

## Dissemination and Implementation

11554

### Getting the Grant: Assessment of a Monthly Grant Writing Group for Junior Investigators

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**ABSTRACT IMPACT:** NJ ACTS provides mentored coaching in NIH grant writing for early stage investigators. **OBJECTIVES/GOALS:** Launching an independent academic careers requires the ability to effectively communicate the purpose and impact of biomedical research in order to obtain extramural funding. We sought to develop and evaluate an interactive grant writing group of junior faculty and senior postdoctoral fellows mentored by trained coaches. **METHODS/STUDY POPULATION:** Participants meet monthly for 1 hour to peer review Specific Aims pages for grant applications to NIH and private foundations. Sessions are moderated by two senior faculty trained as coaches by the National Research Mentoring Network. Participant grant submission and review of the program are collected annually. **RESULTS/ANTICIPATED RESULTS:** From 2019-2020, 15 faculty and 2 postdoctoral fellows participated in the grant writing group with an average of 5.7 participants each month. Over the year, participants submitted 53 grant applications (68% submitted to NIH with the majority being R21 or R01 grant mechanisms). Half of grants submitted were discussed during peer review sessions. Of the grants reviewed, 42% were funded or near/below the funding payline. Using a 5-point Likert scale, participants highly rated the quality of coaching (mean/SD: 4.9 ±0.2), time discussing their research (mean/SD: 4.5 ±0.8), and the input from other participants (mean/SD: 4.5 ±0.5). **DISCUSSION/SIGNIFICANCE OF FINDINGS:** In conclusion, a monthly meeting of junior investigators hosted by two grant writing coaches is an effective means to receive peer review of grant application aims and support submissions for extramural funding.

25673

### Training the Workforce During a Pandemic: Virtual Internships for Trainees

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**ABSTRACT IMPACT:** Rapid launch of a virtual internship can address clinical and translational science training needs of the New Jersey Alliance for Clinical and Translational Science (NJ ACTS) workforce during a pandemic. **OBJECTIVES/GOALS:** The global pandemic has necessitated innovate strategies for training clinical and translational scientists. With trainees largely restricted from campus, the Workforce Development Core of the NJ ACTS Hub sought to develop and evaluate a virtual 8-week internship program for professional and graduate students within the NJ ACTS community. **METHODS/STUDY POPULATION:** Establishment of the internship required a systematic approach to 1) recruiting projects and supervisors, 2) collecting and evaluating 90 applications, 3) screening and selecting finalists, and 4) onboarding interns that spanned 7 weeks. Core Leads and Researchers within NJ ACTS developed 8 projects to be performed remotely by 11 interns. Leads and co-leads from the Team Science, Special Populations, Community Engagement, Informatics, and TL1

Cores and Programs designed projects. During the internship, participants engaged in a series of career development training and one-on-one mentoring through weekly meetings. The internship culminated in a final symposium open to the entire clinical and translational science community. **RESULTS/ANTICIPATED RESULTS:** Interns spanned different educational programs - pharmacy (36%), medicine (18%), and undergrad (9%)/graduate education (36%). Interns included women (63%), students from underrepresented backgrounds (27%) and students who were first in their family to pursue advanced education (18%). Project topics included competency assessment, COVID-19 clinical trials, marketing materials, community engagement salons, eSource for clinical trials, team science projects, and REDCap utilization. Using a 4-point Likert scale to evaluate competencies, the baseline strengths of interns included team-based science (mean/SD: 3.5 ±0.7). Trainings were designed to address gaps in intern skills including developing written and graphical abstracts (mean/SD: 2.2 ±0.9) and effective LinkedIn pages (mean/SD: 2.4 ±1.0). **DISCUSSION/SIGNIFICANCE OF FINDINGS:** Taken together, the rapid development and launch of a virtual internship program can increase participation of trainees in CTSA Hub research activities and address gaps in their clinical and translational skill set. Plans are to host virtual internships each semester to enhance workforce training and collaboration across Hub Cores.

## Education/Mentoring/Professional and Career Development

56656

### Programmatic Enhancements to Advance Racial Equity in Indiana (IN) CTSI

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**ABSTRACT IMPACT:** We present new programs aimed at training, retaining and preparing a diverse cadre of scientists to lead the field in transforming population health and advancing health equity **OBJECTIVES/GOALS:** To mitigate biases inherent to the R01 grant funding process, trainees from backgrounds underrepresented in medicine (URM) may benefit from enhanced mentorship and a longer 'runway' to funding. As such, we have deployed two synergistic programs that aim to support URM retention and advancement. **METHODS/STUDY POPULATION:** The URM Program for Advising in Research and Development (UPWARD) pairs URM trainees with 2 mentors: 1) an institutional leader from outside their discipline to serve as an internal advocate and 2) an external eminent scholar who will facilitate the scholar's development and prominence within their discipline. Additionally, the KL2 Program to Launch URM Success (KL2 PLUS) offers URM trainees a third year of funding to focus on scholarship, grant writing and leadership development. Four specific training components of KL2 PLUS include: 1) PLUS II Seminar Series, 2) Faculty Success Program, 3) attendance at the AAMC Minority Faculty Leadership Conference, and 4) CTSI Committee Service. **RESULTS/ANTICIPATED RESULTS:** Along with measures of productivity (papers, grants, K to R transition), we will utilize social network analyses and measures of collaboration, retention, and future CTSI engagement to evaluate the programs "success" as both are designed to enhance trainee scholarly

development and expand their professional and social networks. UPWARD does so by supporting engagement with external mentors at professional meetings and travel to present work across institutions. PLUS writing accountability groups will enhance publication rates and grant submissions, while also building connections with other URM faculty. Trainees also serve on IN CTSI committees to groom talent for future IN CTSI leadership. **DISCUSSION/SIGNIFICANCE OF FINDINGS:** Systemic inequities underlie the 'leaky pipeline' challenge we face in cultivating a diverse cadre of senior scientists and independent investigators. With intentional programming and targeted investments, IN CTSI aims to advance more equitable funding outcomes and diverse leadership.

