INSTITUTE: National Cancer Institute

STUDY NUMBER: 12-C-0111  PRINCIPAL INVESTIGATOR: Steven A. Rosenberg, MD, PhD

STUDY TITLE: A Phase I/II Study of Metastatic Cancer Using Lymphodepleting Conditioning Followed by Infusion of Anti-mesothelin Gene Engineered Lymphocytes

Continuing Review Approved by the IRB on 10/25/18
Amendment Approved by the IRB on 05/01/18 (P)  Date posted to web: 11/02/18

**INTRODUCTION**

We invite you to take part in a research study at the National Institutes of Health (NIH).

First, we want you to know that:

**Taking part in NIH research is entirely voluntary.**

You may choose not to take part, or you may withdraw from the study at any time. In either case, you will not lose any benefits to which you are otherwise entitled. However, to receive care at the NIH, you must be taking part in a study or be under evaluation for study participation.

You may receive no benefit from taking part. The research may give us knowledge that may help people in the future.

Second, some people have personal, religious or ethical beliefs that may limit the kinds of medical or research treatments they would want to receive (such as blood transfusions). If you have such beliefs, please discuss them with your NIH doctors or research team before you agree to the study.

Now we will describe this research study. Before you decide to take part, please take as much time as you need to ask any questions and discuss this study with anyone at NIH, or with family, friends or your personal physician or other health professional.

**Why is this study being done?**

You have been diagnosed with metastatic cancer and the standard treatments available have not been effective. We have developed an experimental procedure for treating patients with cancer that uses blood cells found in their peripheral blood cells. We genetically modify these cells and grow them in the laboratory. We will be using the anti-mesothelin gene and a type of virus

<table>
<thead>
<tr>
<th>PATIENT IDENTIFICATION</th>
<th>CONSENT TO PARTICIPATE IN A CLINICAL RESEARCH STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adult Patient or</td>
<td>• Parent, for Minor Patient</td>
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<tr>
<td>NIH-2514-1 (07-09)</td>
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<td>P.A.: 09-25-0099</td>
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<tr>
<td>File in Section 4:</td>
<td>Protocol Consent (1)</td>
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</table>
(retrovirus) in making these special cells (anti-mesothelin cells). The anti-mesothelin cells target a protein called mesothelin. This receptor is located on some types of cancer, including the type of cancer you have been diagnosed with. By blocking mesothelin, we hope that these cells when infused will decrease the size of your tumors. However, it is possible that these cells will not have this effect.

The anti-mesothelin cells will be given to you as an intravenous (IV) infusion. This type of experimental regimen is called “gene transfer” and is very closely monitored by the Food and Drug Administration (FDA) and other regulatory agencies. The risks of gene transfer will be described later in this document.

Why are you being asked to take part in this study?

You are being asked to participate in this study because you have been diagnosed with cancer that has the mesothelin molecule on the surface of the tumors.

How many people will take part in this study?

Up to 136 patients may participate in this study.

Description of Research Study

This study has the following stages outlined below:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Timeframe</th>
<th>Location</th>
<th>Comments &amp; Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work up</td>
<td>1-2 weeks</td>
<td>Inpatient and out patient</td>
<td>Scans, x-rays, labs and other tests as needed</td>
</tr>
<tr>
<td>2. Cell Manufacturing</td>
<td>4-6 weeks</td>
<td>Inpatient or Outpatient</td>
<td>Leukapheresis</td>
</tr>
<tr>
<td>3. Chemotherapy</td>
<td>1 week</td>
<td>Inpatient</td>
<td>Receive IV chemotherapy to prepare your immune system for the cells</td>
</tr>
<tr>
<td>4. Cells and IL-2</td>
<td>1-5 days</td>
<td>Inpatient and possibly ICU</td>
<td>Receive anti-mesothelin cells, and then IL-2 every 8 hours for up to 15 doses</td>
</tr>
<tr>
<td>5. Recovery</td>
<td>1-3 weeks</td>
<td>Inpatient unit</td>
<td>Recover from the effects of chemotherapy and IL-2.</td>
</tr>
<tr>
<td>6. Follow-up</td>
<td>Ongoing until disease progression</td>
<td>Outpatient</td>
<td>Return to clinic for physical exam, review of side effects, labs, scans every 1-6 months</td>
</tr>
</tbody>
</table>
What will happen if you take part in this research study?

