

2023



Fred Hutch
Cancer Center

Office of Education & Training (OET) Annual Report



2023 Pathways Undergraduate Interns



2023 Science Education Partnership (SEP)



2023 UW Biomedical Research Hooding Ceremony



Table Of Contents

About the Office of Education & Training (OET)	<u>01</u>
FY24-26 Strategic Plan	<u>02</u>
Science Education (SciEd)	<u>03</u>
Postbaccalaureate Scholars Program	<u>18</u>
Office of Graduate Education (OGE)	<u>20</u>
Office of Scientific Career Development (OSCD)	<u>28</u>
Faculty Development Program	<u>39</u>
Office of Education & Training (OET)	<u>43</u>

About OET



The Office of Education and Training (OET) houses educational and professional development programs for high school students, undergraduates, postbaccalaureate scholars, graduate students, postdoctoral and medical fellows, staff scientists, and faculty.

Our programs include all biomedical disciplines pursued at Fred Hutch – basic, translational, clinical, and public health sciences research - addressing a range of cancers and infectious diseases. We prioritize increasing access to academic and professional pathways for trainees and faculty historically excluded in science.

OET also oversees the Fred Hutch/University of Washington/Seattle Children's Cancer Consortium's Cancer Research Training and Education Coordination (CRTEC), seeking to promote and strengthen the broad range of education and training opportunities across the Consortium institutions.





FY24-26 OET Strategic Plan

Objective 1

Envision and **build** OET to fully serve the integrated Fred Hutch Cancer Center and all of its Divisions.

Objective 2

Enhance efforts related to the **recruitment** of faculty, trainees, research support, and staff, especially from **groups historically excluded in science**.

Objective 3

Strengthen **support** and **retention** efforts for Office of Education & Training faculty, participants, and trainees.

Objective 4

Establish new, and expand existing, **clinical connections** across our education programs.

Objective 5

Increase **engagement** with **Fred Hutch/UW/Seattle Children's Cancer Consortium** and **external partners**, with an emphasis on expanding efforts across the catchment area.

Science Education(SciEd)

Overview

Science Education (SciEd) directs a wide variety of programs that introduce teachers, high school students, and undergraduates to the excitement and challenges of scientific research and the types of careers available at a major research center. The efforts of the SciEd team are directly aligned with the larger Fred Hutch strategic goals of educating and training the next generation of researchers and clinicians as well as promoting diversity, equity, and inclusion.

Student Information

In 2023, we had over 1100 applicants and 200 participants in SciEd Programs.

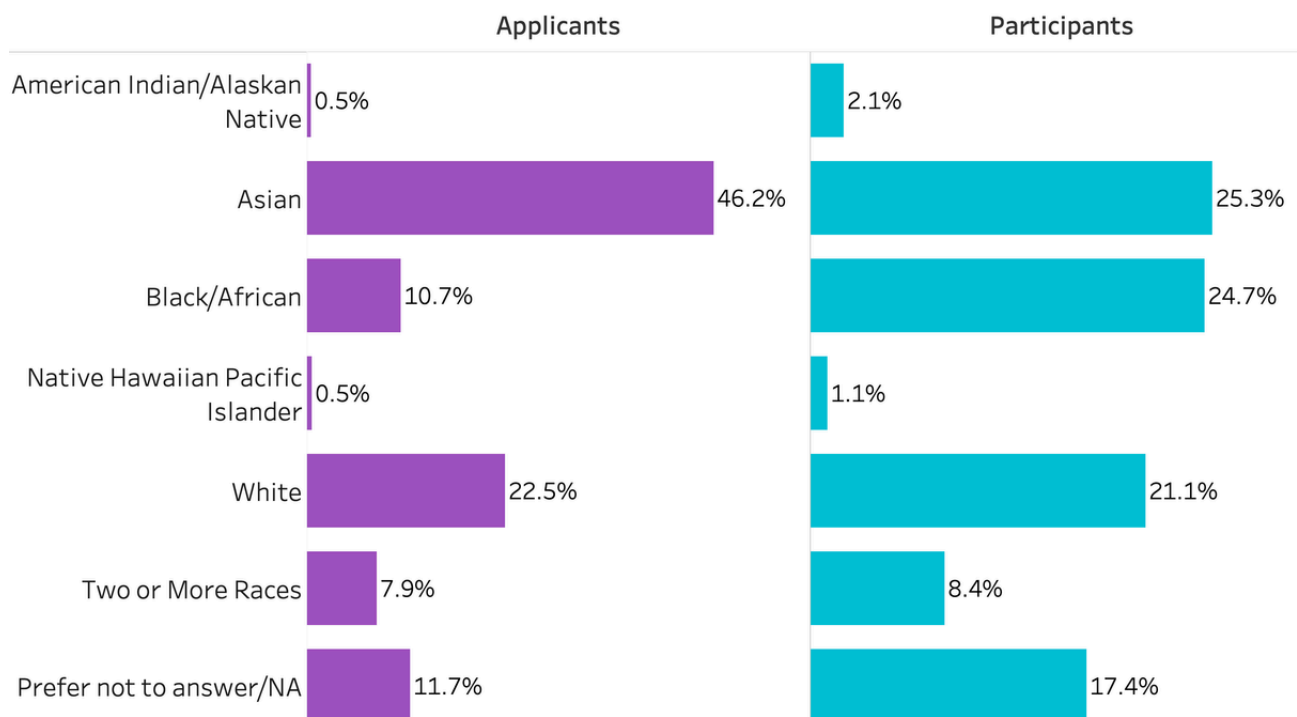
Demographic Information

The data regarding the number and % of students who identify as underrepresented according to the categories defined by the NIH has been traditionally collected by SciEd in June of the following year. We have data for 2022 but not 2023 yet. In 2022, **80% of our participants self-identified with one or more underrepresented categories**, with the range within individual programs reporting a range from 50%-100% underrepresented students. In addition, 55% were low socioeconomic status (SES), and 46% were first generation students.

I had such an amazing time during this entire experience and I know that I will use the knowledge I learned here in the future. I felt entirely supported here and that was a great feeling.

-Coding for Cancer Participant

Figure 1. Student Applicants (n=1098) & Participants (n=190) - Race



Science Education (SciEd)

Figure 2a. Student Applicants - Gender

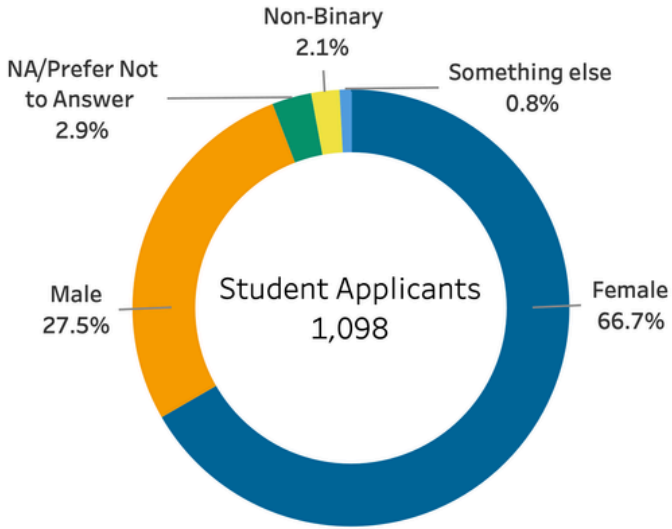
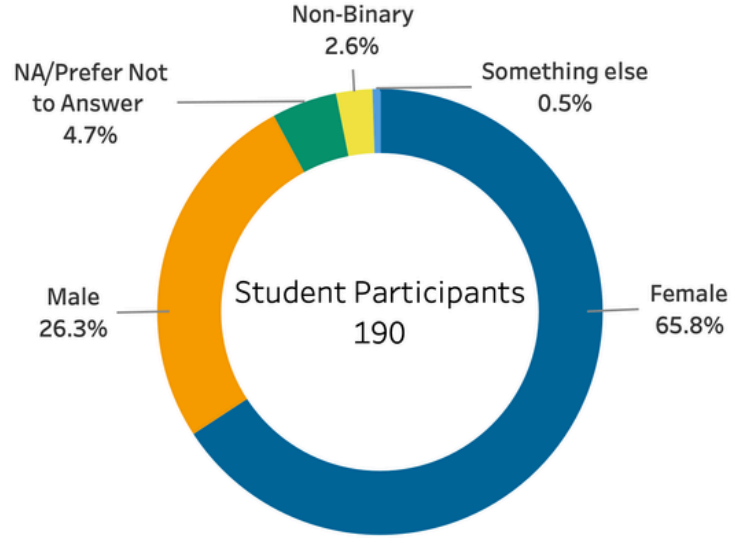
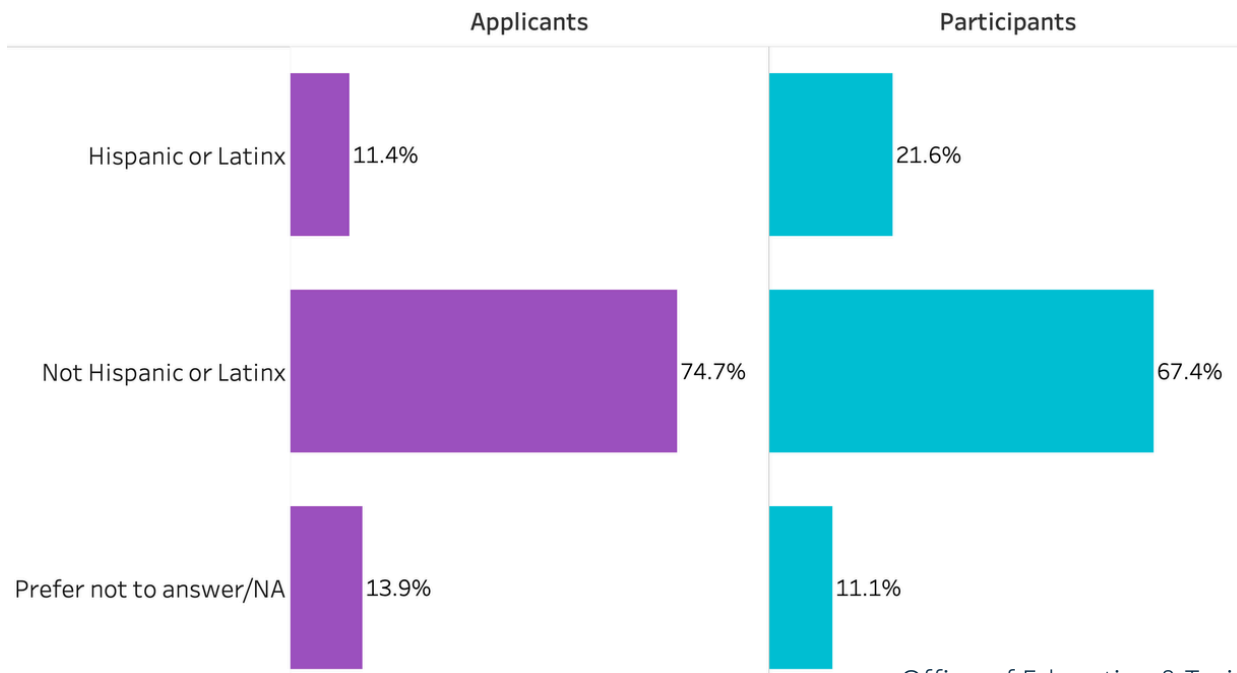


Figure 2b. Student Participants - Gender



The 2023 portfolio of SciEd programs included 10 programs: 5 High School Programs, 3 Undergraduate Programs, and 2 Teacher Programs. In addition, SciEd helps coordinate a number of SciEd “supported (or adjacent) programs” in which a Science Education staff member is a grant PI or where SciEd has partnered to help programs launch (particularly under the Hutch Advance model). In 2023, we had 4 programs that we consider SciEd supported, included by an asterisk in Table 1.

Figure 3. Student Applicants (n=1098) & Participants (n=190) - Ethnicity



Science Education(SciEd)



Table 1: Overview 2023 SciEd Program Applicants and Participants, by Audience

Program Name	Age Group	# Applicants	# Participants
Science Education Partnership (SEP)	Teachers	9	7
Hutch Teacher Fellowship	Teachers	7	4
	Teacher Total	16	11
Girls Who Code*	High School	17	15
Pathways Research Explorers	High School	180	32
Explorers Virtual Internship	High School	19	19
Coding for Cancer	High School	80	19
Summer High School Internship Program (SHIP)	High School	348	25
LabLaunch (HA-LabLaunch)	High School	12	8
	High School Total	656	118
Seattle StatGrows*	Undergrad	35	11
Pathways Undergraduate Researchers Program	Undergrad	120	22
Summer Undergraduate Research Program (SURP)**	Undergrad	264	21
Cancer Research Internship (NMSU)	Undergrad	4	4
HBCU CompBio*	Undergrad		
Program for Advancing Career Exploration (HA-PACE)*	Undergrad	15	10
	Undergrad Total	442	72
	Total All Age Groups	1114	201

*SciEd supported/adjacent

**SURP opened in Nov 22, but including data for entire application cycle

Science Education (SciEd)



Student Long-Term Outcomes Data

Summer Undergraduate Research Program (SURP)

The SURP program had been tracking outcomes since 2009. The program has successfully tracked the outcomes of 91% of its trainees, with only 10% (35 trainees) having an unknown current status.

Figure 4. SURP Intern Outcomes: 2009 – 2023 (n=362 trainees)

Outcome	Percent of Trainees	Detailed Outcomes										Total
Employed in Research	20%	19 PhD Graduates		15 Postdoc Fellowships		13 Completed Other Advanced Degree		27 Have Not Pursued an Advanced Degree			74	
Postbac Program	2%	6										
Graduate School	17%	49 Biomedical Science Programs					13 Completing Other Advanced Degree					62
Medical School	24%	41 Medical Residency Programs	28 Medical School	6 Medical Fellowships	6 Resident Physicians	2 Attending Physicians	1 Physical Therapist	1 Veterinarian	1 Doctor of Optometry	1 DO Program	87	
MD/PhD	7%	27										
Other	20%	31 Completing Bachelor's Degrees	27 Employed in Non-Biomedical Field	9 Employed in Biomedical Related Field	3 In Gap Year(s) Before Applying to Med/Grad School	1 Employment Unknown					71	
Unknown	10%	35										

Long-Term Outcomes for younger interns: (SHIP and Pathways Undergrad)

The SHIP and Pathways Undergrad programs are fundamentally different from SURP and track different categories.

