RESEARCH SUBJECT CONSENT FORM
SGB for ME

TITLE:	Effect of Stellate Ganglion Block on ME/CFS Symptoms and Metabolites
PROTOCOL NO.:	20193104 WCG IRB Protocol #20226895
SPONSOR:	Solve M.E.
INVESTIGATOR:	Deborah L. Duricka, PhD 2925 Debarr Road, Suite 240 Anchorage, Alaska 99508 United States
STUDY-RELATED PHONE NUMBER:	907-339-4650 (24 hours)

Taking part in this research is voluntary. You may decide not to participate, or you may leave the study at any time. Your decision will not result in any penalty or loss of benefits to which you are otherwise entitled.

If you have any questions, concerns, or complaints or think this research has hurt you, talk to the research team at the phone number(s) listed in this document.

RESEARCH CONSENT SUMMARY

You are being asked for your consent to take part in a research study. This document provides a summary of this research. It describes the key information needed by most people to decide whether to take part in this research. Later sections of this document will provide all relevant details.

What should I know about this research?

- Someone will explain this research to you.
- Taking part in this research is voluntary. Whether you take part is up to you.
- If you don't take part, it won't be held against you.
- You can take part now and later drop out, and it won't be held against you.
- If you don't understand, ask questions.
- Ask all the questions you want before you decide.

How long will I be in this research?

We expect that your taking part in this research will be about 14 weeks, however total participation time will vary depending on when you schedule your exit visit.

Why is this research being done?

The purpose of this study is to collect data on how the procedure ("stellate ganglion block" aka SGB) affects the symptoms of ME/CFS over time, and what changes in the body occur when symptoms change.

What happens to me if I agree to take part in this research?

If you decide to take part in this research study, the general procedures include:

- Answering questions about your general health and your ME/CFS symptoms
- Giving about 1 milliliter (1/5th of a teaspoon) of saliva at home and bringing it with you to the clinic. You must refrain from consuming alcohol the night before, and you must rinse your mouth with water upon arising for the day and then collect saliva ten minutes later (before eating or brushing your teeth).
- Giving about 30 milliliters of blood (about 3 vials or 2 tablespoons) at three clinic visits
- Performing a test that measures how your heart rate and blood pressure are affected when you change your posture (lying down vs. standing up) at three clinic visits
- Performing a test online to measure your cognitive function on three occasions
- Receiving two stellate ganglion blocks, with at least 18 hours in between each block, once per week for three weeks (total of six SGBs)
- Using a wearable device on your finger and an app on your smart phone to measure your sleep at night and your resting heart rate for 5 minutes in the morning while in bed

Could being in this research hurt me?

The most important risks or discomforts that you may expect from taking part in this research include the risks and immediate side effects of a stellate ganglion block.

- The stellate ganglion block may cause some symptoms on the blocked side, including a droopy eyelid, redness of the eye, pupil becoming smaller, facial flushing (blushing), reduced or lack of sweating on the affected side, a hoarse or rough voice, reduced feeling in the arm on the affected side and pain at the injection site. It is important to note that while these may be uncomfortable, these are considered normal side effects of the procedure and they typically wear off within a few hours.
- Possible rare complications (unexpected side effects) that *could* occur include allergic reaction to the medication, infection at the injection site, seizure, nerve damage, or a collapsed lung.

The stellate ganglion block is considered a routine procedure for the treatment of PTSD, Raynaud's syndrome, and other conditions, using it to treat ME/CFS is considered experimental.

Will being in this research benefit me?

There are possibly no direct benefits to you if you participate in this study. However, your data will be available to your study doctor and might be used to make better decisions related to your own treatment options and to better understand the effectiveness of your treatment. Additionally, the information you provide may add to a greater understanding of ME/CFS and other chronic diseases.

What other choices do I have besides taking part in this research?

Instead of being in this research, you may choose not to participate. If you choose not to participate then your treatment or standard care will not be affected in any way based on this choice.

DETAILED RESEARCH CONSENT

You are being asked for your consent to take part in a research study being done by Dr. Deborah Duricka (study investigator) and Dr. Luke Liu (study doctor) at Neuroversion, Inc because you have been diagnosed with myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), and because you may be a candidate for the stellate ganglion block procedure with the goal of helping with your ME/CFS symptoms. A person who takes part in a research study is called a research subject, or research participant.

What should I know about this research?