The first few patients enrolled will participate in the Phase I portion of the study, called the “dose escalation” phase. The purpose of dose escalation is to determine the most effective yet safe dose of anti-mesothelin cells. There will be 10 dose levels of anti-mesothelin cells. The first patients enrolled get the smallest dose and the dose is increased when a level has been determined to be safe. If the first dose has too many side effects, patients enrolled will receive smaller doses. Discuss with your doctor which dose of anti-mesothelin cells you will be receiving.

The major side effects of this experimental regimen (described below) that are most severe include:

- Infection and low blood counts caused by the chemotherapy
- Confusion and changes in mental status caused by the IL-2
- Fluid retention, low blood pressure, and high heart rate caused by the IL-2

We will discuss the side effects of this experimental regimen with you. You will be given medicines, transfusions, and treatments to prevent or treat the side effects including drugs to prevent and/or treat different types of infections. We will try to make you as comfortable as possible.

Before you begin the study

The following procedures are conducted under 99-C-0128 or 03-C-0277, to which you have already enrolled.

Cell harvest and growth

You underwent a process called apheresis, while enrolled on our companion protocol 03-C-0277. This process obtained blood cells from you. Some of these cells will be grown in the lab and genetically modified to recognize a protein on your tumor cells. If your cells do not grow, unfortunately, you will not be able to receive the cell infusion. If that happens, we will look at alternative experimental treatments at the NIH Clinical Center or refer you to the care of your referring physician. We usually know after about 4 weeks whether the cells will grow well enough to be used as an experimental treatment on this protocol. At the time we determine that your cells are not growing, we will inform you and discuss your options with you. Several medications are used during the preparation of your cell product, be sure to tell your doctor if you are allergic to any antibiotics.

Work up

Prior to receiving the experimental regimen, you will undergo many tests. These include imaging procedures, heart and lung function tests, eye exams, and laboratory tests. If you are a woman, you will undergo a pregnancy test. You may be admitted to the hospital for these tests.
However, you will be allowed to leave on pass on the days that you are not having tests performed.

**Catheter insertion**
Prior to beginning the experimental regimen, you will have an intravenous (IV) catheter placed in your upper chest. The area will be numbed with an anesthetic before the catheter is put in. Although rare, putting these catheters in can sometimes cause collapse of a lung or cause bleeding. Lung collapse is treated by putting a tube into your chest for a few days to allow your lung to expand. Pressure is placed on any area that might bleed. Other IVs may be needed in one or both of your arms if we to give you extra fluids, medicines, or nutrition.

**Leukapheresis**
Leukapheresis is a procedure that allows us to remove certain types of blood cells from you and return the rest of your blood. It is a very common procedure that is done routinely here at the NIH with very few risks. During leukapheresis, blood is removed from you through a needle in your arm, circulated through a machine that divides whole blood into red cells, plasma (the serum part), and lymphocytes (or white cells), and then the plasma and red cells are returned to you through a second needle in your other arm. The white blood cells may be used to help grow the cells.

**During the Study**
The following procedures will be conducted under this protocol.

**Chemotherapy Regimen (Day -7 through Day -3)**
After we have grown the anti-mesothelin cells to large numbers in the laboratory, you will be admitted to the hospital to begin your experimental regimen. You will be given two chemotherapy medicines, cyclophosphamide and fludarabine, to suppress your immune system so the anti-mesothelin cells can work without any interference from the cells in your immune system. (These medicines will not treat your cancer.) Animal experiments have indicated that this can make the cells more effective in fighting cancer tumors, but it is not known whether this is true in humans. The cyclophosphamide will be given into your catheter over 1 hour for two days (Day -7 and Day -6) and the fludarabine will be given into your catheter for 30 minutes every day for the next five days (Day -7 through Day -3). The side effects of these medicines are described on the following pages.

**Cell Infusion and IL-2 Regimen (Day 0 through Day 4)**
One to four days after the last dose of chemotherapy, you will be given the anti-mesothelin cells. The anti-mesothelin cells will be given in your catheter over 20-30 minutes. Within 24 hours after the anti-mesothelin cell infusion, you will be given low dose IL-2 through your catheter. High dose IL-2 is approved by the FDA for treatment of metastatic melanoma and metastatic renal cell cancer. The purpose of giving the IL-2 with this therapy is to keep the cells we give...
you active for as long as possible so they will fight your tumor. The IL-2 will be given as a 15-minute infusion every 8 hours for up to five days after the cell infusion (maximum number of doses is 15). Doses may be skipped or delayed depending on how well you tolerate the doses.

