Informed Consent Template for HCMI (December 11, 2018)

Would you volunteer to be in a cancer research project?

We are asking your permission to include you in a cancer research project called the Human Cancer Models Initiative (HCMI) that is being run here at [institution]. We want you to know that:

- Taking part in this research project is entirely voluntary.
- You may choose not to volunteer, and it will not affect your care here in any way.
- You will not benefit from taking part in the project. The research is very early stage, so it may only give us knowledge that will help people in the future.
- There is much more information below. If you are thinking about volunteering, please take as much time as you need to read this form, ask questions of our staff and your doctor, discuss the project with anyone, and think about it before answering.
- If you are signing for a minor child, "you" refers to "your child" throughout this form.

Purpose of this project

The purpose of HCMI is to make a working copy of your cancer (a model) that will continually grow in a laboratory dish. To make this copy, we would take some of the extra tissue remaining from the procedure you are about to have and treat it with certain chemicals and nutrients. Sometimes this treatment can turn cancer tissue into a "cell line/model", which means the cancer will continue to grow outside of the body. Because these models are a designed to be a very accurate copy of the original cancer, they can be very useful to scientists who want to understand how cancers work, what causes cancer, and can also be used to test new drugs. The models are most useful when they are connected to your clinical information, which includes information about you, your disease, how you were treated, and how you responded to that treatment. This clinical information will be collected, but all obvious identifiers (like your name, social security number, medical record number, address and phone number) will be removed.

The goal of this project to make a large library of many different cancer models connected to the clinical information from each cancer patient who donated the tissue. The library of models and information will be kept at central locations, and then made available to cancer researchers worldwide through a distributor.

Background information

Tissues in your body are made up of many cells that contain genetic material, for example DNA. DNA is the genetic material that provides a code of instructions that tell your body's cells how to develop and function. Changes in this genetic code can lead to cancer, a disease where cells stop following their normal biological instructions and start to grow out of control. In recent years, researchers have discovered many genetic changes, and are working to understand how some of them lead to cancer. If the HCMI project can successfully make a model from your tissue, researchers can use that model to study cancer, including the genetic changes that occurred.

In the future, when researchers better understand cancer, doctors may use cancer models to customize cancer treatments based on each patient's unique genetic make-up or test different drugs on cancer models made from a patient's tumor before giving those drugs to that patient. Sharing the models developed by this early research project is the first step in making that kind of progress.

Who is doing this project?

This project is an international collaboration between the National Cancer Institute (NCI), which is part of the US government agency known as the National Institutes of Health (NIH), Welcome Trust Sanger Institute, Cancer Research UK and Hubrecht Organoid Technology. NCI funds Cancer Model Development Centers. All of those institutions will donate the models to the central library for distribution.

Why are we asking if you will volunteer for this project?
You have had a clinical exam that identified tissue growth that may be cancerous. Or you may have already been diagnosed with cancer. You are being asked to participate in this project because, as part of your planned medical procedure, you are having your growth biopsied or are undergoing surgery to have your tumor removed. Normally, any extra tissue from this process would be thrown away.

We are requesting your permission to use some of that extra cancer tissue, to collect some of your normal tissue, and to collect information from your medical records to try to build a model of your cancer. The following sections describe how your tissue samples and information will be collected and studied if you give us this permission.

Project results
Your individual results from this research project will not be given back to you, your doctors, or put into your medical records. This is because the research has not been proven yet to yield any useful results, it is being done in labs that are not certified to do clinical testing, and because your samples and data will have been anonymized, there is no way to link them back to you. If there are publications from this project, they will be found at the [http://] website.

Protecting your privacy and keeping your information confidential
We will work very hard to keep your information confidential. To protect your privacy, we will not try to re-contact you after this point in your medical care.

If you volunteer to be part of the project, this signed consent form will be stored in a locked file that will be accessible only to authorized people involved in this project. When results of this research project are reported in medical journals or at scientific meetings, the people who volunteered their samples and information are not named.

Removing your identity from your tissue samples and medical information
Your tissues and information will be de-identified, which means that all your obvious identifiers (like name, social security number, medical record number, address, phone number, and others) will be stripped away. Your samples and information will only be labeled with a random number code.

Dr. [Physician] at [Institution] will keep a link between that random number code and your ID in a secure database. Only authorized people who have specifically agreed to protect your identity will have access to that database, and the link will not be shared with anyone outside of [Institution].

