Artificial Intelligence in Medical Education Grants Program
Informational Webinar Transcript

Peter Goodwin, MBA (PG):
Good day. Welcome to Josiah Macy Jr. Foundation's informational webinar, "AI in Medical Education." A grants program to advance invasion. I'm Peter Goodwin, chief operating officer and treasurer at the Josiah Macy Jr. Foundation. The purpose of today's webinar is to provide you with an opportunity to learn more about the foundation's new RFA grant program. We will share with you the vision, highlights, and information about the program including the application and selection process.

Our agenda today is in two parts. During the first part you will hear a presentation about the grant program from our chief program officer, Dana Levinson. The second part and the remainder of the time will be devoted to questions and answers. During the Q & A session, we will welcome two guests who served as members of the planning committee for our recently concluded conference on AI in medical education. Dr. Eva Aagaard and Dr. Cornelius James. We are grateful that they are joining us to lend their expertise and we will introduce them formally a little later in the webinar.

At the end of the Q & A session, we will spend our last minutes on some details you will need to know in order to submit your online application.

Before we get started, a few housekeeping items. This session today is being recorded. The audio, video, and transcription as well as the presenter's slides will be available next week on the foundation's website, macyfoundation.org.

We have live closed captioning for today's webinar. And in the chatbox, you will find instructions for accessing that live chat webinar. You can use the Zoom tool or you can link directly to the live chat itself.

If you are having problems accessing these services you can enter it into the Q & A function on your Zoom screen and a staff member will help you.

The chat function on your Zoom screen is currently disabled and will be throughout the webinar. The Q & A function on your Zoom screen is active. And will be throughout the webinar. Please use it to post questions to the presenters that relate to the content of this webinar.

You may also use it to comment and like the questions that are being posed and answered. We will answer as many questions as we can at the end of the prepared remarks.

Now, I'm pleased to introduce the chief program officer of the Josiah Macy Jr. Foundation, Dana Levinson. Dana?

Dana Levinson, MPH (DL):
Thank you, Peter.

We are very pleased to announce Macy Foundation's newest RFA on "AI in Medical Education." A grant program to enhance innovation. We recently completed a conference on this topic in November. As a follow-up, we are launching the grant opportunity to fund demonstration projects that explore the potential uses and applications of "AI in Medical Education." With the goal of improving implementation, outcomes, and experiences of faculty and learners. It is important to mention that while other healthcare professions are clearly affected by these technological advances, at this time, and for this

particular RFA, we are supporting applications only in undergraduate and graduate medical education. As many of you know, the Macy Foundation does have a very strong priority area in interprofessional education. And as long as the program does include and involves medical education, we will be very happy to receive applications in interprofessional education. Our vision is to help the leaders and educators in medicine embrace the utilization of AI and leverage the tools part of the curriculum and training of future physicians.

By supporting projects that explore the potential uses and applications of AI, the program aspires to advance our understanding of responsibility, ethical use of "AI in Medical Education" will look like in the immediate future. Our hope is that by providing two years of support for educational interventions, grant recipients will help to have pathways for utilizing the technologies to make positive and meaningful changes in medical education at their own institutions and preferably beyond. We will select up to three projects for support. Each recipient will receive up to $100,000 each year for their two-year project. Project totals must be inclusive of indirect costs which are capped at 10%.

In terms of eligibility, proposals should directly affect the educational experiences of future physicians. With a specific emphasis on education that is provided in the clinical learning environment. As a demonstration of institutional commitment, letters of support will be required from institutions, departments, and/or health systems whichever is relevant.

We would like to see, also like to see a demonstration of the necessary technical expertise exists and is available to project leaders. Such that the proposed project can be executed.

We will be paying attention to feasibility. Given the available resources and a time frame of two years. And finally, we will look at the innovation of the host plan. We will look at the ability to sustain the project after the period of support ends and we will look at evidence of replicability, generalizability, and scalability, such that other institutions can benefit from this work. This is not required; there are preferences for projects that meet one or more of the following criteria. A demonstrated link to improve educational outcomes. A demonstrated link to improved clinical practice and patient outcomes, and a relationship to one or more of the three Macy Foundation priority areas. These are listed on our website in much more detail. But at a very high level they are: Promoting diversity, equity, and belonging in health professions education, increasing collaboration among future health professionals and fostering learning both in and learning from high-performing interprofessional teams. And finally, preparing future health professionals to navigate ethical dilemmas.