The risks of the cells and IL-2 are described on the following pages. The day after you receive the anti-mesothelin cells, we will give you more G-CSF (filgrastim) as a shot or injection under the skin. This will continue until your white blood cell counts begin to return to normal.

**When you are finished taking the drugs (treatment)**

**Recovery**
After your last dose of IL-2, you will recover in the hospital until you are well enough to go home. This usually takes 7 to 21 days; however, you may need to stay in the hospital for longer than this before you are well enough to go home. We will continue to give you support medications, do laboratory tests, and watch you closely for any side effects until we feel your condition is stable.

In addition to the laboratory tests to monitor your condition, we will remove approximately 9 teaspoons of blood three times per week to study the effects of this regimen on your immune system. The maximum amount of blood for research is approximately 2.3 cups in 8 weeks.

**Follow up and Evaluation of Experimental Regimen**
You will need to continue to take Bactrim, an antibiotic, for at least 6 months following your regimen. We will ask you to return to NIH approximately 6 and 12 weeks following treatment and then if you are responding to the treatment, every 3 months x 3, every 6 months x 2 years and then as determined by your physician. This visit will probably take 2 days. If your tumor shows evidence of shrinking, we will ask you to return for evaluation every month for several more months. If your tumor appears to be growing, we will look for other investigational therapies you may be eligible for, or refer you back to the care of your local physician. At some of your follow up visits, you may undergo leukapheresis so that we can see the effect this therapy has had on your immune system and if the cells we gave you are still alive.

**Birth Control**
If you are a woman who is breast feeding or pregnant, you may not participate in the study because we don’t know how this medicine would affect your unborn child or your baby. If you are a woman who can become pregnant, or are the partner of a woman who can become pregnant, you will need to practice an effective form of birth control before starting the study regimen and for four months after you finish study the regimen. Males should also refrain from sperm donation during this time period. If you think that you or your partner is pregnant, you should tell your study doctor or nurse at once.
Effective forms of birth control include:
- abstinence
- intrauterine device (IUD)
- hormonal [birth control pills, injections, or implants]
- tubal ligation
- vasectomy

**Gene Therapy Long Term Follow up (Retroviral Vectors)**

Because we do not know the long term side effects of gene therapy, we will collect your blood over the next several years, frequently at first and then less frequently. If you return to your referring physician after treatment here we will ask you to have your physician send your blood specimens here for this testing. This testing will determine if the cells have grown or changed in your body. We will test your blood immediately after you receive the cells, and then at 3, 6 and 12 months (2 teaspoons each time). If all of the tests are normal and show no change, we will collect blood from you every year after that to store in case you develop symptoms later. According to FDA requirements, we need you to return annually to the NIH for a physical examination for five years after you receive the cells. After that time, we will be sending you a questionnaire to get information regarding your health for the next ten years, for a total follow up time period of 15 years. For this reason, we ask that you continue to provide us with a current address and telephone number, even after you complete this research study. At the time of your death, no matter the cause, we may request permission for an autopsy in order to obtain vital information concerning the safety of this experimental treatment approach. Please discuss this with your family to inform them of this request.

**Risks or Discomforts of Participation**

**What side effects or risks can I expect from being in this study?**

The risks and discomforts of this research study can be significant. This experimental regimen can lead to long-term decrease in your immune function. It is also possible that you may lose your fertility following this experimental regimen. It is possible, although unlikely, that this experimental regimen may cause your death.

We will discuss the side effects of this experimental treatment with you. You will be given medicines, transfusions, and treatments to prevent or treat the side effects including drugs to prevent and/or treat different types of infections. We will try to make you as comfortable as possible. You should talk to your study doctor about any symptoms that you experience while taking part in the study.
**Aldesleukin (IL-2)**

When IL-2 is given through a catheter, it can make you feel like you have the flu. It can also cause confusion and mental status changes making you unable to make sound decisions. Prior to beginning the regimen, we will ask you to complete a Durable Power of Attorney so that a person of your choosing can make health care decisions for you in case you develop these side effects. In our experience giving IL-2 to over 2,000 patients we have found that these side effects go away within a few days of stopping the IL-2.

