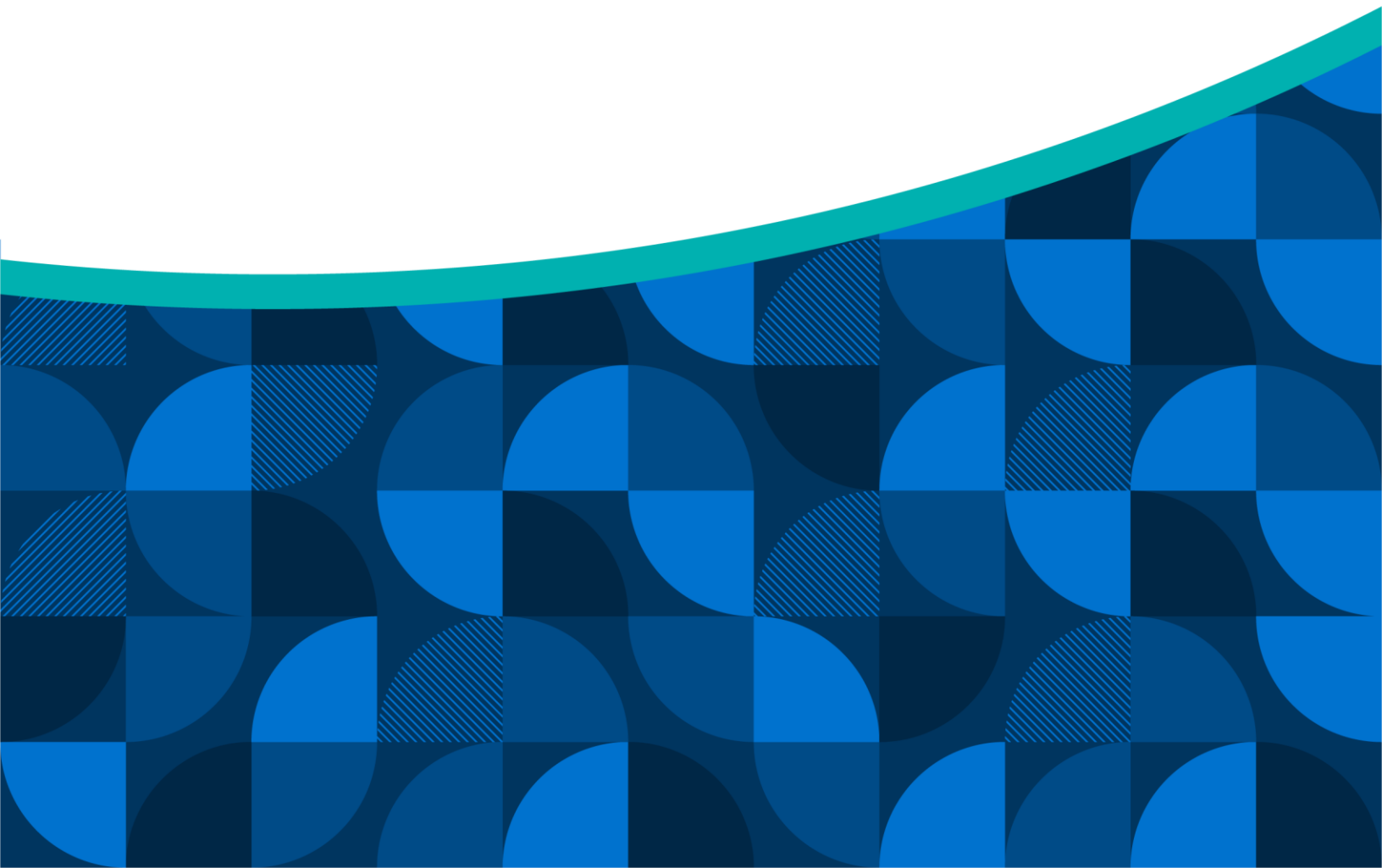




RESEARCH BRIEF

Ten Components of Successful Research Mentoring Programs





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Executive Summary

Audience

This brief is intended for use by chief research officers, provosts, faculty affairs professionals, research administrators, and research development professionals. The brief can be used to create a scalable mentorship program in the office of research, update and improve an existing mentorship program, and/or create mentorship opportunities specifically focused on research. Several of the program components may also be applied to create other types of employee mentoring programs. We've denoted these with an asterisk below.

Research Mentorship a Historically Ad Hoc Exercise

Mentorship has long been a critical element of faculty development. Historically, new faculty reached out to senior faculty within their department to get support on career growth. These relationships gave new faculty a venue to receive guidance on research, and occasionally teaching, tenure and promotion, and navigating the department. While some departments and research offices offer training tools or additional support, the ad hoc nature of these relationships means they are largely unstructured. As a result, early-career faculty have varying experiences and support networks. Finding a good mentor can be especially difficult for underrepresented populations, whether related to gender in a specific field, racial minorities, or other groups.

Now, chief research officers (CROs) are increasingly aware that faculty do not always receive the mentorship and support they need from their department. This is particularly worrisome, as competition for funding has increased (as has the complexity of the process to secure grant funding). This impacts new faculty career development and ultimately affects faculty members' ability to develop research opportunities.

Current Gaps with Faculty Mentorship

- ✘ Faculty left to own devices to select mentor, structure relationship
- ✘ Inconsistent research funding means increased competition for dollars
- ✘ Process to secure grants increasingly complex
- ✘ Underrepresented minorities disproportionately affected by lack of infrastructure

Target Infrastructure to Support Mentorship—and Ultimately, Career Development

While few research offices have the resources to create mentorship pairings for all active researchers, there are a relatively small number of tactics that have an outsized impact on faculty mentorship opportunities. These tactics are ones that all institutions should consider. In fact, some institutions may already have existing training resources (potentially through academic affairs or a faculty development office) that research offices can utilize.

This resource outlines the ten components research and academic affairs leaders consider when building out or updating a mentorship program. The components are outlined below and described in greater detail throughout the resource.

Ten Components of Successful Research Mentoring Programs




- 1. Target specific groups of faculty.**
Focus on specific groups of faculty that might struggle to find a good mentor within their department.
- 2. Create a time-limited program.***
A defined timeframe ensures a structured environment and clarifies the level of commitment.

Executive Summary (cont.)