- Someone will explain this research to you.
- This form sums up that explanation.
- Taking part in this research is voluntary. Whether you take part is up to you.
- You can choose not to take part. There will be no penalty or loss of benefits to which you are otherwise entitled.
- You can agree to take part and later change your mind. There will be no penalty or loss of benefits to which you are otherwise entitled.
- If you don't understand, ask questions.
- Ask all the questions you want before you decide.

Why is this research being done?

The purpose of this research study is to collect data on how the procedure ("stellate ganglion block" aka SGB) affects the symptoms of ME/CFS over time. The SGB procedure involves receiving an injection of local anesthetic (numbing medicine) to block some of the nerves located in the neck. An injection at these nerves may reduce symptoms such as pain, swelling, and may improve mobility. The SGB procedure has been shown to affect the autonomic nervous system, which manages bodily functions such as heart rate and immunity, but the full effects on the body and the how long they last have not yet been measured.

The goal is to collect data on the severity of your symptoms and the amount of specific chemicals in your body ("metabolites") before and after you receive SGB to determine if SGB could be studied as a treatment for ME/CFS.

About ten subjects will take part in this research.

How long will I be in this research?

We expect that your active participation in this research will last approximately 14 weeks. You will be invited to a study exit appointment after all the data has been analyzed. This exit appointment could take place up to a year after you begin the study.

What happens to me if I agree to take part in this research?

If you agree to take part in this research, you will first go through a screening process to make sure that you meet all requirements for the study. If you are eligible, you will be asked to visit a study site where we will collect initial (or "baseline") data and samples before you receive your first SGB treatment (one on each side of the body, separated by 18 hours). You will have a total of 6 SGB treatments over a period of 3 weeks. At 2 weeks and 2 months after your last SGB treatments you will be asked to return to the study site where we will collect data and samples. Much of the data that we collect from you can take place wherever you like using a smartphone.

Study visits will take place at Neuroversion at 2925 Debarr Rd Ste 240 in Anchorage, Alaska. The only exception is the exit visit, which can take place over the phone or by video conference. You can see the order of events in the table below. Detailed descriptions of activities follow the table.

Timeline	Schedule	Event
Week 0	At subject's convenience	Review informed consent form
	Visit 1: Screening and enrollment	Informed consent, medical history & general exam. Download and start using SleepImage app with wearable.
Week 1	At subject's convenience	Heart rate and sleep data collection begins
Week 2	At subject's convenience	DSQ-2 + SF-36PF assessments
	At subject's convenience	BrainCheck neurocognitive test
	Visit 2: Baseline	10-minute NASA lean test
		Blood collected and saliva cartridges taken home*
Week 3	Night before Visit 3	Refrain from alcohol
	Morning of Visit 3	Collect AM saliva at home and chill sample
	Visit 3: Treatment 1a	Bring in AM saliva baseline sample^; SGB (one side)
	Visit 4: Treatment 1b	SGB (opposite side, 16-32 hours after prior SGB)
Week 4	Visit 5: Treatment 2a	SGB (one side)
	Visit 6: Treatment 2b	SGB (opposite side, 16-32 hours after prior SGB)
Week 5	Visit 7: Treatment 3a	SGB (one side)
	Visit 8: Treatment 3b	SGB (opposite side, 16-32 hours after prior SGB)
Weeks 6-7	Recovery period	N/A
Week 8	At subject's convenience	DSQ-2 + SF-36PF assessments
	At subject's convenience	BrainCheck neurocognitive test
	Night before Visit 9	Refrain from alcohol
	Morning of Visit 9	Collect AM saliva at home and refrigerate sample
	Visit 9: Follow-up 1 (Two weeks post-treatment)	Bring in AM saliva sample
		10-minute NASA lean test, blood collected
Weeks 9-13	Recovery period	Recovery period
Week 14	At subject's convenience	DSQ-2 + SF-36PF assessments
	At subject's convenience	BrainCheck neurocognitive test
	Night before Visit 10	Refrain from alcohol
	Morning of Visit 10	Collect AM saliva at home and refrigerate sample, end heart rate and sleep data collection
	Visit 10: Follow-up 2 (Two months post-treatment)	Bring in AM saliva sample & SleepImage device
		10-minute NASA lean test, blood collected
Various	Visit 11: Exit appointment	Individual results shared
We will allow: +/- 1 day for each treatment (3-day window), +/- 3 days for "Week 8" activities (5-day window), and +/- 4 days for "Week 14" activities (8-day window). *AM saliva collection devices for all three samples will be sent home with patients at baseline visit. ^Baseline AM saliva may be brought in to either Visit 3 or Visit 4.		