**Anti- mesothelin Cell Infusion (gene transfer)**

The cells we will be giving you have a type of virus (retrovirus) put into them along with the anti- mesothelin protein. Although this retrovirus is not active, there is the rare possibility that it may cause infection. The cells could also cause you to develop another type of cancer, such as leukemia or lymphoma. We do not have much information about the specific side effects of the anti- mesothelin cells since this is our first study using these cells. We have studied similar types of cells in patients with cancer in other studies, and have seen the following side effects:

- Fever, chills and shortness of breath, which may last for a few hours (common)
- Lung congestion
- Some patients had severe effects on their brain which caused confusion and seizures. These patients also had difficulty moving and speaking. Two of these patients remained in the intensive care unit (ICU) for several months with these symptoms, and both of these patients died.
- Immune-type reaction
  - In similar clinical trials with cells targeting a melanoma protein, we have observed the following immune-mediated toxicities: loss of skin pigment (known as vitiligo), inflammation of the eye (uveitis), hearing loss, and dizziness. The skin, the eye, and the ear are all sites where that targeted melanoma protein is known to exist.
  - In other clinical trials with a similar type of cell therapy, two patients died due to an immune type reaction from the cells.
- Mesothelin is present on the membranes which surround the lungs, heart, and abdomen as well as in cells in the trachea (wind pipe), eye, tonsils and Fallopian tubes (tubes in the uterus). Immunotoxins (antibodies with a toxic agent attached) which target mesothelin have been used to treat patients in other studies. Some of the side effects seen in these studies include pleuritis (inflammation of the membrane which surrounds the lung) resulting in pain, and pleural effusion (excess fluid in between the membranes which surround the lung). Other side effects include shortness of breath, fatigue, nausea and vomiting, weight gain, edema (increase in fluid in the body), infection, and capillary leak syndrome.
• You will be treated on this gene transfer protocol with a viral vector that was manufactured at the NCI Surgery Branch Vector Production Facility before May 2016. An internal review of the facility that made the vector for this protocol determined that the facility needed to be closed due to manufacturing issues. We know of no additional risks related to the previously produced vector for patients who have received cells with vectors made in this facility as the vectors were extensively tested by outside experts. Therefore, the IRB has determined that the potential benefit to you outweighs the potential risks.

There is no data available at this time to guide us in how humans might respond to this type of cell infusion. As this is a new experimental therapy, side effects that we do not anticipate that may cause your condition to deteriorate may be encountered. Any new information that becomes available during the course of this study will be shared with you.

Medications

The side effects of cyclophosphamide, fludarabine, IL-2 and some of the other medications you will receive are listed in below.

<table>
<thead>
<tr>
<th>Cyclophosphamide and Fludarabine side effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common</td>
</tr>
<tr>
<td>Changes in blood counts including: low red cell count (causing fatigue and shortness of breath), low platelet count (increasing the risk of bleeding and bruising), decrease in white blood cells (increasing the risk of infection and the need for treatment with antibiotics or other treatment)</td>
</tr>
<tr>
<td>Loss of appetite, nausea, vomiting, Diarrhea, stomach pain Mouth sores Hair loss Fatigue Muscle or joint aches</td>
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</tbody>
</table>

Support Medications – side effects

<table>
<thead>
<tr>
<th>Filgrastim (To increase production of white blood cells)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common</td>
</tr>
</tbody>
</table>

PATIENT IDENTIFICATION

CONTINUATION SHEET for either:
NIH-2514-1 (07-09)
NIH-2514-2 (10-84)
P.A.: 09-25-0099
File in Section 4: Protocol Consent
### Bone Pain
- Severe headache
- Severe breathing problems
- Rupture of your spleen

### Bactrim (To prevent a specific type of pneumonia)
- Fever
- Nausea, vomiting,
- Skin rash with itching
- Reduced number of white blood cells
- Allergic reaction

<table>
<thead>
<tr>
<th>Common</th>
<th>Less common</th>
<th>Rare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluconazole: (To prevent fungal infections)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td>A skin disorder called Stevens Johnson Syndrome, which can be fatal</td>
</tr>
<tr>
<td>Nausea, vomiting,</td>
<td></td>
<td>Liver damage which may be permanent</td>
</tr>
<tr>
<td>diarrhea, abdominal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Itching</td>
<td></td>
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</tr>
</tbody>
</table>

| Acyclovir and Valacyclovir |                   |                                           |
| Temporarily decrease in kidney function which may not cause any symptoms |                   | Skin rash, hives, itching |
| Nausea, vomiting, diarrhea, constipation |                   | Tremors, dizziness, Confusion, seizures |
| Pain and irritation at place of injection |                   | Fatigue, Blood in the urine |

