

**Official Title:** The Effect of Dorsolateral Prefrontal Cortex Theta Burst Stimulation on Alcohol Cue Reactivity and Cognitive Control: a Double-blind, Sham Controlled Study of Heavy Alcohol Drinkers With a History of Alcohol Related Injury.

**NCT04223154**

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## WAKE FOREST School of Medicine

Department of Cancer Biology

### **THE EFFECT OF DORSOLATERAL PREFRONTAL CORTEX THETA BURST STIMULATION ON ALCOHOL CUE REACTIVITY AND COGNITIVE CONTROL: A DOUBLE-BLIND, SHAM CONTROLLED STUDY OF HEAVY ALCOHOL DRINKERS WITH A HISTORY OF ALCOHOL RELATED INJURY**

Informed Consent Form to Participate in Research  
Dr. Colleen Hanlon, PhD, Principal Investigator

#### SUMMARY

You are invited to participate in a research study. The purpose of this research is to develop transcranial magnetic stimulation (TMS), specifically TMS at a frequency known as theta burst stimulation (TBS), to see how it acutely affects the brain and changes the brain's response to alcohol-related pictures and cognitive control. You are invited to be in this study because you are heavy alcohol user with a history of risky drinking behavior. Your participation in this research will involve 2 visits and last about 3 and one-half hours total.

Participation in this study will involve 1 screening visit and 1 TMS visit. At the TMS visit, functional magnetic resonance imaging (MRI) data will be collected before and after exposure to a session of real or placebo TMS. All research studies involve some risks. For TMS, there are potential risks of seizure, headache, scalp discomfort, hearing loss, and fainting. For the MRI, there is potential risk to individuals with metallic implants or medical devices. Additionally, participants may feel restless or uncomfortable lying in the MRI scanner. While there are risks associated with TMS, the procedure is very safe. There are no direct benefits from participation in this study.

Your participation in this study is voluntary. You do not have to participate in this study if you do not want to. There may be other choices available to you. Some other choices may include additional substance abuse treatment programs which can be referred to you clinically. You will not lose any services, benefits, or rights you would normally have if you choose not to participate.

The remainder of this form contains a more complete description of this study. Please read this description carefully. You can ask any questions if you need help deciding whether to join the study. The person in charge of this study is Dr. Colleen Hanlon. If you have questions, suggestions, or concerns regarding this study or you want to withdraw from the study his/her contact information is: [cutback@wakehealth.edu](mailto:cutback@wakehealth.edu). Additionally, in response to the evolving COVID-19 situation, this study will be using videoconferencing to perform some study visits. If

you are willing and able to use videoconferencing at home, some study visits, including consent/screening, will be performed online.

If you have any questions, suggestions or concerns about your rights as a volunteer in this research, contact the Institutional Review Board at [REDACTED] or the Research Subject Advocate at Wake Forest at [REDACTED].

## INTRODUCTION

You are invited to be in a research study. Research studies are designed to gain scientific knowledge that may help other people in the future. You are being asked to take part in this study because you are a heavy alcohol user that has a history of risky drinking behavior. Your participation is voluntary. Please take your time in making your decision as to whether or not you wish to participate. Ask your study doctor or the study staff to explain any words or information contained in this informed consent document that you do not understand. You may also discuss the study with your friends and family.

## WHY IS THIS STUDY BEING DONE?

The purpose of this research study is to study how a non-invasive form of brain stimulation called TMS affects the brain and changes the brain's response to alcohol related pictures and thinking tasks. TMS is a technique that uses magnetic pulses to temporarily stimulate specific brain areas in awake people (without the need for surgery, anesthetic, or other invasive procedures). This study will test whether one session of TMS can be used as an alternative tool to decrease your brain's response to alcohol-related pictures and improve cognitive performance in the presence of an alcoholic beverage. TMS has been approved by the US Food and Drug Administration (FDA) as a treatment for depression, but it has not been approved as a treatment for alcohol use.

