CONSENT FORM TO PARTICIPATE IN A CLINICAL TRIAL

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PROJECT # 2010166

Study Title: TUMOR CELL AND DNA DETECTION IN THE BLOOD, URINE AND BONE MARROW OF PATIENTS WITH SOLID CANCERS

INTRODUCTION

This consent may contain words that you do not understand. Please ask the investigator or the study staff to explain any words or information that you do not clearly understand.

This is a clinical trial which includes only people who choose to participate. As a study participant you have the right to know about the procedures that will be used in this clinical trial so that you can make the decision whether or not to participate. The information presented here is simply an effort to make you better informed so that you may give or withhold your consent to participate in this clinical trial. A description of this clinical trial will be available on 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.

Please take your time to make your decision and discuss it with your family and friends.

You are being asked to take part in this study because

- **You have a solid cancer (such as from the lung, liver, esophageal, stomach, bile duct/pancreas, colorectal, melanoma, sarcoma) and you may or may not have surgery for the cancer**

OR

- **You are at high-risk for lung cancer and participate in a lung cancer screening program**

OR

- **You are having surgery for a medical condition that is benign (not cancer) and your sample(s) will serve as a control for cancer patients.**

This clinical trial is being sponsored by the Department of Surgery at the University of Missouri.

In order to participate in this clinical trial, it will be necessary to give your written consent.

WHY IS THIS STUDY BEING DONE?

Some cancers have the ability to spread from their original location to other organs in the body. The purpose of this study is to find cancer cells in your blood and bone marrow. We would like to study how these spreading cancer cells could be targeted with medications, so that more patients suffering from cancer will be cured in future. Also, we want to find early cancers in people undergoing lung cancer

screening and finding cancer cells in the blood will help diagnosing lung cancers at an early and curable stage.

HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

In total, 500 people will take part in this study at University of Missouri.

WHAT IS INVOLVED IN THE STUDY?

If you take part in this study, you will have the following tests and procedures:

- Procedures that are part of the standard care will be done even if you do not join the study. Your lung cancer screening schedule will not be affected, even if you do not join the study.
- Once you undergo surgery, blood will be drawn and urine will be collected at the skin incision, during and at the end of surgery, and on the next morning the day after surgery.
- We will also store some leftover cancer and healthy tissue that has been removed during the surgery. No tissue will be removed for the clinical trial, only leftover tissue will be used for this investigation.
- Once you are under anesthesia for your surgery, the surgeon will also collect bone marrow fluid with a needle from the wing of your iliac bone (iliac crest), ribs or breast bone, depending on where the surgery will be performed. The bone marrow collection will be done for clinical trial only. It is not part of your routine medical care. If you do not agree to participate in this clinical trial, no bone marrow will be collected from you.
- If you do not undergo surgery, blood will be drawn via a standard needle blood draw (venipuncture) and urine will be collected in a container. NO bone marrow aspiration will be performed.
- If you undergo further cancer surveillance or lung cancer screening at the Hospital Clinics or Ellis Fischel Cancer Center at the University of Missouri, we will also draw blood and collect urine from you during your outpatient clinic visits later on. These are being done every 3 to 12 months (which will be determined by your treating physician), for a maximum of five years.
- We may also collect stool samples to test the microbiome (bacteria) composition in your feces.

The clinical trial will/might include using cells from your body to start a cell line. A cell line is one that will grow in the laboratory and is also known as a germline. This procedure is called whole genome sequencing. We will/might share the germline with other researchers.
The results of the clinical trial will not be given to you or to your doctor.

HOW LONG WILL I BE IN THE STUDY?

We think you will be in the study for 60 months. The investigator and/or your doctor may decide to take you off this study if you have continuous blood loss (anemia), require more than 4 blood transfusions during surgery, or you develop a bleeding disorder or an immune defect. Under these circumstances, the blood draws and bone marrow fluid aspirations will not be performed. Yet, we might still store some surgically removed tissue and collect urine and stool samples for research purposes.
We will keep the information and/or samples we collect from you for this study to use in future research/to share with other investigators to use in future studies without asking for your consent again. Information that could identify you will be removed from your research data/samples so no one will know that it/they belong to you.