### Low dose Aldesleukin Risks and Discomforts
<table>
<thead>
<tr>
<th>Common</th>
<th>Unlikely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local swelling at the site of injection</td>
<td>Nausea</td>
</tr>
<tr>
<td>Low blood pressure</td>
<td>Vomiting</td>
</tr>
<tr>
<td>Tiredness</td>
<td>Diarrhea</td>
</tr>
<tr>
<td>Swelling in hands and feet</td>
<td>Infection</td>
</tr>
<tr>
<td>Rash</td>
<td>Laboratory changes including kidney blood tests</td>
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<tr>
<td></td>
<td>Decreased urine</td>
</tr>
<tr>
<td></td>
<td>Changes in consciousness</td>
</tr>
<tr>
<td></td>
<td>Infections</td>
</tr>
</tbody>
</table>

### PATIENT IDENTIFICATION
- NIH-2514-1 (07-09)
- NIH-2514-2 (10-84)
- P.A.: 09-25-0099
- File in Section 4: Protocol Consent
Prior to and throughout this study you will undergo many tests to determine the size and extent of your tumor, as well as the impact of the regimen. Multiple blood tests will be performed and some of your serum and lymphocytes will be stored for future testing. Blood and tissue samples collected from you may be stored and used in the future to study scientific questions related to this protocol. If there are any risks to you or your family associated with these future scientific studies which are not covered in this consent form, your consent will be obtained before such studies are performed.

If your disease progresses, or recurs after this experimental regimen and you are not eligible for retreatment, then you will no longer receive the regimen in this protocol, though you may be eligible to be considered for other protocols at the National Cancer Institute, NIH or referred elsewhere for treatment.

**Gene Therapy Risk of Cancer and Other Diseases**

When retroviral vectors enter a normal cell in the body, the DNA of the vector inserts itself into the normal DNA in that cell; this process is called integration. Most integration is expected to cause no harm to the cell or to the patient. However, there is a chance that there may be some regions of the normal human DNA where integration of the viral vector’s DNA may result in activation of neighboring genes. For example, if one of these genes were a growth factor, this may cause uncontrolled division of the cell, resulting in a cancer. This type of event has occurred in one animal study in mice where the vector integration site correlates with the occurrence of cancer in these mice. Five instances of a similar event have been reported in five children out of 22 who received a retroviral vector in two experimental gene transfer studies for X-linked Severe Combined Immunodeficiency (SCID) conducted in Europe, not under the jurisdiction of the U.S. Food and Drug Administration (FDA). While most of the children who participated in this clinical trial appear to have been cured of their disease, five children developed leukemia (a form of cancer of the blood) approximately 2-6 years after receiving the gene transfer regimen. The first patient had extensive testing done to determine the cause of the leukemia. A group of experts in this field have looked at all the test results, and concluded that the gene transfer caused the leukemia in the first child. One of the children died as a result of their leukemia. The risk of another cancer developing in you, including leukemia, is unknown, but you need to be aware of this possible risk. To monitor you for this risk we will be testing your blood 3 months after cell infusion, then at 6 and 12 months, and then annually thereafter. If we find that the cells we have given you grow out of control, chemotherapy will be given to you to kill the cells, given their risk of causing leukemia or a second cancer. This testing will be conducted on our protocol 09-C-0161, “Follow up Protocol for Subjects Previously Enrolled in NCI Surgery Branch Studies” to which you will be enrolled following treatment.
Potential Benefits of Participation

Are there benefits to taking part in this study?

The aim of this study is to see if this experimental treatment will cause your tumors to shrink. We do not know if you will receive personal, medical benefit from taking part in this study. These potential benefits could include shrinking of your tumor or lessening of your symptoms, such as pain, that are caused by the cancer. Because there is not much information about the effect of this treatment on cancer, we do not know if you will benefit from taking part in this study, although the knowledge gained from this study may help others in the future who have cancer.

Alternative Approaches or Treatments

What other choices do I have if I do not take part in this study?

