NIH Next Generation Research Initiative – Training Future Biomedical Researchers

Ericka Boone: Welcome, everyone, and good evening. Welcome to tonight's After Hours panel's conversation featuring the NIH Next Generation Research Initiative: Training Future Biomedical Researchers. My name is Dr. Ericka Boone, and I'm the director for the NH division of loan repayment, and I'll serve as your moderator for this evening. In 2017, NIH launched the Next Generation Researchers Initiative to address long-standing challenges that were faced by researchers trying to embark upon a sustained and independent research career, and it takes steps to promote the growth, stability and diversity of the biomedical research workforce. So for today or tonight, we're going to engage in conversation and Q & A with our panelists so that you as session attendees become more aware of important updates in NIH's progress in terms of supporting Early-Stage Investigators or ESIs. You understand the purpose and intent of NGRI as well as NIH targets for numbers of funded next-generation researchers, identify programs for which ESIs are uniquely eligible, understand ESI extension policies to ensure that ESIs who experience lapses in ability to apply for an R01, they apply for ESI extensions. Also, please note if you have questions for the panelists, please put those in the Q and A versus the chat feature, so if you'd like for panelists to be able to answer your questions, please put those in the Q and A versus the chat. Also, due to the number of individuals that are participating in tonight's discussion, we may not have the opportunity to get to all of your questions, but we will do our absolute best. But with that being said, if we don't get to your question, feel free to stop by the exhibit hall and speak with staff. We'll be happy to assist you. So now let's welcome our panelists. So our first panelist is Dr. Mike Lauer. He serves as the deputy director for Extramural Research. Our additional panelist is Dr. Kay Lund. She is the director for the Division of Biomedical Research Workforce located in the Office of Extramural Research. And lastly is Dr. Shoshana Kahana, who is also with the Office of Extramural Research. Before we get started, I also want to call your attention to some important resources that we have available. I will put the link to these resources in the chat feature. I forgot to do it just now. However, it is available in vFairs under resources, okay? So if you don't get it, or if I don't get the opportunity to place it within the chat feature while we're having today's discussion, it is absolutely under resources in vFair, so you won't miss out on this important information. So now let's get started with our Q and A, and, Dr. Lauer, I'm going to ask you a question. So can you give the audience an overview of NGRI and why this initiate was developed, please?

Michael S. Lauer: The NGRI you might say started with the 2016 21st Century Cures Act, although this has been something that has been of great interest to NIH for quite a long time. The 21st Century Cures Act explicitly calls out a Next Generation Researchers Initiative. It called on the NIH to take a variety of steps to increase opportunities for the next generation of researchers to obtain funding, to become independent and also to diversify the workforce. The NIH director was given the authority to establish policies to make this all happen. I would point out that at around the same time, the National Academy of Sciences put out a report. They called it Breaking Through, how the next generation of researchers will be successful in getting into the system and then sustaining a pathway for research. And at the same time, a working group of the Advisory Committee of the Director also put together a series of recommendations for a Next Generation Researchers Initiative. So all this stated a number of years ago and has picked up a great deal of momentum over the last few years. But I would say it was a mix of forces so partly legislative, partly policy, and partly a great desire and worry from the community about the need to enhance opportunities for the next generation of researchers.

Ericka Boone: Thank you so much for that response. Can you tell me who's considered an ESI? And what are some of the benefits that are associated with being an ESI?

Michael S. Lauer: So an Early-Stage Investigator, there's a very precise definition. But briefly it is someone who has not yet received substantial NIH funding and who is within 10 years of completing their terminal research degree or complying their quote, unquote training. Now having said that, it's not quite that simple, but that's the general idea, and Dr. Kahana plays a major role in helping to oversee that we apply the definition of Early-Stage Investigator properly. Now what's the advantage that they get? The agency has declared as a priority that Early-Stage Investigators should be funded. So we aim to fund at least 1,100 Early-Stage Investigators every year, and to put that in perspective, we get about 4,000 to 4,500 applications from Early-Stage Investigators each year. So this roughly means that we want to fund at least 25 percent of the Early-Stage Investigators who come in and request funds.

