Paula Goodwin: Thank you for joining this after-hours conversation on planning your first application, top five tips. My name is Paula Goodwin, and I'm the NIH program Administration Officer in the Office of Extramural Research and your moderator for this 45 minute session. Today's panelists include program officials from different NIH institutes and offices. We have Jennifer Alvidrez from the Office of Disease Prevention, Tanya Hoodbhoy from the National Institute of General Medical Sciences and Karen Kehl from the National Institute of Nursing Research. The format today includes a short presentation followed by Q and A with our presenters. During the presentation, we have plenty of staff to answer questions in the Q and A box. Let's get started. Your first presenter is Jennifer Alvidrez.

Jennifer Alvidrez: Hi, everyone. So. Okay, so tip number one, find an NIH institute or Center, IC, home for your application. So it's not a good idea to just submit your idea to NIH as a whole. You really want to find an IC where your application fits related to your topic area. So how can you find an IC home? Some strategies, NIH RePORTER has a Matchmaker tool where you can put in your abstracts, specific aims, or project description and it will pull up ICs that support this kind of work. You can browse areas, NIH websites, all of the ICs have their own websites and they have information about what their current priorities are, strategic plans, portfolio areas, so you can find a lot of information by browsing those websites. Another strategy is to look at the NIH Guide and look at Funding Opportunity Announcements in your topic area. So, let's say your topic area, you're interested in artificial intelligence, you can search for current Funding Opportunity Announcements related to artificial intelligence and see which ICs are doing .. . are supporting FOAs in that area. And I think that's it for tip number one. So tip number two will be handled by Tanya.

Tanya Hoodbhoy: All right. So tip number two is contact a program official or PO and relevant POs are listed on Funding Opportunity Announcements, institute or center websites or in the RePORTER Matchmaker. Just some sub-tips is most POs prefer to be contact by e-mail rather than a cold call, and that you should always share your specific aims or a brief project description if the mechanism isn't specific aims based in advance. This helps the PO to assess mission relevance and fit with the Funding Opportunity Announcements, and it may also facilitate follow-on discusses that are more well informed, more robust. Also, initiate the contact early in the application process, and you may end up talking to several POs before deciding on where to request your application be assigned to. And I think that's it.

Jennifer Alvidrez: Okay, tip number three, read and understand the FOA, the Funding Opportunity Announcement. So first, not every IC participates in every FOA. For example, some ICs don't support R03s. Some only support K awards in certain areas, so make sure you're submitting a FOA where you can actually submit to the IC you're interested in. Look at the eligibility and any budget restrictions. Some FOAs have limited eligibility about who, as a PI, or which kind of institutions can apply. Sometimes some mechanisms have budgets that may not be aligned with the kind of work that you are looking to support. Read the background section of a FOA to understand what the FOA is about. But really look at other sections of the FOA, the responsiveness criteria, application instructions, and review criteria, to understand the requirements and the expectations. So if you don't follow these things, your application might be withdrawn or your application may not do well in peer review because you're not addressing the points that your FOA is asking for. Definitely when you have questions, contact the appropriate people listed in the FOA. So if you have scientific questions related to programmatic issues, the PO is the first person to contact. If you have questions about the budget or about policies, the Grants Management contact would be the right person. And there's a resource at the bottom that you can check out, and I think Karen is up next.

Karen Kehl: Yes, so the next tip is to get feedback on your application draft. It's really important to make sure that the reviewers eyes aren't the first set of eyes that have seen it. So you can do this in many ways. First, you can check with the assigned Program Officer, the scientific contact, or feedback on any revised specific aims. So this is where having that program officer and knowing what IC you want to submit to is helpful. You can also use institutional resources for finding internal reviewers or setting up mock reviews, and sometimes it can be very helpful to have an internal reviewer who doesn't know your work very well. You can also look at professional organizations for an external review. Use your professional network to find trustworthy people who will give you feedback prior to submission, but it is wise to take a look at who is on the study sections that you might want your application reviewed by because you don't want to have your best reviewers have to recuse themselves because they gave you feedback prior to your submission. Then, our final tip here is to double check the technical details. Before you submit, you want to check the Funding Opportunity Announcements one more time and if there's a notice of special interests, please check that for any last minute changes you need to address. Check the application deadline and we encourage you to submit a few days early. Once you submit your application, there is 2 business days before the application moves into CSR or the process of going to review. During that 2 days, you can go in, you can see if your application has been fully submitted. If you can't view it during that time, then NIH can't view it and it can't be reviewed because it's not in properly. You also can use that time to verify the correct FOA and NOSI if it's applicable. And make sure that the budget limit is within the limits of the FOA and the IC. If you wait until the last minute, while it does not go into the system immediately, you cannot make any changes after the submission deadline. If you submit early, if there are warnings for identified errors with that submit, that gives you a little bit of time before the application deadline so that you can address them. I think that is it for our tips.