Other options for treatment of your cancer include:
- Taking part in another study
- Getting treatment or care for your cancer without being in a study
- Getting comfort care which is also called palliative care. This type of care helps reduce pain, tiredness, appetite problems, and other problems caused by cancer. It does not treat the cancer directly, but instead tries to improve how you feel. Comfort care tries to keep you as active and comfortable as possible.

Please talk to your doctor about these and other options.

Research Subject's Rights

What are the costs of taking part in this study?

If you choose to take part in the study, the following will apply, in keeping with the NIH policy:
- You will receive study treatment at no charge to you. This may include surgery, medicines, laboratory testing, x-rays or scans done at the Clinical Center, National Institutes of Health (NIH), or arranged for you by the research team to be done outside the Clinical Center, NIH if the study related treatment is not available at the NIH.
- There are limited funds available to cover the cost of some tests and procedures performed outside the Clinical Center, NIH. You may have to pay for these costs if they are not covered by your insurance company.
- Medicines that are not part of the study treatment will not be provided or paid for by the Clinical Center, NIH.
- Once you have completed taking part in the study, medical care will no longer be provided by the Clinical Center, NIH.
Will your medical information be kept private?

We will do our best to make sure that the personal information in your medical record will be kept private. However, we cannot guarantee total privacy. Organizations that may look at and/or copy your medical records for research, quality assurance, and data analysis include:

- The National Cancer Institute (NCI) and other government agencies, like the Food and Drug Administration (FDA), which are involved in keeping research safe for people.
- National Cancer Institute Institutional Review Board
- The Study Sponsor, Center for Cancer Research or their agents
- Kite Pharma

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.

Stopping Therapy

Your doctor may decide to stop your therapy for the following reasons:

- if he/she believes that it is in your best interest
- if your disease comes back during treatment
- if you become pregnant
- if you have side effects from the treatment that your doctor thinks are too severe
- if new information shows that another treatment would be better for you

In this case, you will be informed of the reason therapy is being stopped.

You can stop taking part in the study at any time. However, if you decide to stop taking part in the study, we would like you to talk to the study doctor and your regular doctor first.

If you decide at any time to withdraw your consent to participate in the trial, we will not collect any additional medical information about you. However, according to FDA guidelines, information collected on you up to that point may still be provided to the Sponsor. If you withdraw your consent and leave the trial, any samples of yours that have been obtained for the study and stored at the NCI can be destroyed upon request. However, any samples and data generated from the samples that have already been distributed to other researchers or placed in the research databases cannot be recalled and destroyed.

Certificate of Confidentiality

To help us protect your privacy, we have obtained a Certificate of Confidentiality. The researchers can use this Certificate to legally refuse to disclose information that may identify you in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings, for
example, if there is a court subpoena. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained below.

You should also know that there are several circumstances in which the Certificate does not provide coverage. These include when information:

- will be used for auditing or program evaluation internally by the NIH; or
- must be disclosed to meet the legal requirements of the federal Food and Drug Administration (FDA).
- is necessary for your medical treatment and you have consented to this disclosure;
- is for other research.

In addition, identifiable, sensitive information protected by this Certificate cannot be admissible as evidence or used for any purpose in any action, suit, or proceeding without your consent.

You should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If an insurer, employer, or other person obtains your written consent to receive research information, then the researchers will not use the Certificate to withhold that information. The Certificate of Confidentiality will not protect against the required reporting by hospital staff of information on suspected child abuse, reportable communicable diseases, and/or possible threat of harm to self or others.

Conflict of Interest

The National Institutes of Health (NIH) reviews NIH staff researchers at least yearly for conflicts of interest. This process is detailed in a Protocol Review Guide. You may ask your research team for a copy of the Protocol Review Guide or for more information. Members of the research team who do not work for NIH are expected to follow these guidelines but they do not need to report their personal finances to the NIH.

Members of the research team working on this study may have up to $15,000 of stock in the companies that make products used in this study. This is allowed under federal rules and is not a conflict of interest.

The National Institutes of Health and the research team for this study are using the Anti-mesothelin CAR developed by the NCI Surgery Branch through a joint study with your researchers and the company (Kite Pharma). Kite Pharma also provides financial support for this study.

