

# UNIVERSITY OF MICHIGAN CONSENT TO BE PART OF A RESEARCH STUDY

## Consent #1: This Consent Form is for the Functional Magnetic Resonance Imaging (fMRI) Portion of the Investigation

### INFORMATION ABOUT THIS FORM

You may be eligible to take part in a research study. This form gives you important information about the study. It describes the purpose of the study, and the risks and possible benefits of participating in the study.

Please take time to review this information carefully. After you have finished, you should talk to the researchers about the study and ask them any questions you have. You may also wish to talk to others (for example, your friends, family, or other doctors) about your participation in this study. If you decide to take part in the study, you will be asked to sign this form. *Before you sign this form, be sure you understand what the study is about, including the risks and possible benefits to you.*

### 1. GENERAL INFORMATION ABOUT THIS STUDY AND THE RESEARCHERS

#### 1.1 Study title:

Developing Biomarkers for Fibromyalgia

#### 1.2 Company or agency sponsoring the study:

Department of Defense, and the Dana Foundation

#### 1.3 Names, degrees, and affiliations of the researchers conducting the study:

PI: Richard E. Harris, Ph.D.; Research Instructor, Int Med-Rheumatology, University of Michigan

Co-I: Daniel J. Clauw, M.D.; Professor Medicine, Dept. of Internal Medicine-Rheumatology, University of Michigan

Co-I: Richard H. Gracely, Ph.D.; Professor, Dept. of Internal Medicine-Rheumatology, University of Michigan

Co-I: Jon-Kar Zubieta, M.D., Ph.D.; Associate Professor, Dept. of Radiology/Dept. Psychiatry, University of Michigan

Co-I: Pia Maly-Sundgren, M.D., Ph.D. Associate Professor in the Department of Radiology at the University of Michigan.

Co-I: Ananda Sen, Ph.D. Assistant Professor of Industrial Operations at the University of Michigan College of Engineering and Associate Professor of Statistics at the College of LSA at the University of Michigan.

## 2. PURPOSE OF THIS STUDY

### 2.1 Study purpose:

The purpose of this research study is to use brain imaging to identify an objective biological marker (a measurable sign in your body) for Fibromyalgia.

Further, we would like to review &/or analyze the information we collected about you during your Subject Registry visit (IRB #2002-0678, GCRC 1914).

## 3. INFORMATION ABOUT STUDY PARTICIPANTS (SUBJECTS)

Taking part in this study is completely **voluntary**. You do not have to participate if you don't want to. You may also leave the study at any time. If you leave the study before it is finished, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled.

### 3.1 Who can take part in this study?

To take part in the study, Fibromyalgia subjects must: 1) meet established criteria for the diagnosis of fibromyalgia (FM) as defined by the American College of Rheumatology in 1990 for at least 1 year (The criteria for FM include presence of widespread pain in the following areas: above and below the waist, on both sides of the body, and in the neck, back, or chest. Additionally, criteria include the presence of 11 of 18 tender points in specified areas.); 2) have continued presence of pain more than 50% of days; 3) be able to travel to the acupuncture treatments up to three times weekly; 4) be willing to limit beginning any new medications or treatments to control FM symptoms during the study; 5) be willing to refrain from alcohol intake 48 hours prior to brain scans; 6) be between the ages of 18 and 75; 7) be right handed; and 8) be capable of giving written informed consent.

Subjects who are healthy volunteers may also be enrolled in the study. Healthy volunteers must be: 1) between the ages of 18 and 75; 2) willing to refrain from alcohol intake 48 hours prior to brain scans; 3) right-handed; and 4) capable of giving written informed consent.

The exclusion criteria for the Fibromyalgia volunteers are: 1) having enough knowledge of acupuncture that prevents "masking" or "blinding" of the study interventions (i.e., previous acupuncture treatment); 2) presence of a known blood clotting defect (e.g., low platelets or bleeding disorder) that may prevent the safe use of acupuncture; 3) presence of concurrent autoimmune or inflammatory disease (e.g., rheumatoid arthritis, systemic lupus erythematosus, inflammatory bowel disease, etc.) that causes pain; 4) routine daily use of narcotic pain medications or history of substance abuse; 5) concurrent participation in other research trials; 6) pregnant and/or nursing women; 7) severe psychiatric illnesses (e.g., current schizophrenia, major depression with suicidal ideation, substance abuse within two years); 8) factors that would make functional magnetic resonance imaging (fMRI) inadvisable such as metal implants, surgical staples, or pacemakers; 9) any impairment, activity or situation that, in the judgment of the Study Coordinator or PI, would prevent satisfactory completion of the study protocol.

