

>> Please stand by for realtime captions.

Good afternoon, everybody.

We will get some slides up soon. >> I am trying the new background.

Cool

Do you want to share the screen for the slides. ?

We can do that.

Hopefully everybody can see the slide. For those of you that are already joined , hello and welcome. We will start in about five minutes.

To those of you that have tuned in, hello. We will be starting in a few minutes. Those of you that are was NSF please put it after your name so people know who you are.

For those of you that are joining us, good afternoon and welcome to this virtual office hour where we will talk about a funding announcement for a development grant. It is the PIPP development grant. What I want to call your attention to on this slide is that we are having an identical virtual office hour next week September 10 . I am also showing you the solicitation page here on the bottom. This virtual office hour is a zoom meeting so if you have questions please put them in the chat or raise your hand. We have about 10 flights to go through to give us the structure here so that we can answer questions after the slide. Just really quickly my name is Joanna. I am a program director on the director for biological sciences. I will be presenting some of these sites today and the other person that will be joining me is Scott. Do you want to say hi to everybody?

Hello, everybody. I am from the information science and engineering director at NSF.

After this virtual office hours if you have questions we have not addressed remember that we have a PIPP email address . What we will talk about today is the funding opportunities that are NSF 21- 590. It is the phase 1 development grants. What this grant is for is to support planning activities for fundamental [Indiscernible] for infectious disease prediction and prevention.

We will break this down in the next couple of slides. The most important thing for you to know is that this is due about a month from now. October 1, 2021. These can be for up to 18 months in time and up

to \$1 million per project. The idea for this development grant is to get people together to then build collaborations and research together that could then lead to the writing of a proposal for phase 2 our centers care proposal.

We will have a solicitation for a project on infectious disease pandemic. This is a way to get people to start synergize in. You do not have to submit to this development grant call. You can still submit later on.

There are a couple things in these proposals that we will talk to you about today. The first is an ambitious and forward-looking scientific grant challenge. We will talk a little bit more about these in the next slide. We are looking for activities that include both teambuilding and research so we expect to see descriptions of both of those. We are looking for teams that are diverse and multidisciplinary and if you decide that you need to have multiple organizations to tackle your grant challenge that is perfectly acceptable. We accept to see a plan for scaling for the operations for phase 2 and we also expect to see project management. All of this is written in the announcement. I am just highlighting the things of most interest. . You need to identify her challenge and explicitly describe why the grant challenge is indeed a grand challenge in infectious disease pandemic . It is important that you are explicit and being able to describe what your business is.

What has been the overarching problem or hurdle and how you think your team is in a great position to go above and beyond to recover these hurdles. We also think that you should probably be describing how or what the potential is to go beyond the status quo.

You need to describe why it is a grand challenge and what the will step in and taking a multidisciplinary approach to overcome this grand challenge. One other thing I want to reassure people of because they have had questions about this is that this funding can be used for research so that the research can be pilot projects that begin to address subsets of the grand challenge problems across the discipline. You may want to use the funding to explain the concept. This can also be used for teambuilding. We expect that that the proposal will describe the rationale to justify the need for collective efforts. You may also put in your proposal that you are lacking some expertise and you want to spend time and resources to find other team members that will help the current team to be cohesive. When we are talking about grand challenges what we are looking to see is robust activity and input. This is from problems this is sponsored by four directorates . This is science engineering and social behavioral and economic sciences. We would expect to see

sciences in these four areas. Remember we want a grand challenge that can measure it with a center scale problem. Even though this is a developmental grant we want to see what your big beautiful vision is.

This will go from the development grant to the center. There have been some exceptions about grand challenges. I will jump in a little bit here. On the PIPP website what you will see is that NSF sponsored four different workshops with scientists from different disciplines together to talk about problems or ideas or inspirations surrounding predicting pandemics.

So there were some grand challenges that were identified by the community . With hopefully you can learn about these workshops and the type of topics that each one is covering .