## Evaluation

23688

### Impact of moving to a virtual format with the Wake Forest School of Medicine (WFSM) Mentor Academy (MA)

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**ABSTRACT IMPACT:** The Wake Forest School of Medicine Mentor Academy has adapted to provide continued effective and relevant formal mentoring training to translational researchers in a virtual format, to improve mentoring and provide effective mentor-mentee communication tools. **OBJECTIVES/GOALS:** To determine whether the WFSM Mentor Academy (MA), an effective long-standing mentoring program for research faculty, is compromised after moving from an in-person to an online format as a result of COVID-19 restrictions. **METHODS/STUDY POPULATION:** A vetted National Research Mentoring Network (NMRN) implemented at WFSM addresses 6 major competencies (Effective Communication, Aligning Expectations, Assessing Understanding, Addressing Equity/Inclusion, Fostering Independence, Promoting Professional Development) over 6 months with 10 sessions (20 contact hrs). COVID-19 required that the MA (13 participants) move to an online format after 3 (out of 10) in-person sessions. We survey 26 self-rated mentoring competencies pre- and post MA, based on a numerical 7-point scale (abstract published for ACTS 2020) and, in 2020, included additional assessments of online versus in-person MA satisfaction/effectiveness and perceived impact on abilities of MA participants to mentor in an exclusively virtual format. **RESULTS/ANTICIPATED RESULTS:** All 13 participants responded to the survey and rated the online format as effective (9) or somewhat effective (4) for learning content. However, for participant interactions, only 4 found it effective and 9 somewhat effective. When assessing ability to mentor in a virtual format, most negatively affected competencies were 'helping your mentee network effectively' (7 of 13), 'motivating your mentee' (7), and 'identifying and accommodating different communication styles' (6). Goal setting (research goals, career goals) was rated easier under COVID-19 restrictions by 3 mentors. Increases in Pre-Post self-expressed mentoring effectiveness (+1 pt quality; +1 pt meeting mentee expectations) are similar to historical values, and 12 of the 13 mentors changed mentoring practices based on MA experiences. **DISCUSSION/SIGNIFICANCE OF FINDINGS:** While 2020 ratings for increased effectiveness are similar to prior years, since the 2021 MA will remain online, we will adjust content to address challenges identified in training mentors and in mentoring trainees in virtual settings by

strategies to keep MA participants engaged online and sharing new resources for virtual/hybrid format mentoring.

29043

### Using Milestones to Judge the Progress of Clinical Informatics Fellows Compared with their Personal Goals

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**ABSTRACT IMPACT:** We report a novel metric for assessing clinical informatics fellows relative to their personal goals, using standardized milestones that have been approved for the field by ACGME. **OBJECTIVES/GOALS:** ACGME has defined 20 milestones that serve as the goals for fellows in clinical informatics. Each fellow is rated from 1 to 5 on the achievement of each milestone, where 1 is entry-level, 4 is the level expected of a graduating fellow, and 5 is aspirational. We assessed fellows' progress toward the personal goal levels that they set for each milestone. **METHODS/STUDY POPULATION:** At the start of the fellowship, we asked each fellow to rate the personal target levels that they want to achieve for each milestone. Since the default target level of achievement for a graduating fellow is a 4, we asked fellows to document exceptions from this target. We calculated a metric for each fellow's achievement of each milestone as their achievement rating (assigned by mentors and rotation leaders during the semi-annual Clinical Competency Committee meeting) divided by the fellow's desired level of achievement. In summarizing across the milestones, we counted those milestones having achievement metrics  $\geq 1.0$  as 'achieved,' and then for milestones that were not achieved, we calculated an average for the fellow. **RESULTS/ANTICIPATED RESULTS:** As of June, 2020, our two graduating 2nd-year fellows had fully met 9/20 and 18/20 milestones, respectively. For the unmet milestones they averaged 81% and 85% achievement. The largest shortfalls were 75% achievements in Assessing User Needs for one fellow, and in Recognition of Errors for the other. One of our three 1st-year fellows had fully met 3/20 milestones; the other two had met none at 1st-year's end. For unmet milestones, the 1st-year fellows' average achievement metrics were 69%, 67%, and 52%. The greatest shortfalls were in Resource Utilization (creating job descriptions, budgeting etc.) and in Communication with Patients and Families. However, the rotations that would expose them to project management and to patient-facing systems such as MyChart come in our 2nd-year. **DISCUSSION/SIGNIFICANCE OF FINDINGS:** Assessing milestones met plus the percent achievement for those not yet met provides a useful metric for comparing fellows and identifying areas in need of more training. Although milestones will soon change to reflect the recent practice analysis for clinical informatics, we expect that this approach to assessing fellows will remain equally useful.

45022

### Exploring Career Development Needs of Junior Investigators in Clinical Translational Science

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**ABSTRACT IMPACT:** By understanding Junior investigator characteristics and CTSA support services which strongly influence scientific productivity and impact, we will inform and improve research