- 3. Require mentees to apply.***
An application requirement ensures mentee buy-in and commitment to the program.
- 4. Allow choice in mentor pairing.**
Allow mentees to select their own mentor, but also be prepared to assist mentees in finding a well-matched mentor.
- 5. Create a matrixed support network.***
Develop a matrix of mentors to connect mentees with a support network and access to a variety of perspectives and experiences.
- 6. Communicate expectations upfront.***
Set clear expectations at the outset and hold mentees and mentors accountable.
- 7. Provide support beyond mentoring.**
Consider providing participants with seed funding – or at least extra research services – to encourage them to find and apply for external funding.
- 8. Create planning tools for mentees.***
Provide resources such as worksheets and planning tools that mentee-mentor pairs can complete and discuss.
- 9. Track mentee progress and activity.***
Create mechanisms to track progress and activity to ensure a productive and worthwhile experience for mentees and mentors.
- 10. Regularly evaluate program.***
Collect participant feedback and implement changes to the program.

Introduction to Profiled Mentorship Programs

While a number of institutions have begun to focus more on research faculty development, this brief will largely focus on mentorship programs at three institutions: Indiana University–Purdue University Indianapolis, University of Michigan Medical School, and University of Utah School of Medicine. The table below provides a brief overview of each program.

Institution	Program	Description
 Indiana University– Purdue University Indianapolis (IUPUI)	Enhanced Mentoring Program with Opportunities for Ways to Excel in Research (EMPOWER)	EMPOWER supports underrepresented and/or historically excluded populations in research. The program combines mentoring, internal funding, and research support for faculty members who have not successfully secured external funding. The program is one year long. The program is co-sponsored by the IUPUI Office for Women.
 University of Michigan Medical School	Mentored Research Academy: R01 Boot Camp	The Mentored Research Academy: R01 Boot Camp combines mentoring, peer connections, and grantwriting and proposal development support to increase the success rates of faculty applying for their first R01 Research Grant. The program is 10 months long.
 University of Utah School of Medicine	Vice President’s Clinical & Translational (VPCAT) Research Scholars Program	The VPCAT Program combines mentorship, leadership training, and grant support with the ultimate goal of keeping participants engaged in clinical and translational research. The program is two years long.

Source: EAB interviews and analysis; IUPUI’s [Enhanced Mentoring Program with Opportunities for Ways to Excel in Research \(EMPOWER\)](#); University of Michigan Medical School’s [Mentored Research Academy: R01 Boot Camp](#); University of Utah Health Sciences’ [Vice President’s Clinical & Translational \(VPCAT\) Research Scholars Program](#).



Ten Components for Creating a Successful Research Mentoring Program



Component 1: Target Specific Groups of Faculty

Focus on Groups That May Struggle to Find a Mentor

The first component is to target specific groups of faculty. While most faculty have a mentor within their department, these partnerships often focus on the tenure and promotion process and navigating the department, leaving some faculty with limited guidance related to research. Certain groups of faculty may not find departmental support sufficient and can benefit from a more targeted approach. For institutions that are increasing research activity, early career faculty may need to look beyond their department to find a mentor to support them in advancing their research.

Because the research office often does not have the resources to support a mentorship program for all faculty members, it should focus its efforts on specific groups of faculty who may need extra support. This might include faculty in specific disciplines, underrepresented populations, or faculty at certain stages in their career.

The graphic below details the populations that profiled institutions support through their research mentorship programs.

Mentorship Program Eligibility Criteria



IUPUI's EMPOWER Program

- Supports underrepresented, or historically excluded, populations
- Includes faculty members who are underrepresented in their field or whose population was historically denied admission to higher education
- Prioritizes faculty who have not submitted an application for, or secured, external funding



University of Utah School of Medicine's VPCAT Program

- Targets junior faculty in the health sciences who are committed to careers in clinical or translational research



University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp

- Supports faculty who have not been a PI¹ on an NIH R01 grant proposal and who will be prepared to submit an R01 within one year
- Includes faculty members with primary appointments in medical fields (specific schools, colleges, and departments)

For a full version of the University of Utah School of Medicine's VPCAT Eligibility Determination Checklist, please see pages 18-19.

1) Principal Investigator.

Component 2: Create A Time-Limited Program

Program Requires Start and Stop Dates, Structured Time Commitment

The second component is to structure the mentorship program to be time-limited. This requires that research offices decide the duration upfront and define start and end dates. This gives mentors and mentees a clear understanding of the time commitment from the outset. A set program duration also gives the research office the dedicated time, and captive audience, to provide additional programming for mentors and mentees.

Research mentorship programs should last for one to two years. This time frame allows mentorship pairs to establish a relationship while not being overly burdensome on their time. It also enables mentees to participate in additional programming activities dedicated to growing their research skills in areas like finding funding, proposal development, and grantwriting skills. (Note that the program structure and research office support should still encourage mentors and mentees to maintain a relationship after the program ends.)

The graphic below details the program timeline for University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp. This program focuses on submitting a specific proposal (R01), so the mentoring and training (including a grantwriting workshop) is tailored to that specific grant. In addition to workshops and events, mentees meet monthly with their mentors and peer group to work on their grant proposal.

University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp Program Timeline



Source: EAB interviews and analysis; University of Michigan Medical School's [R01 Boot Camp Program Activities](#).

Component 3: Require Mentees to Apply

Application Process Ensures Mentee Buy-in and Commitment

The third component is to require faculty interested in becoming mentees to apply to the program. The application process should be comprehensive enough that the research office can gauge legitimate interest while also filtering for applicants who do not currently have capacity to participate or who are not serious about using the program to help grow their research.

While different programs will require different pieces of an application, a few common components can help research offices evaluate prospective mentees:

- Cover letter
- CV/resume or biosketch
- Letter of support/recommendation
- Research/project plan

A cover letter or statement of interest provides mentees the opportunity to communicate why they are interested in the program, explain gaps in current mentorship opportunities, or detail how they would benefit from participation. A CV, resume, or biosketch enables the research office to learn more about the faculty member as a scholar and, if needed, help identify a mentor who could be a good match for the mentee. A letter of support or recommendation from someone in the mentee's home department, like a department chair, serves to not only make their department aware of their participation but also to show their support in helping the faculty member succeed. Requiring a research/project plan requires applicants to enter the program with something tangible that they can build on with the support of their mentor and the research office.

In addition to many of the components listed above, University of Utah School of Medicine's VPCAT application includes sections on career plan and long-term goals, as well as a mentoring plan that describes who the mentee will work with and how they will use that person's time and expertise.

Research offices will need to determine their own program capacity when reviewing applications, considering factors such as budget and availability of mentors. Initially, research offices may choose to accept all applications; however, as program popularity and reputation grow, the office may need to create a more rigorous application review process.

For a full version of University of Utah School of Medicine's VPCAT application instructions, please see pages 20-22.

