

Enhancing Graduate and Postdoctoral Education To Create a Sustainable Biomedical Workforce

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PhD-trained biomedical scientists are moving into an increasingly diverse variety of careers within the sciences. However, graduate and postdoctoral training programs have historically focused on academic career preparation, and have not sufficiently prepared trainees for transitioning into other scientific careers. Advocates for science have raised the concern that the collective disregard of the broader career-development needs for predoctoral and postdoctoral trainees could drive talent away from science in upcoming generations. A shift is occurring, wherein universities are increasingly investing in centralized career development programs to address this need. In this Perspective, I reflect on the movement that brought biomedical PhD career development to the spotlight in recent years, and how this movement has influenced both the academic biomedical community and the field of career development. I offer recommendations for universities looking to establish or strengthen their career development programs, including recommendations for how to develop a campus culture that values career development as part of pre- and postdoctoral training. I also suggest steps that faculty might take to facilitate the career development of their mentees, regardless of the mentee's career aspirations. Finally, I reflect on recent national efforts to incentivize innovation, evaluation, and research in the field of biomedical PhD career development, and propose actions that the scientific community can take to support biomedical career development further as a scholarly discipline. These investments will enable new approaches to be rigorously tested and efficiently disseminated to support this rapidly growing field. Ultimately, strengthening biomedical career development will be essential for attracting the best talent to science and helping them efficiently move into careers that will sustain our nation's scientific enterprise.

Keywords: graduate education, postdoctoral training, career development, professional development, workforce

INTRODUCTION

PHD-TRAINED BIOMEDICAL SCIENTISTS have always pursued a variety of career paths. However, the movement of PhDs into diverse careers within the sciences is now a rapidly growing trend, as the number of graduate students and postdoctoral scholars being trained has outpaced the growth in academic scientist positions.¹ Without comprehensive tracking of long-term career outcomes, universities and funding agencies for years were able to ignore this reality.² However, in the past decade, trainees have become increasingly disgruntled with their career prospects. Many seeking faculty positions now recognize the extent to which

their job search prospects have degraded, while those seeking other scientific careers commonly report feeling unsupported and/or underprepared to pursue them. As a result, graduate students too often move into postdoctoral training positions to buy more time for career exploration, an inefficiency that comes at an opportunity cost for the trainee and for our broader scientific enterprise. PhD trainees generally receive outstanding scientific training, but the challenge in identifying a clear path forward has created a tension within this important segment of our workforce. Advocates for science have raised the concern that our collective disregard of the career development for these

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trainees could drive talent away from science in upcoming generations^{2–5}—and trainees have begun mobilizing to advocate for change.^{6,7}

There are two key gaps in graduate and postdoctoral education at the core of this issue. First, trainees lack knowledge about the career options available to them. Second, trainees are too often insufficiently prepared—in fundamental career planning skills, professional skills, or areas specific to their intended career path—to transition into these careers efficiently. These gaps in training are compounded by the underlying culture of academe, which strongly values research-intensive academic career paths over other career outcomes^{8,9} and devalues career development as a distraction from thesis or postdoctoral research. This culture impacts trainees, discouraging students and postdocs from taking their own actions or participating in campus offerings even where they do exist. But in today's competitive and diverse job market, students and postdocs must be empowered to make informed career decisions early in their training and take strategic steps to make themselves competitive candidates (Fig. 1).

To support the next generation of scientists, we as faculty mentors, university administrators, and leaders of graduate programs need to develop a

culture that encourages the career development of our trainees, and enhance our educational approach such that career exploration and development of our trainees can occur in synchrony with their research. We are at a tipping point: after years of national reports raising concern about the sustainability of the biomedical research workforce, many in the scientific community are beginning to embrace formalized career development as one of many parallel approaches toward sustainability. But we have only begun. What should be the next steps forward?

