**NSF Program Officer Webinar: John Weishampel**

**Dr. Kayla Tindle**

We provide assistance with connecting with program officers, we can help you work out a concept paper for you to send to the program officer with an email asking for a phone call, and we have lots of other resources. So please utilize us especially during this time where we are all remote. I have the honor of introducing Dr. John Weishampel who is an NSF Program Director from the Division of Graduate Education in the Education and Human Resources Directorate. He is an IPA rotator, on leave, from the University of Central Florida, where he is the Senior Associate Dean of the College of Graduate Studies, Professor of biology, and Director of Interdisciplinary Studies, and the Geospatial Analysis and Modeling of Ecological Systems. He earned his Master’s and PhD in environmental sciences and the University of Virginia and his Bachelor’s in biology at Duke. He was a National Research Council Fellow in the Forest Ecosystems Dynamics Research Group at the Biospheric Sciences Branch of NASA’s Goddard Space Flight Center. He was recipient of NASA’s New Investigator and NSF Career Awards in the field of Earth Science and Environmental Biology. He also served as a Bowler Fellow at Harvest Forest and as a Fulbright Senior Scholar at Simon Fraser in Vancouver, Canada and at the University of Freiburg in Germany. He is the author of over 60 peer reviewed journal articles, mostly in the field of Forest Ecology, though he dabbles in sea turtle biology and Maya archeology. So please join me in welcoming John Weishampel; thank you so much for your time today. We look forward to learning from you and having some of our questions answered.

**Dr. John Weishampel:**

Thank you very much Kay. It’s a pleasure to remotely interact with everybody at Texas Tech. I’m sure you all are all remote as well. NSF is kind of interesting, you know, I’ve been here a little bit over a year at NSF and I don’t think COVID has slowed us down at all. You know, I’m still on the same cycle as I was last year, and oddly I think I can do 100% of my job remotely which, is ok but I really do kind of miss Alexandria, Virginia because it really is kind of a nice place and hopefully do you have an opportunity to visit if you haven’t yet and come up to NSF.

So, what I kind of did is I followed Missy’s assignments for me. The first part of the assignment is that I’m supposed to provide a very brief overview of how NSF funding works. She said most of you have some degree of familiarity with this, so I’ll try not to dwell on it. However, you pick up things all the time so the more I've been there, the more I have learned. So, what happens is, you see some opportunity that might show up, maybe your sponsored research office will notify you that NSF has a funding opportunity that relates to your research. So that is kind of the first stage, at least, from your end that you would see perhaps. And then maybe, you will submit a proposal. You know, going through your AOR (authorizing Official Representative) from sponsored research, they would upload it to Fastlane or research.gov or grants.gov and it makes its way to NSF. The first thing that we would do when we get the proposals, sometimes there are proposals that represent ongoing calls and we sort of wait until there is a certain number of proposals before we will do a review. But then we have other proposals that have hard deadlines and when those hard deadlines are met, we will review the proposals that have been submitted.

The first thing that we do is we do a check for compliance. And what that means is that basically you have adhered to Standard NSF guidelines as well as some solicitation specific guidelines. You know, some of the obvious ones are page link or page numbers and font sizes and things like that. But sometimes deeper in a solicitation, there might be some key things that are required for the PI to submit so we often work for those. And if they’re all there that’s fine, but if they are not, sometimes what we do is we may send it back if it seems like it’s a minor change. You know, if it’s something minor we might send it back to your office of sponsored research and say, “hey, can you fix this”? But if it looks I’m going to be a bit more significant, what would happen is we would either ask you to withdraw it or if not, we would do something that’s called an RWR where we would return it without review. And that’s kind of a sad situation because we know that you’ve put a lot of time and effort into it but you know if there’s something that is kind of critical and it’s missing from the proposal, you know we need you to really follow the guidelines we set up in the solicitation. And so if we return it without review, what that would mean is that me, a program officer or program director (they use the term interchangeably) would recommend to the Division Director that this particular proposal should be returned and if they concur, it would go back to your organization and you would be notified that the proposal was RWR’d.

