# Consent and Authorization Document
## *Group A*

**BACKGROUND**

You are being invited to take part in a research study looking at the effects of oxytocin. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether you want to volunteer to take part in this study.

Oxytocin is a hormone produced in the brain that has been shown to have positive effects on social behaviors, like generosity, trust, and pair bonding. Oxytocin may encourage such behaviors by shaping activity within centers of the brain responsible for processing reward. The purpose of this study is to test the hypothesis that oxytocin can influence reward-related brain activity and whether chronic alcohol use may affect this activity. To test this hypothesis, we will measure brain activity during the performance of two reward tasks using functional magnetic resonance imaging (fMRI) after giving either oxytocin or placebo (an inactive drug) intranasally (e.g., oxytocin or placebo is sprayed into the nose via the nostril). You will receive placebo during one of your scanning sessions and oxytocin during the other. We will be using an intranasal form of synthetic oxytocin (Syntocinon®, Mylan Pharmaceuticals) that has been widely used in human research studies but is not currently approved by the FDA for marketing in the United States. Intranasal oxytocin spray is currently marketed and prescribed in Europe and the injectable form is commonly used and prescribed in the United States. This research study was submitted to the FDA for their review. We will also measure hormone levels (e.g. oxytocin levels) in your saliva at various times throughout the study to see how these levels relate to brain activity. In addition, we will record your blood pressure and heart rate at various times during your scanning days.

**STUDY PROCEDURE**

This study will be conducted over three visits as described below.

<u>Intake</u>

You will be scheduled for a screening visit which may be completed either during an in-person visit or via a phone call or video conference. If this visit occurs online, we will send you a link to our secure, online system which will allow you to fill out questionnaires on your home computer, phone, or tablet. This visit will last approximately between 2 to 2.5 hours to:

1. Confirm eligibility for the study
2. Review and sign the consent form
3. Give a urine and saliva specimen for drug, alcohol, and pregnancy screening.
    a. This drug screen will test for the presence of illicit, “street” drugs, and others, such as opiate pain killers that interfere with the results of this study. The results of this drug screen will NOT become part of your medical/hospital records, but will be kept as part of the confidential research record. However, if the drug screen is positive for any legal

or illegal drugs that could affect the results of this study, you will not be able to participate in the study. If this study visit occurs online, we will have you perform these tests prior to your scanning session.

b. Female participants will be asked to give urine for a pregnancy test. Women who are pregnant, suspected pregnant, or breastfeeding will not be able to participate. If this study visit occurs online, we will have you perform these tests prior to your scanning session.

4. Participate in a psychiatric interview that includes answering questions regarding anxiety, mood, and substance use
5. Provide a saliva sample for laboratory analysis
6. Complete questionnaires about your personal history, mood, personality, and social behavior
7. Perform a brief reward task where you will have the chance to win money

At this time, or just prior to your scanning visit, we would like to also obtain an extra sample of saliva for DNA to examine candidate genes related to attachment and reward and to further explore genetic variations associated with oxytocin. The results of the DNA analysis of the genes done for this study are unlikely to have direct clinical implications at this time, but may provide useful information for researchers and clinicians in the future. You will not be told the results of this genetic testing. You may refuse to participate in the genetic testing portion of the study and still participate in the main study.

**Please initial below**.

_____ I will provide an extra sample of saliva for genetic analysis.

_____ I will NOT provide an extra sample of saliva for genetic analysis.

At the end of your intake visit, you will then be scheduled for two fMRI scanning sessions that are described below.

<u>fMRI Visits</u>

You will be asked to participate in two fMRI scans. fMRI is a method used by researchers to obtain information about brain anatomy and to observe changes in brain activity in response to various stimuli. Basically, fMRI enables us to "see the brain at work". fMRI scans work by sending and detecting radio frequency signals from the body while lying in the fMRI magnet. From these signals, we can obtain images of your brain.

fMRI scans are non-invasive, however they are quite noisy. You can expect to hear a series of mechanical, metallic sounds while images are being taken. To protect your hearing you will be required to use earplugs or another form of hearing protection during the scan. Inside the fMRI scanner you will

be asked to complete several tasks that you will get to practice prior to the scanning session. These tasks will appear on a screen in the scanning room and involve pressing buttons with your fingers.