Here, I will reflect on the movement that brought PhD career development into the spotlight, and my observations of how this movement has influenced both the academic community and the field of career development. Then, I will outline next steps we can take to capitalize on the momentum. For universities still on the fence regarding the value of investing in career development programs, I will share my own views on how a relatively small investment can ultimately benefit the university's research and academic missions—and how to get started efficiently by taking advantage of the many models and resources that already exist. I will describe minimal yet meaningful steps that individual faculty can take to support the career

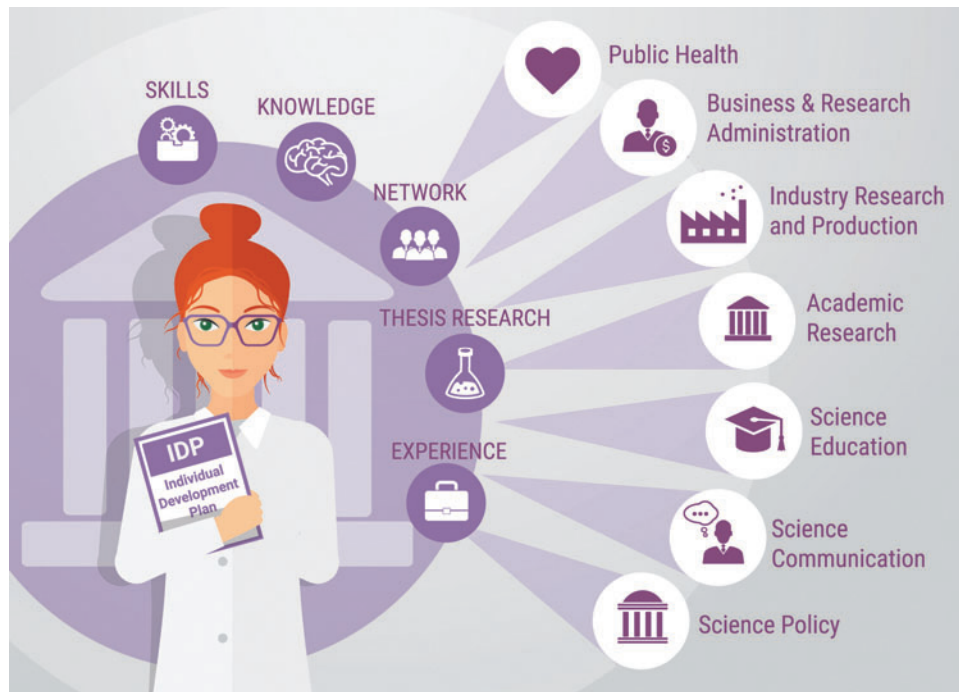


Figure 1. Today's biomedical PhD trainees seek to enter a diverse array of research and research-related career paths. To address this reality, universities are reassessing how to encourage early career planning and how to facilitate trainees' development of skills, knowledge, experience, and a professional network in their career path of choice. Trainees' career development can be achieved in synchrony with thesis and postdoctoral research, benefiting both the academic and research missions of the university.

development of their students and postdocs. Finally, I will propose actions we can take as a broader scientific community to support the emerging field of biomedical PhD career development as a scholarly endeavor, so that we as a nation can continue to address the evolving needs of the biomedical workforce.

The perspective I offer is rather unique. When I entered the field of career development by joining a career center just over 10 years ago, it was rare for a PhD scientist to be in such a role. Crossing disciplines has helped me appreciate how the academic community and career development community can work toward common goals synergistically. Over the years, I have had the privilege of contributing to national conversation about career development and workforce issues at dozens of universities, professional society meetings, and summits, as well as with funders. These experiences have given me insights into the richness and disparities of structured career development programs across U.S. academic institutions, challenges commonly faced by institutions launching new programs (and solutions to address them), and both the progress and inefficiencies born out of the recent rapid expansion of this already-disperse field.