Now, in most cases the proposals follow the instructions and what that means is we have an internal merit review process, this is kind of the nuts and bolts of NSF. What NSF says is this is considered to be the gold standard of review. What happens in this process, it can be highly variable to a certain extent there might be ad hoc reviewers, there may be virtual panels, there may be face-to-face panels, there may be a combination of those. But NSF relies on the expertise of others to help guide the program and so based on panel suggestions, I as a program officer would basically assimilate their suggestions and come up with a recommendation whether to award or decline. I would send it; I would approve it if it’s awarded or declined. It goes to my DD, division leadership, they’ll review my recommendation and if she concurs it will go to the next step, or if she doesn’t concur, it may go back to me, we might have a little discussion back and forth where I explain to her my idea, why it should be recommended for funding or declined. After that back and forth, if it is a decline it would then get forwarded back to you, the PI and the contact organization, your institution. As the PI, you would receive what we try to do is minimally have three reviews and those would may be from the ad hoc or the panelists, and if it is reviewed in panel you also have a panel summary. Sometimes you’ll also get PO notes, where the program officer makes some additional comments that they want you to be aware of, so that will be available to you as well. If it’s on the way or on the path to be recommended, sometimes there’s some discussion that occurs in the DGA and these tend to relate to budgetary issues typically and so if we see something in the budget that we think maybe isn’t following NSF guidelines, we will want to to talk to DGA, or if it makes it to DGA, they may come back to us and they may say there’s an issue here and in some cases we will get back to the PI and get back to the institution and say, “can you fix things.” Now occasionally what may happen is if DGA finds an issue that seems unable to be fixed, they may do what’s called an administrative decline where they would then send them back. DGA, the time frame we usually look at is about 30 days once the DD recommends it to DGA they usually hold it for about 30 days, hopefully less in the upcoming weeks because we are approaching what we call “close out” what we have to spend on money that we have. So if DGA, when it gets to the DGA, what they will do is they will send a notification to an organization, this is probably the time the champagne corks pop and the PI has the notification what DGA has recommended that we fund your proposal. What happens next is that the whole process with NSF, once you submit a proposal, what we try to do is complete 75% minimally of making decisions within six months so that’s our goal. DGA then sends the money to Texas Tech and you start your research and the research is largely dictated by you as a PI, you have a lot of flexibility in terms of how you manage your budget and there are times where you do need to talk with you PO so between the time when you implement the award and the time you close out the award, there should be some back and forth typically some communication, minimally you’ll have an annual report, and a final report and there will be project outcomes that we want to see as well. However, there might be occasions where you might want to change, if you say it’s a large proposal you might have changes in PI’s or leadership, or you want to change the budget and occasionally it’s required that the PO needs to approve someone’s changes. I think it’s always good to keep your PO apprised of the activities going on and if there are any modifications that you need to make, cause part of the PO is to ensure that the primary objectives are the proposal. This is kind of that process in a nutshell, you can kind of break it down, phase one, phase two, phase three. The phase one process, the 90 days, basically means when we put out a solicitation, we usually allow minimally 90 days before the proposals are due. Currently with my particular projects, we’re working on our solicitations for the next cycle. Then again you see phase two is about six months and phase three, if the award is coming out, it will take about 30 days. I want to focus just a little bit on the peer review process, for most of you that served on NSF panels I certainly encourage you to do it again. For those of you who haven’t, it’s really an eye-opening experience. So, the peer review process, or the merit review principals of NSF really kind of relate to the intersection of these three ideas. One is that we are looking for proposals that potentially can advance or hopefully transform the frontiers of knowledge. NSF tries to fund things that might be high risk and high reward, you know sometimes it’s a little skittish of doing that. We look for proposals that are just not incremental, we are looking for proposals that are moving the bar significantly. Now NSF projects aggregate you know so if we look at all the proposals that come into a particular program or portfolio or division, what we are trying to do is also to contribute to achieving societal goals and these societal goals can be varied, they may be informing the public about the activities going on and it may relate to blogging participation, you know how are we able to bring people into the science engineering enterprise who have historically maybe not been involved at least at the level commensurate to the population's size. The other thing we also want to consider is when you write proposals and they’re being reviewed, we want to make sure that we and you as a PI, can understand what it would mean if your project is successful, what are the metrics that will be used to measure the success of your project and this will involve both intellectual merit and the broader impacts which I will talk about briefly. When I meet with my reviewers, and there are certain things I want them to consider, and think about this when you’re writing your proposals, it should be obvious what the proposers want to do, why they want to do it, how they plan to do it, how will they know if it’s successful, and then what benefits will occur if the project is successful. Again I am looking for those projects that tend to be a little bit more than just implement and when reviewers and when people are writing proposals, reviewers are reviewing and when proposers are wiring proposals, you want to keep in mind the two criteria that NSF uses for all of the proposals, the intellectual merit and broader impact criteria. Now other specific proposals solicitations will have many other particular criteria that might be used to evaluate whether or not proposals should be recommended for funding, when you read a solicitation, it’s really important for you to go through it point by point and if you see anything that says “the reviewer must”, or “the proposer must”, make sure you address that because that will be part of the review process. With the merit review elements, what we are looking at the intellectual merit and that’s the ability to advance knowledge and understanding and this might represent a discipline or it may cross multiple disciplines and also we are looking at that benefits in society, NSF is using your tax payer dollars, we have to justify why we are funding particular proposes and so it’s important for you to ensure that this is something that certainly your particular community, research community, will understand but what the general public will also understand why it’s important for this particular research to be funded. We’re looking for those potentially transformative concepts out there. We want PI’s to be creative, we want them to expand our minds as well as your field out there. As you write your proposal and if you’re reviewing proposals, you have to present this logical well-reasoned series of objectives that are cohesive. You are putting together This kind of sound rationale that people can read and understand. And then as I mentioned before, you know, “how do we know whether or not the proposal will be successful “? Now when we evaluate proposals, we do this in a holistic fashion. You know, we are also wanting to consider the background of the PI, the team, and the institution. Certainly, we don’t want to continue to just fund one institution, we want to try to distribute the dollars as best as we can. But at the same time, we want to make sure that this proposal will be successful. And so, we certainly do an evaluation of the qualifications of the individuals. But that said, we also want to ensure that the science and engineering research pipeline is a continual process and so what we want to do is bring in junior faculty as well as more established faculty. And what we also want to consider as we look at the proposal and look at the budget is, we say, “Do they match up? Are the resources at both what you’re asking for from NSF and at your institution going to be able to provide the needed support in order for the project to be successful”? And so that is part of the thing that we charge our reviewers with. So that should give you a background in terms of NSF and how it funds things it thinks about.

