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Dartmouth Cancer Center / Radiation Oncology

Dartmouth Geisel School of Medicine

How to Obtain a Mentorship Letter & What it Should Look Like

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Disclosures

AMA, JAMA Oncology (Deputy Editor)
https://jamanetwork.com/journals/jamaoncology/fullarticle/2785036

Career Development in Academic Radiation Oncology (Editor)
Career Development in Academic Radiation Oncology | SpringerLink

PRESENTED BY: Charles R. Thomas, Jr. MD
https://geiselmed.dartmouth.edu/faculty/facultydb/view.php/?uid=8023

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Section 1: Career Planning

-Career Options in Radiation Oncology

-Foundations of a Successful Career

-Approaching your Academic Career

-Strategies for Applicants Who Belong to URM populations

Section 2: Applying to Faculty Positions

-Informational Interviews/Interviewing for a Position

-Preparing your CV & Cover Letter

-Evaluating your Contract/Medico-legal Considerations

-Changing Jobs

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Section 3: Early Career Development

-Time Mgt/Discipline

-Identifying & Utilizing Mentors

-Conflict Resolution & Interpersonal Strategies

-Aligning your Goals w/your Colleagues, Dept, & Institution

-Working w/Staff & Colleagues

-Becoming a Clinician: Organization, Documentation, Interprofessional Considerations, Insurance & Billing

-Becoming an Educator: Giving Feedback, Supervising Trainees, & Formal Didactics

-Becoming a Researcher: Budgets & grants, Reviewing a paper, Writing, & IRB considerations

-Models of Success for the Community-based Academic Radiation Oncologists

-Maternity/Paternity/Family Leave/Time off, Sabbatical, non-traditional

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Section 4: Mid and Senior Career

-Professionalism

-Promotions & Appointments

-Maintenance of Certification

-Networking

-Leadership & Service Work

-Disease Site Leadership

-Role of the Department Chair

-Successful Strategies to Exploit the Intersection between the Radiation Oncology Department & the Cancer Center

-Business Development from Research, Entrepreneurship within Academia

-Dealing w/Conflicts, Bias, & Ethics considerations

-Approaching Strategic Planning

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Section 5: Misc. Contextual Issues

-Handling Burnout

-Preparing for Retirement & Career Transitions

-Work-Life Balance & Personal Finance

-Paying it Forward: Being a Good Mentor, Steward, & Colleague

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Learning Objectives

- Describe attributes of an effective mentor
- Describe the mentor/mentee dyad
- ***Describe the key components of a mentor letter of support***
- Provide post-workshop toolbox on mentorship best practices

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Provide Post-workshop Toolbox On Mentorship Best Practices

https://www.ohsu.edu/school-of-medicine/radiation-medicine/mentorship-and-sponsorship

https://cancer.dartmouth.edu/radiation-oncology/medical-education#continuing-ed

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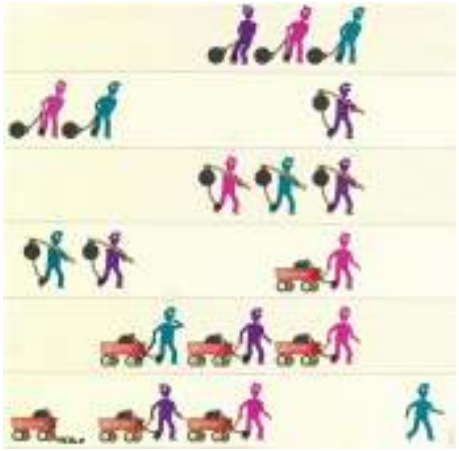
INNOVATION



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Mentor Letter (essence)

- Not only a recommendation
- Mentoring plan
  - Meetings? Other mentors? Classes? Seminars?
- What is the mentor track record in mentoring?
  - How many? Where are they now?
- What type of support does the mentor have?
  - Would you be supported for new ideas, if your funding did not go through?
- After all this….then how wonderful YOU are!

Don't forget: Institutional Support-You want them; do they want you?