Each fMRI visit will last approximately 2.5 to 3 hours. We ask that you refrain from using alcohol for 24 hours prior to your visit. During each of the fMRI scanning visits you will be asked to meet study staff at the University of Utah Imaging and Neurosciences Center. You will be randomly assigned to take either placebo or oxytocin during your fMRI session.

This means neither you nor the researcher will choose whether you receive placebo or oxytocin on a given day. A computer program will determine whether you will receive placebo during your first session and oxytocin during your second session or vice versa. You will have an equal chance of receiving placebo first or oxytocin first. You will not be told which drug you are receiving that day so as not to influence your responses.

1. After reviewing the procedure and noting any changes in your health, you will be asked to provide a urine sample for a drug and pregnancy screen, saliva for laboratory analysis, and to practice the tasks that you will be performing in the scanner. Your blood pressure and heart rate will be also recorded.
2. Prior to being scanned, you will be asked to take either placebo or oxytocin intranasally.
3. Following drug administration, your blood pressure and heart rate will be recorded.
4. You will be escorted to the MRI scanning facilities and while you wait for scanning, we will ask you to fill out several questionnaires to survey your mood, social behaviors, and anxiety and then ask for you to provide a saliva sample for hormone analysis.
5. You will then be placed into the scanner and scanned for about 60-90 minutes under the following conditions:
    a. Obtain anatomical images
    b. Perform a task where you will respond to the possibility of winning or losing money or the possibility of seeing a picture of a face of a person observing your performance.
    c. Perform a task where you will be asked to make judgments about a series of photographs of people.
    d. Perform a task where you will see a flashing checkerboard.
6. Following the scan, we will have you complete tasks where you will be asked to make hypothetical decisions about money, try to judge time passing, and a task that tests your ability to recognize emotional faces.
7. We will ask you some questions relating to your scan experience and then you will be asked to provide a saliva sample for hormone analysis. Your blood pressure and heart rate will be also recorded.
8. 24 hours after scanning, study staff will call and ask you several brief questions regarding drug effects.

On your second fMRI visit, we will repeat this same protocol, changing only whether you receive placebo or oxytocin. These fMRI visits will take place on separate days.

Follow-up surveys

We will call or, if you prefer, text you 30, 60, and 90 days following your second fMRI visit and ask you several brief questions regarding alcohol use, your mood, and social behaviors. These questions are expected to take around 5-10 minutes.

**RISKS**

The risks of this study are as follows:

*Oxytocin-related*

- Risks associated with oxytocin administration. A review of the literature reports that short-term use of intranasal oxytocin administered at the dose used here produces minimal side effects and adverse outcomes in healthy adults.
    - Some commonly reported side effects include headache, increased or decreased heart rate, nausea, vomiting, nasal irritation, runny nose and tearing of the eyes.
    - Though uncommon, oxytocin administration may also cause abnormal heart beat.
    - Rare side effects include high blood pressure, skin rashes, anaphylactoid reactions (allergic reactions) associated with difficulty breathing, low blood pressure, and shock. There has been one case of psychotic reaction and one case of seizure following intravenous administration of oxytocin.
    - Intravenous oxytocin is a drug used for the induction and augmentation of labor and can cause contractions in pregnant women. As such, oxytocin should not be given to pregnant women unless needed for this purpose.
    - To minimize risks and to appropriately evaluate and respond to any adverse events, we will have you self-administer the drug in the presence of study personnel. In addition, female participants will be screened for pregnancy prior to drug administration. Study staff will monitor you for approximately 2 hours following drug administration. You will then be given contact information in case of an adverse event and contacted 24 hours following scanning.

*fMRI-related*

- Risk of the strong magnetic field attracting ferromagnetic/metallic objects toward the magnet while in the MRI scanner room. To minimize this risk, you will be asked to review and sign an fMRI screening form prior to being scanned to ensure you are eligible for scanning (for example, have no metallic implants). Before entering the scanning room you will be asked to change into a gown and will be screened for any metal objects or medication patches (for example, nicotine patches) on your person.

