

FROM INSIGHTS TO ACTION



Enriching the Clinical Research Workforce by Developing Diverse and Inclusive Career Programs

Fall 2020

Brought to you by



The University of Rochester Center for Leading Innovation and Collaboration (CLIC) is the coordinating center for the Clinical and Translational Science Awards (CTSA) Program, funded by the National Center for Advancing Translational Sciences (NCATS) at the National Institutes of Health (NIH), Grant U24TR002260.

Every facet of the United States scientific research enterprise — from basic laboratory research to clinical and translational research to policy formation — requires superior intellect, creativity, and a wide range of skill sets and viewpoints. NIH's ability to help ensure that the nation remains a global leader in scientific discovery and innovation is dependent upon a pool of highly talented scientists from diverse backgrounds who will help to further NIH's mission.

Research shows that diverse teams working together and capitalizing on innovative ideas and distinct perspectives outperform homogenous teams. Scientists and trainees from diverse backgrounds and life experiences bring different perspectives, creativity, and individual enterprise to address complex scientific problems. There are many benefits that flow from a diverse NIH-supported scientific workforce, including: fostering scientific innovation, enhancing global competitiveness, contributing to robust learning environments, improving the quality of the researchers, advancing the likelihood that underserved or health disparity populations participate in, and benefit from health research, and enhancing public trust.

National Institutes of Health Diversity Statement

Dear Colleagues:

It is with great pleasure that the CLIC Common Metrics team releases *From Insights to Action*: a resource for organizing your research programs with an equity and inclusive lens. This is a collection of approaches from your colleagues across the consortium. Our aim is to provide you with actionable strategies for enhancing the diversity of our future scientific workforce.

I was so inspired by the C TSA Program hubs we interviewed this year on their strategies for improving their KL2 and TL1 education programs. They have demonstrated both commitment and intentional planning towards shaping the future research workforce. Each interview was analyzed to identify commonalities across these education programs. These commonalities serve as the foundation for this document.

Given the world we currently live in, there is a compelling need for creative ways to solve complex problems, and to do this requires contributions from voices representing a wide array of perspectives. Diversifying the investigator workforce has several levels of impact. To start, it increases the probability of leadership positions being held by women and underrepresented groups. The composition of our institutional leadership will affect who applies to our programs. Secondly, these various perspectives add novel research questions, thereby broadening the types of research conducted and enhancing multi-disciplinary teams. Lastly, our communities are enriched as unique health needs are being addressed for all individuals and populations.

A vital aspect to building the careers of prospective researchers is mentorship. How many of us are grateful to that one career champion or to that career-development program? Most of us can think of that one mentor who made a difference in our lives. However, this may not be the case for so many others. Pay it forward; make yourself available to coach the next generation. If we acknowledge the importance of programs being equitably accessible to all, then we must ask ourselves, “How do we commit to recruiting and retaining a diverse research workforce?”

In the end, the outcome of this effort goes beyond the recruitment numbers. To have a successful diversity plan, institutions need to look at the internal structures that makes them inclusive and welcoming – from an inclusive excellence framework. It is about intention, commitment, being purposeful, and institutional leadership.

Thank you for reading and I encourage you to initiate a few of the ideas offered here for consideration. I wish you all much success!

With gratitude,



Raquel Ruiz, MA Ed.

Associate Director

Center for Leading Innovation & Collaboration

Acknowledgement

The Common Metrics Initiative, a collaborative partnership between NCATS and the CTSA Program hubs, helps to demonstrate and improve the impact of the CTSA Program. The Common Metrics Initiative facilitates the sharing of methods, approaches, and tools in clinical and translational science research, which allows hubs to strategically manage their research and training activities and support continuous quality improvement. The Insights to Inspire webinar and blog series are examples of other information conduits used for communicating best practices, innovations, and disseminating knowledge between the CTSA hubs.

This document describes the results of the Insights to Inspire approach to Enriching the Clinical Research Workforce by Developing Diverse and Inclusive Career Programs. The From Insights to Action resource provides a summary of cumulated years of experience, dedication, and passion by the CTSA Program institutional training and career development Principal Investigators and hub staff to build, support, and sustain a strong and diverse 21st Century Clinical and Translational Science Workforce.

