PALLIATIVE CARE T32 RESEARCH FELLOWS' HANDBOOK

Third Edition 2021

Cambia Palliative Care Center of Excellence University of Washington

Compiled by:

J. Randall Curtis, MD, MPH (jrc@uw.edu)
Erin K. Kross, MD (ekross@uw.edu)
Abby R. Rosenberg, MD, MS, MA (abby.rosenberg@seattlechildrens.org)
Alice B. Liu, MPH (abliu@uw.edu)

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Purpose of this Handbook

- To provide palliative care T32 research fellows with general guidelines and suggestions about getting started.
- To answer common questions about clinical research and clinical research training.

Goals of the Palliative Care T32 Research Fellowship

Our interdisciplinary faculty have developed a rigorous research training program built on four core principles to prepare new researchers for independent careers: 1) Trainees must master a defined set of core content and research skills necessary to become independent and collaborative investigators; 2) Structured research mentoring and academic career development are critical to retaining trainees in science careers; 3) Research projects must be tailored to each trainee and designed to be successful training vehicles that facilitate early academic productivity and success; and 4) Training in palliative care research should provide real opportunities for interdisciplinary interactions and promote team-science approaches to address this interdisciplinary field of research. We employ structured training methods that emphasize our four core principles.

The overall goal of the research fellowship is for fellows to acquire the knowledge and skills necessary to conduct independent research and become a successful academic investigator.

- 1. Master a defined set of core content and research skills through:
 - Development and implementation of an explicit training plan to learn research skills, under guidance of mentor(s)
 - Attain advanced degree, when appropriate
 - Attendance and presentation at research works-in-progress sessions
 - Experience with grant and paper writing; attendance at writing workshops
- 2. Participate in a structured mentoring program
 - Utilize primary and secondary mentors
 - Create and implement a structured mentoring plan
- 3. Achieve early success by strategic selection of research projects
 - Initial projects reviewed by T32 steering committee
 - Set explicit goals, timelines, and deliverables for initial projects
 - Submit abstract to scientific meeting early in training
 - Engage in ancillary projects provided by mentors/T32 investigators to ensure early fellow productivity with a plan to publish findings
 - Transition planning towards mentored grants & independence
- 4. Participate in interdisciplinary research and team science
 - Capitalize on breadth of interdisciplinary research available through the Cambia Palliative Care Center of Excellence (PCCE) and beyond
 - Develop cross-discipline collaborative interactions between trainees

Mentor and Mentee Roles and Responsibilities

The mentor/mentee relationship is essential to successful training of palliative care investigators and is crucial to the Cambia Palliative Care Center of Excellence's mission. Mentoring requires a commitment of time, effort, and resources which will provide the mentee a fostering environment and the best possible chance for a successful career. The Cambia PCCE T32 Program Research Faculty have developed the following general guidelines outlining the responsibilities of the mentors, mentees, and the mentoring committee members. These processes provide a framework to choose mentors and to best structure mentorship during the fellowship years.

Prior to starting fellowship, one of the T32 Directors (Randy Curtis, Erin Kross, or Abby Rosenberg) will meet with each fellow to determine their general research interests and direct them to faculty whose research complements their interests. Fellows will then meet independently with potential mentors. Fellows should arrange these meetings well in advance to avoid scheduling conflicts.

Fellows are encouraged to talk to the other mentees of a prospective mentor. It is important to identify a mentor with strong mentoring skills, but equally as important to ensure a personality match. Fellows should seek a mentor who will foster their productivity.

Primary Mentor

The role of the primary mentor is to oversee the trainee's professional development, provide career counseling, and facilitate academic job placement in the latter years of training. Mentoring requires a commitment to create a fostering environment that provides the trainee the best available opportunities to succeed throughout and beyond their fellowship.

By the start of the T32, all fellows should have identified one primary research mentor and verified that decision with the individual. This faculty member will be primarily responsible for helping develop and implement a career development plan. Mentors must be able to provide adequate resources, including time, space, supplies, expertise, and effort.

Choosing a primary mentor from the Cambia PCCE faculty provides the fellow a strong advocate not only within the Cambia PCCE, but also within the local and national palliative care community. Fellows may choose a primary mentor from outside the Cambia PCCE leadership provided they also identify a secondary mentor from within the Cambia PCCE.

We believe it is not in the best interest of our T32 trainees to have a primary mentor who is on a mentored career development award themself. In general, primary mentors should have R01 or R01-equivalent funding and have achieved research independence. There may be some exceptions to this policy, but in such cases, an explicit plan that addresses each of the following should be developed:

1. The primary mentor who is on a K-award or similar career development award should identify a senior co-mentor to help mentor the fellow. There should be an explicit plan for who the mentor will be for the fellow's application for a K-award or other career development award.