We are also interested in projects which involve multiple institutions collaborating together. And finally, we are very interested in projects that are co created with the participation of learners.

So, what are the next steps in our selection process in review? Letters of intent are due on Monday, February 3rd, before midnight Eastern Time. We are convening a special review committee of those who have expertise in artificial intelligence, in medical education, or both, and they will provide the first review of all completed letters of intent. Finalists will be selected and invited to apply for a full board grant by March 3rd. Those who are not invited to apply will also be informed at this time.

Grant submissions for the full board grants are due on Wednesday, April both, before midnight, Eastern Time, by the end of May 2025, all finalists will be notified of their application status and whether they have been selected for the awards. Funding will commence immediately on June 15th, 2025, and run through June 14th, 2027.

So we are going to move now to the Q & A portion of the webinar, which is where we like to spend more of our time. Please enter any questions you have about artificial intelligence and medical education RFA into the Q & A function on your screen. We're going to try to answer as many questions as we can. And I would like to invite two guests who also served as members of the planning committee for our recent Macy Foundation conference on "AI in Medical Education" to join us. First, I want to introduce to you Dr. Eva Aagaard. The Carol B. and Jerome T. professor of medical education, senior Associate Dean for medical education and vice chancellor at the Washington University School of Medicine. Eva, I would like to give you a moment or two about how you became involved in Macy Foundation's efforts to create consensus around the utilization of "AI in Medical Education."

Eva Aagaard, MD (EA):
Thanks, Dana. Thank you. Having been here and have worked with the Macy Foundation project. I was interested really in my local institution, thinking how it might be useful as a tool to reduce the burden on education. And asked to partner with Bob at a conference to talk about "AI in Medical Education." And its implications. That's how I initially became involved. Since then I have really learned a lot from the people involved and really enjoyed thinking about what all of the potential opportunities are. As well as the challenges facing us associated with "AI in Medical Education."

DL:
Thank you, Eva. I'm also excited to welcome Dr. Cornelius James, the clinical assistant of medicine and pediatrics at the University of Michigan. Cornelius James, if you want, there you are. Would you like to share a little bit about the background on your very impressive body of work in "AI in Medical Education"?

Cornelius James, MD (CJ):
Absolutely. Thank you, Dana, for that introduction. As Eva said, I'm also excited to be here to just kind of listen to many of the questions that are out there related to this very, very rapidly evolving, but paradigm shifting field of "AI in Medical Education." So I -- am very interested, I will start by saying my research interests include digital health, as many on this call know, artificial intelligence is kind of part of that broader field of digital health technologies. But I also teach evidence-based medicine at the University of Michigan. I'm very interested in clinical reasoning. So a little while agree I really started to think about how these technologies were specifically impact diagnostic reasoning that led to a fellowship with the National Academy, eventually developing curricula that were designed to kind of teach learners across the continuum of medical education to use these or use AI machine learning-based technologies in their diagnostic decision making. That eventually led to partnerships with the AMA, developed curricula with them. And also currently working with the Gordon and Betty Moore foundation and society of teachers of family medicine. To develop curricula specifically designed to teach primary care physicians to use AI and machine learning technologies in their clinical practice.

So, I've had a lot of fun on the committee just as Eva said, learning from and -- learning from that group. And I'm also interested in hearing some of the questions you have. I'm hoping we will be able to effectively address those questions. Thank you.

DL:
The good news, Cornelius, the Q & A is getting a lot of activity. But we also received some questions submitted in advance. And so, we're going to turn it over to Peter who is going to share the question that have come in. And Eva Aagaard and Cornelius James will do our best to answer you.

PG:
Thank you, Dana, and thank you for the attendees for submitting your questions. As Dana said, we received a number of questions in advance for the webinar. We will take those first before the ones coming in live right now. First question to the panel: Would the funding be applicable to growing existing curriculum or must all program offerings be newly created?

DL:
Great question.

Eva, do you want to take it?

EA:
Sure, I'm happy to. So while I think either is potentially fundable. I think one of the challenges of using existing programs is that you have to be really clear about how this is changing things and not funding existing programs. So what will be the new innovation, how will it grow, change, be different is going to be critical to be very clear about in any application that involves an existing program.

DL:
Cornelius, I see your hand up.

