Diversity in the Biomedical Workforce

>> Lisa Evans: Welcome to the presentation on Diversity in the Biomedical Research Workforce. My name is Lisa Evans, and I'm a Scientific Workforce Diversity Officer in the Division of Biomedical Research Workforce in OER. To give you a little bit of an understanding of where my office is located, this slide shows all of the institutes and centers at the National Institutes of Health. Our office is within the Office of the Director, and as you will note, the yellow box indicates the Office of Extramural Research and the Division of Biomedical Research Workforce, or DBRW. The DBRW develops, maintains and assesses NIH policies and programs and specifically works on enhancing diversity of the biomedical research workforce, so this slide basically shows the director and the other individuals who work in the Division of Biomedical Research Workforce. What we will be talking about today is the NIH's interest in diversity. We'll be talking a little bit about underrepresented groups, who they are and how we identify them. We're going to discuss diversity focused programs, and then I will introduce you to the enhanced Extramural Diversity website and the workforce dashboard. So what is NIH's interest in diversity? We talk about our interest of diversity in the NIH interest in diversity which is actually NOT-OD-20-031, and basically the interest in diversity is to enhance the participation of groups that are underrepresented in the biomedical research workforce, and you can see from this slide what those groups are, and just in general, individuals from nationally underrepresented racial and ethnic groups, persons with disabilities, individuals from disadvantaged backgrounds and women. This slide really addresses specifically women. Women have always been included in the diversity interest document, but we're specifically interested in women at senior faculty levels, and there is sufficient data from the National Science Foundation and the AAMC that drills down a little bit further into the scientific disciplines or fields where women are underrepresented. And this slide basically shows the benefits of diversity. We talk about fostering scientific innovation, improving the research and a couple of other interests, and these are all laid out in the notice of interest in diversity. So to give a little bit of context about how we think about groups that are underrepresented or how we identify them, this slide shows the demographic breakdown of the 2010 United States Census and a similar pie chart showing the 2010 NIH Principal Investigators on research project grants, and that is also broken down by demographic group, and I realize that the 2010 census is a little dated, so we did update the NIH Principle Investigators on RPGs for 2016, so as we are going into the 2020 census, we should have some more updated data to show you. One of the things that NIH is really focused on, and it's been focusing on it for quite a number of years, is diversity in the NIH workforce, so the first major report that was done by the Advisory Committee to the NIH Director was a report in June of 2012, and there were some basic requirements or recommendations that were made at that time. One was to appoint a chief officer for scientific workforce diversity, and then as you can see, there were other specific areas where the ACD indicated that NIH should pay some attention in order to address underrepresented groups in NIH's programs. And again, 2 years later in 2014, the Advisory Committee to the Director made recommendations on improving the physician-scientist workforce, and there were approximately eight recommendations. I'm sorry, nine recommendations. The eighth recommendation was that NIH should intensify its efforts to increase diversity in the physician-scientist workforce, or the PSW. So as a result of that, there were some changes that were made to NIH programs, specifically the K99/R00 programs to encourage applications from physician-scientists and the K08 and K23 programs which has some institutes and centers that permit funding up to the salary cap and may also permit NIH salary contributions of up to $100,000. In 2018, the National Academy of Science, Engineering and Medicine issued a groundbreaking report called the Next Generation of Biomedical and Behavioral Sciences Researchers. This consensus study also contained several recommendations regarding enhancing the diversity of the biomedical research workforce. And finally, in 2018, the Government Accountability Office reviewed NIH's actions to increase workforce diversity and basically encouraged the NIH to develop evaluation metrics against which our progress could be measured. So a lot of times, we receive requests from individuals in the community about where they could find information about diversity, and up until 2017, we didn't have a central location, but starting in 2017, NIH launched the Extramural Diversity website. The link is included at the top of this slide, and this website is an effort to collect all of the relevant information that someone might be seeking if they have an interest in diversity within the extramural programs, and so I'm going to get a little later to the tiles that you see, the red, blue, teal and gold tiles, so we're going to talk about those, and as we go through the rest of the presentation, you will see these tiles at the top-left-hand side of the slide so that you know where you are. So I just showed you the top part of the extramural website, and the bottom part looks like this. It contains a tile that talks about NIH's commitment to diversity, biomedical faces of science, which are videos. We'll talk a little bit about that later, and then a more static page that addresses NIH researchers. So we have four icons, as I mentioned before, on the landing page of the website. The red one is diversity