Once models are successfully created from your cancer, your information has been collected and the models are stored in the distribution biobank, that link will be permanently broken. Only the random code will be attached to the tissue samples, models and your information, and it will not be possible to link you back to those models.

Sometimes making a model doesn't work, in which case we will also break the link and throw away your tissues and information.

Certificate of Confidentiality
To help us protect the confidentiality of your information, we have obtained a Certificate of Confidentiality from the National Institutes of Health (for US Institutions only). With this Certificate, we cannot be forced to reveal information that may identify you, even by a court order, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. We will use this Certificate to resist any demands for information that would identify you, with the following exceptions.

- The Certificate cannot be used to stop a request for your information from the United States Government when the information is to be used for auditing or evaluation of federally funded projects or for information that must be disclosed to meet the requirements of the federal Food and Drug Administration (FDA).
- The Certificate does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this project. Also, if you have given written permission to an insurer, employer, or other person to receive research information, then we may not use the Certificate to withhold that information.

Your tissue samples and information collection

Your scheduled biopsy or surgery is part of a medical treatment that you agreed upon with your doctor. That biopsy or surgery is not part of the HCMI research project. During the procedure, cancer tissue will be removed. Many times, there ends up being more tissue than is needed for your diagnosis, which is normally thrown away. After the pathology department takes the tissue they need for your medical care, we are asking your permission to get some of that extra cancer tissue.

To understand the genetic changes in your cancer tissue, we need to compare it to your normal genetics. So, we are also asking your permission to collect some of your normal tissue by drawing about 4 teaspoons of blood from a vein in your arm. If you object to having blood drawn, we can collect some normal tissue by swabbing cells from the inside of your cheeks.

We are also asking to collect information from your medical records, including your age, ethnic background, diagnosis, disease history, medical treatments, and response to treatments. We will also collect some information about your social history, such as whether or not you smoke cigarettes and drink alcohol. We will not collect your name, address, phone number, medical record number or any other obvious identifiers.

What we do with your samples and medical information

Portions of your cancer tissue sample will be sent to laboratories that specialize in growing cancer tissues in lab dishes to make cancer models. If successful, the models will be grown into larger quantities, frozen, and stored at a central distributor's biobank. That distributor is a non-profit organization, which can distribute portions of the model to scientists and companies for use in a broad variety of biomedical research and experiments.

Other portions of your tissue samples and a portion of the model created will be sent to another facility that specializes in extracting the genetic material (DNA and RNA) from samples. The materials will be processed there, and the DNA and RNA will be sent to yet another laboratory that specializes in analyzing them. The genetic information from your tumor sample and from the cancer model will be obtained by a method called sequencing. Sequencing allows researchers to read the codes of instructions that are spelled out in your DNA and help them identify genetic changes that result due to the cancer process or that may be associated with your cancer.

Information from sequencing of your samples, the models and your clinical information will be put into a central database, along with information from the other people who volunteered for this project. These databases will be accessible by the internet to the research community. All the information in this database will only be labeled with the random number code; it will not include your name, social security number, medical record number, address and phone, or any other obvious identifier. To access this database, any researcher and their institution will have to:

- Agree to never use the data to identify the donors of the materials,
- Agree to use the data only for research projects, and

- Apply for access and receive approval from NCI's Data Access Committee (http://epi.grants.cancer.gov/dac/charter.html) who has responsibility for making sure the research is worthwhile and enforcing the donor protection rules.

Potential risks of participating in this project

There are some risks if you decide to participate in this research project.

Physical risks

There are very few physical risks associated with this project. There are possible side effects from drawing the blood sample include mild pain, bleeding, or bruising. Sometimes an infection can happen at the site of the needle insertion. Fainting or light-headedness can sometimes occur, but usually lasts only a few minutes.