Ericka Boone: Okay. Thank you. As a follow-up, we do have a question from one of the attendees. "As an MD, when does their ESI status start?" And I know you've kind of talked about this, but can you give us a little bit more information?

Michael S. Lauer: So, actually, let me defer to Dr. Kahana. She knows the specifics of this better than I do.

Ericka Boone: Thank you.

Shoshana Kahana: Sure, so I think I tried to type this answer, although I'm not sure that I did it very, very well. So typically for MDs, the end of their fellowship will usually start their ESI period. And if there has not been a fellowship, then typically it's the end of their residency.

Kay Lund: Yeah. I mean, it used to be that it was only the end of residency, and now there are clinicians who have to do some required clinical training. That is public residency, and that's now ... We're trying to recruit more MDs into the R01 funding workforce.

Ericka Boone: Thank you for that, Dr. Kahana and Dr. Lund. Can you tell me where a person can check their ESI status? Or how does one check their ESI status?

Shoshana Kahana: Sure. So if you go to the education section of your Commons Personal Profile, it will either be in that section, or if you have already received a prior extension to your status, then you just want to click on the edit pencil icon. You click on that edit icon, and then it will show you your new date.

Ericka Boone: Okay, okay.

Shoshana Kahana: So it's essentially in the education section of your Commons Personal Profile.

Ericka Boone: So when would a person lose their ESI status?

Shoshana Kahana: Do you want ...

Michael S. Lauer: Go ahead, Shoshana.

Shoshana Kahana: There's probably two ways. So the first of which is if in the course of that 10-year period or so, they get an R01 or an R01 equivalent grant, or if they are more than 10 years out, right, from either the end of their PhD or postgraduate clinical training.

Ericka Boone: Okay. Well, thank you very much for that one. Dr. Lund, can you tell us more about specialized programs that are specifically targeting ESIs?

Kay Lund: Yeah. There are a few of them. One is the DP2. The other is a DP5, and the whole thing now is that a number of the different NIH Institutes and Centers are really trying to prioritize ESIs more, so they're doing better in terms of looking at where the funding is going to stop.

Ericka Boone: Can you expand upon that a bit more with prioritization of Early-Stage Investigators?

Kay Lund: Well, maybe Mike can. I think this ... We have a goal. The NIH has a goal overall, and certain institutes and centers are really trying to fund more ESIs. There are also some particular programs like the MIRA awards that are for ESIs. So, Mike, I don't know whether you have anything to add to that.

Michael S. Lauer: Sure, so just to extend on what Kay said. So the DP2 and the DP5 awards come out of the Common Fund program, and I would very strongly encourage you to look at that. Part of this is that we want to fund what's called high-risk, high-reward research, so that program is part of the Common Fund program. It's specifically targeted towards Early-Stage Investigators who are interested in doing highly innovative work. And that has been a successful program where we've seen that these scientists do innovative work. They do more innovative work than what would be seen on a standard R01, and they also are successful at staying within training. Another one of the programs focuses on being able to go straight from postdoc to being an independent researcher. No, let me try that again. From being a graduate student to being an independent.

Kay Lund: Yes, [Indistinct], you got it.

