

## Detailed Information Sheet

Dana-Farber/Harvard Cancer Center  
BIDMC/BCH/BWH/DFCI/MGH/Partners Network Affiliates

OHRS 09.23.16a



**PLEASE NOTE:** If you are the parent or guardian of a child under age 18 who is being asked to take part in this study, the word “you” refers to your child. You, the parent or guardian, will be asked to read and sign a document to give permission for your child to participate.

### **A. INTRODUCTION**

You are being asked to participate in a research study to help doctors, scientists, and members of your medical team understand why cancer occurs and to develop ways to better treat and prevent it. You are being asked to participate because you have cancer now, had it in the past, or you are at risk of developing cancer. You are also being asked because you have a non-cancerous disease of the blood; or because you have a non-cancerous disease that can be treated by undergoing bone marrow transplantation; or because you may be a bone marrow donor. You would experience no further tests or procedures as part of this study other than providing an additional sample of blood, urine, a gentle scrape of the inside of your cheek, or a mouthwash. You can also provide additional blood samples if you so choose. If you have leukemia, lymphoma, a non-cancerous disease of the blood, or if you might be a bone marrow donor, you might also have additional tubes of blood or bone marrow withdrawn during the procedures that you ordinarily undergo for your clinical care.

This document explains why this research study is being done, what is involved in participating, the possible risks and benefits of the study, alternatives to participation, and your rights as a participant. The decision to participate is yours. We encourage you to ask questions about the study now or in the future.

### **B. WHY IS THIS RESEARCH STUDY BEING DONE?**

Cancers, leukemias, and lymphomas occur when the molecules that control normal cell growth are damaged. Many of these changes can be detected by directly examining parts of the cancer or cells in blood or bone marrow. Several alterations that occur repeatedly in certain types of cancers or leukemias have already been identified, and these discoveries have led to the development of new drugs that target those alterations. More remain to be discovered.

Some of these abnormalities include alterations in genes. Genes are the part of cells that contain the instructions that tell our bodies how to grow and work, and determine physical characteristics such as hair and eye color. Genes are composed of DNA letters that spell out these instructions. Studies of the DNA molecules that make up the genes are called “molecular” analyses. Molecular analyses are ways of reading the DNA letters to identify errors in genes that may contribute to an

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increased risk of cancer or to the behavior of the cancer cells. Some changes in genes occur only in cancer cells. Others occur in the genes that are passed from parent to child. This research study will examine both kinds of genes. The best way to find these genes is to study large numbers of people. We expect that as many as 10,000 individuals per year may enroll in this study.

The purpose of this research study is to perform these molecular analyses on your tissues (obtained from biopsies or surgery), blood, or other body fluids such as saliva or urine. Importantly, this study will use tissue specimens that have already been collected and stored in the pathology department or in other storage facilities as part of your clinical care. Your tissue sample may be used to create a living tissue sample (called a “cell line”) that can be grown in the laboratory. This allows researchers to have an unlimited supply of your cells in the future without asking for more samples from you. In this study, analyses will be performed on material only after all necessary clinical tests have been performed. In general, no additional procedures will be required. However, we are asking your permission to obtain one additional sample of blood (a few teaspoons) and a gentle swab from the inside of your mouth to obtain some cells. These are sources of normal, non-cancer cells which are needed for some types of analyses. You can also provide additional blood samples (up to 4 additional tubes or approximately 2 tablespoons each time) if you so choose while you are undergoing blood drawing for your clinical care at this visit and/or subsequent visits. If you have leukemia, lymphoma, a non-cancerous disease of the blood, or might be a bone marrow donor, we are also asking your permission to obtain one tube of bone marrow while you are undergoing bone marrow aspirations that are required for your clinical care. In other words, the additional tube of blood or bone marrow would be taken during your ordinary procedures and would not require an additional needle puncture. You may feel additional pain during the withdrawal of the additional bone marrow and that pain should stop when the marrow withdrawal stops.

To fully understand the effects that molecular alterations have on cancers and leukemias, they must be analyzed in the context of clinical behavior. Therefore, this study also asks your permission to link the information about molecular alterations in your cancer or leukemia with clinical information that has been generated during the course of your clinical care. No additional clinical tests will be required.

Some of these molecular analyses may have clinical importance. For example, they might uncover alterations known to make cancers responsive to specific therapies. Others might make you eligible for a clinical trial testing drugs that are targeted against those abnormalities in your cancer. Still other analyses that currently do not have clinical importance may later be discovered to have some. In order to ensure that testing results will not be placed in your medical record without your permission, testing will not be performed at all unless you give permission to have the results placed in your medical record. If you had testing done already as part of the 11-104 protocol, you or your physician may request a copy of these testing results on your specimen in the past.

