FROM THE CANCER CONSORTIUM

Updates
Drs. Tom Lynch and Bruce Clurman Announce Updates Regarding Fred Hutch Clinical Research Division Changes
Following the decision to split the Clinical Research Division into two new scientific divisions, more information is now available about what those changes will look like:

- Dr. Geoff Hill has been named as the leader of the new laboratory-based research division, which will focus on bone marrow transplant, gene therapy, and immunology.
- Recruitment is underway for a leader for the other new division, which will focus on hematology, oncology, and cancer medicine.
- Executive leadership continues to work on developing the organizational and administrative infrastructure for these two new division.

You can read the full CenterNet announcement from Drs. Lynch and Clurman here.

It's That Time Again - Research Performance Progress Report (RPPR) Season Is Here!
Of late, the Cancer Consortium Administration Team has been hard at work preparing to
In addition to the CCSG itself, which is renewed every five years, the Consortium is required to submit annual progress reports detailing organizational changes and performance updates.

The 2022 progress report will be the penultimate one before the CCSG's next renewal in early 2024 and subsequent NCI site visit, which is expected to take place in May-June of 2024.

**Cancer Consortium Team Successfully Hosts Administrative External Advisory Board Meeting**

On Tuesday, August 16, the Cancer Consortium team hosted an administrative external advisory board meeting in order to better assess our strengths, weaknesses, and next steps forward in the competing renewal process. The meeting was attended by the core admin team, Dr. Tom Lynch (Director), Dr. Liz Swisher (Deputy Director), and a panel of external experts chaired by Dr. Chad Ellis of the UPMC Hillman Cancer Center.

The meeting generated extremely useful conversation around best practices for CCSG preparation, grantsmanship, data reporting, and strategic planning. The team looks forward to receiving formal feedback from the EAB and determining how best to implement our takeaways.

**Congratulations to the 2022 New Investigator Awardees!**

The Cancer Consortium is pleased to announce that the following members have been awarded New Investigator Funding:

- **Richard Adeyemi** (FH; Breast & Ovary Cancers Program)
  - **Project:** Certain patients inherit mutations in some of some genes that guard against mutations, predisposing them to cancer. Two particular genes, BRCA1 and BRCA2, have been shown to be mutated often in patients with breast and ovarian cancer, and their inactivation causes these cancers to rely on alternative methods of repairing DNA. In this work, we want to understand how DNA abnormalities arise in cells with mutations in these DNA repair genes. We also aim to demonstrate that targeting these backup pathways is a viable means of treating hereditary cancers that lack or have mutations in genes critical for repairing damaged DNA.

- **Brittany Barber** (UW; Other Oncology Program)
  - **Project:** We believe that chronic inflammation due to changes in the oral microbiome caused by diet may represent an etiology for an epidemic of oral tongue squamous cell carcinoma in young, non-smoking patients. Using barcoded Ab-seq, 16S, and whole genome shotgun metagenomics, we plan to test the following hypotheses:
    - **Specific Aim 1:** a high proportion of suppressive IL-1R1+ ICOS+ Tregs is associated with high-risk histopathology and tumor progression in ynsOTSCC compared to older, smoking non-tongue HNSCC patients.
    - **Specific Aim 2:** IL-1R1+ ICOS+ Tregs are associated with a higher relative abundance of known pathogenic bacteria, providing a potential biomarker for pathogen-mediated immunosuppression in oral squamous cell carcinoma.

- **Thelma Escobar** (UW; Cancer Basic Biology Program)
NPM1 gene mutations are considered driver mutations in the pathogenesis of acute myeloid leukemia (AML). My mechanistic approach for understanding chromatin inheritance in mouse embryonic stem cells led me to identify NPM1 as a key player in the epigenetic preservation of facultative heterochromatin. Furthermore, my laboratory’s preliminary data shows that mutated NPM1 cancer cell lines have mis-expression of another NPM-family member, NPM3 protein, which is diminished in mutated NPM1 AML cancer cells. We now hypothesize that NPM-biology (NPM1 and NPM3) is having a key role in constructing the epigenome of HSCs and will determine whether aberrant function in this process contributes to the etiology of NPM1-driven cancer mutations.