Science Education (SciEd)

Figure 5. SHIP and Pathways Undergrad Interns Outcomes: 2019-2023 (n=251)

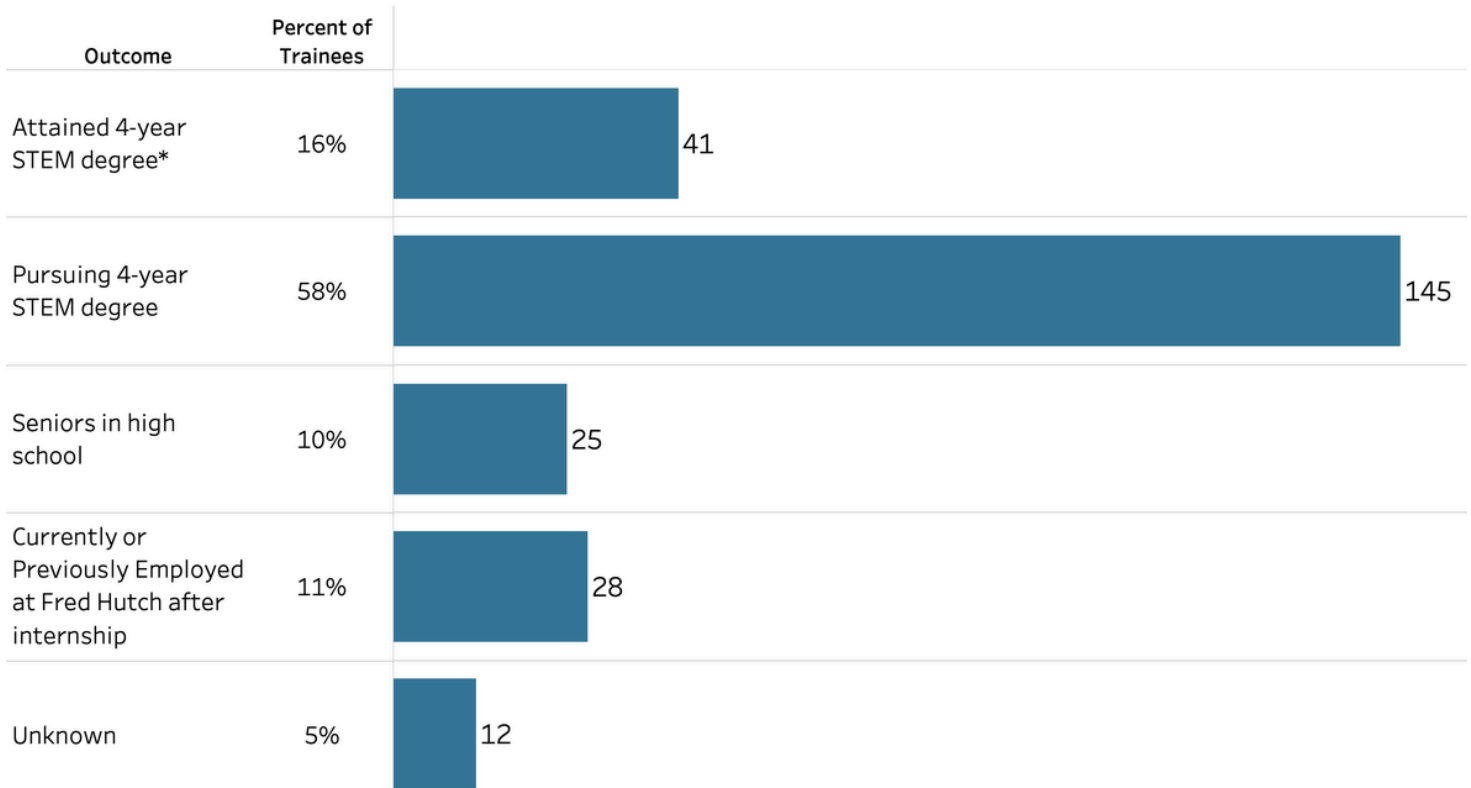
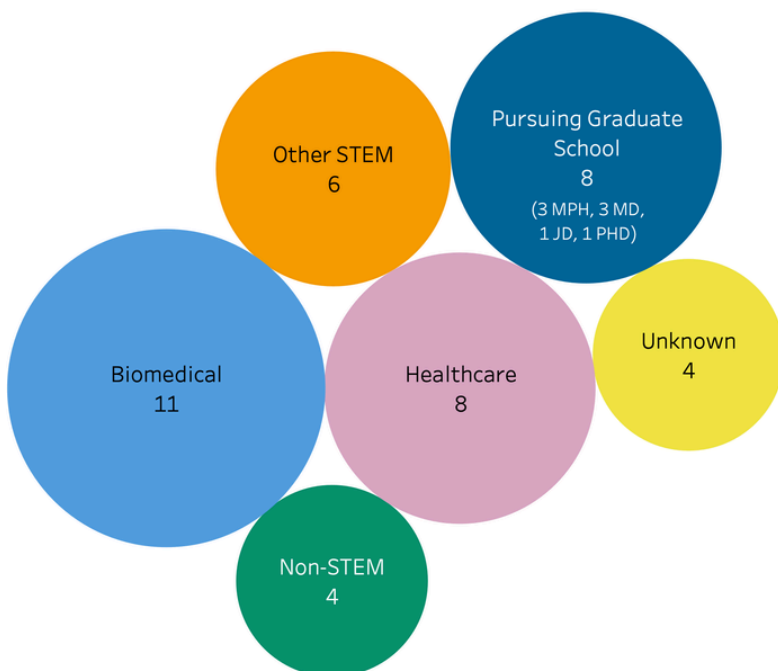


Figure 6. Employment Sectors of SHIP and Pathways Undergraduate Interns who attained 4-year STEM Degrees (n=41)



A “mixed methods” approach is used to collect outcomes data for SHIP and Pathways Undergrad:

- Annual follow-up survey (sent in May)
- Information gathered at annual interns’ reunion (late December)
- Emails sent by individual interns with updates
- LinkedIn scans
- Word of mouth from other interns

Science Education (SciEd)



Figure 7. Average Ratings from Participant Survey: Scale 1-7, Strongly Disagree to Strongly Agree (n=126)



*significant change at $p < .05$

Cross-Program Survey (measuring training experience and sense of belonging)

The Fred Hutchinson Cross-Program Survey, developed in 2023, gathered post-program data from intern participants across various SciEd programs, focusing on the interns' sense of belonging and STEM-related outcomes.

Sense of belonging items used a post-only format and STEM-related items used a retrospective pre/post format, asking interns to reflect on their initial feelings before starting the program, as well as at the end of the program, in a single survey at the end of the program.

In 2023, 126 responses were collected. For most intern respondents (75%), this internship was their first participation in a Hutch program. Interns who responded identified as Asian (31%), White (25%), Black/African (23%), and Hispanic/Latinx (20%), American Indian/Alaskan Native or Indigenous People of North America (5%), Native Hawaiian/Pacific Islander (2%) or chose not to answer (6%). About two thirds of respondents identified as female (69%), 28% identified as male, and 3.6% identified as non-binary.

Overall, most interns reported a sense of belonging at Fred Hutch, with 92% feeling supported and connected, and 90% feeling welcome to bring their whole self. Interns also reported significant changes in their perceptions of STEM learning and careers, with 83% planning to do something different in the next year based on their Fred Hutch experience.

[View Cross-Program Dashboard Results](#)

Science Education (SciEd)

Teacher Information

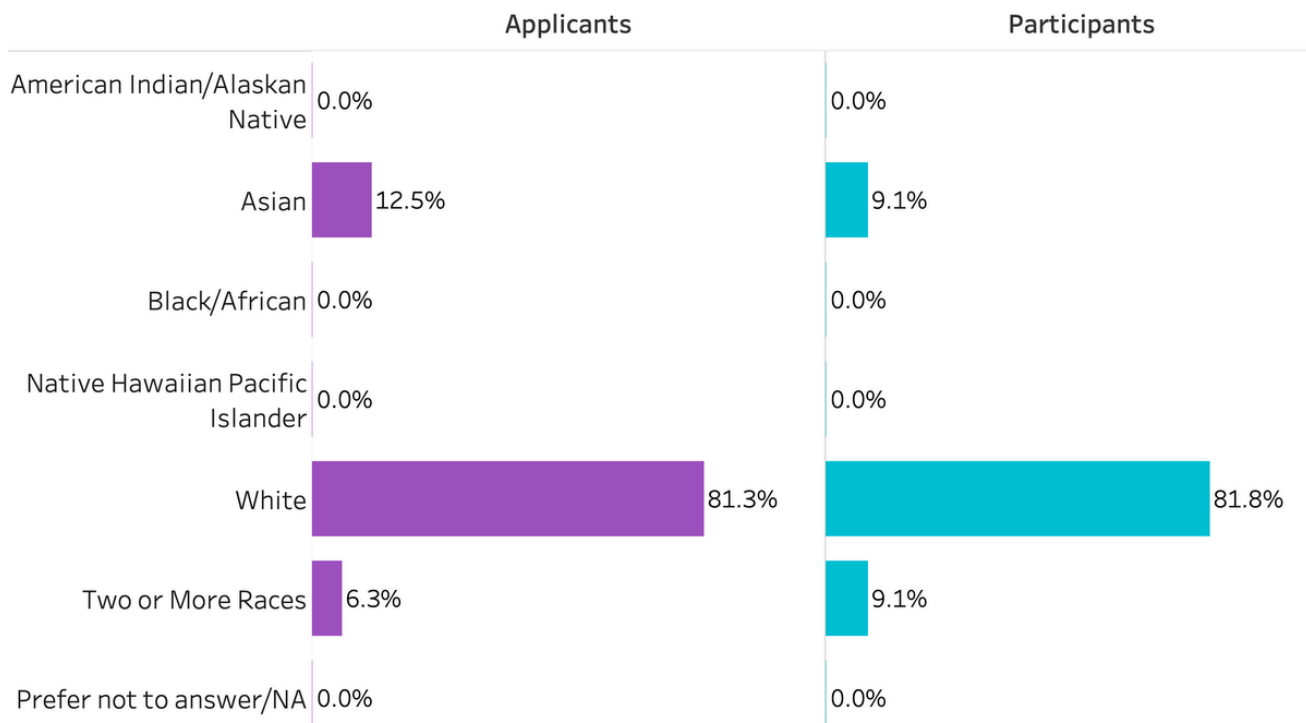
Science Education Partnership (SEP) Kit Loan Program

In 2023, the SEP Kit Loan program offered teachers 31 different types of kits (aligned to different lessons, units, or protocols), 99 kits, and 130 total crates (many kits consist of multiple crates). 2023 was a pilot year for obtaining feedback directly from students via a phone survey. A small group of students gave us kit feedback directly.

Table 2. 2022-2023 SEP Kit Use Data

Number of teachers requesting kits	110
Number of Kit Requests	277
Number of Supplies Only Requests	201
Total Number of Requests	478
Kit student use (using Lab Request data)	24,344
Supplies only student use (using Lab Request data)	24,443
Total student use (using Lab Request data)	48,787

Figure 7. Teacher Applicants (n=16) & Participants (n=11) - Race



Science Education (SciEd)