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Some of your specimens as well as some of the material generated during the analysis of your tissues or blood may be useful for future study. We are asking your permission to store these specimens and materials in a secure storage facility for possible later use.

Finally, rapid progress in understanding and treating cancer will occur when some of the molecular information derived from your tissues and blood can be shared with other researchers. In particular, the National Institutes of Health (NIH), the American Association for Cancer Research (AACR), and other organizations have developed special data (information) repositories that analyze data and collect the results of certain types of genetic studies. These central banks will store your genetic information and samples and give them to other researchers to do more studies. Therefore, we are also asking your permission to share your results with these special banks. Your information will be sent with only a code number attached. Your name or other directly identifiable information will not be given to central banks. There are many safeguards in place to protect your information and samples while they are stored in repositories and used for research. We do not think that there will be further risks to your privacy and confidentiality by sharing this information with these banks. However, we cannot predict how genetic information will be used in the future.

### **C. WHAT OTHER OPTIONS ARE THERE?**

Taking part in this research study is voluntary. Instead of being in this research study, you may continue to obtain your clinical care without participating in the study. Your decision not to participate will not affect your clinical care in any way.

### **D. WHAT IS INVOLVED IN THE RESEARCH STUDY?**

No additional activity related to this study may be required of you. However, if you agree, an additional tube of blood will be obtained as will a gentle swab of the inside of your cheek (called a "buccal swab"). You may also be asked to provide a urine sample and additional blood samples (up to 4 additional tubes or 2 tablespoons each time) at your visit today and/or subsequent visits if you so choose. If you have leukemia, lymphoma, a non-cancerous disease of the blood, or if you might be a bone marrow donor, your doctors may obtain one additional tube of bone marrow while they are already obtaining bone marrow for clinical purposes. Neither the extra tubes of blood nor the extra tube of bone marrow would require an additional needle stick.

Your doctor or members of your medical team may contact you about results of molecular analyses. In some cases, a research doctor may contact you to find out if you would be interested in participating in a different research study based on information that may have been found in your tissues or samples. We may ask you to provide the name and contact information for a relative who would know your whereabouts or could decide about using your information for research if you are not available to give permission yourself.

Your privacy is very important to us and we will use many safety measures to protect your privacy. However, in spite of all the safety measures that we will use, we cannot guarantee that your identity will never become known. Although your genetic information is unique to you, you do share

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some genetic information with your children, parents, brothers, sisters, and other relatives. Consequently, it may be possible that researchers looking at your genetic information could guess your identity based on other genetic information that they might know about your relatives. Similarly, it may be possible that genetic information from you could be used to help identify your relatives.

In order to allow the greatest amount of research to be performed on the tissue that you donate, researchers for this study may share results of sequencing your genes (which shows how your DNA is organized) with other scientists. In particular, the National Institutes of Health (NIH) and other organizations have developed special data (information) repositories that analyze data and collect the results of certain types of genetic studies. These central banks will store your genetic information and samples, and provide them to qualified researchers to do more research. Therefore, we are asking your permission to share your results with these public databases. Some of this information may be made available over the internet and will be freely available to anyone who is interested (an open access database). Other, more detailed information may only be accessed by scientists at other research centers who have received special permission to review your de-identified data (a controlled access database). Neither type of database will contain information that is traditionally used to identify you, such as your name, address, medical record number, telephone number or social security number.

However, people may develop ways in the future that would allow someone to link your genetic or medical information in our databases back to you. For example, someone could compare information in our databases with information from you (or a relative) in another database and be able to identify you (or a relative). Because the DNA sequence of each individual is unique (with the exception of identical twins), there is a very remote possibility that if a complete sequence determination of your DNA were publicly disclosed, it could be used by a researcher to determine your identity. It is also possible that there could be violations to the security of the computer systems used to share the codes linking your genetic and medical information to you. Patterns of genetic variation also can be used by law enforcement agencies to identify a person or his/her relatives.

There may be other privacy risks that we have not foreseen. While we believe the risks to you and your family are very low, we are unable to tell you exactly what all the risks are.

The Genetic Information Nondiscrimination Act (GINA) of 2008 is a federal law that protects Americans from being treated unfairly because of differences in their DNA that may affect their health, and may prevent discrimination by health insurers and employers based on genetic information. GINA is intended to ease concerns about discrimination that might keep some people from getting genetic tests that could benefit their health, and enable people to take part in research studies such as this without fear that their DNA information might be used against them by health insurers or their workplace. This protection does not extend to disability or life insurance. Additional information can be found at <http://www.genome.gov/10002328>.