CJ:
I will be brief. And direct the evidence-based medicine curriculum at the University of Michigan medical school. Many of you can potentially appreciate the impact that AI and machine learning will have on that and other things like health system science, clinical reasoning curricula, doctor curricula, sets, and it can transform how the fields are taught and what is taught in the disciplines. So I agree with what Eva stated. But it is able to develop a program or curricula, it is okay to add on to currently existing curricula. But as Eva stated, we definitely want to see it is innovative and not just kind of like a brief add-on. But it kind of transforms these curricula in the way that we anticipate they could potentially transform them.

PG:
Thank you. This next question is the Macy Foundation RFA interested more in the translational application of AI in medical education or in exploratory research applications?

DL:
That is a great question.

We specifically use the term demonstration project because we are looking for the application of AI and while this is not research per se, of course, we are interested in an evaluation component as well. So, I would say that we are -- not interested in pure research. But at the same time, we do expect that projects be evaluated and assessed rigorously.

Eva, Cornelius, anything to add?

EA:
No. Agree.

PG:
Well, thank you.

Next question: How will innovation be defined in this rapidly evolving field and how will we know if it is successful or scalable?

DL:
Eva, I'm going to let you start. I'm pretty sure other people have things to say about this, too.

EA:
This is a really great question. I think it is really hard. Really thinks changing almost daily and certainly weekly in this space. So I think the answer is that we'll be looking at it at the time for its opportunity for innovation, at least that is the best I can say at this point. And that we'll really be looking for an opportunity for it to have a significant impact as an innovation as part of the broad goals of the application. I also feel like it should be an -- while it may not be an innovation in another space, we're really looking for innovation in the education space, and specifically the medical education innovation space, to apply an innovation to the education space where it was not previously applied is also potentially of interest, but please correct me if anybody feels different than that.

DL:
I agree with you. Thank you for that answer. I would also add that judging what is innovative is not something that can be managed by one person. Sis why we are assembling review team and why each of the letters of intent that are submitted will be given more than one review by more than one person. Because we need to rely on those who have broad expertise to give us feedback on innovations that will still be valuable and important two years from now.

PG:
Thank you for that. Let's turn to some of the questions coming in from the attendees today.

This is a question that's been asked many different ways by many different attendees. When you say, quote, medical education, end quote, does this mean undergraduate and graduate education pursuing MDs or also nursing, pharmacy, and other healthcare related disciplines?

DL:

Yeah. I would like to reiterate at this time and for this specific RFA we are narrowing the focus to those projects based in undergraduate medical education in medical school, or graduate education, residency or fellowship. I also said before, we are not only interested, but either to receive interprofessional focuses on these applications, but the projects must be coming from medical schools and must incorporate and include medical education.

PG:
Thank you, Dana. Next question: This attendee wants to understand is the priority to be in the clinical learning environment more or in the classroom?

DL:
We do have a preference for the clinical learning environment because of the impact of the clinical learning environment in shaming future practices and behaviors. We know it to be a very powerful space in which education happens. That's not to say that we would not consider a didactic experiences and we rather expect that there will be a combination of both didactic and clinical focus in the applications.

EA:
And I guess I would just add, also, we imagine that we might see some that are stimulation-based or not necessarily didactic in the traditional sense, but involve classroom-based or stimulation-based environments. Cornelius, do you have any other thoughts on that?

CJ:
I, agree. As far as kind of considering the potential multimodal methods that can be used to instruct learners and ensure they are adequately prepared and/or to use these technologies, you know, to, for teaching and learning purposes. So, I totally agree with that.

PG:
Next question. How important is it to include an evaluation/research component that looks at the effectiveness of the proposal project?

DL:
There is an outcome section. We are interested in the evaluation component. It is a wonderful idea to have a great creative and innovative curriculum, but knowing how it is received by learners, knowing what the impact is on learning outcomes, is very important.

CJ:
Can I also briefly add that, that also allows us to kind of in some respects kind of determine that scalability, generalizability impact that it is going to potentially have on other institutions. So that evaluation component, I see that as being pretty important.

EA:
Yeah, completely agree, Cornelius. Well said.

PG:
A number of questions about the collaborating institutions. This question is looking to be more specific. You're looking for a certain number or type of collaborating institutions in this RFA?

DL:
We do not have a number in mind. I think that multiple institutions involved in the project gives it an opportunity to show the scalability and spread that Cornelius just talked about. But we are also mindful of what's reasonable and possible to accomplish in a two-year project of this size. So I think that the number of institutions selected needs to be guided by those considerations.