Michael S. Lauer: And this is a way in which researchers can get their independent career started at a younger age than what we typically see. There are also, as Kay mentioned, there are some specific programs outside of the Common Funded and targeted towards Early-Stage Investigators. Perhaps the best-known is the so-called MIRA award. This is a ... I'm very bad at acronyms, so I remember the acronym, but I don't remember what it stands for. But this is a NIGMS program, has been highly successful. They have funded about 100 Early-Stage Investigators every year. The idea of this is to do a program - a program that is being run by a researcher - as opposed to a specific project. So instead of saying, "I'm going to do aim one, aim two and aim three," what you say is, "I'm a scientist who's done this kind of work. These are the kinds of things that I'm thinking about," and what the award would do is that it would enable me to continue and grow this program without being pigeonholed into a specific project. So this was something that was a highly innovative idea several years ago when this got started, and I would have to say it's been an unqualified success. We see that we're getting a diverse group of investigators that are younger than the typical Early-Stage Investigator, and the early returns are that they are doing really outstanding work. There's going to be another kind of special program which we've announced already in general terms, and there will be more details coming out soon, and that's an award which is made in memory of Dr. Stephen Katz. Dr. Katz was the late director of the National Institute of Arthritis, Musculoskeletal and Skin Diseases, NIAMS. We miss him dearly. He greatly ... He was a mentor to many of us, myself included, and he cared very deeply about the next generation of researchers, and maybe, Shoshana, this was a big part of your life over the past 6 months was helping to design this program. Maybe you can tell us a little bit about it.

Shoshana Kahana: Sure. So I think Mike hit on the high points. I'm a little hesitant to go into too much detail before the FOA is released other than just to say that this is a trans-NIH effort. There's a lot of support for it. I'm sure you've heard this a lot, but it's really true. It should be coming out any day. And had there been no regionals, it probably would be out, so just keep your eyes open over the next few days.

Ericka Boone: Well, thank you very much for those great explanations. We have some questions about the extension process. Dr. Kahana, can you hit on the extensions for us? Or can you talk a little bit more about extensions for us, please? And also within that, the next set of questions will be COVID-19-related extensions.

Shoshana Kahana: Yeah, yeah, so in general, we're a committee that recognizes that life is not sort of linear for a lot of us, and there are things that happen in a life that sort of make it hard sometimes to keep our focus on research, and that can include childbirth, child care, illness, disability, military service, things of that sort. And so we have a pretty detailed process whereby we actively encourage PIs to submit extensions for, sorry, to their ESI status. We have an automatic extension of policy for childbirth that's about a little over 2 years. That was published in 2018. I think in one of the resources that Ericka has, we have a pretty ... We have a YouTube video on really just how to sort of mechanically fill it out. We have sort of really, really tried to make it as streamlined and as easy as possible, so you can actually sort of make the request from your Commons Profile, and then it comes directly to us. We as the committee sort of review these bi-monthly, and I'm trying to think what else would be helpful. Kind of ...

Kay Lund: [Indistinct]?

Shoshana Kahana: We tend to turn these around pretty quickly, and then essentially whatever time is granted we add to the end of your prior ESI end date. I don't know if I'm jumping the gun here, but we have been also very generous with COVID-related requests, and so as we know, people have obviously not been able to get to the lab, do their research, so we have been actively encouraging folks to put in requests. At the beginning of the pandemic, we were asking folks to wait until they really sort of knew sort of the full grasp of how their research would be impacted. I would say beginning in July, August we started seeing a bolus of COVID requests come in sort of around the, I don't know, 5 to 6 month mark sort of since March.

Kay Lund: I think one thing to point out is that we have this ESI extension committee which reviews all of the ESI extension requests, and one of the things that has been I think really positive is, just about everybody gets, agrees to the amount that can be granted. So I hope it's okay to say this. Women were given an automatic 1 year. For men, they can put in a request for the amount of time that they lost, and, again, that's been pretty consistent all the way through the ESI Extension Committee.

Ericka Boone: So I do have a question that is asking about the difference between how you might substrate an extension request that's COVID-19-related versus another life situation.

Shoshana Kahana: The beautiful thing is, there isn't one. Really, so the process is the same. The only thing that would be different is the reason. Right? So there is actually a drop-down, and for COVID, we actually developed a new drop-down that was public health emergency, and then they would just sort of add a little bit of sort of detail about some of the dates, and we have that all written out, but in terms of process, there isn't any. It's the same.

Ericka Boone: There is a follow-up question asking about, "Can you please review the table we should use for outlining effort time away from research when making an ESI extension request like listed in the ESI FAQ section?"