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### **E. HOW LONG WILL I BE IN THIS RESEARCH STUDY?**

You will be in this research study indefinitely unless you inform your doctor that you no longer wish to participate. You may do this at any time and your decision will not affect the care you receive. However, the data generated by research testing will remain part of this study. In addition, if you agree to participate in this study, some results will be put in your medical record. These results will remain in your medical record even if you withdraw your participation.

### **F. WHAT KIND OF INFORMATION COULD BE FOUND IN THIS STUDY AND WILL I BE ABLE TO SEE IT?**

These studies are being done to add to our knowledge of how genes and other factors affect cancer. We are gathering this knowledge by studying groups of people, and the study is not meant to test your personal medical status. For that reason, we will not ordinarily give you the results of our research on your samples. However, some of types of test results may provide information that could impact your medical care now or in the future. Therefore, by participating in this study, some of your results may be placed in your medical record.

This study is not designed to analyze genetic information that is unrelated to cancer or inherited cancer risk. However, some additional non-cancer information, such as ancestry, might be inferred from the results of this study. Proper assessment of this non-cancer information should be performed with the participation of a genetic counseling team and laboratory that specializes in the appropriate type of non-cancer genetic analysis. Also, some of the genetic information that will be reported today as “uncertain” in its importance might be found, in the future, to be important, either for cancer or for non-cancer related health conditions. Re-interpretation in the future may be performed upon request, but will not be performed automatically.

Some tests might discover unexpected changes that are associated with diseases other than cancer. These changes are known as “variants.” We would tell your doctors and you about these variants if they are medically significant and medically actionable. This means that the variants are associated with a significant health risk AND there is a proven method that your doctors could use to keep you healthy or improve your health despite this risk. For example, a medically significant finding would be one that increased your risk of serious heart disease. This finding would be “actionable” if your doctors could help you avoid heart disease by monitoring you or altering your diet or giving you medication. This kind of result would be made available to your doctor and you, and we would offer genetic counseling.

In contrast, although a variant associated with a serious neurologic disorder might also be medically significant, it would not be “actionable” unless there were some treatment that was proven to treat that disorder. This type of result would not be made available to your doctor or to you.

You may also decline to receive some or all of the results from this study.

To summarize:

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Results that could be given to you may include:

- Genetic variants in your cancer that might suggest the benefit of a specific treatment for your cancer
- Genetic variants in your cancer that might qualify you for a clinical study of a research drug targeted against that alteration
- Variants in your DNA associated with a known cancer susceptibility condition that has an accepted screening and management approach
- Variants in your DNA or other characteristics that reveal medical conditions or risks for which there are established screening, prevention, or monitoring opportunities

Results that will not be given to you will include:

- Genetic or other variants that are not known to cause or contribute to disease in any significant way
- Genetic variants that may affect risks for your future children will not be given to you. If you are considering having children and you are interested in testing for genetic conditions that might affect these children, we can refer you to a program that provides this service. Please ask your doctors or study personnel for assistance.
- Genetic variants associated with health conditions for which there are currently no effective management, treatment, or prevention strategies.
- Genetic variants associated with specific ethnicities or ancestries

### **G. WHAT ARE THE RISKS OR DISCOMFORTS OF THE RESEARCH STUDY?**

A risk of participating in this study is that the analyses, including the identification of genetic abnormalities in you or your cancer, could be seen by unauthorized individuals (see Section D). We have tried to minimize this risk by imposing rigorous controls on access to the computers that would house your information.

There are small risks associated with obtaining blood and the swab from the inside of your cheek. For the former, you may experience slight pain and swelling at the site of the blood draw. For the latter, you may experience pain, redness and swelling along with some minor bleeding at the site of the cheek swab. In both cases, these complications are rare and should resolve within a few days. If they do not, you should contact your doctor. If you are a child less than 18 years of age the additional blood samples will be obtained at a time when blood is being obtained for clinical purposes, when an indwelling catheter has already been accessed for clinical purposes or during a procedure requiring anesthesia so that there will be no additional risk or discomfort associated with obtaining the blood other than removal of an extra quantity of blood.

If you have leukemia, lymphoma, a non-cancerous disease of the blood, or if you might be a bone marrow donor, and an additional tube of bone marrow is obtained during a bone marrow aspiration

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that you require for clinical purposes, you may feel additional pain during the withdrawal of the additional marrow. This pain should stop when the bone marrow withdrawal stops.