Cornelius?

CJ:
Can I add in there, we also consider the team. Right? So that may not necessarily be, excuse me, at another institution or multi institutional, although, that's great, but considering the multidisciplinary nature of the team, for example, the medical educator, clinician, maybe computer scientists and/or engineer or, you know, medical student or resident that is also involved with the team. It just allows for more diverse perspectives and potentially allows for a more effective and/or scalable product.

EA:
Just to add to that. That goes back to the evaluation criteria around feasibility. Do you have the right members of the team to actually accomplish what you say you're going to accomplish? And other the other criteria of co production with learners and learner engagement in it which is also part of the criteria. So those things are -- you know, preferences and favors and feasibility will be a critical piece of the evaluation process I'm sure.

PG:
I'm going to turn back to some of the questions that were submitted in advance of this webinar.

Can MDs still in residencies apply for this grant?

DL:
That is a great question. We have at the Macy Foundation funded grants that had residents as PIs. However, not every institution has the same policies about allowing residents to be principal investigators. And so more often than not, we see learners involved not as the PI, but as a co investigator.

I also think that the nature of training can make this complicated. This is a two-year award. Residents frequently have extremely demanding schedules. And so we understand that their participation in a project goes in and out depending on what else is on their learning -- their learning needs to be prioritized, obviously.

So, while we will in fact look at MD in a residency program as the PI, I think we would need to see structurally how that would work. Such that that person is not sacrificing their education in order to participate in a research project.

PG:
Thank you.

Next question: Can you provide some examples of a demonstrated link to improved clinical practice in patient outcomes?

DL:
I'm going to throw this to Cornelius.

CJ:
Sure. Yeah, I think a great example, there are -- some in Michigan that have done great work in this area as well. But I think the surgery literature provides a pretty good example of linking, you know, assessment of learners or trainees' surgical skills and also actually predicting how they will do in the future when it comes to performing various surgeries. Whether it is cholecystectomy or colectomy along those lines. This is a great example where you can provide assessment using "AI in Medical Education" or even feedback, but where you can do that, but then you can also kind of predict how things may go. And also have interventions in place that allow us to kind of see how a learner potentially did after interventions that were sort of guided by AI, machine learning assessment feedback and then to kind of evaluate patient outcomes using or relate those patient outcomes or patient outcomes to the data and/or analysis or recommendations from an AI, machine learning-based assessment or feedback method. I think that is like one good example. Certainly there are others out there. I'm sure others can think of many innovative ways to kind of connect those. You know, outcomes. Educational and patient outcomes. But I think the surgical literature, I'm happy to provide some articles if anyone is interested. I think they provide a pretty good example.

PG:
Thank you, Cornelius.

Are health professionals education programs that prepare faculty to teach research and lead eligible to apply?

DL:
That is a really important question. And I'm going to ask Eva and Cornelius to give me their thoughts about this.

EA:
Sure. I'm happy to start. Then would love others to join in.

I think that while faculty development is critical to all these initiatives, any faculty development initiative would have to have clear linkages to learning outcomes for trainees. And so, while it can be a part, I think it would be hard for it to be the primary focus given our goals for this RFA. So, definitely see it as part of it. Probably not the only part. Is the way I would come down. Cornelius?

CJ:

Totally agree with that. Focus on learning outcomes and even icing on the cake, patient outcomes. So I totally agree with that.

DL:
Just to add that the Macy Foundation's priority is about improving the education of future health professionals. And so, learners are obviously central to everything that we do. And while faculty development obviously has a huge impact on learner experience, we would like to see learners involved really in everything.

PG:
Thank you.

I'm going to turn back to the live questions coming in right now through the Q & A box. Thank you all for submitting them.

This is one looking for clarification. Is the grant intended to foster the use of AI as a tool in medical education or is it about education about the use of AI in clinical decision making?

DL:
That is a very important question.

Cornelius, why don't you start off, I'm sure we all have a little bit something to say about it.