HOW DID WE GET HERE? A NATIONAL MOVEMENT THAT BROUGHT CAREER DEVELOPMENT TO THE FOREFRONT

Our attention to the career development needs of graduate students and postdocs has changed dramatically over the past decade. I entered career development at a time when a national dialog about challenges facing early career researchers was beginning to build. National reports had highlighted the growing number of PhDs being trained, the lengthening of postdoctoral training, and the challenges for early-career scientists pursuing academic positions.^{2,10,11} With the founding of the National Postdoctoral Association in 2003, more and more universities began establishing postdoctoral offices, in part to better meet the professional development needs of postdocs.¹² In 2002, a faculty committee of the Federation of American Societies for Experimental Biology introduced the Individual Development Plan (IDP), a concept adapted from other sectors, as a tool for prompting postdocs to take action toward their career preparation and to engage their research advisor in the process.¹³ As the biomedical community emerged out of the historic period of National Institutes of Health (NIH) budget doubling (1999–2003), national discussion strengthened again and broadened to include the

consideration of career development for predoctoral trainees. Our 2008 survey¹⁴ revealing the diverse career interests of graduate students at the University of California San Francisco (UCSF)—and their lack of clarity in career choice—contributed to the national dialog. The data struck a cord, pushing institutions to consider whether their own students had similar career interests. To me, the data were also striking because they suggested that simply offering career development programs was not sufficient (UCSF had well-established career development programs¹⁵ that continue to serve as a model for the country today). National studies echoed our findings, and highlighted trainees' concerns about the lack of structured training programs available for their career development.^{16–18}

In my view, the major sea change occurred with the release of two reports from the NIH. The NIGMS Strategic Plan for Biomedical and Behavioral Research Training (2011),¹⁹ followed by the NIH Biomedical Workforce Working Group Report (2012),¹ captured the attention of the academic biomedical community. These reports signified a major change in philosophy for the NIH, a funding agency that provides the bulk of biomedical research funding in academia. The reports shed light on the challenges of accurately tracking scientists into and out of the predoctoral and postdoctoral training pool, the diversity of career paths that U.S.-trained PhDs pursue, and a new direction for the funding agency: to value training outcomes explicitly in both research-intensive and research-related career pathways, whether in academe or other sectors. As a result of the reports, the NIH changed a number of policies within a 2-year period. The NIH began requiring that principal investigators report on the use of IDPs in annual progress reports, along with the expectation that universities develop institutional policies for IDPs to facilitate their trainees' career planning.²⁰ For programs funded by training grants, the NIH encouraged the posting of trainee career outcomes and broadened the criteria defining successful career outcomes.^{21,22}

At the same time, a new funding opportunity—the NIH Broadening Experiences in Scientific Training (BEST) award—was announced in 2013 as a special project of the NIH Common Fund in the Office of the Director with the goal of supporting “bold and innovative approaches” to prepare trainees better for the “range of career options” available to them, establishing a “new paradigm for graduate and postdoctoral training.”²³ The funding opportunity incentivized graduate schools across

the country to reassess their own models for the career development of their trainees. Ten grants were awarded in 2013 and seven in 2014, bringing together 17 sites that are trying different approaches, sharing ideas as a consortium, and participating in a cross-site evaluation led by the NIH.^{24,25} Significantly, a number of other institutions not funded by the grant used the momentum to enact elements of their own proposed programs. For example, Johns Hopkins University School of Medicine received funding from the university provost to launch an internship program for biomedical PhDs.²⁶ For those of us funded, the grant offered an unusual opportunity to test our initiatives rigorously by measuring long-term outcomes—a significant first step toward transforming career development for biomedical PhDs into a scholarly field.

The national conversation is progressing now, moving away from “should we be providing career development to PhDs?” to “how do we do so effectively?” I have been struck by the rapid expansion of the career development field in the past 5 years, with an explosion in the number of universities hiring staff dedicated to the career and professional development of predoctoral trainees.* Even more striking to me is an apparent shift in our academic culture from viewing career development as an extracurricular activity toward embracing career development as part of the academic mission of the university. Over the past 2 years, my invitations to speak at universities transitioned from teaching workshops to trainees, to meeting with administrators to discuss program implementation, to giving faculty seminars to discuss key issues in trainee career development and tools for addressing them. Other colleagues in the field have also noted a similar transition. In the past year alone, career development was featured in two summits focused on enhancing graduate education.^{27,28} The topic has also been prominent at regional and national meetings to address the sustainability of the biomedical enterprise.^{6,7,29–31} We as a scientific community are embracing the reality that our PhD trainees are pursuing a multitude of career options, and recognizing that we need to consider more thoughtfully how best to facilitate their preparation for these careers.

