

WEBVTT

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00:00:19.960 --> 00:00:25.299

Anna Allen: Good morning, everyone. We're going to get started in a minute or so, just letting everyone file in right now.

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00:01:43.170 --> 00:01:51.859

Anna Allen: Thanks. All for coming. We're going to get started. In another minute we'll give people a little bit more time come from their last meeting to this meeting.

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00:02:45.830 --> 00:02:50.900

Anna Allen: Okay, now that the attendees seem to have kind of tapered off. We're going to get started.

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Anna Allen: with Today's IOS Synthesis Center webinar. We're going to first introduce the program directors from NSF. Who are on the Webinar today. My name is Anna Allen. I'm a program director with an IOS in the developmental systems cluster. Joanna,

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00:03:08.770 --> 00:03:17.290

Joanna Shisler - NSF: Hi, everybody. I'm Joanna Shissler. I'm. In the PSS. Cluster in the symbiosis infection and immunity program.

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00:03:17.570 --> 00:03:18.670

Anna Allen: Irv

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00:03:29.400 --> 00:03:30.530

Anna Allen: Jody

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00:03:31.090 --> 00:03:37.020

Jodie Jawor: Hello, Everyone I'm Jodi Jawor. I am a program officer in the Behavioral Systems Cluster.

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00:03:37.900 --> 00:03:38.840

Anna Allen: Steve

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00:03:39.100 --> 00:03:46.300

Steven Ellis: I'm Steve Ellis in the Division of Biological Infrastructure in our Centers Facilities and Additional Research Infrastructure cluster

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00:03:46.760 --> 00:03:54.389

Anna Allen: and I'd like to start by also thanking Jennifer and Isaiah for being our technical assistance for this Webinar.

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00:03:54.400 --> 00:03:55.040

Anna Allen: It's a...

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00:03:55.050 --> 00:04:04.620

Anna Allen: So, as this is a Webinar, we're going to ask you to pose all your questions in the Q. And A. We will be trying to answer them live at the end of this brief presentation,

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00:04:04.630 --> 00:04:16.190

Anna Allen: and then we are recording this session. So, a session of the recording and the slide should appear on the IOS and the center website within the next week or so.

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00:04:17.420 --> 00:04:19.529

Anna Allen: So let's get started.

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00:04:20.790 --> 00:04:49.809

Anna Allen: So some important take-home information to start with, since everyone likes a cheat sheet: um the IOS synthesis Center solicitation is NSF 23-564. This calls for development of a synthesis center with a budget of up to twenty million dollars for five years. We estimate the estimate number of awards will be one, so there will just be one synthesis center awarded. There is required preliminary proposals that are going to be due January 12, 2024.

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00:04:49.820 --> 00:04:55.779

So you still have a couple of months to get your team together and get that preliminary proposal in.

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00:04:56.240 --> 00:05:16.650

Anna Allen: Those preliminary proposals will be reviewed by NSF, as we'll talk about later, and then full proposals will be due July, 15<sup>th</sup>, 2024. So just shy of a year. We will have one final webinar on this um solicitation in November. Um. And that timeline will come up shortly. We'll show you that.

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00:05:17.200 --> 00:05:34.370

Anna Allen: So our outline for today we're first going to talk about what is a synthesis center and then get a little bit into the topic of IOS . So this is center solicitation organismal resilience. We're then going to move into talking about how the review process for the synthesis that are preliminary and full proposals will work.

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00:05:34.420 --> 00:05:48.269

Anna Allen: Mention a little bit about some ingredients that make a successful proposal, or what make up a successful synthesis center. Talk about some common questions we think you might have, and then open it up for questions that you actually do have.

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Anna Allen: So what is a synthesis center?

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Anna Allen: A synthesis center is something that is going to bring together communities in order to leverage existing data with the idea that it will catalyze discoveries through both synthesizing, analyzing, and integrative training. So this is a schematic that's included on our website to describe Synthesis center. And this is the center. Sorry is everything basically in the great box.

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00:06:16.290 --> 00:06:41.090

Anna Allen: So what we know is out there is a lot of existing community data on the far left of this slide. And with that existing community data we need to bring the researchers need to bring that data together, we need to integrate and harmonize that data, maybe develop some new data analysis tools to ultimately synthesize that data together which might need or hopefully will lead to new knowledge and applications.

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00:06:41.100 --> 00:06:48.150

Anna Allen: It's important to note here that the synthesis center provides the vision, the infrastructure and the expertise to synthesize this data

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Anna Allen: synthesis. Data, synthesis centers do not directly support the generation of new data, and they do not fund an individual research group. They are really dedicated to facilitating the synthesis of available existing data by looking through multidisciplinary research teams.

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00:07:06.700 --> 00:07:22.620

Anna Allen: So how does NSF support information synthesis that is, through these synthesis centers and you may be aware of some that exist that have been previously started by NSF support, and now actually are running on their own through other support mechanisms.