In this study real TMS will be compared to placebo. A placebo is a substance, like a sugar pill, that is not thought to have any effect on your disease or condition. In this study you will either receive the active study medication, TMS or placebo which is not active. Placebos are used in research studies to see if the drug being studied really does have an effect.

## HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

48 people will be enrolled at this research site.

## WHAT IS INVOLVED IN THE STUDY?

You will be randomized into one of the study groups described below. Randomization means that you are put into a group by chance. It is like flipping a coin. You will have an equal chance of being placed in any group.

Neither you nor the investigator will know which study treatment you are receiving. This is done so that a fair evaluation of results can be made. This information is available to the researchers if needed in an emergency.

If you take part in this study, you will have the following tests and procedures:

1. (Baseline Screening Visit 1): Following informed consent, you will complete self-report screening measures (on paper and computer) designed to assess your alcohol use, your psychiatric history, and your mood. You will also be asked to track your daily alcohol consumption during the course of the study. You will be asked about your current height and weight, past medical history focusing on chronic (and current) medical problems, seizure history, medications, psychiatric disorders, and substance use. The research procedures, risks, and benefits will be explained. Several rating scales assessing alcohol use severity, craving, and past month drinking history will be administered at the screening visit and updated at each subsequent visit.
2. (Urine screen/drinking assessments: All visits): If you qualify for the study and agree to continue, then you will do a urine screen. If you are a woman of childbearing age, you will first undergo a pregnancy test by providing a urine sample. The pregnancy test is important because the effects of TMS on the developing fetus in the first trimester of pregnancy are unknown. As such, if you are a pregnant female or lactating, you cannot participate and will be excluded from the study. If you are not pregnant, you must use a reliable method of birth control. Birth control methods that are acceptable include abstinence, oral contraceptive pills, or other types of hormones (like Depot-Vera or Norplant) and use of condoms.

If you are not pregnant, you will have a urine drug screen to detect the presence of drugs in your urine. If you are a man, TMS is not known to affect the sperm and you are not required to use contraceptive measures. Magnetic stimulation is not allowed in people who have a pacemaker, an implanted medication pump, a metal plate in the skull, or metal objects inside the skull (for example, after brain surgery). At the screening visit, you will be asked to complete a quantitative urine analysis measuring the metabolites of alcohol and other drugs in your system. At the scanning/stimulation visits (Visit 2), you will be given a multidrug urine panel. You will be not be allowed to participate in the study visit if you test positive on the urine drug screen for opiates, stimulants, benzodiazepines. We will attempt to reschedule this visit if a positive screening does occur. If you also test positive at the rescheduled visit, you will be excused from the study.

3. (MRI scanning - Visit 2): You will have an MRI exam of your brain before and after your TMS session. This test will provide us with an image of your brain and brain activity during various tasks. You will lie still in the MRI machine for about 25 minutes while this image is being made. The MRI does not use radiation, but it can be difficult for persons who have fear of being closed in small spaces because it can feel somewhat confining in the MRI scanner. The MRI utilizes magnetism so you will need to remove loose metal objects such as earrings and key chains prior to the procedure for your safety. If you have pieces of metal in your body, such as a pacemaker or aneurysm clip, you cannot have a MRI. These research MRI techniques are different from a MRI obtained for medical reasons. However, this is not a study for diagnostic purposes and will not be

read by a radiologist. If, by chance, something abnormal is observed, you will be informed of this and counseled as to what clinical referral would be appropriate.

