Official Title: Evaluation Long-Term Feasibility of Cereset Research for Stressed Healthcare Workers

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Evaluating Long-Term Feasibility of Cereset Research for Stressed Healthcare Workers

Informed Consent Form to Participate in Research
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SUMMARY

You are invited to participate in a research study. The purpose of this research study is to determine the long-term effects of Cereset Research™ (CR), an updated version of HIRREM® (High-resolution, relational, resonance-based, electroencephalic mirroring), a technology utilized in prior research studies. CR is based on the HIRREM approach, but includes upgraded hardware and software, and a standardized series of protocols, chosen primarily by the computer software. You are invited to be in this study because you are a healthcare worker with symptoms of stress.

Your participation in this research will involve 6 study visits, and up to 12 intervention sessions listening to audible tones that are linked to your brainwaves. Participation will last about 1 year.

All research studies involve some risks. A risk to this study that you should be aware of is temporary worsening of sleep, awareness of emotions and/or temporary head fullness/mild headache, or fatigue. It is possible that you may benefit 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. You may speak with your doctor about those choices. 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. If you have questions, suggestions, or concerns regarding this study or you want to withdraw from the study, please contact the Study Coordinator at [redacted] or [redacted].

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 [redacted].

INTRODUCTION

Research studies are designed to gain scientific knowledge that may help other people in the future. Your participation is voluntary. Please take your time in making your decision as to whether or not you wish to participate. Ask your 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?

Prior research studies have shown benefits for use of a technique called HIRREM to improve functioning of brain systems that manage the body's response to trauma and stress, while also reducing symptoms such as insomnia, anxiety, and depressive mood in people with a variety of conditions. HIRREM uses scalp sensors to monitor brain electrical activity, and computer software to translate selected brain frequencies

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into audible tones in real time. Those tones are echoed back to participants via ear buds in as little as four milliseconds, providing the brain an opportunity to self-adjust and balance its electrical pattern. It is noninvasive, which means it will not cause pain or break the skin in any way. The HIRREM technology was created by Brain State Technologies, LLC, Scottsdale, AZ, and is exempt from regulation by the FDA when used for relaxation, stress management, and self-regulation. HIRREM is not approved by the FDA as a medical device, and is not intended to treat, cure, heal, or diagnose any specific disease, mental illness or symptom, and individual results and duration of effects may vary.

The purpose of this research study is to determine the long-term outcomes of CR, an updated version of this technology that is based on the HIRREM approach, and also evaluate feasibility and efficacy of additional intervention sessions over one year. Healthcare workers over the age of 18, who have self-reported symptoms of stress, are eligible to participate in the study. The study will evaluate the use of audible tones linked to current brainwave activity using CR, added to continued use of your current care. This may help your brain to achieve a more harmonized pattern, and reduce your symptoms. This is a randomized, controlled clinical study. All participants will receive a series of 4 Cereset sessions over a 10 day period. Afterwards, at your V2 data collection visit, you will find out which group you are in. There are two study groups. One is the Intervention Group (I) which will receive sessions every 6 weeks and the other group is the Control Group (C) that will continue current care and not receive any additional Cereset Sessions.

Cereset Research is an investigational device. This means it has not been approved by the U.S. Food and Drug Administration (FDA). Drugs and devices that do not have approval by the FDA cannot be sold or prescribed by your physician.

HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

This study will enroll up to 105 participants. Half will be randomly assigned to the Intervention Group and half to the Control Group. The goal is to have 90 people complete the intervention and study visits.

WHAT IS INVOLVED IN THE STUDY?

If you choose to participate in this study, you will be scheduled to be at the Department of Neurology, Suite 504, Piedmont Plaza II Building, for 6 study visits and 4 sessions of CR. Visit #1 is an enrollment and baseline data collection visit that will take approximately 45 minutes. During this visit, the study will be explained to you in detail, any questions you have will be answered, your informed consent will be obtained, a brief medical history will be reviewed, you will also complete some questionnaires on a computer, and have your heart rate monitored. You will then begin a course of sessions. Sessions will begin within 0-7 days of the enrollment visit. You will continue your other current care while you receive 4 sessions over 10 business days. On the same day as your 4th session, you will complete Visit #2 to collect additional data. You will then be randomized to either the Intervention Group or the Control Group. If you are in the Intervention Group, you will receive a maintenance Cereset session every 6 weeks. If drawn for the Control group, you will not receive any additional sessions. Both groups will continue their current care regimen. All participants, regardless of group, will follow the same schedule for follow-up visits, also known as data collections. A follow-up data collection will be completed virtually (Visit #3) 3 months after your initial intervention period. You will then return to the office to complete Visit #4, 6 months post initial intervention. Nine months post initial intervention, you will complete your Visit #5 data collection virtually. Finally, you will return to the office for your last Visit #6 data collection 12 months post initial intervention period.