Figure 8a. Teacher Applicants - Gender

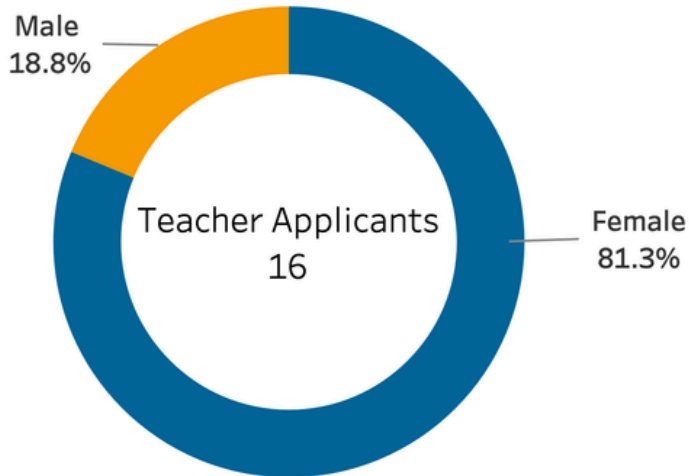


Figure 8b. Teacher Participants - Gender

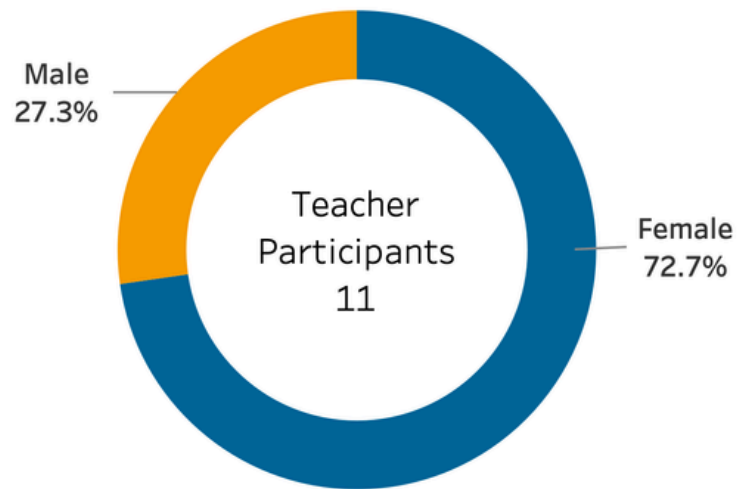
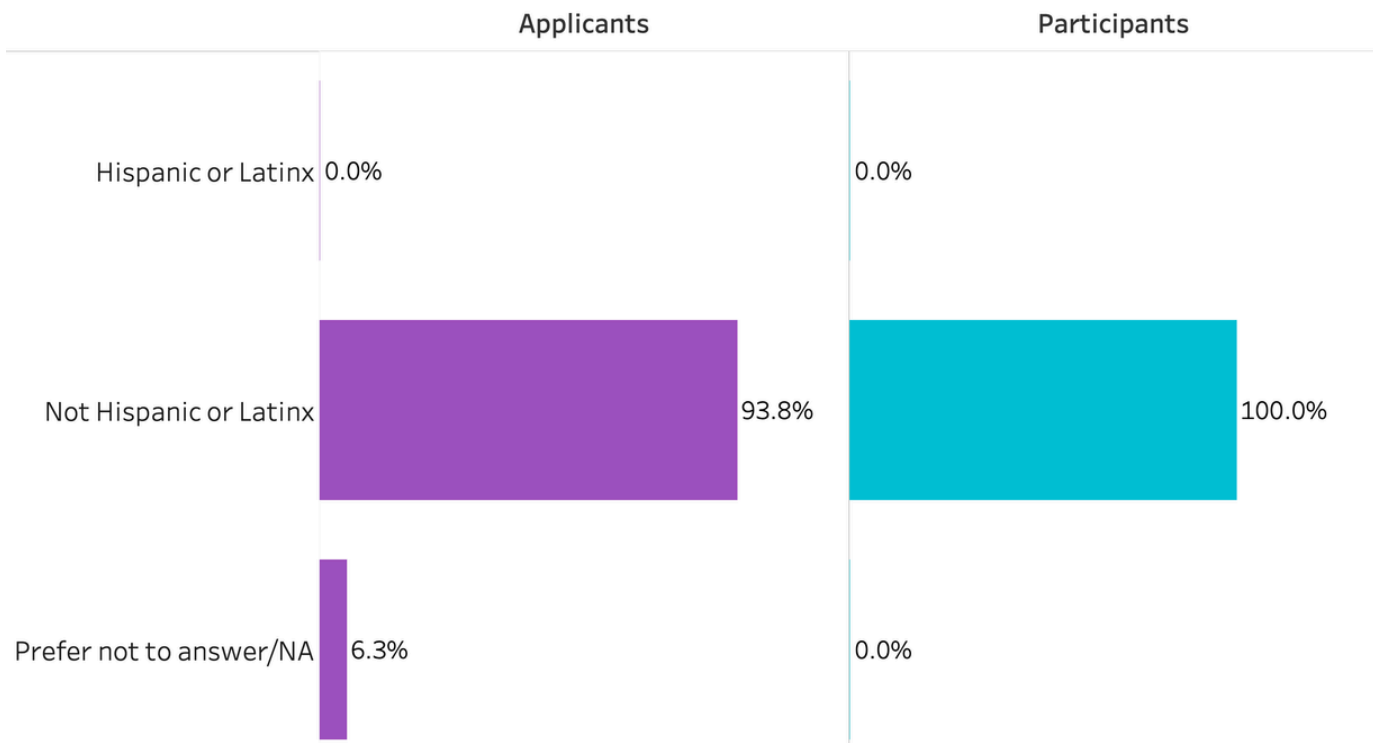


Figure 9. Teacher Applicants (n=16) & Participants (n=11) - Ethnicity



Science Education (SciEd)



Table 3. 2022-2023 Teacher Feedback (n=115)

The following are the numbers of teacher respondents who strongly agree or agree with the following statements	N	%
SEP has contributed to my professional growth	113	98%
SEP has helped me be more effective in teaching science	114	99%
SEP has helped me incorporate more molecular bio tools & techniques	114	99%
SEP has strengthened my own science content knowledge	112	97%
SEP has helped my students become more interested in science careers	109	95%
SEP has helped my students understand the importance and value of science	111	97%
SEP has helped me support and engage students underrepresented in science	108	94%
SEP provides a valuable professional community	112	97%

Table 4. Student Kit Use Data from 2022-2023 demographics survey provided to teachers (n=103)

Number of students (from Demographics Survey)	N	%
Total underrepresented students	5011	39%
Schools over Title 1 threshold	39	38.24%
Teachers with over 50% underrepresented minority in STEM classrooms	26	25.49%
Public School Teachers	95	92.20%

Table 5. 2022-2023 Student Feedback Survey (n=243)

The following are the number of student respondents who strongly agree or agree with the following statements	N	%
This kit/lab activity provided me with hands-on experiences that enhanced my learning	213	88%
This kit/lab activity provided me with experiences that increased my interest in science careers	164	67%
This kit/lab activity provided me with experiences that increased my confidence in scientific thinking or practice	193	79%

Science Education (SciEd)



Outreach

Visits and Tours

Since the pandemic, the tours and visits to Fred Hutch as well as our general outreach to external groups has been increasing. Table 6 outlines the Training Lab Usage for 2022-2023 and gives an indication of our projections for the following year. In 2022-2023 we had 9 usages/visits representing 186 unique individuals. Most of these were students in our summer programs using the lab as part of their programmatic training.

Table 6: Training Lab Visit (Participant) Usage

Training Lab Usage Type	Sept 2022-Aug 2023	Sept 2023-Aug 2024 PROJECTED
Community (external)	5 (81)	20 (363) #
Philanthropy (internal)	0 (0)	3 (47)
Comms & Marketing (internal)	0 (0)	5 (5)
EH&S (internal)	0 (0)	1 (2)
Summer programming* (internal)	4 (105)	5 (117)
Total = # of Groups (# of visitors)	9 (186)	34 (529)

Total includes confirmed visit through June 30, 2024 *Summer programs can include Pathways Explorers, SHIP, PU, SURP, and Hutch Advance

Workshops, Presentations, and Conference Attendance

During the calendar year 2023, SciEd presented 5 school-year internal workshops for Science Education Partnership (SEP) teachers reaching 62 teachers. SciEd staff and/or teachers also presented at four state or national science education conferences: the National Science Teachers Association (NSTA) Conference in Atlanta, the Advanced Placement (AP) Conference in Seattle, the Washington Science Teachers Association Conference (Chehalis), and the NIH SciEd grant Conference (Washington, DC).

Combined, we reached 240 teachers at professional conferences.

At the SciEd NIH Conference, the team attending (Jeanne Chowning, Regina Wu, Kristen Bergsman, Shelley Stromholt, and Dave Vannier) highlighted posters for both the NIH SEPA Frontiers program as well as the NIH YES Pathways program. In addition, we presented 3 sessions: a Workshop (Benefits, Burdens, and Badges: Navigating the NGSS EQuIP Review Process for Your Curriculum), a Roundtable (Teacher Professional Development and Argumentation: SEPA Science Education Research Publications from Fred Hutch), and a short talk (Careers in Cancer Research - Career Profiles). In addition, we shared our new mRNA video (How do mRNA vaccines work?) with the larger conference group.

My understanding of the field was broad but I feel like now I see myself as a scientist even more because of the fact that I have been exposed to so many types of science and scientists.

-Explorers Virtual Intern

Science Education (SciEd)



Table 7: SEP Teacher Workshops, 2023

Date	Workshop Name	Attendees
1/21/23	SEP Workshop: Invasive Mussel Project	15
2/11/23	mRNA Workshop	7
3/10/23-3/11/23	Race, Racism, & Genetics	12
11/27/23	West Sound STEM Network	16
12/2/23	yEVO Workshop	12
Total		62

Table 8: Conference Presentations / Workshops for Teachers 2023

Date	Workshop Name	Attendees
3/25/23	NSTA Atlanta: mRNA Workshop	60
3/25/23	NSTA Atlanta: What does science have to do with race and racism?	20
3/25/23	NSTA Atlanta: Frontiers Intro	40
3/25/23	NSTA Atlanta: Exonerations	8
5/30/23-6/2/23	NIH SciEd Conference (3 sessions)	75
7/21/23	AP Conference (Seattle) - Elephants & Cancer unit workshop	16
10/22/23	WSTA Chehalis: Exonerations	14
10/22/23	WSTA Chehalis: Cancer Fighting Proteins	10
Total		243

Social Media and Communications

4K+
Visits

1305+
 Followers

385+
 Followers

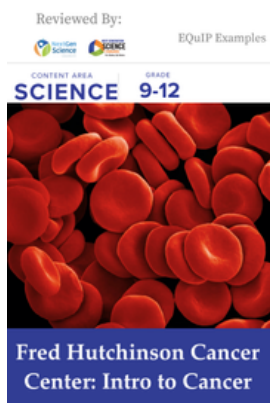
735+
Subscribers

In 2023 the SEP main webpage has had over 4K visits, and our curriculum page 3.9K visits. On social media, SciEd had 1306 Twitter/X followers and 386 Instagram followers. SEP's online newsletter has 735 subscribers.

Science Education (SciEd)

Video

With Supplement Funding to our NIH SEPA Frontiers in Cancer Research grant, SEP developed the SARS-CoV-2 Vaccine Confidence Project, which aims to develop resources related to inspiring vaccine confidence. In partnership with the COVID-19 Prevention Network (CoVPN) the Fred Hutch/ UW Office of Community Outreach & Engagement, and Arkitek Scientific Studios, we developed a highly rendered animated video to explain mRNA's role within our bodies as well as how scientists utilized the function of mRNA to create a new type of vaccine. The video was narrated by a student who had participated in our educational programs. This animation, How do mRNA vaccines work? has reached 78K viewers, our most widely disseminated product to date.



National Recognition for Curriculum

A curriculum unit published by our SEP team was rated as a quality unit after a rigorous review process. Our Intro to Cancer: Leukemia & Hina's Story unit is posted on the Next Generation Science Standards (NGSS) Quality Examples of Science Lessons and Units site, and at the time of review was one of only 6 lessons/units in HS Life Science given this distinction in the last 10 years! It was also featured as the lead story in the NGSS NOW Newsletter for April 2023. Our high school biology unit Intro to Cancer is free, open access, deeply designed for NGSS, and features a cancer storyline.

Publications

Vannier, D., Torok-Storb, B., Stromholt, S., & Chowning, J. T. (2023). The Pathways Undergraduate Researchers Program: Fostering Career Interests, Sense of Belonging, and Student Confidence in Pursuing Science. *Journal of STEM Outreach*, 6(2), 1–15. <https://doi.org/10.15695/jstem/v6i2.07>

Chowning, J. T. (2023). “We All Sort of Jump to That Relationship Piece”: Science Teachers’ Collaborative Professional Learning about the Role of Relationships in Argumentation. *Cognition and Instruction*, 1–36. <https://doi.org/10.1080/07370008.2023.2180006>

(Most read publication in this journal for 2023)

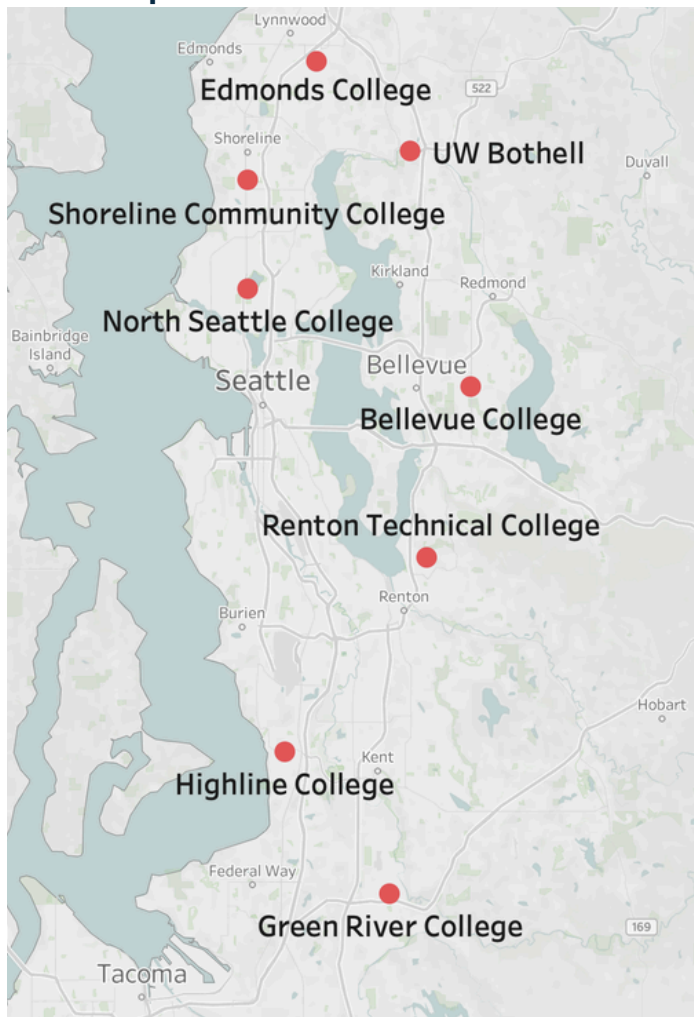
Science Education (SciEd)

Engagement with Key Partners, Consortium and External Partners

HBCU/Comp Bio REACH Program

In 2023, SciEd developed and piloted REACH (Research Equity Advancement for Cancer with HBCUs) a new program in conjunction with HBCU's Morehouse School of Medicine (Undergrad) and Spelman College, the Fred Hutch DEI Core, and the Fred Hutch Computational Biology group. Two students from each of the colleges spent 6 weeks at Fred Hutch learning computational biology and engaging in social and cultural events with the DEI Core.