The exclusion criteria for the healthy volunteers are: 1) presence of concurrent autoimmune or inflammatory disease (e.g., rheumatoid arthritis, systemic lupus erythematosus, inflammatory bowel disease, etc.) that causes pain; 2) having met the ACR criteria for FM; 3) concurrent participation in other research trials; 3) pregnant and/or nursing women; 4) severe psychiatric illnesses (e.g., current schizophrenia, major depression with suicidal ideation, substance abuse within two years); 5) factors that would make functional magnetic resonance imaging (fMRI) inadvisable such as metal implants, surgical staples, or pacemakers; and 6) any impairment, activity or situation that, in the judgment of the Study Coordinator or PI, would prevent satisfactory completion of the study protocol.

*Note: it is **very important** for you to give the researchers **accurate** and **complete** information about your medical history and condition.*

### 3.2 How many people (subjects) are expected to take part in this study?

The number of subjects to be enrolled is 120. All will be studied at the University of Michigan and all will either have a diagnosis of FM upon entry into the study or will meet the criteria for a Healthy Volunteer.

## 4. INFORMATION ABOUT STUDY PARTICIPATION

### 4.1 What will happen to me in this study?

If you meet the criteria for the Fibromyalgia group and agree to participate in this study, you will:

- have a baseline visit (a measurement to serve as the basis to compare later measurements) at Domino's Farms that will last approximately 2 hours and will include: Informed consent process, pressure pain testing (approximately 20 minutes, see description below), a memory test, a tender point exam and dolorimeter exam (see dolorimeter exam, below). You will also be screened for study inclusion and exclusion criteria and answer some study questionnaires
- have blood drawn for the optional testing of genetic factors. If you consent to participate in the genetic part of the study, a blood sample will be obtained which will be used for genetic research (to examine the composition of some of the genes in your DNA). This aspect of the study will help to identify different forms of genes that may be associated with variations in how people respond to acupuncture or pain. If you choose to participate in the genetic portion of the study, you will have approximately 2 tablespoons of blood drawn. There is no commercial use for the genetic material we will obtain from you. However, future studies may identify gene(s) that are involved in either acupuncture and/or pain. As such, we may use your genetic sample in future investigations of acupuncture and/or pain.
- be randomly (i.e. by chance, like flipping a coin) assigned to one of two possible treatment groups: either 1) standard acupuncture with the placement of acupuncture needles at standard sites with manual stimulation of the needles; or 2) a control intervention which mimics acupuncture therapy. You will receive a total of 9 treatment sessions over the course of a 4-week period. All subjects will be required to wear a blindfold during treatments to prevent knowledge of treatment assignment.

- be given a dolorimeter examination to test your pain sensitivity wherein varying degrees of pressure will be applied to four different portions of your body. To do this, the research assistant will place a pressure gauge with a rubber tip on your skin around various sites on your body. Pressure will be applied to each of these sites slowly. You will be asked to state when this pressure begins to cause discomfort. When the pain at a site becomes intolerable, the gauge will be removed and another area of your body will be tested. The exam will take about 5 minutes to perform. In addition you will be given a tender point exam as part of the diagnostic criteria for fibromyalgia and to assess your sensitivity to pressure. This is a standard clinical procedure during which the researcher will apply pressure with his (her) thumb to specific pre-established points on your body. You will tell the researcher whether the pressure results in pain or tenderness. This test will be performed at baseline, prior to each fMRI scan and at the study close-out visit.
- have your sensitivity to pressure assessed by conducting a series of pressure sensitivity tests. For pressure testing, we will apply 2 sequences of different 5-second pressures to your thumbnails. The first sequence will determine the range of pressures you find tolerable. This range will be determined by starting with a very low intensity of pressure, and increasing step by step, according to your rating of pain intensity. The second pressure sequence will apply pressures of random intensities based on the ratings you gave in the first sequence. The entire pressure pain testing session will last approximately 20 minutes. This testing will occur at baseline, prior to each fMRI scan and at the study close-out visit.
- be asked questions regarding the overall quality and intensity of your pain, as well as how you felt during the study. In addition you will complete survey questionnaires and maintain a record of medications and other treatments used during the study period. The questions about your pain and the survey questionnaires will be completed at your baseline visit (the initial interview, consent process and questionnaire portion of the study), fMRI visits, some treatment sessions and follow-up visit. One of the tasks we will ask you to perform at your baseline, fMRI and follow-up visits is the Letter-number sequencing task. This is designed to test your attention and short term memory. The examiner will read a group of letters and numbers to you. You should repeat them, starting with the numbers first, in ascending order and then the letters, in alphabetical order. You will be given practice on this test.
- have two functional Magnetic Resonance Imaging (fMRI) scans taken: one at baseline and one following the 9 acupuncture sessions. Functional MRI is a new research method, which makes it possible to observe changes in brain activity in response to various stimuli. The MRI-exam will include a series of measurements before and during the application of a pressure gauge to your thumbnail. While in the scanner, you will feel a series of different pressures of 20-sec duration and varying intensities applied to your right thumbnail. Some pressures will be faint, while others will induce a mild to moderately painful sensation. These pressures will be determined by the pressure pain testing you had prior to your scan. You will be asked to rate the intensity of the stimuli on a specific rating scale. We will first determine the range of pressure you find tolerable by starting with very a low-pressure intensity, and increasing the pressure step by step according to your rating of pain intensity. Based on your specific range of tolerable intensities, a second pressure test will apply the stimuli to your thumbnail randomly within that range. Following the pressure stimuli we will obtain measurements of certain molecules in your brain by using

Magnetic Resonance Spectroscopy (MRS). This technique is non-invasive and requires you to lie motionless in the scanner for 10 to 15 minutes.