4. (TMS – Visit 2): If you qualify for the study and agree to continue, you will be randomized to receive either the placebo TMS treatment or the real TMS treatment. The randomization process works like flipping a coin and is pre-determined by a computer program and not by the researchers. The placebo TMS is an inactive treatment that is designed to mimic the sounds, feelings and appearance of the real thing. You will not be told which type of stimulation you are receiving during the treatment session. This improves our ability to determine how effective the treatment is. Previous studies have indicated that the real TMS and the placebo TMS feel the same, so you will not be able to determine which type of stimulation you are receiving during a treatment session. This is done so that we can be sure our active treatment is really having an effect. Regardless of which treatment you are randomized to, you will receive one session of TMS for 2 seconds followed by 8 seconds of rest for a total duration of 3 minutes. During the TMS sessions, we will ask you to think about alcohol related cues. On the TMS visit, you will also fill out several questionnaires related to alcohol use, mood, and craving. These questionnaires will track your current urge to drink alcohol and assess your mood levels. You will complete these assessments before and after your TMS treatment.
5. (TMS motor threshold – Visit 2): Regardless of which treatment you receive during your visits (real or placebo TMS), the researchers will first determine your individual level of thumb muscle response to TMS pulses (called the resting motor threshold, rMT). This is done because everyone's response to TMS is a little different, and we want to make sure that we give you the right "dose" of TMS. The researcher will ask you to hold out your hand and fingers. He/she will then slowly and carefully move a magnetic coil over your head. The coil will send a single magnetic pulse every 3-4 seconds. The researcher will continue to move the coil until he/she finds the specific brain area that results in slight movement of your thumb. Once the researcher has your rMT, the researcher will measure your individual response level to TMS pulses.
6. (Cognitive Performance – Visit 2): After the both MRI exams, you will also perform a battery of cognitive assessments. Before you begin these assessments, a glass of your preferred alcohol beverage (beer, wine, liquor) will be placed within 5 feet (but out of arm's length) of your reach. It will remain there for the length of the task, but you will not be allowed to drink it and it will be discarded at the end of the study visit. This will be repeated before the TMS session, and at the end of the study visit (after the second MRI exam).

## HOW LONG WILL I BE IN THE STUDY?

You will be in the study for 2 visits. The screening visit will take approximately one hour of your time. The TMS/MRI visit (Visit 2) will take about 2 and one-half hours of your time.

## WHAT ARE THE RISKS OF THE STUDY?

Being in this study involves some risk to you. You should discuss the risk of being in this study with the study staff. Risks and side effects related to the TMS device we are studying include:

1. Potential risk of a seizure: In designing this experiment, we have followed the latest safety guidelines for TMS. Despite these precautions, there is a chance of a seizure as a result of TMS. Eight seizures have been noted in previous studies involving TMS, with six of them occurring in healthy volunteers without any history of seizures, brain tumors or traumatic brain injuries. A recent review demonstrated that from 2006-2012, of 318,560 individuals that received TMS, there were 25 reported cases of a seizure (0.08/1000 sessions). Of these, 21 were associated with performing TMS outside of the known safety ranges or in individuals with known risk factors including epilepsy and brain injury. Among the participants receiving TMS within the safety guidelines the risk of a seizure was <.02/1000 sessions. In the present study, TMS will be given within the known safety range consistent with the FDA-approved pulse number and amplitude for each session. All of these seizures have occurred during TMS with the participant in the treatment chair and a trained operator on hand. All seizures have stopped by themselves without any medication. No participants have had any problems after the seizures. Additionally, if a participant has a seizure an emergency response team will be called. Most seizures, including those caused by TMS, last less than 60 seconds and do not require any medication. Participants will be evaluated by a physician associated with the Research Laboratory following recovery from the seizure should one occur. Any participant who has a seizure cannot continue with the study.

Following the adoption and widespread use of safety guidelines, 1 seizure has been reported since 1997 and it involved parameters of higher settings than the safe range. The TMS used in this study follows the published TMS safety guidelines and has been used in numerous studies with the PI on this study with no negative effects.

To further reduce this risk, we will ask a series of screening questions prior to TMS administration. You will be asked if you have ever had a seizure or if any member of your family has ever had a seizure. You will be asked if you have any known tumors or lesions or if you have ever had an abnormal MRI or CT scan. We will ask if you have ever had a severe head injury and/or have ever been unconscious for more than a few minutes. A positive response to any of these screening questions will warrant follow-up questions and may mean you are ineligible to participate.

2. Potential for scalp discomfort and headaches: You may report some mild discomfort when the magnetic pulses are applied over your scalp, and a small number of people (~1 in 20 people) report headache following TMS. However, the headaches are temporary, go away on their own within 60 minutes, and are manageable with common over-the-counter pain remedies.