The next task that Missy gave me was she wanted me to kind of describe any programs that I directly manage, and she gave me 3 to 5 minutes to do it. So, I want to first give you a kind of layout of NSF. Just think of it as kind of a general organization chart. We have the director here or the acting director at this point. And we have a board that basically oversees NSF and makes sure that it’s functioning properly. And then we have our seven science and engineering directorates underneath them. And these are the BIO1, Computer Information Science, education and Human Resources, Engineering, Geosciences, Math and Physical Sciences, and Social Behavioral and Economic Sciences. So, these seven represent the majority of dollars that flow through NSF. And one thing to keep in mind is that these are not silos. These really do interact with each other. My particular program, or One in particular that I work with involves all of the directorates. And what we do as we seek co-funding from them for particular projects. These different directorates have representatives on my committees that I have for my particular programs. And then underneath, on the last layer, there are other, different directorates or functions that relate to international functions, things that relate to diversity and inclusion, things that relate to other types of management processes at NSF. It turns out, I think, as of yesterday, we have a new director. Like me, he is an IPA rotator. This is Sethuraman Panchanathan and he has come in from Arizona State. He had served on the National Science Board before he became the director yesterday.

So, I’m going to focus a little more on my particular directorate. My director at the EHR, Education and Human Resources, The Office of the Assistant Director, that was the woman on the prior page. Her name is Karen Marrongelle and she has four divisions underneath her: Division of Research on Formal and Informal Settings, Division of Human Resource Development, that’s maybe not the one that’s as obvious, that’s the one that involves Hispanic Serving Institutions which I believe Texas Tech is one. It involves the TCUP, which is the tribal colleges and a whole other group of activities. Know what I am involved in is the Division of Graduate Education (DGE). And within that, we fund things that your probably familiar with like the Graduate Research Fellowship Program which is the oldest program at NSF. More than likely, Texas tech has more than one GRF students there. But the activities that I’m going to talk about are going to be a little bit different. So, for EHR, the mission is to basically provide the research foundation to ensure that we have a diverse science Technology and mathematics literate public and workforce that will advance the frontiers of science and engineering for society. A little FYI, that word “STEM” came out of my directorate. Years before it was STEM, it was called “SMET”, which I think someone cleverly figure it out that just doesn’t sound right and so they changed it to STEM. Now my group DGE, what we want to do is provide funding support graduate students and, in this process, develop novel, innovative programs to prepare tomorrow’s leaders in STEM.

Now if we look at NSF, and focus strictly on graduate education, NSF funds about $1 billion Worth of graduate students each year. Eighty percent of those are Standard Research Assistantships so those would represent, you know, you as a PI would submit a proposal and you want to fund your graduate student on it. So that represents the bulk of the graduate student support at NSF. And then you have the 15% which is the Fellowships and Scholarships. Those are largely coming out of the GRF Program. Each year that funds about 2000 students. So, you can think of that as a big chunk. And that is one that Congress is always sort of focusing on. Now the last piece of the pie, the 5%, that’s me; me and two other Program Directors. So that means our program is about $50 million. So, we have a $50 million annual budget that we are responsible for.