CJ:
Yeah. So I agree. Great question. And I think the easy, simple answer is like for sure both. But at the same time, there's overlap, that example that I just gave related to surgery. There is like some overlap when it comes to even those two, using it for teaching and learning and versus like teaching trainees or students to use these technologies. There's some potential overlap. I think that increasingly, we will kind of see the lines kind of blurred. Especially talking about a learning health system. Right? Why we're using the various types of data and artificial intelligence and machine learning to inform, like what we teach, how we teach, etc. So, I totally did both of those. I would say that I'm seeing a lot of interest right now just like I'm kind of going around and having these talks or giving talks at different places, definitely lots of interest and it is super important when it comes to using the tools for teaching and learning. But not seeing as much traction when it comes to actually teaching learners, or trainees or clinicians to actually use these technologies. So I think both of them are super important. And I'm super hopeful we'll get, you know, proposals or letters that will reflect interest in both of those.

PG:
Thank you. Next question is about collaboration again. Is collaboration with industry partners allowed? Especially in the world of technology and innovation where medicine and tech companies are starting to work more hand-in-hand.

DL:
That is, that's a wonderful question, because we, of course, collaborated with those who are involved in tech companies when we formed our conference and its agenda. The one thing that I would say is

related to eligibility. And that is that the Macy Foundation only considers proposals from 501C3 organizations and public entities. So while this collaboration with a tech company is absolutely fine, the proposal request must come from and the funds must be awarded to a tax exempt organization.

PG:
Thank you, Dana.

This question somewhat follows that. Can work supported by the Macy Foundation be commercialized beyond the grant? Are there any strings attached to the funds?

DL:
I'm going to let you answer that a little, Peter. But I'll start off. Because that is a really important question.

The work that is created is intellectual property that belongs to the person that created the work. The Macy Foundation expects to receive, you know, when you publish or present we would like to have the funding source acknowledged, as by the way, it would have to be for any conflict of interest, you know -- statement. But in terms of future commercialization, I'm going to turn that to Peter. I think he can better and more clearly answer that question.

PG:
Well -- with always these questions the answer is always it depends. But let me at least take a stab at it. First of all, the foundation is a nonprofit organization. And the funds that we award need to be for a charitable purpose. So, strictly speaking, we can't award a grant that is going to be used in a for-profit entity to generate a profit. It would not be characterized as a charitable purpose for us. However, if there is a product to be commercialized, which would be owned by the recipient as Dana outlined, we would work with you to develop a structure where a -- certain amount of funds would be set aside for charitable purpose so we could demonstrate that in fact there was charity that still came out of this activity.

So I hope that's not too complicated. And I would love to get to the point where you had to negotiate and talk that through and one of you. For now, the door is yes you can, there are strings attached. We have to work through that when the time comes.

DL:
Thanks, Peter.

PG:
The next question asks: What about the use of simulation centers for "AI in Medical Education"?

DL:
Eva?

EA:

Yeah. I think that was what I was getting at when I was talking about stimulation, virtual reality, these kinds of environments seem very much aligned with something we might be interested in hearing about. And could also lead to information about clinical outcomes and certainly educational outcomes. So I think that would fit within the scope from my perspective. Cornelius, do you have other thoughts?

CJ:
No. Totally agree. That, you know, at least in my opinion, I do see simulation, especially given where we are right now playing a significant role in this particular space. So I totally agree.

PG:
Next question: Will projects that are directed towards GME processes, such as feedback, milestone evaluations, etc., would they be considered?

DL:
My answer would be absolutely. The potential of these technologies to support the processes of learning is huge. And we are particularly interested in those processes of learning which directly engage and affect those who are doing the learning. So while a process that looked at, you know, utilization of technology for accreditation processes, which, of course, it can do, is slightly less interesting to us than one, than the kind of processes that provide feedback to learners and achievement of milestones, because that is very important component of how residents themselves understand that they are moving through their education. Eva, and Cornelius, really happy to have you weigh-in here.

EA:
I really agree. I think this is one of the great potentials of AI and in medical education. And especially for some of us who are really interested in the precision education space. I think this is an opportunity to explore some of those things as well.

PG:
Thank you.

Will applications with multiple institutions be prioritized over multidisciplinary single institution applications?

DL:
That is a great question. I would say that our priority would go towards an application that was well-designed, that had the potential to have an impact, that was innovative, and that was going to lead to better learner outcomes and we hope better patient outcomes. Whether it is more than one institution or a multidisciplinary team within an institution, is probably less than the other considerations, but I'm going to ask Cornelius what he has to say on the topic.