Component 4: Allow Choice in Mentor Pairing

Offices Should Be Prepared to Occasionally Assist in Mentor Selection

The fourth component is to allow mentees choice in selecting their mentor. The mentor has a major impact on each mentee’s experience, especially when the program uses a traditional one-on-one mentoring model. While there are many factors contributing to the mentorship success, the foundation of this experience is a good mentor-mentee match.

Research offices have three options for how to assign mentors. Mentorship programs can match all mentee/mentor pairs, allow for some mentees to select a mentor while helping pair others, or ask all mentees to select their mentors. The graphic below details the pros and cons of each approach.

All Mentees Assigned Mentors	Some Mentees Pick, Some Mentees Assigned	Require Mentees to Pick Mentors
<p>Pros</p> <ul style="list-style-type: none"> • Research office can ensure all mentors are trained and committed to helping their mentee succeed <p>Cons</p> <ul style="list-style-type: none"> • Increases workload for research office (identifying, selecting, and training mentors) • Risks increasing possibility of mentee dissatisfaction with program and research office based on a poor match 	<p>Pros</p> <ul style="list-style-type: none"> • Mentees can continue working with a mentor with whom they have already connected • Mentees who have struggled to find a mentor on their own can be paired with someone who is likely a good match <p>Cons</p> <ul style="list-style-type: none"> • Difficult to ensure all mentee/mentor pairings have the same expectations 	<p>Pros</p> <ul style="list-style-type: none"> • Mentees have total control over the pairing, putting less burden on the research office to find the perfect match <p>Cons</p> <ul style="list-style-type: none"> • Research office can’t ensure that mentors are well suited to help mentee succeed • May result in very different experiences if mentors have different levels of commitment

All three profiled programs have adopted the middle mixed model. Applicants to IUPUI’s EMPOWER program can either apply with a mentor already selected or they can apply to be matched with a mentor by the research office. Both University of Michigan Medical School’s Mentored Research Academy: R01 Boot Camp and University of Utah School of Medicine’s VPCAT Program incorporate a network of mentors. In both cases, mentees are assigned one faculty mentor/coach and select another faculty mentor who is an expert in their field. This mixed model provides mentees with an experienced mentor as well as a mentor with subject matter expertise.



60%

Percent of IUPUI’s EMPOWER mentees who applied to the program with a mentor selected

Source: EAB interviews and analysis; IUPUI’s [Enhanced Mentoring Program with Opportunities for Ways to Excel in Research \(EMPOWER\)](#); University of Michigan Medical School’s [Mentored Research Academy: R01 Boot Camp](#); University of Utah School of Medicine’s [Vice President’s Clinical & Translational \(VPCAT\) Research Scholars Program](#).

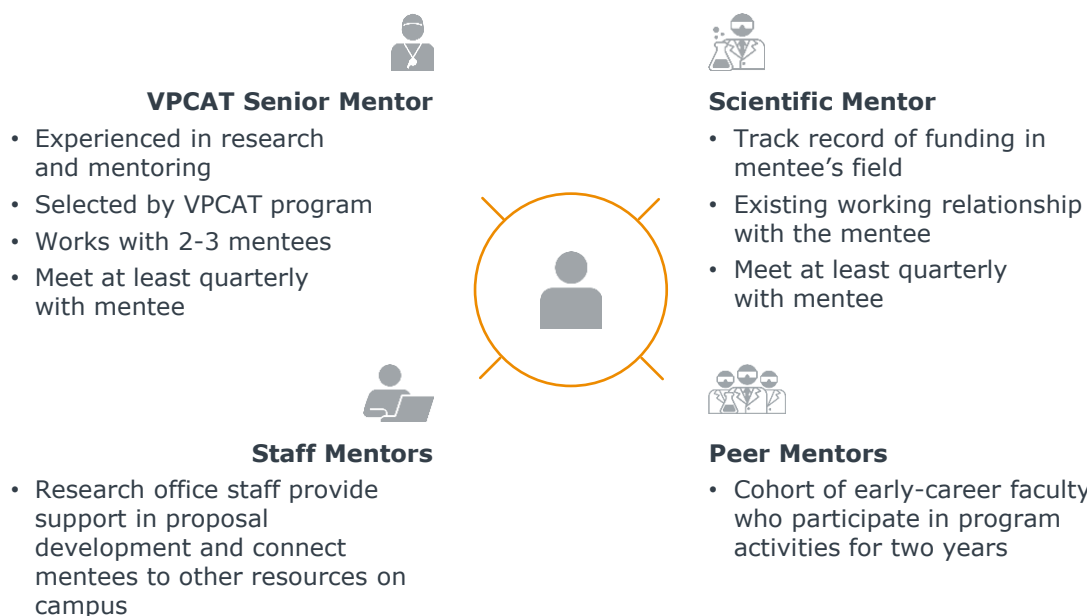
Component 5: Create a Matrixed Support Network

Faculty Benefit from Broad Support Network, Access to Many Perspectives

The fifth component is to create a matrixed support network for participants. While a one-to-one mentorship can be incredibly beneficial, it also puts a lot of pressure on one individual to provide all the support that a mentee needs. To address this, a number of institutions have adopted a system of matrixed support for mentees.

University of Utah School of Medicine's VPCAT program utilizes a mentoring matrix model that provides mentees with a network of mentors who can support them in different areas. University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp also connects program participants with a variety of mentors and subject matter experts. The graphics below detail the different roles that mentors play for participants.

University of Utah School of Medicine's VPCAT Program Matrix Mentoring Model



University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp Support Network



Peer Cohort and Faculty Coach

Participants are placed in groups of 3-4 with one faculty coach



Internal Subject Matter Expert (ISME)

Participants select an expert faculty member in their field to advise them during the program



External Subject Matter Expert (ESME)

ISMEs help participants identify an external expert (ESME) to review a near-final copy of the proposal



Source: EAB interviews and analysis; University of Utah School of Medicine's [Vice President's Clinical & Translational Scholars Program](#); "An inclusive mentorship model for a better science"; [A Matrix Mentoring Model That Effectively Supports Clinical and Translational Scientists and Increases Inclusion in Biomedical Research: Lessons From the University of Utah](#).

Component 6: Communicate Expectations Upfront

Goal Is to Hold Mentors and Mentees Accountable

The sixth component is to communicate program expectations upfront to both mentors and mentees. For mentees, expectations should be easy to find, either within the application itself or on the program’s website. In addition to including expectations in the application, research office staff and mentors should also discuss these expectations at the start of the program. Understanding these expectations allows for more productive conversations about progress throughout the program.