At Visit #1 (V1, enrollment, 0-7 days prior to intervention):

- You will be asked to provide informed consent to participate in the study.
- You will be asked to complete some questionnaires on a computer that include questions regarding your sleep pattern, general daily practices, stress, and social support. These questions have no right or wrong answers. You will simply respond to the questions based on your current experiences.
- Your blood pressure will be taken.
- Your heart rate will be monitored for 10 minutes while you are sitting down.
- All activities for V1 will take about 45 minutes to complete.

At Visit #2 (V2, for repeat data collection, after the completion of your last session):

- You will be asked to complete similar questionnaires to the enrollment visit.
- Your blood pressure will be taken.
- Your heart rate will be monitored for 10 minutes.
- The V2 visit is expected to take up to 30 minutes.

At Visit #3 (V3, ***Virtual*** for repeat data collection, 3 months post intervention period)

- You will be asked to complete similar questionnaires to the enrollment and V2 visits.
- The V3 visit is expected to take about up to 30 minutes.

At Visit #4 (V4, for repeat data collection, 6 months post intervention period):

- You will be asked to complete similar questionnaires to the enrollment and V2 visits.
- Your blood pressure will be taken.
- Your heart rate will be monitored for 10 minutes.
- The V4 visit is expected to take up to 30 minutes.

At Visit #5 (V5, ***Virtual*** for repeat data collection, 9 months post intervention period):

- You will be asked to complete similar questionnaires to the enrollment and V2 visits.
- The V5 visit is expected to take up to 30 minutes.

At Visit #6 (V6, for repeat data collection, 12 months post intervention period):

- You will be asked to complete similar questionnaires to the enrollment visit.
- Your blood pressure will be taken.
- Your heart rate will be monitored for 10 minutes.
- The V6 visit is expected to take up to 30 minutes.

All baseline measures will be collected during the enrollment visit (V1), which will require 45 minutes. Zero to seven days after V1, participants will commence a series of 4 CR sessions. CR sessions are typically less than 1 hour in length. The first two sessions must be received over 5 calendar days and all four should be completed within 10 days.

Sessions will begin with a Technologist checking in to ask how you are doing. At the beginning of Session #1, there will be a short brainwave assessment to make a map of your brain frequencies. This is done by placing nickel-sized plastic and metal sensors, on several locations on your head. Data will be recorded at each location with your eyes closed.

During the sessions, you will be comfortably at rest, sitting or reclining. Sensors will be placed over the

specific areas on the scalp corresponding with brain regions/lobes to be observed. Sessions will last about 60 minutes. Protocols will be done in pairs to limit interruptions for sensor placement changes. The computer automatically switches to the other sensor pair. It will be requested that your eyes be closed during the sessions. It is acceptable to just relax during the session, or to fall asleep if desired.
If schedule conflicts arise for your sessions or study visits, please notify the study team as soon as possible.

If you request it, we can provide you with information about your study participation, which you may share with your personal health care provider. Even if you do not wish to have any information sent to your health care provider, you can still participate in this research study.

HOW LONG WILL I BE IN THE STUDY?

Participation in this study will last about 1 year. Study time may be longer if follow up data collection visits are scheduled in the later part of the study window.

You can stop participating at any time during the course of this research study. 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.

WHAT ARE THE RISKS OF THE STUDY?

Based on experience reported by Brain State Technologies, case management support, feedback from their clients, and feedback from the HIRREM provider community, as well as results from IRB-approved studies of evaluating HIRREM at WFSM (now about 800 participants who have received HIRREM), the study team is not aware of any serious adverse events resulting from HIRREM sessions.

Non-serious, temporary effects have been reported by participants in prior studies. That includes things like being more aware of, or more affected by their feelings, or by those around them, changes in sleep, including dreams, emotions, energy levels, or a feeling of fullness in the head or mild headache. In the course of provision of HIRREM as part of eight IRB-approved studies at WFSM, such non-serious, temporary effects have been estimated to occur in ten percent or less of participants. In a recent placebo controlled trial of HIRREM for moderate to severe insomnia (n = 107), such non-serious, temporary adverse effects that were judged to go beyond the intensity, expression, or nature of pre- existing health conditions, were reported by 10.7% in the HIRREM group, and 13.7% in the placebo group. All episodes were brief, typically resolving in hours to 1-2 days, but at the most resolving in less than one week. Skin irritation at the site from the paste used to affix a sensor to the scalp was reported by one participant (personal communication). A participant in another CR study, who completed the Cereset Research intervention 3 weeks prior, committed suicide. There have now been over 14,000 people who have used this generation of the technology in clinical practice, and over 416 in similar research studies, with no other reports of serious adverse events. It is not believed that the Cereset Research intervention played a causative role in this tragic event.