Figure 10. Location of College Advisory Board Representatives



2-year College Advisory Board

In March 2023, SciEd initiated the 2-year college advisory group, the majority of which are also MSIs. The first board meeting included nine 2-year college representatives. The groups discussed barriers to careers, lessons learned from successful partnerships, recruitment to and articulation with jobs at Fred Hutch, and workforce preparedness. The meeting was held onsite with a tour. We shared our existing programs for 2-year students for recruitment and talked about the intersection of the jobs we need (as identified by HR) and the programs they have.

Creating System for Visit Requests

SciEd developed a single point of entry for visit requests that we now direct all asks to. This included development of a new form and data structure. We have also developed a shared mentor database. We are in the process of volunteer and mentor recruitment for the coming year. We continue to work on long-term evaluation for student programs. The 2 year-college advisory board has been convened and has met twice as a whole group, once in person and once virtually. It has served as a great resource to our programs, particularly those focused on workforce development. We are in the process of recruiting for a new philanthropy internship through this board, and we are also looking at coordinating with Renton Tech for a program to increase awareness of Clinical Research support roles.

Science Education (SciEd)



Clinical Research Support: Hutch Advance

The SciEd Hutch Advance team has been working with Clinical Research Support to explore job shadowing options as well as shorter experiences for undergraduate students from our partner 2-year colleges. In November 2023, Clinical Research Support (CRS) presented to the 2-year college advisory group as Clinical Research Coordinator roles were identified as a potential connection between the colleges and FH. Two smaller meetings ensued: One with Renton Tech and CRS and one with Edmonds and CRS. CRS decided they wanted to pursue a connection with Renton Tech, starting with a half-day visit in 2024 and possibly a larger shadowing program in 2025.

SEP Teacher Workshop in Spokane

In 2023, SEP held its first Spokane-based professional development program for 11 teachers in Eastern Washington. The program consisted of one week in Spokane learning about kits/curriculum, one week in Seattle in labs at Fred Hutch, and one virtual week working on curriculum projects. We also established a kit loan program in conjunction with the Fred Hutch Office of Community Outreach & Engagement (OCOE) office in Spokane.

Internships for Community Health Educators at the Sunnyside and Spokane OCOE office

SciEd helped facilitate the development of new internship opportunities in Eastern Washington at the OCOE offices. In summer 2023, Sunnyside hosted a high school student, while Spokane prepared for an intern for the following spring. We provided funding through OET as well as assisted with logistics for setting up the internship.

Virtual Programs and the Catchment Area

Our virtual programs continue to draw from the larger catchment area. In 2023, one-quarter of the students in Coding for Cancer were from Eastern Washington.

Mentorship and Professional Development Resources

Summer Hutch Undergraduate Bunch (professional development)

SciEd piloted the Summer Hutch Undergrad Bunch (aka Summer HUBBIES) program in 2023, which was intended to provide shared professional development opportunities for student participants who were not in one of our larger “cohort” program. Over 16 individual sessions were offered, led by SciEd staff, and included topics such as science communication, writing personal statements and cover letters, resume review, and personal leadership/time management. These also included social opportunities such as a group Mariners baseball game event.

Leadership Achievements for SciEd Jeanne Chowning

- Continues as Associate Editor, Journal of STEM Outreach (2022-present)
- Continues on Editorial Review Board, Journal of Science Teacher Education (2022-2023)
- Serves as Reviewer for Science AAAS
- Continues membership on the Principal Investigators’ Meeting Organizing Committee for the National Institutes of Health, SciEd Conference (2020-present)

Science Education (SciEd) Team



Jeanne Chowning, PhD
Associate VP, Science Education



Johnnie Orozco, MD, PhD
Faculty Program Director, Summer High School Internship Program and Pathways Undergraduate Researchers Program



Regina Wu
Sr. Program Manager, Science Education Partnership



Dave Vannier, PhD
Sr. Staff Scientist, Summer High School Internship Program and Pathways Undergraduate Researchers Program



Gennifer Goode, PhD
Program Manager, High School Explorers, Explorers Virtual Interns, and Tour Visits



Kenson Jean
Project Manager, Summer High School Internship Program and Pathways Undergraduate Researchers Program



Mary Grace Katusiime, PhD
Program Manager, Hutch Advance



Lori Blake
Project Manager, Summer High School Internship Program and Pathways Undergraduate Researchers Program



Hanako Osuga
Program Manager, Coding for Cancer, Data Coordinator



Julian Simon, PhD
Faculty Program Co-Director, Summer Undergraduate Research Program and Cancer Undergraduate Internship for NMSU Graduate Students



Kristen Bergsman, PhD
Program Manager, Hutch Teacher Fellowship



Marilyn Drennan
Program Co-Director, Summer Undergraduate Research Program and Cancer Undergraduate Internship for NMSU Graduate Students



Vanessa Knutson, PhD
Laboratory Manager/Program Manager, Science Education Partnership



Megan Shippen
Program Assistant, Summer Undergraduate Research Program and Cancer Undergraduate Internship for NMSU Graduate Students



Janelle Vu
Laboratory Technician, Science Education Partnership



Violet Ettie
Research Administrator, Science Education

Postbaccalaureate Scholars Program

Overview

The Fred Hutch Postbaccalaureate Scholar Program is for individuals who would benefit from research experience and training to ensure that they are competitive when applying to biomedical PhD programs while providing them the tools to ensure their success in the lab.

Scholars enrolled in this flexible two-year program have two interconnected roles: they will work as a research technician in a designated laboratory on a scientific project throughout the program, and as a student scholar with a curriculum designed to develop a foundation for further graduate studies and a research career.

Participant Information

Table 9. 2023 Postbaccalaureate Scholar FH Division and Lab Information

Fred Hutch Divisions	# of Scholars	Labs
Basic Sciences	3	Parkhurst, Biggins, and Koch
Human Biology	5	Berger, Nabet, Salama, and Tapscott
Public Health Sciences	4	Alvarez, Ghajar, and Harris
Translational Sciences & Therapeutics	6	Furlan, Greenberg, Kiem, Maloney, and Meschinchi
Vaccine & Infectious Disease	5	Blanco-Melo, De Rosa, Lund, and McElrath
Total	23	

Scientific Meetings for Scholars

The Postbac program hosts scientific competency training sessions on topics necessary for graduate education, including how to move through phases of a scientific project, how to present and interact at a poster, and how to structure a presentation and answer Q+A questions.

Journal Club and Seminar Series

The Postbac scholars attend a monthly journal club that is associated with an upcoming seminar. The journal club uses a recent paper from the upcoming speaker to help the scholars prepare for the seminar. It focuses on the background of the paper and the scholars analyze the data.

Mentor Meetings for Scholars

Once per month the Postbac program meets with the scholars using the Center for the Improvement of Mentoring Experiences in Research (CIMER) or other related curriculum to help develop skills related to graduate school. These 90-minute sessions challenge the scholars to develop the necessary problem-solving skills to navigate PhD and MD/PhD programs. Session topics include communicating with mentors, networking, building self-efficacy, fostering independence, PhD application workshops, addressing conflict and diversity, equity, and inclusion.

Postbaccalaureate Scholars Program

Postbac Bootcamp

The Postbac Program is developing a bootcamp to start in 2024. The bootcamp will build community amongst the scholars while also developing scientific skills related to their work. We intend the one-week bootcamp to include an orientation, a 'getting to know' the Hutch series, lab safety, how to keep lab notebooks, how to do lab math, and a PCR testing workshop.

Scholar Symposium

In June 2024, the Postbac Program will host its first scholar symposium for the 2023 cohort. The symposium will provide scholars with experience presenting their work in the form of a presentation or a poster. This event will provide scholars a forum to practice their presentation skills, develop our community, and celebrate those who are moving on from the program.

The highlight for me was that there was a sense of community, I was able to learn from a lot of other people.

-Postbac Scholar

Postbaccalaureate Scholars Program (Postbac) Team



James Alvarez, PhD
Director, Postbac Program



Kyle Shea, MEd
Program Manager, Postbac Program

Office of Graduate Education (OGE)

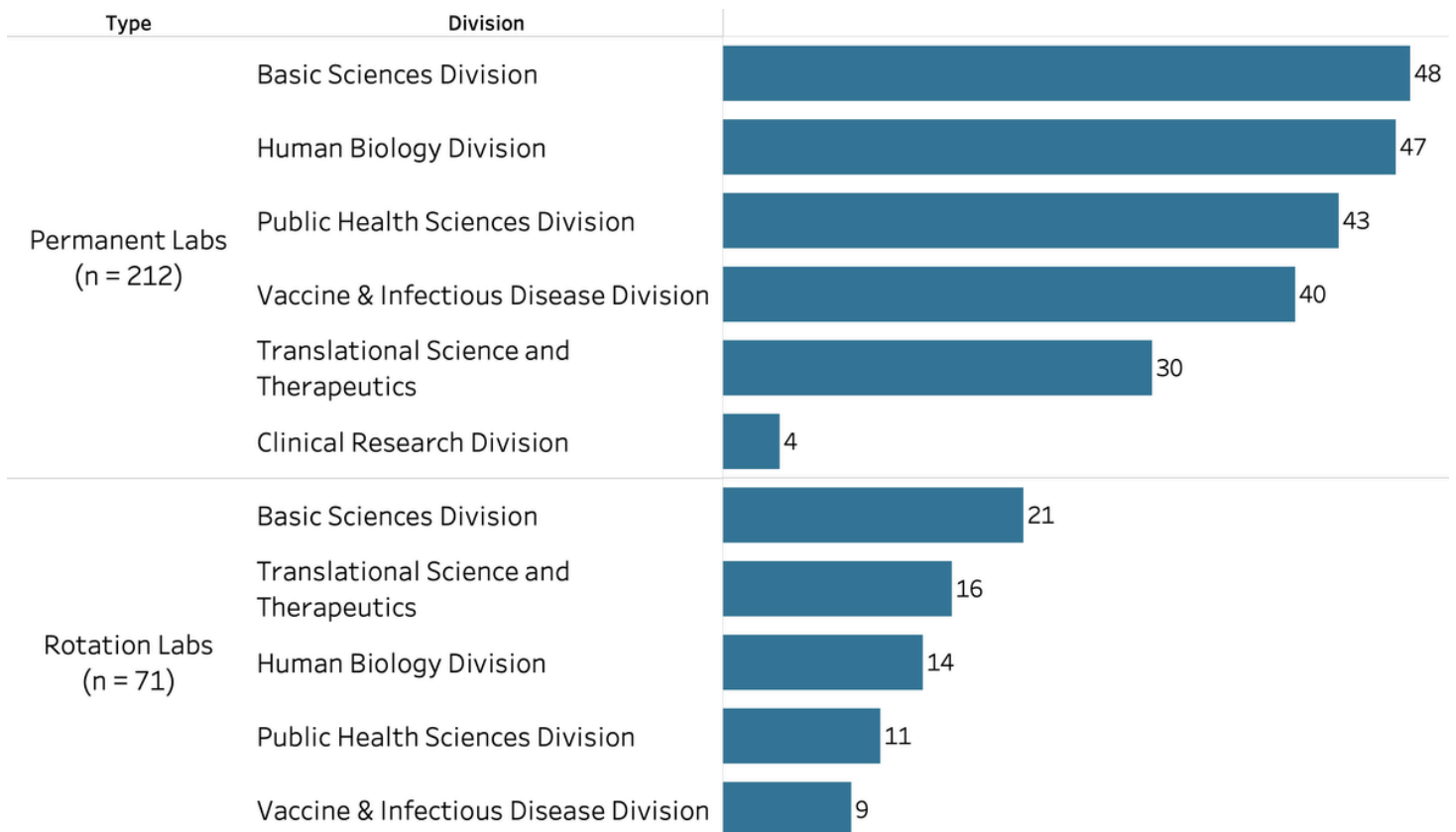
Overview

Fred Hutch is home to ~150 graduate students from ~15 departments and programs at the University of Washington (UW), including the Fred Hutch-UW jointly administered Molecular and Cellular Biology (MCB) PhD Program. The Office of Graduate Education (OGE) team provides professional and wellness development resources for graduate students and business administration support to research administrative staff and faculty, including tuition, payroll, and insurance processing, as well as, training grant reporting. OGE also partners with the UW MCB Program Office to manage graduate program operations.