- Discomfort and the possibility of hearing damage due to the noise of the MRI machine. To minimize this risk you will be required to wear foam earplugs or other hearing protection which is routine for clinical patients.
- Discomfort due to lying still in a narrow space for a long period of time. The MRI machine is arranged like a narrow tube. This may cause nervousness or severe claustrophobia in some subjects, which may require your withdrawal from the study or even medical treatment. To minimize this risk, we will explain the procedure in advance and familiarize you with the fMRI environment prior to scanning. In addition, performing the tasks serves as a distraction. You will also be able to talk with the operator or researcher through an intercom and be able to trigger an audible alarm at any time for immediate attention or to be removed from the scanner. You may also feel lightheaded or dizzy after you sit up after laying down for a long period of time.
- Potential of peripheral nerve stimulation (PNS) due to the use of fast imaging sequences such as those employed in this study. PNS can be described as a light touching sensation on the skin surface and may cause mild discomfort, but is not harmful. To minimize this risk the fMRI machine is operated within FDA guidelines that include frequent inspections so the potential for inducing PNS is very low.
- There is the potential that a magnetic resonance image may reveal an abnormality that is already in your body, such as a cyst or tumor. Many such abnormalities are not clinically significant, but you may need or want to investigate them further. Such a finding might require additional studies, and maybe even treatment, which would not be paid for by the investigators, the sponsor, or the University of Utah.
- Other than those described above, there are no known biological risks due to exposure to the magnetic fields such as those that will be utilized in this study.

*Other*

- The possibility of psychological distress due to: 1) answering sensitive questions and 2) the potential for breach of confidentiality.
    - You will be asked to complete a number of questionnaires and interviews that ask personal questions about your mood, behavior, anxiety and substance use. People sometimes respond to such questionnaires and interviews with embarrassment, anxiety, or other uncomfortable feelings. To minimize the possibility of these uncomfortable feelings, only professionally trained staff will interview you in private and confidential settings.
    - There is a small risk that your confidentiality will be violated and others could see private information about your medical history, race or ethnicity. To ensure confidentiality, we will use identification (ID) codes, not names, to mark your data. We will NOT include personal identifying information on data sheets, pictures, questionnaires or labels used for saliva samples. The list of participant names and corresponding ID codes will only be accessible through a master list kept in a locked filing cabinet at the project office. Access to these files is limited to the project staff members. The results of our evaluations will not become part of your medical record, but they will be kept as part of a confidential research record.

- If you decide to give a saliva sample for genetic testing, the saliva will be examined for the composition of some of the genes in your DNA.
    - We will not be testing for genes that are known to predict risk of developing particular diseases nor will we test to provide information about your parentage or family history. If you change your mind about participating in the genetic testing, you can withdraw your consent for us to use your saliva sample in this way, provided you withdraw your consent before the end of the study. All samples will be destroyed at the end of the research.
    - Genetic research raises difficult issues about informing you of the results. We do not anticipate that our findings will be useful for any individual subject. Therefore, we will not inform you about any results. In addition: 1) You will not be notified of any future research, test or analysis which might be performed using these saliva samples. 2) You will not be given results or information generated by future tests or analyses using saliva samples and assign any such rights to the University of Utah.
    - 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 sample for genetic testing, you should consult with a clinician skilled in this area. The genetic testing in this research is not a substitute for medical genetic testing designed to identify susceptibility to specific diseases.
    - A new Federal law, called the Genetic Information Nondiscrimination Act (GINA), generally makes it illegal for health insurance companies, group health plans, and most employers to discriminate against you based on your genetic information. This law generally will protect you in the following ways:
    - Health insurance companies and group health plans may not request your genetic information that we get from this research.
    - Health insurance companies and group health plans may not use your genetic information when making decisions regarding your eligibility or premiums.
    - Employers with 15 or more employees may not use your genetic information that we get from this research when making a decision to hire, promote, or fire you or when setting the terms of your employment.
    - All health insurance companies and group health plans must follow this law by May 21, 2010. All employers with 15 or more employees must follow this law as of November 21, 2009.
    - Be aware that this new Federal law does not protect you against genetic discrimination by companies that sell life insurance, disability insurance, or long-term care insurance.

**REPRODUCTIVE RISKS**

1. Intravenous oxytocin is a drug used for the induction and augmentation of labor and can cause contractions in pregnant women. As such, oxytocin should not be given to pregnant women unless needed for this purpose. Pregnant women must not take part in this study, nor should women who plan to become pregnant during the study. Women who are at risk of pregnancy will be asked to have a pregnancy tests before taking part to exclude the possibility of pregnancy.

