Official Title	A PHASE II TRIAL OF THE IMMUNOGENICITY OF A DNA PLASMID BASED VACCINE (STEMVAC) ENCODING Th1 SELECTIVE EPITOPES FROM FIVE ANTIGENS ASSOCIATED WITH BREAST CANCER STEM CELLS (MDM2, YB1, SOX2, CDH3, CD105) IN PARTICIPANTS WITH TRIPLE NEGATIVE BREAST CANCER
NCT Number	NCT05455658
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Fred Hutchinson Cancer Center
University of Washington

Research Study Informed Consent Document

Study Title for Participants: Administering STEMVAC to Patients with Triple Negative Breast Cancer to Study Immune Response

Official Study Title for Internet Search on http://www.ClinicalTrials.gov:
UWI20-00-01, A Phase II Trial of the Immunogenicity of a DNA Plasmid Based Vaccine (STEMVAC) Encoding Th1 Selective Epitopes from Five Antigens Associated With Breast Cancer Stem Cells (MDM2, YB1, SOX2, CDH3, CD105) in Participants with Triple Negative Breast Cancer

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Overview and Key Information

What am I being asked to do?

We are asking you to take part in a research study. This study has public funding from the National Cancer Institute (NCI), part of the National Institutes of Health (NIH) in the United States Department of Health and Human Services. We do research studies to try to answer questions about how to prevent, diagnose, and treat diseases like cancer.

We are asking you to take part in this research study because you have previously had triple negative breast cancer and are at a higher risk of developing triple negative breast cancer again.

Taking part in this study is your choice

You can choose to take part, or you can choose not to take part in this study. You also can change your mind at any time. Whatever choice you make, you will not lose your access to medical care or any legal rights.

This informed consent document has key information to help you make your choice. Take time to read it. Talk to your doctor, family, or friends about the pros and cons of taking part in the study. It's important that you have as much information as you need and that all of your questions are answered. See the section "Where can I get more information?" for resources on more clinical trials and general cancer information.

Why is this study being done?

This study is being done to answer the following question:

Can we increase your immune system with the help of STEMVAC vaccine to help fight cells in your body that could cause breast cancer?

We are doing this study because we want to find out if this approach is better or worse than the usual approach for breast cancer prevention. The term "usual approach" means the kind of care most people who were previously diagnosed with breast cancer will get.

We are doing this study because we want to find out if STEMVAC can wake up the immune system in those who have had a diagnosis of triple negative breast cancer and have been treated. This vaccine works by boosting the immune system to recognize and destroy the invader cancer cell proteins that are causing the disease. We will measure how effective this vaccine is in stimulating your immune system.

The STEMVAC vaccine will be administered in combination with Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF), which is an ingredient that will help to create a stronger immune response to the vaccine.

What is the usual approach to my breast cancer?

The usual approach for people who have a history of breast cancer is to be followed regularly by a doctor to watch for recurrence of cancer. This may include breast exams, bloodwork, physical exams, and mammograms.

What are my choices if I decide not to take part in this study?

- You may choose to have the usual approach described above.
- You may choose to take part in a different research study, if one is available.
- You may choose to have another immune based treatment
- You may choose not to be treated.

What will happen if I decide to take part in this study?

If you decide to take part in this investigational study, for the first thirteen months you will be given 300 mcg of STEMVAC with 100mcg of GM-CSF vaccine, once a month for 3 months. In addition, you will receive 2 booster vaccines. The first booster will be 3 months after the last vaccine and the second booster will be 6 months after the first booster. You will have a blood draw at each visit to ensure your lab values are within normal range while on study and a pregnancy test at your Baseline Visit and prior to each vaccination. Questionnaires regarding your tobacco and alcohol usage will be completed at your Baseline Visit and End of Treatment Visit. A tetanus diphtheria (Td) vaccination, if available, will be given along with your first vaccination if you have not received a Td or Tdap vaccination in the 6 months prior to your first vaccination.

After you finish the vaccination with boosters your study doctor will continue to follow your condition for an additional month and watch for side effects. You will also be followed annually for 5 years. In that time we will contact your medical oncologist or primary care physician yearly to check on how you are doing. This will be done by having you sign a release of information form, allowing us to contact your oncologist or physician if they are outside of our medical system. We will obtain clinic notes, lab values (lab results from blood draws) and any imaging reports from your doctor and continue to look for any vaccine side effects. These will be collected from your oncologist or physician electronically, by mail or by fax.

What are the risks and benefits of taking part in this study?

There are both risks and benefits to taking part in this study. It is important for you to think carefully about these as you make your decision.

Risks

We want to make sure you know about a few key risks right now. We give you more information about study-specific risks in a later section.

If you choose to take part in this study, there is a risk that the STEMVAC with 100mcg of GM-CSF vaccine may not change the way your immune system responds and so it may not be better than the usual monitoring done to watch for cancer recurrence.

There is also a risk that you could have side effects from the STEMVAC with 100mcg of GM-CSF vaccine. These side effects may be worse than you might have with the usual approach of monitoring.

Some of the most common side effects that researchers know about are:

- Pain and discomfort during the vaccine administration
- Redness and tenderness at injection site
- Flu-like symptoms

- Itching at injection site
- Tired
- Headache

There may be some risks that the study doctors do not yet know about.