- have a urine pregnancy test prior to each scan
- If you are eligible and willing, you will also be asked to participate in another type of brain scanning procedure for this research study. These procedures will be described by the researchers, and you will be asked to read and sign another consent form for this other scan.

If you meet the criteria for the Healthy Volunteer group and enter this study, you will:

- have one visit to Domino's Farms that will last approximately 2 hours and will include: Informed consent process, pressure pain testing (approximately 20 minutes, see description below), a memory test, a tender point exam and dolorimeter exam (see dolorimeter exam, below). You will also be screened for study inclusion and exclusion criteria and answer some study questionnaires.
- have blood drawn for the optional testing of genetic factors. If you consent to participate in the genetic part of the study, a blood sample will be obtained which will be used for genetic research (to examine the composition of some of the genes in your DNA). This aspect of the study will help to identify different forms of genes that may be associated with variations in how people respond to acupuncture or pain. If you choose to participate in the genetic portion of the study, you will have approximately 2 tablespoons of blood drawn. There is no commercial use for the genetic material we will obtain from you. However, future studies may identify gene(s) that are involved in either acupuncture and/or pain. As such, we may use your genetic sample in future investigations of acupuncture and/or pain.
- be given a dolorimeter examination to test your pain sensitivity wherein varying degrees of pressure will be applied to four different portions of your body. To do this, the research assistant will place a pressure gauge with a rubber tip on your skin around various sites on your body. Pressure will be applied to each of these sites slowly. You will be asked to state when this pressure begins to cause discomfort. When the pain at a site becomes intolerable, the gauge will be removed and another area of your body will be tested. The exam will take about 5 minutes to perform. In addition you will be given a tender point exam as part of the diagnostic criteria for fibromyalgia and to assess your sensitivity to pressure. This is a standard clinical procedure during which the researcher will apply pressure with his (her) thumb to specific pre-established points on your body. You will tell the researcher whether the pressure results in pain or tenderness.
- have your sensitivity to pressure assessed by conducting a series of pressure sensitivity tests. For pressure testing, we will apply 2 sequences of different 5-second pressures to your thumbnails. The first sequence will determine the range of pressures you find tolerable. This range will be determined by starting with a very low intensity of pressure, and increasing step by step, according to your rating of pain intensity. The second pressure sequence will apply

pressures of random intensities based on the ratings you gave in the first sequence. The entire pressure pain testing session will last approximately 20 minutes.

- have one functional Magnetic Resonance Imaging (fMRI) scan. Functional MRI is a new research method which makes it possible to observe changes in brain activity in response to various stimuli. The MRI-exam will include a series of measurements before and during the application of a pressure gauge to your thumbnail. While in the scanner, you will feel a series of different pressures of 20-sec duration and varying intensities applied to your right thumbnail. Some pressures will be faint, while others will induce a mild to moderately painful sensation. These pressures will be determined by the pressure pain testing you had prior to your scan. You will be asked to rate the intensity of the stimuli on a specific rating scale. We will first determine the range of pressure you find tolerable by starting with very a low-pressure intensity, and increasing the pressure step by step according to your rating of pain intensity. Based on your specific range of tolerable intensities, a second pressure test will apply the stimuli to your thumbnail randomly within that range. Following the pressure stimuli we will obtain measurements of certain molecules in your brain by using Magnetic Resonance Spectroscopy (MRS). This technique is non-invasive and requires you to lie motionless in the scanner for 10 to 15 minutes.
- Have a urine pregnancy test prior to each fMRI scan.
- If you are eligible and willing, you will also be asked to participate in another type of brain scanning procedure for this research study. These procedures will be described by the researchers, and you will be asked to read and sign another consent form for this other scan.

#### 4.2 How much of my time will be needed to take part in this study?

Total participation time for Fibromyalgia patients spans 2 months. The initial interview and questionnaire portion of the study (baseline visit) will take approximately 2 hours. During this baseline session you will undergo pressure pain testing that will take approximately 20 minutes, have a dolorimeter, tender point and memory exam. You will also fill out some questionnaires. The following week you will repeat your baseline assessments and have a fMRI session at the University of Michigan North Campus scanning facility. This scan will take approximately 2 hours, of which 90 minutes will be spent in the scanner. Following the initial fMRI session, you will receive 9 acupuncture sessions (duration 1 hour per session), over the course of 4 weeks. Each acupuncture session will occur at Domino's Farms Lobby M, 24 Frank Lloyd Wright Dr., Ann Arbor MI. Following the final acupuncture session you will have your second fMRI scan that is exactly like your first scan. In conclusion there will be a one-month follow-up session (duration 1 1/2 hours) that will include baseline assessments in order to determine changes in pain levels.. Throughout the entire protocol you will be asked to complete paper questionnaires.