SCREENING AND ENROLLMENT
This will take place during your first visit to the clinic. It may take several hours, although much of that time may be spent resting between activities. At this visit, we will verify that your consent to participate is truly informed and freely given. You will receive a signed copy of your consent form.

We will then ask you questions about your medical history and general health to make sure that you qualify to be in the study. If you do, you will then go through a brief general medical exam to establish that you are healthy enough to take part in this study. If the study clinician feels that you should not take part, then your participation in the study will end.

If the study clinician feels that you are healthy enough to take part and that you meet the eligibility criteria, then you will be enrolled in the study.

ACTIVITIES
The following will take place before your first SGB to establish a "baseline" and twice after you receive each SGB ("follow-up 1" and "follow-up 2") to determine how the procedure has affected you:

- **Sleep and heart rate tracking.** After you have been enrolled in the study, you will receive a SleepImage device (a ring that sits on your finger at night) to use during the study. We will help you download the SleepImage app on your smartphone and show you how to use the ring and the app. From this point on until the study ends, you should use the app every night, if possible. Every night before bed, you will turn on the device, pair it with the app using Bluetooth, and begin the recording for the night. When you wake up in the morning, you should remain in bed for 5 minutes to allow the device to measure your resting heart rate (RHR), from which your heart rate variability (HRV) will be calculated. Then you will stop the recording and upload it to the SleepImage website. We will show you how to do this and you will be provided instructions to take with you. It's OK if you can't use the device every night, but you must record data at least 3 nights out of every week.

- **DSQ-2 and SF-36PF surveys.** These surveys will ask you questions about the frequency and severity of your symptoms, your activities, and your ability to perform certain activities. These questions are meant to measure how much ME/CFS affects your life. Depending on your energy levels, it may take you up to 30 minutes to complete these surveys. You will take these surveys at the beginning of the study to establish your "baseline" values. After treatment you will take a modified (shortened) version of these surveys to determine if anything has changed.

- **Neurocognitive test.** You will take an online, user-friendly, puzzle-style test that you can complete wherever you like. For the sake of consistency, you should take it at the same time and in the same location. It should take about 15 minutes to complete. Activities in the test will include remembering numbers or shapes presented to you, reacting to numbers, colors, or shapes on the screen, and selecting from amongst different choices. The instructions for each activity will be given to you and you will have the opportunity to briefly practice each activity before being tested.

- **Blood collection.** A nurse (RN) in the clinic will collect approximately 30 mL (about two Tablespoons) of your blood.

- **Saliva collection.** You will be given a collection device (a tube and a swab) in a Ziploc bag to take home with you. You must refrain from alcohol the night before your first stellate ganglion block and your 2-week and 2-month post-treatment visits. In the morning when you get out of bed on those days, you will rinse your mouth with water. DO NOT BRUSH YOUR TEETH OR EAT. Ten minutes after rinsing your mouth, you will label the collection tube with the time of day. You will chew on the synthetic swab for about 1 minute to collect saliva, then place the swab in the collection tube. You will place your collection tube containing the swab in a Ziploc bag, add 1-2 ice cubes, and bring it with you to your appointment in the clinic that day.

- **10-minute NASA Lean Test.** This test measures your heart's ability to adjust to changes in posture (lying down vs. standing up). You will be asked to stop taking certain medications a few days prior to this test if it is medically safe to do so, because certain medications will affect the test results. You will need to limit extra intake of salt and fluids the day before the test. On the day of the test, you will come to the clinic, remove your shoes and socks, and lie on an exam table. We will take your blood pressure and pulse. When these numbers are stable, you will stand up and lean your shoulders (only) against a wall for ten minutes, during which time your blood pressure and pulse will be taken every minute. We will ask you if you are feeling light-headed or dizzy. If this happens, the test will be stopped and considered complete.

TREATMENT
The treatment phase will last three weeks. You will receive a total of 6 stellate ganglion blocks over the three-week treatment period (two treatments per week). Each week you will receive two SGBs separated by one day (at least 16 hours) to ensure safety, but less than 32 hours apart.

At each treatment visit, we will take your vitals (BP and pulse) before the procedure, which generally takes less than 15 minutes. You will lie on your back with your neck extended and Dr. Luke Liu MD will first numb one side of your neck with a medicine called lidocaine. Next, the study doctor will use an ultrasound probe to identify important areas near your stellate ganglion (which itself cannot be seen with ultrasound). The stellate ganglion is a collection of nerves found in the neck area. Finally, he will inject a numbing medicine called bupivacaine near the stellate ganglion, which will prevent the ganglion from sending 'fight or flight' signals.