Great minds think differently. Advancing the burgeoning field of translational science relies on a highly skilled, creative and diverse translational science workforce. NCATS is committed to ensuring that the translational science workforce is broadly representative across racial, ethnic, sex, gender, age, socioeconomic, geographic and disability status. While there are many benefits that flow from a diverse scientific workforce, key among them is the ability to enhance scientific innovation through different perspectives, creativity, and individual talents, of which is critical to successful translation. Translation is a team sport. Promoting and enhancing diversity in science contributes to our ultimate goal of delivering more treatments to more patients more quickly.



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Career Development in the CTSA Program

The **KL2** and **TL1 awards** are NCATS-sponsored funding mechanisms that combine formal coursework with direct research experience to support the growth, career development, and retention of early-stage investigators across the clinical and translational spectrum. Each program has specific aims for unique audiences.

KL2 awards offer formal research training experience for clinical investigators who have recently completed an M.D., Ph.D., or equivalent doctoral degree and who are commencing basic, translational, and/or clinical research. All CTSA Program hubs have a KL2 program. Each hub selects internal KL2 candidates, providing them with a rich, mentored career development experience in a multidisciplinary setting. KL2 scholars come from a variety of fields (e.g., medicine, dentistry, nursing, the behavioral sciences, biostatistics, and epidemiology) and typically receive two years of NCATS-funded protected research time and mentored career development support.

Many CTSA Program hubs also include programs that provide predoctoral trainees with an introduction to clinical and translational science research through the **TL1 program**. The CTSA Program hub recruits and selects TL1 candidates, providing full-time research training support for predoctoral candidates and combined health-professional doctorate-master's candidates as well as postdoctoral fellows seeking additional training across the clinical and translational science research spectrum. The TL1 goal is to increase the number of well-trained clinician-scientists who can lead the design and oversight of future clinical investigations critical to the overall mission of NCATS and NIH.

[Learn More](#)

CTSA Clinical & Translational
Science Awards Program

5
Themes
Emerged from
Qualitative Analysis of
Turn-the-Curve Plans



19
Interviews
With 18 CTSA Hubs producing
667 Minutes of
Interview Recordings

5
Webinars
With Presenters from
15 CTSA Hubs



1
**From Insights
to Action**
Highlighting 6 Strategies
to Spark Conversations



5
Blogs
Written from the
Identified Themes





Background

In June 2019, Christopher P. Austin, MD, Director of the National Center for Advancing Translational Sciences (NCATS), National Institutes of Health, stated *“We also need to implement education and training programs to provide the required knowledge, skills and attitudes to aspiring translational scientists at the undergraduate, graduate, early career and established career levels. NCATS is taking an intentional team-based and experimental approach to translational science education.”*

In alignment with Dr. Austin’s call to action, CLIC dedicated its Insights to Inspire 2020 series to the Careers in Clinical and Translational Research metric with underrepresented persons (URP) and women as the specific measures of interest. Annually, CLIC generates a Common Metrics Initiative Multi-Year Report that represents the Common Metric Initiative data values for each of the CTSA Program hubs in a de-identified and aggregate form. Hubs that were in the top 50% of improvement for this metric based on their 2018 data, as well as the top four hubs for KL2 and TL1, were selected for qualitative analysis. A total of thirty hubs were identified and the Story Behind the Curve sections of their Turn-the-Curve plans were used for analysis. These sections of the Turn-the-Curve plans are the hubs’ explanation – both positive and negative factors - that affected their data values. These five themes served as the focus for interviews with each hub: diversity and inclusion; recruitment; application and screening; mentoring; and follow up and evaluation.

All thirty hubs were contacted and asked to participate in an interview process. A total of 19 interviews were conducted with 18 unique hubs between March and June 2020. During the interviews, hubs were asked to share the strategies, insights, and processes that they believed led to the improvement of their metric values. This resource is a compilation of the responses from the hubs.

All of the interviewed recordings were transcribed and used for additional qualitative analysis. The following themes emerged – representation, partnerships, structure, making it personal, feedback, and endorsement. This document is arranged by those themes and include subtopics shared by the hubs. Questions to consider are listed for each subtopic.