Setting expectations for mentors is equally important. Research offices must create and document expectations not only to provide guidance for mentors but also to hold them accountable. Research office staff should intervene when the mentor is clearly not participating at the level they agreed to.

Create Accountability with Mentees



State Expectations for Mentees in the Application

IUPUI’s EMPOWER Program application sets expectations for mentees including event attendance, submitting progress reports, and submitting an external proposal within 12 months.

University of Utah School of Medicine’s VPCAT Program eligibility determination checklist outlines specific program requirements around event attendance, submission, and peer reviewing.



Create Checkpoints and Incentives to Monitor and Promote Activity

IUPUI’s EMPOWER Program requires mentees to submit mid- and end-of-program reports. Mentees receive additional internal funding only once they’ve demonstrated that they are making progress on their research.

Create Accountability with Mentors



Define Expectations for Mentors in Writing

University of Michigan Medical School’s Mentored Research Academy: R01 Bootcamp ISMEs¹ are required to sign a contract confirming their understanding of program expectations. This contract includes expectations for time commitment, advising duties, and proposal support. ISMEs receive compensation at the end of the program, following the submission of their mentees R01.

University of Utah School of Medicine’s VPCAT Program has a senior scientific mentor requirements document that outlines mentor responsibilities including meeting attendance, accessibility expectations, and oversight of mid- and end-of-program reports.

For a full version of IUPUI’s EMPOWER Application Requirements, see page 23. For University of Utah School of Medicine’s VPCAT Eligibility Determination Criteria, see pages 18-19. For Utah’s VPCAT Senior Mentor Requirements, see page 24. For University of Michigan Medical School’s Internal Subject Matter Expert Contract, see pages 25-27.

1) Internal Subject Matter Expert

Component 7: Provide Support Beyond Mentoring

Some Programs Offer Seed Money to Advance Research Efforts

The seventh component is to consider providing support beyond mentoring. All profiled institutions center their programs around mentorship, but include additional support activities to stimulate mentee research. This additional support can take a number of forms. The most common support is to provide additional opportunities to work directly with research office professionals to find funding and enhance proposals. For example, the University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp provides mentees with workshops on grantwriting, budgets, and biostats. It also hosts additional events around data management and communicating science. University of Utah School of Medicine's VPCAT Program provides similar research support, including a series of monthly research-focused educational sessions. Additionally, it provides financial support for participants to attend leadership seminars hosted by the University of Utah.

A more resource-intensive (but potentially more impactful) option is to provide additional research funding. This funding can support mentees in seeking and securing external funding sources. Participants in IUPUI's EMPOWER program are eligible to receive up to \$10,000 in funding. They receive the first \$5,000 when they are accepted into the program. Participants receive the next \$5,000 once they have demonstrated progress on developing an external proposal.



Supplemental Support in University of Utah School of Medicine's VPCAT Program



Leadership Development

Participants eligible for financial support to attend University of Utah leadership seminars



Proposal Support

Research office offers grant writing and grant management seminars to program participants



Research Skills

VPCAT program curriculum includes monthly educational sessions for participants



IUPUI's EMPOWER Mentees Receive \$10K in Internal Funding to Grow Their Research

- Participants receive \$5,000 at the beginning of the program
- The remaining \$5,000 is distributed later in the program, once the mentee has demonstrated progress on an external proposal
- Mentees may only use the funds for one month of summer salary
- Mentees can not apply for other internal funding from the office of research during the program

Source: EAB interviews and analysis; University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp [Activities & Resources](#); IUPUI's [Enhanced Mentoring Program with Opportunities for Ways to Excel in Research \(EMPOWER\)](#); University of Utah School of Medicine's VPCAT [Frequently Asked Questions \(FAQ\)](#).

Component 8: Create Planning Tools for Mentees

Provide Worksheets and Tools for Pairs to Complete Together

The eighth component is to create planning tools for mentees to use during conversations with their mentors. Research offices can create standardized worksheets, project planning tools, and templates to help mentor/mentee pairs form a longer-term research plan. These handouts create more structure for mentorship conversations and ultimately help ensure that mentees have a positive experience in the program.

Historically, the University of Oklahoma has supported faculty in developing their research careers through an Individualized Research Plan (iRep) program. This program combined small group meetings with tailored support from research development professionals. The graphic below outlines the key elements of Oklahoma's iRep program.

University of Oklahoma's iRep Program Resources



iPlan



Lay out ideas, goals, objectives, and other aspirations for the next 2-3 years, tenure, and 10 years

Time Management Schedule



Plan weekly work and personal schedules

Project Timeline Schedule



Create a plan with project deadlines and details

Funding Calendar



Organize and track potential funding opportunities

A Roadmap for Research



University of Michigan Medical School's Mentored Research Academy: R01 Boot Camp participants create a research roadmap and discuss it with their faculty coach and peer group. To create the roadmap, mentees answer a series of questions about their larger career goals and how they plan to achieve them.

For a full of the University of Oklahoma's iRep program resources, please see pages 29-31. For the University of Michigan Medical School's Scholarly Roadmap Questions, please see page 32.

Component 9: Track Mentee Progress and Activity

Create Mechanisms to Ensure A Worthwhile Experience

The next component is to track mentee activity and progress. While this offers a number of benefits, the primary one is to ensure that mentees receive sufficient attention and support from their mentors. Research offices have varying levels of resources to devote to training and compensating mentors, so it is critical to monitor the mentee experience through progress reports. This enables research office staff to intervene early if they notice a pairing is not working out well.

A number of institutions currently use progress reports to track the mentor/mentee relationship. At the University of Michigan Medical School, the Mentored Research Academy: R01 Boot Camp manager compiles mid-point and end-point progress reports for each participant to share with their department chair.

IUPUI monitors both progress and activity so staff can quickly intervene if mentees are having a sub-optimal experience. Mentees in IUPUI's EMPOWER program are required to submit mid-year and year-end progress reports to the research office. They also log their activities with their mentor in a file shared with research office staff. This allows staff to ensure mentors are spending adequate time with their mentees.

IUPUI's EMPOWER Tracks Progress and Activity Throughout the Program



Mentees Track Progress

Mentees are required to submit mid-year and program-end reports



Staff Monitor Activity

Mentees log activities with mentor so staff can monitor activity and intervene if necessary

Component 10: Regularly Evaluate Program

Leverage Feedback to Implement Changes

The final component of a successful mentorship program is to regularly evaluate the program. Since the primary goal of research mentorship is to stimulate faculty research activity, research offices must have a mechanism in place to evaluate the success of current offerings. Program evaluations should take place annually, with a more holistic evaluation occurring every three to five years.

