ABSTRACT: 2019 ELAM Institutional Action Project

Project Title: Strategies to Maximize Physician-Scientist Success in Academic Medical Centers

Name and Institution: Barbara Kazmierczak, MD PhD, Yale University

Collaborators and Mentors: John Encandela PhD, Gary Desir, MD

Topic Category (choose 1): Administration

Background, Significance of project: Yale School of Medicine recognizes the ongoing need for physician-scientists to fuel innovation in health care science and delivery. However, current models of physician-scientist (P-S) faculty development and support are not reliably successful in sustaining individuals in this career track at our institution. Factors strongly associated with professional success that lead to retention and promotion of P-S faculty in research-intensive positions have not been systematically assessed. By identifying such factors, and then maximizing them through the resources and mentoring offered to newly recruited P-S faculty, we expect to improve both short-term measures of P-S success, as well as long-term outcomes associated with retention of these individuals in research-intensive careers at our institution.

Purpose/Objectives: To identify factors associated with retention of Yale P-S faculty in research-intensive career tracks, and to propose an evidence-based strategy to (re)structure recruiting/hiring practices and early-career mentoring to maximize these factors for newly recruited faculty.

Methods/Approach/Evaluation Strategy: In collaboration with department leadership, I identified faculty hired over the past 15 years to the Department of Medicine (DOM) with the initial expectation of advancement as physician-scientists engaged in laboratory-based research. I reviewed the literature regarding successful outcomes of physician-scientist training to identify common measures of success in a research-intensive career (e.g. publications, funding, allocation of effort, honors/awards). I also carried out structured interviews with selected faculty to identify resources, mentorship and sponsorship that they identified as important to success for a P-S hired at Yale. I then developed and administered a survey instrument to faculty hired to P-S positions to measure their access to resources, mentorship and sponsorship. Survey responses will be analyzed to identify those factors correlated with objective measures of research productivity and success in career.

Outcomes/Results: We will identify factors correlated with success of P-S faculty engaged in laboratory-based research in the DOM. We will extend our study over the coming year to physician-scientists in other departments, and to those engaged in non-laboratory based research. This will establish which resources are associated with success in general across this class of faculty, versus those that are discipline- or department-specific. Second, we will ask whether factors generally associated with success can be maximized for new recruits by re-structuring the hiring offer, the mentoring provided to that individual, and/or the milestones developed and measured during early career. An evidence-based "recruiting protocol" will be developed to guide DOM physician-scientist hiring. By identifying aspects of the initial offer most likely to impact career success, defining milestones that support ongoing investment in research activity, and providing early mentoring to help faculty reach these milestones, we expect to improve retention of P-S faculty in research as compared to the baseline rate we have documented.

Discussion/Conclusion with Statement of Impact/Potential Impact: Thoughtful and evidence-based provision of resources and mentoring, as well as identification of meaningful and predictive early milestones of success are likely to increase the success of all P-S faculty in our DOM. Such a strategy may have a particularly outsize impact on the success of P-S faculty belonging to groups under-represented in medicine, or to departments where P-S faculty are rare. By identifying early milestones predictive of continued success, as well as strategies to reach those milestones, we expect such "pioneer" P-S faculty to persist more successfully in this faculty track.

Strategies to Maximize Physician-Scientist Success in Academic Medical Centers

Barbara Kazmierczak MD PhD, Yale School of Medicine

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Yale SCHOOL OF MEDICINE

Mentor: Gary Desir, MD.
Collaborator: John Encandela, PhD

ELAM

Presented at the 2019 ELAM® Leaders Forum

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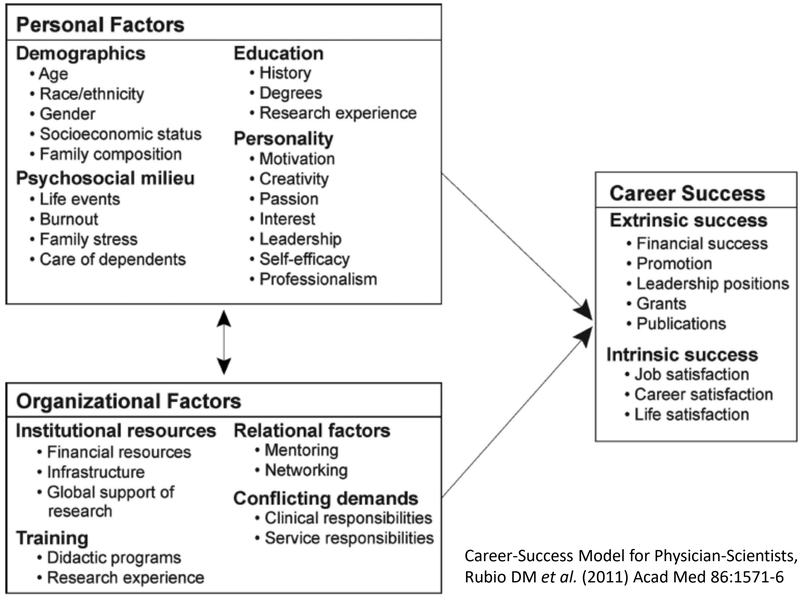
Fig 1. Career-Success Model for Physician-Scientists, University of Pittsburgh Research on Careers Workgroup



Career-Success Model for Physician-Scientists, Rubio DM *et al.* (2011) Acad Med 86:1571-6

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