

Cancer care personalized to your unique genomics.

Sometimes cancer can be difficult to treat, especially if it's in an advanced stage. But it's not impossible. If you are a patient with metastatic cancer with a solid tumor, your oncologist may refer you to the Indiana University Health Precision Genomics program for precision genomic testing. At IU Health, precision genomic testing will look at the genetic structure of your tumor. This helps us discover "actionable" mutations that can be targeted with therapy. These discoveries can lead to new treatment recommendations that may effectively treat your cancer on a personalized level.





How does the Precision Genomics program work?

A tissue sample of your DNA will go to a leading-edge laboratory, where your DNA will be sequenced to better understand your cancer's DNA. The findings will be analyzed by more than 20 multi-disciplinary IU Health and Indiana University School of Medicine faculty and staff, including oncologists, genomics scientists, pathologists, pharmacy specialists, nurses and clinical trial specialists. This comprehensive Precision Genomics Clinical Conference team will use the latest genomic tools to determine the best available treatment options for you, while minimizing the potential for adverse side effects. A better quality of life and more time with your loved ones is critically important to the Precision Genomics team.

There is no one-size-fits-all plan. The recommendations that the Clinical Conference team puts forth will come after much deliberation, looking at best standards of care, as well as new and innovative care that may be appropriate for you.

What is genomic testing?

Genomic testing – sometimes known as DNA sequencing, whole or partial genome sequencing – is the process of discovering individual cancer genes with mutations. The IU Health Precision Genomics program is one of only a few in the United States to provide comprehensive genomic testing, which may include testing the whole genome DNA of 3 billion base pairs, 20,000 genes.

We've learned that an individual's genetic makeup can significantly impact the effectiveness of drugs and any adverse side effects that someone might have to those drugs. We use the insights from these tests to avoid drugs that might be less effective at treating your cancer or could cause significant side effects for you.



Precision Genomics at IU Health: Step by step



1. Talk about it. You and your doctor should talk about whether the Precision Genomics program may be right for you. If you qualify and decide to move forward, your doctor will submit your cancer profile to the IU Health Precision Genomics program.

2. Initial consultation and testing. Once you've been accepted to the program, you'll meet with a precision genomics team at a nearby IU Health Precision Genomics location.

During this appointment, you will:

- Learn more about the program and have your questions answered
- Be examined by one of our medical oncologists
- Have blood drawn
- Have a biopsy
- **3. Genomic testing.** Your tumor tissue's DNA will undergo DNA sequencing, which includes a review of how your genes are arranged. Your own genetics, known as germline DNA (the DNA you were born with), may also be analyzed. This allows us to scan everything and have the most comprehensive view of your cancer's attributes.



4. Your evaluation. The multi-disciplinary Clinical Conference experts will review the results of your genomic testing and will debate and discuss the best genomic-directed treatment options for you. They will also determine if your DNA is predisposed to respond positively or negatively to existing cancer treatment therapies, which will help rule in or rule out specific drugs. This team will then compose comprehensive treatment recommendations that may include starting new drug therapies or participating in clinical trials.



5. Reviewing your options. Once the Clinical Conference team outlines its recommendations, you will have another consultation appointment at the nearby Precision Genomics clinic to review them. Along with certain treatments, you may also be given the opportunity to participate in a clinical trial.



6. Path forward. You and your oncologist will review the team's recommendation to decide together what course of action to take that may be most effective in treating your cancer *and* providing a better quality of life.



Frequently asked questions

Who is eligible?

Patients who have been diagnosed with metastatic cancer. We recommend that patients are referred into the program as early as possible.

Can I keep my current oncologist?

Absolutely. Your relationship with your oncologist <u>will not change</u>. The Precision Genomics program is not meant to replace your doctor in any way.

Who is on the Clinical Conference team?

Thanks to our unique partnership with the IU School of Medicine—the largest medical school in the country—our Clinical Conference team is composed of some of the most experienced physicians and scientists in cancer care and genomics in the country. They are knowledgeable in the latest treatment advancements and are highly qualified to review the results of your complex case and prepare recommendations individualized to you.

When will I know if there are genomic-directed treatment recommendations?

Approximately 6 - 8 weeks after your tumor sample has been submitted for testing, you'll be contacted by the Precision Genomics team.

Does my health insurance cover the Precision Genomics program?

Your insurance may cover part or all of the program. In addition, there is patient assistance for the genomic testing that you can discuss during your consultation.



Indiana University Health

For more information on the IU Health Precision Genomics program, talk to your doctor or visit **iuhealth.org/genomics.**