

CANCER EXOME SEQUENCING - NORMAL/NONTUMOR SAMPLE FORM

PATIENT INFORMATION

NAME: _____
LAST NAME FIRST NAME MI

DATE OF BIRTH: ____ / ____ / ____
MM DD YY

GENDER (Please select one): FEMALE
 MALE
 UNKNOWN

ETHNIC BACKGROUND (Select all that apply):
 AFRICAN AMERICAN
 ASIAN
 ASHKENAZIC JEWISH
 EUROPEAN CAUCASIAN
 HISPANIC
 NATIVE AMERICAN INDIAN
 OTHER JEWISH
 OTHER (Please specify): _____

MEDICAL RECORD #: _____
ACCESSION #: _____
HOSPITAL #: _____
CONSENT DATE: _____

PHYSICIAN CONTACT INFORMATION

PHYSICIAN: _____
INSTITUTION: _____
PHONE: _____ *FAX: _____

REPORTS WILL BE ISSUED TO REFERRALS SPECIFIED ON PAGE 1.

SAMPLE INFORMATION

THIS REQUISITION IS FOR NORMAL/NONTUMOR SAMPLE ONLY.
FOR TUMOR SAMPLES, PLEASE FILL OUT CANCER EXOME SEQUENCING - TUMOR
SAMPLE INFORMATION ON PAGE 1.

IF TUMOR SAMPLE IS FRESH FROZEN TISSUE:

9611 - PERIPHERAL BLOOD: 5 cc in EDTA (purple-top)
DATE OF COLLECTION: ____ / ____ / ____ TIME OF COLLECTION: _____
MM DD YY

9611 - Extracted DNA: 6 micrograms
DATE OF COLLECTION: ____ / ____ / ____ TIME OF COLLECTION: _____
MM DD YY

IF TUMOR SAMPLE IS BONE MARROW OR LEUKEMIC BLOOD:

9611 - SKIN BIOPSY: 3 mm skin punch biopsy in tissue culture media
DATE OF COLLECTION: ____ / ____ / ____ TIME OF COLLECTION: _____
MM DD YY

9611 - SKIN FIBROBLAST CULTURE: 2 T25 Flasks
DATE OF COLLECTION: ____ / ____ / ____ TIME OF COLLECTION: _____
MM DD YY

THIS FORM IS TO BE FILLED OUT WHEN NORMAL/NONTUMOR SAMPLE IS COLLECTED.

A REPORT WILL NOT BE ISSUED FOR THIS FORM.

TEST WILL NOT BE PERFORMED UNTIL BOTH TUMOR AND NORMAL/NONTUMOR SAMPLES HAVE BEEN RECEIVED.

CANCER EXOME SEQUENCING FORM

NAME: _____ DATE OF BIRTH: ____ / ____ / ____ GENDER (Please select one): FEMALE
LAST NAME FIRST NAME MI MM DD YY MALE
 UNKNOWN

REQUIRED - INDICATION FOR STUDY

Please provide the following clinical information regarding the patient to be tested. Please also submit a clinical summary and pedigree if available. This information is needed to facilitate interpretation of whole exome sequencing results. If the laboratory requires additional information, please indicate the health care provider to be contacted:

NAME: _____ PHONE/PAGER #: _____

TUMOR TYPE

TO AVOID DELAY IN SAMPLE PROCESSING, PROVIDE AN ACCURATE LIST OF INDICATIONS (MUST CHECK ONE OR MORE ITEMS BELOW)

- | | |
|---|---|
| <input type="checkbox"/> BREAST CANCER | <input type="checkbox"/> ACUTE MYELOID LEUKEMIA (AML) |
| <input type="checkbox"/> COLORECTAL CANCER | <input type="checkbox"/> CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) |
| <input type="checkbox"/> LUNG CANCER | <input type="checkbox"/> CHRONIC MYELOGENOUS LEUKEMIA (CML) |
| <input type="checkbox"/> OVARIAN CANCER | <input type="checkbox"/> MYELOYDYSPLASTIC SYNDROME (MDS) |
| <input type="checkbox"/> PROSTATE CANCER | <input type="checkbox"/> MYELOPROLIFERATIVE DISORDER (MPD) |
| <input type="checkbox"/> RENAL CANCER | <input type="checkbox"/> PLASMA CELL NEOPLASMS - includes Multiple Myeloma (MM) |
| <input type="checkbox"/> ACUTE LYMPHOBLASTIC LEUKEMIA (ALL) | <input type="checkbox"/> OTHER (Please specify): _____ |