Since Cereset Research uses the same core technology and approach as HIRREM, with what is expected to be less time of intervention, it is anticipated that the safety profile for CR will be similar to that of HIRREM.

There also may be other side effects 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.

You may find some of the questions involved in the testing during data collection visits as stressful. If you feel uncomfortable, please let your doctor or the research staff know about this.

As part of this study, you will be asked questions about previous physical and non-physical trauma, current stresses, and mood. 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.

In addition, there is a slight risk of a breach of confidentiality. We will do our best to protect your confidential information. 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.

WHAT HAPPENS IF I 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. Charles Tegeler at [redacted] or [redacted]

ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

If you agree to take part in this study, there may or may not be direct benefit to you. We hope the information learned from this study will benefit other people in the future. A benefit of participation in this study may be improvement in your symptoms.

WHAT OTHER CHOICES ARE THERE?

You do not have to be in this study. Participation is completely voluntary. You should talk to your doctor about all the choices you have and any alternate recommendations prior to enrollment.

WHAT ARE THE COSTS?

There are no costs to you for taking part in this study. All costs related directly to study procedures, including the sessions, will be paid for by the study.

WILL I BE PAID FOR PARTICIPATING?

Participants in this study will not receive any monetary compensation. The findings from this research may result in the future development of products that are of commercial value. There are no plans to provide you with financial compensation or for you to share in any profits if this should occur.

WHO IS SPONSORING THIS STUDY?

This study is being supported by a research grant from The Susanne Marcus Collins Foundation, Inc. The sponsor is providing money or other support to Wake Forest University Health Sciences to help conduct this study. The researchers do not hold a direct financial interest in the sponsor or the product being studied.

WILL MY 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.

Participant information may be provided to Federal and other regulatory agencies as required. The Food and Drug Administration (FDA), for example, may inspect research records and learn your identity if this study falls within its jurisdiction.

WHAT ABOUT MY HEALTH INFORMATION?

In this research study, any new information we collect from you about your health or behaviors is considered Protected Health Information. The information we will collect for this research study includes but is not limited to, such things as your name, address, telephone number, and date of birth.

Brain State Technologies, LLC (BST) might help assist with brain pattern analysis. To accomplish this, BST will be provided with the first 8 characters from the randomly generated, 36 alpha numeric character identifier that the HIRREM software generates for each participant's brain frequency and amplitude data, along with the participant's age and gender, which are believed important for understanding brain patterns. No other participant-specific information is provided.

Institutionally approved videoconferencing, email, and phone might be utilized as methods of communication. Texting, email, and phone calls may be used for appointment reminders or rescheduling. If this research study involves the diagnosis or treatment of a medical condition, then Protected Health Information collected from you during this study may be placed in your medical record, and may be used to help treat you, arrange payment for your care, or assist with Medical Center operations.

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.

Any Protected Health Information collected from you in this study that is maintained in the research records will be kept indefinitely. This authorization does not expire. You will not be able to obtain a copy of your Protected Health Information in the research records until all activities in the study are completely finished.

You can tell Dr. Charles H. Tegeler that 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:

Charles H. Tegeler, M.D.
[redacted]

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 North Carolina Baptist Hospital (NCBH) medical record will be created for you anyway to ensure that this important information is available to doctors in case of an emergency. It is also created for the purpose of scheduling your study visits and CR sessions.
Your name, address, phone number, email address, gender, race/ethnicity, employment status and date of birth, and the fact that you are participating in a research study, will be entered. No personal health information regarding you, or this research study, will be entered. Only in the case of emergency will other personnel directly involved with your care have access to this information in WakeOne.

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.

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 you failed to follow instructions, your condition worsened or the study has been stopped.

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 may enroll employed healthcare workers. In addition to your rights as a research participant noted in the previous section, 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 impact to your employment. You will not be pressured into participating in this research study by any statements or implied statements that your performance evaluations or job status 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.

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. Charles H. Tegeler at [redacted] or [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 if 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 offered 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