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Anna Allen: Some of them are indicated on this slide, so you can feel free to look them up. We have supported synthesis centers, um, revolving around evolutionary science math, integrating math and bio um, a synthesis center dealing with the structure and function and sustainability of social and environmental sciences, et cetera. So if you would like some more information on the system centers

that have been supported from NSF. We can feel free to look at any of these examples, but of course your Synthesis center does not have to be like any of these.

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Anna Allen: The centers. We left the solicitation very broad to let you, as the community of researchers who are putting in this proposal to see what you can come up with.

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Anna Allen: Okay, So again, what is a synthesis center or information synthesis?

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Anna Allen: I'm going to reiterate. Again, it is not to support the generation of new data or fun individual research groups. The purpose of these synthesis centers is to both process, organize, analyze and interpret all the data that's out there. So the data, the methods, the theories with the idea that by doing that we can help to build a more integrated knowledge base, and that now that integrated knowledge base can be used to catalyze new ideas, new applications, and new research directions,

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Anna Allen: Synthesis centers are also to help create a collaborative community. So to bring together researchers from diverse fields who might end up or hopefully end up, being better informed and prepared to address kind of complex problems that are existing in this research field.

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Anna Allen: So the newest call

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Anna Allen: the synthesis center is coming from IOS , the division of integrated organismal systems, and through looking through the participants, I can see there's a number of PIs who have been supported from IOS . So, many of you already know that IOS focuses on the study of organisms as integrated units of biological organization.

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Anna Allen: We, as a division, are focused on how our organisms, structured as they are, And why do organisms function as they do

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Anna Allen: So , this solicitation we put out NSF. 23-564 is to develop a synthesis center for understanding organismal resilience. So what does that mean?

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Anna Allen: We hope, or the intention is that this synthesis center will help

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Anna Allen: the scientific community to advance our knowledge to both explain and predict organismal, resiliency, and plasticity. We understand that there are complex and dynamic environmental circumstances that organisms encounter over their lifespan, and that this can lead to organisms developing different resilience strategies or plasticity approaches.

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Anna Allen: And so um, our idea is that with all this data that exists out there is that it's now time to bridge the multiple pieces of data and the multiple scales and the levels, and see if we can bring that together to synthesize all that data that's out there. So, this center will enable innovative synthesis and analysis of all that existing data I just

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Anna Allen: mentioned. It'll help to do that by providing the vision and the infrastructure and the expertise so senior personnel, et cetera, that can help to develop and advance new avenues of inquiry and organismal biology again with the focus on organismal resilience and plasticity.

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Anna Allen: so. Why a synthesis center for understanding or physical resilience? I talked about this a little bit in the preceding slides. When I mentioned that we know there's a vast amount of data out there, an organism of biology, and that this vast amount of data that many of you have generated yourselves provides resources that we should use right. These are untapped resources. And so we're hoping, or the intention of the Synthesis center is that by bringing all that data together, this will stimulate novel questions,

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Anna Allen: theories, right. It'll stimulate and enable a discussion about how why and to what degree do or does organisms exhibit resiliency and plasticity? It will help to develop innovative research and analytical strategies that might be used to address complex problems being faced by organisms. Now

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00:11:44.310 --> 00:12:03.080

Anna Allen: it will help test novel organizational models that will hopefully advance science and technology, and that through this the synthesis center can tap new talent train the next generation of scientists and hopefully broaden those scientists that are participating in steps

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Anna Allen: so moving on. I'm going to talk about a little bit about the ingredients for a successful proposal, and so many of these items that we've identified have been reported on publications that talk about Synthesis Center and have identified what key outcomes of synthesis centers, what have been expected of synthesis centers, and what are key outcomes of synthesis?

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Anna Allen: So what is expected of a Synthesis center.

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Anna Allen: It is anticipated that in a synthesis center will be a cross-disciplinary effort

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Anna Allen: that it is designed to organize and synthesize all this data that I talked to and mentioned before that exists in the scientific field, and that you will be able to extract novel insights from this. It's expected that a synthesis center will provide the support, the infrastructure tools that might be needed in order to promote that information synthesis.

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Anna Allen: The Synthesis Center should create a really collaborative environment where you're really crossed it, bringing different disciplines together that will hopefully generate innovative ideas and new approaches to address these complex challenges that many of the fields are um are exhibiting right now

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Anna Allen: and then. Finally, it's expected that synthesis centers will train a diverse cohort of scholars, and that ultimately this will have a lasting impact on the field.

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Anna Allen: So, some key outcomes that have been identified for synthesis centers and that are expected to be an outcome of this cylinder is that there will be

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Anna Allen: value added to the data collected in these diverse research projects across the wide range of disciplines. Right? So, you're going to be taking this data that already exists, re-synthesize or synthesizing, analyzing, and hopefully leading to new research or new outputs that could result from this

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00:13:55.140 --> 00:14:22.669

Anna Allen: another key outcome of synthesis center is, it's going to lead to create ah, greater creativity, new ideas and new research directions. The idea is that by having dedicated time and focus on the

synthesis part in the company of scientists that exist in different disciplines, especially data scientists. This can lead to really bursts of high creativity. And these new ideas. So those “ah-ha” moments!