So, the program that I work with is called the NRT (NSF Research Traineeship Program), it’s really divided into two different programs. And they are very different in scope. But the big one is the NRT. NRT probably represents about $45 million and the IGE (Innovations in Graduate Education) represents about $5 million. The NRT program is really trying to create new research in areas that a variety of students can explore. This is the successor to what was called the IGER program. There are some slight nuanced differences between the IGER and NRT but what this does is try to identify gaps in science, engineering education in terms of themes. And so, these themes, by definition, have to be interdisciplinary, some may be convergent where they’re addressing particular problems. What we hope through the NRT is that we change the way graduate education works at universities. And the ultimate goal is to provide trainees with the experience and knowledge so that they’ll be able to advance science and engineering in the workforce as well as in academia and government. These awards are five-year awards for up to $3 million. It’s extremely competitive. We are just finishing up our last cycle. The NRT is really kind of a product of different ideas or culminations of different ideas and NSF has their strategic plan which we certainly adhere to and we also provide an opportunity for researchers to identify training areas that relate to NSF‘s big ideas. But they need not focus on the big ideas which, for those of you who don’t know it’s like: Windows on the Universe, the Workforce, the Human Technology Frontier, Understanding the Rules of Life, Harnessing the Data Revolution, Quantum Leap, and I’m sure there is one missing in my group but these are some of the big ideas that actually came to NSF from the prior director and so that was her goal. Also, this NRT embodies the recent 2018 report that came out of the National Academy of Science Engineering and Medicine which is graduate STEM education for the 21st century, trying to redefine the way that graduate education works. And also, we’ve learned from other groups like the Council of Graduate Schools in terms of trying to develop a workforce. So, training for students in the 21st century for graduate students should differ from what training looked like in the 20th century where it is no longer driven by a single apprenticeship model. So now we think more of graduate education as a network.

The NRT is really trying to combine these novel research areas with novel training activities. The training activities involve a variety of professional development activities, internships, workshops, and outreach with the goal to change the way graduate education works at an institution in terms of STEM as well as provide workforce needs.

You know, we talk about “T-Shaped Students”, where they have some breadth and then some depth in a particular field, we try to do a little more “Pi” shaped students. Where when I first read the term “Pi shaped students” I was thinking like pizza pie and it didn’t quite make sense and then all of a sudden I thought, “Oh, Pi, yeah there it is.” And this particular model, what’s going on here is students have a depth of training in two areas. One, the domain specialty which might be biology or bioinformatics and then they also have another deep dive into another discipline which might be like computational stats. You can think of different types of pi models out there or maybe it’ll be a tripod kind of model as well. But, in addition to being able to speak the languages of or the combined, convergent language of The different disciplines we also expect our trainees to have a breadth of professional development so that they are marketable and a variety of careers.

Currently, the NRT portfolio has 85 projects and hopefully by the end of the month we will have 101 that we’re shooting for. We cover the US, Texas Tech does not have one right now, but there is no reason they shouldn’t so hopefully I’ll encourage people to apply for next year. These are extremely innovative programs and I am proud to oversee these with my two other program directors Daniel Deneke and Vinod Lohani. If we think about these interdisciplinary programs and we think about how they cross directorates, these acronyms represent the different NSF directorates, not including my directorate. My directorate is basically found in all of these. And what we see with those 85 projects is we see that, on average, they are represented by about three directorates. And by represented that means they have PI’s, co-PI’s or their students are coming from different disciplines and so it really is sort of an interdisciplinary project that is involved with NRT. And that is certainly something that we look for in the proposals. I’ll just give you a couple examples of them: one is focusing on smart cities. And if you think about smart cities, you’re going to incorporate social sciences, as well as computer sciences, as well as policy, engineering, sustainability. And so, you know, you’re basically trying to create a new degree program. Where people can’t get a degree in smart cities, you know, we’re not really expecting them to create a PhD in smart cities however, the NRT training program would create students who are able to do, you know, work in urban areas that are undergoing significant transformations. One thing you can note from this is that the PI, that name that you’ve seen recently, that’s Panchanathan who was a PI and he had to give up his PI-ship when he became the NSF director and so we do have a new PI but I like to keep his name up there. Another one, this is a more recent one, that came out last cycle out of Vanderbilt and Fisk University. And for this particular NRT, what it’s trying to do is develop engineering interfaces for what are called “Neuro-diverse Individuals.” And it relates to the future of work, the FW, where we’re looking at the human technology frontier. So if you think of engineers and psychologists who are working together with educators as well trying to design ways that a Neuro-diverse population, so these might be autistic individuals or people who have some level of mental disability, and how are we able to accommodate them into being able to join the workforce. No, the other projects that I’m involved with and the other program is the IGE (Innovations in Graduate Education). Now this is very different from NRT. It’s really trying to create a test bed or novel graduate education ideas in STEM. Let’s say you want to try something new, and I’ll give you an example that came up this year that we funded. Do University of North Carolina-Charlotte, they’re trying to investigate how we could kind of change the traditional dissertation. Instead of students doing what are typically research-oriented science and engineering projects where they would publish in some kind of research publication, what if we said that if you submitted a patent application then that would suffice for maybe a few of your chapters or something like that. That’s an example of how we’re trying to sort of change the way traditional graduate education works. Here is a project that was developed by Florida State, The PI‘s name is Ke, and what she did where she’s working with avatars that help graduate students become better instructors. So, in this particular scenario, people are mic’d in and interact with what would be an instructor, in this case probably a graduate student, and to kind of help foster good educational classroom management techniques. I know that Texas Tech has a couple of these. So, if the PI’s are here, congratulations. I don’t think I’ve met you, but one is developing reflective engineers. This is an interesting project where they’re trying to make engineers that may be able to think more along the arts and humanities front. So, trying to integrate arts and humanities curriculum with traditional engineering curriculums perhaps affecting the way engineers think. The next one, I’m a little more familiar with. This is a collaborative effort. The main group where this comes out of it is Northern Arizona University but the focus here is trying to come up with a model and understand the problems with coming up with a new graduate education model where you’re crossing different universities. And so this particular one involves Northern Arizona, Texas Tech, Penn State, University of Massachusetts, (Penn State has been causing some problems just so you know) but you know one of your strengths that Texas Tech is wind energy and so, you know, that’s part of the consortium there is really focusing on with a call “Wind-U”. So, trying to create a consortium of universities Who are involved with wind energy.