Benefits

Participating in this study may or may not help you because we do not know how the STEMVAC with 100mcg of GM-CSF vaccine will compare to the usual approach of monitoring. This study may help us learn things that could help people in the future.

If I decide to take part in this study, can I stop later?

Yes, you can decide to stop taking part in the study at any time. If you stop receiving STEMVAC with 100mcg of GM-CSF early for any reason, we will continue to complete your scheduled visits, if you are willing.

If you decide to stop, let your study doctor know as soon as possible. It's important that you stop safely. If you stop, you can decide if you want to keep letting the study doctor know how you are doing.

Your study doctor will tell you about new information or changes in the study that may affect your health or your willingness to continue in the study.

Are there other reasons why I might stop being in the study?

Yes. The study doctor may take you off the study if:

- Your health changes and the study is no longer in your best interest.
- New information becomes available and the study is no longer in your best interest.
- You do not follow the study rules.
- You become pregnant while on the study.
- The study is stopped by the Institutional Review Board (IRB), Food and Drug Administration (FDA), or study sponsor (NCI). The study sponsor is the organization that oversees the study.

It is important that you understand the information in the informed consent before making your decision. Please read, or have someone read to you, the rest of this document. If there is anything you don't understand, be sure to ask your study doctor or nurse.

What is the purpose of this study?

The purpose of this study is to test your immune system's response to STEMVAC with 100mcg of GM-CSF. This is an investigational study. This study drug is not approved by the Food and

Drug Administration (FDA) and the vaccine is not yet proven safe and effective for this use, however, the FDA has permitted its use in this research study. STEMVAC targets proteins that are expressed on the breast cancer cells. STEMVAC contains pieces of these proteins, which will be mixed along with a small amount of GM-CSF (Sargramostatin (rhuGM-CSF) a man-made protein that is almost identical to a protein the body makes to increase immune cells in the bone marrow. The GM-CSF is approved by the FDA in certain scenarios to boost immune cells, however, it is not approved for use in combination with the STEMVAC vaccine. GM-CSF will help increase the number of immune cells at the site of vaccination to help the vaccine work. We will measure how effective this vaccine is in stimulating your immune system. There will be about 38 people taking part in this study.

What are the study groups?

You will first participate in a screening visit to determine whether you are eligible to participate in the study. During this screening visit you will sign the informed consent form to confirm that you understand what study participation involves and that you are voluntarily participating.

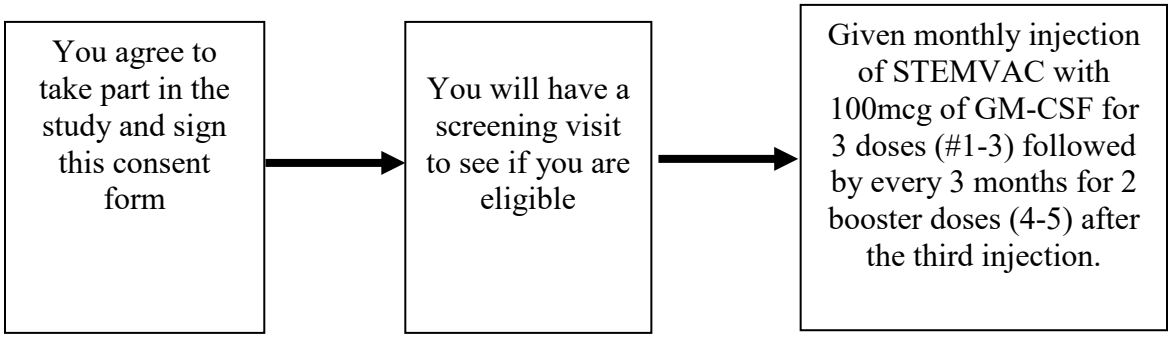
This study has 1 study group. In this study, you will get 300mcg STEMVAC with 100mcg GM-CSF. This will be given monthly for 3 months followed by 2 boosters. The first booster will be given 3 months after the last vaccination and the second booster will be given 6 months after the first booster.

You will be given this drug through an injection into the skin. This injection will either go in the arm or the leg.

Blood draws to monitor your lab values while you are on study will occur at every visit. Tobacco and alcohol questionnaires will be administered at the Baseline Visit and End of Treatment Visit.

This drug is not approved by the FDA for treatment of your disease or condition.

Another way to find out what will happen to you during this study is to read the chart below. Start reading at the left side and read across to the right, following the lines and arrows.



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What exams, tests, and procedures are involved in this study?

Before you begin the study, your doctor will review the results of your exams, tests, and procedures. This helps your doctor decide if it is safe for you to take part in the study. If you join the study, you may have more exams, tests, and procedures during the study to closely monitor your safety and health.

Listed below are exams, tests, and procedures that need to be done as part of this study to monitor your safety and health but may not be included in the usual care. We will use them to carefully follow the effects of the study treatment, including preventing and managing side effects.

These exams, tests, and procedures to monitor your safety and health include:

- Blood draw to evaluate blood cell, kidney and liver function at every visit
- Urine pregnancy test if of childbearing potential prior to every vaccination
- Physical exams done at every visit.

Some exams, tests, and procedures are a necessary part of the research study but would not be included in usual care. Listed below are procedures that will be done for research purposes only.