Graduate Student Academic Year Participation and Outcomes

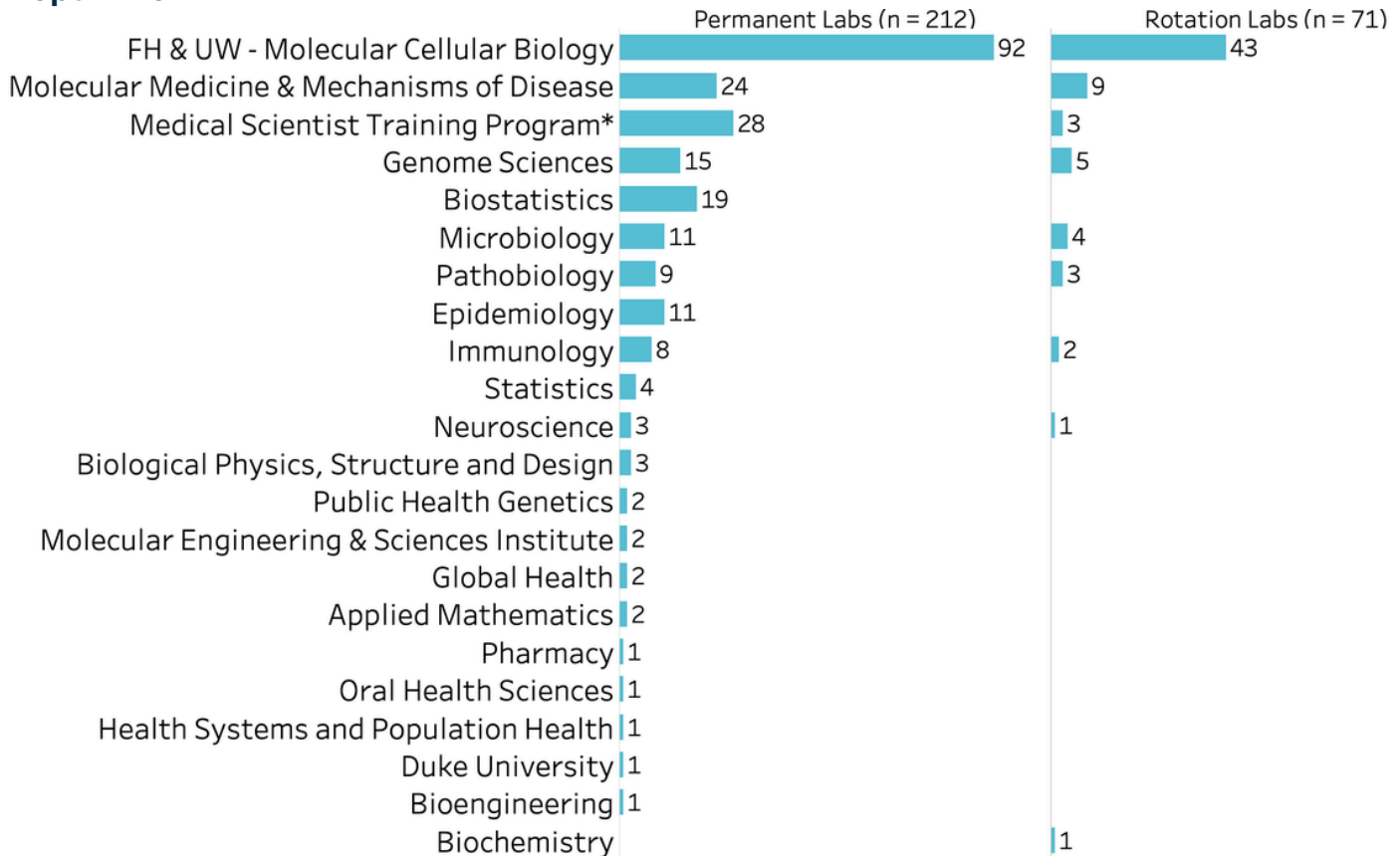
UW School of Medicine graduate students join labs on a rotational basis quarterly during their first year to determine the lab where they will complete their thesis work. At the end of their first year, they join a permanent lab where they will spend the remainder of their graduate student tenure.

Figure 11. Academic Year 2022-2023 Graduate Student Labs by Fred Hutch Division



Office of Graduate Education (OGE)

Figure 12. Academic Year 2022-2023 Graduate Students Labs by UW Program and Department



*The total of 212 Permanent Lab students excludes 28 MSTP students who co-join another UW program.

Table 10. Academic Year 2022-2023 Graduate Student Training Grant and Fellowship Appointments

Award	# of Students
Newly Appointed to NIH Training Grant (T32, TL1)	13
Continuing Appointment on NIH Training Grant (T32, TL1, T90)	17
Newly Appointed to NIH Fellowship (F30, F31)	2
Continuing Appointment on NIH Fellowship (F30, F31)	6
Newly Appointed to Other Fellowship (UW Curci, Go-Map, NSF)	6
Continuing Appointment on Other Fellowship (UW Curci, HHMI Gilliam, NSF)	6

Office of Graduate Education (OGE)



Figure 13a. First Position Type for UW School of Medicine PhD Graduates (2022-2023, n=26)

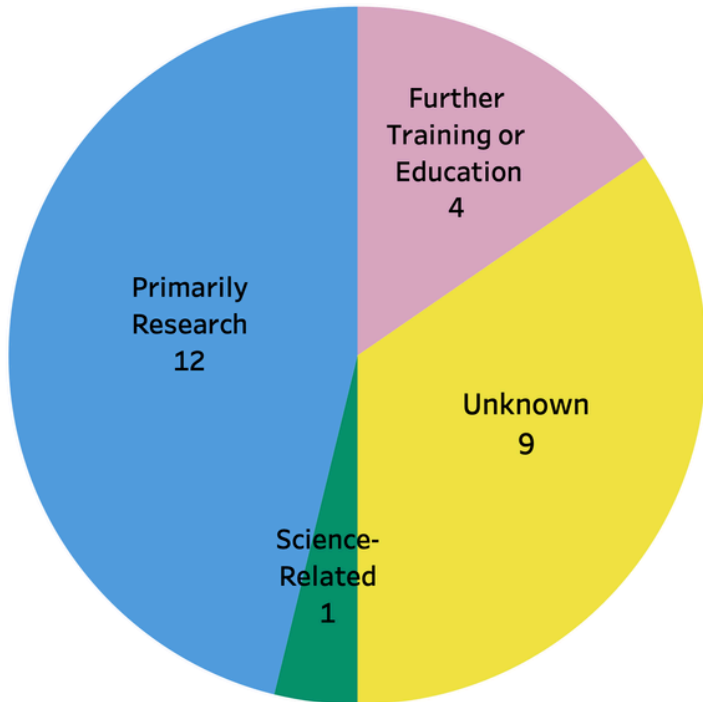
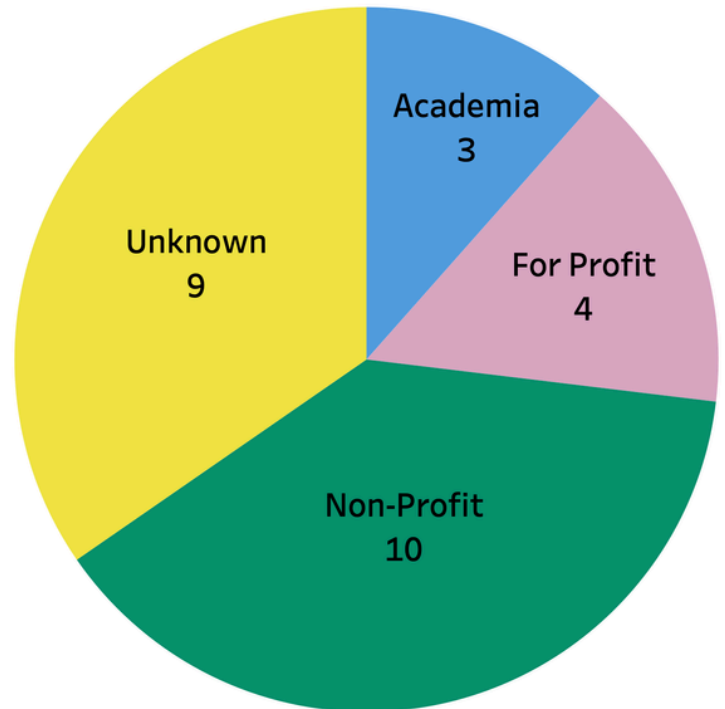


Figure 13b. First Position Sector for UW School of Medicine PhD Graduates (2022-2023, n=26)



Graduate Student Resources

F Award Training Program

The F Award Training Program includes a secure SharePoint site with successful NIH F30 (MD/PhD students), F31 (PhD students), and F32 (postdoctoral fellows) applications, a panel discussion with F awardee trainees and faculty who have served on study sections (1 in 2023), and mock study sections. The mock study section provides trainees who submit their applications for review the opportunity to receive feedback about their applications, and reviewer trainees the guidance from an experienced faculty member regarding what study section reviewers look for in successful applications.

Office of Graduate Education (OGE)



Table 11. F Award Mock Study Section Information and Outcomes

Year	Drafts Reviewed	Reviewers	% funded
2023	1 (F31)	4	Outcomes available in late '24
2022	4 Total = 2 (F32), 2 (F31)	8	25%
2021	3 (F31)	6	0%
2020	14 Total = 10 (F31), 2 (F30), 2 (F32)	21	46%
2019	2 (F31)	6	100%

Bi-Weekly Graduate Student Meetings

OGE partners with graduate student leads to host bi-weekly meetings where students gather to practice scientific talks and participate in social, community-building events.

Graduate Student Appreciation Week

OGE celebrated Graduate Student Appreciation Week (April 3-7, 2023). The celebrations highlight the contributions, value, and impact of graduate students. In 2023, OGE organized ways to celebrate, including morning coffee, brunch, treats, swag, and raffles.

Interdisciplinary Biomedical PhD Hooding Ceremony

On June 14, 2023, OGE partnered with UW biomedical graduate programs to host the Interdisciplinary Biomedical PhD Hooding Ceremony. 33 graduate students from 8 biomedical research departments and programs were hooded.

Dr. Paul Neiman Outstanding Graduate Student Award

OGE manages the Dr. Paul Neiman Outstanding Graduate Student Award which seeks to recognize highly motivated students who

demonstrate clear potential for success during graduate studies in the biological sciences. The award supports scholarship for a Molecular and Cellular Biology (MCB) graduate student training in the lab of a junior faculty member at Fred Hutch. Students who are within one year of passing their general exam are eligible to apply for this award, which provides a stipend (\$5,000) directly to the student and pays tuition-related costs for one year.

Table 12. Dr. Paul Neiman Outstanding Graduate Student Awardees

Awardee	Year
Sarah Crist, Ghajar Lab	2018
John Huddleston, Bedford Lab	2019
Stephan Raiders, Singhvi Lab	2020
Jessica Gianopulos, Kugel Lab	2021
Elizabeth Bonner, Lee Lab	2022
Jeremy Hollis, Campbell Lab	2023

Office of Graduate Education (OGE)



Underrepresented Minority (URM) Recruitment Conferences

OGE collaborates with MCB, Fred Hutch Human Resources and DEI Core, and other OET offices to represent Fred Hutch at national conferences specifically focused on students from historically excluded groups (~13,000 participants per year). These conferences highlight educational and professional development for trainees, particularly those from historically marginalized communities, in STEM studies and careers. OGE oversees booth and conference registration, the recruitment of students, faculty, and staff representatives, travel logistics, and booth representation and management.

Coalition for Next Generation Life Science

Fred Hutch is a founding member of the Coalition for Next Generation Life Science (CNGLS), which is dedicated to outcome transparency for graduate students and postdocs. OGE has updated the graduate student CNGLS data for 2023.

[View CNGLS Data](#)

Table 13. 2023 Recruitment Conference Location and Participant Information

Conference	Date	Location	Participants
The American Indian Science and Engineering Society (AISES)	Oct 19-21	Spokane, WA	FH Booth: Staff (2), Student (1), Faculty (1) MCB Booth: Staff (2), Student (1)
Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)	Oct 25-28	Portland, OR	FH Booth: Staff (2), Students (2), Faculty (1) MCB Booth: Staff (2), Students (2), Faculty (1)
Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS)	Nov 15-18	Phoenix, AZ	FH Booth: Staff (3), Students (1), Faculty (1) MCB Booth: Staff (2), Students (2), Faculty (1)

Office of Graduate Education (OGE)

UW-Fred Hutch Molecular & Cellular Biology (MCB) PhD Program Recruitment

In January and February 2023 MCB hosted 62 potential students on campus at Fred Hutch and UW for two 3 days visits. These visits are an opportunity for recruits to meet with both faculty and current students to determine whether they would like to pursue an MCB PhD in Seattle. We provide an extensive overview of the MCB Program and the Seattle area, and include activities such as faculty interviews, student panels, faculty poster sessions, faculty lightning talks, and sightseeing around Seattle. Of the 62 recruits, 15 joined the program for academic year 2023-2024.

2 **62** **24%**
3-day Visits **Recruits** **Accepted**

Orientation

In 2023, MCB Orientation took place during the week of September 11. Orientation is the introduction to the program for the incoming students, and includes presentations by the MCB co-directors and staff, ombuds, and student union representatives covering vital resources. The week also includes a student panel, office hours, and culminates in a community BBQ. We encourage students to attend both the Fred Hutch Basic Sciences and Human Biology retreats.

MCB Symposium

On Friday, April 14th, 2023, MCB hosted its biannual MCB Symposium on the Fred Hutch Campus. OGE co-organizes the symposium with a committee of MCB graduate students (Andie Doak, Jeremy Hollis, David Sokolov, Marisa Yonemitsu, and Juliana Young). The 2023 symposium welcomed six diverse speakers from across the country to share work relating to the theme: "Spectacle: Visualizing Striking Biology." The next symposium will take place in 2025.

2023 MCB Symposium "Spectacle: Visualizing Striking Biology" Speakers

Carson Bruns, PhD

University of Colorado Boulder
*Intradermal Smart Tattoos Converging
Nanoscience and Body Art*

Gary Yellen, PhD

Harvard Medical School
*Watching metabolism happen in
living cells and tissues, with
quantitative tools*

Kelly Krause, MA

Springer Nature
*Inside Nature: visual communication
in science publishing*



Jessica Sheu-Gruttadauria, PhD

University of California San Francisco
*Mapping the regulatory landscape of
biomolecular condensate dynamics*

Lucas Hall, MPA

Long Live the Kings
*Fantasy Football for Fish: Gamifying
Salmon Conservation Data to Engage
the Public*

Elizabeth Villa, PhD

University of California San Diego
*Opening windows into the cell:
bringing structure to cell biology
using cryo-electron tomography*

Office of Graduate Education (OGE)



Table 14. 2022-2023 MCB Courses

Quarter	Lead Instructor(s)	Course
Autumn	Rasi Subramaniam, PhD	MCB 536 - Tools for Computational Biology
Autumn	Toshi Tsukiyama, PhD	CONJ 537 - Mechanisms of Transcriptional Regulation
Winter	Jihong Bai, PhD	MCB 512 - Scientific Speaking Seminar
Winter	Barry Stoddard, PhD	CONJ 544 - Protein Structure, Modification and Regulation

MCB Courses

MCB graduate courses held at Fred Hutch are managed by OGE in collaboration with the UW MCB office. Course management includes recruiting and confirming faculty instructors and teaching assistants, and operational tasks such as reserving rooms, updating online curriculum materials, flyer creation, course evaluation, and student registration codes (~100 annually).

MCB Curriculum Committee

The MCB Curriculum Committee was created in 2023 to oversee curriculum planning and development. OGE partners with the committee chair (Cecilia Moens) to manage the committee comprised of UW, FH, and partner institute faculty.