All right, my last task that was given to me by Missy is to spend 10 to 15 minutes providing best practices, and how faculty can work with NSF program officers. So, pre-submission, you know, that’s the first thing to consider. So, pre-submission, ask questions. you know, I am a faculty member, you know, call me up and I’ll do my best to respond. We have both permanent NSF PO’s as well as IPA rotators. So, if you’re an IPA rotator, do you know what it’s like to be a recent PI. And certainly, we do our best to help PI’s. My particular program runs Q&A sessions. You know, we have that 90-day window so once we put out the solicitation before submissions are due and will usually have three or four Q&A sessions. Show up to the Q&A sessions. If you can’t make it, give us a call or drop us an email. Some other directorates, they have virtual office hours. I know BIO does this. So, what this means is, I think they’re weekly, you know, they have virtual office hours, maybe the theme of the office hour changes every week. Show up. Ask questions. What we also do occasionally is give workshops. So, we had a workshop for the NRT program that came through the computer science director last year. And so, what SCIS did is they invited people from their PI community that may have been interested in learning about NRT and so we ran a particular workshop focused on SCIS. Come to NSF, you know, when the building opens up, I mean. It’s a very nice building, very functional, very well designed in terms of trying to do what we need to do running panels. So, if you’re in the DC area, Call of a program manager and say “Hey, are you available to meet”? And I’ll bet you 50% of the time they won’t be available and if they aren’t available it’s not that they’re blowing you off, that probably just means that they’re busy but, you know, there are opportunities for you to meet. If you have an idea, and you want to pitch it, send them a white paper, that works. Follow up on it though, I mean, I know my average day I’m getting hundreds of emails and I’m not exaggerating. So, send it to them again if you don’t hear from them. They’re not going to be upset that you sent it to them twice, they’ll probably be apologetic for missing it the first time. But what you want to do is discuss if it’s a good fit. Sometimes it is, sometimes it’s not, sometimes they’ll give you some ways that you might want to modify it. What they could also do is say, “Maybe it won’t fit my program but maybe it fits in another program.” And also what sometimes happens is you might have an idea that is completely between the cracks and that doesn’t mean it’s a bad idea that might just mean that we have to be a little bit more creative in terms of how we could fund it. I mean, you could submit unsolicited proposals and certainly we will do our best to vet them. If we deem that it is something valuable, we will seek outside review to make sure that it’s given its proper do.

NSF program officers go to professional meetings. I was at the AGU meeting, the American Geophysical Union meeting last year and we had a special workshop for PI’s and so, you know, show up to those and meet with them, chat with them. The best thing you can do though, this is by far the best thing you can do, is beer reviewer. I mean serving on a panel is I think better than being an ad hoc. If you serve on the panel you may review you know, somewhere between maybe 6 to 10 proposals depending on the type of panel. But this is a really important educational opportunity for you to understand what the community is thinking and how they’re thinking. You’ll be able to understand how panelists evaluate proposals. It is just so insightful as well as it is part of your job responsibility, frankly. Part of your job responsibility is to provide service to your community, the professional community and this is one way you could do it.

