

# OTR

The Office of Translational Research

COMMUNITY REPORT

## Bridging Science and Clinical Practice

Beyond a Decade of  
Translational Research  
at Fred Hutch



We are committed to accelerating translational research through building bridges across disciplines to facilitate science and improve lives.

Responding to community needs, we push beyond the boundaries of lab-based discoveries to practical applications and treatments by establishing frameworks and fostering innovation.

With creativity, collaboration and inclusivity, we connect diverse minds and break down barriers bringing us closer to a cancer-free world.

# Pioneering solutions for boundless possibilities

**A beacon of collaborative and transformative research, addressing the needs and challenges of translational researchers**

Our journey began with the inception of the Seattle Translational Tumor Research (STTR) program in 2013. Initially focusing on eight solid tumor types, STTR’s mission was to elevate the profile of solid tumor research at Fred Hutch Cancer Center and revolutionize the prevention, detection, diagnosis and treatment for these cancers. Over the years, STTR support has extended to 17 tumor-specific research teams, over 500 investigators from a wide variety of disciplines, and focused on accelerating

scientific discovery and improving patient outcomes for hematologic and solid tumors. As STTR continued addressing translational research barriers, the Office of Translational Research (OTR) emerged as a central hub for catalyzing collaborative research among an expanded audience, which now includes the greater Washington State and Northwest. Initiatives taken on in response to the needs of the tumor-specific research teams and their members evolved into the remaining core pillars of OTR.

## Five Pillars of OTR

Seattle Translational Tumor Research

Translational Clinical Data

Specimen & Data Access Network

Specimen Data Management

Oncoscape

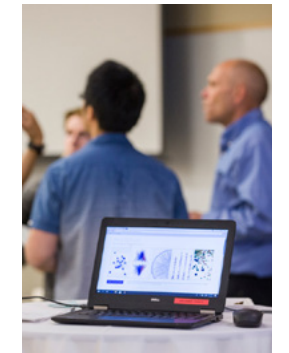
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These accomplishments reflect the significant impact of the Office of Translational Research, and Seattle Translational Tumor Research, in advancing translational research and improving cancer treatment and care.

# Top 10

# in 10 Years

1

## Awarded over \$8.9 million

(direct dollars) to support transformative high-risk/high-reward research and translational infrastructure development to catalyze team science.

The awarded funding translated into:

2

## 511

scientific publications

3

## 94

new clinical trials

4

## \$150.5m

(direct dollars) representing a 17-fold ROI

5



Curated the cancer journey for over 24,000 people who received treatment at Fred Hutch & UW Medicine.

6

## Engineered a data viz platform

Oncoscape unites clinical and molecular data to advance understanding of cancer biology through iterative exploration and hypothesis generation.

7

## United 10 organizations

We launched the Specimen and Data Access Network (SAN), facilitating access to specimens and data, supporting research needs and improving infrastructure in translational research.

8

Transformed the research landscape and enabled cross-organizational collaboration by implementing a comprehensive solution for managing specimens and associated data across the Fred Hutch/University of Washington/Seattle Children's Cancer Consortium.

9

## FASTFORWARD FOR RESEARCHERS

Spearheaded creation of an umbrella material and data transfer agreement across six organizations.