- **Behnam Nabet** (FH; Cancer Basic Biology Program)
  - **Project:** Development of chemical tools to define the roles of CDK11 in cancer
  
  Cyclin-dependent kinases (CDKs) are promising cancer drug targets. However, the roles of several CDKs in cancer remain unclear. To solve this challenge, we recently developed a selective inhibitor to disable CDK11, an understudied cancer drug target. We intend to use this inhibitor and innovative chemical biology technologies to uncover the functions of CDK11 and advance new therapeutic solutions for patients with difficult-to-treat cancers.

- **Yaw Nyame** (UW; Prostate Cancer Program)
  - **Project:** Community-Based Knowledge-to-Action Translation for Prostate Cancer: COMBAT-PC

  Black men have a 60-80% higher chance of having prostate cancer than other men in the US. They also have a 2.2 times higher chance of dying from prostate cancer. PSA testing can reduce prostate cancer deaths among Black men. This is especially true when testing begins at a younger age (e.g., 40-45 years old). The COMBAT-PC project will use a community-based approach to increase awareness about early detection of prostate cancer among Black men. We have built a coalition of Black men, patient advocates, doctors, and researchers. Together, we will design accessible, culturally relevant, and accurate learning tools to support increased PSA testing among Black men.

**Upcoming Events**

- **September 28-30, 2022: Dr. E. Donnall Thomas Symposium**
  
  The first-ever Dr. E. Donnall Thomas Symposium will feature over 20 leading researchers from around the world who will share their current research on improving survival after a bone marrow and stem cell transplantation, adoptive cell therapy, gene therapy, and hybrid therapies. Our schedule will feature keynotes from Dr. Carl June of the University of Pennsylvania and Dr. Rainer Storb of Fred Hutch. Options for in-person and virtual attendance are available. Register using this link.

**FROM THE RESEARCH DEVELOPMENT OFFICE**

**NCI Announces Clinician Scientist R50 Award**

The NCI has made available a R50 funding mechanism to support Clinician Scientists. According to the NCI, this opportunity is “designed to encourage the development of stable research career opportunities for exceptional clinician scientists who..."
These clinician scientists are vital to sustaining the NCI-funded clinical trials enterprise. The Research Specialist Award is intended to provide salary support and sufficient autonomy so that individuals are not solely dependent on NCI grants held by others or other sources of support for cancer research career continuity."

These are 5-year awards which can support 20-40% effort of the applicant. There will be approximately 25 awards conferred each year for 2022 and for 2023.

Applications are due on the following dates:

- February 7, 2023
- June 6, 2023
- October 6, 2023

The Fred Hutch/University of Washington/Seattle Children’s Cancer Consortium can submit one applicant per application date for this mechanism. All interested candidates should send a two-page letter of interest to cancerconsortium@fredhutch.org by October 3, 2022. One applicant will be selected for each of the 2023 application due dates.

The letter of interest (2-page limit) should include:

- Current efforts in clinical trials in both national and investigator-initiated trials
- Service on trial-related committees or other activities to support the Consortium’s clinical trials infrastructure
- Contributions to the recruitment of underrepresented minorities and women to clinical trials
- Confirmation that you meet the eligibility criteria per the R50 announcement

Questions can be directed to Kris Blair, PhD, Research Development Specialist for the Cancer Consortium, at kblair@fredhutch.org.