3. Potential worsening of mood with TMS: Several studies have so far demonstrated the feasibility of TMS as a treatment for depression. However, there is a chance you may feel that your mood is worsened, though there is no evidence that this will occur.
4. Potential Worsening of Pain with TMS: To date, we have not seen any evidence that TMS is associated with increases in pain perception or worsening of pain conditions. Most of the available evidence of the effects of TMS on pain perception suggests that TMS provides temporary relief from pain, a temporary decrease in sensitivity to pain, or no effect at all.
5. Other potential effects of TMS on brain tissue: TMS is thought to be safe, with no brain damage, despite its large-scale use in humans and other animals. Within our laboratory, multiple safety studies have found no changes in the structure of the brain following TMS.
6. Potential hearing loss: The discharge of the TMS coil generates a high-energy click that may cause hearing damage. Foam earplugs can protect against these changes and will be given to you to wear during TMS sessions.
7. Potential changes in cognitive function: There have been no reports of long-term changes (more than a minute) in cognitive function (memory, attention, etc.) in TMS studies.
8. Safety in case of pregnancy: If you are pregnant, you will be excluded from this study. The risks of using TMS with pregnant women are currently largely unknown. All female participants will be required to be using an acceptable form of birth control (including abstinence) during the TMS visits in order to continue participation. If there is a chance you may be pregnant, a urine pregnancy test will be done. Further, while the risks of using TMS with pregnant women are unknown, there is no available evidence to date suggesting that TMS is harmful during pregnancy.
9. Potential for fainting event: Fainting or “passing out” is defined as a temporary loss of conscious. Although fainting episodes are very rare with TMS (less than 1 in 100 people), they typically occur before the TMS treatment, when the study members are finding your “dose” of TMS, known as the motor threshold. Individuals that are sleep deprived and have low or unstable blood pressure are at greater risk.
10. Unknown Risks: TMS is an experimental procedure that has not been approved by the FDA as a treatment for alcohol use disorder and it may have unknown side effects. The researchers will let you know if they learn anything that might make you change your mind about participating in the study.

In addition to TMS risks, there may also be risks related to the MRI device we are using. This includes:

1. The risk from magnetic resonance imaging (MRI) is low. No radiation or x-rays are used in making pictures of your brain during the MRIs. You cannot have an MRI scan if you have metal in the skull, metal implants, a cardiac or brain pacemaker, or old metal fragments in the eye or retina. If you have a question about metal in your body, you should inform the researchers and they will determine whether it is safe in a MRI scan.
2. Some discomfort may occur from having to remain still for the 25 minutes you that will be in the scanner.
3. The MRI scanner is noisy, and there is a risk of hearing damage if you do not wear earplugs. To eliminate this risk, you will be given earplugs to wear during each scan.
4. Although the MRI scanner is open on both ends, some people become anxious when entering the MRI scanner due to the feeling of being enclosed. If this has happened to you in the past, you should inform the study personnel, as you may be ineligible for the study. The researchers will work with you to keep this from happening by allowing you to view relaxing pictures on a screen above your head prior to the start of the research procedure (until any anxiety has passed). Also, the researchers can talk with you during the procedure through a microphone in the scanner to reduce your concern.
5. If you are female and of child-bearing potential, you must have a pregnancy test performed prior to the scanning procedures. This test must be negative for you to participate in the study. You must also practice an acceptable method of birth control during the course of the study. If you are pregnant, you will be excused from the study.

In addition, there is a slight risk of a breach of confidentiality. We will do our best to protect your confidential information. There also may be other risks that we cannot predict. You should tell the research staff about all the medications, vitamins and supplements you take and any medical conditions you have. This may help avoid side effects, interactions and other risks

Further risks include the following:

1. Randomization risk: In addition, there is a slight randomization risk involved in this study. The treatment you receive may prove to be less effective or to have more side effects than the other study treatment(s) or other available treatments.
2. Alcohol related cue risks: Given that you will be exposed to pictures of alcohol related cues and alcoholic beverages throughout the duration of this experiment, there may be an added risk of induced alcohol cravings. Contact study staff if this becomes a problem for you.
3. Security of confidentiality and privacy risk: Taking part in this research study may involve providing information that you consider confidential or private. Efforts, such as coding research records, keeping research records secure and allowing only authorized people to have access to research records, will be made to keep your information safe.