Rising Cohort Meetings

OGE partners with the UW MCB office to organize the logistics of rising cohort meetings (1st, 2nd, 3rd, and 4th year about beyond) where MCB students from each cohort have an opportunity to meet with co-directors to get information and resources, and provide feedback about their experiences in the MCB program.

MCB Diversity, Equity, and Inclusion (DEI) Committee

In 2023, OGE and the MCB Program initiated a

strategic planning process that ensures the program proactively responds to the emerging needs of an increasingly diverse student population. The program’s approach was informed by student, faculty, and staff feedback and a call to be more responsive to the needs of underrepresented students, including Black, Indigenous, and other students of color (BIPOC), members of the LGBTQ community, and members of the faculty and staff. The program established a Strategic Planning Committee comprised of faculty, students, and staff and partnered with Integrated Strategy, LLC.

The committee reviewed internal data, engaged with the MCB community through virtual and in-person focus groups, and instituted a program-wide survey to gather information about the desired future for the program. The Committee identified preliminary goals and objectives: Curricular and Academic Experience, Student Support, Community and Belonging, and Program Administration. In 2024, an Implementation Committee will be formed to identify the next steps to activate the components of the plan.

Office of Graduate Education (OGE)

Office of Graduate Education (OGE) Team



Andrea Brocato, MA
Director, Office of Graduate
Education



Mel Leavens, MA
Program Manager, Office of
Graduate Education



Bao-Han Nguyen
Program Coordinator, Office of
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Office of Scientific Career Development (OSCD)

Overview

The Office of Scientific Career Development (OSCD) assists Fred Hutch graduate students, postdoctoral fellows, and medical fellows to identify and achieve their career goals and to develop aspects of the core competencies of a successful scientist. OSCD offers professional development training and resources, career counseling for scientists, and resources for international students. OSCD also partners with the Faculty Development Program to create professional development for Fred Hutch junior faculty, mid-level faculty, and staff scientists.

Advising and Career Counseling

Postdoc Candidate Recruitment

OSCD staff are available to meet with postdoc candidates to inform them about OSCD/SPAC programs as a recruitment tool. This is especially helpful for junior faculty who may have difficulty recruiting high quality postdocs. In 2023, OSCD met with 5 postdoc candidates applying to faculty groups.

Career Counseling/Coaching

One of OSCD's most impactful activities is career counseling/coaching for PhD/MD-level scientists. Over the past 20+ years, OSCD has developed an international network of Hutch alumni who have pursued a diverse range of careers that is useful to current trainees who are interested in a variety of careers and locations. In 2023, OSCD counseled 120 postdocs and graduate students. About 30% of those we meet with request multiple meetings. This work includes:

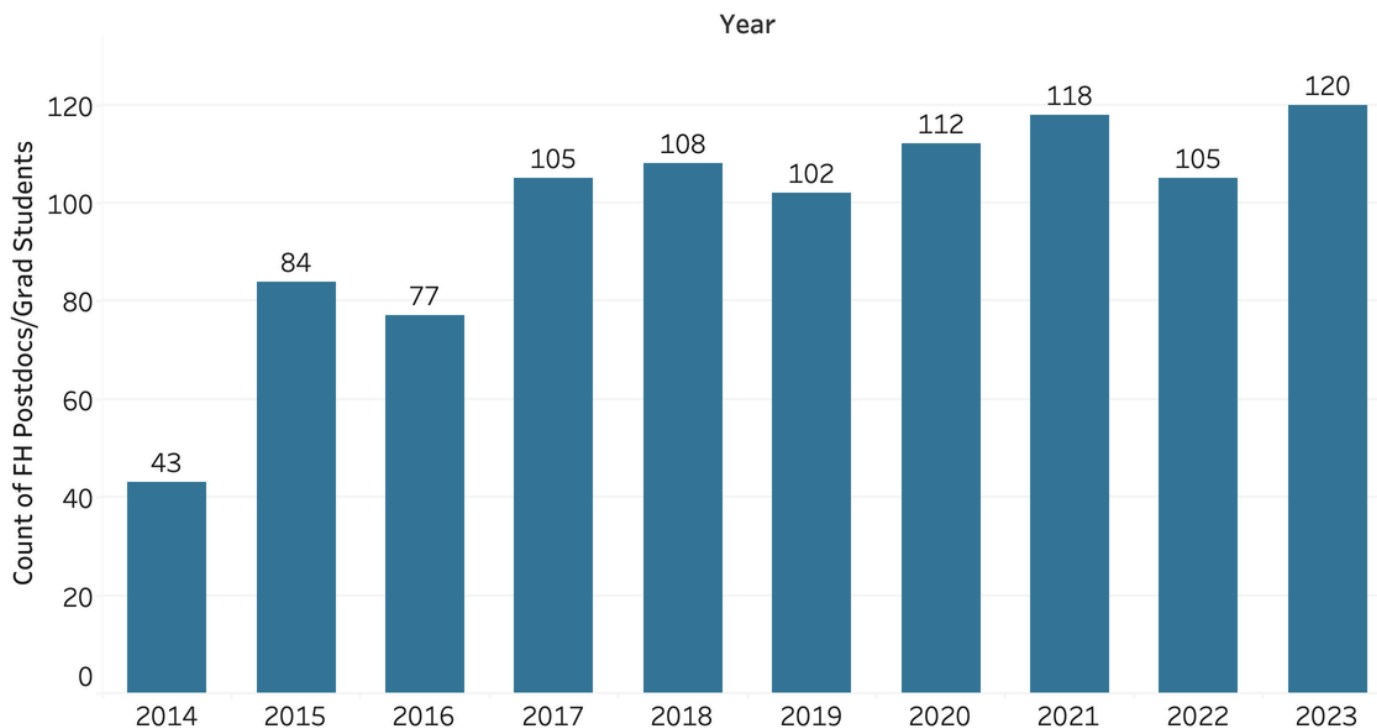
- Brainstorming career options
- Connect with former trainees for informational interviews
- Review of CV/resumes and cover letters
- Interview and negotiation preparation

Table 15. OSCD Professional Development Programs and Program Management

Professional Development
Ivory Tower Quest-for academic careers
EPIC-for industry careers
K Award Grant Writing Training
New postdoc/grad student orientation
Leadership Academy
Training Inclusive Research Mentors
Becoming a Resilient Scientist
Program Management
Postdoc outcomes database
Business cards
Course scholarships and conference travel awards

Office of Scientific Career Development (OSCD)

Figure 14. OSCD Annual Career Counseling for Fred Hutch Postdocs and Grad Students



Student-Postdoc Advisory Committee (SPAC) Meeting Attendees and Transitions

The Student-Postdoc Advisory Committee (SPAC) monthly meetings provide opportunities for all postdocs and graduate students to participate:

- A monthly logistics meeting with the Co-Chairs and SPAC Advisors.
- A monthly cookie and coffee hour open to all postdocs and graduate students in a public location (e.g., Weintraub atrium or the Mundie Courtyard).
- As SPAC Advisors, OSCD manages the SPAC budget and provides advice and historical continuity. Collaborating with SPAC is an integral part of our office.

Table 16. 2023 SPAC Co-chairs

2023 SPAC Co-Chairs	Division	Status for 2023
Katie Yanagi	BSD	Continuing in 2023
Laurel Kelnhofer-Millevolte	HB	Joined in 2023
Jeremy Hollis	BSD	Joined in 2023

Office of Scientific Career Development (OSCD)



Professional Development Programs

Ivory Tower Quest

The goals of this program are to inform about the academic job market and help prepare faculty applications. OSCD facilitates and advises the creation of faculty applications, the interview process including research and chalk talks, and the negotiation of faculty job offers. These goals are achieved through an OSCD-facilitated peer cohort format, composed of postdocs who are planning to apply for faculty jobs in the current academic year. The cohorts meet twice per month to review faculty application drafts and conduct practice interviews and talks. OSCD facilitates these cohorts, provides individual feedback and examples of successful applications to R1 Universities and PUIs. OSCD gave a seminar about negotiating a faculty job offer with a mock negotiation activity. In 2023, we helped ~8 postdocs strategize negotiating a faculty job offer.

This was our fourth year using the cohort format. We had one cohort this year with 7-8 participants. It's too early to know our outcomes for the year because people are still interviewing. We'll be conducting our program evaluation in April/May.

K Award Grant Writing Program

The K Award Grant Writing Program offers programmatic and individual K Award assistance, including:

- Resources to understand the basics of K Award proposal writing
- Examples of successful K award proposals
- For individual questions, K Award experts Drs. Chris Li, Johanna Lampe, Taran Gujral, Alice Berger, Jarrod Dudakov, Andrew Hsieh, and Sita Kugel can offer advice and guidance
- Mock Study Sections 3 times per year coincident with NCI first submission K Award deadlines

K Award Mock Study Section

The K award mock study section provides insight into writing a successful proposal. Those considering submitting a K award in the future participate as reviewers to provide feedback on draft proposals, gain access to successful examples, and participate in the K Award Mock Study Section led by a faculty mentor. Postdocs preparing K awards for submission submit their drafts for review by the mock study section and receive feedback. A total of seven K Award drafts were submitted in January (2) and September (5), and were

Table 17. Ivory Tower Quest Outcomes

ITQ Outcomes	Accepted Faculty Job Offer	Still on the job market/postdoc	Other
2023-24 (n =7-8)	Outcomes available in summer '24		
2022-23 (n=6)	100%	0%	0%
2021-22 (n=13)	61%	23%	16%
2020-21 (n=13)	38%	46%	15%

Accepted institutions (2023-2024): available in summer 2024

Accepted institutions (2022-2023): University of California, San Francisco, Purdue University, La Jolla Institute for Immunology, The Ohio State University, University of Manitoba, University of West Florida.

Office of Scientific Career Development (OSCD)

reviewed by 10 mock study section reviewers (6 in January and 4 in September). The reviewers mostly review first submission drafts and it usually takes two submissions to receive a K Award. Of the seven K award drafts submitted to the mock study section in 2023, none have been awarded so far; however, all but one were first submissions, and many will not have heard back yet. From 2019-2022, the K award success rate of participants in this program is 60%.

Exploration Program for Industry Careers (EPIC)

EPIC educates postdocs and graduate students about industry career paths and provides networking opportunities with industry scientists. Sixty (60) postdocs and graduate students participated in EPIC in 2023. A key feature is site visits to local biotech companies, providing in-depth looks at industry careers and opportunities to make industry contacts. Career seminars and SPAC speed networking events are also organized. In 2023, OSCD organized four site visits and SPAC organized a summer Speed Networking event.

EPIC Outcomes

EPIC has an application process so we can identify the career outcomes of EPIC participants. This is a self-selected group and we have no control group to compare it to. Therefore, we measure the success rate of a group that is thinking of pursuing a career in industry vs. whether or not they end up working in industry.

Table 18. K Award Mock Study Section Outcomes

Year	Drafts (#)	% funded
2023	7	Available late '24
2022	3	33%
2021	4	50%
2020	4	75%
2019	4	75%

Table 19. 2023 EPIC Events

Date	Title	Speaker	Approx Attendance
1/19/23	CV, Resume, Cover Letter, Biosketch Seminar	Karen Peterson	40
3/15/23	Interviewing for Industry Jobs	Karen Peterson	23
3/22/23	Negotiating Industry Job Offers	Karen Peterson	21
7/25/23	LinkedIn for Scientists Workshop	Amber Ismael	20
5/1/23	Allen Institute for Immunology site visit		22
6/7/23	Bristol Myers Squibb site visit		26
6/8/23	Tune Therapeutics site visit		35
6/21/23	Adaptive Biotechnologies site visit		27
7/27/23	Speed Networking		50

Office of Scientific Career Development (OSCD)



Table 20. 2023 EPIC Outcomes

Outcome	2015	2016	2017	2018*	2019*	2020*	2021*	2022*	2023
Industry job	52%	67%	59%	61%	61%	64%	51%	31%	Available Soon
Non-industry job	24%	15%	30%	27%	31%	22%	27%	14%	
Still postdoc/grad student in 2021	2%	9%	4%	9%	7%	14%	20%	52%	
Unknown/unemployed	16%	9%	7%	2%	0%	0%	2%	2%	

* outcomes updated August 2023 – updated information available in 2024

Leadership Academy

Commencing in April 2023, the Leadership Academy provides senior graduate student and postdoc participants the opportunity to learn and explore different aspects of leadership and how to leverage their unique qualities to lead effectively. This program seeks to facilitate self-awareness and reflection and to begin building leadership skills they can continue to hone while at Fred Hutch and beyond. Sessions are led by OSCD, HR Learning and Development staff invited panelists and beyond. This annual program runs from September – May, meeting monthly for 8 sessions.

Topics include:

- Communication
- Working within a team
- Team dynamics
- Mentorship and management
- Articulating your leadership philosophy
- Inclusive leadership
- How to influence others
- Leadership panel

Training Inclusive Research Mentors

Mentorship in scientific research builds the next generation of scientists and can contribute to diversifying the research enterprise. This mentorship program seeks to provide foundational skills, strategies, and awareness that contribute to more effective mentorship. By providing mentorship training to graduate students and postdocs early, we hope they will have the opportunity to continue growing their skills by mentoring mentees at Fred Hutch and transition to their next roles with a mentorship foundation that will help them be better mentors and managers. OSCD led the development of the program beginning in June 2023 in collaboration with SciEd and Postbac Program staff.

Sessions:

- Introduction to Mentorship
- Setting and Aligning Expectations
- Communication and Feedback
- Fostering Self-efficacy and Independence
- Creating a Mentoring Philosophy

Table 21. Leadership Academy Applicants and Participants

Program	Applicants	Accepted
2023-2024	19	14

Office of Scientific Career Development (OSCD) Team



Table 22. OSCD Orientation Participation

Orientation Date	Approx Attendance
5/25/2023	25
11/7/2023	20

OSCD Orientation

OSCD Orientation is intended for FHCC graduate students and postdocs to learn about career and professional development resources. Participation is open to all and is encouraged within their first year at the FHCC.