Annual Cohort Evaluation

- *Target audience:* Cohort of mentors and mentees, program staff
- *Timing:* conducted at the end of each program cycle
- *Purpose:*
 - Gather feedback on program format, programming, resources
 - Solicit input on how to improve the program to better support faculty



Periodic Program Evaluation

- *Target audience:* All cohorts of mentors and mentees, program staff, research office leadership
- *Timing:* conducted on a three-to-five year cycle
- *Purpose:*
 - Evaluate long-term program impact on faculty research activity and funding
 - Ensure program goals still align with larger research office priorities
 - Assess impact of investment

The annual evaluation should solicit feedback from mentees, mentors, and staff. Questions should focus on logistics, resource allocation, and programmatic offerings (as well as provide space for free response). Beyond program structure, the evaluation should also assess the success of mentor/mentee pairings.

The research office should conduct a full program evaluation every three to five years that focuses on longer-term impacts. It should answer questions such as “Have mentees grown their external funding since completing the program?” and “Have mentees maintained a relationship with their mentor?”

Ultimately, feedback from both evaluations will allow research offices to ensure that participants have the support they need and that the program has the maximum impact.



Appendix

Resources Include:

- University of Utah School of Medicine VPCAT Eligibility Determination Criteria (page 18)
- University of Utah School of Medicine VPCAT Application Instructions for Scholars (page 20)
- IUPUI EMPOWER Application Requirements (page 23)
- University of Utah School of Medicine VPCAT Senior Mentor Responsibilities (page 24)
- University of Michigan Medical School Internal Subject Matter Expert Contract (page 25)
- University of Oklahoma iRep Program Resources (page 28)
- University of Michigan Medical School Scholarly Roadmap Questions (page 31)

University of Utah School of Medicine VPCAT Eligibility Determination Criteria



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Phone: (801) 585-6283

Vice President's Clinical and Translational (VPCAT) Research Scholars Program

-- 2023-2024 Applicant Eligibility Criteria and Program Requirements --

The VPCAT Research Scholars Program is a competitive, 2-year program. To determine your eligibility, we recommend that you review and understand the outlined eligibility criteria and program requirements below. If you answer **NO** to any of the questions below, you may not be eligible to apply.

Please address any specific questions to the VPCAT Research Manager, [Erin Wachs](#).

Applicant Eligibility Criteria

- Yes No Are you a faculty member from **an approved** participating School, College, or Institution, which includes the Colleges of Health, Mines & Earth Sciences, Nursing, Pharmacy, Social & Behavioral Science, and Social Work; Schools of Dentistry and Medicine; and Intermountain Healthcare? **If not**, review the [Overview of Formal Participation in the VPCAT Program](#) and email questions about how your School, College, or Institution can participate to [Erin Wachs](#).
- Yes No Does your research fall within the clinical & translational science research spectrum [\[T0-T4\]](#)?
- Yes No Do you have a commitment from your Dean and/or Chair that you will be able to dedicate **a minimum of 30% FTE** (3.60 person months) to the development of your career and research program during the 2-year program period?
- Yes No Have you earned a MD, PhD, DO, PharmD, DNP, DNS, an equivalent doctoral level health science degree, or an equivalent doctoral level degree in a field that interacts with healthcare from an accredited domestic or foreign institution?
- Yes No By the program start date, will you hold a junior faculty position (typically instructor or assistant professor) at the University of Utah or an equivalent rank at a VPCAT Program affiliated health institution?
- Yes No Can you confirm that you have never been a principal investigator on an NIH R01 or R01-equivalent research award (i.e., R00, DP1, DP2, DP5, U01, R35, etc.)**; an NIH career development award (i.e., K23, K08, K76, K79, DP2, etc.); an equivalent Public Health Service or VA research grants/career awards; or a project lead of a subproject of a program (P01) or center grant (U54)?
- Yes No Do you have at least one scientific mentor with: [a](#)) aligned research expertise, extramural funding, and a mentorship track record; [b](#)) a strong commitment to guide and support your proposed career development and research program goals; and [c](#)) a commitment to assist you in achieving independence and extramural funding (e.g., K, R, and other equivalent awards)?

**As per NIH standards, current and former PIs of an R03, R21, R30, R41, R42, R43, or R44 are eligible to apply

Applicant Program Requirements

- Are you able to show evidence of performance in clinical and translational science research and a commitment to continuing a career in clinical and translational science?
- Are you able to articulate your long-term plan to successfully transition to research independence, including the level of professional effort you will require at different points in your career progression, as well as the steps to take to adjust workload?
- Do you confirm your willingness to fully participate in the [Matrix Mentoring Model](#) by actively contributing to your own self-mentorship while collaborating with your scientific, VPCAT senior, peer, and staff mentors?

University of Utah School of Medicine VPCAT Eligibility Determination Criteria (cont.)

- Can you evidence a track record of activity in clinical or translational research (i.e., research-related work in your proposed field of study, peer-reviewed publications with your named scientific mentor, and applying for and/or receiving intramural or small foundation awards)?
- Will you be able to attend the **mandatory** 1 ½-day VPCAT Orientation from Monday, December 12th to December 13th, 2022?
- Can you attend the **required** twice monthly, ½-day curricular sessions held the 2nd and 4th Wednesday from 12:30-4:30 pm at EHSEB or virtually (require a minimum of 80% attendance per year)?
- Can you attend the 1-hour VPCAT Initial Mentoring Team Meeting with your proposed scientific mentor, [VPCAT senior mentor](#), and [program personnel](#) to take place by March 2022?
- Can you commit to actively preparing for, scheduling, and attending meetings with your [VPCAT senior mentor](#) a minimum of three times over the 2-year program period?
- Are you willing and able to attend supplemental career development opportunities, including grant-writing workshops and [other applicable courses](#), in order to develop as an independent investigator?
- Are you able to confirm you will be able to attend appropriate Research-In-Progress and/or Utah Clinical and Translational Science Institute (CTSI) [K-Club](#) meetings, and present at least one of these meetings each year of the program?
- Can you confirm you will meet with your proposed scientific mentor as outlined in your application?
- Do you agree to complete and submit the initial, mid, and final [VPCAT Scholar Career Development Plans \(VS-CDP\)](#) and [S.I. Assessments: Mid Program Report and Evaluation](#); Final Program [Report and Evaluation](#); and other information as requested by the program (see [VPCAT Handbook](#))?
- Can you attest that **1)** you will submit at least one extramural grant application during the 2-year program period, **and 2)** prior to the submission, you will attend a campus-based grant writing workshop, have members of your mentoring team review the application, and take advantage of the Utah CTSI [Peer Grant Review Program](#) to ensure you are competitive?
- Can you commit to providing copies of your full, submitted grant applications and associated summary statements with your VPCAT senior mentor and program staff?
- Will you be able to submit at least 2 research manuscripts over the 2-year program period?
- Will you be able to submit at least 1 research abstract to a scientific conference each year of the program period?

