

CONSENT FOR COMPARATOR* CLINICAL EXOME OR GENOME (GENOMIC) SEQUENCING

*parent or relative (submitted for comparison to patient)

Name of Comparator*:

Test ordered:

| Date of Birth: | | (MM/DD/YYYY) |
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Exome sequencing (sequencing of the coding portions of the genome) Genome sequencing (sequencing of the coding and non-coding portions of the genome)

Exome and genome sequencing tests are referred to as "genomic sequencing" throughout the following consent form. The technical limitations and caveats are applicable to both.

Please read this form carefully. You are being offered a blood test that examines your genetic material. This testing may help us better understand your/your child's medical condition. This consent form will explain the testing, how results are released and potential risks and benefits of doing the test and possible costs. In addition, this form will describe what is known and not known about genomic sequencing (GS) at present. GS is a new lab technique that is changing quickly. Your healthcare provider will help you understand the information on the consent form and answer any questions that you have.

You should keep your healthcare provider updated with your current contact information. This will make it possible for us to contact you if we learn important information from this testing now or in the future.

1. What is the purpose of the genomic sequencing (GS) test ?

The purpose of this test is to examine the DNA sequence of each gene in the body to try to find genetic changes that might play a role in the cause of your/your child's health with respect to the following conditions(s):

2. What must be provided for GS testing ?

You/your child will be asked to provide a blood or other tissue sample for testing. Medical history and family history information will be requested to assist in interpreting the test results. Once testing is completed, additional medical or family history information, or further medical tests may be recommended to better interpret the test results. At times we may request similar testing samples from relatives.

3. What does the GS test look for ?

This test looks for gene sequence (DNA) changes that are associated with specific genetic disorders. The test may find changes in one gene or in many that cause or contribute to your/your child's condition. It is possible that this test will not find any changes that explain your/your child's condition. This "normal GS result" would not mean that you/your child do not have or will not develop a genetic disorder, only that with the current technology we cannot find the exact cause

4. What other information can the GS test tell me?

The test may find genetic changes that tell us that you/your child are at risk for disorders other than your/your child's condition, such as cancer risk. These changes are referred to as "incidental" or secondary findings. If incidental findings are thought to be medically important for you/your child, the NCGL will report the results to your/your child's healthcare provider. Your/your child's healthcare provider will talk to you about how these findings may change your/your child's risk for this additional condition and/or its medical use.

5. What are the limits of the genomic sequencing test ?

Although, the GS test method will find a large number of genetic changes, there remain a small number of DNA changes that it will not detect. For the changes that we find, we may not know whether they lead to the disorder or are normal changes in gene sequence. It may be many years before we understand what all of the changes mean and are able to find a change that causes or contributes to your/your child's condition.

6. How will I learn the results of my genomic sequencing test?

You will learn the results of this test from: _______. This healthcare provider will receive a laboratory report that discusses the results that may be relevant to the reason you/your child had testing. Your/your child's healthcare provider will share this information with you and a genetic counselor may assist in explaining the results.

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7. How long will it take to get my results ?

The Northwest Clinical Genomics Lab (NCGL), the laboratory performing this test, expects to complete GS in 3 months time. Factors such as the need to repeat some part of the test or to test other family members to help with interpretation may extend the timeline. We will get the results to your healthcare provider as quickly as possible.

8. Will I get all of my results at once ?

All results that we find (that you have agreed to receive) will be reported in the initial report. Because the understanding of DNA changes will improve over time, it is likely that more will be understood about your results later, after you get your initial report. If new information is discovered that is thought to be important to your/your child's health and/or the health of your relatives, your/your child's healthcare provider will be re-contacted. If you would like an updated report, you should contact your healthcare provider or the NCGL. There may be a charge for a new interpretation of your results.

9. What are the risks of the genomic sequencing test to you and your family ?

You may learn medical information about yourself/your child that you did not expect. Learning that you/your child are at risk for a condition other than your/your child's condition for which the test is done, and which may not be preventable or treatable, could lead to emotional or psychological distress.

You may discover things about yourself/your child that trouble you and that you may not have the ability to control or change. For example, unexpected parental relationships or other information about your ancestry could be uncovered.

Your relatives may be upset to learn that they may be at risk for a disease.

The test will give us a lot of information, but we might not know what all of it means right away. It is possible that this test will not find the cause of your/your child's condition, or the test may not tell us your/your child's chance of developing specific disorders. This could be frustrating or upsetting.

Although there are laws to prevent employment and health insurance discrimination based upon genetic findings, there are currently no laws to prevent the use of genetic information to alter the ability to obtain life, disability or long-term insurance or their cost.

10. How could the genomic sequencing test affect my family members ?

This test could reveal information about the health of your relatives, such as their chances of developing certain disorders. Such information could be unexpected, or it could explain a medical condition in your family. If the test finds a genetic change that may be important to your family's health, you/your child's healthcare provider will ask you to tell your family members about it. This test will find many changes that we cannot interpret. In this case, testing your parents or other family members to see if they have the same change may help understand certain results. Your/your child's healthcare provider may ask you if your family members would be willing to have genetic testing. Certain follow-up testing may be performed free of charge.