4. Potential Risk of Psychiatric Interviewing (minimal risk): As part of this study, you will be asked questions about sensitive personal information. You may feel anxiety about disclosing your alcohol use history and reporting some aspects of your demographics. The Beck Depression Inventory (BDI) scale includes a question on suicidal ideation. In the event that you endorse suicidal ideation on the BDI, the staff present with you will be authorized to contact the PI or one of the Co-I's on the study who will then assess the situation to see whether further intervention is required. If we learn that you or someone else is in danger of harm, the study team is required to report that information to the proper authorities.

## Reproductive Risks and Other Issues To Participating In Research

Due to unknown risks and potential harm to the unborn fetus, sexually active women of childbearing potential must use a reliable method of birth control while participating in this study. Reliable methods of birth control are: abstinence (not having sex), oral contraceptives, OrthoEvra patch, NuvaRing, intrauterine devices (IUD), Nexplanon implant, DepoProvera, tubal ligation, or vasectomy of the partner (with confirmed negative sperm counts) in a monogamous relationship (same partner). An acceptable, although less reliable, method involves the careful use of condoms and spermicidal foam or gel and/or a diaphragm with spermicide with Plan B used for any noticed condom or diaphragm failures. We encourage you to discuss this issue further with your physicians if you have any questions.

Pregnant women are excluded from participation in this study. Because NO method of birth control is 100% reliable, a pregnancy test is required at least 10 days from your last normal menstrual period, if you are a sexually active woman of childbearing potential.

## ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

You are not expected to receive any direct benefit from taking part in this research study. We hope the information learned from this study will benefit other people in the future.

## WHAT OTHER CHOICES ARE THERE?

This is not a treatment study. Your alternative is to not participate in this study.

## WHAT ARE THE COSTS?

All study costs, including any study medications and procedures related directly to the study, will be paid for by the study. Costs for your regular medical care, which are not related to this study, will be your own responsibility.

## WILL YOUR RESEARCH RECORDS BE CONFIDENTIAL?

The results of this research study may be presented at scientific or medical meetings or published

in scientific journals. Your identity and/or your personal health information will not be disclosed unless it is authorized by you, required by law, or necessary to protect the safety of yourself or others. There is always some risk that even de-identified information might be re-identified.

### **WILL YOU BE PAID FOR PARTICIPATING?**

You will be paid \$125 if you complete all the scheduled study visits. You will be compensated \$25 for completing the screening visit, and \$100 for completing the MRI/TMS visit. If you withdraw for any reason from the study before completion you will be paid for each complete study visit.

Payment will be made using a pre-paid debit card called Greenphire ClinCard. It works like a bank debit card. We will give you a debit card and each time you receive a payment for participation in this study, the money will be added to the card after each completed visit. You may use this card at any store that accepts MasterCard or you can use a bank machine to remove cash. However, there may be fees drawn against the balance of the card for cash withdrawals (ATM use) and inactivity (no use for 3 months). We will give you the ClinCard Frequently Asked Questions information sheet that answers common questions about the debit card. You will also receive letters with additional information on how you can use this card and who to call if you have any questions. Be sure to read these letters, including the cardholder agreement, for details about fees.

The debit card system is administered by an outside company. The company, Greenphire, will be given your name and social security number. They will use this information only as part of the payment system. Your information will not be used for any other purposes and will not be given or sold to any other company. Greenphire will not receive any information about your health status or the study in which you are participating.

To receive payment, you must provide your social security number, name and address so that we can comply with IRS (Internal Revenue Service) reporting requirements. When payments are reported to the IRS we do not let them know what the payment is for, only that you have been paid. If you do not wish to provide this information you can still take part in this study but you will not be paid.