For sure. One thing about the grand challenge , before asking us if you can give us some examples of grand challenges you might expect . What we can say is we had four excellent workshops. Each one has a starting point. We don't want you to think that the starting points are essentially the entire enchilada, so to speak. For example, the fourth one down at the bottom the relationship between human behavior, disease development and transmission you might say that might be more [Indiscernible] the second one listed here technology innovation and sensing and data collection. That sounds like something engineering might be interested in. We are saying that there are great ideas and great grand challenges that are unrevealed in the workshops but you might actually come up with a disciplinary idea from a grand challenge . You all will be coming up this will forge pandemic research for the future . So let me talk about these program directors are not the ones . With these are looking at intellectual merit and broader impacts. Of course, PIPP when you look at the solicitation, by the way if you don't want to type in the URL you can just Google it and you will get the solicitation. There is only one year, this year, coming up. We have some specific criteria regarding the grand challenge. How does this project address the state of grand challenge. Does the proposal bring together the correct expertise that is needed.

Is this the entire research picture? You are experts in different fields. How does this relate when you are proposing to the state-of-the-art. What are the broader impacts of your work and are there synergistic links? As you will see in the solicitation there's a paragraph on project management plan. We will be looking for the project management plan expertise and various connections that cross the disciplines. So that will be reviewed as well by our panel of reviewers. So some other things to keep in mind if you want to do the title correctly, of course. One person can only be a PI or co-PI we are also asking for a PowerPoint slide. We want one slide that can be done in any format. You will send it to the PIPP email after you submit the proposal. It will just be something that will help us to think about your proposal and discuss your ideas when they come up in discussion. So multiple institutions. Most of you probably, I'm guessing, submit with multiple institutions instead of the collaborative mechanism we are asking you to follow the sub award mechanism where one is the prime and others are some awards. Just FYI. There are no letters of intent required. The one pager that we have been talking about is not required. It's just for your information and project management, as I mentioned, is indeed required. Feel free to jump in. I will go to the next one.

That is great.

So these are just a few examples. One thing that we want to communicate to everyone. If there is an existing program, perhaps an engineering or and SBE that would support the proposed research, we are looking for not one specialized research group that is doing gradient dissent on a

particular algorithm. We are looking for what we are mentioning in the solicitation which is addressing a grand challenge. That is the second point. If you are not addressing the grand challenge for not articulating the grand challenge that might be out of scope. Finally, we are looking for some balance across the discipline. I would ask you not to overthink this.

25% computer science, 25% biology. That is impossible. Team will essentially have its own emphases, perhaps. We are seeing that we do want you to think about crossing these areas which may not be necessarily for delineations of science that you consider, but roughly computing, engineering, biology and social behavioral and economic science. Some problem that hits on all of these because we think that addressing these grand challenges, we think that will require such a process change. Next.

Proposals are due on 1 October so coming up. 5:00 p.m. local time so you have a little more time depending on where you live. One proposal, we are not keeping collaborative on multiple proposals for the same project and so that is it. We do not require a letter of intent. Just as with any NSF programs we aim to get the business done within six months. So hopefully we will be making a number of awards in March 2022 to kick this program off. Next. So this solicitation, time is running out for you to get your team together and your proposal together. Just Google NSF PIP. If you don't want to put in all these numbers and characters. There is, I promise you that most of the questions you answered initially will be in that fact. We would love to see your perspective. We are still open for business. We will talk about that any second. Just send it to PIPP. It does not matter uppercase or lowercase NSF.gov. Video office hours will be recorded along with these lines. We will be having another one next Friday to accommodate people that cannot make it on Thursday.

We should just say for the one pager, we will cut off answering questions about one pagers on September 23. That is a week before the proposal is still so you can see why we picked that time. Any other questions that you have please keep emailing us. If you wanted feedback for the one pager, the cut off date is September 23. I should tell you that we have a very high volume right now so please be patient. You do not have to get a one pager to us to submit your proposal. You do not have to get it approved by us or anything like that. This is just a courtesy review to get feedback.

I think that we have another slide.

Just to close out we are going to accept these until September 23. The reason we will stop it one week in advance is because we really like multiple program directors from multiple to get feedback so it is not a Scott or Joanna response it is more of a well-rounded response. We really aren't going to tell you anything revolutionary. We might point you in a given direction. We will try to be encouraging and you are welcome to submit those up until the third week of September, September 23. Next week this meeting will occur Friday at 3:00 p.m. Eastern, noon Pacific. Unless you have something, why don't we go to some questions. I see there are some in the chat. Why don't we start with a live one. Of I mispronounce your name forgive me.