FROM THE OFFICE OF COMMUNITY OUTREACH AND ENGAGEMENT

Updates
OCOE is excited to announce the launch of a course on Community-Based Participatory Research (CBPR) methods for Consortium investigators and research teams. The Introduction to CBPR course consists of an introductory video by Dr. Jay Mendoza and 11 short videos, one on each of the 11 CBPR principles, facilitated by OCOE Faculty Leads, Dr. Myra Parker, Dr. Rachel Ceballos, and Dr. Wendy Barrington. Each video provides examples of how these investigators have successfully used CBPR methods in their research. The course is available on Hutch Learning.

The Introduction to CBPR course is the first course in a series of courses under development by the OCOE Recruitment and Retention Resource (RRR). These RRR courses were created in response to requests from Cancer Consortium research teams.
How to access the Introduction to CBPR course

- Use the following direct links to the course:
  - Use this link if you have a Fred Hutch username.
  - Use this link if you have an SCCA username.
- Alternatively, from Hutch Learning, search for the term "CBPR."
- For Consortium partners at UW and Seattle Children's, who do NOT have a Fred Hutch or SCCA username, please email us at enddisparities@fredhutch.org and we will send you a link where you can create a login/password to access the course. Please enter “CBPR Course link” in the subject heading of your email.

OCOE Podcast Enters Production for its Third Season

The OCOE podcast, Cancer Health Equity NOW, is already planning for Season 3! Catch up on episodes from Season 2 released over the summer:

- In July, we talked with Drs. Wendy Barrington and Rachel Chapman from the University of Washington in the episode titled, “The Center for Anti-Racism & Community Health: Understanding the Mechanisms of Inequity, Injustice, & Trauma.”

- In August, we talked with COE directors Drs. Stephanie Wheeler, Tomi Akinyemiju and Ronny Bell about their collaboration to understand and address cancer-related health needs of American Indians in their North Carolina catchment area in the episode titled, “The Southeastern American Indian Cancer Health Equity Partnership-SAICEP.”

Click here to listen to these and other past episodes.

The OCOE Is Hiring!

The OCOE is seeking a Staff Scientist who shares their mission to achieve cancer health equity by using bidirectional, anti-racist, equitable community-engaged qualitative and quantitative approaches in programs and research. The Staff Scientist will closely collaborate with OCOE leadership, faculty, and staff to achieve the OCOE’s scientific and programmatic objectives.

The position opening comes at an exciting time for the Cancer Consortium, as it broadens its reach throughout Washington state. Job description and application portal are available here.
OET Publishes STEM Teaching Tools Whitepaper
Several Fred Hutch Science Education staff recently collaborated with secondary science teachers and the University of Washington Institute for Science + Math Education on a STEM Teaching Tool (STT) entitled "Attending to Race and Identity in Science Instruction."

STEM Teaching Tools are practitioner-focused white papers on topics in science education with broad readership funded by the National Science Foundation. Fred Hutch Science Education staff have collaborated on several additional STTs in the past, on topics related to classroom discussions as well as on scientific practices such as argumentation and modeling.

OET Hosts First Inaugural CRTEC Associate Director and Administrator Forum
In June 2022, the Fred Hutch OET organized and hosted the first Cancer Research Education and Training Coordination (CRTEC) Associate Director and Administrator Forum. The event drew 110 participants from 54 Cancer Centers nationwide, sharing best practices and innovative approaches, as well as finding synergies between institutions to enhance all of our programs.

The virtual forum included interactive sessions addressing topics at the forefront of cancer centers' educational initiatives. Notable sessions included:

- Interaction between Community & Outreach Engagement (COE), Plan to Enhance Diversity (PED), and CRTEC
- Creating Equity in Postdoc Recruitment
- Data, Metrics, and White Paper Development

The next forum is planned for October 2022 in tandem with the Cancer Biology Annual Retreat (CABTRAC).

FROM THE OFFICE OF FACULTY AFFAIRS AND DIVERSITY

Updates
The Fred Hutch Office of Faculty Affairs and Diversity is pleased to announce the launching of a new initiative called The Faculty Leadership Academy. This is a year-long mentorship program designed for faculty within the Fred Hutchinson/University of Washington/Seattle Children's Cancer Consortium who are interested in further developing their leadership skills. The overarching goal of this program is to support the development of the next generation of our center's leaders, and to advance the goal set forward by the National Cancer Institute which is to have the diversity of the leadership of the nation's NCI-designated comprehensive cancer centers reflect the diversity of the nation.