- 2. The primary mentor should have a senior mentor for their own career and an explicit plan for their own R01 or R01-equivalent funding, promotion, and time management to ensure that mentoring a fellow would not distract from the K-funded mentor's own career development.
- 3. The primary mentor should have an explicit plan for providing the resources needed for the fellow's research projects and training.
- 4. The T32 Program Directors (Randy Curtis, Erin Kross and Abby Rosenberg) will review and approve these plans.

Secondary Mentor

While choosing a secondary mentor can be valuable, it is only required in 2 situations: 1) if the primary mentor is relatively junior or has a limited record of mentoring; or 2) when the primary mentor is outside of the fellow's primary school or department/division. In the case of a more junior primary mentor, having a more senior secondary mentor can be advantageous for subsequent grant applications. In the case of a primary mentor outside of the fellow's primary school or department/division, having a secondary mentor within this structure is beneficial to provide scholarship opportunities and career oversight. The need for a secondary mentor should be discussed with the primary mentor and Program Directors early in the process of identifying a mentor(s). Coprimary mentors are discouraged due to potential confusion of roles.

Primary Mentor Outside the Cambia PCCE

The Cambia PCCE encourages fellows to collaborate with a variety of faculty both inside and outside the Cambia PCCE. Choosing a primary mentor outside the Center may provide the fellow with direct access to resources and expertise the Center may not be able to provide.

The fellow may identify a primary mentor outside the Cambia PCCE but must also identify a secondary mentor within the Cambia PCCE to ensure the fellow gets the support she or he needs from the Cambia PCCE. The primary mentor in this case will first need to meet with the T32 program directors to clearly understand their role and responsibilities from the perspective of the training grant.

Questions for Fellows to Ask Potential Mentors

Projects

- What projects are you working on and in what stage of completion are they?
- 2. Is there a project that I can work on and have an abstract ready for AAHPM (or other professional society meeting) in my first research year?
- 3. Do you have a project I can work on with the understanding that I would be first author if I complete the work involved? Can I anticipate a publication in 6-12 months?
- 4. Are you willing to mentor me if I work on data from one of your projects? Are you willing to mentor me if I work on a project that is not one of your projects?

Mentoring Style/Background

- 1. What do you consider your central responsibilities as a research mentor?
- 2. How would you describe your overall style (hands on/off, formal/informal, etc.)?
- 3. How often will we meet one-on-one? How often does your research group meet? If I need more support initially, will I be able to meet with you more frequently?
- 4. How many people are you currently mentoring? Do you feel you have time right now to take on another mentee? If not, would you be willing to act as a secondary mentor or a member of my mentoring committee?
- 5. How many fellows/students have you mentored? What are your former fellows doing now?
- 6. What sort of expectations do you have regarding attendance/general time management (Works in Progress, additional training requirements, moonlighting, projects with others including writing projects)?
- 7. What are your expectations or timeline for the following: grant submissions, manuscripts, reviews, abstracts, presentations, conference attendance (regional/national)?
- 8. What format do you use to provide feedback to your mentees?
- 9. How do you like to manage your schedule? Preemptively (rapid turnaround, preset dates to check on progress) or deadline oriented (crank it out closer to due date)?

Research Environment

- 1. How many people are in your research group? How is it structured?
- 2. Do members of your research group work together on collaborative projects? If so, how is ownership of ideas/projects determined?
- 3. What affiliates/colleagues do you work with that can help my education and projects (e.g., biostatisticians, database folks, collaborators at other sites or in the same field)?
- 4. If I work with you, where would my workspace be located? Would you have a desk and computer for me?

Funding Questions

- 1. How are most of your fellows funded after leaving the training grant?
- 2. Are there any options for an additional year of research funding after time on the T32 is complete?
- 3. Do you have additional funding available for travel to professional meetings and additional research expenses?

Traits of a Good Mentor

- Accessibility: An open door and an approachable attitude.
- Empathy: Personal insight into what the trainee is experiencing.
- Open-mindedness: Respect for each trainee's individuality and for working styles and career goals different from their own.
- Consistency: Acting on stated principles and goals, following through on tasks agreed upon with the fellow.
- Patience: Awareness that people make mistakes and that each person matures at their own rate
- Honesty: Ability to communicate the hard truths about appropriate career paths and about the trainee's work and progress.
- Savvy: Attention to the pragmatic and programmatic aspects of career development.

Beware of mentors who exhibit the following less-than-ideal characteristics:

- The avoider or the overcommitted: someone who is not available or accessible.
- The criticizer: someone who criticizes freely but never makes positive comments.
- The pushover: someone who compliments everything but never gives constructive criticism.