11. Will my genetic information become part of my medical record ?

Your/your child's genomic sequencing report will list medically important genetic changes that were found by the genomic sequencing test. The report that contains your/your child's test results as well as any updates to those results will become part of your/your child's permanent electronic medical record and can be made available to any healthcare provider who treats you now or in the future. Your protected health information will be used in accordance with the terms of the UW Medicine Healthcare Privacy policies. As we understand more about genetic changes, your/your child's report and medical record may be updated. The laboratory will not initially deposit your complete genome sequence into your/your child's medical record. However, it is possible that this policy will change in the future in which case your/your child's complete genetic sequence may be incorporated into your/your child's permanent medical records.

12. Will anyone else have access to my genome sequence, shared medical history or interpreted results ?

Test results and submitted clinical information may be shared with other clinical laboratories to improve our understanding of the relationship between genetic changes and clinical symptoms and findings. Sharing data in this manner may enable us to provide better interpretations of your genetic findings as well as assist other patients with similar results. We will protect your privacy/confidentiality by replacing your name and other direct identifiers, such as date of birth or medical record number, with a code. The key to the code numbers will be stored securely in the testing laboratory. We will share only de-identified information with outside clinical laboratories.

13. Who besides my physician can I talk to if I have more questions about the genomic sequencing test ?

You may request the name and phone number of a genetic counselor who can answer your questions about the genomic sequencing test and help you understand your/your child's results.

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14. How will my blood sample and genetic information be used after testing is completed?

After performing your test, the laboratory may use your/your child's remaining sample to do quality control checks and/or develop new and better laboratory tests. Your/your child's name and other identifying information will be removed from the sample before it is used in these ways. In addition, your de-identified sample may be used in accordance with the research policies stated in the following section. There will be no additional charge to you for using your/your child's sample in these ways.

15. Will I have to pay for the genomic sequencing test?

Your health insurance may not cover the cost of this test. You will need to pay any portion of this test that is not covered by your health insurance. You may also have medical visits to follow up on the results of this test. Insurance coverage for such tests will be subject to current medical practice and your insurance policy coverage.

If you seek insurance coverage for this test, you may be required to release your/your child's results to your health insurance company for payment purposes.

Optional Disclosure

Diagnostic Findings Not Related to the Target Clinical Condition in Adult-onset Medically Actionable Disorders: Medically actionable conditions are those for which there is current recommended treatment or preventative actions that can be taken to reduce risk of developing the complications of an adult-onset disorder. An example would be hereditary cancer syndromes where periodic medical screening may identify the cancer early. You can choose whether you want us to report the presence of such DNA changes in adult-onset disorders. Because an individual may have a DNA change of a medically actionable gene that will not be detected by the GS method, based on one's family history, additional testing for health purposes should be discussed with your doctor or genetic counselor.

YES, report information regarding adult-onset actionable conditions. _____ Patient/Guardian Initials NO, DO NOT report information regarding adult-onset actionable conditions. _____ Patient/Guardian Initials

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RESEARCH POLICIES & OPPORTUNITIES

Blood or other samples sent to the Northwest Clinical Genomics Laboratory (NCGL) may be used by UW Medicine, by medical organizations affiliated with UW Medicine, or by educational or business organizations approved by UW Medicine, for research, education and other activities that support UW Medicine's mission, without your/your child's specific consent. Other types of research performed in association with the NCGL require that we obtain consent from the patient (below).

PATIENTS – Please check off and initial below whether we can contact you to let you know about research studies requiring consent in which you/your child may be able to participate. These research studies may include: 1) a request for additional clinical records about your condition, 2) studies to find new causes for your condition, and 3) studies to evaluate newly developed treatments for your condition.

| Patient Name: | [| Date of Birth: | / | / | (MM/DD/YYYY) |
|-------------------|--|--|-------------------------------|-------------|---------------|
| Please check one: | Yes, you can contact me If yes, please provide your contact | _ (Patient/Guardi information on th | an initials) le first page | of the requ | isition form. |
| | No, please do not contact me | (Patient/Gu | ardian initia | als) | |

PATIENT / GUARDIAN/ COMPARATOR SIGNATURE

I have carefully reviewed the above. I have had my questions answered to my satisfaction. I consent to provide a sample for genetic testing by genomic sequencing.

| _ Patient/Guardian/Comparator Signature | Date | AM / PM Time |
|---|-------------------------------|-----------------|
| Patient Name (Print) | Guardian, if applicable (Prir | nt) |

_____ I agree that my family history information and my/my child's personal medical information, including results of the exome sequencing test, may be shared among all of my/my child's family members.

PROVIDER SIGNATURE

I, ________ (print name), as ordering provider, confirm that I understand and accept that the patient or comparator being tested and/or their legal guardian have been informed of the risks, benefits, expectations and limitations of the testing ordered, as well as the policies of the NCGL listed above. I have obtained informed consent, as required by my own state and/or federal laws. In addition, I assume responsibility for returning the results of genetic testing to my patient and/or their legal guardian and for ensuring that my patient receives appropriate genetic counseling to understand the implications of their test results.

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| | NP | | | | |
| | PA | | | | |
| | MD | | | | AM / PM |
| Signature | | NPI # | Date | Time | |