### **WHO IS SPONSORING THIS STUDY?**

This study is being sponsored by Wake Forest University of Health Sciences. The sponsor is providing money or other support to Wake Forest University Health Sciences to help conduct this study. The researchers do not, however, hold a direct financial interest in the sponsor or the product being studied.

### **WHAT HAPPENS IF YOU EXPERIENCE AN INJURY OR ILLNESS AS A RESULT OF PARTICIPATING IN THIS STUDY?**

Should you experience a physical injury or illness as a direct result of your participation in this study, Wake Forest University School of Medicine maintains limited research insurance

coverage for the usual and customary medical fees for reasonable and necessary treatment of such injuries or illnesses. To the extent research insurance coverage is available under this policy the reasonable costs of these necessary medical services will be paid, up to a maximum of \$25,000. Wake Forest University Baptist Medical Center holds the insurance policy for this coverage. It provides a maximum of \$25,000 coverage for each claim and is limited to a total of \$250,000 for all claims in any one year. The Wake Forest University School of Medicine, and the North Carolina Baptist Hospitals, Incorporated do not assume responsibility to pay for these medical services or to provide any other compensation for such injury or illness. Additional information may be obtained from the Medical Center's Director of Risk and Insurance Management, at [REDACTED].

If you are injured, the insurer may require information such as your name, social security number, and date of birth in order to pay for your care. This is because the insurer is required by law to report any payments made to cover the care of any persons who are members of a government insurance plan to the Department of Health and Human Services.

You do not give up any legal rights as a research participant by signing this consent form. For more information on medical treatment for research related injuries or to report a study related illness, adverse event, or injury you should call Dr. Colleen Hanlon at [REDACTED].

## WHAT ABOUT MY HEALTH INFORMATION?

In this research study, any new information we collect from you and/or information we get from your medical records or other facilities about your health or behaviors is considered Protected Health Information. The information we will collect for this research study includes: Names, date of birth, telephone numbers, electronic mail addresses, medical record number, medical records/physician notes/hospital discharge records, and medical test results.

We will make every effort to keep your Protected Health Information private. We will store records of your Protected Health Information in a cabinet in a locked office or on a password protected computer.

Your personal health information and information that identifies you ("your health information") may be given to others during and after the study. This is for reasons such as to carry out the study, to determine the results of the study, to make sure the study is being done correctly, to provide required reports and to get approval for new products.

Some of the people, agencies and businesses that may receive and use your health information are the research sponsor; representatives of the sponsor assisting with the research; investigators at other sites who are assisting with the research; central laboratories, reading centers or analysis centers; the Institutional Review Board; representatives of Wake Forest University Health Sciences and North Carolina Baptist Hospital; representatives from government agencies such as the Food and Drug Administration (FDA) or the Office of Human Research Protections (OHRP), the Department of Health and Human Services (DHHS) and similar agencies in other countries.

Some of these people, agencies and businesses may further disclose your health information. If

disclosed by them, your health information may no longer be covered by federal or state privacy regulations. Your health information may be disclosed if required by law. Your health information may be used to create information that does not directly identify you. This information may be used by other researchers. You will not be directly identified in any publication or presentation that may result from this study unless there are photographs or recorded media which are identifiable.

Monitors, auditors, IRB or other regulatory agencies will be granted direct access to the participant's original medical record for verification of clinical trial procedures or data, without violating confidentiality of the participant and to the extent permitted by other applicable laws.

If required by law or court order, we might also have to share your Protected Health Information with a judge, law enforcement officer, government agencies, or others. If your Protected Health Information is shared with any of these groups it may no longer be protected by federal or state privacy rules.

Any Protected Health Information collected from you in this study that is maintained in the research records will be kept for at least six years after the study is finished. At that time any research information not already in your medical record will either be destroyed or it will be de-identified.

You can tell Dr. Colleen Hanlon you want to take away your permission to use and share your Protected Health Information at any time by sending a letter to this address:

Dr. Colleen Hanlon  


However, if you take away permission to use your Protected Health Information you will not be able to be in the study any longer. We will stop collecting any more information about you, but any information we have already collected can still be used for the purposes of the research study.