Shoshana Kahana: That is a very granular question. If you get that PI's name, and I have a feeling. I think I know who it is. I'm going on record as saying I am happy to follow up on e-mail or just a call. That's a very ...

Ericka Boone: Fantastic.

Shoshana Kahana: Yep.

Ericka Boone: All righty. Well, there's another one that says, "Can you only submit a request for ESI status extension once?"

Shoshana Kahana: No, no.

Kay Lund: [Indistinct].

Shoshana Kahana: So there are some folks that have submitted at separate times, of course, for either childbirth and COVID happened, so there's no cap on the number.

Ericka Boone: Okay, great. There was another question, but moving away from the extension questions. So this one might seem a little granular, but bear with us. "Is there any strategy for new researchers who do not meet ESI criteria and who do not have substantial publication records? I work with faculty who have been involved in clinical and education endeavors but are interested in research but are having a hard time obtaining grant funding due to competition with professional research faculty, quote, unquote, who are able to focus on research full-time?"

Michael S. Lauer: Yeah, so I'll take that one. I get that. So these are, we call them new researchers, although this is a, it's a very confusing term because an Early-Stage Investigator is also a new researcher. But what we mean by that is somebody who is coming into the NIH system for the first time, but they're not an Early-Stage Investigator, so they don't meet the specific criteria for an Early-Stage Investigator. There are a variety of such situations. One might be exactly what you're describing. Another might be somebody who has been a researcher but not in the NIH spheres. They may, maybe they do computer science, and they have typically been funded by industry or by the National Science Foundation or the Department of Energy, and we have now put out a program in which we're saying, "Actually, we would like people with that kind of expertise to come into the NIH fold and address biomedical questions." So in some cases, we put out specific announcements that we're looking for a certain type of person or a research team with a certain kind of background that isn't typically NIH, and those announcements we would post in our guide, and the institutes and centers would market those and advertise those. We do know that you are right. That researchers who are not Early-Stage Investigators and are coming in later in the game, and they're new to the system and are not coming in to a specific announcement have a harder time getting funded. That is absolutely true, and the data do support that. We actually presented some data at the Advisory Committee to the Director meeting last December, and that stated. That is publicly available. We can certainly share that, and that is true. I guess my advice would be two things. One would be to look for opportunities that are specifically targeted towards people who are new to the NIH who have not been in the NIH system before. Those announcements are out there, and then I guess another piece of advice I would give is, team up, collaborate. Many of our awards, in fact, I think 30 percent of our R01s are multi-PI awards. In other words, there's more than one PI, and I'll give you a quick story from my own life, which is that some ...

Ericka Boone: I was about to ask for a story.

Michael S. Lauer: Yeah, yeah, right. Somehow I met a mathematician. He was from Rutgers University. I have no idea how we met. I honestly cannot remember, but somehow we met. And so I'm a cardiologist with an interest in biostatistics and epidemiology, and he is a mathematician who's interested in operations research. We come from completely different worlds, but somehow we got linked together. Now he would be what we would consider a new investigator. He had been doing work for a long time but nothing to do with biomedicine, so one thing I would have to say is, we learned a lot from each other. One thing that we learned was is that many of the concepts that we were addressing were quite similar, but we had completely different names, so we called something a hazard ratio, and he called it something else, and it took us about an hour until we realized that we were in violent agreement and talking about exactly the same thing. But this was a matter of language. We had to ... So we wrote a grant together, and it got funded, and actually we did some pretty neat work that came out of that, so this is a case where I think he was looking for an opportunity to break into biomedical research. He had never done biomedical research in his life, and it was by virtue of the fact that somehow we were brought together that this could happen. So I think that's another piece of advice I would give you is, look for opportunities where you've got something special to offer, maybe a particular area of expertise or some background or a different way of looking at the world, and you link up with investigators who have already broken into the NIH system, and you could potentially put together a really good package that would be attractive to the agency.