If you had (or will have) surgery to biopsy or remove part of your cancer, the pathology department at the hospital where you had the surgery or biopsy will be asked to share some of the tissue that was (or will be) removed during the procedure. This may be saved as frozen tissue that would have been discarded or fixed tissue that is usually saved by the pathologist for further analysis if needed. We will use a small part of this tissue, and will return the remainder to the hospital from which it was obtained. It is a common practice for part of the stored tissue to be used for research. The hospital will keep a portion of your original tissue for future clinical purposes. If there is not enough tissue in the original sample for clinical uses and for research, too, then the hospital will not release it to the study for research purposes. There is a small but real risk that if your samples are used for this research study, they might not be available for clinical care in the future. However, we have attempted to minimize this risk in three ways. First, the pathologists in the department of pathology where your specimens are kept will not release your specimen unless they believe that the material remaining after the research test is performed is sufficient for any future clinical needs. Second, many of the research tests can only be performed if your physician orders the test. That way, your physician can decide whether your specimen contains enough material for both the research test and future clinical needs. Finally, if your specimen is stored in a tissue bank or biorepository, then a designated group of clinicians and scientists who oversee the bank will release your specimen only if they think that the research being performed justifies the use of your material. This step is designed to help ensure that your specimens are being used for the best possible scientific purposes and to help minimize the possibility that your material will be used up.

There are also risks or discomforts associated with learning the results of genetic testing. These might include the following:

1. Learning that your DNA contains a variant that is associated with an increased risk of a disease could cause depression, anxiety, anger, or fear of future events. This information could affect your relationship with family members. Some insurance companies might consider an inherited, disease-associated variant to be a “pre-existing condition” and you might be obligated to disclose this information prior to obtaining new health or life insurance. We think that the chance of this happening is small. A national law, the Genetic Information Non-Discrimination Act (GINA), provides protection against genetic discrimination in by health insurers and employers. If you already have or have had cancer, any new genetic testing is unlikely to make insurers view your risk of underwriting as being any worse than it already is.
2. The laboratory studies may find no cancer-related abnormalities in your specimens. In that case, you might have gone through this testing process and not learned anything about your cancer or your risk of cancer. Current technologies are not able to find and identify every possible variant that might be related to cancer. You may still have genetic or other variants

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that are related to your cancer or your cancer risk but the tests we performed may not be able to detect them.

3. Family members may be upset to learn that they may be at risk for cancer or other diseases and that they learned this through your participation in this study.
4. We will not inform you about test results regarding diseases for which there are no effective monitoring or treatment strategies. Therefore, you may be falsely reassured about your health or risk status if we do not report specific findings to you.
5. All testing methods have an error rate and it is possible that a result we report to you or your doctor may have been an error. We attempt to reduce this possibility by monitoring our testing and trying to reduce the error rate. In addition, we will only report results that have been generated or reproduced in a laboratory that is certified by the government for its consistency and accuracy (called a CLIA laboratory).

### **H. WHAT ARE THE BENEFITS OF THE RESEARCH STUDY?**

It is important to understand that this is not a clinical study being done to benefit you directly. Therefore, taking part in this research study may not directly benefit you. However, the information gained from your participation is likely to generate important information which will help future patients with cancer or leukemia and individuals at high risk of developing those diseases.

### **I. CAN I STOP BEING IN THE RESEARCH STUDY AND WHAT ARE MY RIGHTS?**

You have the right not to sign this form. If you decide not to sign it, you cannot participate in this research study. If you do sign the form, you can stop being in the research study at any time. Please notify your doctor or members of your medical team in writing if you decide to stop. If you choose not to participate or to withdraw from this research study, your decision will not affect your present or future care and will not cause any penalty or loss of benefits to which you are otherwise entitled. The data already generated using your samples at the time of your withdrawal will remain in the study. In addition, these results will remain in your medical record after you withdraw your participation.

### **J. WILL I BE PAID TO TAKE PART IN THIS RESEARCH STUDY?**

We may use your samples and information to develop a new product or medical test to be sold. The hospital, and researchers may benefit. There are no plans to pay you if your samples are used for this purpose.

### **K. WHAT ARE THE COSTS?**

Taking part in this research study will not cost you anything. However, sometimes, some of the molecular tests performed on your tissues or samples may be similar to those that your doctor would obtain as part of your clinical care. In those cases, clinical testing might lead to costs to you or your insurance company. In that case, we would bill your insurance company for performing those

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tests and you may be responsible for co-payments and deductibles that are typical for your insurance coverage. You and your insurance company would only be billed once for these tests.