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Mentor Letter of Support (essentials)

- Mentor qualifications
- **Mentor's introduction of you**
- Mentoring plan
- **Institutional resources**
- Institutional commitment
- **Description of goals / future plans as a result of this award**

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Mentor Letter of Support (sub-headings) *CRT template*

- *Faculty appointment & protected research time*
- *Critical review of the applicant's background, training, research endeavors, grants, & publications*
- *Critical review of the applicant's research proposal*
- *Institutional commitment to applicant's career development as an independent clinical investigator*
- *Assurance of the applicant's sponsoring institutional commitment*
- *Structure of the mentor/investigator interaction*
- ***Summary***

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Mentor Letter of Support

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Protected Research Time

[illegible]

Critical Review of the Applicant's Background, Training, Research Endeavors, Publications

[illegible]

Critical Review of the Applicant's Research Proposal

[illegible]

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Institutional Commitment to Applicant's Career Development as an Independent Clinical Investigator

Dr. Walker's work to elucidate the mechanisms of T cell reactivation in radioimmunotherapy is a high research priority for my department and for the OHSU Knight Cancer Institute. Dr. Walker has already demonstrated the discipline and commitment to a productive academic career. Our Department and the OHSU Knight Cancer Institute are committed to ensuring that he has every opportunity to establish himself as a successful researcher in radiation oncology.

Our department has a very strong track-record of producing passionate, motivated and thoughtful clinician-scientists. If Dr. Walker's project is funded, he will be the 6th member from our Department to have been awarded this very competitive, prestigious and career-building award (prior awardees: Drs. Sam Wang, Clifton Fuller, Pat Gagnon, Kristina Young and Nima Nabavizadeh).

Assurance that the applicant's sponsoring institution will provide adequate facilities and support for performance of the proposed work

My department, Dr. Redmond's laboratory and the OHSU Knight Cancer Institute are committed to fostering Dr. Walker's academic career development. We are committed to providing adequate facilities and support for Dr. Walker to perform the proposed work. He will be provided with protected research time, without clinical responsibilities, for him to conduct his research work. He will have ample opportunities to collaborate with his fellow researchers in the Departments of Surgery, Medicine, Molecular and Microbiology. Dr. Walker will have full and unimpeded access to our department's biostatistician, Dr. Yiyi Chen, for statistical support.

Structure of Mentor/Investigator Interaction

I have had the pleasure of serving as Dr. Walker's supervisor and research mentor since he began training in radiation oncology in 2014. He came to my attention as a rotating medical student. After interviewing Dr. Walker for a residency position, we moved to quickly make a long-term professional commitment to him, since he clearly was one of the strongest resident applicants we had seen. I will continue to serve as Dr. Walker's co-mentor for this research project alongside with Dr. Redmond. In the past, I have also served in this capacity for several other residents, PhD graduate students, and other students. I will be meeting with Dr. Walker on a weekly basis during the course of this research project. I will also solicit input from other nationally recognized experts to provide additional guidance for Dr. Walker.

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Summary

Given his background and prior experience, Dr. Walker would benefit significantly from the support of this grant. It will be critical for him to obtain continued support to enable him to explore the role of radiotherapy in reversal of T cell anergy. Funds from this research grant would enable Dr. Walker to obtain preliminary data needed for him to apply for an NIH award as he transitions into a faculty position following residency. Dr. Walker's diverse training and outstanding research accomplishments to date provide clear justification for this grant. He exemplifies the ideal criteria for this award and harbors the intellectual horsepower as well as focused motivation to carry out his proposed research to completion. The positive impact of his presence in oncology has already been recognized in the field, and I have no doubt that he can achieve further important advances if he is given the opportunity with continued grant support. Dr. Walker is one of those individuals that represent the best and brightest of the emerging generation of academic oncology research investigators.

With best professional regards, I am,
Yours cordially,

Knight News

ASCO Young Investigator Award for an OHSU radiation medicine resident

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Mentor Letter of Support

Institutional Letter signals thematic and programmatic alignment within the institution

In summary, we believe in and fully support Dr. Nabavizadeh and his proposal. He is a worthy candidate for an ASCO Young Investigator Award and we urge you to give his application your utmost consideration.