This resource is designed for hubs that are seeking insights for developing a synergistic approach for improving their recruitment efforts to diversify the future clinical research workforce. It includes all aspects of the lifecycle from scholar/trainee recruitment through mentorship and follow up after completion of the program. This was not a research project; rather, it is based on “experiences from the field”. Hubs are encouraged to seek opportunities to collaborate with these contributors.

How to Use this Guide

Each hub is unique in its size, structure, geography, and access to resources. Therefore, this guide is not intended to be a prescriptive checklist of one-size-fits-all programs and policies for universal implementation. Rather, it is a collection of actionable questions inspired by hubs' stories of ongoing progress and success in the Careers in Clinical & Translational Research Metric. Here's how to best navigate these precursors to action:

This guide is divided into **six primary sections**, each representative of a strategy identified through qualitative analysis of hub interview transcripts.

- The six strategies are not mutually exclusive—each informs one another.
- The strategies are not presented in order of importance or merit; please browse each in the order of your choosing.

Each section is comprised of a **brief thematic overview** and a **series of grouped questions designed to spark conversation around that theme** within and across your programs.

- Each section's overview helps to define the strategy and situate it within the context of KL2 and TL1 career development programs.
- An overarching thematic “guiding question” introduces the series of grouped questions to guide conversation.
- A list of actionable questions are grouped into labelled subsections that each pertain to the section's strategy. As you read these questions, be sure to have a space ready for your own notes, responses, ideas, and questions.

We encourage you to use each section's questions as an impetus for pointed conversations about equity, diversity, and inclusion in your programs. We hope these conversations will extend across internal partners, outwards to featured hubs and new collaborators, and even into your local communities.





WORRIED ABOUT A LACK OF DIVERSITY AND INCLUSION WITHIN YOUR INSTITUTION?

Prioritize representation, holistically, at every stage of the career pathway.

Diversity and inclusion within the CTSA Program is reflected in many forms: race, ethnicity, gender, area of study, stage of career development, and more. Hubs consistently noted that finding intentional, sustainable, scalable, and public means to represent a wide variety of perspectives in every stage of their programming was a key contributor to the creation of a welcoming and empowering environment. Who your scholars and trainees see and hear as they are recruited for, apply for, participate in, and work with your programs matters.

Representation works in synergy with many other themes presented in this document. Start small. Be reflective. How can you foster and sustain an environment that supports the growth of scholars and trainees of all backgrounds?



“Diversity is in the fabric at UIC; it's everywhere. It's not something that we just pay lip service to - it's front and center of pretty much everything we do, and new faculty or faculty that are being recruited see that.”

University of Illinois – Chicago



REPRESENTATION

In what ways are diverse perspectives represented/supported/encouraged in your programs in each of the following areas?

Programmatic leadership

- From what departments and cultural backgrounds do program PIs represent?
- In what ways can program alumni take on leadership roles?
- In what ways do program leaders serve as relatable role models for prospective scholars and trainees?

Review and selection of committee members

- Whose voices are included on the committee in charge of selecting your scholars and trainees? What departments and backgrounds do they reflect?
- Is there an appropriate space to include a diversity and inclusion advocate and/or a community member?
- What do you want your scholar or trainee community to look like? Is your committee reflective of these goals?

"We've initiated always having a diversity advocate on the selection committee."

Johns Hopkins University

Recruitment from across the translational spectrum

- Which departments receive word about your program? How does your program let scholars and trainees know if—or how—their interests fit within the "translational research" community?
- What types of projects has your program funded? How is this information disseminated to prospective applicants?
- Whose voices are featured at recruitment events? Do alumni and current scholars express how their research interests were supported?

"Some things work well in schools of medicine that don't work well in colleges of arts and sciences or engineering. So, the challenge is making sure that the people who are applying for these training awards understand what the breadth of translational research looks like and how their research fits within that spectrum."

Indiana University

Accessible mentors and role models

- How do mentors become involved with the program? From what departments and backgrounds are they recruited? How are faculty selected or recruited to become mentors?
- In what ways are alumni encouraged to continue their engagement with the program as role models and mentors to future scholars and trainees? Are there pathways for this transition?

