RETURN OF FINDINGS INFORMATION SHEET

The goal of the Washington University Participant Engagement and Cancer Genomic Sequencing (WU-PE-CGS) Study is to learn more about the genomics of three types of rare cancers. We also want to learn how we can improve the research process for our participants.

In this study, you can choose to get findings that are specific to you and the blood or tissue samples you gave to this project. These findings will only be shared with you. No one else will be given your personal findings.

This sheet describes the types of findings you can get while taking part in our study. **You can choose if you want to receive some, all, or none of these findings.**

You will also get updates on general research findings. These findings are made when we combine data from all study participants. These findings will not include any personal information about you or anyone else in the study. We will share this information about once a year via a study email or newsletter.

What do we mean by "research findings"?

We use high-quality tests in our research lab. These tests are not done in a clinical lab, so the information (or "findings") from this study should not be used to make decisions about your medical care.

Some of the tests run by our research lab may have already been done by your health care team. Others might need to be confirmed by your health care team using a clinical lab that is used for patient care.

If you want to confirm a research finding, our genetic counselor can help your health care team order a clinical test. However, our study can't cover the cost of clinical tests to confirm research findings. Your insurance company might pay for clinical tests. Many clinical labs also offer discounts or fees on a sliding scale.

When will research findings be available?

Research findings will be available around 90 days after our lab gets your blood or tissue samples.

How will the research findings be returned?

If you decide to get research findings, a study coordinator will call you when the report is available. You will get a paper copy of the report. You will also have the chance to talk to a genetic counselor about your findings. The genetic counselor can help explain the report and what the findings may mean for you and your family.

A report might not find any gene mutations (changes) linked to your cancer or other diseases. Our genetic counselors can still help explain what that may mean for you and your family's risk of cancer and other diseases. You can also talk to the counselor about whether you might want to get tested again in the future and how this finding relates to your cancer care.

Can I change my mind about getting research findings?

Yes, you can change your mind.

- If you decide you want any type of research findings:
  - We will call you to let you know when the findings are ready and ask if you still want to get this information.
  - If you change your mind, you do not have to get your research findings.

- If you change your mind about what type of information you want to receive, you can reach us in any of the following ways:
    - Email at PECGS@WUSTL.EDU
    - Phone: 314-273-2434
    - Fax: 314-273-1089

  We will review the information in this sheet, and you can make new choices.

Research finding type 1: Biomarker information from your cancer cells

Biomarkers are gene changes specific to your cancer cells. Depending on where you are in your cancer treatment, these findings may help us learn which therapies might work for your cancer cells and which therapies might not work as well. Biomarkers can also help determine options for joining a clinical trial. These types of gene changes are not inherited. This means they are not passed from a parent to a child.

We will not share any information with your family unless you ask us to with a written request.

Research finding type 2: Inherited mutation related to cancer

Inherited mutations are gene changes that can be passed from a parent to a child. Some of these gene changes are known to increase the risk of some cancers.

- Around 5 to 15 people out of every 100 with cholangiocarcinoma will have an inherited mutation related to their cancer.[1-3]
- Around 15 to 20 people out of every 100 with early-onset colorectal cancer will have an inherited mutation related to their cancer.[4-5]
- Around 0 to 5 people out of every 100 with multiple myeloma will have an inherited mutation related to their cancer.[6-8]

If an inherited mutation is found and later confirmed by your doctor in a clinical lab, you could choose to share this information with your family members who may also have this mutation. In some cases, early or extra cancer screenings, or other ways to manage cancer risk, may be recommended for those family members. Inherited mutations could also impact your future treatment.

We will not share any information with your family unless you ask us to with a written request.

Research finding type 3: Inherited mutation related to other medical issues

Inherited mutations can also increase the risk of other medical conditions, like heart disease. Around 1 to 3 people out of every 100 who take part in genomic sequencing studies get a finding like this.

We will only look for inherited mutations in the 73 genes that are recommended by the American College of Medical Genetics (ACMG) for people having genetic sequencing tests done.[9] The ACMG created the recommend gene list based on several factors. Among other factors, this includes the severity of the condition caused by the mutation and the availability of treatment or prevention options if a mutation is found.

If an inherited mutation is found and later confirmed by your doctor in a clinical lab, you could choose to share this information with your family members who may also have this mutation. Family members with the mutation could get additional screenings or preventive care to reduce the chance of future health problems. Inherited mutations could also impact your current or future healthcare.

We will not share any information with your family unless you ask us to with a written request.

References

[1] Yap TA, Ashok A, Stoll J, et al. Prevalence of Germline Findings Among Tumors From Cancer Types Lacking Hereditary Testing Guidelines. *JAMA Netw Open*. 2022;5(5):e2213070. Published 2022 May 2. doi:10.1001/jamanetworkopen.2022.13070

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[6] Scales M, Chubb D, Dobbins SE, et al. Search for rare protein altering variants influencing susceptibility to multiple myeloma. *Oncotarget*. 2017;8(22):36203-36210. doi:10.18632/oncotarget.15874

[7] Pertesi M, Went M, Hansson M, Hemminki K, Houlston RS, Nilsson B. Genetic predisposition for multiple myeloma. *Leukemia*. 2020;34(3):697-708. doi:10.1038/s41375-019-0703-6

[8] A preliminary study, conducted by a research lab at Washington University in St. Louis, found that 5 out of 100 individuals with multiple myeloma had a germline finding. The study is undergoing review and has not been published.

[9] Miller DT, Lee K, Chung WK,et al; ACMG Secondary Findings Working Group. ACMG SF v3.0 list for reporting of secondary findings in clinical exome and genome sequencing: a policy statement of the American College of Medical Genetics and Genomics. Genet Med. 2021;23(8):1381-1390. doi: 10.1038/s41436-021-01172-3.