Person: Okay, I'm going stop sharing.

Paula Goodwin: Okay, well thank you, Jennifer, Tonya and Karen. We do have some questions in the Q and A, so I'll just shoot some for you. So there's a question about study sections and how they're connected to ICs. So it seems like some study sections are funded through more than one IC, or they're connected to more than one IC. Can you explain how the study section is connected to the IC?

Jennifer Alvidrez: I can try that one. It's complicated. So it depends on what you're submitting to. So, RFAs are often reviewed by the IC that is putting out the RFA. So if the Cancer Institute issues an RFA, it's likely that the Cancer Institute will do the peer review of those applications. If you submit to a PA or a PAR or a NOSI, usually for the most common mechanisms, R03s, R21s, R01s, those are usually reviewed by standing study sections at the Center for Scientific Review. And those have applications by multiple ICs. Some kinds of applications are also reviewed by the ICs like K awards or small business grants, so you can tell who's reviewing, where the locus of review is in the Funding Opportunity Announcement. If you go to the end where they have peer review contacts, if there's a person there, you can tell where they're from and if there's not a person it just says "Check eRA Commons." That usually is a sign that it's reviewed by a standing study section at the Center for Scientific Review.

Paula Goodwin: Thank you, Jennifer. Another question that's related, one about relationships. Can you explain the process of how an application is assigned to an IC? So applicants are often asked to request a particular IC, but it seems that it's out of their hand and they want a little bit more clarification on how they're assigned to specific ICs.

Karen Kehl: I can start in on that one. There are actually a couple of things you can do. The first is in the actual application, there is an assignment request sheet in PHS. And on that assignment request sheet you can say what you want as your primary institute and also give a secondary institute. You also can indicate any study section that you think might be appropriate. It's important to remember that the final decision is up to the Center for Scientific Review. They welcome your suggestions, but they will put it where the science is best based on NIH guidelines. Oh, I said there were two.

Jennifer Alvidrez: Can I add something?

Karen Kehl: Sorry. I said there are two. The other is, you can include a cover letter. It is not required, but that is another place where you can indicate if you want a primary assignment.

Jennifer Alvidrez: And related to that, the cover letter used to be the main place you would request that and now it's not. So it really is the form. The cover letter is for more specific things, like submitting a late application or including video material. So don't relatively on the cover letter alone, put it in that PHS assignment request form if you want it to be noticed.

Paula Goodwin: Thank you both, Karen and Jennifer. Another question, how can you find a study section for a Program Announcement? Or how can .. .

Jennifer Alvidrez: I can answer that. There is a great tool that the Center for Scientific Review has. It's called the ART. So if you Google CSR for Center for Scientific Review and ART, it will pull up this website where you put your specific aims or your abstract in and it will list the study sections that are the best fit for the terms, or the topic areas, that are covered in your application. So that's a great way to know where your application might end up.

Paula Goodwin: Thank you again, Jennifer. Now we're going to pivot a little bit. There's some questions about whether or not their research actually fits the overall NIH mission. So we had one question, this person studies .. . works in model organisms with questions related to RNA molecular pathways and genoming integrity. So they're wondering if this sort of basic, foundational research, although it could have impact ultimately on public health, but they worry it's too distant from health impacts and may not be appropriate to the NIH mission. What would your advice be?