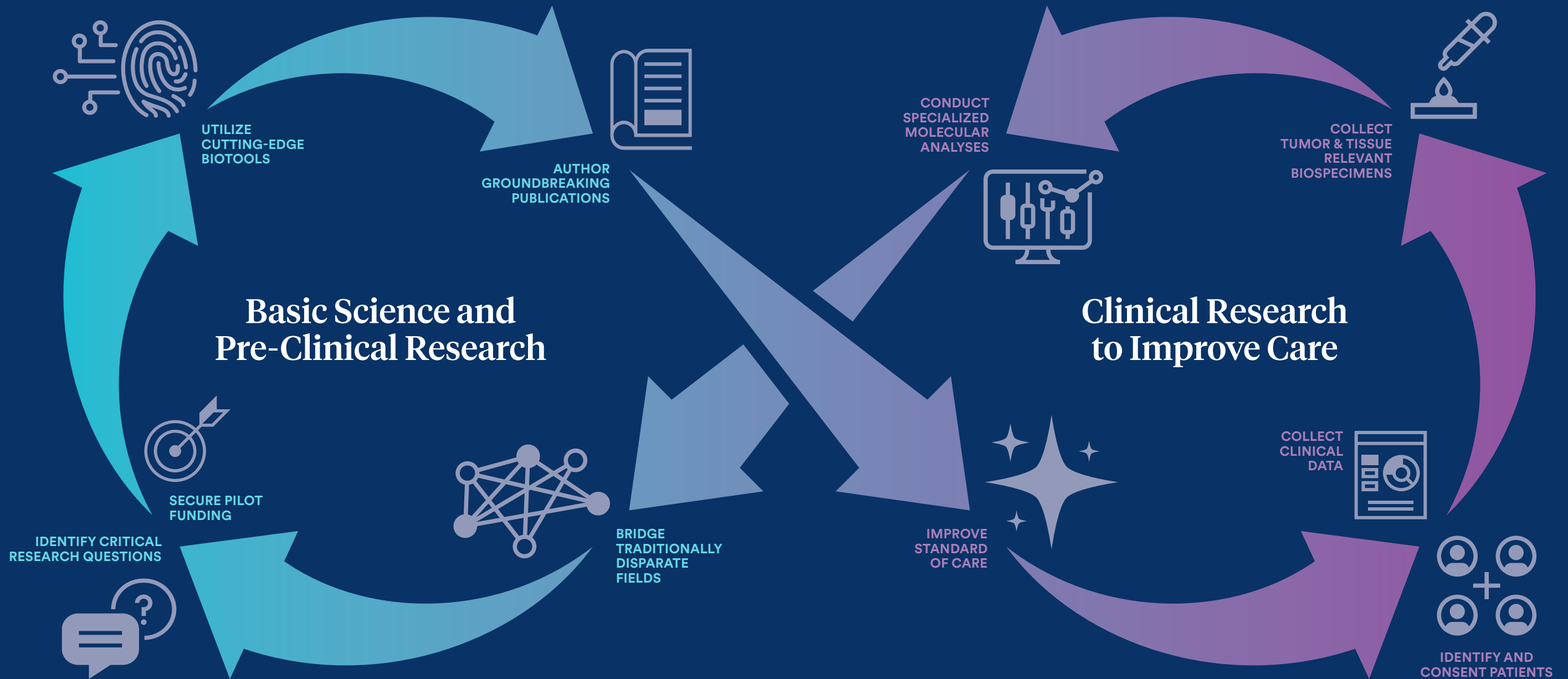
# 41+

10



Mentored interns across multiple disciplines, including seven who returned to Fred Hutch in full-time roles post-graduation.

2019 interns with OTR team (from top left): Susan Hur, Rachel Galbraith, Vera Maina, Mark Dizon, Maya Dennis, Shauntel Thomas, Kylie McCloskey



## Driving Innovation in Translational Research

### Speeding research from bedside to bench and back again

OTR's approach to translational research revolves around providing resources and support to researchers, enabling them to navigate the complexities of the research

process. Central to this approach is the emphasis on data access and management, essential for fostering collaboration and accelerating scientific progress. Through initiatives like pilot funding and infrastructure awards, OTR promotes interdisciplinary collaboration and streamlines the research process, ensuring that discoveries translate efficiently from bench to bedside.

OTR's mission to provide resources and support to researchers plays a crucial role in navigating the complexities of the research process. By fostering collaboration across diverse research areas, the team has been able to identify and implement new approaches to solving complex problems within translational cancer research, driving progress against the disease and saving more lives.



# Focus on Collaboration



Ryma Toumi, PhD, presenting a scientific poster at the 2023 STTR member retreat.

## STTR embodies the collaborative spirit of translational research, bringing together experts from diverse fields to tackle the complexities of cancer

Organized into tumor-specific research teams led by deputy directors, STTR drives innovation and transformative research to improve cancer prevention, detection, treatment, and survival.

Through initiatives like interdisciplinary translational research meetings and biannual retreats, STTR fosters collaborative team science, catalyzes the research process, and empowers researchers to explore innovative approaches and accelerate discoveries.

Annual infrastructure awards for each tumor-specific team enable the development and continuation of critical tools supporting research. Our pilot award program supports the translation of novel concepts into impactful research projects, driving progress towards our mission of speeding research.

The dedication of STTR members and team leaders has laid the foundation for many more decades of transformative research and discovery.



Gary Gilliland, MD, PhD, Fred Hutch President Emeritus, involved in discussion during plenary at the 2017 STTR member retreat.

### PILOT AWARD PROGRAM

“Thank you for providing this wonderful opportunity for us to start a new collaboration. This idea of sponsoring new collaborative projects between STTR members is brilliant!”