University of Utah School of Medicine VPCAT Application Instructions for Scholars



Vice President's Clinical and Translational (VPCAT) Research Scholar Program

Application Instructions for Scholars

General Instructions

- **File type:** Documents must be in Adobe PDF format only
- **Font size:** 11-point, not condensed
- **Font type:** Arial or Times New Roman
- **Spacing:** single space or no more than six lines of type within a vertical inch
- **Margins:** no less than 0.5" on all sides
- **Page limit:** 5 pages for application
 - Page limit does not include: Cover Letter, References, Letters of Support, Applicant CV, and Mentor Biosketches
- **Tables, graphs, figures, etc.:** All tables, graphs, figures, diagrams, and charts must be included within the overall page limit
- Submit as one PDF document to Competition Space with all included documents in the order specified in Part 3 of this document

Part 1: Required Application Components (maximum 5 pages total not including citations)

1. Career Plan (*1 page recommended*)
 - a. Career Goals and Objectives—This section must include:
 - i. Career Statement: 2-3 sentences **in boldface** stating your proposed unique research contribution and your long-term goals for your academic career
 - ii. Career Development: The training, coursework, and research experiences you expect to undertake as a VPCAT Scholar and beyond
2. Scientific Mentoring Plan (*1 page recommended*)
 - a. Describe who you will be working with as your scientific mentor(s) including:
 - i. What their role is on your project
 - ii. Their background (degrees, professional qualifications and full titles)
 - iii. How their expertise will help move your research plan forward
 - b. Describe your mentoring plan, including:
 - i. How often you plan to meet with your mentor(s)
 - ii. How these meetings coincide with the timeline of your research
3. Research Plan (*3 pages recommended*)
 - a. Research Overview (*approximately 1 page*)
 - i. This section page should be formatted as an NIH Specific Aims page; further information regarding the NIH Specific Aims page can be found [here](#)
 - ii. Provide an overview of the research you plan to do to obtain independent extramural funding
 - iii. Include information on the knowledge gap you're addressing, the significance of the work you want to do, and the innovation of your project

University of Utah School of Medicine VPCAT Application Instructions for Scholars (cont.)



- iv. List of citations (no page limit for this—see “Required Ancillary Information”)
- b. Previous Research Efforts (*up to 1 page*)
 - i. Summarize your research efforts to date including the research you have performed in your proposed area so far
- c. Future Research Plan (*up to 1 page*)
 - i. Write a brief description of how the research you will be undertaking during your tenure in the VPCAT Program will build upon the research you have done so far
 - ii. Describe your research trajectory including:
 - 1. Grants you plan on submitting
 - 2. A timeline that includes plans for publications and future external grant submission
- d. List of Citations (no page limit and not included in 5 page *Required Application Component* limit)

Part 2: Required Ancillary Information (not included within the application page limit)

- 1. Cover letter (*maximum 2 pages*)
 - a. Address the letter to Michael Rubin, MD, PhD, Director, VPCAT Program, Office of Academic Affairs and Faculty Development, HSEB 5515
 - b. Introduce yourself, describe your prior training, current faculty responsibilities, and accomplishments, and discuss why you should be considered for this Program
- 2. Curriculum Vitae (SOM applicants: export your CV from MBM; all other Colleges/Schools: include an up-to-date CV)
- 3. Letters of Support
 - a. A signed letter of support from each of your scientific mentors describing your qualifications for the VPCAT Program and stating specifically:
 - i. That they have read and understood the VPCAT Mentor requirements for scientific mentors
 - ii. That they will be supporting your research as outlined in your research plan and meeting with you according to the outlined scientific mentoring plan
 - b. A signed letter of support from your Dean/Department Chair declaring their support for your participation in the Program and stating specifically:
 - i. That they are willing and able to allot you the minimum 30% FTE for research required by the VPCAT Program (if your percentage FTE for research is higher than 30%, have them state your research-specific FTE in their letter)
 - ii. That your College/Department is willing to grant you release time to attend Orientation (mandatory), Leadership Seminars (mandatory), and monthly curricular sessions (a portion of which are mandatory)
- 4. NIH Biographical Sketches from each mentor (each Biographical Sketch must be no longer than 5 pages)

University of Utah School of Medicine VPCAT Application Instructions for Scholars (cont.)



Part 3: Order of Submitted Document

Please submit your completed application (with all components as outlined above) in **one PDF document** to Competition Space.

Your application documents should be in this order:

1. Cover Letter
2. Up-to-Date CV (either downloaded from MBM or personal, up-to-date copy of CV)
3. All Required Application Components as outlined in Part 1
 - a. Include your list of citations as part of your Research Plan
4. Letters of Support
 - a. Include the signed letter from your Dean/Department Chair here
5. Mentors' NIH Biographical Sketch (see Competition Space for NIH Biosketch template and sample, and the NIH [website](#) for instructions)

Please direct any questions to Jenny Cochrane, Program Manager, at jenny.cochrane@hsc.utah.edu