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Anna Allen: It is expected that census centers will progress on exciting high-risk high report questions that are chosen by the scientific community, submitting the synthesis center, and this might help to develop software databases and other cyber infrastructure that's supported by the center.

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Anna Allen: The centers should focus or include collaborative behavior among the many different participants in the broader community,

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Anna Allen: and that the another outcome, our final outcome might be to involve the decision making individuals and organizations at the synthesis stage of the science discovery can lead to an increased likelihood that the results are going to be transformed into actionable science and policy.

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00:15:11.780 --> 00:15:29.350

Anna Allen: So some key ingredients for success of a synthesis center that have been identified are that it provides active facilitation of the intellectual space among the different groups brought into this center, and that's going to be done. That active facilitation will be done by the center staff.

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Anna Allen: Centers involve cutting-edge computing and data management and informatics support

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Anna Allen: There is some built in organizational flexibility and centers that will allow them to accommodate different scientific and intellectual needs from the various members that they're bringing in to help synthesize and analyze the data

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Anna Allen: synthesis centers. Can um that are successful, provide support for people at various stages of their career from students to post-doctoral scholars, faculty. They also include diverse participants um to represent the whole spread of those participating in stem research. And then, finally, the Synthesis center. Another key ingredient is, it provides the time and environment so that those group members can really

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it's conducive for group associative thinking.

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Anna Allen: So we're going to move on to a little bit of the process. Now of how the review process will work for both the preliminary and the full proposals

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Anna Allen: So there is a three-stage prop review process for on written in the solicitation there are the preliminary proposals that will be reviewed the full proposals. And then there is a site, visit, reverse site visit that will occur

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Anna Allen: the

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Anna Allen: so, as mentioned previously, the preliminary proposals are due January the 12th, 2024. Through research.Gov. Preliminary proposals are going to be reviewed internally by NSF. **Parendra**. Again, it's an internal Review,

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Anna Allen: NSF Program Directors, besides the five of us on this call, or in this Webinar will participate in that review, and we will. We will select program directors that have the expertise needed in the area of the science the center. You are proposing to make sure that they provide their input.

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Anna Allen: Ah! The result from the preliminary proposals will be an advisory determination that will be sent to the PI, and this determination will be an encourage or discourage.

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Anna Allen: Um. So you will receive that feedback by email to whether we encourage you to submit the full proposal or we discourage you to submit that full proposal, and we will be looking at the various review criteria we have set up for the Synthesis Center, and I will talk about that in another slide.

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Anna Allen: The full proposals then will be due on July 15th, twenty, 2024 again by research. Gov. These will be reviewed by a review panel, and as needed, we will augment that review panel with ad hoc reviews in order to again make sure we get the expertise dated to provide a comprehensive full review.

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00:18:07.260 --> 00:18:08.640

Anna Allen: The proposal

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Anna Allen: and then competitive proposals from the full review will be selected for reverse-site visit prior to and NSF deciding and selecting the final, the proposal that will be awarded and become the center.

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Anna Allen: Sorry

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Anna Allen: so similar to standard research proposals. There are three main criteria that the synthesis centers will be reviewed for the two standard intellectual merit and broader impacts. And then there are solicitation, specific criteria that I'll go over on the next slide. So many of you are familiar with the standard review criteria for NSF. Where the intellectual mirror criteria focuses on the potential to advance knowledge for this proposal for the center

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Anna Allen: and the broader impact review criteria focuses on the ability of this proposal to potentially benefit society and to contribute to the advancement of specific desired societal outcomes,

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Anna Allen: and for the review of the intellectual merit and broader impact criteria. These five standard elements are looked at in review of their criteria. So, we are looking at the potential for the activity or the center to advance the knowledge. Like I talked about the intellectual merit, the potential to benefit society or the broader impacts we review, or the proposal is reviewed to look at. What did the activities explore? Creative in original and potentially transformative concepts?

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Anna Allen: The proposal is reviewed are the to determine if the activities are well reasoned, well organized, and based on a sound rationale. The team is looked at, Is the team qualified to conduct the proposed activities, and then are there adequate resources available to the P. I.

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Anna Allen: So now let's talk a little bit about the solicitation, specific review criteria, and there's a lot on this slide. It's copied directly from the solicitation. I'm not going to read everything that's on the slide, but highlight. Some key points that are in blue um that are part of the solicitation, specific requirements or review criteria.