### **L. WHAT HAPPENS IF I AM INJURED OR SICK BECAUSE I TOOK PART IN THIS RESEARCH STUDY?**

We will offer you the care needed to treat injuries directly resulting from taking part in this research. We may bill your insurance company or other third parties, if appropriate, for the costs of the care you get for the injury, but you may also be responsible for some of them.

There are no plans for Dana-Farber Cancer Institute, Brigham and Women's Hospital, or Boston Children's Hospital to pay you or give you other compensation for the injury. You do not give up your legal rights by signing this form.

If you think you have been injured as a result of taking part in this research study, tell the person in charge of this research study as soon as possible. The research doctor's name and phone number are listed in this consent form.

### **M. WHAT ABOUT CONFIDENTIALITY?**

We will take measures to protect the privacy and security of all your personal information, but we cannot guarantee complete confidentiality of study data.

Medical information created by this research study may become part of your hospital medical record. Information that does not become part of your medical record will be stored in your study file. It may also become part of a research database.

The results of this research study may be published. You will not be identified in publications without your permission.

### **N. WHOM DO I CONTACT IF I HAVE QUESTIONS ABOUT THE RESEARCH STUDY?**

If you have questions about the study, please call 617-632-6008 and ask to speak with someone about the Cancer Research Study.

For questions about your rights as a research participant, please call Dana-Farber's Office for Human Research Studies at 617-632-3029. This can include questions about your participation in the study, concerns about the study, a research related injury, or if you feel/felt under pressure to enroll in this research study or to continue to participate in this research study.

### **O. PRIVACY OF PROTECTED HEALTH INFORMATION**

Federal law requires Dana-Farber/Harvard Cancer Center (DF/HCC) and its affiliated research doctors, health care providers, and physician network to protect the privacy of information that identifies you and relates to your past, present, and future physical and mental health conditions

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(“protected health information”). If you enroll in this research study, your “protected health information” will be used and shared with others as explained below.

### 1. What protected health information about me will be used or shared with others during this research?

- Existing medical records
- New health information created from study-related tests, procedures, visits, and/or questionnaires

### 2. Why will protected information about me be used or shared with others?

The main reasons include the following:

- To conduct and oversee the research described earlier in this form;
- To ensure the research meets legal, institutional, and accreditation requirements;
- To conduct public health activities (including reporting of adverse events or situations where you or others may be at risk of harm); and
- Other reasons may include for treatment, payment, or health care operations. For example, some medical information produced by this research study may become part of your hospital medical record because the information may be important for your medical care. (You will also be given a notice for use and sharing of protected health information.)

### 3. Who will use or share protected health information about me?

- DF/HCC and its affiliated research doctors and entities participating in the research will use and share your protected health information. In addition, other DF/HCC offices that deal with research oversight, billing or quality assurance will be able to use and share your protected health information.

### 4. With whom outside of DF/HCC may my protected health information be shared?

While all reasonable efforts will be made to protect the confidentiality of your protected health information, it may also be shared with the following entities:

- Outside individuals or entities that have a need to access this information to perform functions relating to the conduct of this research such as analysis by outside laboratories on behalf of DF/HCC and its affiliates (for example, data storage companies, insurers, or legal advisors).
- Other research doctors and medical centers participating in this research, if applicable
- Federal and state agencies (for example, the Department of Health and Human Services, the Food and Drug Administration, the National Institutes of Health, and/or the Office for Human Research Protections), or other domestic or foreign government bodies if required by law and/or necessary for oversight purposes. A qualified representative of the FDA and the National Cancer Institute may review your medical records.
- Hospital accrediting agencies

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Some who may receive your protected health information may not have to satisfy the privacy rules and requirements. They, in fact, may share your information with others without your permission.

### 5. For how long will protected health information about me be used or shared with others?

- There is no scheduled date at which your protected health information that is being used or shared for this research will be destroyed, because research is an ongoing process.

### 6. Statement of privacy rights:

- You have the right to withdraw your permission for the research doctors and participating DF/HCC entities to use or share your protected health information. We will not be able to withdraw all the information that already has been used or shared with others to carry out related activities such as oversight, or that is needed to ensure quality of the study. To withdraw your permission, you must do so in writing by contacting the researcher listed above in the section: "Whom do I contact if I have questions about the research study?"
- You have the right to request access to your protected health information that is used or shared during this research and that is related to your treatment or payment for your treatment. To request this information, please contact your doctor who will request this information from the study directors.