IUPUI EMPOWER Application Requirements

Application requirements

Proposal requirements

- The mentoring program will be one calendar year in duration.
- Mentees are required to attend an initial workshop/orientation on mentoring, a mid-program meeting, an end-of-program meeting, and encouraged to attend campus professional development opportunities available from Academic Affairs, the Office for Women (OFW), and IU Indianapolis. EMPOWER mentees are strongly encouraged to participate in the IUPUI Graduate Mentoring Center Faculty and Staff Mentor Training. Mentees may also consult with key OFW and IU Indianapolis staff on specific research and professional development topics and needs such as accessing proposal writing services, finding funding, finding potential collaborators, identifying and addressing biases in the academy, etc. Due to the COVID-19 pandemic, Zoom meetings between the mentor and mentee are encouraged. For in person meetings, follow the campus guidelines for wearing a mask, social distancing, handwashing, etc.
- Mentees are required to submit a plan for their research goals and objectives. The mentee and the mentor agree on the goals to be realized during the period of the grant.
- For both categories, a letter of support is required from the mentee's department head or dean, 1) addressing the mentee's eligibility for this mentoring program, and 2) indicating how this program is expected to benefit the mentee's research and professional growth.
- For both categories, a letter of support is required from the mentee's department head or dean, 1) addressing the mentee's eligibility for this mentoring program, and 2) indicating how this program is expected to benefit the mentee's research and professional growth.
- Submission of a proposal to an external funding source must occur no later than 12 months from the end of the award period. Failure to meet this requirement may result in the applicant becoming ineligible to receive support from IU Indianapolis in the future.
- Mentees are required to submit a mid-year report and program end report.
- Mentees cannot apply to any other IU Indianapolis internal grant program during the calendar year of EMPOWER.
- A mentee can receive this award once.
- During the calendar year of the program, the mentor is expected to spend at least 30 hours with the mentee.
- Mentors are required to attend an initial workshop/orientation on mentoring, a mid-program meeting, an end-of-program meeting, and meet on a regular basis with their mentees.
- Priority will be given to mentees that have yet to submit an external proposal, or have yet to receive external funding.

Application sections include

- Applicant Information
- Project plan not to exceed five pages
- Budget and justification
- Biosketch or CV not to exceed five pages, include funding history
- Letters of support from department chair or dean for mentees
- IRB, IACUC, and/or IBC forms if applicable

University of Utah School of Medicine VPCAT Senior Mentor Responsibilities

VPCAT senior mentors are:

- Seasoned, grant-funded investigators
- Experienced in grant review process
- Familiar with institutional resources
- Understand the retention, promotion, and tenure process
- Have substantial experience/training in mentoring
- Typically not in same department/discipline as scholar
- Recommended by chairs/deans

VPCAT senior mentors are responsible for:

- Ensuring accountability of all parties in the Matrix Mentoring Model in working towards the scholar's goals
 - Can intervene and mediate if conflicts arise (with division chiefs, scientific mentors, etc.)
- Making the mentee/mentor relationship a priority
- Preparing and submitting Mid- and Final Program Reports describing a scholar's progress, achievements, and areas where support may be needed
- Meeting regularly with a scholar over the 2-year period
 - At a minimum, meets 3 times during the 2-year period, which includes the VPCAT Initial Team Meeting and the Mid- and Final Mentor/Mentee Review Meetings; however,
 - Mentors strongly encourage scholars to meet more than the minimum
 - Mentors advise scholars to schedule regular monthly or quarterly meetings
 - Assists in setting/adjusting goals – initially and continually – as aligned with a scholar's VPCAT Scholar Career Development Plan ([VS-CDP](#))
 - Reviews scholar's progress
 - Evaluates alignment of time allocation relative to a scholar's priorities
 - Assists in identifying scientific mentors, if needed
 - Assists in expanding scholars' networks (i.e., research, academic)
 - Facilitates utilization of institutional resources (including VPCATs resources)
 - Is available and accessible
- Reading and editing scholars' research proposals
 - Helps with interactions between scholars and funding agencies
- Providing advice/guidance concerning promotion, retention, and tenure
- Listening and providing support
- Celebrating scholars and their achievements
- Serving as a scholar's advocate

University of Michigan Medical School Internal Subject Matter Expert Contract



R01 BOOT CAMP

University of Michigan Medical School Office of Research R01 Boot Camp - Internal Subject Matter Expert Contract 2018

You have been asked to participate as an Internal Subject Matter Expert for a mentee of the [UMMS Mentored Research Academy: R01 Boot Camp](#). In compensation for the completion of this role (i.e., once the mentee has submitted a carefully developed and well-reviewed NIH R01 application), you will receive a \$1,000 salary supplement.

Your agreement to the responsibilities listed below is requested.

Contact [R01 Boot Camp](#) with any questions.

Please indicate your response to each of the following statements and click "Submit" below:

First Name:

Last Name:

Degrees:

Uniqname:

Phone Number:

University of Michigan Medical School Internal Subject Matter Expert Contract (cont.)

Department:	<input type="text"/>
Division (if applicable):	<input type="text"/>
Name of Administrative Assistant:	<input type="text"/>
Uniqname of Administrative Assistant:	<input type="text"/>

Name of Mentee:

First Name:	<input type="text"/>
Last Name:	<input type="text"/>

I understand that the total estimated time commitment for serving as an Internal Subject Matter Expert is between 16-20 hours (excluding optional components), and I am prepared to make this commitment.

I Agree

I will advise my mentee of the appropriateness of the preliminary data and the specific aims; I will review drafts of sections of the R01 proposal as they are being developed; I will guide the mentee on a timeline to complete the proposal.

I Agree

I will advise the mentee on preparing a Chalk Talk in his or her department, suggest participants to attend, attend myself, and provide a written summary (and tentative NIH Impact score, if possible).

I Agree

I will help the mentee determine an appropriate NIH study section and provide advice on contacting a program officer.

I Agree

University of Michigan Medical School Internal Subject Matter Expert Contract (cont.)

I will help the mentee identify and recruit an External Subject Matter Expert who can provide a critical NIH style review of a near-final draft of the proposal, and who has pertinent NIH study section experience.

I Agree

SUBMIT



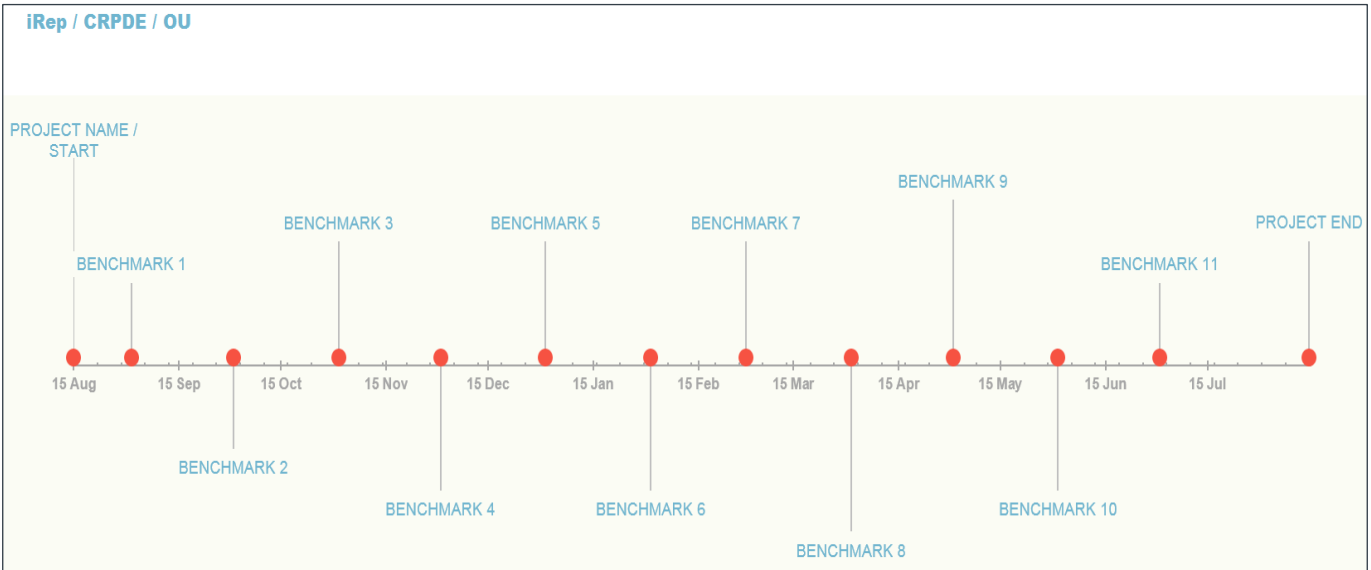
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University of Oklahoma iRep Program Resources