CJ:
I think this kind of goes back to an earlier question to some extent. We are very aware, the multi institution piece is great. We are also aware there are some institutions that have lots of intellectual or material resources that permit completion of a specific type of project, but we are aware there are other

institutions that rely on relationships with other institutions to meet the goals eager educationally and in other ways they have for a particular project. So I totally agree with Dana, it will all depend upon the strength of the application and the potential impact it could have on the education community, the broader education community.

PG:
Thank you. I'm going to go back to some of the pre submitted questions. And we'll touch on a few of those.

The first one, would it be advantageous to expand an early prototype in AI that is part of a Macy Foundation for this or establish a new focus for that. I'm sorry if it was not clear. Am I reading the question as it came in, Dana, is it helpful.

DL:
It sounds like you're asking if an existing prototype can be assessed and evaluated through this mechanism? I think my answer is yes. To the extent that I think I understand the question. Cornelius, if you understand it better, please weigh-in.

EA:
I heard it, what if there is an existing Macy Foundation-sponsored project.

DL:
Oh.

EA:
Then, that's the way it read to me.

DL:
Let me answer that question. If we are already sponsoring a project we will not entertain an application for providing funding for the same project. I have received questions -- if you already have a Macy Foundation grant can you apply for this one, yes, as long as the projects are distinct and separate. But providing funding through one mechanism for a program, we will not provide funding for another mechanism for the same program.

PG:
Thank you.

DL:
Cornelius, did you want to add anything?

CJ:
Really quickly. Another way to think about it, a model, like a machine learning model that has been developed and we are anticipating deploying or providing the model in a specific setting that is education-related and whether or not that is appropriate. Absolutely, versus developing a model from scratch, potentially using the funds. I think, you know, the former -- the latter seems like it would

potentially be a bit more difficult given the two-year time frame too, especially if you want to show the educational outcomes and the impact. But the model that's been developed and you're now looking to use the model in a given educational setting. In my opinion, that seems very appropriate and a reasonable thing to do. If I'm understanding that question correctly.

PG:
There are many ways to answer the question. Obviously. Thank you all for that.

This next question: Is this program geared towards innovation in using "AI in Medical Education" or having learners ethically use AI to improve patient care?

DL:
That is a great question which we are getting a lot of. And which I understand. You know, to be a very important one. The answer is we are interested in both. We are interested in the utilization of AI to improve the processes of medical education. But we are also interested in curriculum that integrates AI as a tool in helping future health professionals in their future clinical practice.

Eva and Cornelius, I'm happy to have you weigh-in on this one. This is an important question we hear a lot.

EA:
I guess, can completely agree with what you just said, Dana. I would just add, it would be -- really, I think, valuable in the application to talk about ethical implications. We're very interested in ethical implications for either of the kinds of ideas that are being promoted. Having some component of that, more thinking about that, and the implications of that will be one of the lenses I think we will be looking that these applications. Does that help? With the ethical piece of it?

PG:
Thank you. This next question is: As AI is changing by minute, what happens if things change so much so that the project has to change shape as well?

DL:
Well, that's a wonderful question. And that is certainly a scenario we can all envision happening. In such a scenario, should someone be awarded a board grant and find that the premise of that grant has evolved to a point where what they proposed to us and what they now want to do is very different, and by the way, this does happen. You know, not just in AI. We would then have a conversation with the grantee. They would provide an updated work plan and set of priorities to us. We would work with them and evaluate and assess if this is something we felt comfortable in continuing our funding. But without more specificity, I don't think I could confirm that would be fine. I think it would be a conversation that we would have to have. And we, of course, are not interested in -- in not working with those that we award funding to. We are very interested in doing that. We do understand that this is a fluid field. And one that we have to be equally flexible in.

Cornelius.

CJ:
Yeah. I was going to just throw this out, this is kind of just my opinion or just -- you know, at the same time, like totally this could happen, but I guess I kind of see that as potentially being a bit less concerning or that type of situation. Because these grants are going to be fairly innovative and creative and new and looking to expand or create new knowledge or generate new knowledge, etc., totally appreciate it would be possible, I agree this field is moving pretty fast. But given the level of innovation that I think we are kind of anticipating with this grant, I think I would be a little less concerned about that happening personally.

PG:
Thank you, Cornelius.

This next question gets at the maturity of the project at the LOI phase. It wants to know, the attendee is asking how much weight will be given to the technical demonstration, for example, pilot data of the feasibility of this during the initial LOI phase?

DL:
That is a good question. It's going to be hard to balance. This is going to be a pretty brief application. Because we don't want people to write 20 pages for a letter of intent. It's really more like five or six pages.