If you need to receive a COVID-19 vaccine or any other vaccine during the study, you need to allow at least 14 days between the vaccine dose and any scheduled STEMVAC vaccine administration. Additionally, while occasional use of NSAIDS, like ibuprofen, aspirin, and naproxen, is acceptable, you should not use them for more than 7 days in a row.

You must also be willing to not undergo any major elective surgical procedure involving general anesthesia or conscious sedation (this includes breast re-construction) through the end of treatment visit (~13 months on study), with the exception of port removal, where a doctor removes your chemotherapy port and catheter with local anesthetic or conscious sedation.

Baseline Visit (up to 2 weeks prior to your first vaccine)

- Informed consent conference-review consent, answer all questions, sign consent.
- Physical exam, vital signs (your temperature, heart rate, and blood pressure), weight.
- Symptom assessment to get a baseline.
- Routine blood tests, Complete blood count (CBC), Comprehensive metabolic panel (CMP), Antinuclear Antibody (ANA), Complement 3 (C3), anti-double stranded DNA (anti-dsDNA), and Thyroid-stimulating hormone (TSH) to evaluate your kidneys, liver, bone, and blood cell function (if not done within 60 days of your enrollment to the study). About 2 tablespoons of blood will be taken for these tests.
- Urine pregnancy test (if of childbearing potential)
  - If you are pregnant you will not be able to participate in the study.
- Review of current medications and supplements (you may be asked to bring in all or your current medications and supplements, or a list of them).

Vaccine #1 Visit

- You will have a urine pregnancy test if of childbearing potential .
    - If you are pregnant you will not be able to receive any vaccinations
- Symptom assessment to see if anything has changed since baseline visit
- We will review if you have had any medication or supplement changes.
- Blood tests:
    - About 8 ounces (this amount is about the same as one-half of the amount of blood taken when people donate their blood) of blood for research testing to look at immune responses. You will be reminded prior to the visit by phone or email to drink extra fluids prior to the visits to lessen the risk of becoming lightheaded or dizzy. You should avoid alcohol the day before study visits as it can dehydrate you. Results of this blood draw will not be shared with you.
- Tetanus diphtheria (Td) vaccine, if available, and if you have not had a Td or Tdap vaccine in the last 6 months.
    - This will help us measure your overall immune response.
- STEMVAC will be given under the skin (intradermally) on the arm or leg, in 2 or 3 injections per each vaccine dose. The number of injections is based on the batch (original vs. new batch) of vaccine being used. The total vaccine dose is the same whether given as 2 or 3 injections.
    - GM-CSF will be mixed in with the STEMVAC vaccine. This is a man-made protein that may help to increase the number of immune cells found in your blood and bone marrow.
    - If you had an axillary lymph node dissection (ALND) you will have the vaccine administered to the other arm. If you had bilateral ALND you will have vaccine administered in the thigh.
- Post vaccine monitoring for a minimum of 60 minutes.
    - Severe allergic reactions, as described in the section "Risk of Study Vaccine" (e.g., shortness of breath, dizziness, a feeling of fainting, hives, and difficulty breathing caused by swelling of the mouth, face, tongue or throat; may require medication or lead to hospitalization or death) are rare, but they do occur. If they occur, they usually happen within an hour or so of exposure to the substance causing the allergy.
    - Vital signs (your temperature, heart rate, and blood pressure) will be repeated at this time 55-75 minutes after vaccination.
    - Please allow time in your schedule for this monitoring.

Vaccine #2 and #3 Visits:

- You will have a physical exam which includes obtaining your weight, vital signs (your temperature, heart rate, and blood pressure), and a urine pregnancy test (if of childbearing potential).
    - If you are pregnant you will not be able to receive any further treatment on this study
- Symptom assessment to look for any vaccine side effects.
- We will review if you have had any medication or supplement changes.
- Routine blood tests, CBC and CMP, to evaluate kidney, liver, bone and blood system

function. About 1 tablespoon of blood will be taken for these tests.

- STEMVAC will be given under the skin (intradermally) on the arm or leg, in 2 or 3 injections per each vaccine dose. The number of injections is based on the batch (original vs. new batch) of vaccine being used. The total vaccine dose is the same whether given as 2 or 3 injections.
- Post vaccine monitoring for a minimum of 60 minutes.
  - Vital signs (your temperature, heart rate, and blood pressure) will be repeated at this time 55-75 minutes after vaccination.
  - Please allow time in your schedule for this monitoring.

1 Month after Vaccine #3 Follow up

- You will have a physical exam which includes obtaining your weight and vital signs (your temperature, heart rate, and blood pressure)
- Symptom assessment to look for any vaccine side effects.
- We will review if you have had any medication or supplement changes.
- Blood tests:
  - Routine blood tests, CBC, CMP, C3, ANA, anti-dsDNA, and TSH to evaluate your bone, blood cell, kidney, liver function and autoimmune markers. About 2 tablespoons of blood will be taken for these tests.
  - About 8 ounces (this amount is about the same as one-half of the amount of blood taken when people donate their blood) of blood for research testing to look at immune responses. You will be reminded to drink extra fluids prior to the visit by phone or email to lessen the risk of becoming lightheaded or dizzy. You should avoid alcohol the day before study visits as it can dehydrate you. Results of this blood draw will not be shared with you.