<u>iRep / iPlan</u>	<u>2-3 years</u>	<u>Tenure</u>	<u>10 years</u>
<u>Ideas</u>			
<ul style="list-style-type: none">•••••			
<u>Goals</u>			
<ul style="list-style-type: none">•••••			
<u>Objectives</u>			
<ul style="list-style-type: none">•••••			
<u>Other Aspirations</u>			
<ul style="list-style-type: none">•••••			
<u>Research Questions:</u>		<u>Awards & Recognition</u>	
<ul style="list-style-type: none">•••••			

University of Oklahoma iRep Program Resources (cont.)



PROJECT DETAILS		
DATE	MILESTONE	POSITION
8/15/2013	Project Name / Start	25
9/1/2013	Benchmark 1	10
10/1/2013	Benchmark 2	-10
11/1/2013	Benchmark 3	15
12/1/2013	Benchmark 4	-15
1/1/2014	Benchmark 5	15
2/1/2014	Benchmark 6	-15
3/1/2014	Benchmark 7	15
4/1/2014	Benchmark 8	-20
5/1/2014	Benchmark 9	20
6/1/2014	Benchmark 10	-15
7/1/2014	Benchmark 11	10
8/14/2014	Project End	15

Project Timeline Tips:

The role of the Position values in the Project Details table is to prevent the Milestone labels from overlapping each other on the timeline. Use positive numbers to position labels above the timeline and negative numbers to position them below.

To add additional Milestones, either insert new rows within the table or start typing below the last table entry and the table will automatically expand to accommodate your newly added data.

University of Oklahoma iRep Program Resources (cont.)

Funding Calendar					
Agency / Fdn	Due Date	Scope / Summary	OU Lead / Others	Tasks	TBD by when
Other possibilities (long-term):					

Work Schedule, e.g.					
	Monday	Tuesday	Wednesday	Thursday	Friday
6 – 7a	Write (home)	Write (home)	Write (home)	Write (home)	Write (home)
7 – 8a	Shower / Arrive @ work	Shower / Arrive @ work	Shower / Arrive @ work	Shower / Arrive @ work	Shower / Arrive @ work
8 – 9a	Email / phone calls	Email / phone calls	Email / phone calls	Email / phone calls	Email / phone calls
9 – 10a	External Proposals	PDS Weekly	External Proposals	External Proposals	External Proposals
10 – 11a	External Proposals	External Proposals	External Proposals	External Proposals	External Proposals
11a – 12p	READ (Agency guidelines; grants.gov; pivot)	READ (Agency guidelines; grants.gov; pivot)	READ (Agency guidelines; grants.gov; pivot)	READ (Agency guidelines; grants.gov; pivot)	READ (Agency guidelines; grants.gov; pivot)
12 – 1p	Lunch	Lunch	Lunch	Lunch	Lunch
1 – 2p	Develop Junior Faculty iRep (all components)	Develop Fellowship Calendar (or Fulbright bios)	Develop Junior Faculty iRep (all components)	Develop Fellowship Calendar (or Fulbright bios)	Develop Junior Faculty iRep (all components)
2 – 3p	Develop Junior Faculty iRep (all components)	Develop Fellowship Calendar (or Fulbright bios)	Develop Junior Faculty iRep (all components)	Develop Fellowship Calendar (or Fulbright bios)	Develop Fellowship Calendar (or Fulbright bios)
3 – 4p	Diversity	Diversity	Diversity	Diversity	Diversity
4 – 5p	Faculty Meeting / External Proposals	Faculty Meeting / External Proposals	Faculty Meeting / External Proposals	Faculty Meeting / External Proposals	Faculty Meeting / External Proposals
5 – 6p	Leave / home	Leave / home	Leave / home	Leave / home	Leave / home
6 – 7p	Leave / home	Leave / home	Leave / home	Leave / home	Leave / home

Source: University of Oklahoma Center for Research Program Development and Enrichment (CRPDE) [iRep Program Resources](#).

University of Michigan Medical School Scholarly Roadmap Questions



UMMS Mentored Research Academy: R01 Boot Camp Scholarly Roadmap Questions

- What do I want to be known for as a researcher?
- How crowded is the field? Given the competition, can I build a national reputation in this area?
- What questions do I want to answer through my research?
- Why are these questions significant? Innovative? Fundable?
- What further skills/knowledge/abilities do I need to acquire?
- What U-M research services/cores will be needed for this project?
- What research collaborations at U-M do I need to develop to conduct this project? What external research collaborations (academic and/or industrial) do I need to develop this project?
- How many people will I need in my lab? What qualities/expertise will they need? Where will I get them from?
- How much will it cost to conduct this project?
- Are multiple grants necessary? What would my optimal funding portfolio look like (e.g., R01, foundation grant, corporate contract, internal pilot funds)?
- Who can give me advice and critical feedback on each of the above questions?



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ABOUT EAB

At EAB, our mission is to make education smarter and our communities stronger. We work with thousands of institutions to drive transformative change through data-driven insights and best-in-class capabilities. From kindergarten to college to career, EAB partners with leaders and practitioners to accelerate progress and drive results across five major areas: enrollment, student success, institutional strategy, data analytics, and diversity, equity, and inclusion (DEI). We work with each partner differently, tailoring our portfolio of research, technology, and marketing and enrollment solutions to meet the unique needs of every leadership team, as well as the students and employees they serve. Learn more at eab.com.