Expectations of the Primary Mentor

- Prior to the beginning of the fellow's first year on the T32, jointly complete the Research Project
 Proposal template. Ensure this is submitted to the Cambia PCCE Program Manager (Alice Liu) within
 2 months of beginning on the T32 (for example November 1 for September start). The Research
 Project Proposal will be reviewed by the T32 leadership committee, and feedback will be given to
 the fellow and mentor.
- 2. Prior to the beginning of the fellow's first Mentoring Committee meeting, work with mentee to jointly complete the Cambia PCCE's official Mentoring Plan template. Review and update this document before each Mentoring Committee meeting.
- 3. Primary mentor is expected to summarize each Mentoring Committee meeting in minutes using the approved agenda/minutes template. Circulate these minutes to all committee members, including the trainee, for comment and approval. Ensure that a final copy is delivered to the Cambia PCCE Program Manager (Alice Liu) for review by the T32 leadership and retention in the Fellow's file.
- 4. Ensure fellow is scheduling Mentoring Committee meetings at least two times per academic year.
- 5. Determine the degree of interactions needed with the mentee and meet individually, in person, on a regular basis. Initially, every week or every other week is recommended; not to be less than once a month.
- 6. Help fellows determine their short- and long-term goals and set a clear timeline for accomplishing these goals, including abstract, manuscript and grant submissions.
- 7. Help the fellow understand the requirements for transition to a faculty position at UW or elsewhere.
- 8. Assist in the identification of interesting and feasible research questions; identify other resources and potential collaborators that may be useful to the fellow's projects. Help the fellow choose a mechanism for obtaining research training and offer advice in course work choices.
- 9. Establish a plan for the trainee to learn basic principles of scientific conduct, communication of findings to colleagues, and receipt of constructive feedback.
- 10. Establish a plan for trainee's career development in professionalism and ethical conduct of research, as well as mentorship and leadership skills.
- 11. Provide adequate resources including such resources as time, expertise, lab or office space, computer, additional travel funds, access to technician, research coordinator, and statistical or database support, if applicable. If any of these resources are not available, this should be discussed between the mentor and mentee.
- 12. Review mentee's CV, ideally at each Mentoring Committee meeting.
- 13. Prioritize attending fellows' works-in-progress sessions, presentations to lab meetings, research groups, or research conferences, and ensure the trainee receives feedback about these presentations.
- 14. Complete an annual self-evaluation and agree to anonymous evaluations by mentees.
- 15. Participate in activities to improve mentoring skills, including the possibility of one-on-one feedback sessions.

Mentoring Plan

Before the first Mentoring Committee meeting, each mentor and trainee jointly complete a Mentoring Plan template. The Mentoring Plan is not intended to rigidly prescribe how mentors should train their trainees but rather to facilitate the conversation and make expectations explicit.

The Mentoring Plan is signed by both mentor and fellow and subsequently reviewed and updated before each Mentoring Committee meeting. As the trainee progresses, the Mentoring Plan is revised and updated, making it a living document.

Mentoring Committee

Under the direction of the primary mentor, the Mentoring Committee oversees the trainee's professional development, provides career counseling, and facilitates academic job placement in the latter years of training.

At the beginning of their initial research year, fellows will form a Mentoring Committee composed of three to five members. Once trainees select their primary mentor and possibly a secondary mentor, the mentor(s) and trainee, with input from the Program Directors, will identify the additional two to four members of their committee. A member of the committee may be outside the Cambia PCCE, particularly if the scholarly project involves collaboration with outside faculty.

In addition to the mentor(s) and additional members, the committee must include at least one of the T32 program directors (Randy Curtis, Erin Kross, and/or Abby Rosenberg), who must attend each meeting. The fellow should meet with the Mentoring Committee within the first 4 months of fellowship and at least once every six months thereafter (twice per academic year) to review and update all elements of the Mentoring Plan. Each committee meeting is summarized in minutes written by the primary mentor using the approved agenda/minutes template. The minutes should be circulated to all committee members, including the trainee, for comment and approval.

It is the responsibility of each fellow to arrange mentor committee meetings. The Cambia PCCE Program Manager (Alice Liu) will attend each mentoring committee meeting and can help with scheduling.