Ericka Boone: Yep. So are you finding that this collaboration, this kind of collaboration is becoming more and more popular or more and more commonplace?

Michael S. Lauer: We actually ...

Ericka Boone: Or do Early-Stage Investigators not typically think in that space?

Michael S. Lauer: Yeah, well, I ... Well, one thing that we do know for sure is that we started the idea of multiple PIs, more than one PI on a grant in, what, 2008 or 2009?

Ericka Boone: Something.

Michael S. Lauer: And it was kind of a novel idea. Before then we had so-called co-investigators, which we still do, but that doesn't quite have the same prestige as being an actual principal investigator. So we started that back in 2009 because we recognized that this is the direction that science is moving in, and we went from 1 percent of all grants to I think now it's 30 percent. It seems to grow every year. So, yeah, I think this is something which is becoming really more the norm, and this is good. This is a good trend.

Ericka Boone: We're going to bounce around a little bit, so with that being said, you gave out some statistics. I have a question about the percentage of ESIs that get funded roughly.

Michael S. Lauer: It's about ... So the number, it's about I think 27 percent, 25 percent, 27 percent, something like that, and to put that into perspective, that is higher than for all investigators, and that's because the agency has specifically prioritized. So we get ... I think last year we got 4,700 applications. Maybe it was 4,500 applications from Early-Stage Investigators. The vast majority of Early-Stage Investigators submit one application each, so that's about the same number of Early-Stage Investigators. We funded in 2019. I think we funded about 1,300, and the numbers for 2020 are not finalized yet, but it's going to be about the same or maybe even a bit higher.

Ericka Boone: Okay. Our next question is, "Can you consider a professor at an HBCU or minority-serving institution who does not yet have an NIH award as an early investigator?"

Michael S. Lauer: Shoshana, you want to take that one? Or, Kay, you want to ...

Kay Lund: I think they'd be a new investigator.

Ericka Boone: New investigator.

Michael S. Lauer: Yeah.

Kay Lund: And some ICs prioritize new investigators. Some don't, so it really depends.

Ericka Boone: And what is the best way to find out about IC prioritization?

Michael S. Lauer: Go ahead, Shoshana.

Shoshana Kahana: So sometimes they'll just have it on their websites. To be honest, sometimes it really just helps to call up a program officer that certain ICs and be like, "so what's the practice there in reality?" Again, you can't do that with all the ICs, but if there's about two or three that you could see housing your research, it might not be a bad idea just to contact or sort of just to look on web pages.

Ericka Boone: Yes, I agree.

Michael S. Lauer: We have ... Almost all the institutes have put out strategic plans, and we actually have ... I think we have a dedicated web page in OER where you can go to all the individual strategic plans, and those are worth looking at because that will give you a sense as to what the institutes consider to be important. We also have an interesting feature in RePORTER which is called Matchmaker. And this is not from "Fiddler on the Roof," but what this is, is a way in which you can put in some information about the kind of science that you do. So you might want to copy and paste an abstract from a paper that you wrote, or you can just even write a few sentences, and then what it will do is, it will identify for you grants that are similar to what you might be interested in. You can also use that to identify program officials who have an expertise or who are overseeing a portfolio that seems to be kind of similar to what you're interested in, and in fact it's very cool, so you can actually ... You can look at this and see what kind of portfolio that program official is overseeing, and then you can look at those grants and say, "Yeah, yeah, that's me. That's the kind of thing that I'm potentially interested in." And then there are some security features you have to go through, but you can then use this to send an e-mail to that program official and say, "Hi, I have an idea of doing X, Y and Z. Is this something that might be of interest? And is this the right funding opportunity to apply to?"

Ericka Boone: I'm glad that you brought up the NIH Matchmaker tool. I teasingly refer to it as the researcher's version of Tinder or Plenty of Fish with regards to research, and I talked to my Early-Stage Investigators ...

Michael S. Lauer: [Indistinct].