ADDITIONAL TUMOR INFORMATION

| | COMMENTS |
|---|----------|
| <input type="checkbox"/> Metastatic neoplasm, refractory to treatment | |
| <input type="checkbox"/> Recurrent metastatic neoplasm | |
| <input type="checkbox"/> Malignant neoplasm, unclassified | |
| <input type="checkbox"/> Primary neoplasm, uncertain treatment | |
| <input type="checkbox"/> Other | |

TRANSPLANT/TRANSFUSION (RECENT) HISTORY*

| TRANSFUSION | DATE | COMMENTS (e.g., white blood cells, platelets, etc.) |
|--|------|---|
| <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | | |

*If patient has had a whole blood transfusion within 30 days, or has had a bone marrow transplant at anytime, you must contact us prior to submitting a sample.

CANCER EXOME SEQUENCING FORM

NAME: _____ DATE OF BIRTH: ____ / ____ / ____ GENDER (Please select one): FEMALE
LAST NAME FIRST NAME MI MM DD YY MALE UNKNOWN

PRIOR THERAPIES (chemotherapy, radiation, and/or targeted)

NO PRIOR THERAPY

| Therapy | Best Response | Notes |
|---------|---|-------|
| | <input type="checkbox"/> Progression <input type="checkbox"/> Partial Response <input type="checkbox"/> Complete Response | |
| | <input type="checkbox"/> Progression <input type="checkbox"/> Partial Response <input type="checkbox"/> Complete Response | |
| | <input type="checkbox"/> Progression <input type="checkbox"/> Partial Response <input type="checkbox"/> Complete Response | |

FAMILY HISTORY

Family History of Cancer: YES NO

If yes, please provide detailed information on affected family members and/or a pedigree.

CANCER EXOME SEQUENCING FORM

INFORMATION AND CONSENT FOR TESTING

Your physician has advised you (or your child) to undergo the genetic test called the Cancer Exome Sequencing test (abbreviated CES). The purpose of this document is to provide information about the test. This information is meant to be used as a supplement to your discussion with a health care professional. If you agree to have the CES test, you will be asked to sign the last page of this document, indicating that you understand the information provided and wish to have testing. You will be given a copy of this document for your records.

Description of the Cancer Exome Sequencing Test

The Cancer Exome Sequencing test is a highly complex test that is newly developed for the identification of changes in an individual's tumor DNA that are believed to be causative or related to the tumor's behavior or its response to therapeutic agents. The exome refers to the portion of the human genome that contains functionally important sequences of DNA that direct the body to make proteins essential for the body to function properly. These regions of DNA are referred to as exons. It is known that most of the errors that occur in DNA sequences that then lead to altered functions in cancer cells are located in the exons. In contrast to current sequencing tests that analyze one gene or small groups of related genes at a time, the Cancer Exome Sequencing test will analyze the important regions of tens of thousands of genes at the same time. Therefore, sequencing of the exome is thought to be an efficient method of analyzing a patient's tumor DNA to discover the underlying genetic cause of tumor behavior or response to therapy. However, it is possible that even if the CES identifies the underlying genetic changes in the tumor, this information may not help in predicting prognosis or change medical management or treatment of disease.

Indications for Testing

The decision to undergo the Cancer Exome Sequencing test is made by you and your physician. In general, the test is used when your physician would like to have information about genetic changes in the tumor that might explain the degree of aggressiveness of a tumor or the likelihood of the tumor to respond to targeted therapeutic agents. The test requires either a sample of tumor tissue (fresh or frozen) and 5-10 cc (about 1-2 teaspoons) of whole blood (as a source of normal DNA) OR 3-5 cc leukemic blood (about 1 teaspoon) and a skin biopsy (as a source of normal DNA).