Total participation time for Healthy Volunteers spans 1 day and approximately 4 ½ hours. The consent and questionnaire portion of the study will take approximately 2 hours. During this session you will undergo pressure pain testing, have a dolorimeter, tender point and memory exam, and fill out some questionnaires. Following this you will have an fMRI session which will last approximately 2 hours, 90 minutes of which will be spent in the scanner.

### 4.3 When will my participation in the study be over?

Participation as a FM participant ends following the one-month follow-up session.  
Participation as a healthy participant ends following the scan.

## 5. INFORMATION ABOUT RISKS AND BENEFITS

### 5.1 What risks will I face by taking part in the study? What will the researchers do to protect me against these risks?

The known or expected risks are:

- Acupuncture: The most common complications associated with acupuncture are generally mild and include: fainting, localized skin infection, increased pain, and nausea and vomiting. More serious problems such as serious skin infections are rare.
- Blood draw: Withdrawal of blood from your arm veins for genetic testing is optional. There is a small chance of pain, infection or clotting into the area from which the blood was taken; more rarely, serious skin infections or nausea and vomiting may occur. If persisting pain or redness in the area is noted, this may require medical or surgical treatment. Withdrawing blood may also induce lightheadedness or fainting.
- Functional MRI:
  - There are known risks to the magnet's ability to pull metal objects toward it. This pull can cause metal objects in the body (e.g., surgical clips or staples) to move, causing bleeding or disruption of surrounding tissue. Metal objects carried or worn by a person (e.g., jewelry, hair clips, tools) can be pulled toward the magnet; if they are free to fly through the air there is the danger that someone could get hurt if the moving object struck them. The MRI can cause pacemakers or stimulators implanted in the body to malfunction. There is also a risk that metallic objects in or on your body may be heated by the radio waves, possibly causing burns.
  - The MRI scanner is tunnel-shaped and has a diameter of about one and one-half-feet. There is a minor risk of discomfort or anxiety from being in the confined space of the MRI scanner. The MRI is known to produce a rhythmic and loud noise. It is extremely important that you lie still throughout the MRI procedure.
  - Some studies, like this one, have the potential to cause "peripheral nerve stimulation" (PNS). PNS is a light touching sensation on the skin surface, lasting only for a few seconds. It may cause mild discomfort, but is not harmful to you.
  - There is the potential that a MRI scan may reveal an abnormality that is already in your brain, such as a cyst or tumor. Many such abnormalities are not medically significant, but you may want to investigate them further. You will be made aware of structural brain abnormalities that are evident following scanning. Such a finding might require additional studies, and maybe even treatment, neither of which would be paid for by the investigators, the sponsor, or the University of Michigan.

- No adverse effects from the static magnetic field have been reported in people. However, there could be unknown risks. In particular, because the risk to the fetus is not known, women who are pregnant or think they may be pregnant are excluded from the study.
- You may experience some discomfort or pain while lying in one position in the fMRI scanner.
- Questionnaires: Some questions may be probing or involve sensitive issues. This may cause discomfort. You will not be required to submit any personal identifying information on the questionnaires.
- Tender Point / Dolorimeter Exams: The tender point exam may cause discomfort at the testing sites and the dolorimeter exam may result in discomfort or bruising at the site of testing.
- Pressure Pain Testing: You may feel immediate discomfort and some possible short-term thumb tenderness.
- Genetic Testing: Information about your race, ethnicity, sex, and medical history might be available for investigators studying your blood. Such information is important for scientific context and sometimes for public health and it is possible that genetic information might come to be associated with your racial or ethnic group. Genetic research raises difficult issues about informing you and other subjects about any results or of future results. Some people want to know what is found out about them, others do not. We do not anticipate that our findings will be useful for any individual subject. Therefore, we will not inform you about any results, and you agree that: 1) you waive the right to consent to or be notified of any future research, test or analysis which might be performed using blood samples, and 2) you waive the right to any results or information generated by future tests or analyses using blood samples and assign any such rights to the University of Michigan. Your sample will not be stored for future genetic testing for either yourself or other family members. If you are interested in storage of a blood sample for genetic testing, you should consult with a clinician skilled in this area. In addition, there is no commercial use for the genetic material we will obtain from you. However future studies may identify gene(s) that are involved in either acupuncture and/or pain. As such, we may use your genetic sample in future investigations of acupuncture and/or pain.

