there are any abnormal results, you may have more blood drawn at your follow-up visit.

Additional blood will be collected at 5 office visits to measure components of your blood that may be affected by Niagen and how these may be related to your brain functioning. We will draw about 20 mLs (about 1.3 tablespoons) of blood at 6 study visits. In total, approximately 7.8 tablespoons of blood will be collected over the course of the entire research study (about 5 months and a half).

We will also prick your finger to draw a few blood drops at 5 office visits to measure components of your blood that may be affected by Niagen.

Cognitive Testing and questionnaires: We will ask you to complete certain tasks in order for us to understand how your brain is performing and to make comparison of your performance at different points during the study, as well as questionnaires to understand how you are feeling throughout the study.

Vital Signs: We will measure your blood pressure, heart and breathing rates, and temperature at every in office visit.

Zoom Videoconferencing: In special circumstances when visits are after hours or on the weekends, some visit procedures such as inclusion/exclusion review, concomitant medications and supplements documentation, and the reporting of adverse events will be done by a licensed nurse practitioner or another licensed clinician via Zoom.

Future Contact

I am willing to allow a study team member to contact me by telephone, mail or electronic methods such as Patient Gateway to learn about future clinical trial or research study opportunities for which I may be eligible.

☐ YES ☐ NO Initial _____

Review of Medical Records from Hospital Admissions or Emergency Department Visits

Partners has an electronic system that lets your study doctors know if you are admitted to a Partners Hospital, or if you visit a Partners Hospital Emergency Department. We want to make sure the study doctors know about any possible problems or side-effects you experience while you are taking part in the study.

Study Information Included in Your Electronic Medical Record

A notation that you are taking part in this research study may be made in your electronic medical record. Information from the research that relates to your general medical care may be included in the record (for example: list of allergies, results of standard blood tests done at the hospital labs).

Please ask your study doctor if you have any questions about what information will be included in your electronic medical record.

How may we use and share your samples and health information for other research?

The samples and information we collect in this study may help advance other research. If you join this study, we may remove all information that identifies you (for example your name, medical record number, and date of birth) and use these de-identified samples and data in other research. It won't be possible to link the information or samples back to you. Information and/or samples may be shared with investigators at our hospitals, at other academic institutions or at for-profit, commercial entities. You will not be asked to provide additional informed consent for these uses.

At the completion of this research study, we would like to store and be able to use and share your identifiable samples and health information with researchers at Partners for other research related to COVID-19. If we share your samples and/or health information with other researchers outside of Partners, we will label the samples and information with a code instead of your name or other directly identifying information. The key to the code connects your name or other identifiers to your sample and/or information. We will keep the code on a password protected computer.

Because these samples and/or health information are identifiable, we are asking your permission to store, use and share them for other research. You can still take part in the research study whether or not you give permission for the storage, use, and sharing of the samples and health information for other research.

Do you agree to let us store and use your samples and health information for other research related to COVID-19?

☐ YES ☐ NO Initial _____

Will you get the results of this research study?

You and your doctor should not expect to get information about the results of the research study or the results of your individual participation in the research study. The researchers will study samples and information from many people. It could take years before anyone knows whether the results have any meaning. There is a small chance that the researchers could find out something from the study that might be important to your health. If this happens, we may contact you to find out if you would like to learn more. However, even if we find something important to your health, we cannot guarantee that you will be contacted.

What are the risks and possible discomforts from being in this research study?

Risks of Taking Niagen
Taking nicotinamide riboside, the study supplement, may cause you to have one or more of the side effects listed below.

Common side effects:

- Nausea (Affecting 1 out of 30 people)
- Skin rash (Affecting 1 out of 30 people)
- Flushing/hot flashes (Affecting 1 out of 30 people)
- Leg Cramps (Affecting 1 out of 30 people)
- Increased Bruising (Affecting 1 out of 30 people)

There may be other risks of nicotinamide riboside that are currently unknown.