You should plan to be at the clinic for an hour so that you can rest after your treatment. SGB is generally well tolerated, but to make sure of this we will monitor your vitals until we are satisfied that it is okay for you to leave the clinic. This procedure, as well as the type and amount of medication, is used routinely to treat PTSD, Raynaud's syndrome, and other conditions, but using it to treat ME/CFS is considered experimental.

RESULTS AND EXIT
After all study data has been collected and analyzed, we will share your clinically relevant data with you. However, you should note that the blood and saliva tests will be performed in a research lab rather than a "clinical lab," which means that the results cannot be added to your medical record. The results may still help you and your doctor make decisions about your treatment in the future.

What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible for:

- Communicating with the study doctor and study staff if you have any difficulties completing study activities.
- Telling the study doctor about any new, unusual, or worsening of previous symptoms even if you do not think they are important.
- Telling the study doctor about any changes in your general health, such as contracting a cold or becoming pregnant.
- Ensuring that you do not start, stop or make changes to any of the medications you are currently taking without first discussing this with your study doctor.
- Ensuring that you do not undergo procedures that may affect your symptoms without first discussing this with your study doctor.
- Following instructions from the study doctor and study staff.

You must be willing/able to complete the study surveys on your personal device through email or text message. You must provide your personal mobile phone number and/or email address in order to participate. You will not pay anything more than what you would normally be charged by your mobile phone/internet service provider to receive text messages/emails related to survey completion.

If you do not want to use your personal device and/or do not want to respond to surveys by text and/or email, you will not be able to participate in this study.

Could being in this research hurt me?

Your research study doctor will inform you about the risks that are related to the stellate ganglion block procedure and the 10-minute NASA Lean Test. The study does not require any additional procedures other than the collection of blood and saliva, and the completion of surveys.

1) The most important risks or discomforts that you may expect from taking part in this research are those connected to the stellate ganglion block procedure. It is important to note that using SGB *to treat ME/CFS* is considered experimental.

   The stellate ganglion block may cause some symptoms that can last until the local anesthetic wears off (generally a few hours).

   - On the side of your body that receives SGB, you will ***probably*** experience the following:
     - Droopy upper eyelid
     - Redness of the eye
     - Small pupil
     - Facial flushing (blushing)
     - Reduced or lack of sweating on the affected side
   - On the side of your body that receives SGB, you ***may*** experience the following:
     - Hoarse or rough voice
     - Reduced feeling in the arm on the affected side
     - Pain at the injection site
     - Headache

It is important to note that these are normal side effects of the procedure and they wear off within a few hours.

In addition, there is a risk for complications from the procedure, which are usually immediately obvious:

- Possible **rare** complications that ***could*** occur include
    - Seizure if the anesthetic is accidentally injected into a nerve or artery
    - Infection at the injection point
    - Nerve damage
    - Collapsed lung
    - Allergic reaction to one of the numbing medications used to perform this procedure

2) There are risks and discomforts associated with the 10-minute NASA Lean Test.
    - Dizziness, or near-fainting (the study staff will stop the test if you experience this)
    - Post-exertional malaise
    - The inconvenience of visiting the study site

3) Risks and discomforts associated with completing surveys and BrainCheck (neurocognitive test) include:
    - Potential anxiety related test performance
    - The inconvenience of completing surveys
    - Post-exertional malaise

4) Risks and discomforts associated with having your blood and saliva taken include:
    - Potential anxiety related to the collection of blood
    - Pain or bruising at the needle site
    - Infection at the needle site
    - The inconvenience of visiting the study site

5) Risks and discomforts associated with measuring your sleep and heart rate include:
    - Potential anxiety related to having your sleep and heart rate recorded
    - The inconvenience of wearing the device
    - The inconvenience of recording and uploading data

6) There is a possible risk that there could be a security breach resulting in the access of information about you. Safeguards are in place to minimize this risk. In the event there is a breach, all participants will be notified.

In addition to these risks, taking part in this research may harm you in unknown ways.

Will it cost me money to take part in this research?

Taking part in this research will not have added costs to you. The sponsor will not pay patients for any procedures or visits.

Will being in this research benefit me?

There are no benefits to you by taking part in this research (because you can receive the stellate ganglion block procedure outside of the study). We cannot promise any benefits to others from your taking part in this research. However, possible benefits to others include greater understanding of ME/CFS symptoms and causes.

What other choices do I have besides taking part in this research?