Booster Vaccines (3 months after last vaccine and 6 months after the first booster)

- You will have a physical exam which includes obtaining your weight, vital signs (your temperature, heart rate, and blood pressure), and a urine pregnancy test (if of childbearing potential).
  - If you are pregnant you will not be able to receive any further treatment on this study
- Symptom assessment to look for any vaccine side effects.
- We will review if you have had any medication or supplement changes.
- Blood tests:
  - Routine blood tests, CBC and CMP to evaluate your bone, blood cell, kidney and liver function. About 1 tablespoon of blood will be taken for these tests.
  - About 8 ounces (this amount is about the same as one-half of the amount of blood taken when people donate their blood) of blood for research testing to look at immune responses. You will be reminded to drink extra fluids prior to the visit by phone or email to lessen the risk of becoming lightheaded or dizzy. You should avoid alcohol before study visits as it can dehydrate you Results of this blood draw will not be shared with you.
- STEMVAC will be given under the skin (intradermally) on the arm or leg, in 2 or 3 injections per each vaccine dose. The number of injections is based on the batch (original vs. new batch) of vaccine being used. The total vaccine dose is the same whether given

as 2 or 3 injections.
- Post vaccine monitoring for a minimum of 60 minutes.
  - Vital signs (your temperature, heart rate, and blood pressure) will be repeated at this time 55-75 minutes after vaccination.
  - Please allow time in your schedule for this monitoring.

End of Treatment (EOT) - (1 month after last booster vaccine)

- You will have a physical exam which includes your weight and vital signs (your temperature, heart rate, and blood pressure)
- Symptom assessment to look for any vaccine side effects.
- We will review if you have had any medication or supplement changes.
- Blood tests:
  - Routine blood tests, CBC, CMP, C3, ANA, anti-dsDNA, and TSH to evaluate your bone, blood cell, kidney, liver function, and autoimmune markers. About 2 tablespoons of blood will be taken for these tests.
  - About 8 ounces (this amount is about the same as one-half of the amount of blood taken when people donate their blood) of blood for research testing to look at immune responses. You will be reminded to drink extra fluids prior to the visits by phone or email to lessen the risk of becoming lightheaded or dizzy. You should avoid alcohol before study visits as it can dehydrate you. Results of this blood draw will not be shared with you.

Long Term Follow-up

- A request for records will be sent to your medical oncologist or primary care physician once a year from enrollment for a total of 5 years. Information requested may include recent:
  - Lab results
  - Clinic notes
  - Imaging reports
- Notes will be reviewed by study team for any vaccine side effects.

We will contact your oncologist or physician while you are in the study if we have any concerns regarding your health. We will also contact your Health Care Professionals if you agree to it.

As part of this study you will be asked to answer questions about your tobacco and alcohol use, both before you begin the study and again at the End of Treatment visit. Researchers want to see if tobacco and alcohol use affects the side effects people might get while on this study, or if tobacco and alcohol use modifies the effects of the study agent. The questionnaires will take up to 10 minutes to complete and will be done in the office during your study visit.

As part of this study you will be asked to answer questions about your COVID-19 exposure and vaccination status, both before you begin the study and again at the end of the study. Researchers want to see if COVID-19 exposure or vaccines affects the side effects people might get while on this study, or if COVID-19 exposure or vaccines modifies the effects of the study agent(s).

What risks can I expect from taking part in this study?

General Risks

If you choose to take part in this study, there is a risk that STEMVAC may not be as good as the usual approach of monitoring.

You also may have the following discomforts and/or inconveniences:

- Spend more time in the hospital or doctor's office.
- Be asked sensitive or private questions about things you normally do not discuss – for example, about your tobacco and alcohol use or COVID -19 exposure.
- May not be able to take part in future studies.

For women: Do not get pregnant or breastfeed while taking part in this study.
For men: Do not father a baby while taking part in this study.

The vaccine used in this study could be very harmful to an unborn or newborn baby. There may be some risks that researchers do not yet know about. It is very important that you check with your study doctor about what types of birth control or pregnancy prevention to use during the study.

Tell your study doctor right away if you think that you or your partner have become pregnant during the study (until the End of Treatment Visit, a total of at least 13 months). If you become pregnant while on the study, your doctor will take you off the study drug but will continue to monitor your health and will ask you to provide health information about the pregnancy.

Side Effect Risks

The STEMVAC with 100 mcg of GM-CSF vaccine used in this study may affect how different parts of your body work, such as your liver, kidneys, heart, and blood. The study doctor will test your blood and let you know if changes occur that may affect your health.

There is also a risk that you could have other side effects from the study.

Here are important things to know about side effects:

- The study doctors do not know who will or will not have side effects.
- Some side effects may go away soon, some may last a long time, and some may never go away.
- Some side effects may make it hard for you to have children.
- Some side effects may be mild. Other side effects may be very serious and even result in death.

You can ask your study doctor questions about side effects at any time. **Here are important ways to make side effects less of a problem:**

- If you notice or feel anything different, tell your study doctor. He or she can check to see if it is a side effect.
- Your study doctor will work with you to treat your side effects.