Test Reporting

In the Cancer Exome Sequencing test, the tumor exome sequence is compared to your normal tissue exome sequence, in order to identify variations or differences unique to the tumor. Many of these variations are expected to be found. We will categorize these variations using a classification system based on currently available information in the medical literature and in scientific databases that indicates the likelihood that the information about mutations in the tumor can be used for medical management. For genes that are known to be the cause of hereditary cancer syndromes (inherited gene mutation that increases the likelihood of developing cancer over a person's lifetime), the normal (germline) sequence will be compared to a reference sequence. Based on currently available information in the medical literature and in scientific databases, we will decide whether any of these variations are predicted to be causative or related to your cancer or associated with an increase chance to develop cancer. Only somatic mutations (those present only in the tumor) with established and potential clinical utility, as well as cancer susceptibility germline variants, are confirmed by a second sequencing method. The CES test results will be reported to your physician in approximately 15 weeks from when all necessary samples and paperwork have been received.

Constitutional (inherited) exome interpretation. In discussion with your physician, an additional report can be ordered for up to 6 months after the Cancer Exome Sequencing report is received, for no additional charge. Instructions for ordering the constitutional (inherited) exome interpretation will be found in the report for the Cancer Exome Sequencing test. This report will summarize findings in your normal genome and will contain information on genes and diseases that have clear and immediate medical significance to your health or the health of family members, whether or not they relate to cancer or other current symptoms. Carrier status for autosomal recessive conditions will include disorders recommended for reproductive screening by professional societies such as ACMG or ACOG (such as cystic fibrosis and Tay-Sachs disease). In addition, carrier status for severe, early-onset conditions will be reported only for those genes that have testing available in a clinical lab. Variants in genes involved in drug metabolism will also be reported. This report may contain information on diseases and genes that do not relate to the current cancer type or to cancer susceptibility, or may develop many years from now, or do not have any known link to disease, according to current knowledge.

Because medical information continues to advance, it is important to know that the interpretation of the variants is based on information available at the time of testing and may change in the future. If new symptoms or concerns arise later your data can be reanalyzed for an additional charge.

Report Exclusions

The CES report will not include genetic variations in your normal tissue DNA that is not associated with a hereditary cancer syndrome. The constitutional (inherited) exome report (must be ordered separately once the CES report is received) will not include findings in genes causing adult onset dementia syndromes or other adult onset neurological conditions for which there is presently no prevention or cure. Heterozygous unclassified variants associated with recessive disorders will not be reported unless a deleterious mutation or a second unclassified variant in the same gene is also detected.

Potential Risks and Discomforts

(1) It is possible that your tumor could have a mutation in a gene included in the CES test, but the CES test was unable to detect the mutation. Therefore, it is possible that the tumor has a mutation that could modify medical management, but that the test did not detect the condition.

(2) The CES test does not analyze 100% of the genes in the human genome. There are some genes that cannot be included in the test due to technical reasons.

CANCER EXOME SEQUENCING FORM

Potential Risks and Discomforts (continued)

- (3) Results may be unclear or indicate the need for further testing on other family members.
- (4) If you sign the consent form, but you no longer wish to have your sample tested by CES, you can contact your doctor to cancel the test. If testing is complete, but you have not received your results yet, you can inform your doctor that you no longer wish to receive the results. However, if you withdraw consent for testing after 5 p.m. the next business day from the day of sample receipt by the laboratory, you will be charged for the full cost of the test.
- (5) The cumulative results of CES testing on many samples may be published in the medical literature. These publications will not include any information that will identify you personally.

I hereby authorize the BCM Cancer Genetics and Whole Genome Sequencing Laboratories to conduct genetic testing for myself (or my child) for the Cancer Exome Sequencing test (CES) as recommended by my physician. (PLEASE INITIAL) _____

Signature: _____ Date: _____

Printed Name: _____

Patient Name: _____ Relationship to Patient: _____

Physician's/Counselor's Signature: _____ Date: _____

* For a list of genes and conditions associated with inherited cancer syndromes, please visit www.cancergeneticslab.org.

REQUIRED: NEW YORK STATE PHYSICIAN SIGNATURE OF CONSENT

I certify that the patient specified above and/or their legal guardian has been informed of the benefits, risks, and limitations of the laboratory test(s) requested. I have answered this person's questions. I have obtained informed consent from the patient or their legal guardian for this testing.