Yet, at the same time, we do need to know that the technical expertise exists to do the project. And that the technology that is being utilized is one that works.

So you know, we will allow for people to upload additional appendices and, but we would like to see that information provided because our reviewers, I think, are going to really need it.

EA:
Yes. I was thinking -- you know, the way this question is written, it's talking about specifically like pilot data. I think that depends on whether what you're proposing doesn't seem feasible on face value to some extent. Because these are demonstration projects and not research projects, I think, you know, the -- the burden of proof, it depends on what the burden of proof is that you need to demonstrate that what you're doing is reasonably feasible with both a combination of who your team is, what your environment is, and the support that you need to complete it. I feel like that sort of gets at the other questions that are in the chat. Which seem to be very focused on do I need to show this or do I need to show that. From my perspective, this is like, who the application comes from depends -- is less important when you're talking about like should it come from this department or the school or whatever, then that you have demonstrated that you have the support of the people you need to be order to be able to implement that project. If you don't have support, for example, from a curricula committee or leader of the curriculum committee, or associate or dean, but revamp XYZ curriculum, and a person I know about LCME. That's not possible. So I would be looking for that kind of information that you actually have buy-in for what you're doing. Similarly, I would think from a technical perspective, we will have technical experts to look and see is this even possible or is this sort of fantastical thinking. If you think it looks like it is fantastical thinking you might need to show pilot data. If that makes sense in terms of -- just the way that I think about it.

PG:
Thank you, Eva. Next question is getting at other funding. If the project is already funded through another agency, say NIH or some other granting agency, and the Macy Foundation grant proposal adds a new and important dimension, not covered by the other funder, is that something that would be eligible under this RFA?

DL:
I believe so, yes, as long as that which is being added for Macy Foundation support is a distinct and new element to the project that is currently underway.

PG:
Okay. Thank you.

We keep returning to this question that keeps coming up again. So I guess it is worth the panelist spending a few minutes on it at the request of this one attendee. Can you share your thoughts on the distinction or the competitiveness between applications using AI versus teaching about AI?

DL:
I will weigh-in on the term competitiveness. They are both equally competitive in the process. The innovation, the feasibility, and the rigor of the project will be more important than whether it is in one camp or the other. But -- I -- I do think that it would be great for Eva and Cornelius to talk again about this. Because it is an important question.

CJ:
Yeah. So I'll just say, I guess kind of in reference, to me, I will say my comment earlier was related to what I have been hearing about or heard on the speaking trail when it comes to interest. My point in that comment earlier related to hearing a lot about using it for teaching and learning wasn't to say that was more important nor was to say using AI and teaching clinicians or learners to use AI is more important. It was just to say, let's, it is important for this group or this, the planning committee and the review committee, those that will be reviewing the letters of intent and applications are considering both of those equally. Right? We recognize the importance of these technologies for teaching and learning in medical education. But we also recognize equally important is the need to ensure that trainees, students, etc., clinicians, are prepared to actually use these technologies in clinical practice. So equally important.

DL:
Thank you, Cornelius, completely agree. Very well said.

PG:
We're going to return to the theme of collaboration. This question is can we have international collaborations or collaborators under this grant program?

DL:

So -- we accept applications from medical education for those schools that are accredited by the LCME or the LCME analogue in Canada. I think it is CACMS. So medical schools or Canadian schools that are accredited through that process can apply.

If the school is applying, is from a U.S. school and they are collaborating with an institution that is overseas, that would be fine. But the -- but the -- application itself cannot come from an international school.

PG:
Thank you. This is a question related to the funding within the grant. Are there restrictions in how the funding can be allocated? For example, are there limits on how much may be used to fund investigator's time?

DL:
I can answer that question. We do not put those kind of limits in. And yet. We will look at the budget. We will look to see that it is aligned with the goals of the project.

We get questioned a lot, do we use the NIH salary cap. We do not. The one thing that I will say is that there are certain expenses we will not reimburse. Those include construction, renovation projects, we're not going to build a simulation center for a school. Those are not allowable costs. And when you go through the eligible checklist, the very first page of the letter of intent, you will have a very clear outline of that, which would make an application ineligible. In terms of the amount of time supported, it needs to be consistent with the amount of time that people put in to making sure that a project runs successfully.

EA:
I will just add that the LOI checklist is already live on the website. And so you can, I went through it today. So it is available if you go through it. It is quite clear.