So, another way to interact with your program officer/program director if your proposal is declined. So, if declined, what do you want to do is read the reviews and panel summaries and read them thoroughly. Take a deep breath. Sleep on it, maybe a few weeks. In the heat of the moment I get these emails that say the panelists have no idea what they’re talking about you know, you get a lot of heated emails and phone calls and it’s probably best to just take a breath. And realize, the peer review process is not perfect, and they miss things. I always want to say that it’s a two-way street. So yeah, the panelists did miss things but at the same time, maybe it wasn’t conveyed in a manner that was easily accessible. So, kind of think of it from both sides that way. So, talk to your program officer. Sometimes your program officer is a panel manager and that means that they have listen to the conversation and maybe they’ll have a deeper inside that’s not captured in the panel summary. Again, ask questions and find out if there are particular strengths that weren’t identified and why not or weaknesses that you thought were unjustifiably being critiqued. Let them know and find out why. Again, go to the process and find out about Q&A sessions, virtual office hours, and workshops. Visit face-to-face. Feel free to chat with your program officer and again, the best suggestion I have is to go to that panel. Go to that panel and really learn. Then you’ll really have the opportunity to compare those strong and weaker proposals that are out there. Very insightful.

OK, another level is here. If the PO asks to negotiate with you. That’s usually a good sign. That means your proposal has gone through the panel and there’s some things they want to clarify. Set a panelist maybe identified some questions or weaknesses and this is an opportunity for you to listen off the bat. Kind of listen to the comments and absorb them, you know think about it, and then provide clarifications. So if there are any questions that the panel or the PO ’s may have had, you want to make sure that you do your best job to not rewrite the proposal but to make it clear, what they were missing and add to it a little bit. In these negotiations, maybe it requires re-budgeting. You know, the PO ‘s is looking at some of the budget and they don’t understand it, maybe it was too high or too low. It can go either way. I had a proposal last year where I looked at what they were funding a post doc and I said, “that is ridiculous”, you know, that’s a well below the NIH standards and, you know, basically they were funding someone in a high tech field what they were able to do is find additional money within the university to fund the post doc. Or, if we had enough in our budget you could come back to us and we would say, “we want to add to it “. You know, if your proposal has been considered, make sure you get the questions back and re-budget back as soon as you can following the particular time frame. And then also one thing to consider is to make sure that do you or your co-PI’s have all the reports that are overdue or outstanding and make sure that they have them approved

OK, another thing. If awarded, OK yeah, the champagne comes in. Great. You know what happens is Champagne feeling comes in first and then you’re like, “oh, now I have to do the work “. So that is kind of the next phase. So, if awarded, what do you want to do also is read the reviews in the panel summaries. Because this represents your community and if they have issues or there are weaknesses, you know, consider them. they reviewed your proposal among other proposals, and they might have found things that are things that might improve your project. So, take that into consideration. Again, ask your PO for any insights. If there are things that you want to know more about, ask them and I might be able to help you out. For my particular programs, the NRT, I have a new PI orientation to make sure everyone is up to speed on what is required of a PI and an NRT PI. And then we have annual meetings also. Keep your PO apprised of any new developments. Do you know, if you’re having issues with your university, if some things are going as you expected them to you. Do you know, if NSF is finding you a somewhat significant amount we want you to be successful and if they are funding you a significant amount, we are not afraid to talk to your sponsored research to say this is what we hope you’ll be able to do. If you are successful, let us now and make sure you acknowledge NSF support. That’s part of our mission, that’s part of our psycho as your tax dollars come in, if you have something that is successful, you know, we want our taxpayers to know that this was funded through NSF. Do you have annual and final reports? Submit them on time. We also often have supplemental funding. And so, you know, if people come in with a grant, certainly about this time of year is when we know what our budget has and if we have money that we can spend. Talk to your PO. If you have some ideas in terms of, “Wow, this would be a great addition to my research. Do I have the ability to fund this “? Supplemental funding does not require us to an analysis in particular if it’s less than 20% of your original budget. Network with other PI ‘s. This is a way to build community as well. And also, come back to us and say you know, “This solicitation could use some work”, or “Here is maybe a new angle that you might want to improve on”, or maybe there is a whole facet of research you think we should support. Let us know. Again, we want you to volunteer or do your service as an ad hoc reviewer and serve on the review panel.

You know, the last slide is this: one way to interact with your Pio’s is if you become someone like me and become an NSF rotator. And NSF is always looking for people to fill their shoes. So, you’ll bring educational expertise and a background that NSF wants to use. And this an opportunity for you to kind of do a little pivot sometimes or have a broader reach in terms of your research community so it’s something to consider.

All right, so that is it for my presentation and I will be happy, I have some questions that were given to me, And I’ll do my best to answer them. And if you have any additional questions, you know, feel free to let me know. All right, so the first question is, “how important is the connection/networking applying for NSF funding?” Let me say something, so, for my NRT, for this cycle, we have some proposals that are probably going to be funded this year that it is their fourth try. Ok so, they failed the first time, failed the second time, failed the third time; failed maybe is a harsh word. They improved each time. And now their fourth submission, and you know, there might be some serendipity to it, maybe the panel was more favorable or things like that. But I feel like I contributed to some of these. You know, these PO ‘s come to me or PI’s come to me and after their NRT wasn’t successful and say, “John, what can I do?” And I go through it and I go over issues and then when they get awarded the next year, I feel good, I go, “Wow, maybe I helped them out; maybe I did.” But it doesn’t hurt. I mean that’s my take. I mean, we do have PI ‘s who are funded on the first time as well, but with my NRT out of, it looks like we’ll be able to fund about 16 of them. Twelve of them are resubmissions. So, no it might be 11, I think 11 of them are resubmissions. And again, I know one of them that this is their fourth go-round and that’s not crazy.