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Anna Allen: So one of the first things we're looking at is whether this proposed Synthesis center is rooted in a compelling question. Does it propose original avenues of inquiry? And is it trying to bring together novel scientific insights that will ultimately advance integrative organism of biology

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Anna Allen: with, of course, the focus on organismal resilience and plasticity.

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Anna Allen: The next we're looking at is the census is the

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Anna Allen: Does the proposal incorporate effective mechanisms that are going to be used to identify and select the participants that are going to be part of analyzing and synthesizing this data does it ensure an inclusive approach in all the activities that the Center proposes? Does the center engage a diverse scientific community? We are well aware that representation does matter, and by engaging diverse

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community members we can actually take full advantage of all the scientific knowledge that is out.

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Anna Allen: Um, we're looking to see if the center democratizes accessibility and utility of biological data, and this is through open science workflows and practices, there should be some science, some cyber infrastructure plan within the proposal. Um! And how will This is a sense centered, deal with, disseminating

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Anna Allen: the methods that they have developed, or the tools and accessing the data that the Synthesis Center has

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Anna Allen: um, and the last two deal with the capabilities. The Pi and Leadership Team Um is that team well prepared to lead a center. Um! And are the resources there for them. And then, of course, what is the plan for assessment of the activities proposed by the center?

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Anna Allen: So again to go over the center program. Timeline. We've already had the first virtual office hour on this center solicitation back in March. This is the Webinar number one. The second Webinar will be November 16th during our standard IOS virtual office hour time. So those are on Thursdays between one and two PM Eastern time.

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Anna Allen: Preliminary proposals are due January the 12th, 2024. We aim, and this is an aim to have the results that encourage / discourage back to you by March 2024.

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Anna Allen: um, and then that will enable you to determine whether you want to develop that preliminary proposal into a full proposal which will be due July, 15th, 2024.

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Anna Allen: We anticipate then the Site Visits will occur in November, 2024, with then the decisions made, and the proposal notified, which will become the Center. For the center to start January or February of 2025.

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Anna Allen: We're telling you this now, and giving you this timeline because we want you to talk to your colleagues at meetings. This summer's over now but in fall um, and start your conversations to try to start to develop proposals.

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Anna Allen: So some final thoughts regarding the IOS Synthesis Center, because we need to remind you that IOS is made up of five different programs or clusters, and some of those programs or clusters have additional kind of different areas of focus within them, and a competitive Synthesis Center proposal should synthesize data relevant to IOS, and it does not have to be limited to one of the IOS clusters or programs. So IOS is made up of Behavioral Systems Cluster, Developmental Systems,

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Anna Allen: Neural Systems, Physiological and Structural Systems and the Plant Genome Research Program. And you can see from our introductions that many program directors from these various programs or clusters are present here today.

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Anna Allen: So use the data that's out there that relates to these different clusters or programs, and if you can cross cluster or cross programs that can also occur too.

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Anna Allen: So the Budget um. I already mentioned that it's twenty million over five years, and we anticipate the following funding schedule. Year One would be

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Anna Allen: two million, Year two up to three million, and then Years three, four, and five would be five million each for the total of twenty million.

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Anna Allen: It is important to note that in the fourth year of this cooperative agreement the Synthesis Center may submit a renewal proposal upon invitation of NSF. That would allow five additional years of support. So that would be a total of ten years if that five additional years is granted.

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Anna Allen: Obviously the Synthesis Centers, being collaborative, will involve might involve, I should say, multiple institutions, but it's important to note that only a single proposal submission will be accepted.

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Anna Allen: The single proposal that's submitted can have sub-awards that are administered by the lead organization. And if you're confused by this, or want to learn more about this. I would encourage you to see the NSF rules and regulations the PAPPG Chapter two, Section e, 2.e.3.a, which talks about the single proposal method for collaborative.

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Anna Allen: The idea behind this is that it will help to facilitate the effective coordination among the different participating organizations

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Anna Allen: and avoid difficulties that can happen when one individual might change organizations or cease to fulfill the project responsibilities. So again, even if you're involving multiple organizations. Only one institution is going to be submitting this proposal the rest, and then they can have sub awards to the other institutions.

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Anna Allen: So at this point you've heard enough of me, and so I'm going to turn it over to my colleagues to talk about what we think might be some frequently asked questions that you might be having, and then we also have some questions in the Q and A.

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Anna Allen: So the first one out there are. Are there any organisms you are not interested in funding? Someone else want to come off mute and take that one.

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Steven Ellis: No. So the NSF is officially species agnostic. We just want data that informs the questions that we've talked about - the organism of resilience and plasticity.

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Steven Ellis: So any species is game. Just tell us why it's important. And probably most of these Centers, at least as we're thinking about them, will include data from multiple different experimental systems.

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Anna Allen: So the next one, can a person or institution be on more than one preliminary proposal?

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Joanna Shisler - NSF: I'm happy to answer that so you can be a PI or co-PI only once on the preliminary or full proposal. But if there are multiple copies from the same institution, I think that's fine.