Vaccine Risks

The tables below show the most common and most serious side effects researchers know about. Keep in mind that there might be other side effects researchers do not yet know about. If important new side effects are found, the study doctor will discuss these with you.

Possible Side Effects of STEMVAC Vaccine

COMMON, SOME MAY BE SERIOUS In 100 people receiving vaccines more than 20 and up to 100 may have:
• Pain and discomfort during vaccine administration • Redness and tenderness at injection site (this usually goes away in 1-2 days) • Itching at vaccine site • Tiredness • Headache

OCCASIONAL, SOME MAY BE SERIOUS In 100 people receiving vaccines, from 4 to 20 may have:
• Flu-like symptoms • Muscle pain • Nausea • Chills

RARE, SERIOUS In 100 people receiving vaccines, 3 or fewer may have:
• Allergic reaction, including shortness of breath, dizziness, a feeling of fainting, hives, and difficulty breathing caused by swelling of the mouth, face tongue, or throat • Seizures • Severe allergic reaction to the vaccine may require medication, lead to hospitalization, and may result in death • Decreased white blood cell counts

Possible Side Effects of Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF)

COMMON, SOME MAY BE SERIOUS In 100 people receiving GM-CSF more than 20 and up to 100 may have:
• Local reactions at the site of the injection (swelling and redness) • Low grade fever (Less than 100.5°F) • Chills • Pain in the bones, muscles, chest, abdomen, or joints • Nausea Vomiting Diarrhea • Flu-like symptoms including tiredness, weakness, headache • Decreased appetite • Increased white blood cell count

OCCASIONAL, SOME MAY BE SERIOUS In 100 people receiving GM-CSF, from 4 to 20 may have:
• Kidney and liver problems • Local reactions at the site of injection (swelling and redness) • Rashes • Liver enlargement • Low blood pressure

RARE, SERIOUS In 100 people receiving GM-CSF, 3 or fewer may have:
• Fluid retention (including fluid in lungs or around the heart) • Blood clotting, including blood clots in the leg veins that can break loose and go to the lung • Increased platelets (part of the blood that causes clots), low albumin (a blood protein), increase of liver enzymes • Rapid or irregular heartbeat or other heart problems • Allergic reaction, including shortness of breath, dizziness, a feeling of fainting, hives, and difficulty breathing caused by swelling of the mouth, face, tongue or throat • Worsening of pre-existing fluid accumulation in arms and legs, in the lungs and around the heart that may result in breathing problems and heart failure • Neurologic syndrome called Guillain-Barré syndrome, where a person's own immune system damages their nerve cells, causing muscle weakness and sometimes paralysis • Temporary loss of consciousness

Possible Side Effects of Generation of an Immune Response to Normal Cells

COMMON, SOME MAY BE SERIOUS In 100 people receiving vaccines more than 20 and up to 100 may have:
• None

OCCASIONAL, SOME MAY BE SERIOUS In 100 people receiving vaccines, from 4 to 20 may have:
• Skin rashes • Diarrhea

RARE, SERIOUS In 100 people receiving vaccines, 3 or fewer may have:
• A severe autoimmune reaction which could cause death

Possible Side Effects of Tetanus diphtheria (Td) Immunization

COMMON, SOME MAY BE SERIOUS In 100 people receiving Td more than 20 and up to 100 may have:
• Redness, pain and swelling at site • Mild fever • Decreased appetite

OCCASIONAL, SOME MAY BE SERIOUS In 100 people receiving Td, from 4 to 20 may have:
• Hard lump at the site • Allergic reactions such as: hives, rash and itching • Fever > 102˚F

RARE, SERIOUS In 100 people receiving vaccines, 3 or fewer may have:
• Allergic reaction, including shortness of breath, dizziness, a feeling of fainting, itching, hives, and difficulty breathing

Additional Vaccine Risks

The study drug could interact with other drugs. Your study doctor will give you a drug information handout and wallet card that lists these possible interactions. Share this information with your family members, caregivers, other health care providers, and pharmacists.

Severe allergic reactions are not common, but they do occur. If they occur, they tend to happen within an hour or so of exposure to the substance causing the allergy. Because of this rare risk, we will watch you in the clinic for approximately one hour after you receive each vaccine to make sure you have no immediate side effects or allergic reactions. Please allow time in your schedule for this approximately 60 minute monitoring.

If you are experiencing concerning symptoms notify the study staff listed in this document.

Rarely, there are problems getting enough supplies of the study drug. If that happens, your doctor will talk with you about your options.

Blood Draw Risks

About 200 mls of blood (about 8 ounces) will be drawn before the first vaccine and again 1 month, 3 months, 9 months, and 10 months after the third vaccine. It is possible that this volume of blood loss could cause you to feel lightheaded or dizzy. It is important to drink lots of water prior to these visits so that you are well hydrated for the blood draws, which may help to prevent these symptoms. You will be reminded at every visit to be well-hydrated for the next visit by phone or email. As well, you should avoid drinking alcohol the day before study visits as that could dehydrate you. If you experience lightheadedness or dizziness following your vaccine, the study doctor may give you IV fluids that will help relieve these symptoms. Potential risks of getting a blood draw are pain, bruising, light-headedness, tiredness, fainting and infection.

What are my responsibilities in this study?