This program will individually pair mentees to an appropriate mentor and will involve required participation in monthly workshops (October-June) and monthly meetings with mentors. Workshop topics will include communication, adaptive leadership, team-building, and more. Individuals participating in the program will receive 5% salary support, funding for professional development, and funding for a new pilot initiative designed and led by the mentee.

This program is open to all Fred Hutch faculty and all Cancer Consortium members at UW
The deadline to submit your materials is September 9, 2022. To apply, please complete this form.

Please direct any questions about this opportunity to Chris Li, Associate Director for Diversity, Equity, and Inclusion (cili@fredhutch.org). Any administrative or logistical questions can be directed to Lauren Fielder, Project Coordinator (ofad@fredhutch.org).

FROM THE CONSORTIUM SHARED RESOURCES

Shared Resources Awarded S10 Grants

Proteomics & Metabolomics Shared Resource - Congratulations to Dr. Phil Gafken on the successful award of an S10 grant, entitled "Acquisition of OrbiTrap Eclipse w/FAIMS mass spectrometer," for the Proteomics and Metabolomics Shared Resource. The total award is $1.1M to replace a 9-year-old Orbitrap Elite and achieve two goals:

1. Increase sample capacity/throughput of the facility, reducing wait times, and
2. Replace the outdated instrumentation to ensure discovery-based proteomics research is accomplished on technically appropriate instrumentation.

This instrumentation award will enable scientists in the Fred Hutch / University of Washington / Seattle Children's Cancer Consortium to analyze proteins from normal and diseased tissues, cells and blood.

Preclinical Imaging Shared Resource - Congratulations to Drs. Sunil Hingorani and Gordon Roble on receiving an NIH S10 Instrumentation Grant for the Preclinical Imaging Shared Resource, entitled: "Fred Hutch Preclinical Ultrasound." The total award is $373,050, to purchase a Fujifilm Vevo F2 ultrasound (US) imaging system and achieve two aims:

1. Increase availability for US imaging.
2. Expand research capabilities for advanced cancer studies through high definition imaging and artifact reduction, superior to earlier generation platforms.

This state-of-the-art instrument will facilitate the discovery of cures for cancers and other human diseases, particularly benefiting investigations focused on improving preclinical detection of primary and metastatic disease, longitudinal monitoring of disease progression in new and established mouse models, and assessment of efficacies of a range of treatment modalities.

Facility Online Manager (FOM) Discontinued

Comparative Medicine Shared Resource - FOM is no longer being used to schedule Preclinical Imaging equipment. As of 7/1/22, we have fully transitioned to iLab for scheduling equipment and reserving rooms within Comparative Medicine.

Getting Started with iLab:

1. Navigate to the core page.
3. Enter your FHCC credentials and password, and sign in. On initial login, set your account time zone, click "update," and then log out once to set the change.

4. Select a FHCC core by clicking the "core facilities" list in the left-hand menu.

5. Once on the core’s page, click the "about our core" tab to learn more about the available services.

To Create a Service Request:

Once you have been accepted into your PI's lab and assigned a project, you can submit requests.

1. Navigate to the core page.
2. In the upper-right-hand corner click "Sign In." A pop-up window should appear, displaying "Sign in using FHCC credentials." Click the FHCC link.
3. Enter your FHCC Credentials and password, and sign in.
4. Select the Request Services tab and click on the "Request Service" button next to the service of interest.
5. You will be asked to complete a form and provide payment information before submitting the request to the core.
6. Your request will be pending review by the core. The core will add charges and send it back to you for approval. Make sure to watch for an email from iLab regarding your updated project.