Sincerely,

Mark A. Richardson, MD, MSc, MBA
Dean, OHSU School of Medicine

Brian J. Druker, MD
Director, OHSU Knight Cancer Institute

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Criteria for Review of Mentor

- Are the mentor's research qualifications in the proposed research appropriate?
- **Do the mentor(s) adequately address the candidate's potential and his/her strengths and areas needing improvement?**
- Is there adequate description of the quality and extent of the mentor's proposed role in providing guidance and advice to the candidate?
- **Is the mentor's description of the elements of the research career development activities, including formal course work adequate?**
- Is there evidence of the mentor's, consultant's, collaborator's previous experience in fostering the development of independent investigators?
- **Is there evidence of previous research productivity and peer-reviewed support?**
- Are there adequate plans for monitoring and evaluating the career development awardee's progress toward independence?

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Jr. Faculty Advancement Program (from OHSU)

Culture Matters| Time Management: Always Looking Forward	Setting priorities, avoiding top time wasters, maintaining momentum, finding joy
Culture Matters| Establishing Workplace Culture	Growing Cultures: your role in establishing laboratory rules and norms that match your management style
Career Development| Promotion & Tenure	Learn the skills, experiences, and achievements you need to advance your career without thinking about P&T
Career Development |Science Writing: Grant & Proposal Writing	Securing Funding: a strategic grant writing workshop External Guest Speaker: NIH program officers
Career Development | Intellectual Property	Tech transfer agreements, material transfers, and industry engagements
The Business of Science| Lab Economics	Lab size, budgeting, supply chain management and fiscal oversight
The Business of Science| People Management	Attracting, recruiting, and training the right mix of talent for your lab
Leadership Development | Conflict Resolution, Part I	Confront, Concede, Compromise: identifying your conflict resolution style and understanding how it impacts others External Participants: professional conflict resolution mediators
Leadership Development | Conflict Resolution, Part II	Conflict resolution simulations Professional actors
Leadership Development | Public Speaking Workshop	Elevator speeches External guest speaker
Leadership Development | Team Science and Collaboration	Team Science: when to participate, how to decide, managing teams, and publication strategies
Campus Opportunities	OCTRI design studio mock study section opportunity; educator's collaborative grand rounds: peer to peer mentoring; educators' collaborative presents: giving a ted-style talk; mentoring to increase diversity in science

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The Mentorship Letter Can Articulate How The Intramural CTSA-like (i.e. OHSU's OCTRI) Resources Will Be Leveraged

BIF 526 Medical Informatics. 3 semester (3 credits) - Elective
Course Director: William Hersh, MD
Format: On-line lectures and threaded on-line discussions
Medical informatics is described as "the rapidly developing scientific field that deals with the storage, retrieval, and optimal use of biomedical information, data, and knowledge for problem solving and decision making." An understanding of medical informatics is crucial to clinical researchers. The widespread adoption of electronic medical records and the emerging standards on which they are based will influence how researchers acquire and use patient data; the revolution in bioinformatics may fundamentally alter how we view and research disease; and growing concerns over confidentiality of health information, most notably HIPAA regulations, determine how patient information is stored and used. Course topics include fundamentals of medical computing, electronic medical records, data interchange and terminology standards, information retrieval from databases, security and confidentiality, and bioinformatics. The course consists of on-line lectures with assignments that include hands-on use of electronic medical records, decision support applications, and information retrieval systems; reading assignments; and threaded on-line discussions.
Offered: Summer term
Cost: Subject to tuition

Bioinformatics and Computational Biology I: Algorithms - BMI 218/818
Instructor: Christian Zhang, Ph.D
Credits: 4.0
Content: The course will be a problem driven examination of the algorithmic issues in computational biology. The course will provide students with the computational fundamentals underlying the techniques covered. Students will be expected to learn basic algorithm principles, basic mathematical and statistical proofs, and molecular biology. The emphasis is on algorithm development and application to biological problems, particularly those from functional genomics studies. Topics will include: Mapping (Genetic linkage maps, physical maps), Sequencing (Whole genome sequencing, shotgun approaches and ESTs), Sequence analysis (multiple sequence alignment, fragment assembly, EST assembly, genome annotation, algorithmic side of gene finding and BLAST). Students will be evaluated on written assignments and a programming project.
Note: 4 credits (includes 1 credit Lab
Prerequisite: None
Offering: On Campus: Fall
Syllabus