“Women speaking to women, especially about issues related to STEM and science, that's really powerful. For the trainees that we recruit, we make a real concerted effort to make sure they can see themselves in the faculty mentors that we have and in who we can actually recruit as mentors for our program.”

University of Michigan

Accessible connections to the local community

- In what ways can scholars and trainees engage with community members? Are there formal structures, like community liaisons, to facilitate these connections?
- In what ways are the needs and voices of the community represented in the program?

Representatives speaking at programmatic events

- In what ways can program alumni speak with current scholars and trainees about their experiences?
- What types of guests are invited to workshops and speaking events? What disciplines and backgrounds do they represent?

Inclusive research and faculty initiatives, from early to late-stage

- To what extent does your program participate in early “pathway” initiatives? Are investigators encouraged to pursue diversity supplements for their existing grants?
- What programmatic opportunities do scholars and trainees have to advance as faculty in your institution? What institutional supports exist to support faculty as they transition from their first R grant to their next?

Written materials

- Is your program's commitment to diversity and representation visible? Where? To whom?
- In what ways does your grant, website, and program application reflect your commitment to representation?





Actively collaborate with departmental, institutional, and across-institutional leadership on common/aligned programmatic goals.

Career development programs should not stand in isolation. Whether recruiting internally for a K program or across state borders for T program, hubs held partnerships in high esteem. From engaging in conversations with the dean of the medical center about shared diversity and inclusion goals or working with a partner institution to enrich the pool of talented recruits, partnerships can take on many forms. Actively seeking out partners on—and off—your campus can further the representation efforts, bolster program recognition, and create meaningful, long-lived connections and collaborations.

NOT SURE WHERE TO START?

Have a discussion with another career development program on campus, pay a visit to your institution's diversity and inclusion office, or schedule a conversation with a new department head. If you're ready to push outside your institution, reach out to one of the featured hubs to see how they set up their inter-institutional partnerships.



"We are connecting and identifying with those particular networks within our institution, within the region, within the communities who represent the underrepresented communities. And so, we are creating a diversity recruitment plan to help us guide that aim."

University of Washington



PARTNERSHIPS

In what ways do your programs intentionally seek out active partnerships with each of the following entities?

Internal recruitment partners

- What new connections can you make with individuals across departments who can serve as program “champions” or navigators? How will you stay in touch with these designated primary contact points?
- Do department heads, deans, or administrative leadership recommend students for your programs? How can you communicate the goals and benefits of your program to them?
- Who is writing letters of support on behalf of your applicants? In what ways can you ask for their help in recruiting an increasingly deep and diverse candidate pool?
- What connections exist between your program leadership and any diversity and inclusion offices, councils, organizations, or centers on campus? What feedback or shared goals might you pursue?

“Because we have a central research committee, it is very easy to be aware of all of the efforts that are going on in different areas, including in diversity and inclusion. The expectation is that these are institutional efforts, not divisional or departmental efforts necessarily. It really fosters this environment where it's relatively easy and there are very few silos to actually working together and developing these partnerships. And I think that really is the way that we've been able to take NIH dollars and institutional dollars that we make for our Center for Clinical and Translational Science and kind of amplify those through to these other efforts”

Mayo Clinical Research

External recruitment partners

- Is your institution ready to create formalized collaborations/partnerships with another university? What mutually beneficial goals could arise as a result of such a partnership?





PARTNERSHIPS

Advisory boards

- Does your program seek feedback from an internal advisory board? Who is represented in that space? How are they recruited? How frequently do you meet, and in what capacity?
- In what ways could your program benefit from consultation with diversity advisors for programmatic feedback and recommendations?

"We have a diversity advisory board for both the TL1 and the KL2. We meet with them every six months and get input into strategies - Members of our advisory board represent a range of perspectives and approaches within the institution."

Icahn School of Medicine at Mt. Sinai

Funders of aligned goals

- Who on campus discusses shared goals regarding diversity, equity, and inclusion? In what ways could you partner to seek institutional funding to support mutually beneficial programs?
- Are academic enrichment funds available from your institution? Who in administrative leadership do you need to speak with to discuss these types of funding opportunities?

