

May 27, 2009

Dear Chairman Augustine and members of the SMRB –

My name is Jennifer Monti and I am a fourth year medical student at the Cleveland Clinic Lerner College of Medicine, Case Western Reserve University. This program is a unique 5-year MD program that emphasizes research training. I am also obtaining an MPH during the course of my training. My education is funded through an NIH Physician-Investigator Training Grant to the Cleveland Clinic. I am the, young potential PI that the SMRB discussed at its April meeting. I write to offer three comments and two specific recommendations on actions the SMRB can take to gather data to guide its recommendations on how to successfully attract and retain young clinical investigators.

31 colleagues and I entered our medical school training with a specific interest in research training. My enthusiasm for such a career has waned, rather than increased, throughout the course of training. The key obstacle to my interest in pursuing an academic research career is a *clear lack of leadership opportunities* within academic medicine for young leaders. The central message of medical training is to wait.

It is difficult to see a path towards leadership in a bureaucratic system that generally requires a young investigator to ride someone else's coattails into the safe harbor of tenure or to hopes of a self-sustaining grant. There seems to be no place for young participation in leadership groups. I may have been the only person in the room at the SMRB meeting who was under 30 years old. Yet, the lack of young investigators is precisely a key problem underlying the clinical research enterprise. Would the SMRB have dismissed out of hand the comments of a young scientist who was invited to sit at the table? Or is that perspective welcome? Or does the SMRB think it knows enough of what needs to be done to retain people like me? Is there no place for young people to weigh in on the organizational structure of NIH and its relationship to future research success? I would opine that a younger generation's input is crucial to questions #1 ('what would the NIH look like de novo) and #3 (Intramural Center and Clinical Center) that the SMRB agreed to take up in its work.

It may be possible to re-engage young physician investigators by inviting them to participate in discussions on the future of NIH organizations to optimize research processes. I ask the SMRB to consider the benefit versus the burden of seating a young trainee at the table with older voices. In the best case, the younger voices will add unique perspective that may prevent NIH from creating obstacles rather than opportunities. In the worst case, the opinions of the younger voices are shouted down and saved for a later date.

Second, there is concern among young scientists that it is more important to work with someone who has an important name than someone who has good ideas. Several classmates of mine have had to battle with program administrators to work in research environments with scientists who do not have years of experience. This simply reinforces the idea that the best way to get along is to go along, and those who have been around the

longest must have the best ideas. The SMRB must examine the willingness of NIH to grant autonomy to researchers at a younger age and invest in a mentorship model for younger investigators rather than a single PI-subordinate model. I would propose the development of an innovator grant titled, '30 under 30', or something equally catchy to empower young investigators to pursue their own ideas. 30 researchers, 300,000 apiece, for 3 years, to make their own decisions in collaboration with a more senior PI who advises but does not make final decisions. NIH would essentially be funding 30 start-up organizations. What is the benefit versus the burden of a such an approach?

Third, peer review is intended to be a democratic process, and it ought to remain the backbone of grant making in the NIH community. However, I was struck by the comments that study sections fund the most predictable science. Why should we expect people who have been successful with one model to suddenly decide to fund something that is in a radically different vein? This reminds me of the classic problem of innovation in industries – perhaps Mr. Augustine will appreciate the analogy? The large steel mills missed the boat on flexible, more innovative ways to make steel. They saw the smaller technologies as peripheral to their core business, so they let those segments of the market go. In time, there was no comparative advantage for the large steel companies. Blockbuster missed Netflix, Kentucky Fried Chicken missed the grilled chicken sandwich, and Microsoft underestimated the Internet. Why should we expect the large NIH, the same faces of study sections, even senior faces, to be comfortable with something that looks different and has not been successful before? Why change what is, from the perspective of the owners, a good system that has reaped modest, predictable rewards for those in power?

I propose an experiment on peer review. Thousands of grants have recently come in through the Challenge Grants program. NIH will review the proposals through traditional channels. I propose to form a small group of physicians and scientists in training to evaluate the same stack of grants and make recommendations and scores on the grants. What if the two groups of reviewers come up with very similar rankings? What does that say about the need for highly seasoned reviewers? Could the data spur the inclusion of younger scientists in leadership positions to make them more invested in research process and outcomes? Perhaps the grants would be ranked in a radically different order by the traditional and younger groups; this data would offer an innovative perspective on what each group valued in the ranking processes.

SMRB is charged with evaluating how the structures of the NIH can be optimized to further the research prowess of the organization. Autonomy and inclusion of young researchers is crucial to their investment in the processes and outcomes of research. Inclusion of young people in decision making bodies, unique funding channels, and peer review processes would begin to signal that the NIH culture is transforming from a stodgy, bureaucratic, clubby vehicle to an institution that seizes new ideas, leaves rank at the door, and welcomes new voices.

If young people are not invested, no changes in organizational structure can will us to engage. We will not come just because it is built properly. We will only come if we helped build it.

Thank you for your work and the opportunity to comment.

Best regards,

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