2. If you could become pregnant and are sexually active, you must use an effective contraceptive during the course of this study (see below).
3. If you become pregnant while taking part in the study, you must immediately tell the research staff and we will withdraw you from the study.

For women of childbearing potential, acceptable methods of birth control include hormonal birth control (e.g. birth control pills, skin patches, shots, under-the-skin implants, or vaginal ring), a barrier contraceptive such as a condom with spermicide cream or gel, diaphragms or cervical cap with spermicide cream or gel, or an intrauterine device (IUD), tubal ligation or partner vasectomy, or avoiding sexual activity that could cause you to become pregnant.

**Please initial below**.

_____ For Females: I will use an acceptable method of birth control during my participation or am not of childbearing potential.

**UNFORESEEABLE RISKS**

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

**BENEFITS**

You may not receive any personal benefits from being in this study. However, your participation could help inform clinicians seeking to use oxytocin as a treatment for psychiatric disorders like anxiety, autism, and substance use disorders.

The types of scans we will use are not sensitive to many abnormalities. The scanning procedures used for this study will not be read by a specialist trained to make medical diagnoses from these scans. That is, even if there is an abnormality in your head, it is likely that the people inspecting the images will not discover it. 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.

**ALTERNATIVE PROCEDURES**

Choosing not to participate is an alternative to participating in this study. At this time, there are no other alternative procedures available that would be advantageous to you.

**PERSON TO CONTACT**

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: Tiffany Love, PhD
Telephone: 801-587-0160
Availability: 9-5pm, Monday-Friday

Co-Investigator: Brian Mickey, MD, PhD
Telephone: 801-587-3297
Availability: 9-5pm, Monday-Friday

**Institutional Review Board:** Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

**Research Participant Advocate:** You may also contact the Research Participant Advocate (RPA) by phone at (801) 581-3803 or by email at participant.advocate@hsc.utah.edu.

**RESEARCH-RELATED INJURY**

If you are injured from being in this study, medical care is available to you at the University of Utah, as it is to all sick or injured people. The University of Utah has not set aside any money to pay the costs for such care. The University will work with you to address costs from injuries. Costs would be charged to you or your insurance company (if you have insurance), to the study sponsor or other third party (if applicable), to the extent those parties are responsible for paying for medical care you receive. Since this is a research study, some health insurance plans may not pay for the costs. By signing this consent form you are not giving up your right to pursue legal action against any parties involved with this research.

The University of Utah is a part of the government. If you are injured in this study, and want to sue the University or the doctors, nurses, students, or other people who work for the University, special laws may apply. The Governmental Immunity Act of Utah is a law that controls when a person needs to bring a claim against the government, and limits the amount of money a person may recover. See sections 63G -7-101 to -904 of the Utah Code.

**VOLUNTARY PARTICIPATION**

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. This will not affect your relationship with the investigator.

**RIGHT OF INVESTIGATOR TO WITHDRAW PARTICIPANTS**

The investigator can withdraw you from the study without your approval. 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.

**COSTS AND COMPENSATION TO PARTICIPANTS**

You will be paid $50 for completing the initial survey battery at intake and up to $5 more depending on how well you do on one of the tasks. You will receive $100 for each fMRI scan and, depending on how well you do on one of the fMRI tasks, you will have a chance to earn more – on average participants earn an additional $20 and up to a maximum of $40.

If you complete the follow-up questionnaires, you will receive $5 for the 30-day follow-up, $10 for the 60-day follow-up, and $15 for the 90-day follow-up. This will be in the form of mailed gift cards unless cash is preferred.

If you complete the initial survey battery, both scans, and complete all the follow-up questionnaires, your total compensation will be between $250 and $335. You will receive cash or gift cards after the completion of each session. You may also receive a black and white printed picture of your brain obtained by MRI when you come in for your second fMRI visit.

If for some unforeseen reason any of the sessions are cut short or run longer than anticipated, for example due to technical difficulties, you will receive a prorated amount for the session ($20/hour). Reasonable local transportation costs will be reimbursed. Receipts must be submitted. Please contact the study coordinator prior to your study date to discuss your transportation plans and confirm that they will be appropriate for reimbursement.

The study will pay for research-related items or services described above which are provided only because you are in the study.