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Joanna Shisler - NSF: You can participate as senior personnel, but not co-PI or PI, on more than one activity if needed, the,

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and I should say that there are no limits on the number of senior personnel.

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Joanna Shisler - NSF: If I remember that correctly.

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Anna Allen: Ok great.

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Anna Allen: Okay. Can there be data from molecular (i.e. smaller than IOS sort of thinking) or ecological, (larger than IOS) processes?

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Anna Allen: Someone else want to take that one.

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Steven Ellis: Yes,

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Steven Ellis: any data that you think is relevant to the understanding and advancement of our understanding of plasticity and resilience is totally fair game and encouraged,

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Anna Allen: and the next one, Joanna, a little bit answered with the last one is how many PI or coPI, senior personnel, and organizations can be on a proposal. Do you want to reiterate that one again?

Joanna Shisler- NSF: I will reiterate it. So, just to be clear you, you can only be a PI or a coPI once

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Joanna Shisler - NSF: on either the preliminary or full proposal than you can be senior personnel as many times as you want.

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Anna Allen: And so the last question that we anticipated getting was involving this idea of a Center Director, because it is noted in the solicitation that the Synthesis Center should have a Center Director, so

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Anna Allen: does the Center Director have to be full time?

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Joanna Shisler - NSF: So you want, I'm happy to start in on this. So I mean? The answer is, you know,

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Joanna Shisler - NSF: we think that this is going to be a big effort to lead the center, and that that will take the majority of your time. There may be sometimes where you're not doing anything else but managing and running the center. There may be other times that are a little bit slower.

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Joanna Shisler - NSF: Um when you can do other things. So, um, I think what we're going to say is that you all know your time and your schedule better than we do, and for you to be thoughtful about that,

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Joanna Shisler - NSF: I mean, did you want to add anything else?

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Steven Ellis: Yep, your institutional policies are relevant here. So, for example, at NSF we're each afforded the opportunity for independent research and development on time. And so some of that is relevant here, too. So the main just is to describe everyone's roles and responsibilities. How the Center will function because it speaks to feasibility of your execution plan.

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Anna Allen: Yeah. And there was a question that just came in with this one that says the solicitation calls for a PI that is the full-time director of the Center. Should we interpret this to mean that the P. I. Director must charge a hundred percent effort and only work on the Center and no other grants?

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Steven Ellis: So the exact context of the matter there for your planning. When it comes down to that level of detail, you will be advised to consult and discuss with the managing program officers. So

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Steven Ellis: it's not a hard and fast rule. But if there are going to be significant diversions of your time, attentions, or energies, we would need to understand that.

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00:30:21.340 --> 00:30:32.220

Anna Allen: So we're going to turn to some other questions that have come in. There's a question about how many proposals will be selected for preliminary full and site visit. I think Jodie is going to take this one.

128

00:30:32.230 --> 00:30:51.000

Jodie Jawor: Yep, I'm going to start, and then folks feel free to jump in and add your own opinions here. So for the preliminary, we don't have a number of preliminary proposals that we are saying should come in. That's going to really depend on you the community, and how many are prepared.

129

00:30:51.010 --> 00:31:10.250

Jodie Jawor: Um, this will be a competitive process across the board. So um, you know we don't know how many preliminary proposals will come in. From the review of those, we will make a decision on the full proposal recommendations that you

130

00:31:10.260 --> 00:31:23.900

Jodie Jawor: continue forward with a full proposal, and we honestly can't say what number we are going to have, because we don't know what's going to come in on the preliminary proposals, the total number

131

00:31:23.910 --> 00:31:41.280

Jodie Jawor: and the quality of them, and what is being suggested. Yes, it will be fewer full proposals invited, and fewer site visits undertaken than preliminary proposals initially submitted, because it will be a competitive process across the board.

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00:31:43.310 --> 00:31:45.780

Jodie Jawor: I don't know if anyone else would like to add.

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00:31:47.190 --> 00:31:49.489

Joanna Shisler - NSF: I think that says it quite well.

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00:31:49.500 --> 00:31:50.649

Steven Ellis: What is

135

00:31:51.570 --> 00:31:56.490

Anna Allen: okay. So let's go to another question.

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00:31:56.920 --> 00:32:15.060

Anna Allen: The attendee asks that "I see that a goal is to democratize accessibility and utility of biological data which suggests that this proposal is focused heavily in the biological sciences. To what extent would a Center that would be led by a social scientist be competitive?" and Steve's going to take this one.