OSCD orientation, topics include:

- Career programs and career counseling available
- Grant Training Program for F and K awards
- Identifying mentoring needs
- SPAC programs and events, including conference and course scholarships
- Resources available for international postdocs

Resilience Groups

OSCD partners with the Office of Graduate Education to lead the Becoming a Resilient Scientist Series for graduate students and postdocs focused on resilience and wellness. To support trainee resilience, Fred Hutch has collaborated with the NIH Office of Intramural Training & Education to help trainees navigate challenging situations in research environments, school, and life.

We annually facilitate trainee discussion groups for the Becoming a Resilient Scientist series, covering a variety of topics, including:

- Resilience and Wellness
- Cognitive Distortions and Imposter Fears
- Self-Advocacy and Assertiveness
- Developing a Growth Mindset
- Mentoring Relationships

Table 23. Resiliency Training Participation

Date	Participants (#)	Rating
Fall 2023	11	4.8/5
Fall 2022	10	n/a
Fall 2021	7	NIH Evaluated
Spring 2021	15	NIH Evaluated

Office of Scientific Career Development (OSCD) Team

Program Management

SPAC Course and Conference Scholarship Recipients

This program provides up to \$1500 to attend a course or conference. Course Scholarship and Conference Awards are offered twice annually, in January and July. The 2023 selection committee members were Rose Bosire, Zarnab Ahmad, and Betsabel Chicana Romero.

Table 24. 2023 SPAC Course Scholarship Recipients

Recipient	Course
Darya Moosavi	Introduction to Biostatistical Methods
Dilini Radika Soysa	PSYC 290 - Social Psychology
Aimee Eden Cruikshank	Analyzing/Presenting Data/Information: An Online Video Course Taught by Edward Tufte
Obinna Ekwunife	HECON 530 A: Practice of Health Technology Assessment (HTA) in a Global Environment.
Obinna Ekwunife	HECON 520 A Wi 23: Economic Evaluation in Health and Medicine

Table 25. SPAC Conference Scholarship Recipients

Recipient	Conference
Annabel Olson	25th International KSHV Conference
Edward Arnold	15th International Adenovirus Meeting
Heeju Ryu	Society for Immunotherapy of Cancer
Hang Yin	American Society of Human Genetics annual meeting
Jennifer Huang	American Society of Hematology (ASH) 2023 Annual Meeting
Kelly McKenna	Keystone: Cancer Immunotherapy: Mechanisms of Response Versus Resistance
Molly Zych	Gordon Research Conference on Chromosome Dynamics
Orietta Agasaro	American Society of Human Genetics (ASHG) Annual Meeting
Tessa Arends	ASCB-EMBO meeting Cell Bio 2023
Thamiya Vasanthakumar	Three Dimensional Electron Microscopy Gordon Research Conference (3DEM GRC)
Ye Zheng	2023 WNAR/IMS Annual Meeting



Office of Scientific Career Development (OSCD) Team

Mentoring Awards

2023 McDougall Award: Sita Kugel

This award acknowledges excellent mentoring by a faculty member. The award is named after Dr. Jim McDougall, a former Hutch faculty member who was renowned as an excellent mentor. The awardee is usually nominated by their trainees. The award, presented at the SPAC Holiday Party, consists of a bottle of scotch donated by Dr. Denise Galloway (Jim McDougall's widow; Jim's family owns a distillery in Scotland) and a bobblehead made in the awardee's image. The McDougall SPAC selection committee members were Laurel Kelnhofer-Millovolte and Sarah Tomlin.

2023 Hutchison Award: Janet Young

This award acknowledges excellent mentoring by a non-faculty employee/trainee. The award is named after Dr. Nancy Hutchison who is highly regarded for her excellent mentorship. The award, presented at the SPAC Holiday Party, consists of a bobblehead made in the awardee's image, a bottle of wine and a book donated by Nancy Hutchison. The Hutchison SPAC selection committee members were Amy Spens and Matthew Chan.

Cancer Biology 100 Course

The Cancer Biology 100 Course is in its 26th year. It's a venue for postdocs and graduate students to practice their teaching skills and for Hutch employees to learn about the fundamentals of cancer research. This program is usually managed by a grad student or postdoc who is interested in growing their teaching and management skills. In 2023, the course was managed by postdoc Matthew Chan.

Coalition for Next Generation Life Sciences

Fred Hutch is a founding member of the Coalition for Next Generation Life Sciences (CNGLS), which is dedicated to outcome transparency for graduate students and postdocs. We use our postdoc outcomes database and HRIS data to annually update this database.

[View CNGLS Data](#)

Diverse Postdoc Recruitment

The Cancer Center Support Grant (CCSG) requires the Fred Hutch to develop a Plan to Enhance Diversity (PED) along the entire trainee pipeline. OSCD has worked to explore models to enhance diversity and, with OET and the Office of Faculty Affairs and Diversity (OFAD), has chosen two models to pursue at the Fred Hutch:

- “Seattle DROP” (Diverse Research Opportunities for Postdocs) is a collaboration between Fred Hutch, UW and Seattle Children's Research Institute to develop a virtual postdoc recruitment event targeting URM graduate students. Modeled after similar events in Chicago and Philadelphia, our first event was on May 7th, 2024.
- Fred Hutch has joined the [President's Postdoctoral Fellowship Program \(PPFP\)](#), a consortium of ~17 research institutions and universities who are dedicated to recruiting diverse postdocs who aspire to become tenure track faculty. This program is managed by OFAD and collaborates with OSCD to set policies. Joining this program is expected to give

Office of Scientific Career Development (OSCD) Team

Fred Hutch access to exceptional URM postdoc applicants as well as FH exposure to postdocs who are on the faculty job market. It will also give our PFPF postdocs access to specific URM faculty recruitment mechanisms at participating institutions. We began to recruit postdocs into this program in the Fall of 2023 and have accepted two postdocs into the program for 2024.

Training in the Responsible Conduct of Research (RCR)

For the past ~20 years, Fred Hutch RCR training has been organized in collaboration with the University of Washington. The training fulfills our NIH RCR compliance for T32, F and K awardees and the independent FH requirement for all postdocs and graduate students to receive RCR training. Training is tracked in Hutch Learning and a Research Ethics Training Certificate is conferred upon those who complete the 6 training sessions required of all FH graduate students and postdoctoral fellows.

The training transitioned to all-virtual during the pandemic, and the Fred Hutch transitioned back to in-person discussion groups in 2023 to be compliant with the [updated 2022 NIH RCR requirement guidance](#). The training consists of 6 lectures and multiple case study discussion groups. In 2023, we offered the following lectures and RCR topics in a real-time virtual format so the attendees could interact with the speaker. In 2024-25, we plan to transition to a newly independent and expanded format for FH RCR training. In addition, we organized the following 2023 mandatory in-person discussion groups.

This lecture gave me much more insight into the potential avenues Conflict of Interests can take in affecting research quality and integrity.

- Biomedical Research Integrity Participant

Table 26. RCR Virtual Lecturers and Topics

Date	Presenter	Affiliation	Topic
Sept 20	Marian L. Neuhaus, PhD, RD	FH PHS	Peer Review
Sept 12	Amy Paguirigan, PhD	FH, Chief Data Officer	Data Management
Aug 28	Wendy Barrington, PhD, MPH	UW, School of Nursing	Responsible Authorship
Aug 8	Sharona Gordon, PhD	UW, Physiology and Biophysics	Mentor/Trainee Relationships
Jul 26	Elisabeth Bik, PhD	Harbers Bik, LLC	Research Misconduct
Jul 12	Marcia N. Gonzales, J.D.	FH, Chief Compliance Officer	Conflict of Interest

Office of Scientific Career Development (OSCD) Team



Table 27. RCR In-Person Discussion Group Facilitators and Topics

Date	Name	Affiliation	Topic	Case Study
July 10	Lucas Sullivan	HB	Research misconduct	Case One: Were These Slides Falsified?
Jul 12	Johanna Lampe	PHS	Mentor and trainee relationships	Case Two: Bullied or Mentored
Jul 14	Andrew Hsieh	HB	Mentor and trainee relationships	Case Two: Bullied or Mentored?
Aug 10	Amber Ismael	OSCD	Research misconduct	Case One: Were These Slides Falsified?
Aug 11	Anthony Rongvaux	TST	Research misconduct	Case One: Were These Slides Falsified?
Aug 15	Amber Ismael	OSCD	Mentor and trainee relationships	Case Two: Bullied or Mentored
Aug 16	Steve Schwartz	PHS	Conflict of Interest	Case One: Age-Old Conflicts
Aug 16	Marcia Gonzales	Compliance	Conflict of Interest	Case Three: It Slipped My Mind...
Aug 24	Margaret Madeleine	PHS	Research Misconduct	Case Two: Struggling to Understand Plagiarism
Aug 31	Amber Ismael	OSCD	Mentor and trainee relationships	Case Two: Bullied or Mentored
Sep 6	Karen Peterson	OSCD	Mentor and trainee relationships	Case One: Suspect Motives and Work Ethic
Sep 6	Karen Peterson	OSCD	Mentor and trainee relationships	Case One: Suspect Motives and Work Ethic
Sep 7	Karen Peterson	OSCD	Research misconduct	Case One: Were These Slides Falsified?
Sep 14	Jennifer Lund	VIDD	Research misconduct	Case One: Were These Slides Falsified?

Office of Scientific Career Development (OSCD) Team

Leadership Achievements for OSCD

Amber Ismael

- Elected to Chair of the National Postdoctoral Association (NPA) Resource Development Committee
- Selected to Chair the NPA Core Competencies Task Force to update the Recommended Postdoctoral Policies and Procedures and the NPA Core Competencies
 - Published May 2024: [NPA Recommended Postdoctoral Policies & Practices](#)
- Selected to Chair the Graduate Career Consortium (GCC) Professional Development Committee

Karen Peterson

- Received the 2024 National Postdoctoral Association Distinguished Service Award
- Selected to serve on the AAMC GREAT Group Equity in Postdoc Recruitment Working Group to develop a white paper on best practices in equitable postdoc recruitment

Office of Scientific Career Development (OSCD) Team



Karen Peterson, PhD
Director, Office of Scientific Career Development and Scientific Ombuds



Amber Ismael, PhD
Sr. Program Manager, Office of Office of Scientific Career Development



Faculty Development Program

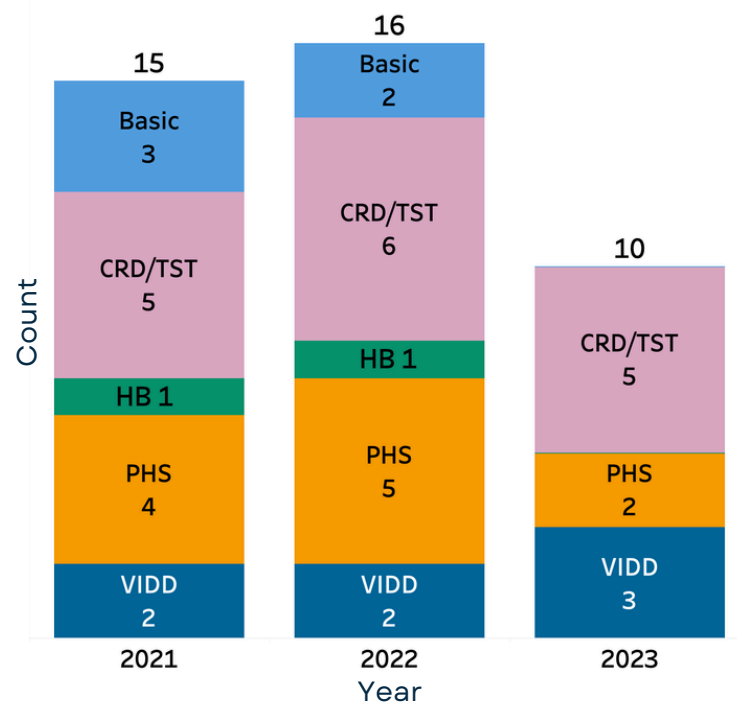
Overview

The Faculty Development Program supports faculty and staff scientists at all stages of their career to establish and maintain productive research programs by providing cross-division professional development programs and resources.

Faculty Leadership Incubator (FLI)

The Faculty Leadership Incubator (FLI) program is a year-long series of monthly sessions for new faculty during their first year at Fred Hutch. This cohort-based program brings together faculty across Fred Hutch Divisions for interactive sessions with Associate and Full Professors on topics including building a successful and inclusive team, mentoring, time management, navigating promotion, managing conflict, and many others. The goals of this program are not only to provide new faculty with resources to support them during their first year, but also to connect them to each other and to more senior faculty across divisions that they may not otherwise meet or regularly interact with.

Figure 15. FLI Cohort Participation by Year and FH Division



Leadership Enhancement for All Professors (LEAP)

This workshop series invites Fred Hutch Faculty of all ranks and across all divisions to engage in workshops and seminars focused on Leadership, Career Advancement, Mentoring, Management, Science Culture, and other relevant topics. The goals of this series are not only to provide resources to support the career development and leadership skills, but also to create connections and build community between Fred Hutch faculty across divisions. The topics covered to date are noted in the table below along with the faculty panelists.