Bioinformatics and Computational Biology II: Statistical Methods - BMI 231/831
Instructor: TBA
Credits: 4.0
Content: This course will be a problem driven examination of the algorithmic issues in computational biology. The course will provide students with the statistical fundamentals underlying the techniques covered. Topics will include applications involving Markov Models, Hidden Markov Models, Expectation Maximization (EM) algorithm, Bayesian Networks, Monte Carlo Markov Chain (MCMC), Gibbs Sampling, Clustering, Gaussian Mixture Models, Dirichlet Mixtures, Multivariate Analysis, Principal Component Analysis, Singular Value Decomposition, Support Vector Machines, Kernel Methods, Neural Networks, Bayesian Networks, Graphical Models, Inference in Graphical Models, Sum-Product Algorithm, Parameter Learning in Graphical Models, Variational Methods. Students will be evaluated on written assignments and a programming project.
Note: 4 credits (includes 1 credit Lab
Prerequisite: Min BMI students require instructor's permission
Offering: On Campus: Winter
Syllabus

Bioinformatics Programming and Scripting - BMI 505/816
Instructor: Michael Mooney, Ph.D
Credits: 3.0
Content: The purpose of this course is to equip research scientists with computational skills necessary to create and automate tools to analyze biological data. The course is divided into four sub topics: python programming, scripting in unix, biopython library, bioinformatics workflows. Python will be used most to solve simple to sophisticated programming problems and to review general computational language paradigms such as performs, data types, file I/O, iterables, functions, and objects. There will also be an emphasis on writing unix operating system shell scripts to automate repetitive tasks and connect disparate bioinformatics tools using files and pipes. In addition, students will learn to access public repositories to perform basic bioinformatics tasks such as annotating gene products, sequence searching, and functional queries. This course is designed to be a first year requirement for students in the Bioinformatics and Computational Biology graduate program in Biomedical Informatics. Open

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Design Studio (equivalent)

OCTRI Design Studio

Are you planning to submit a career development award like a K award or VA CDA in the next 6 months?

Are you preparing an F30 in the next 6 months?

Are you submitting your first K grant soon?

If you or a member of your research group or department is planning to submit one of these proposals, consider taking advantage of an OCTRI Design Studio.

Design Studios are set up to maximize the success of OHSU's early-career investigators by giving them feedback as they prepare grant proposals. OCTRI invites members of the senior OHSU research community plus interested partners to listen to a short presentation, ask questions, and provide feedback. Mentors and additional faculty in the field are also invited.

Each Design Studio includes 3-4 presenters. Presenters are encouraged to schedule a Design Studio at least one month prior to the grant submission deadline, and OCTRI recommends presenting 3-4 months before the proposal is due. Scholars who are requesting OCTRI research services are required to present at a Design Studio.

Ideal times to present at Design Studio are:

At the time of preparing a career development award

At the time of implementing a funded career development award research project

At the time of development of an application for any subsequent R award

Contact Dr. Cindy Marvin or Melissa Madd if you are interested in presenting your research proposal at an OCTRI Design Studio Upcoming Dates:

Tuesday, May 8, 12:00 to 2:00 p.m., Location HRC 14D01

Tuesday, June 12, 12:00 to 2:00 p.m., Location HRC 14D03

Tuesday, July 10, 12:00 to 2:00 p.m., Location HRC 14D03

Tuesday, August 14, 12:00 to 2:00 p.m., Location HRC 14D03

The Design Studio is typically scheduled on the second Tuesday of each month, noon to 2 pm.

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PLOS COMPUTATIONAL BIOLOGY

Ten simple rules for writing a career development award proposal

Rule 8: Design a career development plan to equip you for independence

Unlike most lab grants, career development awards include a training component. Use your career development documents to chart a path to your future success by addressing the following questions, sequentially narrowing down from big picture to specifics:

1. What are your career goals?
2. What skills do you need to achieve your career goals?
3. What activities will you engage in to attain those skills (include course numbers, meeting titles, and the names of any principal investigators [PIs] involved)?