—HAILING LU, MD, PHD

### STTR RETREAT

“I’d like to thank you and your colleagues for a wonderful STTR meeting. To have the chance to meet and discuss approaches to different cancers than the one I deal with was great.”

—LAWRENCE TRUE, MD



Hannah Linden, MD, and Liz Swisher, MD, PhD, talking with fellow attendees at the 2023 STTR member retreat reception.

Barrett’s Esophageal study team members Patty Galipeau and Rissa Sanchez at an STTR event.



### STTR INFRASTRUCTURE SUPPORT

“Today I got notice from my PO that my RO1 will be funded... This WILL NOT have happened without STTR and Hutch support. I can’t thank you enough.”

—EDDIE MENDEZ, MD

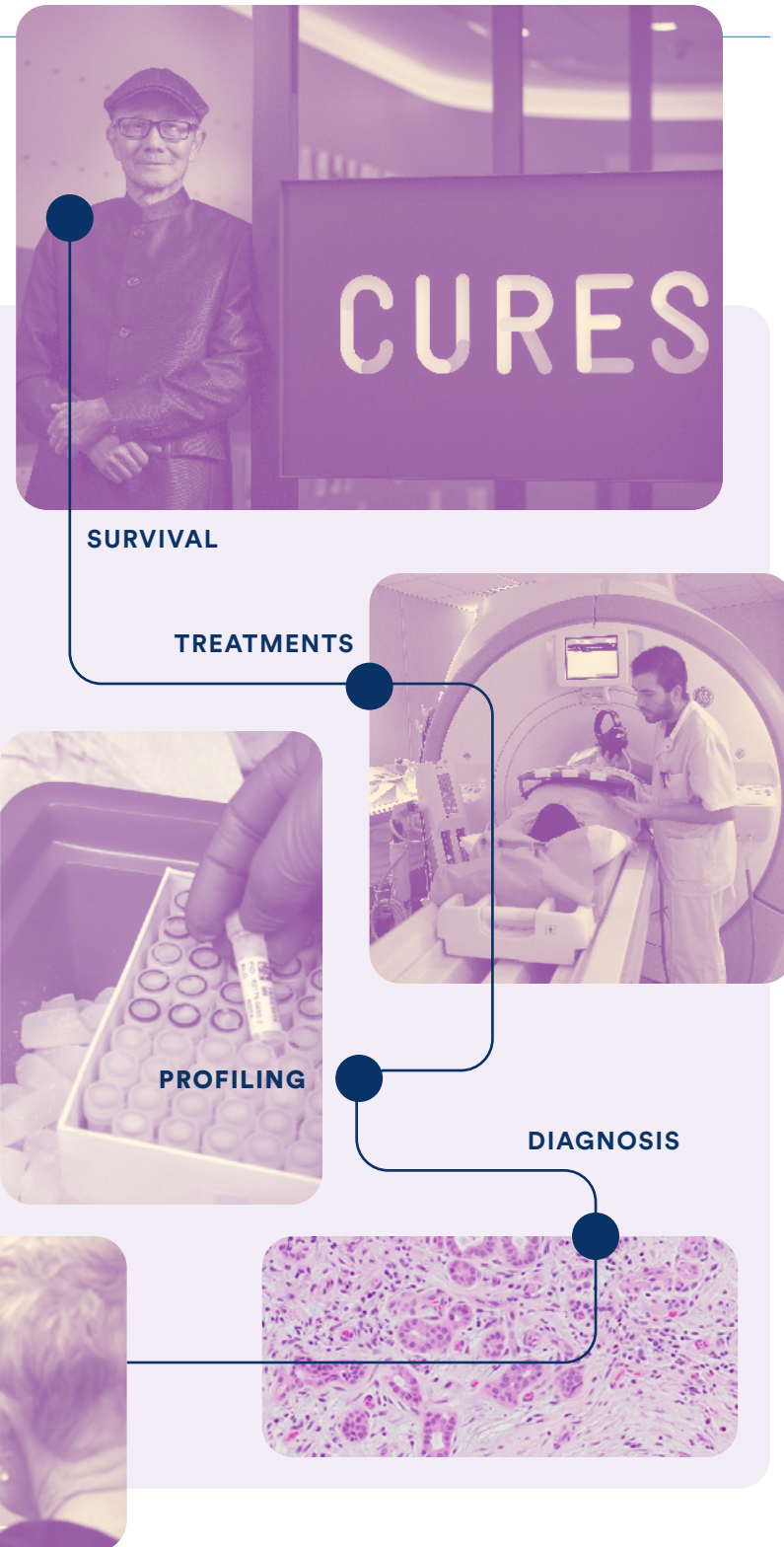


# Digitizing the Cancer Journey

## Capturing data about patient journeys—diagnosis, treatments, survival—to drive cancer research

In the early years of STTR we worked closely with research teams to understand what patient data were critical to their research processes and partnered to create a pathway for accessing that data. With input from multi-disciplinary teams—spanning clinical and research domains—we curated standardized datasets for 12 tumor-specific research teams, which translated into a detailed cancer story for approximately 24,000 Fred Hutch/UW Medicine patients. This data asset, available to any researcher within our organizations, has continued to support a large body of transformative research.