Physician's Printed Name: _____ Signature: _____ Date (MM/DD/YY): _____

CANCER EXOME SEQUENCING FORM

BILLING INFORMATION

IMPORTANT NOTICE: ONE OF THE THREE FOLLOWING BILLING OPTIONS MUST BE INDICATED BELOW.
PLEASE FORWARD ALL BILLING QUESTIONS TO: MEDGENBILLING@BCM.EDU

PATIENT INFORMATION

PATIENT NAME (LAST, FIRST, MI): _____ PATIENT DATE OF BIRTH (MM/DD/YY): _____
ADDRESS: _____ CITY, STATE, ZIP: _____
PHONE: _____ EMAIL: _____

PAYMENT OPTION 1 - INSTITUTION

BCM-MEDICAL GENETICS LABORATORIES CAN ONLY RUN THIS TEST IF THE INSTITUTION ACCEPTS FINANCIAL RESPONSIBILITY FOR THE FULL PRICE OF THE TEST. PLEASE SIGN AND DATE BELOW THAT YOU ARE AN AGENT OF THE ORDERING INSTITUTION AND CAN ORDER GENETIC TESTING ON ITS BEHALF. TESTING WILL NOT BEGIN WITHOUT THIS SIGNATURE.

PRINTED NAME: _____ SIGNATURE: _____ DATE (MM/YY): _____

INSTITUTION NAME: _____ INSTITUTION CODE: _____
CONTACT NAME: _____ EMAIL (REQUIRED): _____
BILLING ADDRESS: _____ CITY, STATE, ZIP: _____
PHONE: _____ FAX: _____

PAYMENT OPTION 2 - SELF-PAY (PAYMENT MUST ACCOMPANY SAMPLE)

CREDIT CARD (PLEASE SELECT ONE): AMEX DISCOVER MC VISA

VALID CARD #: _____ EXPIRATION DATE (MM/YY): _____ CVC CODE: _____

CARDHOLDER PRINTED NAME: _____ CARDHOLDER SIGNATURE: _____

CHECK/MONEY ORDER

PAYMENT OPTION 3 - INSURANCE

PROVIDE A LEGIBLE PHOTOCOPY OF THE FRONT & BACK OF THE INSURANCE CARD OR HMO/MEDICAID HMO AUTHORIZATION/REFERRAL.

INSURED MEMBER'S INFORMATION

MEMBER NAME (Last, First, MI): _____ MEMBER DATE OF BIRTH (MM/DD/YY): _____ GENDER: FEMALE MALE

MEMBER POLICY #: _____ MEMBER SS #: _____ MEMBER GROUP #: _____

INSURANCE CO. NAME: _____ PHONE: _____

INSURANCE CO. ADDRESS: _____ CITY, STATE, ZIP: _____

ORDERING PROVIDER: _____

ICD9 Diagnosis Code(s) - must be provided or insurance cannot be filed: _____

INSURANCE FINANCIAL POLICY: I UNDERSTAND THAT INSURANCE IS FILED TO BCM-MEDICAL GENETICS LABORATORIES' CONTRACTED CARRIERS AS A CLIENT SERVICE COURTESY. I AM AWARE THAT I AM RESPONSIBLE FOR NON-COVERED SERVICES, DEDUCTIBLES, CO-INSURANCE, CONTRACT EXCLUSIONS, NON-AUTHORIZED SERVICES AND REMAINING BALANCES AFTER INSURANCE REIMBURSEMENT. I AUTHORIZE BCM-MEDICAL GENETICS LABORATORIES TO FURNISH ANY MEDICAL INFORMATION REQUESTED ON MYSELF, OR MY COVERED DEPENDENTS. IN CONSIDERATION OF SERVICES RENDERED, I TRANSFER AND ASSIGN ANY BENEFITS OF INSURANCE TO BCM-MEDICAL GENETICS LABORATORIES.

I have read and agree to all sections of the insurance financial policy above - TESTING WILL NOT BEGIN WITHOUT THIS SIGNATURE

PRINTED NAME: _____ SIGNATURE: _____ DATE (MM/YY): _____