Risks if information about you is accidently released

Keeping your information confidential is very important to us and we use many safety measures to protect that information. However, some of this information may still be traceable to you and we cannot guarantee that your identity will never become known. It is possible, for example, that there could be violations to the security of the computer systems used to store the link between the random number code and your name or other identifiers. It is also possible that, in the future, someone could compare information in our databases with information from you (or a relative) in another database and be able to identify you (or your relative). While we believe that the risks to you and your family are low if your identity became known, we are unable to tell you exactly what all of the risks are. There are some laws that protect you against genetic discrimination by employers or insurance companies. In 2008, the US federal government passed the Genetic Information Nondiscrimination Act (GINA), a law that prohibits genetic discrimination in employment and health insurance. It is important to note that while this law protects you from certain kinds of genetic discrimination, there are exceptions. For example, GINA does not apply to employers with fewer than 15 employees. Additionally, this law does not protect you from genetic discrimination in life, disability, or long-term care insurance. *[Note: insert state/local laws reference as necessary.]*

If your identity became known, here are some of the possible risks:

- There could be psychological or social risks associated with loss of privacy. For example, your genetic information could potentially be used in ways that could cause you or your family distress by revealing that you (or a relative) carry a genetic disease. This could lead to the denial of life insurance for you (or a relative).
- Patterns of genetic information are shared by relatives. If your identity became known, it is possible that the identity of your relatives could also become known.
- Patterns of genetic variation also can be used by law enforcement agencies to identify a person or his/her relatives.
- There may also be other privacy risks that we have not foreseen.

Voluntary Participation

The choice to participate in this research is completely up to you. No matter what you decide, it will not affect your medical care.

[Institution specific language] If you are already taking part in a clinical trial (for example, to test a new drug or treatment method), you are still eligible to participate in this research project.

Alternatives to participating in this project: You may choose to not to participate.

Benefits of participating in this project

You will not personally benefit from this project; the research is too early stage. The main reason you may want to participate is to help researchers and health professionals around the world to better understand the basic causes of cancer and other diseases so that they can find better ways to prevent, detect, treat, and cure them.

Costs and payments to you

It will not cost you anything to participate in this project. You will not be paid to participate in this project. Your medical information, tissue samples, and any models that are made will only be used for research. However, it is possible that some of the research using your samples could eventually lead to the invention of new diagnostic tests, new drugs, or other products that could be sold by companies. If this would happen, you will not get any part of the profits from those products.

[Institution specific language] The chance that you will be physically injured as a result of participating in this project is very small. However, if you are physically injured as a result of participating in this project, emergency medical treatment for your research-related injury will be provided to you at no cost.

Withdrawing from the project

You may choose to stop being part of this research project for any reason, but only up to a certain point in the future. We can't know how long it will take to work with your samples to successfully make a model. If you withdraw soon enough, we will stop working with your tissue samples and stop trying to make models, and we will stop collecting any of your medical information. Your information will be deleted, and your tissue will be thrown away. However, if we have passed the point of creating models from your tissue and put your information in the database, and broken the link to your identity, it will no longer be possible to discard your samples, the models, or remove your information from this project. This means that if you agree to let us use your tissues and information, and cancer models are successfully grown from your samples, the models and your associated information could be used forever.

If you withdraw from this project, it will in no way affect the care you receive from this hospital.

If you wish to withdraw, please contact the person named below.

[Institution specific language]

Agreeing to Participate in the Project

Please keep a copy of this form in case you want to read it again or contact the people running this project.

If you have any questions or concerns about this project, or about your rights as a research volunteer, or about any research-related injury, please contact [institutional specific language] [do not automatically promise ability to withdraw].

Signatures

Please initial below to indicate that you agree your samples can be used to generate cancer models that will be available to other researchers as described above.

YES___ NO___ (initial)

Please initial below to indicate that you agree we can collect your medical information and that your samples can be used to obtain your genetic information and the results can be made available to other researchers.

YES___ NO___ (initial).

<table>
<tr><td colspan="4">COMPLETE APPROPRIATE ITEM(S) BELOW:</td></tr>
<tr><td colspan="2">A. Adult Patient's Consent
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.

_____ _____
Signature of Adult Patient/ Legal Representative Date

_____
Print Name</td><td colspan="2">B. Parent's Permission for Minor Patient.
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.)

_____ _____
Signature of Parent(s)/ Guardian Date

_____
Print Name</td></tr>
<tr><td colspan="4">C. Child's Verbal Assent (If Applicable)
The information in the above consent was described to my child and my child agrees to participate in the study.

_____ _____ _____
Signature of Parent(s)/Guardian Date Print Name</td></tr>
<tr><td colspan="4">THIS CONSENT DOCUMENT HAS BEEN APPROVED FOR USE FROM THROUGH.

_____ _____ _____ _____
Signature of Investigator Date Signature of Witness Date

_____ _____
Print Name Print Name</td></tr>
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