As we move forward, and the data infrastructure at Fred Hutch matures, our team continues to partner to speed access to critical clinical data in support of translational research. In collaboration with the Sloan Institute for Precision Oncology and the Data Science Laboratory, we are partnering to pilot a clinic note template to better capture and standardize some of the most high impact data elements needed across the research community. In addition, we continually monitor the translational research landscape for opportunities to improve data access – often in partnership with our other OTR pillars.



## INITIAL APPOINTMENT

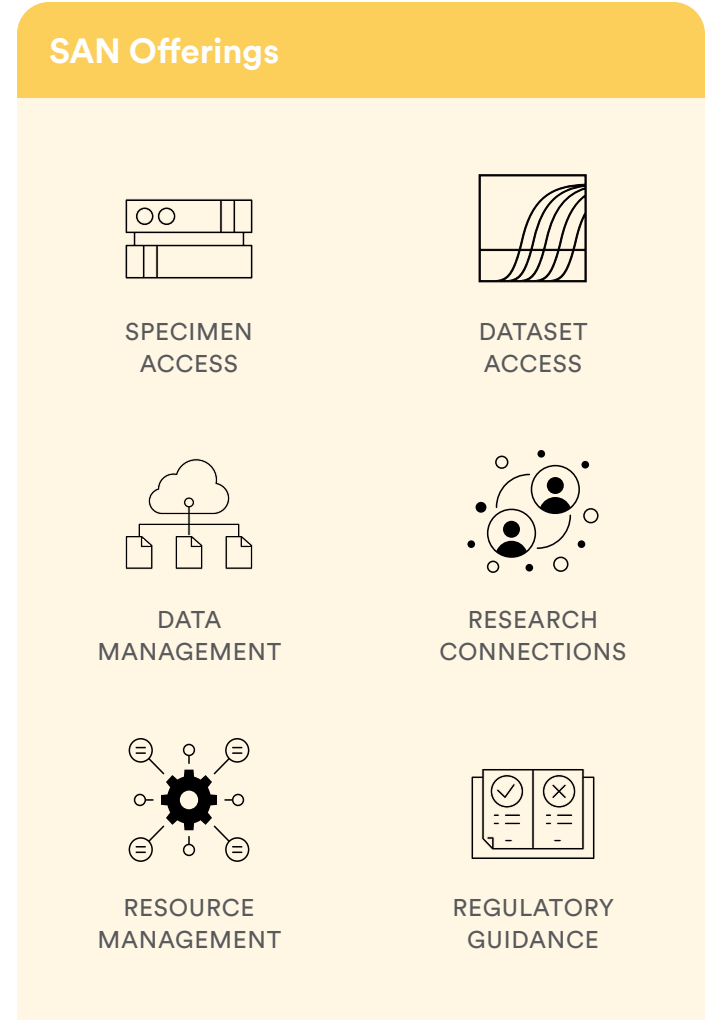


# Enabling Science

## Providing critical resources to speed high-impact research

Specimens and data deriving from people along the cancer journey (pre-diagnosis through survival and often including molecular and other types of multi-omic data) underpin much of translational research. These resources are essential for understanding disease mechanisms and developing targeted therapies. A pivotal initiative out of OTR, our Specimen and Data Access Network (SAN) was launched in 2019 and serves to facilitate resource exchange, knowledge sharing, and collaboration by strengthening regional and cross-organizational community partnerships. SAN ensures researchers across the Northwest region have access to the necessary tools and specimens to drive their research forward.

In collaboration with partner organizations, SAN spearheaded the creation of an Umbrella Material and Data Transfer Agreement to expedite material and data transfers between institutions. In addition, we have leveraged our network partnership to support administrative efforts within Fred Hutch such as legacy resource management, data governance and biospecimen data management.