Expectations of the Research Mentoring Committee

- Meet at least once every six months (twice per academic year). Review and update the Mentoring Plan at each Mentoring Committee meeting. The first meeting should occur within the first 4 months of the fellowship.
- 2. Review the written summary of each meeting prepared by the primary mentor and provide comments and approval.
- 3. Help fellows determine their short- and long-term goals and set a timetable for accomplishing these goals, including abstract, manuscript and grant submissions.
- 4. Help identify interesting and feasible research questions; identify other resources and potential collaborators that may be useful to the fellow's projects.
- 5. Help identify grant and funding opportunities and help set timelines for grant submissions.

- 6. Review mentee's CV to refine it for presentation.
- 7. Facilitate the fellow's career advancement.
- 8. Review the requirements for transition to a faculty position, if desired, and assist with the process of searching for a position.
- 9. Help identify and trouble-shoot any potential problems with the mentor-mentee relationship.

Expectations of the Mentee

- 1. During the beginning of your first research year, jointly fill out the Research Project Proposal template with your mentor(s). Submit to the Cambia PCCE Program Manager (Alice Liu) within 2 months of beginning on the T32 (for example November 1st for September start). The Proposal will be reviewed by T32 leadership, and feedback will be given to the fellow and mentor.
- 2. Prior to the beginning of your first Mentoring Committee meeting, work with mentor to jointly complete the Cambia PCCE's official Mentoring Plan template. Review and update this document at each Mentoring Committee meeting. Submit to the Cambia PCCE Program Manager (Alice Liu) for retention.
- 3. Fellows should schedule regular one-on-one meetings with primary mentor. The frequency of the meetings will depend on the mentee's needs. Initially, every week or every other week is recommended; not to be less than once a month.
- 4. Fellows should ensure primary mentor is aware of their scheduled presentations (WIP sessions, research group meetings, research conferences, etc.) as early as possible so they can plan to attend.
- 5. Fellows should arrange their first committee meeting within the first four months of their initial research year.
- 6. Fellows are required to schedule meetings with their Mentoring Committee at least twice per academic year. Fellows should begin arranging each committee meeting at least two months in advance of the target date.
- 7. Your mentor's administrative assistant or Cambia PCCE Program Manager (Alice Liu) can assist in scheduling the Mentoring Committee meetings.
- 8. Confirm your meeting date/time/location with the committee members as well as the Research Program Coordinator, as he will attend meetings when possible.
- 9. Prepare meeting agenda using the approved agenda/minutes template and send to meeting attendees a few days in advance.
- 10. Distribute the following items in advance and bring copies for all in attendance to each Mentoring Committee meeting:
 - Agenda use the Cambia PCCE's approved agenda/minutes template
 - Updated Mentoring Plan sign and obtain your mentor's signature at each meeting
 - Updated CV
- 11. Ensure that your mentor or previously designated individual (typically mentor's responsibility) takes minutes at the meeting, circulates them to all committee members, including the trainee, for comment and approval.
- 12. Following each meeting, send the following documents to the Cambia PCCE Program Manager (Alice Liu) for retention:
 - Committee-approved meeting minutes
 - Signed and updated Mentoring Plan
 - Updated CV

T32 Faculty

Name	Research	Title	
David Au, MD, MSc	Health services, Cost Effect.	Professor	
Erin Blakeney, PhD, RN, MA	Implementation Science	Assist. Prof	
Crystal Brown, MD MA	Palliative Care, Health Disparities	Assist. Prof	
Lyndia Brumback, PhD, MS	Biostatistics	Assoc. Prof	
Claire Creutzfeldt, MD	Palliative Care, Neurology	Assoc. Prof	
Kristina Crothers, MD	Clinical Epidemiology	Professor	
J. Randall Curtis, MD, MPH	Palliative Care, Clinical Epi.	Professor	
Cindy Dougherty, PhD, RN	Palliative Care, Cardiology	Professor	
Ruth Engelberg, PhD	Health Services Research	Assoc. Prof	
Vince Fan, MD, MPH	Health Services Research	Assoc. Prof	
Laura Feemster, MD, MSc	Implementation Sciences	Assoc. Prof.	
Tom Gallagher, MD	Patient Safety and Quality	Professor	
Chris Goss, MD, MSc	Clinical Epidemiology	Professor	
Susan Heckbert, MD, PhD	Epidemiology	Professor	
Margaret Heitkemper, PhD	Nursing Sciences	Professor	
Ann Jennerich, MD, MS	Health Services Research	Assist. Prof	
James Kirkpatrick, MD	Cardiology	Assoc. Prof	
Nita Khandelwal, MD, MS	Health Economics, Palliative Care	Assist Prof	
Erin Kross, MD	Palliative Care, Clinical Epi.	Assoc. Prof	
Nancy Lau, PhD	Psychology, Pediatrics	Acting Asst Prof	
Robert ("Bob) Lee, MD, MSc	Critical Care, Palliative Care, Informatics	Instructor	
Stephanie Lee, MD, MPH	Outcomes Research, Hematology	Professor	
Bill Lober, MD, MS	Health Informatics	Professor	
Elizabeth Loggers, MD, PhD	Health Disparities	Assist. Prof	
W. Robb MacLellan, MD	Clinical Cardiology Research	Professor	
Elizabeth McCauley, PhD	Psychology	Professor	
Cara McDermott, PharmD, PhD	Health Services Research	Instructor	
Ann O'Hare, MD, MA	Palliative Care, Clinical Epi.	Professor	
India Ornelas, PhD, MPH	Health Disparities	Assoc. Prof	
Tom Rea, MD, MPH	Health Services, Clinical Epi.	Professor	
Lynn Reinke, PhD, MSN	Health Services	Assist Prof	
Abby Rosenberg, MD, MS, MA	Pediatric Hem/Onc, Health Services	Assoc. Prof	
Tatiana Sadak, PhD, MN	Health Services Research	Assoc. Prof	
Rashmi Sharma, MD, MHS	Palliative Care, Disparities	Assist. Prof	
Mohamed Sorror, MD, MSc	Health Outcomes, Disparities	Assoc. Prof	
Jill Steiner, MD, MSc	Cardiology, Palliative Care	Assist. Prof	
Helene Starks, PhD, MPH	Palliative Care, Qualitative Res.	Assoc. Prof	
Karen Syrjala, PhD, MA	Psychology / Quality of life	Professor	
Molly Taylor, MD MSc	Pediatrics, Biobehavioral Research	Instructor	
Bryan Weiner, PhD, MA	Implementation Science	Professor	
Susan Wong, MD, MS	Nephrology, Health Services Research	Assist. Prof	