matters, and it addresses why diversity is important. It identifies nationally underrepresented groups and the data that we use to identify them, and this is just a broad interest tile, so anyone would benefit from that information. The second tile is for reports and data, and it contains NIH and external reports on diversity. It also contains an abstract database and data sources, and this is particularly helpful, or would be helpful, to individuals who are setting up diversity programs or considering how they might approach diversity and what the evidence base is to support actions around increasing diversity. We have another tile, career pathways, and this one is really set up to help students, investigators or other applicants for NIH funds to help individuals find opportunities for funding and also to meet some of the researchers that I talked about on the other page, either through videos or the static webpages. And then finally, building participation. This is a section of the website that provides the opportunity for NIH ICs, or institutes and centers, to talk about why diversity is important to their particular disease area. It also provides information about potential stakeholders that could work with you on your programs. It provides some recruitment and retention strategies and also talks about why Congress has been interested in diversity. So on the diversity matters tile, there's a part of the website that talks about getting the facts, and basically for each of the groups that have been identified as nationally underrepresented in research, we have a separate tile that you can click on, and it will take you to information about that particular group and why they have been identified as being underrepresented as well as some literature will be available on those landing pages as well. So if I was interested in finding out where I could find information about research training and career development opportunities, where would I go? How would I do that? So this slide talks about the resources that are available on the career pathways icon, which is that teal-colored icon. You can use the NIH RePORTER to find opportunities at your institution. You can also use research training and career development website which we'll talk about a little bit later on, and also, there are resources to learn about how applications are reviewed by the Center for Scientific Review, so this is an important part of the website. And just to give you a little bit of context, we talked about using resources to identify opportunities, and there's a portion of the website, and there's a page that can be printed out that shows you how to use the NIH RePORTER to, for example, identify funded investigators at your institution or any institution, in fact, in the country and to find training programs, and so this printout you can actually follow step-by-step and get information using the NIH RePORTER. Again on the career pathways landing page, we have a link to building research and science careers, and basically you'll see this graphic on the website, and it helps you to identify funding opportunities by your career level, so if you're at the precollege level, if you click on that part of the website, it will bring up all of the funding opportunity announcements that are available, and it goes through the postdoctoral academic level. So some of these programs are going to be crosscutting, so some are closed baccalaureate programs, and so you would find them either in the college or the predoctoral part. We also have links to loan repayment programs and career development programs which also do sort of straddle two areas. So for all of the NIH research training and career development programs, the parent programs includes some attention to diversity, and what we mean by that is that they require a recruitment plan to enhance diversity, and so these are some of the programs that do require a recruitment plan. And this slide simply shows some of the programs to enhance diversity. It's not an exhaustive listing, but it gives you some of the ones that people in the community are aware of and have expressed some interest in. Also on the career pathways tile, you will find some discussion about thinking through your career trajectory, and it gives you some ideas about things that you can do with a science background and a lot of information about just sort of the breadth of things that you could do with a career in biomedical research. A lot of people are interested in diversity supplements, so what are diversity supplements? Diversity supplements are an administrative supplement to an existing research grant, and what the investigator can do is to use this supplement to bring an individual from an underrepresented group onto their research, and basically, it is to help develop research capabilities and to participate in career-development experiences. The unique thing about these supplements is that it supports many career stages from high school to junior faculty. I should say, it may because each institute or center decides where they want to spend their administrative funds. So the most recent announcement concerning the research supplements to support diversity is PA-20-222, and again, I just would note that the institutes and centers, not only do they have different career stages that they focus on, but they also have different deadlines and policies, so you should be very careful to pay attention to that. In October, we're going to be having a reissue of that parent research supplement award funding opportunity announcement, so pay attention to that. It is NOT-OD-20-170, and so you will be able to find out what the differences are or will be starting October 1st. So there are many award types that are eligible for diversity supplements. Some of them are listed here. This is only a subset of the eligible grants. You should check the