

Permar ABSTRACT: 2019 ELAM Institutional Action Project

Project Title: Duke Integrated Physician-Scientist Development

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Collaborators and Mentors: Colin Duckett, PhD, Vice Dean of Basic Science

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Topic Category: Research

Background, Significance of project: The shrinking pool of physician-scientists is a nationally recognized problem. Since 1995, the number of MDs obtaining NIH K08 career development awards has dropped by 63%, demonstrating a considerable decline in physicians pursuing careers in research, particularly in basic sciences. This decline costs biomedical research the valuable perspective of MD-trained physicians. Duke has long recognized the value of encouraging physicians to conduct research. However, the majority of direct physician-scientist training efforts remains within departments, which are variable in depth, scope, and success. Here we describe survey results on trainee perceived needs and the development of a centralized Duke School of Medicine Office of Physician-Scientist Development.

Purpose/Objectives:

1. Identify barriers to pursuing research for physician trainees
2. Coordinate physician-scientist development programs and resources across the School of Medicine under one central Office of Physician Scientist Development
3. Increase the number of MDs and MD/PhDs who pursue, and are retained in research

Methods/Approach/Evaluation Strategy: To understand the needs of physician-scientist trainees at Duke, we conducted focus groups using a standardized interview guide. 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 SOM.

Outcomes/Results: 45 MD students, trainees, and faculty participated in structured interviews. Our planning study revealed specific steps forward toward developing a robust community of physician-scientist. First, the Dean of the School of Medicine appointed Dr. Permar as the Associate Dean of Physician-Scientist Development to oversee an OPSD launched in December 2018, comprised of 4 main programs: 1) **The OPSD Scholars:** A concierge mentoring program to assist new trainees in identifying research areas of interest, mentors, scholarship oversight committees and individualized development plans. 2) **The Basic Research Training Program and Research Careers Ahead! Seminar Series** were launched to provide training specific to laboratory research skills to MDs, and career development training to complement existing training programs, respectively. These didactic program pilots were launched in January 2019 with official curricula launching in August 2019. 3) **Integrated clinical-research training pathways** seeks to provide mentored research training tracks during clinical training, capitalizing on training grants such as NIH R38 programs, and future R25 support. 4) **An MD-Scientist funding program** to provide additional research funding and protected time for MD students pursuing a second research year. Five scholarships will be made in May of 2019 funded by Burroughs Wellcome Foundation and a SOM philanthropic endowment.

Discussion/Conclusion with Statement of Impact/Potential Impact: Through the support and programming offered by the OPSD, we anticipate decreased perceptions of barriers to pursuing a physician-scientist careers. Over time, we expect such support to increase the number of MD students, residents, fellows, and MD junior faculty remaining in research career pipelines.