



# EXOME SEQUENCING FOR CANCER CARE STUDY

THE CANCER MOONSHOT: IS IT REAL? WHAT DO EMPLOYERS, PAYERS AND PROVIDERS NEED TO KNOW?

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# POWERS EVERY SEGMENT OF THE SMART, CONNECTED WORLD

## TRANSFORMATION FROM PC TO DATA CENTRIC COMPANY

Intel's 4 Strategic Big Bets



Autonomous Driving



Virtual Reality



5G



Artificial Intelligence

110,000 employees worldwide..... 170 sites in 66 countries

\$59B in Annual Revenues

**2016 Total U.S. Healthcare Spend: ~\$700M**

Major US Sites: Arizona, California, New Mexico, Oregon, Texas



Largest Site

19,000 Employees

47000 Covered Lives



# COLLABORATIVE CANCER CLOUD

A precision medicine analytics platform that allows hospitals and research institutions to securely share patient genomic, imaging, and clinical data for potentially lifesaving discoveries.

2015-16 Study: Provide oncologist with insight into genetic variants

- Phase 1: Panel testing – one site, one health plan, no cost to participants, paid thru health plan
- Phase 2: Whole exome sequencing – one site, outside health plan, no cost to participants, paid thru grant

Partner: Oregon Health & Science University...Knight Cancer Institute

Participants: Oregon based employee or family member diagnosed with stage III/IV cancer



### My Health

Your action may be required

### Molecular tests an option for Cigna members with advanced cancer

As a member of Cigna under the Intel Group Health Plan based in Oregon, you and your eligible dependents qualify for additional benefits related to molecular testing for advanced cancer. Oregon Health & Science University is offering GeneTrails<sup>®</sup> DNA sequencing tests for individuals with any cancer type that is clinical Stage III or IV for which standard-of-care treatments are proving unsuccessful, and where new therapeutic options are desired.

The tests provide information on the molecular alterations responsible for cancer growth, and this information may lead to new treatment options, including possible participation in clinical trials of new, targeted therapeutics.

Many insurance plans cover part of the cost of these tests. During 2015, the Intel Group Health Plan will cover the full cost for eligible Cigna members who meet the following criteria:

- Must be an Intel Oregon employee, spouse/domestic partner, or adult child (18+ years old) enrolled in Cigna through the Intel Group Health Plan.
- Must have a confirmed diagnosis of advanced cancer as determined by OHSU.
- Must be under treatment by a physician who is interested in molecular testing.

## HEALTH & LIFE SCIENCES



This account is not monitored, please do not reply directly.

### Patients with advanced cancer may be eligible for OHSU precision medicine study Limited space is still available for this study

Oregon Health & Science University's (OHSU) Knight Cancer Institute is conducting a study using a technique called whole exome sequencing (WES). This technique helps doctors identify molecular changes and possibly uncover targeted treatment options based on the specific mutations in the tumor.



U.S.-based Intel blue-badge employees, their spouses/domestic partners, and their adult children who have a confirmed diagnosis of clinical stage III or IV cancer may be eligible for this voluntary study. Learn more about the study and eligibility by viewing the [Frequently Asked Questions \(FAQs\)](#).

#### What exactly is whole exome sequencing?

Whole exome sequencing analyzes the entire active portion of your genome, comprised of more than 20,000 genes. This expanded experimental testing may provide oncologists with insight into genetic variants and the disease pathways that support tumor growth. Performed through OHSU's Knight Diagnostic Laboratories, WES for eligible study participants is free through a research grant provided by Intel to OHSU.

- Phase 1 Email to Cigna plan members and home mailer for those on leave + reminders (satisfy SMM)
- Phase 2 Email to all OR employees + reminders

# PARTICIPANT FEEDBACK

To effectively expand and improve the exome sequencing pilot, Intel must **partner with healthcare practitioners (HCPs) to help them recognize the value this testing adds to individualized treatment plans and the confidence it gives people living with cancer.**



## INSIGHT

Many chose to participate in the pilot to gather pertinent information relative to their specific cancer mutations. Regardless of how this information is applied, and whether or not they know how to apply it, **having access to it alone is seen as a valuable asset in combating cancer.**



## IMPACT

The exome sequencing pilot empowered patients to take more ownership of their healthcare experience. With data gleaned from the study, they feel they've **achieved clarity and direction in where to go next** in their cancer care journey.



## ACTION

Participants value Information gleaned from study enrollment. Recommended improvements are administrative in nature, focusing on increasing **speed of receiving test results** and curbing inefficiencies when communicating result wait times and sharing results with HCPs.

# ONCOLOGIST INTERVIEWS

To effectively expand and improve the exome sequencing pilot, Intel and OHSU must **better communicate to oncologists the intent of the study**, answer any outstanding questions they have, and ensure their patients understand what participation means.



## CONTEXT

Oncologists **see strong potential in whole exome sequencing** for cancer care, but have little understanding of Intel's pilot, causing some apprehension toward patient participation and uncertainty of pilot relevancy.



## INSIGHT

**Apprehension** toward patient participation stems from a study that involves **testing oncologists don't order themselves**. More context around and streamlined communication of test results will instill understanding, appease some oncologist uneasiness, and establish relevance of pilot intent.



## ACTION

Pilot improvement and expansion can best be achieved through strengthening administrative interactions with oncologists, primarily by:

1. Communicating pilot intent clearly
2. Answering questions around whole exome sequencing more clearly
- 3. Packaging test results to be more easily digestible for oncologists**

## PARTICIPANT

*“The study has **given me a lot of confidence to advocate for myself**, as well as not just be fully dependent on what my doctor says. I know that they all try to have the best interest, but they also have a lot of other things going on that complicate things. To advocate for yourself and have the confidence to do so; to have the language and information and be able to articulate and understand it – that has given me a fork in the road. I can say, ‘I don’t want to go that way. That’s the old way. I want to go this way,’ and really feel confident and helpful, and feel like I’m on this journey.”*

## PROVIDER

*“Maybe the technology isn’t there yet, or probably more importantly, the tools that we have to apply some results of this type of technology aren’t there yet. We find mutations and things that are of interest but we don’t have any drugs to treat the patient so it doesn’t help us. **I think in a lot of ways, the genomic testing, the technology is far ahead of our ability to do anything practical with it.** And hopefully that will change.”*

# QUESTIONS?