You can stop participating at any time. Your decision to withdraw from the study will not affect in any way your medical care and/or benefit your medical condition.

WHAT ARE THE RISKS OF THE STUDY?

While on the study, you are at risk for the side effects described below. You should discuss these with the investigator and/or your doctor. There may also be other side effects that we cannot predict. Many side effects go away shortly after the interventions are stopped, but in some cases side effects can be serious or long-lasting or permanent.

Risks and side effects related to the procedures, drugs, or devices we are studying include:

Risks of standard venipuncture

The discomfort associated with removing blood by venipuncture (by needle from a vein) is a slight pinch or pin prick when the sterile needle enters the skin. A blood amount of 22.5cc (1½ tablespoons) will be collected from you at each time point, adding up to 6 tablespoons of blood that will be collected via venipuncture.

If you do not undergo surgery, and you are a lung cancer screening participant, we will collect blood via venipuncture.

If you are a participant undergoing surgery, we will most likely do the venipuncture on the day of surgery. In addition, on the next morning after surgery and then every 3 to 12 months for a maximum of 5 years, another 1½ tablespoons of blood will be collected.

The risks of venipuncture include mild temporary discomfort and/or a black and blue mark (bruising) at the site of puncture from the needle stick. Less common risks include a small blood clot, infection or bleeding at the puncture site, and on rare occasions fainting during the procedure. These are risks you would have with or without the research.

Risks of bone marrow aspiration

Bone marrow aspiration is performed in patients undergoing surgery only. If you are not undergoing surgery, and if you are a lung cancer screening participant, you will NOT undergo bone marrow aspiration.

In general, bone marrow fluid aspiration is an established routine testing method for diagnosis blood disorders. Once you are under anesthesia for your cancer surgery, the surgeon will perform a needle aspiration from a bone marrow compartments under sterile conditions, such as the wing of your iliac bone (iliac crest), breast bone or your ribs. A needle aspiration of 22.5cc (1½ tablespoons) of bone marrow fluid will be performed during the surgery only, which is less than 1% of the bone marrow content in the whole body of an average person.

The risks include mild temporary discomfort and/or a black and blue mark (bruising) at the site of puncture from the needle stick. Severe complications are very rare but can include bleeding (particularly if you have a bleeding disorders) or infections in case your immune system is severely weakened. You may have long-lasting discomfort at the aspiration site. Another rare event could be breaking of the needle during penetration of the bone. This would require a removal of the broken needle from the tissue.

For the reasons stated above the investigator will observe you closely while giving the treatment described and, if you have any worrisome symptoms or symptoms that the investigator or his associates have described to you, notify the investigator immediately. Dr. Kaifi's telephone number is 573-882-6956. For more information about risks and side effects, ask the investigator or contact Lynhart B. Lasta at 573-882-4896.

ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

If you agree to take part in this study, there will not be direct medical benefit to you. You may expect to benefit from taking part in this clinical trial to the extent that you are contributing to medical knowledge. We hope the information learned from this study will benefit other patients with cancer in the future.

WHAT OTHER OPTIONS ARE THERE?

Instead of being in this study, you have these options:

You will get the same standard cancer treatment even if you do not take part in the study or if you do take part in this study. Taking part in this study will not affect your cancer treatment or any other tests, including screening, or therapies that you may need.

WHAT ABOUT CONFIDENTIALITY?

Information produced by this study will be stored in the investigator's file and identified by a code number only. The code key connecting your name to specific information about you will be kept in a separate, secure location. Information contained in your records may not be given to anyone unaffiliated with the study in a form that could identify you without your written consent, except as required by law. If the investigator conducting this study is not your primary, or regular doctor, he must obtain your permission before contacting your regular doctor for information about your past medical history or to inform them that you are in this trial.

It is possible that your medical and/or research record, including sensitive information and/or identifying information, may be inspected and/or copied by the study sponsor (and/or its agent), the Food and Drug Administration (FDA), federal or state government agencies, or hospital accrediting agencies, in the course of carrying out their duties. If your record is inspected or copied by the study sponsor (and/or its agents), or by any of these agencies, the University of Missouri will use reasonable efforts to protect your privacy and the confidentiality of your medical information.