137

00:32:15.130 --> 00:32:31.639

Steven Ellis: So I'm going to infer from the context here that you're talking about the social scientists with expertise in team science, synthesis approaches, and things like that. That's absolutely fine as long as the focus of the center itself

138

00:32:31.710 --> 00:32:39.619

Steven Ellis: should be on questions of organism or resilience. So if the question is really about, can we do social science topics with this

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00:32:39.630 --> 00:32:52.960

Steven Ellis: as a focus of the center? No, we want it about organism, resilience. But the actual PI, whoever it is, could be a physicist, it could be an astronomer. It doesn't matter to us as long as they

140

00:32:52.970 --> 00:33:04.760

Steven Ellis: have a convincing and compelling argument for their qualifications and their ability to manage the center activities. The institutions decide who can be the P. I. not NSF.

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00:33:04.770 --> 00:33:16.359

Steven Ellis: So we'll evaluate your qualifications and speak to them. We mentioned it previously. Roles, responsibilities and your implementation plans, but it would be perfectly appropriate to have a social scientist

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00:33:16.380 --> 00:33:25.439

Steven Ellis: because there's a lot of team science dynamics in the Synthesis Center. Just explain your rationale for selection and qualifications in the proposals.

143

00:33:27.170 --> 00:33:38.559

Anna Allen: Okay, we're going to move to Joanna. Now to answer a question of "Would the preliminary proposal need to have a budget, or is the the budget expected only for the full proposal?"

144

00:33:38.980 --> 00:33:54.309

Joanna Shisler - NSF: That's a great question. If you take a look at the description for the documents that we want in the preliminary proposal, you'll see that there's a section labeled Prohibited document, and so at the preliminary proposal stage we do not want

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00:33:54.380 --> 00:34:09.439

Joanna Shisler - NSF: um a budget and budget justification. There are other documents as well that we do not want, and you'll see those listed there, and they include things like Current and Pending Support, Data Management Plan, and so on. If you submit these, we will return

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00:34:09.449 --> 00:34:16.759

Joanna Shisler - NSF: your preliminary proposal without review, so do not include them. Take a look at the solicitation.

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00:34:18.179 --> 00:34:25.530

Anna Allen: All right. I'm gonna skip to a question that just came in, because I think it's really important. And this question is on

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00:34:25.699 --> 00:34:29.889

Anna Allen: All proposals will be for a resilience synthesis center,

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00:34:29.900 --> 00:34:37.689

Anna Allen: But each individual proposal would have its own specific, focused species question of resilience. Steve?

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00:34:38.040 --> 00:34:57.279

Steven Ellis: definitely, maybe, is the answer to this one. So, it really depends on your thoughts, perspectives, and ideas for synthesis. So if you think that that our understanding of organism or resilience and plasticity across changing environments over a lifespan can be fully addressed with

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00:34:57.290 --> 00:35:09.629

Steven Ellis: only one organism. Go for it. If you think it requires integration of knowledge and data types across disparate species or even across kingdoms. That's okay, too.

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00:35:09.640 --> 00:35:21.150

Steven Ellis: So this is a hard area. It's a grand challenge to really understand how this works, and the community is very likely to struggle with the best approaches for this, and have different ideas.

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00:35:21.160 --> 00:35:30.369

Steven Ellis: We're open to the full gamut of things that are responsive to the overarching goal of improving our understanding of organism or resilience.

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00:35:32.140 --> 00:35:42.219

Anna Allen: But so yes, the keyword is the Center should focus on organism or resilience, and how you as the PIs put that together, or what you come up with is

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00:35:42.590 --> 00:35:43.779

Anna Allen: such.

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00:35:45.380 --> 00:35:58.000

Anna Allen: Okay, so now I have a question about kind of requirements for the P. I. Um. "Does the P. I need to be a full professor? Are assistant professors or associate professors discouraged from being the Pi?" Jodie?

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00:35:58.600 --> 00:35:59.589

Jodie Jawor: It's

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00:35:59.600 --> 00:36:11.030

Jodie Jawor: NSF does not say you need to be a particular level of pre-post tenure or full. Whatever you do, you want to be sure that

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00:36:11.040 --> 00:36:26.890

Jodie Jawor: at your University your sponsored Research Office they'll have rules as to who can be a Lead P. I. on a proposal that is being submitted to NSF. So make sure you're following those rules, and you meet your sponsored research offices

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00:36:26.900 --> 00:36:45.459

Jodie Jawor: guidelines, or requirements. But in terms of you know, at the NSF, as Steve mentioned, we will want to see someone who is a logical, I guess I'd say, like a logical person, research-wise, and experience wise and knowledge wise of being involved in these

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00:36:45.470 --> 00:36:52.820

Jodie Jawor: proposals and the full proposals. But we don't have a requirement on, "You must be X level,

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00:36:52.980 --> 00:36:56.480

Jodie Jawor: Professor, to be a PI for us".

163

00:36:57.560 --> 00:37:14.620

Anna Allen: Okay, thanks. I'm going to turn to Joanna. Now, for the next one question comes: "Would you consider a center director and managing director approach one where the center director is more strategic and managing director is operational execution oriented?"

