



November 4, 2014

Francis Collins, MD, PhD
Director
National Institutes of Health
1 Center Drive
Bethesda, MD 20892

Dear Dr. Collins:

The Infectious Diseases Society of America (IDSA), Pediatric Infectious Diseases Society (PIDS) and HIV Medicine Association (HIVMA) are concerned by the steady decline in the number of physician-scientists in the biomedical workforce and appreciate the opportunity to offer comments on the National Institutes of Health (NIH) *Physician-Scientist Workforce Working Group Report*. IDSA, PIDS, and HIVMA represent over 10,000 infectious diseases physicians and scientists devoted to patient care, prevention, public health, education, and research in the area of infectious diseases.

Research provides important new information on which all clinical decisions, treatment protocols, and infection prevention strategies depend. As such, IDSA, PIDS, and HIVMA actively support a broad and long-term vision to continuously invigorate the conduct of infectious diseases (ID) and other biomedical research to optimize clinical care. In addition, completing a research project is a requirement of postgraduate training for infectious diseases physicians, as mandated by the American Board of Pediatrics and the American Board of Internal Medicine. In the field of ID, a robust cadre of research investigators is critical to confronting serious issues facing patients and public health, including antibiotic resistance, HIV/AIDS, emerging infectious diseases, vaccine development, and bioterror and pandemic preparedness to pathogens such as enterovirus D68 and Ebola virus.

Since 2008, IDSA has vigorously investigated existing barriers to the entry of infectious diseases trained physicians into research careers by extensively surveying adult and pediatric ID fellows and younger ID physicians regarding their career choices. Based on our findings, IDSA has taken efforts aiming to turn the tide of declining numbers of physician-scientists. One initiative we have undertaken is the annual Infectious Diseases Research Careers Meeting jointly sponsored with the National Institute of Allergy and Infectious Diseases (NIAID). Since 2011, this three-day meeting has provided an opportunity for junior scientists to hear from research pioneers, present their own research work, and participate in career development panels. Similarly, PIDS hosts an annual scientific meeting in collaboration with St. Jude Children's Research Hospital that focuses on the presentation of original research, career development, and strategies for funding. IDSA, PIDS, and HIVMA value our productive relationship with the NIH in advancing our mutual goal of strengthening the physician-scientist workforce and applaud the release of the report by the Physician-Scientist Workforce (PSW) Working Group (WG). We look forward to continuing to work with you to develop and implement approaches to strengthen

the U.S. physician-scientist biomedical workforce. We hope our comments on the WG recommendations will be useful to you as you continue to advance these vital efforts.

1. NIH should sustain strong support for the training of physician scientist trainees.

We support this recommendation made by the WG. One of the most significant problems physician scientist trainees face is the inadequate pay scale for those on training-type grants. Therefore, we strongly urge that the NIH also consider increasing the pay scale or permitting investigators to make up the difference, using federal funds, between what their training grants allow and what their institution's pay scales often require for trainees. We also urge you to allow other research dollars to fill the gap required to meet the protected time requirement. This issue is particularly important for T, F and K awards, which typically fall significantly below pay scale. IDSA, PIDS, and HIVMA also recognize that physician scientists further along in their training benefit from research exposure, and recommend that the WG consider expanding research training support for those within fellowship training programs. Additionally, we support providing compensation and protected time set aside for critical preparatory work needed to conduct research (such as grant writing, clinical trial development, and recruiting patients for clinical studies).

2. NIH should shift the balance in National Research Service Award (NRSA) postdoctoral training for physicians so that a greater proportion is supported through individual fellowships, rather than institutional training grants.

IDSA, PIDS, and HIVMA support efforts to target funding to physician scientist trainees, such as more individual F30/F31 fellowship awards, especially those that provide pre- and post-doctoral support. However, we strongly disagree that any increase to individual NRSA support for physician scientists should come at the expense of institutional training grants, which provide some of the most important and useful support for training physician scientists. These institutional programs provide critical infrastructure that promotes effective clinical investigator training as well as exposure to basic research opportunities that individual NRSA F awards may not offer. We urge the NIH to consider other, more effective methods that do not jeopardize or weaken institutional training programs to bolster other, potentially less effective, funding tools. Other recommendations that we believe would have a bigger impact on the physician scientist workforce include addressing the pay scale gap for awards, and bolstering K to R transition support, as are discussed in greater detail in our responses to recommendations 1 and 3.

