Protocol Title: Neuroimaging Characteristics in Fabry Disease: Quantitation of Central Nervous System White Matter Lesions

Principal Investigator: Katherine Sims, MD

Site Principal Investigator:

Description of Subject Population: Males and females with Fabry disease who have available digitized MRI images

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.

If you have any questions about the research or about this form, please ask us. Taking part in this research study is up to you. 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.

Some of the people who are eligible to take part in this study may not be able to give consent because they are less than 18 years of age (a minor). Instead we will ask their parent(s) to give permission for them to take part in the study and will ask them to agree (give their assent) to take part. Throughout the consent form, "you" always refers to the person who takes part in the study.

Why is this research study being done?

We are asking you to take part in this research study to help us learn more about Fabry disease. The purpose of this research is to study parts of the brain in people with Fabry disease. This will be done by looking at images from magnetic resonance imaging (MRI) scans of the brain. We will look at the images with a computer program that measures parts of the brain. We will use

images from MRI scans you have had in the past or will have in the future as part of your care for Fabry disease or for other medical reasons.

You have been asked to participate in this study because you have Fabry disease. Currently, it is known that in people with Fabry disease, blood vessels that supply blood to the brain are affected. Because of this, people with Fabry disease are at risk for stroke and other complications involving the blood vessels in the brain. In this study, we will look at brain MRI images from people with Fabry disease and use a computer program to measure areas in the white matter of the brain known as white matter hyperintensity (WMH), which are areas of the brain that appear brighter on MRI. We plan to compare brain MRI images among people with Fabry disease to learn about factors that may be associated with WMH. We also plan to compare brain MRI images over time in people with Fabry disease to see how areas of WMH change.

You are eligible for this study if:

You are a male or female with Fabry disease
You have had a brain MRI scan that is available in digital format

About 100 people with Fabry disease will take part in this research study. Genzyme is paying for this research study to be done.

How long will I take part in this research study?

The study staff will be analyzing MRI images over the next two years. This study will use brain images from MRI scans you have had in the past and from MRI scans you will have during the study period. You will not have any MRI scans as part of this study. We will only use images from MRI scans your doctor orders as part of your care for Fabry disease or for other medical reasons.

This study is voluntary and you may end your participation at any time. If you no longer wish to participate, please contact the study coordinator. None of your future brain MRI scan images will be analyzed if you stop taking part in the study.

What will happen in this research study?

First, you will sign this consent form to agree that you understand this study and are willing to participate.

At the start of this study, we will collect medical history information from you by asking questions about your health and your Fabry disease. At the start of the study we will also collect discs containing images from all available brain MRI scans that you have had. If you are not a patient at Massachusetts General Hospital (MGH) or if you do not have your MRI scans at MGH, your participation may involve sending discs containing the MRI images to the study staff.

During every year of the study, we will contact you to update your medical information and ask if you have had any MRI scans since the start of the study. If you have had an MRI, we will arrange with you to have a disc of the MRI images sent to us.

Permission to use information from the University of Alabama's "Cognitive Function in Fabry Disease Study"

If you have participated in the University of Alabama at Birmingham (UAB) "Cognitive Function in Fabry Disease Study", we would be interested in collecting your results from the study directly from the UAB study staff. This information will be added to your medical information collected for our current study and will be treated in the same way.

You do not have to inform us if you participated in the UAB study if you do not wish to do so. Not giving us permission to use this information or not having participated in the UAB study will not affect your participation in this current study in any way.

We will not ask for any information from UAB without your permission (below).

IF you participated in the UAB "Cognitive Function in Fabry Disease Study" and ONLY IF you give us permission to obtain your results from this study from the UAB study stuff, please initial below:

_____ YES, I give you permission to contact the UAB study staff and to obtain my results from the "Cognitive Function in Fabry Disease Study"

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

Participating in this research will have no effect on your medical care. There are no standard or experimental tests, procedures, treatments, or medications required or provided as part of this research.

MRI data used in this study will be collected from MRI scans you have undergone as part of your clinical care. MRIs will not be performed specifically for the purpose of this study.

However, it is possible that information about your participation in a neuroimaging (MRI) analysis study may influence insurance companies and/or employers about your health. To ensure confidentiality, no information related to the study will be placed in your medical record. No individual results will be released to you, your family or your physicians. For the purpose of this study, you will be assigned a code that will label your medical information and MRI images. Your name and identifying information will be removed from the medical information and MRI images. A key that links the code to your name will be kept by the principal investigator in a locked office and will not be shared.

We hope to publish our findings from this study in a medical journal or present at a scientific meeting. Your name and other identifying information will never be shared in such a case.

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

It is possible that there may be no direct benefit to you by taking part in this research study. We hope that the knowledge gained about Fabry disease will be of benefit to others in the future.

What other treatments or procedures are available for my condition?

Taking part in this study is not an alternative for treatment of Fabry disease. You may take part in this study in addition to any treatment or procedures your doctor has recommended for care of Fabry disease.

Can I still get medical care within Partners if I don't take part in this research study, or if I 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.

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. 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 I do if I 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.