The researchers will try to minimize these risks by:

- Acupuncture: All risks will be minimized with proper technique: the skin will be cleaned thoroughly before needles are applied; needles to be used are sterile and will be disposed of after each use. An experienced acupuncturist will perform all procedures. Follow-up evaluation by the acupuncturist will include inspection of the skin at needle sites immediately following removal to monitor for any complications.
- Blood drawing: Only individuals skilled in the process of blood drawing will be used to take your blood sample. Pressure will be applied to the site to reduce the risk of bruising. Sterile technique will be used to reduce the risk of infection.

- Functional MRI:
  - To ensure your safety for the MRI procedure you will be asked to bring or wear clothing without metal fasteners, and remove jewelry and any other metal objects from your body. We will also assess whether metallic objects that may be implanted (e.g., surgical clips or staples) are hazardous or acceptable. We will ask you to fill out a safety questionnaire to make certain it is safe for you to have your scan.
  - We will provide pads and blankets to make you as comfortable as possible while lying in the scanner. Additionally, you will wear foam earplugs to reduce the loud noises made by the scanner.
  - If you experience any sort of discomfort during the MRI procedure at any time, you can stop the scan. You will be able to talk to us throughout the procedure, and you will be able to let us know right away if you want to stop the procedure and get out of the scanner. You will be able to end the pressure pain session at any time by saying ‘Stop’. The investigators will be sitting in the control room and in the MRI-suite, present at all times.
  - The MRI machine is operated within FDA guidelines so the potential for inducing PNS is low.
  - If you are a female of childbearing potential, you will be required to use an appropriate and effective method of birth control during your participation in this study given the unknown risk of the magnet to the fetus. These methods may be discussed with your physician. Women of childbearing potential will be required to take a urine pregnancy test the day of fMRI testing. If you do not wish to take the pregnancy test, you will be excluded from any further aspects of the study.
  
- Questionnaires: You may refuse to answer any question on the questionnaires or surveys.
  
- Data Collection: As mentioned in Section 9 of this consent form, we will not identify data collected during your participation in this study with personal identifying information. Data collected during this study will be kept either in a locked file cabinet or a password-protected database. In addition, your genetic sample will not be able to be identified with you personally.
  
- Genetic Testing: In order to protect you from potential risks of genetic testing we will,
  - store your blood under a unique identifying code for this study and it will become anonymous, i.e. not linkable to a person, after completion of the study.
  - protect your confidentiality to the extent permitted by law. Samples will be coded and the code will be stored at a locked location. The University of Michigan collaborates with many other organizations, and data are generally shared. However, no data shared with other investigators will include your name or other information that would allow anyone to know who you are.
  - inform you that you have the right to refuse to allow your blood to be studied or saved for future research (i.e. not to participate in the genetic study or to withdraw from it). You may withdraw from this part of the study at any time, and withdraw from research use of your sample. However once your sample has become anonymous, even if you choose to withdraw your sample the researchers will not be able to identify which sample is yours.
  - In addition, information about your race, ethnicity, sex, and medical history might be available for investigators studying your blood. Such information is important for

- scientific context and sometimes for public health. It is possible that genetic information might come to be associated with your racial or ethnic group.
- Genetic research raises difficult issues about informing you and other subjects about any results or of future results. Some people want to know what is found out about them, others do not. We do not anticipate that our findings will be useful for any individual subject. Therefore, we will not inform you about any results, and you agree that: 1) you waive the right to consent to or be notified of any future research, test or analysis which might be performed using blood samples, and 2) you waive the right to any results or information generated by future tests or analyses using blood samples and assign any such rights to the University of Michigan.
  - Your blood will not be stored for future genetic testing for either yourself or other family members. If you are interested in storage of a blood sample for genetic testing, you should consult with a clinician skilled in this area. No results will be released to participants or to their representatives, and blood collection data will be retained for five years after study termination. You may withdraw from this part of the study at any time and withdraw from research use of your sample.
- Tender Point / Dolorimeter Exams/Pressure Pain Testing: Researchers have been educated in how to perform these tests safely. You may stop the tests at any time if the test becomes too uncomfortable.

As with any research study, there may be additional risks that are unknown or unexpected.

## 5.2 What happens if I get hurt, become sick, or have other problems as a result of this research?

The researchers have taken steps to minimize the risks of this study. Even so, you may still have problems or side effects, even when the researchers are careful to avoid them. Please tell the researchers listed in Section 10 about any injuries, side effects, or other problems that you have during this study. You should also tell your regular doctors.

Because this research is funded by the U.S. Army, the following will be available to you:

Subjects who are injured as a direct result of this research study are eligible to receive medical care at any Army hospital or clinic free of charge. The Army will not pay for your transportation to or from the hospital or clinic. Subjects who pay out-of-pocket for medical care elsewhere for injuries caused by this research study should contact the principal investigator (Richard E. Harris, Ph.D., (734) 998-6996) . If the issue cannot be resolved, contact the U.S. Army Medical Research and Materiel Command (USAMRMC) Office of the Staff Judge Advocate (legal office) at (301) 619-7663/2221.