## TakePART NW

In response to widespread recognition of the gap in equitable access to research across the entire state of Washington, and extended region, SAN has partnered with the Sloan Institute for Precision Oncology to launch TakePART NW. This program will enable people with cancer who are seen at community clinics to share their specimens and data in support of research. This initiative, with seed funding from the Andy Hill CARE Fund, will broaden representation in cancer research to ensure the outcomes of research will benefit all the populations within our state.



# Elevating Data Management

## Standardizing Data, Enhancing Connectivity

One of the early learnings through STTR was that nearly every investigator we connected with wanted to streamline data management for their projects, yet not many were able to easily identify, or afford, the right tools for the work. One area where our investigators were particularly challenged was in tracking specimens collected from patients involved in research projects (blood, saliva, tumor tissue, etc.) and linking that information to both clinical data and research test results from their laboratory.

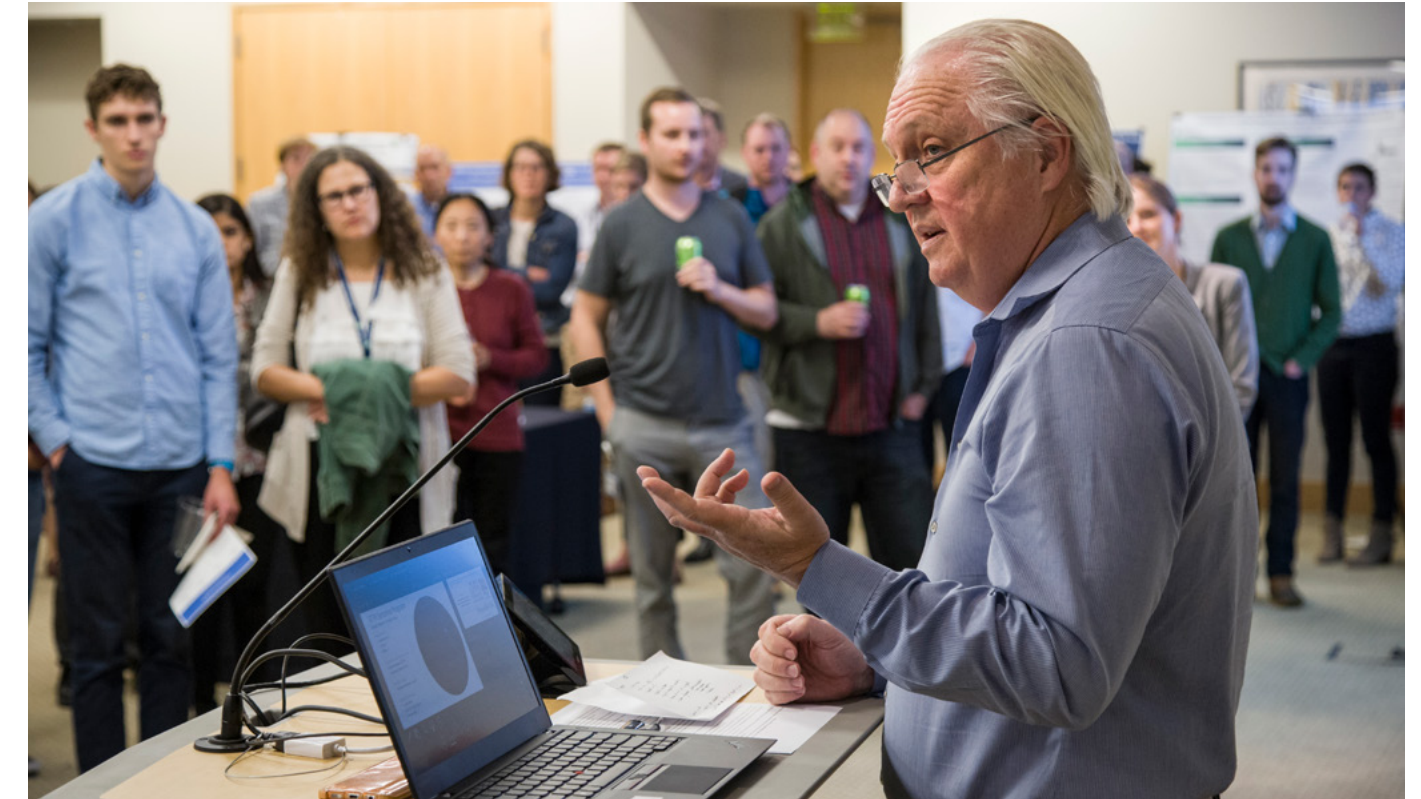
Recognizing the importance of efficient data management, and following several years of community engagement, OTR spearheaded the implementation of OpenSpecimen in 2022 as a cross-organizational tool supporting specimen data management across the Fred Hutch/University of Washington/Seattle Children's Cancer Consortium. OpenSpecimen has revolutionized tracking and management of specimens and associated data, adding efficiency and opening up new opportunities for data sharing and collaboration. Rather than relying on multitudes of Excel spreadsheets, bespoke Access databases, and paper, our researchers now have access to a powerful, web-based tool which enables sharing of information securely across labs, research teams and organizations.

