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**3143**

## DIAMOND: A Digital Platform for Workforce Development

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OBJECTIVES/SPECIFIC AIMS: The DIAMOND project encourages study team workforce development through the creation of a digital learning space that brings together resources from across the CTSA consortium. This allows for widespread access to and dissemination of training and assessment materials. DIAMOND also includes access to an ePortfolio that encourages CRPs to define career goals and document professional skills and training. METHODS/STUDY POPULATION: Four CTSA institutions (the University of Michigan, the Ohio State University, University of Rochester, and Tufts CTSI) collaborated to develop and implement the DIAMOND portal. The platform is structured around eight competency domains, making it easy for users to search for research training and assessment materials. Contributors can upload links to (and meta-data about) training and assessment materials from their institutions, allowing resources to be widely disseminated through the DIAMOND platform. Detailed information about materials included in DIAMOND is collected through an easy to use submission form. DIAMOND also includes an ePortfolio designed for CRPs. This encourages workforce development by providing a tool for self-assessment of clinical research skills, allowing users to showcase evidence of experience, training and education, and fosters professional connections. RESULTS/ANTICIPATED RESULTS: To date, more than 100 items have been posted to DIAMOND from nine contributors. In the first 30 days there were 229 active users with more than 500 page views from across the U.S. as well as China and India. Training materials were viewed most often from four competency domains: 1) Scientific Concepts & Research Design, 2) Clinical Study Operations, 3) Ethical & Participant Safety, and 4) Leadership & Professionalism. Additionally, over 100 CRPs have created a DIAMOND ePortfolio account, using the platform to document skills, connect with each other, and search for internships and job opportunities. DISCUSSION/SIGNIFICANCE OF IMPACT: Lessons learned during development of the DIAMOND digital platform include defining relevant information to collect for the best user experience; selection of a standardized, user-friendly digital platform; and integration of the digital network and ePortfolio. Combined, the DIAMOND portal and ePortfolio provide a professional development platform for clinical research professionals to contribute, access, and benefit from training and assessment opportunities relevant to workforce development and their individual career development needs.

**3292**

## Duke Integrated Physician-Scientist Development

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OBJECTIVES/SPECIFIC AIMS: 1.Identify barriers to pursuing research for physician trainees 2.Develop a sustainable pipeline of physician-scientists at Duke 3.Coordinate physician-scientist development programs across the School of Medicine under one central Office 4.Provide infrastructure and resources for all physician-scientists 5.Increase the number of MDs and MD/PhDs who pursue, succeed, and are retained in research METHODS/STUDY POPULATION: To establish a baseline understanding of the needs and concerns of physician-scientist trainees at Duke, we conducted focus groups using a standardized interview guide and thematic analysis. Findings from these focus groups were used to develop a framework for support, leading to the creation of the Office of Physician-Scientist Development (OPSD) housed centrally within the Duke School of Medicine. The OPSD integrates programs and resources for multiple populations including medical students, residents, fellows, junior faculty, and faculty mentors. Pipeline programs will also be developed to enhance research engagement in targeted student populations prior to medical school. RESULTS/ANTICIPATED RESULTS: A total of 45 students and faculty participated in the focus groups and structured interviews (1st year medical student, n=11; 4th year medical students, n=11; residents/fellows, n=13; junior faculty, n=11). While participants raised a number of specific issues, one key message emerged: non-PhD MDs in basic research felt they lacked opportunities for directed training. Moreover, they felt the need to teach themselves many critical skills through trial and error. This has led to perceptions that they cannot compete effectively with PhDs and MD-PhD scientists for research funding and positions. Consensus recommendations included: better guidance in choosing mentors, labs, and projects; central resource for information relevant to physician scientists; training specifically tailored to physician scientists conducting laboratory-based research; improved infrastructure and well-defined training pathways; and assistance with grant preparation. To-date, over 90 students, residents, and fellows have been identified who identify as laboratory-based physician scientists. Additional efforts are underway to identify and