Be thorough and rigorous: include a timeline to achieve your goals, establish a plan to monitor your progress, and obtain letters of support from additional PIs as necessary (see Rule 7).

Critically, you must articulate why additional training is necessary. If you struggle to articulate the need for additional training, you may already be equipped for your future career and may not need additional training.

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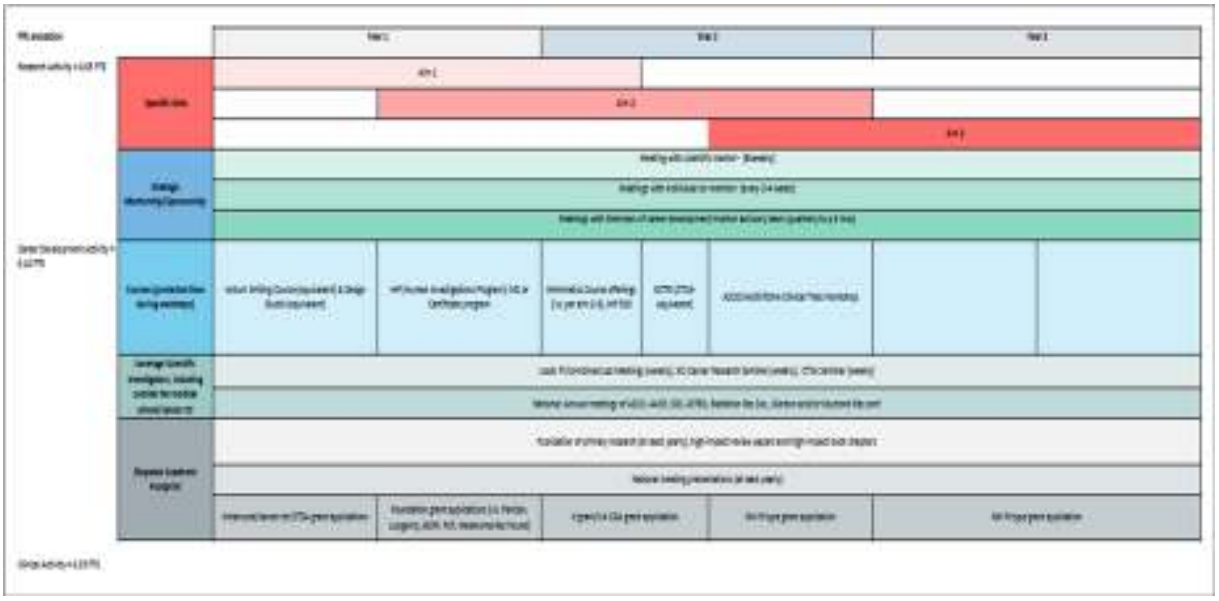

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Table 1. Career Development Award Timeline