Dr. Sawsan As-Sanie will serve as the Medical Monitor for this study and in addition to the study personnel knowing how to contact Dr. As-Sanie you will be able to contact Dr. As-Sanie via phone at 734-764-8429. In the case of an adverse or serious adverse event that may be study related please call Dr. As-Sanie at the above number.

Adverse experiences that are both serious and unexpected will be immediately reported by telephone to the UM IRB and the USAMRMC, Office of Research Protection, and followed by a written report.

### 5.3 If I take part in this study, can I also participate in other studies?

Being in more than one research study at the same time, or even at different times, may increase the risks to you. It may also affect the results of the studies. You should not take part in more than one study without approval from the researchers involved in each study.

### 5.4 How could I benefit if I take part in this study? How could others benefit?

- You may not receive any personal benefits from being in this study nor will you be informed of any specific research results. However, it is possible that you may experience a reduction or elimination of symptoms due to acupuncture. The potential indirect benefits of this research to the public or others include a greater acceptance of acupuncture to the general population. Better management of FM symptoms may also result from this study.
- The type of scans we will use are not very sensitive to many abnormalities. The scanning procedures used for this study will not be read by a specialist trained to make medical diagnoses from the scan. That is, even if there is an abnormality in your body, it is likely that it would not be discovered by the people who inspect the images. Therefore, it is likely that any abnormality that you may currently have will not be revealed by the images obtained in this experiment. If you have any current health concerns, you should consult your doctor.

### 5.5 Will the researchers tell me if they learn of new information that could change my willingness to stay in this study?

Yes, the researchers will tell you if they learn of important new information that may change your willingness to stay in this study. If new information is provided to you after you have joined the study, it is possible that you may be asked to sign a new consent form that includes the new information.

## 6. OTHER OPTIONS

### 6.1 If I decide not to take part in this study, what other options do I have?

Your participation is voluntary. Should you decide not to be in the study, there are options if you need treatment: routine medical care for FM consists of some combination of medications (prescribed based on your symptoms and level of tolerance), exercise, and physical therapy. None of these treatments are included in this study.

Ask the researchers or your doctor about other choices you may have.

## 7. ENDING THE STUDY

### 7.1 If I want to stop participating in the study, what should I do?

You are free to leave the study at any time. If you leave the study before it is finished, there will be no penalty to you. You will not lose any benefits to which you may otherwise be entitled. If you choose to tell the researchers why you are leaving the study, your reasons for leaving may be kept as part of the study record. If you decide to leave the study before it is finished, please tell one of the persons listed in Section 10 “Contact Information” (below).

### 7.2 Could there be any harm to me if I decide to leave the study before it is finished?

You may exit the study at any time without any penalty or danger to yourself or others. There are no exit interviews or tests to perform. By leaving early, you will receive no further study-related treatment of any kind. You will receive compensation for the portion of the study that you have completed.

### 7.3 Could the researchers take me out of the study even if I want to continue to participate?

Yes. There are many reasons why the researchers may need to end your participation in the study. Some examples are:

- ✓ The researcher believes that it is not in your best interest to stay in the study.
- ✓ You become ineligible to participate.
- ✓ Your condition changes and you need treatment that is not allowed while you are taking part in the study.
- ✓ You do not follow instructions from the researchers.
- ✓ The study is suspended or canceled.

## 8. FINANCIAL INFORMATION

### 8.1 Who will pay for the costs of the study? Will I or my health plan be billed for any costs of the study?

The study will pay for research-related items or services that are provided only because you are in the study. Neither you nor your insurance company will be billed for any study-related costs, including acupuncture supplies, office visits to the acupuncturist, and MRI scans. If you are not sure what these covered items are, please see Section 4.1 above or ask the researchers for a list. If you get a bill you think is wrong, call the researchers’ number listed in section 10.1.

You or your health plan will pay for all the things you would have paid for even if you were not in the study, like:

- Health care given during the study as part of your regular care

- Monitoring for side effects or other problems **related to your fibromyalgia, but not due to the research study**
- Treatment of complications **related to your fibromyalgia, but not due to the research study**
- Deductibles or co-pays for these items or services.

If you do not have a health plan, or if you think your health plan may not cover these costs during the study, please talk to the researchers listed in Section 10 below or call your health plan's **medical reviewer**.

By signing this form, you do not give up your right to seek payment if you are harmed as a result of being in this study.

### 8.2 Will I be paid or given anything for taking part in this study?

Yes. You will be paid \$100 for each fMRI scan in this study. There may be additional compensation to you if you elect to participate in the other scanning procedure (PET) in this study. Employees of the University of Michigan will have their study compensation added to their regular paycheck.

### 8.3 Who could profit or financially benefit from the study results?

No person or organization has a financial interest in the outcome of this study.