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characterize the broader range of physician-scientist students and trainees at Duke. DISCUSSION/SIGNIFICANCE OF IMPACT: Our planning study revealed specific steps forward toward developing a robust community of physician-scientists at Duke. As a first step, the Dean of the School of Medicine has appointed an Associate Dean of Physician-Scientist Development to oversee a new Office of Physician-Scientist Development (OPSD) being launched in December of 2018. The OPSD will offer four primary programs. 1) A concierge mentoring program will assist new trainees in identifying research areas of interest and mentors. Trainees will receive periodic contact to provide additional support as needed and promote success. 2) A physician-scientist training program is being created to provide training specific to laboratory research skills as well as career and professional development training to complement existing clinical and translational research programs. 3) Integrated training pathways will provide additional mentored research training for those pursuing research careers. Pathways will capitalize on existing resources from R38 programs, while pursuing additional R38 and R25 support. 4) An MD-Scientist funding program has been developed to provide additional research funding and protected time for students pursuing a second research year. Through the support and programming offered by the OPSD, we anticipate decreased perceptions of barriers to pursuing a physician-scientist career and increased satisfaction with training opportunities. Over time, we expect such support to increase the number of MD students pursuing research as a career and the number of residents, fellows, and MD junior faculty remaining in research careers.

**3568**

## Education

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OBJECTIVES/SPECIFIC AIMS: The Duke Multidisciplinary Education and Research in Translational Science (MERITS) program was introduced with the goal of providing education and resources to faculty and trainees who are involved in translational research. However, the definition of what translational science is and entails can be widely variable, even within a single institution or department, which creates difficulties in appropriate dissemination of information regarding translational resources and assistance. This objective of this study was thus to obtain baseline information and views of translational science from a pilot population of Duke faculty. Based on data collected in a previous focus group, we expected to observe a lack of consensus regarding the definition and inclusion principles of translational science. METHODS/STUDY POPULATION: A digital survey was distributed to Duke Department of Surgery faculty regarding translational science, including opinions on definition, impacts, experienced barriers, known resources, and future training preferences. RESULTS/ANTICIPATED RESULTS: Ninety-five total responses were obtained, with 79.3% of respondents identifying their work as translational. There was no consensus on the precise definition of translational science, although the majority of respondents reported similar essential elements including multidisciplinary science and transitioning between investigative stages. Respondents noted that translational science increased their job satisfaction and recognition in their field, but also stated that they had experienced barriers to translational science. These barriers were primarily funding (56.4%) or lack of training (38.2%) related. DISCUSSION/SIGNIFICANCE OF IMPACT: The results of our pilot survey suggest that the MERITS program should focus on training investigators on the resources available for translational investigations and expound upon how it fits into and enhances their current and future research endeavors.

**3146**

## Effect of a Junior Faculty Mentoring Program on Confidence in Targeted Academic Skills

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OBJECTIVES/SPECIFIC AIMS: The goal of this study was to evaluate the effect of a junior faculty mentoring program on change in confidence in key academic skills. METHODS/STUDY POPULATION: The Department of Medicine at the Albert Einstein College of Medicine/Montefiore Medical Center enrolled 33 mentees over three years (2015-2018) in a mentoring program that consisted of monthly interactive seminars focused on topics related to building academic careers, works-in-progress, and pairing of each mentee with a mentor. Mentees were asked about their confidence in key academic skills prior to and after completing the program. Confidence levels were assessed on a seven point scale, ranging from 1 (weak) to 7 (strong). Mean confidence levels were compared between pre and post surveys using independent samples t-test. Matching was not accounted for because not all individuals who completed the pre survey also completed the post survey and vice-versa. Of those mentees who completed both pre and post surveys, confidence scores were analyzed using Wilcoxon matched pairs signed rank test, with similar results to those reported here. Each mentoring session was evaluated by those in attendance at the end of each particular session with possible scores of 1 (unsatisfactory) to 5 (excellent). RESULTS/ANTICIPATED RESULTS: On average the mentees had a fair level of confidence in all nine areas assessed at baseline, with the exception of how to get funding ($2.4 \pm 1.7$). Confidence increased in all areas assessed, and except for how to write a paper ($p=.05$) all represented a significant increase in confidence (Table 1). Evaluations of each of the mentoring sessions were high, with mean values ranging from 4.3 to 4.9 on the five point scale. DISCUSSION/SIGNIFICANCE OF IMPACT: This mentoring program significantly improved mentees' confidence in identifying their own professional values and goals, as well as knowing how to turn education into scholarship, work with a mentor, integrate work and life, and give a presentation.

**3149**

## Embedding Implementation Science Within a Translational Health Sciences PhD: Educating Future Scientists to Bridge the Gap Between Research, Practice and Policy

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OBJECTIVES/SPECIFIC AIMS: Determine the effectiveness of a curriculum designed to teach doctoral students to use implementation science theories, models and frameworks in optimizing scientific, social, political, cultural and organizational impact METHODS/STUDY POPULATION: Analysis of Integrated Final Projects across

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