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

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

You will not be paid to take part in this research study.

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

We will cover the costs of shipping charges for digital MRI scans to our study staff if necessary.

As MRI scans are not undergone for the purpose of this study, we will not cover the costs of any MRI scans.

What happens if I am 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.

Giving you care does not mean that Partners hospitals or researchers are at fault, or that there was any wrongdoing. There are no plans for Partners to pay you or give you other compensation for the injury. 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 next section of this consent form.

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

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

Katherine Sims, MD is the person in charge of this research study. You can call her at 617-726-5732 Monday-Friday, 9:00 a.m. to 5:00 p.m. or at pager number 617-726-2000 #23129, 24 hours a day, 7 days a week. You can also call Danielle Metterville at 617-726-0580 Monday-Friday, 9:00 a.m. - 5:00 p.m. with questions about this research study.

If you have questions about where to send your digital MRI images, call Danielle Metterville at 617-726-0580.

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 617-424-4100.

You can talk to them about:

- Your rights as a research subject
- Your concerns about the research
- A complaint about the research

Also, if you feel pressured to take part in this research study, or to continue with it, they want to know and can help.

If I take part in this research study, how will you protect my privacy?

Federal law requires Partners (Partners HealthCare System and its hospitals, health care providers and researchers) to protect the privacy of health information that identifies you. This information is called Protected Health Information. In the rest of this section, we refer to this simply as "health information."

If you decide to take part in this research study, your health information may be used within Partners and may be shared with others outside of Partners, as explained below.

We have marked with a ☒ how we plan to use and share your health information. If a box is not checked ☐, it means that type of use or sharing is not planned for in this research study.

INSTRUCTIONS: Mark with an "X" those boxes that are applicable to your study.

We will also give you the **Partners Notice for Use and Sharing of Protected Health Information.** The Notice gives more details about how we use and share your health information.

- **Health Information About You That Might be Used or Shared During This Research**

  ☒ Information from your hospital or office health records within Partners or elsewhere, that may be reasonably related to the conduct and oversight of the research study. This may include information about hospital admissions or visits during this study, so that we know about any possible problems or side effects. If health information is needed from your doctors or hospitals outside Partners, you will be asked to give permission for these records to be sent to researchers within Partners.

  ☐ New health information from tests, procedures, visits, interviews, or forms filled out as part of this research study

- **Why Health Information About You Might be Used or Shared with Others**

  The reasons we might use or share your health information are:

  - To do the research described above

- To make sure we do the research according to certain standards - standards set by ethics and law, and by quality groups
- For public health, and safety - for example, if we learn information that could mean harm to you or others, we may need to report this to a public health or public safety authority, or to specific individuals as required by law
- For treatment, payment, or health care operations

- **People and Groups That May Use or Share Your Health Information**

1. People or groups within Partners

☒ Researchers and the staff involved in this research study

☒ The Partners review board that oversees the research

☒ Staff within Partners who need the information to do their jobs (such as billing, or for overseeing quality of care or research)

2. People or groups outside Partners

☒ People or groups that we hire to do certain work for us, such as data storage companies, our insurers, or our lawyers

☒ Federal and state agencies (such as the U.S. Department of Health and Human Services, the Food and Drug Administration, the National Institutes of Health, and/or the Office for Human Research Protections) and other U.S. or foreign government bodies, if required by law or involved in overseeing the research

☒ Organizations that make sure hospital standards are met

☐ The sponsor(s) of the research study, and people or groups it hires to help perform this research study

☐ Other researchers and medical centers that are part of this research study

☐ A group that oversees the data (study information) and safety of this research study

☐ Other:

Some people or groups who get your health information might not have to follow the same privacy rules that we follow. We share your health information only when we must, and we ask anyone who receives it from us to protect your privacy. However, once your information is shared outside Partners, we cannot promise that it will remain private.

- **Time Period During Which Your Health Information Might be Used or Shared With Others**
  - Because research is an ongoing process, we cannot give you an exact date when we will either destroy or stop using or sharing your health information.

- **Your Privacy Rights**
  - You have the right **not** to sign this form permitting us to use and share your health information for research. If you don't sign this form, you can't take part in this research study. This is because we need to use the health information of everyone who takes part in this research study.
  - You have the right to withdraw your permission for us to use or share your health 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.

    If you withdraw your permission, we will not be able to take back information that has already been used or shared with others. This includes information used or shared to carry out the research study or to be sure the research is safe and of high quality.

    If you withdraw your permission, you cannot continue to take part in this research study.
  - You have the right to see and get a copy of your health 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.

- **If Research Results Are Published or Used to Teach Others**

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 identifying information **will not** be used for these purposes without your specific permission.

Informed Consent and Authorization

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.

Study Doctor or Person Obtaining Consent | Date/Time

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.

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.

Subject | Date/Time

Signature of Parent(s)/Guardian for Child:

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

Parent(s)/Guardian for Child | Date/Time

Assent

Statement of Person Giving Assent

- 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, and my questions have been answered.

Signature of Child:

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

Child, Ages 14-17 Date/Time

Consent Form Version Date: December 2010