To Create a Reservation:

Once you have been accepted into your PI's lab and assigned a Project, you can schedule equipment time.

1. Navigate to the core page.
2. In the upper-right-hand corner, click "Sign In." A pop-up window should appear, displaying "Sign in using FHCC credentials." Click the FHCC link.
3. Enter your FHCC Credentials and password, and sign in.
4. Select the Schedule Equipment tab and click on the "View Schedule" button next to the instrument of interest. Click and drag on the time frame you would like to reserve.
5. A window will appear, allowing you to verify your reservation details and provide payment information before saving the reservation.

Additional Help:

More detailed instructions are available on our help site. For any questions not addressed, click on the "HELP" link in the upper right-hand corner or contact SRILAB@fredhutch.org.

Service Request in iLab:

Did you know that you can now request imaging training or consultations on iLab? Under the "Request Services" tab, you can request assisted use/study consultations from Preclinical imaging or training on most imaging modalities.

For further imaging equipment info, please visit our Preclinical Imaging website and/or Hutch Learning modules for these modalities: Multiphoton Microscope, IVIS: Optical Imaging, Ultrasound, and Echo: Whole Body Composition.
In this issue of the Cancer Consortium Newsletter, we are profiling Michele Black, Director of the Flow Cytometry Resource. She updated us on some exciting new developments in the Flow Cytometry core, told us the story of her van named Cape Flattery, and weighed in on the pineapple-on-pizza debate.

**How did you come to Flow Cytometry?**
I worked in pediatric oncology at FH back in the early ‘90s, and part of my work was to do flow cytometry experiments on hematopoietic cells looking at Notch signaling. When a position opened up in the flow core, it was something I was really interested in and excited about. I applied to the position by simply going to the manager and saying, “Hey, I want the job!” and he said, “Okay” – so I was hired. I worked here for about six years in the flow core, and then was recruited by the University of Washington’s Department of Immunology to run their flow core. I was there for about 19 years, then finally my previous boss, Andrew, decided to leave Fred Hutch and let me know that the position was going to open up. I immediately applied because I loved working here and was excited to come back, especially in a leadership role. I’ve been here now since March of this year, and I’m very happy to be back. I’ve basically spent the entirety of my professional career in flow cytometry. I’m very passionate about it.

**What did you want to be when you grew up?**
I’ve always been interested in science. When I was a kid I was known for bringing “puppies” to my mom, which were actually wolf spiders. I always tinkered with things, I took apart tape recorders and whatnot. My mom told me when I was four I would explain to her that the lightning in the sky was the same thing in the electrical outlets. I envisioned that I would grow up and be a field biologist and work with wolves or gorillas or whatever animal I had a passion for. I actually did start down that road in college, and worked as a field biologist in California, then moved up to Seattle. Field biology isn’t really as prevalent – well, it is, but it seemed like a lot of the job opportunities were for fisheries, and I didn’t really want to go into that at the time. So I got a job in a lab, and I think I found new passion very quickly when I discovered the technology. But I’ve always been interested in science. I don’t remember a time in my life when I didn’t want to do something scientific-based.

**Is there anything exciting going on in the Flow Cytometry Shared Resource that you’d like people to know about?**
There are three new staff members that are adding to the enthusiasm of being in the core and expanding what we offer. I’m partnering with them to build a training program that will be an intro to flow cytometry course that we’ll offer in-person, and I’m also building out a web-based learning library for different components of flow cytometry. The new staff I have are all very enthusiastic and excited to partner more with researchers in panel design and expand what we offer. We’re also getting new instrumentation and focusing more on the newest technology, spectral flow cytometry, which expands the number of parameters and markers you can use into the 60+ range of markers and 50+ range of individual
fluorophores. That's really exciting, but it requires a lot of expertise, so I'm really hoping to build out my team and pass that information on, and also partner with researchers to build really good panels for them to do their research.