The results of this study may be published in a medical book or journal or used for teaching purposes. However, your name or other identifying information will not be used in any publication or teaching materials without your specific permission.

WHAT ARE THE COSTS?

There is no cost to you for the study participation (including collecting and studying blood draws, urine, stool, tissue, bone marrow fluid, etc.) itself. However, you will be paying for the normal cost of your routine medical care. Any procedure related solely to research that would not otherwise be necessary will be explained. Some of these procedures may result in added costs and some of these costs may not be covered by your insurance. Your doctor will discuss these with you.

In addition, the use of other medications to help control side effects could result in added costs that may or may not be covered by your medical insurance.

Please note that added costs may include insurance co-payments for doctor visits, transportation, parking, and/or other possible expenses during your participation in this study. Please discuss these issues with the study investigator and/or your doctor.

You will not be charged for tests that are part of this clinical trial. You or your insurance company will, however, be charged for any other portion of your care that is considered standard care.

You or your insurance company will be charged for continuing medical care and/or hospitalization.

WILL I BE PAID FOR PARTICIPATING IN THE STUDY?

You will receive no payment for taking part in this study.
Your samples may be used by the investigator/sponsor to develop new treatments that may be sold commercially for profit. You will/will not share in these profits.

WHAT IF I AM INJURED?

It is not the policy of the University of Missouri to compensate human subjects in the event the research results in injury. The University of Missouri, in fulfilling its public responsibility, has provided medical, professional and general liability insurance coverage for any injury in the event such injury is caused by the negligence of the University of Missouri, its faculty and staff. The University of Missouri also will provide, within the limitations of the laws of the State of Missouri, facilities and medical attention to subjects who suffer injuries while participating in the research projects of the University of Missouri. In the event you have suffered injury as the result of participation in this clinical trial, you are to contact the Risk Management Officer, telephone number (573) 882-1181, at the Health Sciences Center, who can review the matter and provide further information. This statement is not to be construed as an admission of liability.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

Participation in this study is voluntary. You do not have to participate in this study. Your present or future care will not be affected should you choose not to participate. If you decide to participate, you can change your mind and drop out of the study at any time without affecting your present or future care at the University of Missouri. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. In addition, the investigator of this study may decide to end your participation in this study at any time after he has explained the reasons for doing so and has helped arrange for your continued care by your own doctor, if needed.

You will be informed of any significant new findings discovered during the course of this study that might influence your health, welfare, or willingness to continue participation in this study.

A Data Safety and Monitoring Board, an independent group of experts, will be reviewing the data from this clinical trial throughout the study. We will tell you about the new information from this or other studies that may affect your health, welfare, or willingness to continue participation in this study.

WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions regarding your rights as a participant in this clinical trial and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Institutional Review Board (which is a group of people who review the clinical trial to protect participants' rights) at (573) 882-3181.

If you want to talk privately about your rights or any issues related to your participation in this study, you can contact University of Missouri Research Participant Advocacy by calling 888-280-5002 (a free call) or emailing muresearchrpa@missouri.edu.

You may ask more questions about the study at any time. For questions about the study or a research-related injury, contact Dr. Kaifi at 573-882-6956 or contact Lynhart B. Lasta at 573-882-4896.

A copy of this consent form will be given to you to keep.

SIGNATURE

I confirm that the purpose of the clinical trial, the study procedures, the possible risks and discomforts as well as potential benefits that I may experience have been explained to me. Alternatives to my participation in the study also have been discussed. I have read this consent form and my questions have been answered. My signature below indicates my willingness to participate in this study.

Subject/Patient	Date
Witness	Date

SIGNATURE OF STUDY REPRESENTATIVE

I have explained the purpose of the clinical trial, the study procedures, identifying those that are investigational, the possible risks and discomforts as well as potential benefits and have answered questions regarding the study to the best of my ability.

Study Representative****	Date

****Study Representative is a person authorized to obtain consent. Per the policies of the University of Missouri Health Care, for any 'significant risk/treatment' study, the Study Representative must be a physician who is either the Principal or Co-Investigator. If the study is deemed either 'significant risk/non-treatment' or 'minimal risk,' the Study Representative may be a non-physician study investigator.

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