“Do you have any suggestions for junior faculty who have not established a relationship?” Well, this is your time. I mean, call them up, send them an email, send them a white paper, I'd Interact with them at conferences. You know, I started at NSF last June and I’ve had 100, probably, phone calls from PI’s. I’ve only known maybe four or five of them, so you know, this is your opportunity. If you don’t receive something in a timely manner from a PO, send them a follow-up. So, what’s the worst thing that could happen? I mean, you know, they’re not going to be irate. More than likely they’re just buried and will be more apologetic that they didn’t get around to it. This is a good question, “If a proposal is interdisciplinary or multidisciplinary, how does the applicant decide which discipline?” Contact the program officer, they Will let you know. If it doesn’t fall on their domain, they will point you to another one. But again, there might be an opportunity for you because if you are finding that new niche space, the program officers can get together sometimes and come up with a creative way of funding a good idea if it doesn’t follow a particular solicitation. So this is it’s kind of the counter part of it, “If a program officer doesn’t recommend that they submit the full proposal, what should they do?“ Well, make sure you find out explicitly why the program officer doesn’t think it’s right then maybe seek other advice too. Ask your program officer again if there’s another program they think might be more appropriate. But, you know, program officers aren’t always the geniuses we lead you to believe they are. We really do depend on the advice of the past. I’ve had proposals that have come through my panels and I’m like, “That’s not going to be funded”, but the panel thinks completely otherwise. And generally, I’m not going to overrule a panel that strongly thinks a proposal is worthy of funding. So that is something to consider. You know, your program officer may not be right on track with you, but at the same time I would certainly heed their advice because they have reviewed probably more proposals then almost anybody else out there.

“How does the program officer evaluate the overall objectives and intellectual merit?” for the most part, we rely on the expertise of others. So that’s why we have the panels and the reviewers but certainly, we are somewhat knowledgeable in the field so that helps us decide whether or not we want to recommend something for funding or not. So how we evaluate it, you know, it’s really those items that I mentioned earlier on in terms of things for reviewers to think about for the proposal. And that may be, you know, what are they doing, how are they going to do it, to the very end, you know, how old is advance or how will the benefits accrue overtime throughout this whole process.

The question is, “Is the peer review dual anonymous?” No, it’s not. At least not for the programs I’m familiar with. I know other agencies might have a double-blind review but at NSF we do know who the PI’s in the co-PI’s are. There’s good and bad to that. I mean, the good is that if you have a particular track record that may support funding a particular proposal. But then again, if you’re a junior faculty member, the expectations aren’t that you have a giant H-impact factor. But, if you’re someone early in your career, you know, we want to help support that as well.

“How do you approach a program officer to discuss a bad review from a grant reviewer?” Yeah, take that breath first, but certainly I think it something you should do. There are times when reviewers miss it or reviewers might have an edge that for whatever reason they shouldn’t, but that can happen. And for some of the programs I’m involved with, if you get a review of “good” that is a killer. I mean, you sometimes need all “excellent” or maybe one “very good” is ok. But occasionally that “good” is basically, you know, praising with false praise.

“Is there an outline procedure for contacting a PO?” No. send an email. Send an email and say “Can we zoom?” You know, something like that. If you go to the solicitation, they will list the PO’s below it. Sometimes they will have the Q & A sessions and you can show up for that.

Last question before I get into some others, “How important is the applicant's previous publication history”? You know, we hope to see that you’re on a trajectory that would lead the reviewers to think that what you propose, you would be successful at and accomplish it. And so, it certainly is valuable if you have written and reviewed publications in your particular area that you’re focusing on. But at the same time, if you have the pieces that might suggest that you shouldn’t have any difficulty doing that, that shouldn’t in any way dissuade you from doing that.

There were a few very specific questions that I can probably go through some of these. One is, “For budgets, is there a negative impact if six months per year budget for a PhD student”? No. There is no negative impact. Certainly we would like to see our doctoral students funded for a whole year and if the money is not coming out of NSF, maybe it’s a GTA, or something else, so there shouldn’t be a negative impact for that. For a traineeship though, we do have a minimum of a 12 month for an NRT, but then after that it’s kind of up to the program.