Ericka Boone: ... who are applying for the LRPs about this all the time because one of the things that they don't necessarily think about is diversification of their own research funding, and looking at and across the different ICs to see is who is funding what, and who are the people within the extramural communities that are interested in a similar kind of of work as which they are because that would help to facilitate networking relationships as well. So we're going to ... Oh, I have one comment basically related to what you were talking about, Mike, with your vast networks and collaborations that may not necessarily on the surface seem like they fit well together. There's one attendee that says, "I manage a team of obstetricians, electrical engineers, psychologists and computer science folks all working on a fetal heart rate project using machine learning. Talk about different languages."

Shoshana Kahana: Oh, I love that.

Ericka Boone: Yeah.

Michael S. Lauer: That sounds ... so as a former cardiologist ...

Shoshana Kahana: I love that.

Ericka Boone: I knew you'd love that.

Michael S. Lauer: Yeah.

Ericka Boone: So there's ... We're back to the ESI. Right? "So I submitted my first R01 while on my last year of my ESI. My proposal was not discussed. Do I have a chance to resubmit as an ESI?"

Shoshana Kahana: So I'm assuming in that question. I could be wrong, but I'm assuming in that question that their ESI status lapsed between the initial submission and the resubmission.

Ericka Boone: Yeah, that's [Indistinct].

Shoshana Kahana: And if that is true, then they have a 13-month window from the date of their A0 submission to their A1 where even if the A1 could still be flagged as ESI if it's submitted within that 13-month window.

Ericka Boone: Yeah. All right. Maria, Alicia, that answer was for you. So now we're going to move on to our next question. "I think I understand the impact of being an ESI in terms of study section review and funding decisions, but I'm not sure how whether being a new investigator helps an application. Can you clarify the impact of being a new investigator on an application? If you're both an ESI and an NI, does that change anything?" That's from Scott Halden, and he says, "Thank you very much."

Kay Lund: If you're both ... If they're already in [Indistinct] ...

Shoshana Kahana: Hey, you were talking about new ...

Kay Lund: Yeah, if they're already an ESI, they get reviewed early on at the beginning, most study sections, anyway. The ESIs get reviewed all at once. If they're a new investigator, I'm not sure about that. Do the new investigators still get put into that and then not an ESI? I know that when I've been on some study sections, I think both the ESIs and the new investigators were actually reviewed early.

Michael S. Lauer: Okay.

Shoshana Kahana: Yeah, so I think that they're clustered still together ...

Kay Lund: Yes, correct.

Shoshana Kahana: ... is my understanding. I think in reference, it depends on the institute. Right?

Kay Lund: Yeah.

Shoshana Kahana: And so it's possible that being a new I, that some institutes might prioritize such a PI for funding, just sort of a bit of a bump whereas it might not matter all that much in other institutes. So in part, it's sort of dependent on the ...

Kay Lund: The institute.

Shoshana Kahana: ... on the institute.

Kay Lund: Yeah, mm-hmm.

Ericka Boone: Now I have a couple of questions with regards to types of funding mechanisms that a person would be eligible to apply for. "Can I still apply for a diversity supplement if you've previously had a K award?"

Kay Lund: What ...

Ericka Boone: Assuming that you meet the eligibility criteria.

Kay Lund: Yeah, yeah, I think so. I mean, if they've had a K award, and they're from a group that sort of qualifies for a diversity supplement, and they want to work with a PI to get more preliminary data, then they can certainly do that. Not all ICs fund at the faculty level, though, so I think a lot of them, quite a lot of them do but not all of them do, and ...

Ericka Boone: I see a common theme here with reaching out to the programmatic officials to gain more information here. Always tell individuals that are applying for LRPs, your program officer is your research best friend.

Kay Lund: Yeah.

Ericka Boone: So if my investigator wishes to be a research specialist but does not want to manage their own lab, are there grants besides an R50 for these individuals?