Tanya Hoodbhoy: So I would say NIH funds a lot of basic research. I'm at the National Institute of General Medical Sciences. We fund a lot of basic research, a lot of RNA research, so the best thing you can do is to contact a program director and send your specific aims, as I mentioned earlier, and just ask them if they think your work fits. But in the application itself, another tip would be don't try to stretch the public health relevance. Sometimes PIs get into hot water that way with the study section. It's really great to say if there's some biomedical relevance. So for example, cell polarity, there's relevance to .. . there's fundamental studies on establishing apicobasal cell polarity and you can say relevance to cancer. Right? You lose the polarity and then you have metathesis, but don't say that your application is going to cure cancer if it isn't. So that's just another little tip. But definitely NIH funds a lot of basic research.

Paula Goodwin: Thank you, Tanya. Another couple of questions about review. So one question is, "If a special study section is convened, how early is it done and how can you identify reviewers from that special section?" So how early are those convened? Special sections for reviews.

Karen Kehl: I can start with that one. There's not a set time frame. Obviously as soon as they know that the RFA is coming out and they see who is appropriate for that, they start to put together the study section, but it often is not announced well in advance. It's not like the standing study sections where you can go and look at who has been on it. So with those, one of the things you definitely want to do is take advantage of the opportunity to identify any individuals who specifically would have conflicts of interest and should not review it.

Paula Goodwin: Thank you, Karen. So a question about stage, so one attendee asked, can they contact the Program Director towards the end of their postdoc to introduce themselves and their research direction or early after their first faculty appointment? So is that an appropriate time to contact a Program Director?

Jennifer Alvidrez: I think it may vary. Different POs may vary, but it's really when you have a project that you want to submit to NIH. I think you always have the option, and this happened more when we were open for business in person, to come visit and talk to a lot of different POs from different ICs, but I think you want to have a project in mind. Not just to say hey, I'm here, but really talk about your research ideas, not so much in the abstract.

Paula Goodwin: Thank you, Jennifer. A follow-up to the stage, is an application from a new, early stage investigator reviewed with other applications from senior investigators?

Tanya Hoodbhoy: So within a study section, the Early Stage Investigator, New Investigator type applications are often just clustered together. I don't know if anyone else wants to add to that. But that's my .. . with the study sections I've heard that's normally the way it's done.

Karen Kehl: I can jump in on that as well. That's what I've also seen, and often they do cluster Early Stage Investigators so that they can remind reviewers that they are Early Stage Investigators and they are very clear about what the criteria are, the SROs are with the reviewers.

Paula Goodwin: Thank you. So you mentioned that contact a Program Director as one of the tips when you're planning your application. Are there factors that one should consider in terms of who they should contact for advice? For example, the person that you would contact for a K99, R00 submission, would that be different from the person that you contact for the R01? So what factors should you consider then, reaching out to the .. .

Tanya Hoodbhoy: So I think it depends on the institute. Institutes do things differently. So at NIGMS, for example, the K99s are handled by specific Program Directors within each one of the divisions, so it really depends on how the institute is set up. And if you go to an institute's website, you can actually learn quite a bit about the structure and who manages what. Some institutes completely separate their training from .. . or a mechanism-type grant, so it's pretty institute-specific.

Karen Kehl: I would definitely .. .

Jennifer Alvidrez: That information is contained in the Funding Opportunity Announcement for the scientific contacts. And you may see a specific name, or you may see a link to the website where you can pick based on your topic.

Karen Kehl: And I would say in the rare instance that you can't reach that individual, you can always reach out. Usually it will give you someone else in the return e-mail, but you can reach out to someone else who has a similar area of science. In most Institutes, we're willing to put you in the right direction if you haven't gotten the right Program Officer the first time.

Paula Goodwin: So along that same line, how would a new applicant or an Early Stage Applicant decide whether to submit an application to say a K award or a research grant? So what are some of the processes and what are some of the things that should be considered in deciding where your first application should be? Any tips?

Jennifer Alvidrez: I can start? I think part of it is based on the stage of you as a researcher and part of it is based on the stage of your research. So a K award is really for you to keep gaining experience, expertise, skills that you don't already have. And so that's mostly to fund you and your professional development. Often a K award doesn't have much funding for research. So it may not be if you have a research project in mind that's more like an R01, you won't be able to do that in a K award. Also, it depends on your institution and their position on K awards and whether you can actually have one because it tends other than buy out your effort for teaching, clinical work, whatever it is that you do to earn your salary. And then whether you submit a research award really depends on if your research is .. . the stage of your research is ready for that particular .. . like an R01 has certain expectations that you have preliminary data that you publish. So I think a combination of these things and talking with advisors, colleagues, in your institution about deciding which direction to go.