TOPIC	YEAR 1 (2020)	YEAR 2 (2020)	YEAR 3 (2021)	YEAR 4 (2022)	YEAR 5 (2023)
Specific Aims	AIM 1	AIM 1 / AIM 2	AIM 2	AIM 2	
Technical Training	• VA clinical data science (cleaning of VIRT data)	• VA clinical data science (validation of VIRT data)	• VA clinical data science (secondary	• VA clinical data science (adult)	• VA-based epidemiology (geriatric)
				• Follow-up unexpected results / Data collection for Mock Review	
Formal Coursework	• Clinical Informatics Board Review Course	• Inferring Causal Effects from Observational Data	• Intro. to Statistical Methods for Gene	• VA Health Informatics Certification Program	
	• Applied Biostatistics I (OCTRI HP539, 1 hour)	• Applied Biostatistics II (OCTRI HP539, 1 hour)		• Leadership Skills in Team Science (OCTRI	• Project Management OCTRI (HP521, 2wks)
Scientific Development	• HSR&D / VRaC Cyberseminars (2009-2020)		• HSR&D / VRaC Cyberseminars (2021)	• HSR&D / VRaC Cyberseminars (2022)	• HSR&D / VRaC Cyberseminars (2023)
	• National/international meetings of: ASTRO (annual), AVAHO (annual), RSC meetings (Years 2, 3, and 5)				
	• Portland VA Clinical Data Science Research Group works-in-progress (weekly)				
	• Portland VA Center to Improve Veteran Involvement in Care research seminars (bi-weekly, as topically relevant)				
	• OHSU Dept. of Medical Informatics & Clinical Epidemiology Informatics Conference (weekly, as topically relevant)				
	• OHSU Depts. of Molecular & Medical Genetics Grand rounds (monthly) + seminars (weekly, as topically relevant)				
Professional Development	• OHSU Junior Faculty Advancement Workshops		• OHSU Funding Focus lunches (monthly)	• Advanced Grant Writing course	• OCTRI Design Studio
	• OCTRI Research Scholars Program (e.g. Mentoring Skills workshop [monthly], Career Perspectives seminar [monthly])				
	• 1:1 mentor meetings (Drs. Cohen [weekly], Sidora [biweekly])				
	• Joint mentor meetings (Drs. Cohen, Sidora; quarterly)				
	• 1:1 external advisor meetings (Drs. Thomas [monthly], Spellman [monthly], Moghanaki [quarterly], Predanz [quarterly])				
	• Full committee meetings (Drs. Cohen, Sidora, Thomas, Spellman, Moghanaki, Predanz, including VA ACCS; annual)				
Clinical Activities	• OHSU Dept. Radiation Medicine Quality Assurance (peer review chart rounds (weekly)				
	• OHSU multi-disciplinary cutaneous oncology clinic (bi-weekly)				
	• VA multi-disciplinary thoracic oncology clinic (monthly)				
	• Resident teaching (didactics, clinical supervision, etc.) (ad hoc)				
Benchmarks of Progress towards Independence		• Clinical Informatics Board certification		• Prepare VA Mock Review	• Submit VA Mock Review
	• 1-2 collaborative publications	• 1 primary publication (Aim 1)	• 1 primary publication (Aim 2)	• 1 primary publication (Aim 3)	• 1-2 collaborative publications
	• 1-2 research talks (OHSU +/- VA)	• 1-2 research talks (local or regional)	• 1-2 research talks (regional or national)	• 1-2 research talks (regional or national)	• 1-2 research talks (regional, national or
	• 1 abstract @ ASTRO or AVAHO meeting	• 1 abstract @ ASTRO or AVAHO meeting	• 1 abstract @ ASTRO or AVAHO meeting	• 1 abstract @ ASTRO or AVAHO meeting	• 1 abstract @ RSC meeting

ABBREVIATION LEGEND

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Other Letters of Support

Advanced planning, communication and coordination are key

- **Provide details of submission deadlines and how letter should be returned to you**
- **Provide details of required content of letter as well as other requirements (e.g., biosketch)**
- **Provide draft letter, if appropriate**
- **Proof read letters carefully. Do not wait until the last minute!**
- **Thank mentors/colleagues who wrote letters**
- **Provide a status update to mentors/colleagues who wrote letters**

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Some Questions for Discussion

- Who are my mentors/mentees?
  - Parable of Good Samaritan/ "Who is my neighbor?"
- **Pointed Question 1: When was the last time you cared about someone else's career development?**
- Pointed Question 2: Do you care enough about your own career to hunt for mentors/mentees?

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[https://cancer.dartmouth.edu/radiation-oncology/medical-education#continuing-ed]

[http://www.ohsu.edu/xd/education/schools/school-of-medicine/departments/clinical-departments/radiation-medicine/about/training-mentoring.cfm]

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Appendix Slides

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Acknowledgments

Dartmouth Health, Radiation Oncology
Carrie Hertel, BA
Bassem Zaki MD
Anna Fariss MD
Lesley Jarvis, MD PhD
Nirvav Kapadia MD, MSc
Philip Schaner MD, PhD
Alan Hartford MD, PhD
Shauna McVorran MD
Kelli Pointer MD, PhD
Gregory Russo MD
Matthew Vernon MD
Benjamin Williams PhD
Colleen Fox PhD
Rongxiao Zhang PhD
David Gladstone ScD
Erli Chen MS

Clifton (Dave) Fuller MD, PhD
Professor, Department of Radiation Oncology, MD Anderson Cancer Center, The University of Texas

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Thank you!
Questions?

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