Within the first year of launching OpenSpecimen, our organization quickly became one of the highest-volume use cases of the platform in terms of the number of users, protocols, and specimens tracked in the tool. We continue to grow and provide support to our user base in pursuit of streamlining, speeding, and increasing the power of translational research. OpenSpecimen has paved the way for many exciting new initiatives which will continue to transform and improve the research process for our researchers.

Cleavon Joseph, product manager, speaking with early OpenSpecimen adopter and STTR Deputy Director for the Skin/Cutaneous Oncology team, Paul Nghiem, MD, PhD, at the 2023 STTR member retreat.



# Empowering Interactive Exploration



## Large-scale, paired multi-omic and clinical analysis at your fingertips

A cornerstone of the OTR approach is empowering researchers with the necessary tools and resources. In this spirit, OTR developed Oncoscape, a collaborative platform that unites the clinical, genetic, and computational fields. Currently, researchers and clinicians frequently gather millions of data points per patient or experiment. However, this data is often held in silos by different groups or is only comprehensible by investigators with specific expertise.

Oncoscape enables the acceleration of primary translational and clinical research through a suite of interoperable analysis and visualization tools. Researchers can explore

their own private datasets, access public datasets, analyze clinical and molecular data, and derive meaningful insights to advance cancer biology and improve patient care without needing bioinformatic or computational expertise. Post-publication, Oncoscape makes data available to the public to be leveraged by an unlimited number of researchers worldwide.

By fostering collaboration and driving hypothesis generation through iterative, visual exploration, Oncoscape accelerates translational research and drives innovation in cancer treatment.

Eric Holland, MD, PhD, SVP of Human Biology and Founder/Director of OTR, presenting Oncoscape to a crowd of interested researchers at the 5-year STTR celebration.



## Highlights



OTR team celebrating our 10-year anniversary at the 2023 STTR member retreat; Jalle Gebisa (STTR coordinator, middle) and Desert Horse-Grant (Founding STTR Director of Strategy and Ops, right) at the first STTR-supported Oncology Recognition Day event in 2014; OTR and Human Biology team members participating in the 2015 Fred Hutch Obliteride fundraiser; Angela Bryce presenting her Shared Resource core at the STTR member retreat in 2023. Yaw Nyame, MD, MS, MBA, at the 2023 STTR member retreat.



**“I have been here for 10 years and we have never had this degree of collaboration... make no mistake about it; your group changed the culture here.”**

—RENATO MARTINS, MD, MPH  
(EARLY FEEDBACK ON STTR PROGRAM)



## Future

# Beyond a Decade: Innovation in Action

**The foundational infrastructure established by OTR continues to be a critical driver of emerging initiatives across our community**

As OTR celebrates over a decade of groundbreaking translational research, we honor the visionary leaders, dedicated members, and dynamic partners whose efforts have redefined the research landscape. Through collaborative efforts and innovative initiatives, OTR continues to bridge the gap between science and patient care, driving transformative advances in cancer treatment and care. OTR has become synonymous with innovation, collaboration, and excellence in translational research. In our next decade we will continue engaging our translational community and focus on expanding the impact of our work to communities and partners across the Northwest. We remain committed to our mission of translating scientific discovery into cures and research advances, ensuring a brighter tomorrow for cancer patients worldwide.

## Key/Core Partners

**Thank you to all our program leaders, members, and key organizational partners for working with us to create an optimal research environment for investigators across the Seattle area.**





**OTR COMMUNITY REPORT**

For more information on OTR activities, please contact [OTR@fredhutch.org](mailto:OTR@fredhutch.org)  
Visit us online at [fredhutch.org/OTR](http://fredhutch.org/OTR)