“Is it common to request four years of full support for a PhD student”? That might be pushing it. I mean, the GRFP is a three-year program. Certainly there might be issues where you can find PhD students for four or five years, which is fine, but make sure that if you were offending them for a period of time I think it’s important for you to think about making sure that the mentoring is somehow obvious for the reviewers as well.

“Can we suggest reviewers that are faculty at a full-time institution?” Absolutely. So, think about NSF. For my programs, we have people who have expertise in industry, expertise in graduate education, people who have expertise and professional skill development. So, we try to cross the gambit. You know, we really do try to make sure that proposals are being reviewed from people who have the proper expertise. Which may not be a doctorate degree, it may not be that they are working in academia.

“Given the COVID-19 situation, are there definitive plans or rules that a proposer needs to provide”? During negotiations now, we are asking people or teams that we’re hoping to fund how they feel they might need to adjust for COVID. NSF is still kind of struggling with this one, but I do not think you need to explicitly outlay it at this point. But if you think about it, if you’re going to have a proposal or a research project that’s going to start in the very near future and it’s going to involve face-to-face contact with people you know, it’s certainly something that could lead to a negative review.

“Would you recommend junior faculty to pursue a research infrastructure project “? It is OK. Again, if it seems like they have that trajectory. Like, if they are working towards something which will not prevent them from getting tenure as well. You know, we want to make sure that your university would recognize that what you are doing is something that would be valuable to them as you go on your tenure track. And then from the reviewer side of things, you’ll have to demonstrate that it looks like you have the wherewithal to carry out that particular opportunity.

OK, so that’s all I have in terms of the written questions. I’m open for a few questions now, I guess, as well.

**Participant:**

I have a question. Hi, thanks John for a great introduction on NSF works. I had a question about REU so “Research Experience for Undergraduates” and RET, “Research Experience for Teachers.” So, the words are that the REU and RET are for independent research of undergraduates and teachers but in some cases, undergraduates are not experienced or qualified enough to do independent research.

**Dr. John Weishampel:**

Yeah, that is a good point. So, it’s true, they are kind of looking for that independent level research. However, that said, more than likely the RET’s or the REU’s will involve student who are part of a larger research project. And so, what they’re looking for is that you carve a small piece out of a research project that they can sort of claim as their own. So, it’s not that they’re going to start and finish a research project in the 10-week time period. That would be completely independent. So, if you think about your research, if there are small questions that they can contribute to that’s a good way of doing it. And then also, you’ll have some REU’s and RET’s that involve multiple students. And so, if you think about all those different pieces that fit together, but again, we want them to look to see that they can claim that as their own. We know that they’re going to collaborate with you and maybe graduate students and maybe post docs. But each one of them wants to be the first author on something so think about it that way.

**Participant:**

Thank you.

**Dr. John Weishampel:**

Alright, any other questions?

**Participant:**

If no more then can I ask another question?

**John Weishampel:**

Go ahead.

**Participant:**

So, when you review proposals, would you consider an NSF supported project when someone has already been a PI on one? Like especially for junior faculty. For example, if someone is already a PI on a project, when he/she submits another proposal, would you consider that if it is beyond their ability or if they already have a full plate etc. Is there a lower chance of funding that person?

**Dr. John Weishampel:**

So, we will look at your current and pending. We will  look to see if we think you have the bandwidth so we will make sure that your university is providing if you need release time to do the research, you know, we would like to see that as well. Certainly, we have junior faculty with multiple NSF grants. We also want to see the degree of overlap. I mean, if it looks like what you’re proposing significantly overlaps and isn’t really that big of a leap, well maybe we will wait a little bit for you to finish your first one. But don’t think of it as being too detrimental. However, you know certainly if you were to have multiple grants there might be questions whether or not you do have the time and energy to do, you know, an additional one. But two, probably, is not going to be that limited. But last year I had a PI with 16 confirmed grants and in negotiation we spoke to the PI and were like, “could you explicitly let us know how are you going to devote the Time to all these different grants.” In which she did, she stepped down and found someone else to fill that role.

**Participant:**

Thank you.

**Missy Jenkins:**

Alright, well we are officially over time and I want to be very mindful of everyone’s time. Particularly Dr. Weishampel, thank you so much for speaking to our faculty today, we really appreciate you taking the time to do this. You gave a lot of great information. I want to thank Dr. Kay Tindle for supporting this initiative of ours and being here today to introduce Dr. Weishampel. We want to thank all of you for attending and being so attentive today. If you have any additional questions, fell free to email them to me and will see what I can do to get them answered for you. Again, thank you everyone, great session today, thank you for sending in all those great questions, we really appreciate all of you.

**Dr. John Weishampel:**

Alright, well thank you for having me and everybody have a good week.

**Dr. Kayla Tindle:**

Thank you take care.

**Missy Jenkins:**

Bye-bye