*In a 2016 survey of members of the Graduate Career Consortium (GCC), a professional society for career development professionals serving PhD and postdoctoral trainees across all disciplines, nearly two-thirds of the 163 respondents had been in the field of career development for 5 years or less (unpublished data, Graduate Career Consortium, 2016).

HOW CAN UNIVERSITIES ESTABLISH OR STRENGTHEN CAREER DEVELOPMENT PROGRAMS FOR PHD SCIENTISTS?

Centralized training, resources, and services can efficiently address the gaps inherent to the traditional lab-centric apprentice model for career development. However, I believe there are two key steps that universities must take for central career-development programs to have impact. First, we as an academic community must intentionally embrace the fact that PhDs seek a multitude of scientific careers, and shift the cultures within our graduate schools, graduate programs, academic departments, and research groups to value and encourage openly the career development of our students and postdocs. One way to begin this process is to use local data to initiate campus dialog. Universities have found it helpful to highlight career outcomes for predoctoral and postdoctoral alumni³² and survey data¹⁴ defining the career interests of current trainees and their perceived gaps in career readiness. As a next step, at UMass Medical School, we brought career development out into the open by integrating professional skills and career development workshops, courses, and assignments into the required curriculum for all PhD students in the basic biomedical sciences, spread across all years of training.³³ This established an expectation from the first week of classes that all career outcomes are valued by the institution, and that career development is a key element of training. We designed lessons and assignments within the curriculum so that they intentionally aligned professional skills development with relevant milestones in students’ research training. This built campus trust in the program and facilitated the expansion of career development initiatives outside the curriculum. Though we did experience some initial push-back to building career development into the required curriculum, overall our campus has embraced the approach. Faculty and students have reported positive changes in our underlying campus culture, including more open discussion of career interests.

Second, it is important to invest in career development as a part of the university’s academic mission. Though more and more universities are moving in this direction, most programs are still in their infancy or are challenged by insufficient resources. Many faculty I talk with are unclear about what role career development programs might play, or remain skeptical about their effectiveness. Centrally funded career development programs can encompass a number of different domains (see

Table 1). Within these domains, I have found that

Table 1. *Domains of career development for PhD scientists*

Career exploration and planning:
 Self-awareness and assessment
 Awareness of and knowledge about career options
 Evaluating career options
 Setting goals to improve career readiness
 Innovating one's own career path

Professional skills²:
 Writing skills
 Presentation skills
 Managing projects, time, and resources
 Managing people (interpersonal communication skills)
 Developing and maintaining a professional network
 Appreciation for diversity
 Wellness and stress management
 Navigating a job search and career transition

Career-specific readiness:
 Knowledge needed for a particular career path
 Skills needed for a particular career path
 Professional network in desired career path
 Career-specific mentoring
 Practical experience specific to the career path
 Job-search strategies specific to the career path

²Professional skills are not always defined as a domain within career development. They are included here because they are key to success in any career, and are an area where employers report PhD scientists could have stronger training. Often professional skills are taught in the context of one career path (e.g., grant writing for academic research careers). A strong career development program would address professional skills in a way that is inclusive of many different types of scientific career paths.

students and postdocs value programs that dive relatively deeply into topics. Therefore, one recipe for building a strong program is to decide what the area(s) of focus will be, and invest in hiring a full-time career development professional(s) who can then develop pedagogical expertise in that area(s) and tailor training to the specific context of biomedical sciences. As such, universities are increasingly hiring PhD scientists to direct career development programs.[†] Regardless of their background, career development professionals should build partnerships with faculty, who can further advise on tailoring programs to biomedical research needs, help build connections to alumni, facilitate integration with other initiatives within the campus's research or academic enterprise, and enhance buy-in by acting as advocates.