Paula Goodwin: Thank you. So we have a question again about contact a Program Officer. So can you talk about how much interaction typically happens prior to application submission between potential applicants and the Program Officials? Can you give us a sense of what the interaction is and how long or how often those interactions should be?

Karen Kehl: I think this is a fantastic question, and I'm sure all three of us will have slightly different answers to it. I really think it depends on both the investigator and, to a certain extent, the Program Officer. I encourage people to contact me early and to come back later if there are changes in the Funding Opportunity Announcement or if they have specific questions, but I don't expect to hear from people on a weekly basis, and there are times when we may have to say that's just a question we cannot answer. We're not going to tell you how to do your science, or as Jennifer was saying, we can give you guidance about what the different mechanisms do, but we can't tell you which mechanism to use. So how frequently you contact kind of depends on what specific questions you have, and sometimes you may be able to ask a question, and we can send you an e-mail with the appropriate information in a link.

Paula Goodwin: Thank you so much.

Tanya Hoodbhoy: So I was going to say at NIGMS, what we won't do is to tell the applicant how to fit their work to the mission of NIGMS. So we look at the aims that they send and we'll say, "Okay, this fits NIGMS," or sometimes we suggest maybe checking with a Program Official at a different institute. But we won't tell you how to craft your aims to fit NIGMS. And we won't do wordsmithing so .. .

Paula Goodwin: Thank you. A question about publication, so again, planning your first application and deciding which funding opportunity to apply for, is there a minimum number of publications that applicants, particularly postdoc, early career folks, are expected to have?

Jennifer Alvidrez: More than one? More than zero. I think it varies by discipline of how .. . what the publication rate is, I think. But I think it is important to have some and not just have everything in progress or have everything be conference abstracts because NIH will be looking to see if you are a good investment, that is, that you can convert your work into tangible products, like publications. But there's no magic number other than bigger than zero.

Tanya Hoodbhoy: I would agree with that. Reviewers always like to see that you have a publication from your own lab. So, yes, at least the one and strong preliminary data if preliminary data is applicable.

Paula Goodwin: Thank you. So speaking of preliminary data, so if an Early Stage Investigator is developing a proposal but has limited preliminary data, what would you recommend? Should they apply for a DP2 or wait until gathering information and more preliminary data and go for the R01? So are there opportunities for those with limited preliminary data and what advice would you give to them?

Tanya Hoodbhoy: So NIGMS doesn't actually support R03 awards. So maybe I have one of my fellow panelists answer that question. I know, and sometimes that's a good mechanism to come in under. As for the DP2, it's a new innovator award, so there's a whole bunch of other criteria that you really need to be competitive for to apply to that mechanism. So I wouldn't just apply to that mechanism because you don't have much preliminary data.

Paula Goodwin: Thank you.

Jennifer Alvidrez: Oh, can I add? The R21 also doesn't require preliminary data and the CAPS R01 doesn't require preliminary data, though their definition of what is and what isn't preliminary data is unique, so definitely read those definitions before applicable for a CAPS R01.

Paula Goodwin: Thank you. So, back to applications which ICs actually are assigned applications. So if your application has been assigned to two ICs, which of those ICs will actually review the application?

Tanya Hoodbhoy: So typically an application .. . I mean most applications are are reviewed by the Center for Scientific Review, so their review is separate from assignment to an IC, which is for funding consideration. So I'm not really sure if there's something more to that question.

Jennifer Alvidrez: And then I think to clarify, applications are assigned to one IC as primary and then everything else is secondary. So it's really the primary IC that will be following your application and so you can tell by which is the primary by the letters in the grant number, every IC has a two letter abbreviation. That's how you can tell what primary is and that's who you should contact to follow up with the PO or anyone else regarding the status of your application.