If you choose to take part in this study, you will need to:

- Keep your study appointments.
- Tell your doctor about:
    - medications you are taking
    - any side effects
    - any doctors' visits or hospital stays outside of this study
    - your current or past enrollment in another research study

For women: Do not get pregnant or breastfeed while taking part in this study. **For men:** Do not father a baby while taking part in this study. Tell your study doctor right away if you think that you (or your partner) have become pregnant during the study.

What are the costs of taking part in this study?

You and/or your insurance provider will not have to pay for exams, tests, and procedures done for research purposes only or that are covered by the study. These include:

- Blood draws at all of the visits
- Physical exam and vitals at all of the visits

You or your insurance provider will not have to pay for the STEMVAC with GM-CSF or the Tetanus diphtheria Immunization (if applicable) while you take part in this study.

Taking part in this study may mean that you need to make more visits to the clinic or hospital than if you were getting the usual approach to treat your cancer. You may:

- Have more travel costs.
- Need to take more time off work.
- Have other additional personal costs.

You will receive $50 for every visit completed for your time and effort. You will not have to pay for parking for these study visits as a parking voucher will be provided. The research may lead to new tests, drugs, or other products. If it does, you will not get any payment.

What happens if I am injured because I took part in this study?

For a life-threatening problem, call 911 right away or seek help immediately. Contact your study doctor when the medical emergency is over or as soon as you can.

For all other medical problems or illness related to this research, immediately contact William Gwin, MD 206-314-1279. They will treat you or refer you for treatment.

If you are injured as a result of taking part in this study and need medical treatment, please tell your study doctor right away. The study sponsors will not pay for medical treatment for injury. Your insurance company may not be willing to pay for a study-related injury. Ask them if they will pay. If you do not have insurance, then you would need to pay for these medical costs.

If you feel this injury was caused by medical error on the part of the study doctors or others involved in the study, you have the legal right to seek payment, even though you are in a study. Agreeing to take part in this study does not mean you give up these rights.

The costs of the treatment may be billed to you or your health insurance just like other medical costs, or it may be covered by the UW's discretionary Human Subjects Assistance Program (HSAP), depending on a number of factors. The researcher may request HSAP coverage by following established procedures. If you wish to request HSAP coverage yourself, contact the researcher or the UW Human Subjects Division at hsdinfo@uw.edu or 206-543-0098. You may also call collect at 206-221-5940. Ask the researcher if you would like information about the limits and conditions of the HSAP. The UW does not normally provide any other form of compensation for injury. However, the law may allow you to seek payment for injury-related expenses if they are caused by malpractice or the fault of the researchers. You do not waive any right to seek payment by signing this consent form. We will bill your health insurance for treating problems that result from your breast cancer or from

standard clinical care. If you have no health insurance or your insurance refuses to pay, we will bill you.

Who will see my medical information?

Your privacy is very important to us. The study doctors will make every effort to protect it. The study doctors have a privacy permit to help protect your records if there is a court case. However, some of your medical information may be given out if required by law. If this should happen, the study doctors will do their best to make sure that any information that goes out to others will not identify who you are.

Some of your health information, such as your response to cancer treatment, results of study tests, and medicines you took, will be kept by the study sponsor in a central research database. However, your name and contact information will not be put in the database. If information from this study is published or presented at scientific meetings, your name and other personal information will not be used. We will let you know the over-all results of the study if you wish. This communication will be made by means of a letter that will be sent to the address you provided during the study.

There are organizations that may look at your study records. Your health information in the research database also may be shared with these organizations. They must keep your information private, unless required by law to give it to another group.

Some of these organizations are:

- Researchers involved with this study.
- Fred Hutchinson Cancer Center and University of Washington.
- The study sponsor and any company supporting the study now or in the future.
- The NCI Central IRB, which is a group of people who review the research with the goal of protecting the people who take part in the study.
- The FDA and the groups it works with to review research.
- The NCI and the groups it works with to review research.
- Investigational New Drug (IND) sponsor, Mary L. (Nora) Disis, MD at the University of Washington and researchers involved with this study.
- The NCI's Cancer Prevention Clinical Trials Network (CP-CTNET) and the groups it works with to conduct research including the CP-CTNET Data Management, Auditing, and Coordinating Center consisting of the University of Wisconsin Madison and Frontier Science Foundation
- Insurance providers, employers, and other individuals authorized to view your permanent medical record (which includes a copy of this consent form).

In addition to storing data in the study database, data from studies that are publicly funded may also be shared broadly for future research with protections for your privacy. The goal of this data

sharing is to make more research possible that may improve people's health. Your study records may be stored and shared for future use in public databases. However, your name and other personal information will not be used.

Some types of future research may include looking at your information and information from other patients to see who had side effects across many studies or comparing new study data with older study data. However, right now we don't know what research may be done in the future using your information. This means that:

- You will not be asked if you agree to take part in the future research studies using your health information.
- You and your study doctor will not be told when or what type of research will be done.
- You will not get reports or other information about any research that is done using your information.

Where can I get more information?

You may visit the NCI website at http://cancer.gov/ for more information about studies or general information about cancer. You may also call the NCI Cancer Information Service to get the same information at 1-800-4-CANCER (1-800-422-6237).

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.