Michael S. Lauer: Well, okay, so, there's, yes, there's the R50. The R50 is specifically designed for the equivalent of a staff scientist, but it's certainly not at all unusual that a staff scientist would be supported on a standard research grant.

Ericka Boone: Yeah.

Michael S. Lauer: One of the things that we do is, for progress reports, we collect information about all the personnel who are working on a grant or who are at least putting in 1 calendar month a year on the grant and what their role is. So they might be the PI. They might be a co-investigator, and one role is that they're a staff scientist, and that's certainly a common ... We certainly see that. So that's probably the most common route. The problem with that is, of course, you are dependent upon your principal investigator, the grant that is designated for the principal investigator. There's both a positive and a negative to that. The idea of the R50 program is, is that it's a grant that is specifically linked to you, even though you are functioning as a staff scientist, and so what that means is, is that you could more easily move from one location to another and take the funding along with you. So the National Cancer Institute I think has the largest R50 program. That's been in place now for at least 4 or 5 years.

Kay Lund: Yeah.

Michael S. Lauer: and so we're probably now at a point where we can see how well that has actually worked.

Ericka Boone: is there priority given to the first renewal of an ESI's first R01?

Michael S. Lauer: In some cases, yes. Shoshana, go ahead.

Shoshana Kahana: No, I was just ... I was going to be a bit silly. Sort of like a little bit of a trick question, right? Because if they had an R01, they're not ESIs anymore.

Michael S. Lauer: Ah.

Ericka Boone: Dun-dun!

Shoshana Kahana: But I do ... I think it's fair to say that some ICs are, monitor sort of renewal rates and are mindful of that.

Michael S. Lauer: So I know that at the institute that I used to work at ... I used to work at NHLBI, the Heart, Lung, and Blood Institute. At the time, we had ... And I don't know if this is still true now, but I wouldn't be surprised, and you'd have to check, but at the time, what we had was, is that if you were an established investigator, but you were on your first R01, and you got that R01 as an ESI, so now you're an ESI. You're now funded on a grant, and now it's several years later, and you're looking to get a competitive renewal, that you would get an edge, and it wasn't as much of an edge as the first time around. But this is important because we know that we lose a substantial number of researchers at the time of that renewal ...

Ericka Boone: Transition.

Michael S. Lauer: ... And in some cases, we lose them because for good reasons, like they decide they don't want to do this anymore, and that's okay. But what's very unfortunate is if we lose a researcher who's doing really good work and submits a good proposal, and because of the competitive environment that we're in, they're unable to secure funding. So this is something that some of our institutes pay particular attention to because we want to ...

Ericka Boone: Yeah.

Michael S. Lauer: Somebody is doing good work. We want to keep them going.

Ericka Boone: If I am an ESI and collaborate with an established investigator to submit a multi-PI application, does my ESI status still apply?

Kay Lund: No.

Ericka Boone: Well, that one was quick. Wasn't it? Okay. So that's ...

Kay Lund: That's why they ...

Ericka Boone: Go on.

Kay Lund: That's why they should definitely try to put something in as ESI.

Ericka Boone: Yes, so if ... This is a good question. If the ESI status starts after fellowships for MDs, why does the ESI status not start after postdoctoral training for PhDs?

Michael S. Lauer: Good question.

Kay Lund: It's just because it's required clinical training, so it's ... The ESI status is 10 years out either from the residency, or if they have a required period of clinical training after the residency, they add that on as well.

Ericka Boone: I think that's probably implied in their question that they're feeling as if the postdoc is really kind of a requirement in order for them to move into an investigative research career. So my next question is, for new investigators who missed the ESI benchmark due to prolonged postdoctoral training due to lack of permanent positions, are there any special considerations at NIH? Maybe there was some sort of, these are related issues or something not necessarily related to the research.

Michael S. Lauer: I think beyond what we've already talked about, probably not.