Mandatory Conferences/Meetings for Most T32 Post-Doctoral Fellows

Palliative Care Research Seminar

4th Tuesday of the month at 8:00am Harborview Pat Steele Bldg Rm 2097 / Zoom Coordinator: Ruth Engelberg rengel@uw.edu

Palliative Care Journal Club

2nd Tuesday of the month at 8:00am Harborview Pat Steele Bldg Rm 2097 / Zoom Coordinator: Shinetra Pryor snpryor@uw.edu

Palliative Care Research Works in Progress (PC-WIP)

Mentors are always welcome and are expected to attend when trainee presents.

Typically on the 2nd Tuesday of the month at 9:00am

Harborview Medical Center / Zoom Coordinator: Erin Kross ekross@uw.edu

Monthly Palliative Care Research Fellowship "Check-In" Meetings

Typically on the 2nd Tuesday of the month at 10:00am

Harborview Medical Center / Zoom Coordinator: Erin Kross <u>ekross@uw.edu</u>

Post-Doc Palliative Care Collaborative

Webinars occur quarterly; invitations will come via email

Prior webinars can be found here: National Post-Doctoral Palliative Care Research Training Collaborative (npcrc.org)

Surviving & Thriving During the Research Years Dept of Medicine Research Fellows Orientation Course

When: Each summer, typically July or August

Who: Open (tuition-free) to all interested fellows and junior faculty from all departments and divisions Research fellows orientation course | Department of Medicine | University of Washington (uw.edu)

Biomedical Research Integrity Program

"Integrity from the Inside Out"

Department of Bioethics & Humanities

<u>UW Biomedical Research Integrity Program | UW Department of Bioethics & Humanities (washington.edu)</u>

Additional Optional Conferences/Meetings/Groups

Palliative Care Conference

Tuesdays at 8:00am

Harborview Pat Steele Bldg Rm 2097 / Zoom Coordinator: Shinetra Pryor snpryor@uw.edu

Pulmonary, Critical Care & Sleep Medicine Clinical Research Works in Progress

Thursdays at 2:30pm

Harborview Medical Center R&T 109 (whereis.crwip.org) / Zoom

Coordinators: Ann Jennerich (<u>aclong11@uw.edu</u>), Engi Attia, Kathy Ramos

Scheduler: Leila Armas Isarmas@uw.edu

Qualitative Research Study Group

2nd Monday of the month at 3:30pm Zoom videoconference or on-site at HMC/UWMC Coordinator: Helene Starks (tigiba@uw.edu)

HMC Ethics Forum

2nd Wednesday of the Month at 12:00pm Harborview Research & Training Bldg 109/113 / Zoom Coordinator: Denise Dudzinski dudzin@uw.edu

UW Bioethics Grand Rounds

Co-sponsored by the Department of Bioethics & Humanities and the Ethics Advisory Committee at the University of Washington Medical Center Tuesdays at 3:30pm