If you have questions about:	Call:
This study (including complaints and requests for information)	[206-606-6342] (Dr. William Gwin) [206-543-3829] (Kris Kauno, Research Coordinator)
If you get sick or hurt in this study	[206-314-1279] (Dr. Gwin)
Your rights as a research participant	206-667-5900 or email irodirector@fredhutch.org (Director of Institutional Review Office, Fred Hutchinson Cancer Center) 206-543-0098 (Human Subjects Division, University of Washington)
Your bills and health insurance coverage	[000-000-0000] (206) 598-1950

Financial Interest

Dr Mary L. Disis is an inventor of STEMVAC vaccine being tested in this study and one of the investigators taking part in this trial. She has an equity position in a company called EpiThany. Dr. Disis is a founding Scientific Advisor and member of the Board of Directors. She may benefit financially, depending on the results of the study. This financial interest and the design of the study have been reviewed and approved by the University of Washington, study sponsor (University where Dr. Disis works), the University of Wisconsin who manages the study, and the National Cancer Institute (NCI), Division of Cancer Prevention (DCP). A Conflict Management Plan was developed to minimize any possible effect of this financial interest on your safety or welfare. The Plan was also developed to protect the quality and reliability of the research. Also, this study and the Conflict Management Plan were reviewed and approved by the NCI Central Institutional Review Board (CIRB) and the DCP, NCI, National Institutes of Health (NIH).

Optional studies that you can choose to take part in

This part of the consent form is about optional studies that you can choose to take part in. They are separate from the main study described above. These optional studies will not benefit your health. The researchers leading these optional studies hope the results will help other people with cancer in the future. The results will not be added to your medical records and you or your study doctor will not know the results.

Taking part in these optional studies is your choice. You can still take part in the main study even if you say "no" to any or all of these studies. There is no penalty for saying "no." You and your insurance company will not be billed for these optional studies. If you sign up for but cannot complete any of these studies for any reason, you can still take part in the main study.

Circle your choice of "yes" or "no" for each of the following studies.

Optional sample collections for laboratory studies and/or storage for possible future studies

Researchers are trying to learn more about cancer and other health problems using blood and tissue samples from people who take part in clinical trials. By studying these samples, researchers hope to find new ways to prevent, detect, treat, or cure diseases.

Some of these studies may be about how genes affect health and disease, and these are called genomic studies. Other studies may look at how genes affect a person's response to treatment. Genes carry information about traits that are found in you and your family. Examples of traits are the color of your eyes, having curly or straight hair, and certain health conditions that are passed down in families. Some of the studies may lead to new products, such as drugs or tests for diseases. Researchers are interested in the way that genes affect how your body responds to treatment.

Unknown future studies

If you choose to take part in this optional study, blood will be collected and stored. Storing samples for future studies is called "biobanking." The biobank is being run by Tumor Vaccine Group and is supported by the NCI. This is a publicly funded study. Samples from publicly funded studies are required to be shared as broadly as possible. However, we will protect your privacy. The goal of this is to make more research possible that may improve people's health. Also, any health-related information, such as your response to cancer treatment, results of study tests, and medicines you took, will be stored for future use.

The biobank is a public research resource. It has controlled access. This means that researchers who want to get samples and data from it must submit a specific research request. The request identifies who they are and what their planned research project is. Before getting the samples and data, the researchers must agree to keep the data private, only use it for their planned research project, and never use it to try to identify you.

Right now, we don't know what research may be done in the future using your blood samples. This means that:

- You will not be asked if you agree to take part in the future research studies.
- You and your study doctor will not be told when or what type of research will be done.
- You will not get reports or other information about any research that is done using your samples.

Unknown future research studies may include sequencing of all or part of your DNA. This is called genomic sequencing. Sequencing allows researchers to identify your genetic code. Changes in your genetic code may be passed down through your family. For example, these genetic changes may be passed down to your children in the same way that eye and hair color are passed down. These are called germline changes.

What is involved in this optional sample collection?

If you agree to take part, here is what will happen next:

1. About 8 ounces of blood will be collected from a vein in your arm at the 1st Vaccination Visit, Post Vaccination Follow-Up Visit, each booster vaccination visit, and the End of Treatment Visit.
2. If any research blood is left over after the study's immunologic monitoring, it may be stored for future research related to the development of other immunotherapies. The samples will be kept until they are used for research or destroyed.
3. Researchers can only get samples from the biobank after their research has been approved by experts. Researchers will not be given your name or contact information.
4. Some of your genetic and health information may be placed in central databases for researchers to use. The databases will not include your name or contact information.

What are the risks in this optional sample collection?

1. The most common risks related to drawing blood from your arm are brief pain and maybe a bruise.
2. Your medical and genetic information is unique to you. There is a risk that someone outside of the research study could get access to your study records or trace information in a database back to you. They could use that information in a way that could harm you. Researchers believe the chance that someone could access and misuse your information is very small. However, the risk may increase in the future as people find new ways of tracing information.
3. In some cases, this information could be used to make it harder for you to get or keep a job and get or keep health insurance. There are laws against the misuse of genetic information, but they may not give full protection. For more information about the laws that protect you, ask your study doctor or visit: https://www.genome.gov/10002328/

How will information about me be kept private?