Use of Specimens and Data for Future Research

Blood and tissue collected during the course of this study will be used for future research and will be stored, tracked and disposed of under our companion protocol 03-C-0277, (Cell Harvest and Preparation for Surgery Branch Adoptive Cell Therapy Protocols) on which you have already been enrolled.
In addition, to advance science, it is helpful for researchers to share information they get from studying human samples. They do this by putting it into one or more scientific databases, where it is stored along with information from other studies. A researcher who wants to study the information must apply to the database and be approved. Researchers use specimens and data stored in scientific databases to advance science and learn about health and disease.

We plan to keep some of your specimens and data that we collect and use them for future research and share them with other researchers. We will not contact you to ask about each of these future uses. These specimens and data will be stripped of identifiers such as name, address or account number, so that they may be used for future research on any topic and shared broadly for research purposes. Your specimens and data will be used for research purposes only and will not benefit you. It is also possible that the stored specimens and data may never be used. Results of research done on your specimens and data will not be available to you or your doctor. It might help people who have cancer and other diseases in the future.

If you do not want your stored specimens and data used for future research, please contact us in writing and let us know that you do not want us to use your specimens and/or data. Then any specimens that have not already been used or shared will be destroyed and your data will not be used for future research. However, it may not be possible to withdraw or delete materials or data once they have been shared with other researchers.
OTHER PERTINENT INFORMATION

1. **Confidentiality.** When results of an NIH research study are reported in medical journals or at scientific meetings, the people who take part are not named and identified. In most cases, the NIH will not release any information about your research involvement without your written permission. However, if you sign a release of information form, for example, for an insurance company, the NIH will give the insurance company information from your medical record. This information might affect (either favorably or unfavorably) the willingness of the insurance company to sell you insurance.

The Federal Privacy Act protects the confidentiality of your NIH medical records. However, you should know that the Act allows release of some information from your medical record without your permission, for example, if it is required by the Food and Drug Administration (FDA), members of Congress, law enforcement officials, or authorized hospital accreditation organizations.

2. **Policy Regarding Research-Related Injuries.** The Clinical Center will provide short-term medical care for any injury resulting from your participation in research here. In general, no long-term medical care or financial compensation for research-related injuries will be provided by the National Institutes of Health, the Clinical Center, or the Federal Government. However, you have the right to pursue legal remedy if you believe that your injury justifies such action.

3. **Payments.** The amount of payment to research volunteers is guided by the National Institutes of Health policies. In general, patients are not paid for taking part in research studies at the National Institutes of Health. Reimbursement of travel and subsistence will be offered consistent with NIH guidelines.

4. **Problems or Questions.** If you have any problems or questions about this study, or about your rights as a research participant, or about any research-related injury, contact the Principal Investigator, Steven A. Rosenberg, M.D., Ph.D., Building 10 CRC, Room 3-3940, Telephone: 240-760-6218. You may also call the Clinical Center Patient Representative at 301-496-2626. If you have any questions about the use of your specimens or data for future research studies, you may also contact the Office of the Clinical Director, Telephone: 240-760-6070.

5. **Consent Document.** Please keep a copy of this document in case you want to read it again.
<table>
<thead>
<tr>
<th>COMPLETE APPROPRIATE ITEM(S) BELOW:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Adult Patient’s Consent</strong></td>
</tr>
<tr>
<td>I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby consent to take part in this study.</td>
</tr>
<tr>
<td><strong>B. Parent’s Permission for Minor Patient.</strong></td>
</tr>
<tr>
<td>I have read the explanation about this study and have been given the opportunity to discuss it and to ask questions. I hereby give permission for my child to take part in this study. (Attach NIH 2514-2, Minor’s Assent, if applicable.)</td>
</tr>
<tr>
<td>Signature of Adult Patient/ Legal Representative</td>
</tr>
<tr>
<td>Signature of Parent(s)/ Guardian</td>
</tr>
<tr>
<td>Print Name</td>
</tr>
<tr>
<td><strong>C. Child’s Verbal Assent (If Applicable)</strong></td>
</tr>
<tr>
<td>The information in the above consent was described to my child and my child agrees to participate in the study.</td>
</tr>
<tr>
<td>Signature of Parent(s)/Guardian</td>
</tr>
</tbody>
</table>

**THIS CONSENT DOCUMENT HAS BEEN APPROVED FOR USE FROM OCTOBER 25, 2018 THROUGH MAY 06, 2019.**

| Signature of Investigator | Date |
| Signature of Witness | Date |
| Print Name | Print Name |