UWMC Health Sciences Building, T747 / Zoom Coordinator: Kay Burke kaybrke@uw.edu

UWMC Family Medicine Research Seminar

Roosevelt 1, 4225 Roosevelt Way NE, Suite 308, Conference Room 357

1st Tuesdays of the Month at 12:00pm

Coordinator: Evelyn Chanasyk echan09@uw.edu

Palliative Care and Resilience Research Program Seminar

Seattle Childrens Research Institute (1900 9th Ave)

Thursdays at 11:00am

Coordinator: Abby Rosenberg <u>abby.rosenberg@SeattleChildrens.org</u>

Institute of Translational Health Sciences (ITHS)

ITHS provides many resources for clinical and translational research training, including access to a wealth of research services, opportunities for education and training, funding, and team science.

Main website: www.iths.org

Subscribe to receive emails: www.iths.org/news-events/subscription
List of potential educational activities: https://www.iths.org/education/

University of Washington Postdoctoral Association

http://depts.washington.edu/uwpa/

The University of Washington's Postdoctoral Association – UWPA – is an organization run by postdoctoral researchers for postdoctoral researchers. It is served by an executive committee, elected by peers, who have generously donated their time and efforts to improve the state of postdoctoral affairs at the University of Washington. It relies on donations from the University as well as outside partners to run programming as well as to serve as an advocate for postdocs at the University. We recommend subscribing to the UWPA mailing list using the link above.

The UW Career Center - Workshops and Events Calendar

The UW career center has resources specifically dedicated to post-doctoral fellows: https://careers.uw.edu/postdocs/. The career center offers helpful sessions on topics related to academic careers including interviewing, job talks, and salary negotiations. You can subscribe to receive the weekly emails about upcoming workshops/events at http://careers.washington.edu/Calendar.

Other Helpful Resources

http://careers.washington.edu/GradStudents/Academic-Careers

These resources were designed to help graduate students explore and apply for an array of teaching, research, and administrative careers in academia.

Discouraged Activities (although special cases may exist)

- 1. Taking too many elective courses in the School of Public Health, especially to the point that it interferes with research time.
- 2. Writing review articles except when reviewing the same literature in preparation for your research.
- 3. Regular teaching or clinical activities (other than those required).
- 4. Auditing courses is generally a bad idea because, unless you are an extremely unusual person, you will get very little out of the course.

The Research Question (aka Specific Aims)

The most important feature of any research project is "the research question." The art of developing good research questions is a learned skill that requires considerable time and energy to develop. The good research question is written in such a way that it is clear how it could be answered.

The best way to develop a research question is to identify a question that has come up during the clinical year or in reading about a particular field and then figure out how to answer it. A less effective way to develop an interesting research question is to identify a database (or worse, to develop a database) and then try to figure out what questions could be asked of the database.

We encourage fellows to have a "start-up" or "secondary" project based on a research question developed by a mentor that uses an existing database. This allows the fellow to "hit the ground running" and offers the opportunity to submit an abstract for presentation at a major professional society meeting (such as AAHPM) during the fellow's first research year.

Fellows often consider 10-20 research questions before settling on one for a major project. Fellows should keep a list of potential research questions that occur to them. It is also perfectly reasonable to approach a potential mentor and ask, "Do you have research questions in your area of interest that would be appropriate for fellows?"

The most important criteria for any research question are:

- 1. The question is interesting to the fellow and others.
- 2. The question can be feasibly answered during the fellowship.
- 3. The question is novel.
- 4. The question can be restated as a testable hypothesis.
- 5. The question should build on the fellow's and/or mentor's experiences.
- 6. The question will be interesting (and publishable) regardless of whether the hypothesis is supported.

It is easy to think of interesting questions that aren't feasible and feasible questions that aren't interesting. The trick is to come up with a research question that fulfills both of these criteria. Of the first two criteria, the second is the most difficult.

Writing a Grant During Research Training

Fellows are expected to write at least one grant during their research training years. These grants may be to support their salary, to provide funding for research activities, or both. There are many different potential sources for research funding. Some of the common ones are listed below. Fellows should discuss the pros and cons of applying for a grant during the 1st research year and the potential funding sources with their mentors.

When writing a grant, be aware that you need to allow time for the following:

To complete this sequence in a reasonable timeframe, you should plan to have a <u>first draft</u> of your grant done at least two months prior to the deadline. Notify potential readers well in advance.