## 9. CONFIDENTIALITY OF SUBJECT RECORDS AND AUTHORIZATION TO RELEASE YOUR PROTECTED HEALTH INFORMATION

The information below describes how your privacy and the confidentiality of your research records will be protected in this study.

### 9.1 How will the researchers protect my privacy?

We shall put the information collected about you during the study into a research record. This research record will not show your name, but will have codes entered into it, that will allow the information to be linked to you. However, we shall keep your research record confidential, to the extent provided by federal, state and local law. Research records will be kept in a separate research file that does not include names, registration numbers or other information that is likely to allow someone other than the researchers to link the information to you. We shall not allow anyone to see your record, other than people who have a right to see it. You will not be identified in any reports on this study.

### 9.2 What information about me could be seen by the researchers or by other people? Why? Who might see it?

Signing this form gives the researchers your permission to obtain, use, and share information about you for this study, and is required in order for you to take part in the study. Information about you may be obtained from any hospital, doctor, and other health care provider involved in your care, including:

- Hospital/doctor's office records, including test results (X-rays, blood tests, urine tests, etc.)

- Mental health care records (except psychotherapy notes not kept with your medical records)
- Alcohol/substance abuse treatment records
- Your AIDS/HIV status
- All records relating to your condition, the treatment you have received, and your response to the treatment
- Billing information

There are many reasons why information about you may be used or seen by the researchers or others during or after this study. Examples include:

- The researchers may need the information to make sure you can take part in the study.
- The researchers may need the information to check your test results or look for side effects.
- University, Food and Drug Administration (FDA), and/or other government officials may need the information to make sure that the study is done in a safe and proper manner.
- Study sponsors or funders, or safety monitors or committees, may need the information to:
  - Make sure the study is done safely and properly
  - Learn more about side effects
  - Analyze the results of the study
- Insurance companies or other organizations may need the information in order to pay your medical bills or other costs of your participation in the study.
- The researchers may need to use the information to create a databank of information about your condition or its treatment.
- Information about your study participation may be included in your regular UMHS medical record.
- If you receive any payments for taking part in this study, the University of Michigan accounting department may need your name, address, social security number, payment amount, and related information for tax reporting purposes.
- Federal or State law may require the study team to give information to government agencies. For example, to prevent harm to you or others, or for public health reasons.
- U.S. Department of Defense or Representatives of the U.S. Army Medical Research and Materiel Command are eligible to review subject records as part of their responsibility to protect human subjects in research

The results of this study could be published in an article, but would not include any information that would let others know who you are.

### 9.3 What happens to information about me after the study is over or if I cancel my permission?

As a rule, the researchers will not continue to use or disclose information about you, but will keep it secure until it is destroyed. Sometimes, it may be necessary for information about you to continue to be used or disclosed, even after you have canceled your permission or the study is over. Examples of reasons for this include:

- To avoid losing study results that have already included your information
- To provide limited information for research, education, or other activities (This information would not include your name, social security number, or anything else that could let others know who you are.)
- To help University and government officials make sure that the study was conducted properly

As long as your information is kept within the University of Michigan Health System, it is protected by the Health System's privacy policies. For more information about these policies, ask for a copy of the University of Michigan Notice of Privacy Practices. This information is also available on the web at <http://www.med.umich.edu/hipaa/npp.htm>. Note that once your information has been shared with others as described under Question 9.2, it may no longer be protected by the privacy regulations of the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA).

### 9.4 When does my permission expire?

Your permission expires at the end of the study, unless you cancel it sooner. You may cancel your permission at any time by writing to the researchers listed in Section 10 "Contact Information" (below). When you sign this consent form, you have agreed that researchers may use limited information (excluding your name, date of birth, address or social security number) about you in order to determine the significance of individual or group data that we collect in this research study. You may cancel this permission by submitting a written notification to the principle investigator listed below.

## 10. CONTACT INFORMATION

### 10.1 Who can I contact about this study?

Please contact the researchers listed below to:

- Obtain more information about the study
- Ask a question about the study procedures or treatments
- Talk about study-related costs to you or your health plan
- Report an illness, injury, or other problem (you may also need to tell your regular doctors)
- Leave the study before it is finished
- Express a concern about the study

Principal Investigator: Richard Harris, PhD  
Telephone: 734-998-6996  
Mailing Address: University of Michigan  
Chronic Pain and Fatigue Center  
24 Frank Lloyd Wright Drive P.O. Box 385  
Ann Arbor, MI 48106

Study Coordinator: Craig Urwin  
Telephone: 734-998-7023  
Mailing Address: University of Michigan  
Chronic Pain and Fatigue Center  
24 Frank Lloyd Wright Drive P.O. Box 385  
Ann Arbor, MI 48106

You may also express a concern about a study by contacting the Institutional Review Board listed below, or by calling the University of Michigan Compliance Help Line at 1-888-296-2481.