164

00:37:14.990 --> 00:37:36.929

Joanna Shisler - NSF: Great question. So if you look in the solicitation under your program description on page five we have a section called Staffing of the Synthesis Center. And so it talks about having a full time director. But it says that there are other that the Synthesis Center must be staffed by other personnel necessary to support its activities

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00:37:36.940 --> 00:37:55.579

Joanna Shisler - NSF: and achieve its objectives. And so, of course, that could include a managing director. It could include other people like data scientists, team science experts. Really, the point is here for you to think about what structure works best for you, And then to explain the rationale behind the structure that you're using.

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00:37:57.490 --> 00:37:59.510

Anna Allen: Thanks, Joanna.

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00:37:59.520 --> 00:38:22.120

Anna Allen: Okay, we're gonna go to Steve now to answer this question. "Can you please comment on whether community data can include humans or livestock companion animals and model organisms? In past conversations with IOS program officers there has been conflicting guidance about natural systems and environments only."

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00:38:22.130 --> 00:38:30.999

Steven Ellis: So I can't speak to prior guidance without knowing what was the context, for that very likely matters. But in general terms

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00:38:31.010 --> 00:38:46.169

Steven Ellis: this is about organismal data. My background is actually in dairy science. And so I happen to know that there's a heck of a lot of physiologic data out there about dairy cattle, under various environmental stress conditions and physiologic states, and that kind of thing, and their ability to

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00:38:46.180 --> 00:39:09.509

Steven Ellis: maintain homeostatic or home theoretic processes. So some of that data is excellent. It could be used, it doesn't have to be used. There are comparable data sets for um, laboratory organisms at all. Scales, fruit flies and everything else, even cells and culture, have some degree of resilience. But the focus is going to be on organismal questions.

171

00:39:09.520 --> 00:39:17.020

Steven Ellis: Humans are organisms, too, and there's also a comparably rich body of data to support

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00:39:17.030 --> 00:39:36.239

Steven Ellis: their ability to adapt to respond to stressors and that kind of thing. So it's really up to the community to make the case for whatever data they think will help to advance or address the questions. So we don't have any prohibitions, and it frankly, wouldn't make a lot of sense to say Um, you can't

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00:39:36.250 --> 00:39:44.780

Steven Ellis: include laboratory experiment data in a question like this, so it is entirely appropriate to include things like that.

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00:39:46.970 --> 00:39:57.049

Anna Allen: Thank you. Right now, we have one question remaining, and this is: "Can we work or provide funding with international academic partners?"

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00:39:58.360 --> 00:40:22.059

Steven Ellis: So the same roles for this synthesis center apply as for any of the other activities NSF funds. In the PAPPG it talks about how we rarely provide direct support to foreign organizations. But such support can come through the sub award mechanism, and it just needs to be justified, and there is additional guidance in the PAPPG that you can look up for that.

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00:40:23.090 --> 00:40:24.970

Anna Allen: Okay, Thank you.

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00:40:25.110 --> 00:40:29.820

Anna Allen: Oh, so we did have another question. Come in right now. Um.

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00:40:30.260 --> 00:40:45.139

Anna Allen: Well, let me first go to, ah, one question: "What if, after the review of the pre-proposals, I get a discouraged response. Can I still apply?" Joanna? You want to take this one.

179

00:40:46.120 --> 00:41:02.950

Joanna Shisler - NSF: Yeah. So, um, there's nothing (chime in if I'm wrong here Program Directors) there's nothing that says that you can't apply, but we would strongly encourage you to submit a proposal where you've now

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00:41:02.960 --> 00:41:08.749

Joanna Shisler - NSF: really addressed the weaknesses that were pointed out in the discouraged.

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00:41:09.190 --> 00:41:10.819

Joanna Shisler - NSF: Is that fair?

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00:41:10.890 --> 00:41:18.049

Steven Ellis: Yeah. So we're all going to be very careful about the evaluation of preliminary proposals, and

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00:41:19.100 --> 00:41:28.200

Steven Ellis: we are the same group of program officers that will be managing the review of the full proposals, and making recommendations about that. So at the pre-proposal stage

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00:41:28.310 --> 00:41:47.430

Steven Ellis: we're the only group that will have seen them all you, as the PIs never will. And so there are things about the process, the review and the competition that we just can't share with you and won't. Um, you'll know at the end of the process who got the award. But during that process

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00:41:48.440 --> 00:41:57.489

Steven Ellis: it would usually behoove you to take advice from the program officers. We were doing the evaluation. But if you feel like we miss something completely, then,

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00:41:57.500 --> 00:42:11.000

Steven Ellis: because of the nature of the internal review, the decisions are not final in the same way that an invite, not invite decision is. These are really just encouraged, discourage, and this is described in some detail in the PAPPG.

187

00:42:12.440 --> 00:42:18.889

Anna Allen: So I just re-shared the take-home slide. Can my program directors give me a thumbs up if it looks ok?