Table 28. LEAP Sessions

Year	Topic	Faculty Panelists
Dec 15, 2022	How to establish a national/international reputation as a faculty member	Garnet Anderson, SVP PHS Sue Biggins, SVP Basic Nancy Davidson, SVP CRD Eric Holland, SVP HB Julie McElrath, SVP VIDD
Nov 3, 2023	Navigating cultural and generational shifts over time	Holly Janes, VIDD, PHS, TST James Alvarez, PHS, HB, TST Josh Schiffer, VIDD, CRD, TST Kevin Barry, PHS Meghan Koch, Basic

Faculty Development Program

Table 29. Individual Leadership Funding

Recipient	Funding used for
Megan Shen	Leadership Coaching
Guang-Shing Cheng	Leadership Coaching
Matty Triplette	Leadership Coaching
Rachel Issaka	Leadership Coaching
Holly Harris	National Center for Faculty Development and Diversity (NCFDD) Faculty Success Program
Rachel Bender Ignacio	Leadership Coaching
Johnathan Bricker	Leadership Coaching
Yunda Huang	National Center for Faculty Development and Diversity (NCFDD) Faculty Success Program
Min Fang	Leadership Coaching
Sanjay Srivatsan	Leadership Coaching

Application-based funding for external professional development activities for individual faculty

This program provides funding for individual faculty to attend an external leadership course, faculty development program, or individual leadership coaching. Suggested programs include those available through the National Center for Faculty Development and Diversity (NCDD), the Association of American Medical Colleges (AAMC), the Linton-Poodry SACNAS Leadership Institute, among others. We sent out our initial call for individual faculty to apply for this funding in March 2023 and our second call in November 2023. The selection committee for these awards include

Nina Salama (SVP of Education), Chris Li (VP of Faculty Affairs and Diversity), Manoj Menon (Director of Clinical Education) and Dara Lehman (Faculty Consultant, OET).

Professional Development for Clinical Research Faculty

Clinical Leadership and Research Excellence (CLEARE) The Faculty Development Program, in partnership with Johnnie Orozco is currently developing a series of workshops, (similar to FLI) with topics that are specifically relevant to clinical research faculty, including the Clinician-Scholar and Clinician-Clinician tracks. We are aiming to launch this series in 2024.



Faculty Development Program

Nature Masterclass Online Professional Development Courses

Nature Masterclasses is a subscription-based series of online professional development courses for scientific researchers: <https://masterclasses.nature.com/catalogue/24073606>. Our first annual subscription was initiated in March 2022 and included access for 50 researchers, which we offered first to Assistant and Associate Professors, and then extended to Full Professors and Staff Scientists. In the subsequent years we have transitioned to a more limited subscription for 15 researchers per year and access was offered to Staff Scientists and Postdocs and requires an application, reviewed by the Faculty Development Team.

opportunities and resources currently available. We formed an advisory group, called the All Staff Scientist Education Team (ASSET) to advise on needs and resources for Staff Scientists at Fred Hutch, which currently consists of the following Staff Scientists: Michele Andrasik (PHS), John Huddleston (VIDD), George Laszlo (TST), Dara Lehman (HB), Sandi Navarro (PHS), Tom Paulson (TST), Karen Peterson (OSCD), Dan Reeves (VIDD), Lena Schroeder (Shared Resources), Dave Vannier (SciEd), and Janet Young (BSD).

Staff Scientist Resources – Current and In Development

- New website on CenterNet with links to external and internal professional development opportunities: <https://centernet.fredhutch.org/u/edu/scientist.html>
 - All staff scientist listserv to enable communication about professional development opportunities
 - Subscription to Nature Masterclasses (see above)
- Planning the 1st annual All Staff Scientist Lunch to enable networking and build community to be held in 2024
- The ASSET team sent out a survey to ~190 Fred Hutch Staff Scientists in August 2023 to ask for input on needs for professional development programs and resources. Survey responses were received from 78 staff scientists. Based on the results, the ASSET team requested a FY24 budget to provide application-based funding for meeting and course scholarship (pending).

Table 30. Nature Masterclass Development Course Subscriptions

Subscription Dates	Applications	Awarded
May 23-24	10 Staff Scientists 19 Postdocs	6 Staff Scientists 9 Postdocs

Early-Stage Investigator (ESI) listserv

The Early-Stage Investigator (ESI) listserv allows the Faculty Development Team to send links to leadership, mentoring and other professional development programs available through the Consortium and other institutions to Assistant and Associate level faculty at Fred Hutch.

Professional Development for Staff Scientists

All Staff Scientist Education Team (ASSET) OET is currently developing programs to support the professional development of Staff Scientists to complement the training

Faculty Development Program

Faculty Development Program Lead and Collaborators



Dara Lehman, PhD
Faculty Consultant



Manoj Menon, MD, MPH
Deputy Director, Clinical
Education, Office of Education
and Training



Karen Peterson, PhD
Director & Scientific Ombuds,
Office of Scientific Career
Development



Wendy Law, PhD
Associate Vice President of
Cancer Consortium Programs



Kim Wells
Director, Organization
Development & Learning

Office of Education & Training (OET)

Overview

The Office of Education & Training (OET) is the umbrella office that houses the Fred Hutch education offices and departments (previously described in this report). OET also oversees the Fred Hutch/University of Washington/Seattle Children's Cancer Consortium's Cancer Research Training and Education Coordination (CRTEC), seeking to promote and strengthen the broad range of education and training opportunities across the Consortium institutions.

Trainee Development Resources

Monthly BIPOC Facilitated Wellness Group

OET manages the Monthly Facilitated Wellness Group tailored for Black, Indigenous, and People of Color (BIPOC) postdoctoral fellows and graduate students affiliated with Fred Hutch, the University of Washington, and Seattle Children's. Led by experienced facilitator Rian Roberson, MA LMHC, these gatherings provide a dedicated space for BIPOC individuals to prioritize their health and well-being. Guided discussions delve into topics such as work/life balance, racial/cultural representation, and interpersonal relationships.

The discussions are working very well, Rian is amazing, and the transparency among students and trainees are fulfilling.

-Facilitated BIPOC
Wellness Group Participant

Research After Dark (RAD) Networking Group

The RAD Networking group was created in 2023. OET partners with OSCD, Seattle Children's Research Institute education staff, and a planning committee of graduate students and postdocs to host quarterly networking events for Seattle-area trainees. Many of these events are co-hosted with the Seattle Life Science Happy Hour group, to give trainees an opportunity to network with local research and biomedical professionals.

Table 31. 2023 RAD Planning Committee

Member	Affiliation
Elizabeth Bonner, MCB Grad Student	FH TST
Andrea Brocato, Staff	FH OET
KC Cruz, Staff	FH OET
Peter Dietzen, MCB Grad Student	FH BSD
Whitney Ferguson, Staff	SCRI
Avery Swearer, MCB Grad Student	UW Biochemistry
Claire Thomas, Postdoc	FH PHS

Office of Education & Training (OET)



Table 32. 2023 RAD Events

Month	Event	Location
February	Show & Tell + Happy Hour with Semih Tareen, PhD MCB Alumnus and Executive Director, Sana Biotechnology	Fred Hutch
August	Networking Happy Hour	Re:public
October	Beyond the Bench, Career Panel + Happy Hour <ul style="list-style-type: none"> • Valerie Carricaburu, Ph.D., Director, Corporate Business Development in Healthcare at Microsoft • Ian Haydon, M.S., Head of Communications at Institute for Protein Design • Stephanie Bien, Ph.D., Senior Manager Computational Biology at Adaptive Biotechnologies • Kaitlyn Casimo, Ph.D., M.Ed., Education and Engagement Manager at Allen Institute 	SCRI

Between 2 Flasks

The "[Between Two Flasks](#)" video series is an effort by OET, SciEd, the Postbacc Program, UW Neuroscience, and Molecular and Cellular Biology PhD programs to create a comprehensive, educational series for students navigating biomedical research training and careers, including internships and graduate programs. Inspired by the "Between Two Ferns" talk show, this video series (with corresponding TikTok videos) leverages the expert advice and humor of faculty, staff, and trainees to answer the most-commonly asked questions from high school students, undergraduates, and potential graduate students about navigating biomedical research education and cover topics commonly experienced by early-stage trainees. There are currently 14 short Youtube videos and TikTok reels.

Figure 16. 2023 Between 2 Flasks New Videos with Current # Views (as of April 2024)



Office of Education & Training (OET)

OET and Cancer Research Training & Education Component (CRTEC) Conference Scholarship Recipients

These programs provide up to \$1500 for graduate students, postdoctoral fellows, medical fellows, and research technicians to attend a conference. Awards are offered twice annually, in January and July. The 2023 selection committee members were Christina Kuismi, Summer Turnber, and Jean Yi (Hutch United members); Mary Grace Katusiime, Gennifer Goode, and KC Cruz (OET staff); Snehal Joshi, Megan Othus, Amanda Phipps, Gordon Roble, and Julian Simon (CRTEC liaisons).

Postdoc and Graduate Student Affinity Groups

OET partners with UW departmental DEI committees to develop affinity groups for Fred Hutch, UW, and Seattle Children's graduate students and postdoctoral fellow who identify as LGBTQIA Indigenous, Middle Eastern and North African, and Latinx. In 2023, these groups met regularly to provide community, and the LBTQIA group coordinated a large Pride event with the Fred Hutch DEI Core and Fred Hutch Rainbow Employees for Equity (FHREE) on June 8, 2023.

Table 33. 2023 OET and CRTEC Conference Scholarship Recipients

Recipient	Conference
Amanda Riley	American Association for Cancer Research (AACR) Annual Meeting
Katherine Owens	SIAM Conference on Applications of Dynamical Systems
Emily Liang	American Society of Clinical Oncology (ASCO) Annual Meeting
Violet Sorrentino	International C. elegans Conference
Daniel Groso	American Association for Cancer Research (AACR) Annual Meeting
Joselyn Landazuri Vinueza	Montreal DNA Tumour Virus Meeting (DNATV)
Mimi Ton	International Society for Environmental Epidemiology - North American Chapter (ISEE-NAC) Conference 2023
Molly Cassidy	American Society of Gene and Cell Therapy (ASGCT)

Science Spotlight

Science Spotlight is a monthly, Fred Hutch-wide, electronic newsletter that highlights the most recent Fred Hutch-authored publications and summarizes them for broad readership across our institution. The research summaries are also available to a broader readership through the public website to spread the word about Fred Hutch research. We recently started providing Spanish language translations for write-ups of broad public interest. Each issue is developed, written and edited by a team of graduate student and postdoc writer/editors representing each division as well as the Cancer Consortium in collaboration with a faculty advisor.

Office of Education & Training (OET)



Table 34. 2023 Science Spotlight Writers/Editors

Lauren Brady, Postdoc
Risa Takenaka, Grad Student
Rachel Lex, Postdoc
Annabel Olson, Postdoc
Darya Moosavi, Postdoc
David Sokolov, Grad Student
Joselyn Landazuri, Grad Student
Nick Salisbury, Postdoc
Allie Donlan, Postdoc

Fred Hutch/UW/SCRI Cancer Consortium Cancer Research Training & Education Coordination (CRTEC)

Consortium-wide Faculty Mentorship Development Program

OET is partnering with the UW School of Medicine (SOM) to develop a sustainable mentorship training program. In Fall 2023, we brought the Center for the Improvement of Mentoring Experiences in Research (CIMER) to Seattle for a train-the-trainer workshop on September 26, 2023 for 28 faculty across Fred Hutch (8), UW (16), and Seattle Children's (4), creating a bureau of CIMER-trained facilitators. A director position was developed to lead the program. The quarterly faculty mentor training workshops will be launched in Fall 2024.

Cancer Center Support Grant (CCSG) Competing Renewal

CRTEC Associate Director, Nina Salama, Deputy Assistant Director, Manoj Menon, Assistant Director, Andrea Brocato, and OET Database Analyst, Jaqueline Valdez Gonzalez, worked tirelessly to craft the data and information for the CRTEC component of the CCSG competing renewal.

CRTEC Associate Director & Administrator Workshop

OET partnered with the Association of Cancer Center Administrators (ACCA) and the Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) to host an inaugural workshop for cancer center education administrative and faculty leadership from across the country. The associate directors and administrators (81 in total) who lead the educational components of the NCI-Designated Cancer Center grants (Cancer Research Training and Education Coordination - CRTEC) convened at ABRCMS on November 13, 2023 in Phoenix. The full-day workshop sessions covered the following topics:

- Recruitment and retention of postdocs
- Interactions with other cancer center components (Outreach and Community Engagement - COE and Plan to Enhance Diversity - PED),
- Metrics data
- Innovative program lightning talks

Fred Hutch SVP of Education, Nina Salama, hosted a fireside chat with NCI Director for Cancer Training, Oliver Bogler, discussing NCI funding priorities initiatives to engage younger generations in cancer research, trainee outcomes in biotech, and more.

Office of Education & Training (OET)

Consortium Liaison Program

We launched the Consortium liaison program in February 2023 to promote two-way interactions with Consortium research programs and offices. CRTEC liaisons meet three times a year. This new line of communication has already stimulated new collaborative projects. For example, in the learning of Hutch Advance program, Clinical Research Support (CRS) expressed the need for recruiting clinical research coordinators and welcomed introducing this student population to opportunities in clinical research careers. Liaisons have also participated as award committee members for the CRTEC travel award.

Leadership Achievements for OET

Andrea Brocato

- Elected to Chair of CRTEC Administrator's Network

Office of Education & Training (OET) Team



Nina Salama, PhD
Sr. Vice President, Office of Education and Training



Manoj Menon, MD, MPH
Deputy Director, Clinical Education, Office of Education and Training



Andrea Brocato, MA
Assistant Director, Office of Education & Training



KC Cruz
Administrator Coordinator, Office of Education and Training



Jaqueline Valdez Gonzalez
Database Analyst, Office of Education and Training



In Memoriam

With great sorrow we share that Dr. Beverly Torok-Storb passed away surrounded by family on May 5, 2023. A professor in the Translational Science and Therapeutics Division and advocate for STEM education, “Dr. Bev” played a pivotal role mentoring students, fellows, and faculty throughout Fred Hutch since joining the Center in 1978. She was a champion for underserved communities and pioneered research internship programs for local low-income or underrepresented minority high school and undergraduate students as well as training labs where students of all ages could come to do actual lab work. The Office of Education and Training (OET) continues to be inspired by her vision and is committed to continuing this important work to honor her legacy.



Contact Us



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www.fredhutch.org/en/education-training.html