University investment in central resources comes at a cost (to start a minimal program, one or two full-time professionals and a program budget), but it is likely to pay off in numerous ways. Our university

[†]In a 2016 survey of members of the GCC, a professional society for career development professionals serving PhD and postdoctoral trainees across all disciplines, half of the 163 respondents held a PhD in a field not related to counseling (unpublished data, Graduate Career Consortium, 2016).

sees the investment as a way of strengthening the core workforce of our research labs by (1) helping to recruit the strongest students and postdocs and (2) enhancing their professional skills once they are here. Central programs can further enhance research productivity by helping trainees more easily access time-efficient resources and opportunities for their career development. Investment in career-development programs tailored to the needs of PhDs can be key to bringing in additional funding—including training grants, grants to support programs for underrepresented minorities, and individual fellowships. It can also pay off in development dollars: PhD alumni are an untapped population at most universities, and it follows that alumni who feel they have had a supportive graduate or postdoctoral experience are more likely to become future donors. Career development programs that reach out to regional employers can strengthen industry-academia partnerships, enhancing research collaborations or even program sponsorship. Considering the minimal cost of career development programs within the broader context of universities' large training and research operations, it should be easy to help administrators recognize how the investment can be quickly recouped.

There are many resources that can help facilitate the launch of new programs. The Graduate Career Consortium (GCC), a professional society for staff, faculty, and administrators who direct PhD-level career development programs across more than 175 institutions, has been active for nearly 30 years with annual meetings and train-the-trainer events.³⁴ The NIH BEST Consortium also prioritizes dissemination, and it will be hosting an open meeting in September 2017 to share lessons learned for launching new programs through graduate school structures.³⁵ The National Postdoctoral Association and Association of American Medical Colleges' Group on Graduate Research Education and Training also feature sessions focused on career development at their annual meetings. Regional collaborations can further facilitate program development. For example, a consortium of 15 universities in the New York City region co-host "What Can You Be With a PhD?," a biennial 2-day career symposium featuring workshops and career panels that typically draws more than 1,000 attendees.^{‡,36} Within a university, a biomedical sciences career development program can broaden its offerings by partnering with other entities on campus, including business schools, writing cen-

[‡]Unpublished data, Keith Micoli and Tom Magaldi, October 7, 2016.

ters, offices of technology management, centers for teaching and learning, alumni relations, and other career development programs. Student and post-doctoral groups can be empowered to develop and lead complementary initiatives, such as company site visits,^{37,38} consulting groups,³⁹ or science education journal clubs.⁴⁰ Local employers and alumni are often happy to partner. Programs can further supplement offerings by connecting trainees to external resources that already exist via scientific societies,[§] regional organizations,^{**} professional societies for scientists in specific career tracks,^{††} career-oriented Web sites,^{‡‡} or books.

HOW CAN RESEARCH ADVISORS MAKE AN IMPACT?

Faculty often ask me what they can do, as individual research advisors, to facilitate the career development of their mentees—particularly in cases where they suspect their mentee has career interests outside the faculty track. Indeed, individual research advisors can have great impact, even with little knowledge about the career path that their mentee wants to pursue. Here are some suggestions.

First, demonstrate that you equally value all scientific careers as outcomes for your mentees, and are invested in their career development regardless. Welcome your students and postdocs to discuss their career interests with you by scheduling annual or biannual meetings with each mentee to discuss their IDP. The IDP is an action plan for the coming year—what goals the mentee has identified to promote their own career and professional development, and the actions they will take to achieve those goals. Point them to a resource, such as myIDP⁴¹ or ChemIDP,⁴² to help guide them through the process of creating an IDP. Encourage the student or postdoc to lead the meeting, but ask questions to facilitate the discussion: “What are ways I can help you achieve that goal?” “This is an ambitious plan. What are your top priorities?” Help your mentee identify their top strengths and areas for needed growth—this can often be difficult to do via self-assessment. Then, give them space to do their own career exploration

or preparation, checking in periodically with the offer to help. In doing so, be careful not to make assumptions about trainees’ career interests.