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00:42:18.900 --> 00:42:37.099

Joanna Shisler - NSF: Yeah, Good. Okay, again. Some important information. Um. One more VOH is coming in 2023. Well, in November. The budget again is twenty million over the five years. We're going to maintain one and only one award after the

189

00:42:37.110 --> 00:42:46.670

Anna Allen: full proposals are received, there is required preliminary proposals due January 12, 2024. If you do not submit a preliminary proposal, you cannot submit a full proposal.

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00:42:46.730 --> 00:43:02.339

Anna Allen: Full proposals are due July 15<sup>th</sup>, 2024. And then our email that will reach all of us is IOS dash Syn Center at NSF dot Gov ([IOS-SynCenter@nsf.gov](mailto:IOS-SynCenter@nsf.gov)) Um, and then I'm going to put up the slide with all of our names again.

191

00:43:02.350 --> 00:43:07.160

Anna Allen: The best email to use for us is the one indicated here, and

192

00:43:07.190 --> 00:43:13.259

Anna Allen: the question is, "Can you contact a program director to talk about whether a topic is appropriate?"

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00:43:13.680 --> 00:43:16.210

Anna Allen: Joanna, What's your answer to that one?

194

00:43:16.810 --> 00:43:32.989

Joanna Shisler - NSF: So I think the best thing to do right now to make sure that your question gets answered in an appropriate time period is to use the email address that you see below. So we have an email alias for this working group. It is IOS one

195

00:43:33.000 --> 00:43:41.960

Joanna Shisler - NSF: Yeah, IOS dash Syn Center at NSF dot Gov ([IOS-SynCenter@nsf.gov](mailto:IOS-SynCenter@nsf.gov)). We're all monitoring this mailbox, and so if you have any questions

196

00:43:41.970 --> 00:44:07.049

Joanna Shisler - NSF: please use this mailbox. It's a surefire way that you'll be able to get your answer. Your questions answered in in a reasonable time. Um! Some of us are going out to conferences or we're on vacation. And this is just a central place where we can track all of the emails to make sure they get answered. So that's IOS dasy Syn center at NSF dot gov ([IOS-SynCenter@nsf.gov](mailto:IOS-SynCenter@nsf.gov))

197

00:44:08.500 --> 00:44:09.540

Anna Allen: Yeah,

198

00:44:09.550 --> 00:44:22.239

Anna Allen: Okay. So um, we have another question that recently just came in, and Steve's going to take this? "Is this a one-time opportunity? Will other synthesis centers be funded in the next or future times?"

199

00:44:22.250 --> 00:44:37.270

Steven Ellis: So this is actually the third in this essential new round of Synthesis Centers for Bio. This is something that we support pretty regularly. The ESIL Synthesis Center started up last year, and so that was for open environmental data.

200

00:44:37.280 --> 00:44:47.709

Steven Ellis: There's a Synthesis Center competition that's run out of MCB underway right now and then this is the third. So essentially this will round out

201

00:44:47.720 --> 00:44:59.279

Steven Ellis: um an investment portfolio and synthesis across the NSF Directorates. There will be future synthesis center activities. It may be a few years before more of those come online.

202

00:45:01.030 --> 00:45:02.749

Joanna Shisler - NSF: I don't want it.

203

00:45:03.100 --> 00:45:13.210

Joanna Shisler - NSF: I want to clarify. So please for those of you who are listening. Let's go back to the email. It's IOS and then

204

00:45:13.260 --> 00:45:31.079

Joanna Shisler - NSF: abbreviated the word synthesis in the in the email, alias to S. Y. In. So do not write us to Si N. Center because we won't get your email. It needs to be IOS dash Syn Center at NSF dot gov

205

00:45:31.940 --> 00:45:33.410

Anna Allen: It's A:

206

00:45:33.840 --> 00:45:36.890

Anna Allen: So it is a catchy email address. Yeah,

207

00:45:36.900 --> 00:45:38.790

Joanna Shisler - NSF: Yeah, but we don't want to be.

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00:45:39.730 --> 00:45:41.800

Joanna Shisler - NSF: I don't want to be confusing.

209

00:45:41.810 --> 00:45:44.429

Joanna Shisler - NSF: So with that um.

210

00:45:44.440 --> 00:46:08.229

Anna Allen: We have handled all the slides that we have um talked today. If you have any more questions, we're still here, and happy to answer them. But that's the information we have. Um, if you do have additional questions, feel free to use the email. That's on the slide to reach all of us. Um! And we can answer those that are maybe a little bit more pertinent, um, directly to your question.

211

00:46:09.060 --> 00:46:11.389

Anna Allen: The remarks are more specific

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00:46:12.970 --> 00:46:17.750

Anna Allen: program directors. Are we good? We are. Nothing else is coming in. Do we want to end the Webinar. Now

213

00:46:17.930 --> 00:46:22.769

Jodie Jawor: I think so. Thanks everybody for coming. Thanks, everybody. Thank you.