Community partnerships

- Does your program or center partner with local middle or high schools, teachers, or education professionals? In what ways are young students exposed to research and clinical and translational science as potential career options?
- What undergraduate research programs does your institution offer? In what ways can your program participate or use diversity and inclusion supplements to increase undergraduate involvement in research?
- Does your institution or program have community researcher connections or liaisons? How are these community members trained, compensated, and represented within your program?

"I think really for transformation, you're going to need to reach all of your stakeholders and target groups that you're wanting to work with and really create a culture that values diversity. You need to work across all those in your community."

University of Colorado - Denver



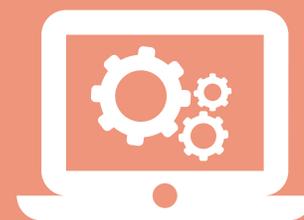


Balance structured programmatic supports with space for scholar-led innovation.

Hubs enhance the career development of their scholars and trainees through mentorship, curriculum, fellowship, and unique programming and community engagement opportunities. The variety of program structures that work to support the growth of scholars and trainees provide mutually accountable spaces with clearly communicated expectations and benefits. Scholars' needs may extend beyond the existing programmatic framework, though. Many hubs have seen and supported their scholars as they built structures themselves: exercise groups, affiliation groups, or informal K-clubs, for example. Hubs' ongoing, iterative work to balance built-in program supports with nurtured space for scholar-driven action continues to advance their capacity to meet the dynamic needs of their scholars without assuming prior knowledge of system intricacies.

EAGER TO TRY SOMETHING NEW?

We encourage you to explore the [blog posts](#) and [recorded webinars](#) on the [Insights to Inspire](#) section of the CLIC website. There, you'll find select examples of adaptable hub structures and actions that can be crafted to suit your context. Don't be afraid to reach out to hub representatives to discuss details and strategy!



"We give them [our scholars] structured opportunities where they can get together and discuss things... we support that as much as we can, then we get out of their way and let them do what they do the best."

University of Michigan



STRUCTURE

In each of the following areas, where does your program rely on clear protocols and procedures, and where does it leave control in the scholars' hands? How is that difference in structure and organization communicated?

Mentoring

- How are mentors recruited into the program? How are expectations communicated to mentors? Which standard criteria are used to vet prospective mentors?
- How are mentors trained? What resources or events are accessible to mentors, scholars, and trainees for ongoing growth in mentorship skills?
- How are mentor-mentee pairs formed? What supports exist to ensure a good “match”? How do mentors and scholars access these supports?
- Who can a scholar or trainee turn to if they are experiencing problems with their mentor? How are these communication channels made clear to the scholars?
- How frequently do structured mentorship meetings take place each year? Is program leadership involved in these conversations? Which components of the mentor-mentee relationship need to be revisited regularly with and without the mentor present?

“During the program, we contact the mentors. We provide training for the mentors to allow the scholar to have the best research experience, again, building the bridge across institutions, to make sure that the opportunities exist for them to stay in research.”

Medical College of Wisconsin

Training and Career Development

- What structured programs or events exist to support prospective scholars and trainees in their preparation of a program application? How are these structures publicized? To whom?
- Does the institution require that scholars and trainees draft Individual Development Plans (IDPs)?
- When do scholars and trainees draft Individual Development Plans (IDPs)? Who helps facilitate this process? What structures are in place for scholars, mentors, and program leaders to revisit and revise these documents? How does the IDP help the scholar plan for post-program opportunities?
- What resources and events are accessible to scholars and trainees as they write grants for independent funding? Who can scholars talk to about navigating the grant-writing process? How do they know to turn to this person or group of people?
- How can scholars' writing be reviewed and evaluated in a low-stakes environment? What structures exist to ensure this review process is respectful and constructive?



STRUCTURE

Peer-to-Peer Support

- How are multi-disciplinary connections between scholars and trainees facilitated formally? Informally?
- What opportunities for networking are offered to scholars and trainees?
- In what contexts do scholars come together for meetings? If topical, how are scholars' voices incorporated in choosing meeting content? What opportunities exist for scholars to give one another feedback in these settings?