Your privacy is very important to the researchers. They will make every effort to protect it. Here are just a few of the steps they will take:

1) They will remove your name and other identifiers, such as your telephone number, from your sample and information. They will replace them with a code number. There will be a master list linking the code numbers to names, but they will keep it separate from the samples and information.

2) Researchers who study your sample and information will not know who you are. They also must agree that they will not try to find out who you are.

3) Your personal information will not be given to anyone unless it is required by law.

4) If research results are published, your name and other personal information will not be used.

What are the benefits to taking part in this optional sample collection?

You will not benefit from taking part.

The researchers, using the samples from you and others, might make discoveries that could help people in the future.

Are there any costs or payments to this optional sample collection?

There are no costs to you or your insurance. You will not be paid for taking part in this study. The research may lead to new tests, drugs, or other products. If it does, you will not get any payment.

What if I change my mind about this optional sample collection?

If you decide you no longer want your samples to be used, you can call the study doctor, Mary L. (Nora) Disis, MD, at 206-616-1823 or William Gwin, MD, at 206-606-6342, who will let the biobank know. Then, any sample that remains in the biobank will be destroyed or returned to your study doctor. This will not apply to any samples or related health information that have already been given to or used by researchers.

What if I have questions about this optional sample collection?

If you have questions about the use of your samples for research, contact the study doctor, Mary L. (Nora) Disis, MD, at 206-616-1823 or William Gwin, MD, at 206-606-6342.

Samples for known future studies:

The information from my tobacco and alcohol use questionnaires may be used in future health research.

YES NO

The information from my COVID-19 Assessment may be used in future health research.

YES NO

Samples for unknown future studies:

I agree that my samples and related health information may be kept in a biobank for use in future health research.

YES NO

Contact for future research:

I agree that my study doctor, or someone on the study team, may contact me or my doctor to see if I wish to participate in other research in the future.

YES NO

This is the end of the section about optional studies.

My signature agreeing to take part in the study

I have read this consent form, or had it read to me. I have discussed it with the study doctor and my questions have been answered. I will be given a signed and dated copy of this form. I agree to take part in the main study. I also agree to take part in any additional studies where I circled "yes".

Participant:

Printed Name	Signature	Date

Legally authorized representative:

Printed Name	Signature	Date

Relation to the participant

Impartial Witness:

Printed Name	Signature	Date

Person Conducting the Informed Consent Discussion:

Printed Name	Signature	Date

Person Obtaining Consent Signature:

Printed Name	Signature	Date

Copies to: Patient

Calendar of events

Visit Time Point	Procedures
Baseline Visit (may be performed up to 2 weeks prior to initial vaccine visit)	• Informed consent • Complete physical examination o Vital signs and weight • Baseline symptom assessment • ECOG scoring • Urine pregnancy test (if of childbearing potential) • Clinical labs* (if not done within 60 days of enrollment)
STEMVAC 1 (Month 1)	• Vital signs and weight • Symptom/toxicity assessment • Review of medications • Urine pregnancy test (if of childbearing potential) • Research blood: approx. 200 mls** • Tetanus diphtheria (Td) immunization • STEMVAC 1 o Post-immunization monitoring

STEMVAC 2 (Month 2)	• Complete physical examination
	  o Vital signs and weight
	• Symptom/toxicity assessment
	• Review of medications
	• Urine pregnancy test (if of childbearing potential)
	• Clinical labs*
	• STEMVAC 2
	  o Post-immunization monitoring

STEMVAC 3 (Month 3)	• Complete physical examination
	  o Vital signs and weight
	• Symptom/toxicity assessment
	• Review of medications
	• Urine pregnancy test (if of childbearing potential)
	• Clinical labs*
	• STEMVAC 3
	  o Post-immunization monitoring

1 Month after STEMVAC 3 (Month 4)	• Complete physical examination o Vital signs and weight • Symptom/toxicity assessment

	• Review of medications • Clinical labs* • Research blood: approx. 200 mls**

Booster STEMVAC 1 (Month 6)	• Complete physical examination
	  o Vital signs and weight
	• Symptom/toxicity assessment
	• Review of medications
	• Urine pregnancy test (if of childbearing potential)
	• Clinical labs*
	• Research blood: approx. 200 mls**
	• STEMVAC 4
	  o Post-immunization monitoring

Booster Vaccine #2 (Month 12)	• Complete physical examination
	  o Vital signs and weight
	• Symptom/toxicity assessment
	• Review of medications
	• Urine pregnancy test (if of childbearing potential)
	• Clinical labs*
	• Research blood: approx. 200 mls**
	• STEMVAC 5
	  o Post-immunization monitoring

End of Treatment (Month 13)	• Complete physical examination o Vital signs and weight • Symptom/toxicity assessment • Review of medications • Clinical labs* • Research blood: approx. 200 mls**
Once yearly after Month 13 until year 5	• Review of medical record
*Complete blood count (with differential and platelet count), comprehensive metabolic panel (electrolytes, glucose, creatinine, blood urea nitrogen, AST, ALT, alkaline phosphatase, total bilirubin). In addition, ANA, Complement 3, anti-ds DNA and TSH will be performed at Month 4 and End of Treatment. **During the consent process, and at subsequent visits, patients will be instructed to hydrate sufficiently prior to visits requiring large volume blood draws.	