That is fine. I am Katrina. I'm at Penn State and I'm on the modeling hub and we are very excited to submit to this. I have two questions. One is how does this proposed center relates to the CDC center that has just been stood up for forecasting and analytics. The second question is, could you provide some guidance on the magnitude and duration of the award that will come in phase 2 because that will change the scope that we can pitch to. At the moment it is very hard to frame their proposals without knowing the duration and magnitude of the phase 2 award.

That is a great question. Before we answer it, I forgot to say that we have other program officers who are here that are members of the PIPP working group so when they answer questions I hope that they will introduce themselves during this time. So with that, is anybody from the PIPP working group want to take a crack at this?

This is Jeff from the CDC, go ahead.

I was going to suggest that you answer it.

So I work for the PIPP group .

Speak up a little bit more, Mitra. Put the microphone closer to your mouth.

Speak louder.

Hello. I am on the PIPP working group. [Indiscernible]
there are [Indiscernible] hours is a little bit different . So this is the base part .

I cannot hear you.

NSF does what only?

I don't know when I microphone is not working.

Can you try moving closer to your computer because I do not think that your earphones are working.

So one of you go ahead.

One answer to the first part of your question is that there is no formal relationship to that program. May be what she was trying to say is that we are here trying to emphasize what NSF does well which is basic science, basic engineering, fundamentals and foundations. So our program will be different than something that the CDC does or something that the National Institutes of Health does. So there is no formal relationship. On the second part of the question for the size and duration of the center,

the official answer is that we cannot comment on the future but it will be typical with what center type initiatives we have done before.

I cannot say much more than that. >> [Indiscernible] >> It will be center-sized and center duration. It will not be such a short duration that you can't get the work done.

I would like to make one additional comment. The CDC mission is to focus on human health. With the NSF we are interested in big biology questions. For us, pandemics don't necessarily have to be human disease. I think this is a direct answer to your question. Yes it can be pandemics implants and bacteria in wombats. It does not have to be a human pathogen. We are much broader thinking. Our scope allows us to be more broad than other federal funding agencies.

Thank you. That was very helpful.

So that is perfect. Let's move on to Joshua.

Thank you. So I was wondering, I know that an engineering component is required, but I am a little bit unclear on what counts as engineering. Is software engineering or high-performance computing or AI methods, do they count as engineering or do you have in mind literal design fabrication of physical systems and devices. What covers the engineering requirement?

That is a great question.

Maybe I can give a quick answer.

So actually, high-performance computing is the interface of engineering but it just depends on what exactly the focus is. Like is it just increasing the speed to be able to run these large-scale simulation of pandemic preventions? So that would involve essentially engineers that work on the software like

engineers that look at the mechanism and fundamental models of disease transmissions

or the family's physical and chemical processes for transmission.

We want to look at engineering from that broad perspective of as opposed to just facilitating high computational speed. That is the best that I can say without [Indiscernible]

I hope that that helps. There are two questions in the chat that I want to answer before we move on. Will this session be recorded for those unable to attend? We will put those slides up of course and we will have a transcript. Remember there is another session next week on the 10th from 3:00 to 4:00 Eastern time. That I've seen a question about is the one million-dollar project director total funding? Remember this is NSF so include both direct and indirect dollars.

Total.

Scott, do you want to pick on somebody? >> I will answer a question from the chat. Kelly asks, the current team spans three of the four directorates but has a gap in the last one. This has been a common question. Is part of the building reasonable for phase 1 or would this be considered a weakness? We can see explicitly in the solicitation that teambuilding could be part of the phase 1 efforts. The team does not have to be complete. I think this is an affirmative answer to Kelly. What I will say is if the challenge has a gap in terms of the problem, in other words the grand challenge does not address half of this world that we are talking about that could be problematic but the team does not have to be complete as of October 1, 2021. Maybe we can move on to Murray from Georgia.

Hello. We sent prospectives a few weeks ago and we would like feedback on that.

We are getting there. Sorry.

I understand.

We are trying our best. Please if it has been a week just send it again.

I will just send it again. Perfect. Yes.

Thank you. Sorry about that.

Let's see. There's another question here. Is it possible to get it a listserv or emails from today's attendees. I am not sure about the answer to that question but I want to refocus everybody's attention on, I have lost my words. We have four conferences and workshops. Please go look at those. The links for each of those workshops are on the website and that has a list of participants where you can certainly start looking through those names for collaboration.

Maybe we will go to Jake next. Do you have a question?