I've always emphasized training and education. I did that when I was at the University of Washington – I ran a seminar series to highlight different technologies or sciences that were coming out of a lab that was highly flow-based, so I see the courses that I'm now developing as a continuation of that. There are a lot of educational opportunities, and I think that's a big hole in this very technical field. There's a lot of misconceptions and a lot of things that people need to understand, and there's not a lot of formalized education. That's something that I think I can drive for researchers in the Consortium – to help educate people and give them a much better understanding of how to use flow cytometry and how to make the most of it and get good data.

Can you talk more about what some of those misconceptions or poorly understood aspects of flow cytometry are?

One example is compensation, and what that actually means and what that does and how you process your samples with your controls, and how important your controls are. If you have poor controls or poor sample quality, you're not going to get good data. I think one of the things that's needed is for people to be able to understand and unravel what they're seeing, and to be able to troubleshoot and do forensics on their data to know what is working and what's not, and what is good data versus what is an artifact or something else. A lot of people don't know the difference, they're just gating at dots on a plot. Especially people who are novices, they don't know what to look for, especially when they get to bigger panels, and they don't have the background knowledge to understand why they're seeing what they're seeing. It's a very complicated technology, and it's often left up to the user once they know how to stain their samples and learn how to use the instrument and software, and they walk away with their data, and then I feel there's a gap in their knowledge. Some people have great labs to rely on to help them when they transition to the data analysis part, but other people kind of get left on their own and don't have that support, and I think that's a really critical part of it.

What is the coolest thing you've ever done?

Most recently, right before COVID I bought a Sprinter van that was a cargo van – completely empty inside – and built it out into a little tiny home. I did about forty percent of the work myself – I had a company help me with cutting holes in the van to put windows in, and also with putting the solar panels and battery system in. But I did all the woodworking for the galley, and all the plumbing and everything for the water system. I have an outdoor heated shower, and a refrigerator and cooktop, and I built it all myself from wood – I learned how to build drawers and everything. I put it all together, and now I have a tiny house that I can use to go on adventures with my dog. It's named Cape Flattery, because that's where my inspiration came from to get a van – I wanted to be able to go out to the Olympic Peninsula and not sleep in a tent or find lodging. I've taken it out there, down the Oregon coast, and over to Eastern Washington. Between COVID and being busy and not having a ton of time, I haven't ventured much further than that, but I've done lots of weekend trips and it's lovely.

What's your favorite book/movie/piece of media/art, and why?

Photography is my favorite medium. I do a ton of photography, which is also part of the reason I wanted the van, so I could go off to places and stay overnight and be immersed in
first camera. My favorite image of his is called “Winter Sunrise in the Sierra Nevada from Lone Pine,” I think. It’s an absolutely gorgeous image of these high peaks that are covered in snow, and there are lower mountains in the foreground that are shadowed, and then there’s this light shining down on a field with some trees and I think a cow, all in light. It’s this very deep image that really speaks to me. My favorite thing is to be out and watch light move across mountains and landscapes.

[Note: you can see the image that Michele is talking about at this link.]

Does pineapple belong on pizza?

Only if you like pineapple on pizza. Personally, I can tolerate it but it’s not my favorite topping. If I open the box and it’s the one with the pineapple, I usually shut the box and go to the next, but if I’m really hungry I’ll tolerate it.

What leadership rules do you live by?

Lead by example. That’s what I did as soon as I came here to the Hutch. I showed that I was willing to do the things and make the changes that I wanted to see implemented, that I was willing to take the time and get my hands dirty. I wanted to demonstrate that I was willing to do the work as well, and I wasn’t just asking people to do something that I didn’t personally want to do. The other things are to be open to others’ ideas, and treat everyone with respect.

Anything else we should know about you?

I really am excited about working with people here at the Hutch and offering more services, especially as they relate to education and training people to get the best data from this core, and supporting them in their research. I think it’s really important research that’s being done here and that we’re all working toward the same goal, and I want to do my part by helping people.