existing funding opportunity announcement for additional program types, and when looking at the funding opportunity announcement, it's recommended that you go to the contact page because if the institute has specific instructions, they will list those there, and they will also identify the person who you should contact at the institute or center to discuss your potential application. So I'm not going to go into too much detail about the application requirements for diversity supplements, but you can see here exactly what is required and make sure that you understand each of the requirements. So this is just a slide showing in fiscal year 2018 diversity supplement applications, awards and success rates by career level, and as you will note from the slide, again, it goes from high school level to investigator level. Again, we have the distribution of awards by pie chart and the academic career level and how much money went to that group in the aggregate. A lot of people ask, what resources are available regarding women? And this slide, Women in Biomedical Careers, just identifies some of the policies and programs that NIH has in place that look at the career progression of women and some of the policies that NIH has implemented to assist women as they are -- women and others as they progress through their careers. One of the recent, I would say, within the past 2 years, changes has been giving an automatic 1 year to any early stage investigator who experienced childbirth, and you can take a look at that at your leisure. So I mentioned that one of the aspects of the website was Biomedical Faces of Science, and this is part of the website that was developed because we are aware that a lot of individuals from nationally underrepresented groups may not have contact with individuals from their particular backgrounds who are research scientists, and so we have on the Biomedical Faces of Science portion of the website videos of individuals who are from nationally underrepresented backgrounds who are, in fact, research investigators, and these individuals talk. The videos are very engaging, and these individuals talk about how they became research scientists, and so it's a very interesting way to learn about individuals' career trajectories. We also have a portion of the website that has small vignettes about researchers who are receiving funding from NIH institutes and centers, and this is an updated -- We did some enhancements to the website, and one of the things that you will be able to do now is to sort by career stage or research discipline, so you'll note here that this individual is a clinical researcher, and he does work in the area of cancer biology, and he's an established investigator, so if I wanted to know about someone who is a clinical researcher in cancer, I could research that using the section of the website called Meet NIH Funded Researchers. And the last section of the website is reports and data, and in some ways, I think it's the important part of the website because it does give a lot of information that explains why NIH approaches diversity the way that it does, and so I had mentioned earlier diversity related abstracts. A few years ago when NIH was doing literature reviews to identify what the importance was of diversity in biomedical research, we found that we had quite a robust group of documents that might be of interest to anyone doing research in this area, so we've compiled that, and that's located on this page. We also have reports that NIH has commissioned on diversity, broader reports related to diversity in the scientific workforce, and we also have some diversity related abstracts and search strategies that we've already prepopulated for Web of Science, Focus, et cetera, and you can use those prepopulated search strategies to conduct your own real-time research if you're interested in doing that. And so I mentioned the abstract database. Again, we have enhanced the functionality of the database and made it easier to search the documents, the abstracts that are on the website, so hopefully you'll take a look at that, and perhaps it will be useful in any work that you're doing around diversity issues. So I mentioned the research training and career development resources beyond the extramural website, and one of those sources is the NIH Research Training website, and that was launched in 2015. It's also a resource that's helpful for everyone from trainees to early stage faculty, and it's pretty self-explanatory. In some ways, it is set out similar to the extramural diversity website. And this slide basically shows you how to navigate this website, and you can just kind of look through the landing page. You can find policy notices. You can find links to various funding mechanisms, and you can search it in that way. This page is really addressing individual fellowships and chooses to look at the F31. Another interesting feature of this website is that we talked a little bit about career progression, but this research training career development website actually has infographics on various career pathways, so you can go, and if you're interested in becoming a research scientist, it will walk you through an infographic showing you the kinds of programs that you can access to support you at each career stage. And finally, we do have a dashboard that you can look at some of the data that NIH has about funding, and there are a lot of features to it. I would suggest that you just go there and play around with the numbers a little bit if you have specific questions about research project grants, about who's being funded, et cetera. It's a very useful resource. And so that's the end of this presentation, and I would like to thank you for listening to this discussion and want to take the opportunity now to entertain any questions or further discussion that you might like to have addressed. Thank you.