- Administrative review, approvals, and completion of forms Every grant proposal is required to be reviewed by a minimum of four UW offices – this process takes two weeks prior to the grant deadline with all grants required to be completed, finalized and ready to submit three BUSINESS days prior to the grant proposal deadline.
- 2. Internal scientific review in the following sequence:
 - a. Your mentor(s)
 - b. Other faculty members and fellows as appropriate
- 3. Submission of grant to T32 committee for mock study section review

Note: Many fellowship or career development awards require letters of recommendation.

- Ask potential writers in advance if they are able and willing to write a letter of recommendation.
- Provide an up-to-date CV or biographical sketch, draft of the grant or aims with title, any required forms or directions for submission as well as a due date.
- Be prepared to write a draft of the recommendation for your writer this is a common practice.

Please consult with your mentors to explore all possible grant options. Listed here are some grant options for salary support:

- 1. **NIH/NRSA (F32) Individual Fellowship Awards**: Fund stipend on NIH pay scale. Deadlines are April, August, December. Fellows may have a total of 3 years of funding combined on T32 and F32 funding mechanisms.
- 2. **NPCRC Funding Opportunities** The program most relevant to our T32 fellows is likely to be the Kornfeld Scholars Program. Details here: <u>Funding Opportunities (npcrc.org)</u>
- 3. American Lung Association Research Training Fellowship: Applications typically due each fall.
- 4. **American Heart Association**: AHA has a number of awards that may be appropriate for some fellows, although it is important to make it clear that the project has implications for the AHA research mission. Due date is typically in July.
- 5. **American Cancer Society**: The ACS offers training and career development awards to support training of cancer researchers at a variety of early career levels and disciplines. Applications are typically due in April or October.
- 6. **American Society of Hematology**: ASH offers both fellow-level and career-development awards, among other grant opportunities.
- 7. **American Society of Clinical Oncology:** ASCO offers a career-development award and a young investigator award, among other grant opportunities.
- 8. **Leukemia and Lymphoma Society:** The Society offers a career-development award among other grant opportunities.
- 9. **Subspecialty Society Fellowship Awards**: Professional societies and foundations that have a specific disease focus.

Writing a Grant to Fund Transition to a Faculty Position

Fellows interested in a career as an investigator in academics will often write a grant during their 2nd research year that will bridge them into a faculty position. This type of "career development" award may come from the NIH (such as a K23 award), the VA, or a foundation. Fellows should be talking with their mentor(s) and division leadership early in their research training, but no later than the start of their 2nd research year about these grants. Most career development awards require a commitment for a faculty appointment, but this does not preclude them from being transferred to other institutions.

Timelines for Grant Submissions

The best timing for grant submissions must be individualized for each trainee. However, there are some important common considerations for timing for fellowship grants, career development awards (such as K awards and VA CDA awards) and the first independent award (such as R01 or R01-equivalent awards). In general, trainees should be writing their specific aims pages and reviewing with their mentors at least 6-12 months before the grant is due. For a terrific article on issues around timing for grant submissions, please read the blog below. This blog also has a downloadable Word document where trainees can fill in their own timetable for grant submissions and paper submissions. This is "required reading" for T32 fellows.

Details here: https://edgeforscholars.org/using-timelines-to-diagnose-problems-in-career-planning/

Additional Training and Grant Opportunities

AAHPM Research Scholars Program – Opportunity to apply to attend the Annual Kathleen M. Foley Palliative Care Retreat & Research Symposium – Applications typically due in March for a fall retreat. Details here: http://aahpm.org/scholarships/research-scholars

PCRC Research Opportunities – Opportunities include pilot grants. Details here: http://palliativecareresearch.org/research/investigators/

Research Outline for PC-WIP Presentations

The Palliative Care Works-in-Progress (PC-WIP) is designed to be a supportive environment where investigators can bring research projects for critical evaluation and discussion. Projects are welcome at every phase from "twinkle in the eye" through implementation and pre-presentation practice. No project can be presented too early or too often.

Presenters are expected to prepare an outline for distribution 3-6 days prior to their session. A common format is as follows:

- 1. A brief research proposal (three page maximum, no slides please) with the following outline (bullet points are preferred over prose):
 - a) Goals of the PC-WIP Presenter: What information do you want from the audience?
 - b) Background: Why is this an interesting question? (Be brief!!)
 - c) Research Questions: Primary and secondary questions
 - d) Study Design: Randomized trial, cohort, case-control, meta-analysis, etc.
 - e) Data: Outcome, predictor, and confounder variables; sources of data; methods of data collection
 - f) Data Analysis: Rephrase each research question as a hypothesis and describe the analytic approach to the data
 - g) Sample size estimates

Obviously, investigators will be at different stages in their research. "Don't know" is a perfectly acceptable entry - part of the purpose of the PC-WIP is to fill in these gaps. Since this written proposal will help your colleagues frame the issues, we would like all presenters to distribute a research proposal in some form prior to presentation.