Thank you. I come from the medical school but I also have connections in basic science. My understanding is, yes you allow the more human emphasis for this proposal. I submitted several in a grant proposal but sometimes the reviewers are criticized by having more health focus.

So if we only focus on human diseases, will we get a negative review because of that? Or do we have to branch out to neutral solutions and take care plans and other type of diseases?

I have one response to that. That is that I know that you are not saying this but let's not think of it as

a COVID-19 program. There are COVID-19 programs on the federal government. Let's think about it in terms of pandemic research in general. I think that maybe Joanna or somebody else could answer that .

I will answer it. It does not matter what virus prion or bacteria you are talking about. There are basic fundamental questions and problems that we have about predicting what will be an outbreak or what leads to an epidemic or pandemic. So really, I think that the best proposals will be those that articulate that compelling grand challenge that faces any type of

infectious disease potential pandemic. And what that group has been using as the model system to try to understand and identify principles that might help against all types of different infectious disease. Does that help you when he.

I think somewhat. I know that there is a slightly different perspective than the reviewer.

So if we want to stop the problem we have to be specific. Being specific is actually disadvantages. There are balances to be made when we say that the engineering principle we propose can be generally applied but then because of the human factor we cannot say the model for network is the same as the model for humans. We have to assume that human to human contact in order for this to be 100%. It is really a very delicate balance. We do not know how you can actually address that.

Maybe this is a conversation that we can have with PIPP and a little bit more detail but what I want to say is that, what we are looking for are once again those basic principles that can help us understand how to prevent pandemics. What probably will not do well is a proposal coming across the door that says, we will find a new drug to cure this infectious disease. That is not what we are interested in. We are interested in something a little bit larger.

Thank you.

I think that Rebecca has her hand up. >>

I just wanted to add that I am the rep on the working group from SBE. NSF does have the directorate that focuses on humans and this is a common question that we get, especially in my program in biological anthropology because we do have researchers in the biomedical space and more of a fundamental research on human space. It's important to think about the framing and how you are framing the research

and keeping the focus of the specific aims on those fundamental research questions as opposed to things that will come across as interventional or really public health disease focused. Those types of outcomes, things down the road

from the project that focuses on fundamental research could include the impact that the research may eventually have a public health. Those can be mentioned as broader impacts, but the specific games themselves

should be focused on fundamental research focused on biomedical research.

That as well put. Thank you.

Jason Bates, you have had your hand up for a while. Your arm must be tired.

I am Jason Bates from the University. Just to drill down on that a little bit, we are thinking about this and immediately felt some degree of dubiousness about how far it is to prevent a pandemic for so much slides

predicting the unpredictable. Once it starts to happen you can think about managing it in that optimal way. You don't want to have something related to public health. I am still struggling a bit to understand where this ends and something that you might want to punt to NIH begins. Managing a pandemic is still in the disciplines that you talked about. There are for biological impacts, so figuring out as the pandemic evolves how it is going to impact you potentially to try to manage it, that could be within the auspices of what you talked about.

I am struggling here because I'm overall just. I want you to hear what Rebecca said because part of being able to control an outbreak is obviously going to include multiple facets. What we are asking you to give us is, you know, why you think it is difficult. What you think the bottleneck efforts should be in. If you want to jump back in and tried explaining.

Does anything resonate with you?

In the general sense I get what you're saying. Of course, so that we do not aim in the wrong direction.

That will fund I do not know whether that rings true for all parts of NIH that you may have looked into. Are there certain spaces where how coming they would not support something like that and you get review groups that they want to focus on something that is going to be interventional and have clinical sample. What we are talking about here is something that can be more foundational and does not have to be translatable. Maybe there are aspects about the economic situation that overlay onto something in the space. We do not have specific examples to give you because that's what we want to hear from the research community.

That is actually helpful. So I have a lot of experience in this.

I do not. They just think too much of basic research.

That might jump quickly here along these these are typically the NIH would not fund. You can bring these communities together to think about pandemic prevention this is up to the community to identify the grand challenge in those areas. They do not have to be NIH.

You will see a lot of those questions .

One thing that was said earlier is that we are looking at the entire timeline. Let's see what they have to add.

>> This is in the [Indiscernible] who. [Indiscernible] we are basically

working on something I can support the physicality of that approach. Should we follow that through the proposal or can there be some that are achieved and some a product of that and can go through that duration? That is a big question that I have to. All the letter of intent is not required. I think that you're talking about the template. [Indiscernible] the first question is , the 15 page product description is correct.