Second, encourage your mentees to discuss their career goals with other mentors, including scientists employed in their career path of interest. This will help each mentee broaden their network while identifying the most efficient and effective steps to prepare for their career of interest. For example, external mentors may be able to direct your mentee away from a multicourse certificate program on project management for mid-career professionals to a workshop mini-series on the topic that is better suited for scientists entering the field.

Third, deliberately encourage your mentees to take action toward their professional development and career preparation. Drop them an e-mail when you hear of an event that may be of interest; encourage them to take on a leadership role on-campus or in a professional society; direct them to online resources or a career counselor at your university; introduce them to someone in your network in a way that will help the mentee initiate a deeper conversation; offer to help find ways to fund key professional development opportunities.^{§§} When we added a course on career planning to the required curriculum for third-year PhD students, many students commented that they appreciated being required to attend, in part because it meant that they would not have to ask their advisor for permission to do so, or be seen as less serious about their research by attending. Trainees struggle with the balance of pushing their experiments forward (most share their advisor’s scientific drive) and taking advantage of career development opportunities that are less urgent but still very important. As their research advisor and mentor, you can help them find this balance: hold all trainees, regardless of their career ambitions, to a high standard while encouraging them to take actions that are crucial for their professional development. If they begin taking actions early in their training, they can spread them out over time with minimal impact on their overall research productivity.

HOW CAN THE SCIENTIFIC COMMUNITY SUPPORT THE EMERGENCE OF PHD CAREER DEVELOPMENT AS A SCHOLARLY FIELD?

Although best practices have emerged (some universities have offered PhD-level career develop-

[§]The American Society for Cell Biology and the Federation of American Societies for Experimental Biology host a wealth of career- and professional-development resources online and at annual meetings. The Genetics Society of America recently expanded their offerings via the Allied Genetics Conference in 2016.

^{**}Examples include MassBioEd in Massachusetts and chapters of the Association for Women in Science.

^{††}In its “Read about careers” section, myIDP lists national professional organizations for each of the 20 career categories.

^{‡‡}ScienceCareers (including myIDP), NatureJobs, and Versatile PhD are among many examples.

^{§§}Some universities offer travel awards for professional-development opportunities outside of their current field (e.g., University of Chicago and UMass Medical School). NSF offers supplements to research grants funded by NSF-BIO MCB.

ment for decades), there is a striking lack of data that tests the efficacy of various approaches. This is because the field of biomedical PhD career development has not to this point been a scholarly field. With very little resources, career development professionals have followed a service model, teaching and adapting our approach via in-classroom observation and post-lesson evaluation. Rarely have career development interventions been evaluated for long-term impact or unintended consequences. Even rarer has been any effort to go beyond evaluation of a program to generalizable new knowledge as the hallmark of research. Dissemination has primarily occurred *ad hoc* through discussions via professional networks. Though this model may seem to suffice at the local level, it does not support efficient progression of the field as a whole.

However, the recent embracing of career development by funders and the academic community has changed the field of PhD career development in remarkable ways. The emergence of research grants for career development has empowered some of us to take a more scholarly approach—something other career development professionals and I have been keen to do. The influx of PhD scientists into the field as career practitioners has further fueled interest in evidence-based practices, rigorous evaluation, and research. This imminent shift in philosophy for our field is fortuitous: with more and more universities creating new programs, word-of-mouth dissemination is no longer sufficient. We need to be able to efficiently share model programs that have been honed through rigorous, objective evaluation and research. And, we need to be able to adapt our educational approaches continually as the needs of the scientific enterprise evolve.