DL:
Yes, you can preview it on the website.

PG:
Thank you. Next question asks presenters, how do you define learner in the context of this RFA?

DL:
I would say we are defining a learner as someone who is in medical school or who is in a residency or fellowship program.

PG:
I'm sorry, I'm scrolling through the questions. I'm trying to find ones we haven't asked already.

Let me go back to one that's presubmitted if you will.

What are the expectations of grantees under this program to balance AI innovation with bias, data privacy, and other ethical issues in medical education?

DL:
That's a very, very important question. I'm going to ask both Eva and Cornelius to weigh-in on it.

EA:
Cornelius, do you want to go first?

CJ:
Sure. So there are, this was a conversation that we had as a planning committee for the recent conference. There were just some things that we believed should kind of be a thread throughout many of the things that we do or think or do related to AI. And ethics and bias and data privacy, things along those lines are things that we kind of see weaving themselves throughout any project related to like AI, machine learning. It doesn't necessarily have to be the soul focus, but that is possible for that to be the main focus of the project. But as Eva stated earlier, something in there related to how we are going to ensure, for example, in the -- RFA, I believe we mentioned things along the lines of like HIPAA and FERPA and so on, so just kind of ensuring that the reviewers of the letter of intent or of a full proposal are confident that, you know, patients will be protected. That learners will be protected. That they're going to maintain autonomy when it comes to data and so on. Just kind of providing those assurances, I think it would -- it would be very well-received by the reviewers and also the bias piece when it comes to, you know, use or how a model's, just kind of considering all of those things and perhaps including how they would potentially be addressed, I think it is a good idea. Eva, I don't know if you have other thoughts related to that.

EA:
No, I really agree with everything you said. I do think there is a lot of interest in the committee thinking about in general what, what is ethical, what are the ethical implications of AI as well. And so, as you think about moving away from actual AI tools if you're thinking about curriculum, for example, as your implementation, some of us would be particularly interested in how you're thinking ability and incorporating concepts of ethical use, ethical implications, downstream implications, etc. So -- really, I think, really keeping that ethical use, but also the ability for us to think carefully about equitable use, are important considerations in thinking about your project.

PG:
Thank you.

We are approaching the top of the hour. There are many questions that have come in. I'm sorry that we can't answer all of them. This will be our last question for today's webinar.

Can you please provide some more information on what will need to be submitted by those invited to submit a full application?

DL:

I -- cannot provide complete information on that because that is still a question that we are working out. Obviously, it will be a much longer proposal. And we'll likely ask for great more detail about the components of the project, the work plan, the qualifications of the principal investigators, as well as the coinvestigators. We are accepting very limited information on the people involved in the letter of intent. And the budget will actually be a much more rigorous budget.

PG:
Thank you, Dana.

Let's turn to the wrap up portion. I will take just a moment to give you additional information before I turn it back to Dana with concluding remarks.

For this program, we are utilizing an online application to access the online application. You must first go to our website, macyfoundation.org, and click on the grant button in the navigation bar. From there you can go to the "AI in Medical Education" page. For your convenience, the URL is displayed on this slide. From there, click the submit a letter of intent button to learn more about the application process and access the online application platform. To apply, you need to register for an account on the online application platform. You will also need to get the tax ID for your school part of the registration process.

Once you have registered and logged in, you may save and return to your application as often as you like prior to submitting it. If you have any questions during the application process, you may email us at macyfoundation.org. But before you email us, we encourage you to visit the "Artificial Intelligence in Medical Education: A Grants Program to Advance Innovation in Medical Education" on our website, which has a number of useful resources, including how to apply and the selection criteria for the program. And finally, as a reminder, by next week, a recording of this session, both the audio portion, slides and the transcription will be available on our website.

Dana?

DL:
I would really like to thank you, Dr. Eva Aagaard and are Dr. Cornelius James for giving us their time this afternoon and bringing their expertise and insight into the questions and answers. I very much appreciate their partnerships with the Macy Foundation, they are wonderful colleagues. Thank you, Eva and Cornelius. As for everyone, we hope you stay in touch with the Macy Foundation. For more information about our grant programs and other initiatives including podcast, webinars, and blogs and, of course, the "AI in Medical Education" grants. Thank you so much for joining us today. We hope to receive applications from many of you in February.

PG:
This concludes today's webinar. Thank you for attending.