3. NIH should continue to address the gap in RPG award rates between new and established investigators.

We support this recommendation and encourage the exploration of novel pilot approaches to increase the award rate for new investigators, such as NIH's New Investigator Policies that are currently addressing the R01 award gap. The NIH should also consider approaches to address the poor rates of successful renewals of first-time R01 award recipients. Moreover, given that the goal of postdoctoral training and career development awards is to generate a cadre of independent physician scientists, we recommend that the focus on the "K to R" transition should be similar to that placed on postdoctoral training.

4. **NIH should adopt rigorous and effective tools for assessing the strength of the biomedical workforce, including physician-scientists, and tracking their career development and progression.**

The accurate assessment of the biomedical workforce is critical to ensuring the long-term viability of infectious diseases as a field of study and practice. Therefore, we support the development of the Biomedical Workforce Dashboard application to enable real-time tracking of career development and progression statistics of the ID workforce. However, given the current austere fiscal environment, we caution against any diversion of funding from physician scientist training and recommend that other funding options be considered to support this type of assessment.

5. **NIH should establish a new physician-scientist granting mechanism to facilitate the transition from training to independence.**

We strongly support efforts to provide physician-scientists with K to R transition-type grants. Additionally, we fully support the rigorous enforcement of 75 percent protected time for research. Conversely, for physician-scientists to be key contributors to medical research in a clinical setting, adequate clinical exposure must also be considered for physician-scientist's non-research time.

6. **NIH should expand Loan Repayment Programs and the amount of loans forgiven should be increased to more realistically reflect the debt burden of current trainees.**

IDSA, PIDS, and HIVMA strongly believe that expanded Loan Repayment Programs, paired with an updated loan forgiveness amount that more accurately reflects the debt burden of training, will help alleviate one of the major barriers to recruiting and retaining physician-scientists in the biomedical workforce, i.e., the uncertainty surrounding the ability to repay student loans.

7. **NIH should support pilot grant programs to rigorously test existing and novel approaches to improve and/or shorten research training for physician-scientists.**

We agree that streamlining research training can be beneficial as long as the integrity of basic research training is preserved, but are concerned that efforts to shorten research training time may come at the expense of clinical training. Physician-scientists contribute to both clinical and basic research efforts through their unique understanding of both clinical medicine and research techniques. Thus, they require adequate time to develop clinical competence in addition to basic research skills. The fellowship period provides important opportunities in this regard, but additional clinical time may also be valuable.

8. **NIH should intensify its efforts to increase diversity in the physician-scientist workforce.**

IDSA, PIDS, and HIVMA agree with efforts to increase the numbers of underrepresented minorities in the physician-scientist workforce, and also encourage NIH to do more to assist female physician-scientists through the early years of their careers. For example, we are concerned that current NIH grants do not allow trainees to take maternity leave, which is a major impediment to young female physician-scientists. In addition to maternity leave, resources that provide support for childcare and other domestic tasks that often disproportionately fall to women can be very effective at providing time for research. For

example, creative programs with flexible institutional money have been applied to hiring technicians, babysitters, etc. in order to free mothers to work on research. We encourage the WG to survey female physician-scientists to determine their needs, which may include more opportunities for leadership development and support for mid-career women and minorities (which in turn influences the pipeline of women and minority scientists). We also urge the WG to consider supporting family leave for physician-scientists when a child is born or if there is a family illness.

9. NIH should leverage the existing resources of the Clinical and Translational Science Awards (CTSA) program to obtain maximum benefit for training and career development of early-career physician-scientists.

We are concerned that altering the CTSA program may result in funding cuts or discontinuation of existing KL2 mentored clinical research scholar awards. KL2 awards support mentored research career development for clinical investigators who have recently completed training and are commencing basic, translational, and/or clinical research. We would like further clarification of how existing resources of the CTSA program will be leveraged and how the “maximum benefit” will be determined, as the KL2 awards are critical in supporting new investigators embarking on research careers, particularly at the junction between the NRSA awards and the NIH K awards.

IDSA, PIDS, and HIVMA recognize that addressing the unique challenges faced by physician-scientists as they fulfill their dual roles of investigator and clinician will require a collaborative effort by all stakeholders, and we hope that these comments will be taken into consideration by the WG as it moves forward to “support a sustainable and diverse clinical research infrastructure.” Should you have any questions about these comments, please contact Gregory Frank, IDSA Program Officer for Science & Research Policy, at gfrank@idsociety.org or 703-299-1216.

Sincerely,



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