Paula Goodwin: So we have a question about establishing research independence. So if you're applying for a K award, what would be your advice about whether or not you should propose or if you should propose a study with the same investigative mentor that you had during the PhD, or is it recommended that you propose a project with a new mentor? So is it okay for the K award to stay with the PhD advisor or should you look for a new mentor when applying for a K award? Any advice?

Karen Kehl: To me, this is one of those questions that really is dependent on the science and the particulars of an individual. So you may need to talk with your mentors and find out what their advice is. There are times when it makes sense because you have the resources and you have the connections to do the research to stay with your current mentor. There are other times where it maybe very helpful to get the perspective of someone else, and that's not something I'm going to be able to tell you as a Program Officer.

Paula Goodwin: Thank you, Karen. Back to contacting your PO, what are some of the questions that you recommend you ask a PO? So as a new applicant and planning your first application, that's a really important answer to know. So what are some of the suggested aims that you should come prepared to ask the program official that you contact?

Tanya Hoodbhoy: I should say in my experience, most of the time, PIS ask just about whether the work fits the mission of NIGMS, so scope is definitely the big one.

Jennifer Alvidrez: And then also I think if you haven't decided on R03, R21, a K, what does that IC support? So what are really good options within that IC and then particular priority areas that are current that may not be obvious from the Funding Opportunity Announcement.

Paula Goodwin: Thank you. So question about the difference between the review of certain applications, so there's a specific question about R15 applications, and are they reviewed independently of other types of awards? So are you typically seeing the same type of activity codes reviewed together or are they reviewed together at times? So can you explain that?

Tanya Hoodbhoy: So R15s are clustered. They're, you know, just the R15s are reviewed in a stand alone cluster. I mean, the SRO will typically give a preamble on the specific review criteria for that R15. There are some study sections where they'll go through the R21s, R01s, they'll all be clustered and then they'll get to the R15s. There's other times where there's a special emphasis panel that would just review R15s. So it really depends, but whatever it is, the R15s are reviewed as a unit.

Paula Goodwin: So going back to the question that was asked about what questions you should be prepared to ask the Program Official, a follow-up to that is how detailed .. . How much information should you share with the PO? Should you share your full specific aims or just a summary of the application? So can you give a little more detail about what would be helpful for you, as a Program Official, to be able to really advise potential applicants on fit or other issues?

Karen Kehl: I think it depends in part on how early someone contacts me. If they have a specific aims page, even if it's in draft form, that's what I usually like to see to get an idea of what they're thinking of. Please do not send the entire application. There's just no way that we can read the full applications. But if you don't yet have your specific aims to the point where you think you can share those, then just sending a couple of paragraphs explaining what you're planning on doing could be helpful.

Paula Goodwin: Okay. So this is a similar question that we asked for about deciding between the K award or maybe an R01. So if you are an ESI, again considering the K award versus an ESI, or Early Stage Investigator status, in the R, what kind of advice or what factors should you consider when making that determination as a first-time applicant?

Karen Kehl: I think one of the big things is how much experience you have in research. Not everybody who is making that decision has the same amount of experience. For example, if you are planning on proposing a study that is a clinical trial and you have done research in a lab but have no clinical trial experience and have never recruited participants for a clinical trial, that may make it more difficult to step into that R01 without having some mentored training in particular areas. But it's really going to be very specific to each individual and where their experience is and where the gaps may be in their training.

Tanya Hoodbhoy: This isn't a difference between the K and an R01, but I would just say, and I know this is an NIGMS specific funding announcement, but should also consider submitting to .. . Early Stage Investigator, should consider submitting to the ESI MIRA mechanism, the R35 mechanism, and this is not specific aims based, so just joining up to the prior question in that specific instance it's great if you can send a Program Director just a brief description because there are no aims of what you want to do, just so that you can be sure that the work actually fits within the mission of the institute because for MIRAs it's only NIGMS funds this particular mechanism. If the work doesn't fit, then your application is withdrawn. But it's a pretty good mechanism for ESI, so I did just want to mention that.

Paula Goodwin: A review question or not a review question but a mentor question, so you had mentioned that one of the tips is to reach out to mentors or colleagues to have them review your application and your proposal. So would it make sense or is it a good idea to find mentors or people to review your application that are current or past NIH reviewers?