"We facilitate peer mentoring among current and past scholars via interactions in our standing career development series, specifically related to topics such as time management and next steps after KL2. Scholars have the opportunity to learn from each other. We also facilitate other informal opportunities, like lunch, which may lead to "natural pairings" (based on interest and need) and exchange of information among current and alumni scholars."

Duke University

Recruitment

- To what extent does your program participate in early pre-college or college initiatives to cultivate interest in research? Are investigators encouraged to pursue diversity supplements for their existing grants?
- How are scholars and/or mentors prepared for this involvement?
- What steps are taken to ensure clarity in application expectations and program benefits to prospective scholars and trainees?
- Are there designated primary contact points—program "champions" or navigators—that prospective students expect to hear from? How are these individuals identified? How are marketing efforts systematically amplified outside of email channels?
- How early does formal or informal "recruitment" start? When and how does the program reflect on recruitment strategies and make adjustments for upcoming cycles?
- What efforts, systems, or formal programs are in place to retain recruits within the institution after the program?





STRUCTURE

Application

- Prior to submitting an application, do prospective scholars need to provide a Letter of Intent? How are scholars prepared for these pre-application components, and is it clear how they will be evaluated?
- How closely does your program's application and review process mirror that of the NIH? In what ways does your program harness similarities to prepare scholars and trainees for independent grant writing?

"We use an application that is identical to the NIH application, and we review these applications the same as they would be reviewed in a study section."

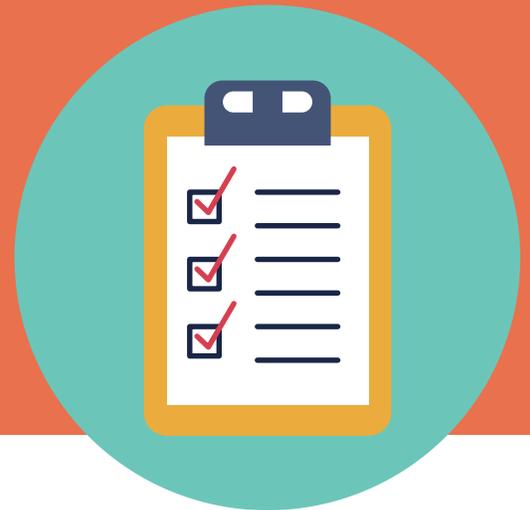
University of Kentucky

Curriculum

- Are concepts like health disparities and community engagement included in program curricula?
- Are scholars aware of the demands of the program's curriculum? Do they know what to expect in terms of commitment and outcomes?

"We do an assessment of what people need when they first enter the program in terms of the core competencies and then create a curriculum that supports those competencies and the needs of the particular group of scholars that have come in."

University of Washington



Feedback

- Where do scholars and trainees go to provide feedback if they have ideas or concerns regarding the program structure?
- How do they know to turn there? How is this process communicated to scholars and trainees?

"We believe that it's a combination of some web based programs that really tell you about mentoring skills, but more than anything else, it's also an issue of getting your hands on experience and seeing more seasoned mentors in operation."

University of Massachusetts



IT IS DIFFICULT TO MEASURE KINDNESS OR SET A METRIC FOR CARE.

Value and nurture the whole scholar: past, present, and future.

Scholars and trainees may only be with your program for two years; however, their experiences may serve as catalysts for future careers in clinical and translational science research. Comradery, collegiality, and care were consistently referenced by hubs when asked how they created environments welcoming to scholars of all backgrounds. Hubs described ways in which—through both words and actions—they celebrated scholars' pasts, welcomed scholars to their career development community, and helped scholars plan for a fulfilling future.

Though intangible concepts, reflecting on the spaces and places provided for scholars to be seen for more than their grant and publication outputs supports the holistic nature of “career development.”



“We discuss challenges they may face related to work-life integration, scientific progress, and often - or not infrequently - just navigating potential issues with their mentors and others and getting their work done.”

Duke University



MAKING IT PERSONAL

Where in your programs can scholars turn to meet their holistic needs?

Holistic application

- In what ways are alternate pathways into clinical and translational science research considered in the program's application? Is there space to discuss adversity or challenges faced?
- When and where are in-person interviews conducted? Do scholars have the chance to express their interest in a non-written format?