Does anybody want to handle the first question?

Okay. I can take that.

You sound great now.

Great. I already forgot what you were asking.

I think that he wanted to know [Indiscernible]

Okay. Think about the grand challenge. For a grand challenge is something that we are not asking you to solve an 18 month but we are saying, why don't you have this big picture in mind? Take a sub problem of it and solve it in this 18 months. Or propose to solve it during this 18 months. The success of the project does not necessarily guarantee that you will get an award. So the way that you think about it is first on the grand challenge problem. That actually leads me to think about the team and also which small part you would like to solve and if 18 months seems possible and in the process you can realize that maybe this grand challenge, you have, you do not have the right expertise. Not all of it. So that is where the teambuilding also takes place. Some research involving a sub problem of the grand challenge as well as teambuilding, both are required components of this competition. Does that answer?

It does. Thank you.

Thank you for that question.

We have one of the chat before we go to Hong in Tennessee. In question was what about international sub awards? The solicitation says that they could be considered if you can demonstrate that the expertise that

you are seeking in France or South Africa are not available in the United States. There is no specific international component to this, but if you do require international expertise and resources that are not available here, that will be considered. Let's go on to Hong . >> So by now we have a collaboration including UTC we have four other institutions. So that can easily exceed the issue. >> It is 1 million total.

So we have to cut it down.

1 million is the maximum that can be asked.

I want to make the comment that there are people in the chat that have been putting their email addresses along with their expertise to try to find collaborators. Please go back and look if you are interested in partners.

Is there a required format for the project management plan . As far as I know there's no required formats. They'll need to address these questions.

The directors sometimes have a different styles. Do they have to follow one of those as one suggested. Is the hypothesis , essentially we just want you to tell us about the broader impacts and the plans that you have and solicitation specific criteria that were discussed earlier. It is hard to do in 15 pages but that is what we are asking.

So let's move on to Andre was somebody else has something.

Thank you. Thank you [Indiscernible] [Indiscernible-heavy accent] how small can we go ? [Indiscernible-heavy accent] we have some things we can do but maybe to put the grand challenge proposal to go after that amount and what is the smallest thing we can propose? Do you have any thoughts on that. Still being something that is reasonable to propose for a grand challenge.

I will refer you back to the workshops. Take a look there and talk to your colleagues and see what you come up with.

I think he is asking what is the smallest amount in dollars?

Are you asking smallest amount in dollars or smallest number of PIs?

With more money, in terms of amount of dollars .

So you need to think that you are going to compete against others. Also submitting to this. They are thinking of the grand challenge . That grand challenge to propose a smaller problem . That is not the one particular biology [Indiscernible] keeping that in mind and keeping in mind also that other people are thinking of bigger things.

We have a hand raised.

This is just a follow-up on Mitra. I understood that it is about solving a problem . They just try to address some of them.

What I said is that think of the grand challenge problem. We are not asking you to solve the entire problem . Or propose to solve it within 18 months.

This also has a research component. . We want to see that you take the grand challenge problem and propose to solve it and also link it to your grand challenge to show how that can lead to other things that you will solve later .

Okay. Thank you.

Please also remember that the other thing you should be doing over these 18 months is activities that will help

build your team to work together as a team. This can be also getting trainees involved and cross training that as well. It is both about the science and also learning how to do convergent science and how to work together.

I think that there is a question here. Does the grand challenge need to stay because some of these don't seem to. I'm thinking that might go back to slide number seven where we gave individual examples from each workshop. I just want to say that those were examples of issues that the workshop identified but that may not necessarily in and of itself be a grand challenge. That could be part of a larger question.

So that example, again please read the report. If you read the report you will see that each of those involved [Indiscernible] and those specific examples. If you go back to that report you see how the different expertise were integrated to come with that so I strongly urge you to read those reports in detail.

Thank you.

>> I want to answer a couple of other questions. You do not need to submit a letter of intent. There is a question. Can we submit letters of collaboration from unpaid collaborators. I do not know the answer to this?

There is no letter of collaboration.

NSF has this standard template and it says only two lines. You can look at the template. You can submit such things. However, how you are going to work with them or why they are important for the project should we describe within the project description. So it does make sense. Not just giving names which is only allowed in the template, you cannot write anything else but this can be in the project description about how they will interact together.