As with any supplement, an allergic reaction can occur. Allergic reactions can be mild or more serious and can even result in death. Common symptoms of an allergic reaction are rash, itching, skin problems, swelling of the face and throat, or trouble breathing. If you think you are having an allergic reaction, call the study doctor right away. If you are having trouble breathing, call 911 immediately.

For your safety during this study, call your study doctor BEFORE you take any:

- new medications prescribed by your own doctor
- other medications sold over-the-counter without a prescription
- dietary or herbal supplements

Risks of Blood Draws and Finder Prick
You may have a bruise (a black and blue mark) or pain where we take the blood samples. There is also a small risk of infection, lightheadedness, and/or fainting.

Risks of Cognitive Testing
The neurocognitive tests that will be administered to assess mental performance may be stressful and at times may cause anxiety, fatigue, and frustration. However, most people find these types of assessments to be very tolerable. Testing will be stopped immediately upon your request if you are uncomfortable or unwilling to continue at any time. If you have not previously been diagnosed with cognitive impairment but your performance on the cognitive testing indicates that you may in fact be cognitively impaired, then a licensed clinician (doctor or nurse practitioner), will meet with you and suggest that you see your primary care provider for further evaluation.

Neuropsychiatric and Functional Questionnaires
Questionnaires administered during the protocol may cause you to feel sad or upset about your current health and daily functioning. Study staff is experienced with such evaluations and sensitive to these issues. Any question can be omitted per your request.

Risks of Magnetic Resonance Imaging (MRI)
MRI uses powerful magnets to make images. There are no known radiation risks associated with MRI. However, persons with metal implants such as surgical clips or pacemakers should not have MRI. All credit cards and other items with magnetic strips should also be kept out of the MRI room. People who feel uncomfortable in confined spaces (claustrophobia) may feel uncomfortable in the narrow tube. The MRI makes loud banging noises as it takes images. Earplugs can be used to reduce this noise. The MRI can be stopped at any time at your request. If you are or suspect you are pregnant, you should not participate in this study. The MRI has the potential during routine use to cause localized warming of your skin and underlying tissues. You should immediately inform us if you experience discomfort due to warming and the procedure will be stopped.

Some people may experience dizziness or rarely nausea when going into an MRI scanner and these sensations may be more common in scans with higher magnetic fields. In most cases, these symptoms only last a short time. However, some people may experience them throughout the scan and/or continue to experience them for a short period of time after; generally, less than half an hour. No case of permanent problems is known.

Scanning may take up approximately 60 minutes. You will be required to lie still for much of this time. Some people may find it uncomfortable lying still for such long periods of time. Others may feel uncomfortable with the narrow dimensions of the scanner or find the loud scanner

noises unpleasant. If you feel uncomfortable, you may request that scanning be stopped at any time.

We are doing the MRI scan to answer research questions, not to give you medical care. The information created by this study will not usually become part of your hospital record. This MRI scan is not the same as one that your doctor would order. It may or may not show problems that would be found on a standard MRI scan. However, if we do see something that looks like a medical problem in your MRI scan, we will ask a radiologist, to review the scan. If the radiologist thinks there might be a problem, we will tell you and help you get follow-up care for the problem. If the radiologist thinks that you might have a medical problem, but it turns out that you don't, we may have caused you to worry needlessly about your health.

Risks of Fitbit

The wrist actigraph, the Fitbit Charge 4, may cause some minor discomfort due to prolonged wearing, but the risk of such discomfort will be minimized by ensuring the wristband fits the you properly (e.g. is not too tight or does not cause irritation). If you experience discomfort, another wristband will be ordered to try to eliminate the discomfort.

Data Security Risks

Your daily Fitbit activity will be temporarily stored on those companies' servers. However, the accounts that you will be using for these programs will contain no personally identifying information. We will only need to input your year of birth, gender, height, and weight into these platforms for them to function properly. There will be no way for anyone outside of the study team to link your identity to your account.