Note: You should review this outline with your mentor prior to distribution. In addition, the T32 faculty are willing to meet with presenters to discuss any of the sections of their proposal prior to distributing it.

A list of questions that you would like answered about your proposal is a key part of preparing for PC-WIP. Our experience with these sessions is that your loquacious colleagues will have abundant advice in many areas. Unfortunately, it may or may not cover the specific questions you have. To make sure you walk away with the information that's important to you, carefully consider and distribute a list of questions on which you would like to focus. The questions will depend on the research questions and design and the stage of the project. These questions can range from: "Is this an interesting and feasible research question?" to "Where's the best place to send this manuscript?"

Important Questions about a Master's Degree from the School of Public Health

1. Should I get a Master's Degree?

For almost all clinical research fellows the answer will be yes. The main reason to get the degree is that it will be one way that potential employers can recognize that you have training in clinical research (although it is less important than publications and grants). Also, for most fellows, once you obtain the basic course work that you need anyway to be a competent clinical researcher, you will be approximately 75% of the way toward the degree.

2. Should I get a Master of Public Health (MPH) or a Master of Science (MS)?

Most fellows should get the Master of Science. The MPH program has a practicum requirement. For physician-fellows, this practicum may not be a good use of your time. However, if you think you might be interested in a job in public health or government (i.e. a state or county TB clinic), the MPH might be better for you.

3. Should I get a degree from the Department of Epidemiology or Health Services?

The choice of a department depends on your interests. While most fellows do research that fits into the category of clinical epidemiology which is the intersection of these two departments, it is important to make sure that your School of Public Health department will value the kind of research you want to do. If measuring the incidence of a disease in a population lights your fire, join Epidemiology. If studying the way health care is delivered is up your alley, join Health Services. If you are in the middle, talk it over with your mentors.

4. Who pays the tuition?

The T32 program has a fixed amount of dollars available from the Training Grant to pay for tuition. To date, we have been able to cover most or all fellow tuition for **two years** with the assistance of the UW Faculty/Staff Tuition Exemption Program: http://www.washington.edu/admin/hr/pod/policies/tuition-exemption.html. Fellows wishing to pursue a master's degree will be required to take advantage of the tuition exemption program each quarter to offset expenses – and the T32 will pay the fees associated with coursework. Not all courses are eligible for Tuition Exemption, most notably thesis credits; please see http://www.washington.edu/admin/rules/policies/APS/22.01.html.

Note: if individuals do not finish the degree within two years, they will be responsible for tuition in the third year.

Applying to the School of Public Health

If you are interested in the master's degree, you need to formally apply to the Department that you are most interested in (Epidemiology or Health Services – websites listed below) per standard application deadlines. Application deadlines are usually in November or December for the following summer quarter. You should take this application process seriously as you are not guaranteed acceptance. http://depts.washington.edu/epidem/ http://depts.washington.edu/hserv/

Expectations of the Cambia PCCE T32 Post-doctoral Research Fellows

The table below provides an overview of the general expectations of the Cambia PCCE T32 post-doctoral fellows. Trainees are encouraged to review this table with their mentors.

Expectations for T32 Fellows

- Attend the monthly Palliative Care Research Works-in-Progress sessions and present 1-2 times per vear
- Formal presentation of research at a different research seminar (besides the PC-WIP) at least once per year; this can often be at Cambia PCCE Palliative Care Grand Rounds
- Develop at least 1-2 research projects/year with mentor(s), with timelines and productivity benchmarks documented in Mentoring Plan
- Meet with mentor(s) at least twice-monthly and meet with Mentorship Committee at least twice
 yearly
- Attend other relevant conferences as agreed on with mentor(s) and described in the Mentoring Plan
- Completion of required courses and other didactic training as determined by the Mentoring Plan
- Presentation of 1-2 abstracts yearly at relevant national or international professional meetings
- Submission of at least 2 peer-reviewed, first-authored research manuscripts each year
- Completion and submission of at least 2 peer-reviewed, collaborative research manuscripts each year
- Plan and complete a mentored grant application during the second year
- Attend the monthly career development seminar ("check-in") for post-doctoral fellows
- Participate in an annual review with one of the T32 Program Directors
- Maintain contact with the training program following training for collection of data on presentations, publications, grants, and positions
- Participate in an "exit interview" after completion of the T32 program with one of the Directors

Cambia Palliative Care Center of Excellence

Trainees are encouraged to visit the Cambia PCCE and register to become a member. Registration is free and registering adds you to the listserv for the center where you will be updated on many UW and regional palliative care news and events.