"We have developed a bank of questions that really capture people's use of different pathways to accomplishments... that they are acknowledged and that there are different pathways to success and accomplishments."

University of Colorado – Denver

Mentoring

- How is work-life balance addressed in mentor-mentee relationships? Are mentors prepared to have conversations beyond the scope of the advancement of their mentee's professional career?

Networking

- What peer-to-peer support groups exist within or outside of your program that scholars and trainees can turn to?

"People who are no longer in the program understand that they are part of this larger community and will be no matter what...once they're in the program and even once they graduate, they are kind of, if you will, part of a family."

University of Washington

Community building

- Are there spaces to gather or celebrate with scholars as a group outside of workshops and formal events?



MAKING IT PERSONAL

Future-forward planning

- How often do you discuss non-outcomes-oriented (publications, grants) topics with scholars and trainees?
- In what ways do structural program components—like IDPs—map and focus on scholars' and trainees' present and future goals?



Responsive programming

- Through what channels does your program foster bi-directional communication?
- Do scholars or trainees feel comfortable expressing whether aspects of the program are or are not working for them and their personal-professional schedules?
- Does the program have a visible track record of responding and changing systems when scholar needs are not being met?



"Our individual meetings with the scholars are much more of how can we help you? What do you need as opposed to like, what are your products, you know, 'are you meeting our expectations' that changes to, 'how can we help you? What do you need from us? What are some struggles? How can we help you navigate them?' It becomes much more of a partnership of lifting people up."

**University of Texas
Health Science Center San Antonio**



**CREATE OPEN,
RESPONSIVE
AVENUES FOR
MUTUAL
FEEDBACK.**



Another survey?!

Gathering data from scholars, trainees, and mentors can be an exhausting process. While there is no one fix-all solution for perfecting survey response rates, hubs consistently referenced how actions taken during a scholar's tenure had lasting reverberations for how and why they continued to engage with the program. Hubs discussed feedback as an ongoing, bidirectional practice that manifests itself in formal and informal ways. From the recruitment phase to alumni follow-up, hubs work to find spaces to solicit, provide, and—importantly—act on feedback not restricted to outcomes or scholarly gains.

“Some scholars felt that the monthly meetings did not allow for enough time to sufficiently discuss routine career development issues in addition to the focus on progress of individual scholars. In response, we revised the agenda so that the first 15 minutes was an open period, providing time for any scholar to bring up any issues about career development for discussion among scholars and program directors.

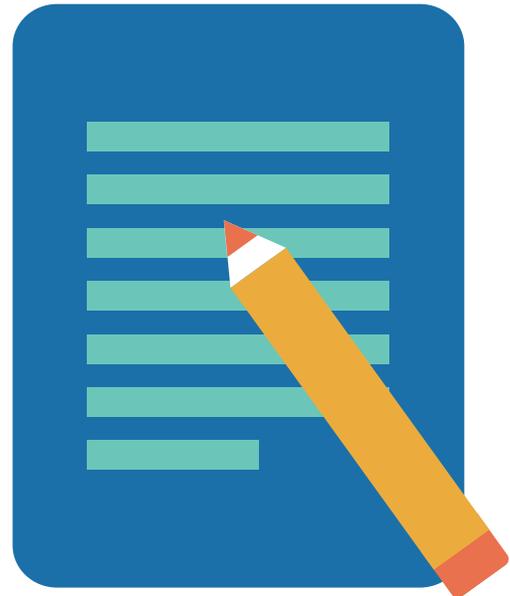
Columbia University

FEEDBACK

In which of the following areas do your programs actively seek and provide feedback?

Applications and writing

- How closely does your program’s application and review process mirror that of the NIH?
- In what ways does your program harness similarities to prepare scholars and trainees for independent grant writing?
- Who receives feedback on their application? How is that feedback delivered?
- Are those who are not accepted into the program contacted to support future application efforts? Is there time or space to deliver this feedback directly, rather than through email?



"So, we really see that part of the whole process of writing the KL2 is not just about determining who should get funded, but essentially providing an initial review for any applicant's grant idea....we provide each of them with a full written review with a summary statement of the discussion that happens during that meeting. We also invite at least one or two of our current or former KL2 scholars to serve on our internal advisor on this scientific review committee."