Zoom Videoconferencing

Visit procedures that take place via videoconferencing may allow research staff to learn more about the subject's home and cohabitants than an office visit. The study team will use a secure Zoom videoconferencing platform and conduct the visit in a private location to ensure personal information about the subject is kept confidential. To protect your privacy, we ask that you do not take screenshots, photographs, or recordings of any kind with any electronic equipment. We would like to remind you that a video meeting is similar to us visiting you at home. We may learn more about your home and the people living with you than we would during a visit at the hospital. For example, we may learn information from you that must be reported to public health or public safety authorities. We are required by law to report known or suspected child or elder abuse. If we make such report, the public health and safety authorities can use the information as they see fit and may end up sharing it with other government agencies. Please ask the research staff if you have any questions about this prior to your video visit.

What are the possible benefits from being in this research study?

You may or may not benefit from taking part in this research study; it is unknown. You may experience improvements in your memory and thinking skills, mood, or overall well-being, but the supplement may also not have an effect on you. Even if the supplement does not help you, this study may help us learn more about the long-term effects of COVID-19. Other people who had COVID-19 may also benefit in the future from what we learn in this study**.**

What other treatments or procedures are available for your condition?

You do not have to participate in this study to receive care for your symptoms. There may be other clinical research studies available to people who had COVID-19. The study doctor can discuss with you other studies open for enrollment at this time.

To our knowledge, there is currently no specific treatment for persisting symptoms associated with COVID-19. However, you may speak with your doctor if you have questions about whether are any new treatments available.

Can you still get medical care within Partners if you don't take part in this research study, or if you stop taking part?

Yes. Your decision won't change the medical care you get within Partners now or in the future. There will be no penalty, and you won't lose any benefits you receive now or have a right to receive.

We will tell you if we learn new information that could make you change your mind about taking part in this research study.

What should you do if you want to stop taking part in the study?

If you take part in this research study, and want to drop out, you should tell us. We will make sure that you stop the study safely. We will also talk to you about follow-up care, if needed.

Also, it is possible that we will have to ask you to drop out of the study before you finish it. If this happens, we will tell you why. We will also help arrange other care for you, if needed.

Will you be paid to take part in this research study?

We will pay you $20 for your participation in each visit. You will also receive $20 upon completion of the study as long as you were at least 80% compliant with all study activities, including taking your supplement, completing cognitive tests, and completing your Fitbit activity tracking. Therefore, the maximum amount you would receive for completing the study is $120.

If you choose to take part in the optional MRI, you will be eligible to receive additional payment. You will be paid $100 for each MRI for a total of $200. If you participate in the optional sub-study you are eligible to receive a total of $320.

If you live outside the region, appropriate travel expenses may be reimbursed including transportation up to $15 per visit. To minimize the inconvenience of frequent visits, meal and parking vouchers for use at the MGH Charlestown Navy Yard cafeteria and parking garage will also be offered at each visit. We will need to collect your Social Security number in order to make these payments.

We may use your samples and information to develop a new product or medical test to be sold. The Sponsor, hospital, and researchers may benefit if this happens. There are no plans to pay you if your samples or information are used for this purpose.

What will you have to pay for if you take part in this research study?

The McCance Foundation are providing funds to pay for the study supplement and some study activities at no cost to you or your insurance company. Study funds will pay for all study visits and procedures that are done only for research.

Study funds will pay for certain study-related items and services. We may bill your health insurer for, among other things, routine items and services you would have received even if you did not take part in the research. You will be responsible for payment of any deductibles and co-payments required by your insurer for this routine care or other billed care. If you have any questions about costs to you that may result from taking part in the research, please speak with the study doctors and study staff. If necessary, we will arrange for you to speak with someone in Patient Financial Services about these costs.

What happens if you are injured as a result of taking part in this research study?

We will offer you the care needed to treat any injury that directly results from taking part in this research study. We reserve the right to bill your insurance company or other third parties, if appropriate, for the care you get for the injury. We will try to have these costs paid for, but you may be responsible for some of them. For example, if the care is billed to your insurer, you will be responsible for payment of any deductibles and co-payments required by your insurer.

Injuries sometimes happen in research even when no one is at fault. There are no plans to pay you or give you other compensation for an injury, should one occur. However, you are not giving up any of your legal rights by signing this form.