Ericka Boone: Mm-hmm. All righty. Thank you very much for that one. We're going to start to wrap up because we're now at 5:41, and I'm sorry that we are not going to have the opportunity to answer all of the fantastic questions that were submitted but, again, please be reminded that all of the panelists will have a time at one of the NIH booths, right? Mike, will you have any time? I don't think that you will, right?

Michael S. Lauer: Not that I know of.

Ericka Boone: But Dr. Kahana and Dr. Lund will, so feel free to reach out to them during the next 2 days in the chat, or you can establish a time that you might want to talk to them. And there's actually a very handy feature in vFairs where you can actually have a video chat with people. Sometimes the questions are a little bit more involved than what you'd wish to be engaged in a chat box, and you'd like to reach out and talk. But as we wrap up, I would like to ask each of the panelists for their best pieces of wisdom or advice for Early-Stage Investigators, whether it's talking about transition points within their careers or just starting out. What do you wish that someone told you when you were starting your research career that you tell people now?

Michael S. Lauer: We'll, I'll say. Actually, I'll just make a friendly amendment on that question. I feel so lucky. I had a wonderful mentor. Actually, I had wonderful mentors, and I think that that's a key point here is that while having a mentor is important, I had a number of mentors. And then the other thing was, I had colleagues, and we talked to each other a lot. We helped each other a lot, so I think an important part of this is getting advice and getting advice from many different sources and never, ever, ever be afraid to ask for help. When I first started applying for grants, I showed my drafts of my grants to many people who told me how terrible the work was, and I am so grateful to them because of that. I was able to make it. I guess it was okay.

Kay Lund: Yeah, I did the same thing where I ... And I basically had people take a look at the initial part of the grants first and really give me some feedback about what was needed. Who should actually be included in the grant? So having people review ahead of time is really important.

Ericka Boone: I think that it can be really scary for early stagers to get feedback from their work because they wrap so much of who they are into what they do, and instead of the feedback serving as an opportunity for growth and learning, they take it as I'm a terrible investigator, or I don't know what I'm doing, or the people around be don't think that I know what I'm doing. So I'm really thankful that you both just said that, that you looked at that as an opportunity for you to be able to improve because that's exactly what it is, and your mentors that are around you and surrounding you would not be investing that kind of capital in you if they didn't feel if you were up to snuff. So really kind of removing those impostor thoughts, or at least still writing even though you're having them, and investing in the people who are investing in you so that you can improve your opportunities and your chances and the opportunities for learning is really important. Dr. Kahana?

Shoshana Kahana: No, I think for me it would just probably just to let folks know that it's okay to pivot. There's nothing heretical about taking a pause and just being like, is this really for me? Is this the kind of science that I want to do? Just to pause and to pivot is okay if that's what you feel like you're at.

Ericka Boone: Literally just talked to an LRP awardee earlier, and we talked about power in pivoting, and often time when we consider ourselves transitioning or pivoting, we think because we're doing that. We're making a change because something didn't work out ...

Shoshana Kahana: Or something bad, yep.

Ericka Boone: ... as opposed to something bad happened, but even when that bad thing does happen, and you make a pivot, and you make lemonade out of that lemon, that's a thing to be celebrated. Dr. Lauer, I think you were going to say something? Or were you not?

Michael S. Lauer: No, no, I ...

Ericka Boone: You took yourself off of mute, so I thought that you were going to jump into the conversation.

Michael S. Lauer: Yeah, yeah, yeah.

Ericka Boone: Well, with that being said, reach out to your networks. It's okay to ask questions, and there's power in pivoting. We're going to bring the session to a close, so thank you all for joining us today. If you have additional questions, please visit the booths. There are staff members from all of the NIH ICs that are willing and waiting to take your questions, so with that being said, we thank you all for attending and have a fantastic evening.

Michael S. Lauer: Yeah.

Kay Lund: Thank you.

Shoshana Kahana: Thanks, Ericka.

Ericka Boone: Thank you to our panelists.

Kay Lund: Yeah, thank you.

Michael S. Lauer: Thank you.