Project Title: Developing a the research scientist pipeline at the Icahn School of Medicine at Mount Sinai

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Topic Category: Research

Background, Significance of project: Academic medical centers are facing the challenge of maintaining a physician-scientist pipeline from pre-medical programs to supporting junior faculty, in an era of decreasing funding opportunities. Physician-scientists are critical to advancing our biomedical research evidence base, and to new discoveries that will revolutionize medicine. However, our physician-scientist workforce has been declining in the past decade, with a reliance on an increasingly senior workforce, and fewer medical students interested in research. At Mount Sinai we are committed to recruiting and retaining excellent physician-scientists at every step on the pathway to independence, and while we currently have some excellent pipeline programs, we have opportunities to improve and coordinate across schools and departments.

Purpose/Objectives:
To evaluate our existing physician-scientist pipeline development programs, and identify potential needs within the institution, to continue to recruit and retain excellent physician-scientists at the Icahn School of Medicine at Mount Sinai.

Methods/Approach/Evaluation Strategy:
I worked with Dr. Benjamin Chen, the Vice-Chair for Research in Internal Medicine to write three collaborative R38 proposals that would fund 6 research residents per year in the areas of cancer prevention and control, diseases of the heart, lung and blood, and allergic and infectious diseases. I have been meeting with research program leadership to determine what programs we have currently, and where we have the areas of greatest need. I will now begin more targeted interviews towards program development. For evaluation, I will look at both process measure (self report of interview completion and program development), as well as outcome measures, including the number of physician scientist faculty and trainees recruited and retained, and the research scientist faculty satisfaction.

Outcomes/Results: Research Resident Grants: Thus far we have scores on two of the three R38 proposals; our score for cancer prevention and control is borderline fundable, and our score for diseases of the heart, lung, and blood is probably not. We will hear about allergy and infectious diseases in April.

Available pipeline programs: I have met with the leaders of many of our pipeline programs. A website is currently under development which will link all of our pipeline programs and allow trainees to view the full extent of our pipeline.

Opportunities for pipeline development: Throughout our discussions, the idea of supporting residents and fellows more directly in their professional development has often come up. We currently have an excellent Mentoring the Mentors program, which is being given to more senior faculty at Mount Sinai. We are in the process of discussing a program that would provide mentor training to residents and fellows. This would both be good experience in how to be a better mentee, but also allow them to start experiencing mentorship with medical student and
residents. In the third phase of my project, I will develop and pilot test a Resident and Fellow Mentoring the Mentors Program.

Discussion/Conclusion with Statement of Impact/Potential Impact:
The process has provided me with an excellent opportunity to gain understanding of our pipeline programs, meet with program leadership, and provide input into potential opportunities for development. As I move forward with developing a program to teach mentoring skills to our residents and fellows, I will continue to interact with many of our leaders.