Though PhD career development is poised to develop into a scholarly field, doing so will require the support of the broader scientific community. First, funding is essential. Grants incentivize scholarship by bringing prestige and supporting the time and costs associated with developing new models and testing them rigorously. This is especially important in an emerging field such as career development: many of my esteemed colleagues work in traditional career-center settings, where scholarship would be in conflict with the center's mission to address local program development. To capitalize on their expertise, it is essential that time be bought out for evaluation, research, and dissemination. Furthermore, diverse types of funding are needed for the efficient growth of our field. Smaller grants support innovation and the

development of discrete programs or resources.^{***} Multi-year research grants enable rigorous testing of new or established approaches and theory-driven research.^{†††} Interestingly, even with grant funding available, barriers exist. Because the field is new to scholarship, most career development professionals have little experience writing grants and navigating the submission process. Academic faculty can play an important role as partners in the process, by contributing expertise in grantsmanship and by offering administrative support to manage funds once a grant is awarded.^{‡‡‡} Rigorous research will require training in education research methodologies and a working knowledge of career-related social sciences theories, or partnerships with specialists in these fields.

Second, we need a more central, streamlined approach to dissemination—and the scientific community has the resources and expertise to facilitate this. As a first critical step, the GCC broadened its membership criteria in 2009 in an effort to embrace the breadth of universities establishing career-development programs. As a result, the GCC's annual meeting evolved from being approximately 35 attendees sharing best practices around a table to the most recent meeting with approximately 190 attendees participating in plenary talks, concurrent sessions, and a poster session. Other train-the-trainer initiatives have also sprouted to facilitate the sharing of program-implementation approaches.^{§§§} However, dissemination via publication is essential, and poses a greater challenge. No one venue is a clear fit for research or lesson-plan dissemination in this interdisciplinary field. As such, the few papers that have been published are in numerous different journals, posing challenges in editorial review and

^{***}For example, the Career Guidance for Trainees awards from the Burroughs Wellcome Fund offer up to \$50,000 for 1 year. Details and examples of previously funded programs: www.bwfund.org/grant-programs/career-guidance/career-guidance-trainees. NIGMS has also offered funding for initiatives developed as a supplement to T32 grants. These are valuable for incentivizing universities to build career development into their scientific curricula, but the applicant pool is limited to principal investigators of T32 grants: <http://grants.nih.gov/grants/guide/pa-files/PA-16-133.html> (last accessed October 17, 2016).

^{†††}The Innovations in Graduate Education track of the NSF Research Traineeship mechanism offers up to \$500,000 per year for up to 3 years: www.nsf.gov/funding/pgm_summ.jsp?pims_id=505015 (last accessed October 17, 2016).

^{‡‡‡}I have known career development professionals who were instructed not to apply for or accept grant funding because their career center's administrative support was untrained in managing grant-funded accounts.

^{§§§}The NIH Office of Intramural Training and Education hosted a train-the-trainers event in July 2016 (www.training.nih.gov/train_the_trainers_2016); the NIH BEST Consortium will be hosting one in September 2017 (<http://nihbest.org>; accessed October 17, 2016).

dissemination. As a career development community, we need to build relationships with journals so that editors can develop further expertise in our field, which will facilitate peer review and editorial decisions. Furthermore, with universities, professional societies, and others looking to expand their own career development initiatives efficiently, there is a need for streamlined dissemination of effective ready-to-use models. To address this need, the American Society for Biochemistry and Molecular Biology is underwriting efforts to explore creating a central, peer-reviewed repository for lesson plans and how-to guides for rigorously tested career development models. The effort, which would move forward in collaboration with a variety of key stakeholders, would include recruiting a cadre of training advisors who could provide guidance to others who are interested in implementing new programs.

LOOKING AHEAD

The field of pre- and postdoctoral career development is at a tipping point. Incoming generations of science trainees are increasingly savvy about their career prospects, seeking programs that value the breadth of today's PhD career outcomes and the preparation needed for those careers. We invest substantial time and money into the research training of our PhDs. To capitalize on that investment, we must have a long-term commitment to their career development. This is our opportunity to rise up for the future of incoming generations of scientists, so that we can continue attracting the

best talent to science and help them to move efficiently into careers that will sustain our nation's scientific enterprise.

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AUTHOR DISCLOSURE

The author is a co-author of myIDP and a member of the myIDP Advisory Board.

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