Tufts University

"I spoke to all of them personally and made sure that I had comments about their applications, ways that they could make it stronger next time"

University of Alabama at Birmingham



FEEDBACK

Mentoring and relationships

- Does feedback flow bi-directionally between scholars and mentors? Does the program rely on this feedback cycle to occur organically, or are there structures in place to facilitate the process?
- How does the program help to foster relationships well-suited for the long-term exchange of feedback?
- What do interactions between scholars and program stakeholders look like after scholars have completed the program? Are there opportunities to check in informally or share opportunities well suited to a scholar's interests?

Program implementation

- Who is providing feedback to the program? Are there any stakeholder voices missing from the conversation?
- How does the program respond to feedback? Who is involved in decision-making when changes are made?
- In what ways is the program "open-minded" when it comes to feedback from scholars, mentors, diversity advisory boards, or NCATS?
- When is feedback sought from program alumni? Is there space for long-term retrospection on relative program benefits and gaps?



"We want to use their feedback to help modify things going forward. So, if something's not particularly working, we want them to tell us and be very open with us about it so that we can make those changes going ahead."

Medical University of South Carolina

Establishing expectations

- In what ways does program leadership establish clear expectations and rationale for follow-up surveys? Are these expectations set early?



**AN INCLUSIVE
PROGRAM SEEKS
AND SEES
ADVOCATES
OUTSIDE OF ITS
OWN
LEADERSHIP.**



Who speaks on behalf of your program?

Many hubs highlighted their own scholars and trainees as their most valuable recruitment assets. To have program alumni, department heads, and current scholars actively reach out to prospective applicants can be a powerful testament to the work your program has done in creating a welcoming, inclusive environment. Consider who is endorsing your career development program. Are there any voices missing from the table?

“I mean, those are all common questions for any student: 'How much work versus what I get at the end?' I can tell them all the great things and benefits of the program and tell them all these amazing things that programs can give them. But when they hear from another medical student who has gone through the training and how are they're utilizing those skill sets now, and how is that making them a better physician? Now, it really is a lot more empowering than just an email or poster or a flyer or just an info session.”

Washington University

ENDORSEMENT

In what ways does your program create an environment that its participants and partners want to endorse to others?

Scholars, past and present

- What spaces exist for prospective students to speak with program alumni?
- Which scholars are recommending your program to others? Why? How do you know? What disciplines and backgrounds do they represent?
- Are there scholars that would not recommend your program? How do you know? And why? Is there an opportunity to rectify?

“We have funded scholars looking at the impact of race on African American women and the impact of acculturalization on LatinX women. And so, I think when word gets around that you have a funding program that is willing to fund that type of translational research project, that's where that word of mouth really helps. We get a lot of people who say, 'Wow', I'm willing to apply to a program that is actually funding that type of research, because it allows me to dedicate time to research”

Medical College of Wisconsin

Program partners

- Who writes letters of recommendation for your students? What are they expressing as the strengths of the program for their prospective scholar? How can you create a stronger connection with recommenders?
- What role do department chairs and deans play in recommending students to your program? Why are they enthusiastic supporters—or why not?

“We intentionally worked with our communications office to sing our praises somewhat selfishly because we have had a lot of good success with it.”

University of Massachusetts

Next Steps

In summary, it is a combination of ongoing, intentional efforts and commitment that will strengthen inclusivity and diversity in your programs. It is important for institutional leadership to view this work as a strategic imperative—not just the right thing to do. A purposeful devotion of time and resources for these inclusive initiatives will enable your shared goals to flourish.

After reading through this From Insights to Action resource, schedule a meeting with your team and leadership to reflect on your career development programs: identify existing strengths, have pointed discussions about areas for growth, and brainstorm specific steps to move your programs forward. We encourage you to share this tool with others across your departments and institutions and keep the conversations and action going!

“We know that the diversity of perspective is what really drives innovation. By keeping our trainee pool as diverse as possible, we help to promote the expansion of translational research in directions that a more monochromatic group of trainees might not necessarily see.”

Indiana University

Special thanks to the CLIC team for all of their effort, passion and enthusiasm for sharing the insights of the CTSA audience.

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