**NEW INFORMATION**

Sometimes during the course of a research project, new information becomes available about the drug being used in this experiment. If this happens, the researchers will tell you about it and discuss with you whether you want to continue in the study.

**NUMBER OF PARTICIPANTS**

We expect to enroll 100 participants at the University of Utah.

**AUTHORIZATION FOR USE OF YOUR PROTECTED HEALTH INFORMATION**

Signing this document means you allow us, the researchers in this study, and others working with us to use some information about your health for this research study.

This is the information we will use and include in our research records:

- Demographic and identifying information like your name, address, telephone number and email address
- Related medical information about you like hospital/doctor's office records, including test results (X-rays, blood tests, urine tests, etc.) and mental health care records (except psychotherapy notes not kept with your medical records)
- All tests and procedures that will be done in the study

**How we will protect and share your information:**

- To help us protect your privacy, we have obtained a Certificate of Confidentiality (CoC) issued by the FDA. A CoC helps researchers protect the privacy of human research participants enrolled in biomedical, behavioral, clinical and other forms of sensitive research. The researchers can use this CoC to legally refuse to disclose information that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings, for example, if there is a court subpoena. The researchers will use the CoC to resist any demands for information that would identify you. The protection offered by the CoC does not stop us from voluntarily reporting information about suspected or known sexual, physical, or other abuse of a child or older person, or a participant's threats of violence to self or others. If any member of the research team is given such information, he or she will make a report to the appropriate authorities.

- Because this research is sponsored by the Department of Health and Human Services through the National Institutes of Health and is being overseen by the FDA, staff from those and other DHHS agencies may review records that identify you only for audit or program evaluation. They cannot report anything that would harm you or other research participants.

- Even when a CoC is in place, you and your family members must still continue to actively protect your own privacy. You should understand that a CoC does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If you voluntarily give your written consent for anyone to receive information about your participation in the research, then we may not use the CoC to withhold this information.

- We will do everything we can to keep your information private but we cannot guarantee this. Study information will be kept in a secured manner and electronic records will be password protected.

- A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This website will not include information that can identify you. At most, the website will include a summary of the results. You can search this website at any time.
- In order to conduct this study and make sure it is conducted as described in this form, the research records may be used and reviewed by others who are working with us on this research:
    - Members of the research team and the University of Utah Health Sciences Center*;*
    - The University of Utah Institutional Review Board (IRB), who reviews research involving people to make sure the study protects your rights;
    - The study sponsor: National Institutes of Health (NIH);
    - The Food and Drug Administration (FDA) and/or other government officials that may need the information to make sure the study is done in a safe and proper manner.
- If we share your information with groups outside of the University of Utah, they may not be required to follow the same federal privacy laws that we follow. They may also share your information again with others not described in this form.
- The CoC allows for answers that you give during the surveys to be kept secret during this project. Any information that can identify you will be kept confidential. Any personal information that could identify you will be removed or changed before data are shared with other researchers or results are made public.
- If you do not want us to use information about your health, you should not be part of this research. If you choose not to participate, you can still receive health care services at the University of Utah Health Sciences Center.

**What if I decide to Not Participate after I sign the Consent and Authorization Form?**

You can tell us anytime that you do not want to be in this study and do not want us to use your health information. You can also tell us in writing. If you change your mind, we will not be able to collect new information about you, and you will be withdrawn from the research study. However, we can continue to use information we have already started to use in our research, as needed to maintain the integrity of the research.

This authorization does not have an expiration date.

You have a right to information used to make decisions about your health care. However, your information from this study will not be available during the study; it will be available after the study is finished.

**RECONTACT FOR FUTURE RESEARCH**

If you would like our study group to contact you about future research opportunities for which you may be eligible for, please initial below.

**Please initial below**.

_____ I agree to be contacted for future research studies.

_____ I do NOT agree to be contacted for future research studies.

**CONSENT**

I confirm that I have read this consent and authorization document and have had the opportunity to ask questions. I will be given a signed copy of the consent and authorization form to keep.

**I agree to take part in this research study and authorize you to use and disclose health information about me for this study, as you have explained in this document.**

_____

Participant's Name

_____ _____

Participant's Signature Date

_____

Name of Person Obtaining Authorization and Consent

_____ _____

Signature of Person Obtaining Authorization and Consent Date