By signing this form you give us permission to use your Protected Health Information for this study.

If you choose to participate in this study, your medical record at Wake Forest University Baptist Medical Center will indicate that you are enrolled in a clinical trial. Information about the research and any medications or devices you are being given as a participant may also be included in your medical record. This part of the medical record will only be available to people who have authorized access to your medical record. If you are not a patient at this Medical Center, a medical record will be created for you anyway to ensure that this important information is available to doctors in case of an emergency.

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 Web site at any time.

## WHAT ARE MY RIGHTS AS A RESEARCH STUDY PARTICIPANT?

Taking part in this study is voluntary. You may choose not to take part or you may leave the study at any time. Refusing to participate or leaving the study will not result in any penalty or loss of benefits to which you are entitled. If you decide to stop participating in the study we encourage you to talk to the investigators or study staff first to learn about any potential health or safety consequences. The investigators also have the right to stop your participation in the study at any time. This could be because it is in your best medical interest, your condition worsened, new information becomes available, you had an unexpected reaction, you failed to follow instructions, or because the entire study has been stopped. Information that identifies you may be removed from the data or specimens that are collected as part of this study and could be used for future research or shared with others without additional consent.

You will be given any new information we become aware of that would affect your willingness to continue to participate in the study.

This study will be enrolling students from Wake Forest University and Wake Forest University Medical Center campus. In addition to your rights as a research participant noted in the previous section, as a student, you are under no obligation to participate in this study. You may refuse to participate or withdraw from the study at any time and for any reason without affecting your grades, performance evaluations, or assignments. You will not be pressured into participating in this research study by any statements or implied statements that your grades, performance evaluations or assignments will be affected by your willingness to enroll in the study. Your medical records/information will not be used by the faculty, administration or study staff to make decisions regarding the status of your medical benefits. If you have questions regarding your enrollment in the study and your status as a medical student, please contact the Office of Student Services for additional information.

## FUTURE RESEARCH?

From time to time we have other research studies that you may be eligible to participate in. We are inviting you to allow us to contact you by phone, mail, or both to see if you would be interested in participating in any future studies. By initialing next to the “yes” box below, you are indicating that you would like to give us your phone number, any alternate phone numbers, and address so that we may contact you if another study becomes available that you might qualify for. **To maintain your confidentiality, we will not leave identifiable messages or any identifiable information on letters or envelopes that are mailed to you.** By initialing next to the “no” box below, you are indicating that you do not want study personnel to contact you for any future studies. You may still participate in the current study if you choose “no” and you will not suffer any adverse consequences in doing so.

☐ Yes. I would like to be re-contacted for future studies. I give permission for study personnel to contact me by phone or by mail to inform me of other available studies I may be eligible for. Please initial here\_\_\_\_\_.

☐ No. I do not wish to be re-contacted for any future studies. Please initial here\_\_\_\_\_.

### WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

For questions about the study or in the event of a research-related injury, contact the study investigator, Dr. Colleen Hanlon at [REDACTED]

The Institutional Review Board (IRB) is a group of people who review the research to protect your rights. If you have a question about your rights as a research participant, or you would like to discuss problems or concerns, have questions or want to offer input, or you want to obtain additional information, you should contact the Chairman of the IRB at [REDACTED] or the Research Subject Advocate at [REDACTED].

You will be given a copy of this signed consent form.

### SIGNATURES

I agree to take part in this study. I authorize the use and disclosure of my health information as described in this consent and authorization form. If I have not already received a copy of the Privacy Notice, I may request one or one will be made available to me. I have had a chance to ask questions about being in this study and have those questions answered. By signing this consent and authorization form, I am not releasing or agreeing to release the investigator, the sponsor, the institution or its agents from liability for negligence.

Subject Name (Printed): \_\_\_\_\_

Subject Signature: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ am pm

Person Obtaining Consent (Printed): \_\_\_\_\_

Person Obtaining Consent: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ am pm