There is another one in the chat asking should assessment evaluation be part of the project management plan or the 15 page project description? If we got back to the solicitation it does ask the following question. Does the plan incorporate a mechanism to assess success. We are asking that. I don't think we are putting any guidance on where that pops up or if it pops up also in the project management plan. I do not know if my colleagues have anything additional to say on that.

Just what you said. We are not asking you to put it in a specific place. So wherever it makes sense I think you need to ask that question and put it there. I would say that. I do not think there is any guidance.

There's a quick question about is construction and allowable can expense? The only type of construction that can be allowed is constructing your team. No buildings.

During completion of the proposal coversheet, what is the time in nature proposal that we choose. We cover that. It should be no more than 18 months. You need to start your proposal with PIPP and a;. What other kind of questions are we missing here? . Can you send out a link to the reports ?

Four? >> Can you talk about education. I think I saw something mentioned about education.

Let's see. Can you find that question while I cut and paste the PIPP website in here?

I can just tell you the question. The question was [Indiscernible]

At the bottom of the page it is part of the workshop link. Click on the workshops link and that should get you to them. . I am sorry. Can you ask that question again. I was trying to multitask.

Are we required to include education plans?

So this is NSF. There is intellectual merit, broader impact. If one of the broader impacts is that you are going to do transdisciplinary training or education, then yes you would want to include an evaluation of that.

This is partially for project management but should there be an evaluation plan section as well?

I think in general, those grant proposals that include how they will assess if they or their trainees have been successful, they always end up doing stronger. I think that is something you should include.

The last question in the chat. I know that there was talk about the scale of the budget for the phase 2 but what about the duration? Knowing that ahead of time would help us a lot.

Valid question.

So we cannot really talk about a solicitation which is not out there yet. I can give you some information about centers and support. Those range from five years, seven years, 10 years, all of these different kinds of timelines. Dollarwise, I think they range from 15 million to 20 to 30 to 50 and so on and so forth. The largest one that we have at this point is 50 million. They might be coming in the future which are more than that.

I just want to hit again on the point that the whole point of this development grant is to give a group of scientists a little bit of time and space to dedicate themselves to evolving into a team that will be able to put forward a competitive center scale proposal. Just let that be your guide. I see there are a couple of other questions with teams across multiple universities and professional meaning senior and junior levels be preferred to multiple members from the same university? I do not think it makes a difference to us as long as you have a diverse team and you are asking a compelling grand challenge question.

I would just add that figuring out what the grand challenge will be that will decide the team. So this will all come from the same institution and it makes no difference.

Just a reminder again that this does not have to be those that affect humans. We are very broad thinking here so this could be pathogens so the whole range. Plant pathogens are perfectly fine. Plants are really interesting because they cannot move away from infection hot zones.

I want to thank Jennifer asking a question that I can actually answer. Letters of support allowed as opposed to letters of collaboration. This is fact number 37. It does not allow submission of letters of endorsement or support. It tells us that the research is great that is not a letter that is allowed. The letters that we were referring to our letters of collaboration that say, basically it says whatever it says in the project description I agree to do. Thank you for that question. >> Right above Janet there's a question from Julie Spencer. With these be considered when measured with success?

Positive collaborations show that there is a relationship that is already fruitful.

They are asking about the care about diversity. The answer is absolutely yes.

We like the team to be intellectually diverse as possible. The pandemic will affect all of us or we would like to fund teams that represent the country.

There was a similar question posted from Jennifer. We have a large team and we will have to have smaller effort for senior personnel. This is the minimum effort that would demonstrate commitment to the project. I do not think that is appropriate for us to comment on. I think what you want to think about is what is the science that is necessary to get to tackle that grant challenge. Are they willing to do that? Are there any questions we have not answered that somebody would like to have answered. I see a lot of people staring off into space which means you the coffee has run out or they feel completely satisfied and are excited about applying to these funding opportunities.

With that, we have one more. We already answered this. You will put 18 months,

you will put PIPP in the front of it. You will put the call number which is 21 590.

Okay. Just a reminder, if you have other questions you can always email us. We are doing this on September 10 3:00 to 4:00 Eastern time again. Good luck and we are looking forward to seeing your proposals come through the door. Thank you.

Thank you all.

Thank you. [event concluded]