University of Michigan Medical School Institutional Review Board (IRBMED)  
Argus I  
517 W. William  
Ann Arbor, MI 48103-4943

Telephone: 734-763-4768  
Fax: 734-615-1622  
e-mail: [irbmed@umich.edu](mailto:irbmed@umich.edu)

If you are concerned about a possible violation of your privacy, contact the University of Michigan Health System Privacy Officer at 1-888-296-2481.

*When you call or write about a concern, please provide as much information as possible, including the name of the researcher, the IRBMED number (at the top of this form), and details about the problem. This will help University officials to look into your concern. When reporting a concern, you do not have to give your name unless you want to.*

**11. RECORD OF INFORMATION PROVIDED**

**11.1 What documents will be given to me?**

Your signature in the next section means that you have received copies of all of the following documents:

- This "Consent to be Part of a Research Study" document. (Note: In addition to the copy you receive, copies of this document will be stored in a separate confidential research file and may be entered into your regular University of Michigan medical record.) . In addition, a copy of this freshly-signed and signed consent form and your fMRI safety screening form will be kept on file at the fMRI lab. )
- Other (specify): \_\_\_\_\_

**12. SIGNATURES**

**Research Subject:**

*I understand the information printed on this form. I have discussed this study, its risks and potential benefits, and my other choices with \_\_\_\_\_ . My questions so far have been answered. I understand that if I have more questions or concerns about the study or my participation as a research subject, I may contact one of the people listed in Section 10 (above). I understand that I will receive a copy of this form at the time I sign it and later upon request. I understand that if my ability to consent for myself changes, either I or my legal representative may be asked to re-consent prior to my continued participation in this study. I give permission to review &/or analyze information collected in my participation in the project, "Subject Registry," 2002-0678.*

If you consent to participate in the genetic part of this study, a blood sample will be obtained which will be used for genetic research (to examine the composition of some of the genes in your DNA). This may help to identify different forms of genes that may be associated with variations in how people respond to acupuncture or pain. We do not anticipate that our findings will be useful for any individual subject. Our interest in this study is to identify genes that are responsible for developing wide-spread pain (Fibromyalgia) and genes that may identify responsiveness to Acupuncture. The testing in this study is not going to include testing for any genes that are known to predict the risk of developing any specific disease. If you choose to participate in the genetic portion of the study, you will have approximately 3 tablespoons of blood drawn. Since there is currently no accepted genetic test for fibromyalgia, the results of this testing will not be given to you. Information about your race, ethnicity, sex, medical history, and response to acupuncture from this study will be combined with the genetic information and put in a database for future research on genetic factors and fibromyalgia and chronic pain. Your sample will not be stored for future genetic testing for either yourself or other family members. If you are interested in storage of a blood sample for future genetic testing, you should consult with a doctor who knows how to do this. Information linking you to the blood sample will be kept until the research study is completed. Once the research study is over, all links to any identifying information will be destroyed, so it will not be possible to identify who a blood sample belongs to. You can withdraw your permission to use the genetic sample for research before the research study is completed by contacting the study team using the information that has been given to you in Section 10 of this form. However, once the research study is over, it will no longer be possible to identify which genetic sample is yours.

- I agree to have my blood used for genetic testing if it was obtained during subject registry, or during this current study.
- I do not give authorization to have my blood withdrawn now or used from the subject registry for genetic testing.
- I give permission for information collected about me in an earlier research study involving Acupuncture (2004-0526) to be analyzed within this current research study (HUM0010061).
- I do *not* give permission for information collected about me in an earlier research study involving Acupuncture (2004-0526) to be analyzed within this current research study (HUM0010061).

Signature of Subject: _____	Date: _____
Name (Print legal name): _____	
Patient ID: _____	Date of Birth: _____

<b>Legal Representative (if applicable):</b>	
Signature of Person Legally Authorized to Give Consent _____	Date: _____
Name (Print legal name): _____	Phone: _____
Address: _____	
Check Relationship to Subject:	
<input type="checkbox"/> Parent <input type="checkbox"/> Spouse <input type="checkbox"/> Child <input type="checkbox"/> Sibling <input type="checkbox"/> Legal Guardian <input type="checkbox"/> Other: _____	
<b><u>If this consent is for a child who is a ward of the state (for example a foster child), please tell the study team immediately. The researchers may need to contact the IRBMED.</u></b>	
Reason subject is unable to sign for self: _____	

<b>Principal Investigator (or Designee):</b>	
<i>I have given this research subject (or his/her legally authorized representative, if applicable) information about this study that I believe is accurate and complete. The subject has indicated that he or she understands the nature of the study and the risks and benefits of participating.</i>	
Name: _____	Title: _____
Signature: _____	Date of Signature: _____

<b>Witness (optional):</b>	
<i>I observed the above subject (or his/her legally authorized representative, if applicable) sign this consent document.</i>	
Name: _____	
Signature: _____	Date of Signature: _____