Karen Kehl: To me, the challenge of choosing someone who is a current NIH reviewer is if they give you advice or feedback on an application prior to submission, then generally they can't review that if it comes up in their queue. So that is something to think about, whether or not it's going to create a conflict of interest for them. It can be very helpful to have people who have been reviewers and understand the NIH review process, although I would say that the review process changes over time. So someone who was a reviewer doesn't necessarily know how things are being done today.

Paula Goodwin: Thank you, great advice. Following up on the MIRA, what you were saying, Tanya. If the response .. . if you reach out to NIGMS or to any PO and they're saying that your proposed research is not a fit for that particular IC, can a new applicant ask what would be a fit or how they could potentially revise it so that it would be a fit? So what's the advice you would give on that. If you reach out to a PO, he or she says no, this is not a good fit for our institute. What would be the advice that you would give for next steps in that situation.

Tanya Hoodbhoy: Yeah, that's what I was saying before is that what we don't do is to help people shape their applications to fit NIGMS. Sometimes the PI tries to force their application to fit a particular funding announcement, fit a particular institute, it doesn't end up reviewing well. So if the work doesn't fit NIGMS, if it doesn't fit the mission of the institute, then I would tell that PI to just contact a different institute and consider a different funding mechanism, whether it be an R01 or some other funding mechanism.

Paula Goodwin: Thank you. Would you recommend, for a new investigator, Early Stage Investigator, that they do serve on review panels to get some additional experience? Would that be helpful?

Tanya Hoodbhoy: That's very helpful. And I know CSR, they have a process, I think it's called Early Career Reviewer if I'm not mistaken? ECR, where you can apply to be part of that program as an Early Stage Investigator. So you can serve on a panel.

Jennifer Alvidrez: You can also serve on review panels run by ICs. So, I think the early career reviewer program has a really long waiting list to get in, but most of the ICs also run their own review panels and it's possible to send in your information to those review offices and they can put you on a list of potential reviewers as well.

Paula Goodwin: So back to applying for your first application and making sure you're situated in the best place that you can be, and publications. So you mentioned that you should certainly have more than one application, you said that Jennifer, but does it matter if you're a contributing author versus maybe the lead author on papers? Does that carry different weight, you think, in the review of the application and investigator?

Jennifer Alvidrez: I think all publications that you're an author on, as first, second, third, whatever, count when reviewers are evaluating because there's different things reviewers are looking forward. One is have you led projects, have you been taking the lead on things, but also do you have certain expertise. Because they're looking to see that the research team has relevant expertise in all of the relevant areas of the application. So the reviewers will be looking at your publications as a whole to see if you have the expertise, but also if you have that leadership potential in a particular area and some reviewers really look at publications and count them and see what order of authorship and some don't as much, so I would really think of the whole package and try to boost that up as much as possible.

Paula Goodwin: Thank you. So going back to that reviewer program for early career folks, how soon should one apply? Should they wait until they have a little more experience under their belt so that it won't eat up a lot of time in terms of productivity, or would you suggest that they perhaps consider it early in the career again to get experiences with the process? So any advice on that?

Karen Kehl: So for the Early Career Reviewer program they are not given the full workload of a reviewer on a standing study section. So you aren't going to go home with a pile of 20 grants or whatever, and they are generally the third reviewer on most of the applications. So it really isn't something that should take a ridiculous amount of time, and I think when you do, it really it depends on what your needs are. You need to understand the NIH application and review process enough to know what it is you're looking at and what the parts of the application are, but it's not something that you have to wait until you're ready to put in your R01 application to consider being an Early Career Reviewer.

Paula Goodwin: Well, we are 1 minute to the end of our session, and I do want to thank our panelists, Jennifer, Karen and Tanya, for a very informative session, and thank the participants also. And I do want to reiterate if you have questions, additional questions, or your questions didn't get answered during this session, please consider the expert panels at the seminar, the exhibit hall booths, for chats and 101 opportunities, and you can always find and contact information in the help section of our grants.nih.gov site. In parting, I just want to say your feedback is very important, so please take a moment to let us know what you thought by clicking on the session-feedback button located where the description and presenters on the auditorium list of sessions, and when you are completely done with this seminar, please also remember to complete an overall survey form in the navigation bar at the top of the page. Thanks again and have a great rest of your evening.