If you think you have been injured or have experienced a medical problem as a result of taking part in this research study, tell the person in charge of this study as soon as possible. The researcher's name and phone number are listed in the beginning of this consent form.

If you take part in this research study, how will we protect your privacy?

Federal law requires Partners to protect the privacy of health information and related information that identifies you. We refer to this information as "identifiable information."

In this study, we may collect identifiable information about you from:

- Past, present, and future medical records
- Research procedures, including research office visits, tests, interviews, and questionnaires

Who may see, use, and share your identifiable information and why they may need to do so:

- Partners researchers and staff involved in this study
- The sponsor(s) of the study, and people or groups it hires to help perform this research or to audit the research
- Other researchers and medical centers that are part of this study
- The Partners ethics board or an ethics board outside Partners that oversees the research
- A group that oversees the data (study information) and safety of this study

- Non-research staff within Partners who need identifiable information to do their jobs, such as for treatment, payment (billing), or hospital operations (such as assessing the quality of care or research)
- People or groups that we hire to do certain work for us, such as data storage companies, accreditors, insurers, and lawyers
- Federal agencies (such as the U.S. Department of Health and Human Services (DHHS) and agencies within DHHS like the Food and Drug Administration, the National Institutes of Health, and the Office for Human Research Protections), state agencies, and foreign government bodies that oversee, evaluate, and audit research, which may include inspection of your records
- Public health and safety authorities, if we learn information that could mean harm to you or others (such as to make required reports about communicable diseases or about child or elder abuse)
- Other:

Some people or groups who get your identifiable information might not have to follow the same privacy rules that we follow and might use or share your identifiable information without your permission in ways that are not described in this form. For example, we understand that the sponsor of this study may use your identifiable information to perform additional research on various products or conditions, to obtain regulatory approval of its products, to propose new products, and to oversee and improve its products' performance. We share your identifiable information only when we must, and we ask anyone who receives it from us to take measures to protect your privacy. The sponsor has agreed that it will not contact you without your permission and will not use or share your identifiable information for any mailing or marketing list. However, once your identifiable information is shared outside Partners, we cannot control all the ways that others use or share it and cannot promise that it will remain private.

Because research is an ongoing process, we cannot give you an exact date when we will either destroy or stop using or sharing your identifiable information. Your permission to use and share your identifiable information does not expire.

The results of this research study may be published in a medical book or journal, or used to teach others. However, your name or other identifiable information **will not** be used for these purposes without your specific permission.

Your Privacy Rights

You have the right **not** to sign this form that allows us to use and share your identifiable information for research; however, if you don't sign it, you can't take part in this research study.

You have the right to withdraw your permission for us to use or share your identifiable information for this research study. If you want to withdraw your permission, you must notify the person in charge of this research study in writing. Once permission is withdrawn, you cannot continue to take part in the study.

If you withdraw your permission, we will not be able to take back information that has already been used or shared with others, and such information may continue to be used for certain purposes, such as to comply with the law or maintain the reliability of the study.

You have the right to see and get a copy of your identifiable information that is used or shared for treatment or for payment. To ask for this information, please contact the person in charge of this research study. You may only get such information after the research is finished.

Informed Consent and Authorization

Statement of Person Giving Informed Consent and Authorization

- I have read this consent form.
- This research study has been explained to me, including risks and possible benefits (if any), other possible treatments or procedures, and other important things about the study.
- I have had the opportunity to ask questions.
- I understand the information given to me.

Consent to Participate in Optional Sub-Studies:

I would like to participate in the optional MRI Sub-study

☐ YES ☐ NO Initial _____

Signature of Subject:

I give my consent to take part in this research study and agree to allow my health information to be used and shared as described above.

Print Name

Subject | Date | Time (optional)

Signature of Study Doctor or Person Obtaining Consent:

Statement of Study Doctor or Person Obtaining Consent

- I have explained the research to the study subject.
- I have answered all questions about this research study to the best of my ability.

Print Name

Study Doctor or Person Obtaining Consent | Date | Time (optional)

Consent Form Version: 14AUG2023