Instead of being in this research, you may choose not to participate. If you choose not to participate then your treatment or standard care will not be affected in any way based on this choice. You may receive a stellate ganglion block procedure outside of this study.

What happens to the information collected for this research?

Your private information and your medical record will be shared with individuals and organizations that conduct or watch over this research, including:

- The research sponsor, Solve M.E.
- People who work with the research sponsor
- Government agencies, such as the Food and Drug Administration (FDA)
- WCG IRB, the Institutional Review Board (IRB) that reviewed this research

We may publish the results of this research. However, we will keep your name and other identifying information confidential.

We protect your information from disclosure to others to the extent required by law. We cannot promise complete secrecy.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time. (NCT05664711)

Data or specimens collected in this research might be used for future research or distributed to another investigator for future research without asking for additional consent, but any identifying information will be removed first.

Who can answer my questions about this research?

If you have questions, concerns, or complaints, or think this research has hurt you or made you sick, talk to the research team at the phone number listed above on the first page.

This research is being overseen by WCG IRB. An IRB is a group of people who perform independent review of research studies. You may talk to them at 855-818-2289 or researchquestions@wcgirb.com if:

- You have questions, concerns, or complaints that are not being answered by the research team.
- You are not getting answers from the research team.
- You cannot reach the research team.
- You want to talk to someone else about the research.
- You have questions about your rights as a research subject.

What if I am injured because of taking part in this research?

If you experience a medical emergency, do not wait to seek emergency services but do inform the study staff when you are able to do so. If you are injured or get sick during the study, call the study doctor as soon as possible about your condition. You may be directed to your primary care physician, a specialist, an urgent care center, or the ER to receive appropriate medical treatment. You or your insurance company will be billed for any treatment.

If you are injured as a result of this study, you do not give up your right to pursue a claim through the legal system.

Can I be removed from this research without my approval?

The person in charge of this research can remove you from this research without your approval. Possible reasons for removal include:

- It is in your best interest
- You have a side effect that requires stopping the research
- You become pregnant
- You need a treatment that is not allowed in this research
- You fail to follow directions for study participation
- You no longer meet the study requirements
- You are injured or get sick during the study
- The sponsor stops the study at your clinic site
- The research is canceled by the sponsor

We will tell you about any new information that may affect your health, welfare, or choice to stay in this research.

Will I receive information about new findings that might affect my decision to continue participation?

We will tell you about any new information that may affect your decision to participate in this research. Your study doctor will contact you as soon as possible and will discuss whether you should continue in the study. If you decide to continue in the study, you may be asked to sign a new informed consent form.

Also, if new information becomes available, your study doctor may stop your participation without your consent. If this happens the reasons will be explained.

What happens if I agree to be in this research, but I change my mind later?

If you decide to leave this research, contact the research team so that the investigator can remove you from automated research emails and surveys, and possibly suspend analysis of your data and samples (depending on when you withdraw consent).

If you do withdraw your consent during the study, any information, data and samples already collected will be retained to ensure the results of the study can be measured properly and to comply with law. The study doctor will no longer collect personal data or samples from you for this study after your consent is withdrawn.

Will I be paid for taking part in this research?

You will not be paid for taking part in this research.

Statement of Consent:

- I have received verbal information on the above study and have read and understand the Informed Consent Form.
- I have been given enough time to decide whether or not to participate in this study.
- I have had the opportunity to ask questions about the study and I am satisfied with the answers I have been given.
- I have had the opportunity to use family support, or a friend to help me understand the study.
- I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without this decision affecting my medical care.
- If I decide to withdraw from the study, I understand that the information and samples collected from before I withdraw may continue to be used.
- I consent to the research staff collecting personal data and information from my medical records, including information about my health.
- I authorize the disclosure of my health information to the parties listed in this consent and their use of my health information for the purposes described above.
- I understand that my participation in this study is confidential and that no material that could identify me personally will be used in any publications or other scientific reports about this study.
- I understand that my information, data, and samples may be used in future research without an additional consent form, but any information personally identifying me (name, date of birth, etc.) will be removed first.
- I understand the possible risks and benefits of participating in this study. I know who to contact if I have any questions about the study.
- I understand my responsibilities as a study participant.

Your signature documents your consent to take part in this research.

_____

Printed name of adult subject capable of consent

_____ _____

Signature of subject capable of consent | Date

My signature below documents that the information in the consent form and any other written information was accurately explained to, and apparently understood by, the subject, and that consent was freely given by the subject.

Printed name of person obtaining consent

Study role of person obtaining consent

Signature of person obtaining consent

Date