Christie: Moving on, just a refresher. My name is

Christie Canaria. I am also the program manager for

I-Corps, on behalf of the NIH and the CDC, and I'm

very pleased to have joined with us today one of our

lead instructors, Edmund Pendleton. He's actually

been with the I-Corps program at NIH since its

inception in 2014.

And I'm also pleased to have online with us today

Dr. Michael Schultz, chief science officer from

Viewpoint Molecular Targeting. Viewpoint was a team

that went through I-Corps program in early 2015, and

we're very pleased to have him join us to share his

insights and perspectives, as someone who went

through the program and really did a great job of

leveraging all it had to offer.

So we've been running this program, as I mentioned,

since 2014. And for those of you not familiar with

I-Corps, it is a program that was started by the

National Science Foundation, NSF, and they created

what they call the National Innovation Network. And

I'm sure this slide is -- could be updated even

further, but there are a number of nodes and sites,

different institutions around the country, that

support the I-Corps curriculum for both academic and small business, researchers who are seeking to translate their technologies from the labs to the market.

All of the I-Corps at NIH instructors are sourced from the National Innovation Network, including our guest panelist today, Edmund Pendleton, and these are folks who were trained with I-Corps. I would also like to say that NIH was one of the -- was the first agency after NSF to adopted the I-Corps program, and it is now being practiced across a number of different agencies.

And so when you hear about I-Corps, you may hear about different flavors of the program, but I did want to stress that I-Corps, by definition, is an intensive entrepreneurial immersion course, so those teams who go to and decide to sign up and go to I-Corps will be provided with resources to build their skills and employ strategies to reduce commercialization risk for the technology.

This curriculum does emphasize getting out of the building, reaching out to customers to test hypotheses about the technology's need and the market

-- marketability for what's being developed. I do

want to stress that I-Corps, in the canonical sense,

is something that happens over a few months and, and

this kind of magic number 100 interviews. We talk

about needing to be 100 interviews. And this format

is what we call experiential in learning.

  So two things that really set aside I-Corps from

other entrepreneurial training programs. One is the

use of this business model canvas. So I've put this

up here. It's a really wonderful tool, to apply to

your technology, to think about what are the

different aspects that go into taking a technology

and assessing whether or not it is applicable for the

market; what is its adoptability?

  So various concepts that many who are trained

classically in R&D or bench may not necessarily have

exposure to, but anyone who's an entrepreneur should

be prepared to think about defining concepts, like

what's the value proposition of your technology or

who are the customer segments being served by the

technology you're developing? So this business model

canvas is something that you'll see in the I-Corps

program over and over, and I know both Edmund and

Michael will be talking about this particular tool and how they use it to assess their technologies.

The other aspect to it is just context of customer discovery, and it's really about getting out of the building. For many of us who are from academia, we may be very comfortable talking to each other in seminars at colloquia, but really the point of the I-Corps program is to get you branched out. It's testing your ideas of what you think is going to be something that's adoptable and finding out from real users in your ecosystem -- in your entrepreneurial ecosystem -- what is going to be applied, what is needed. And, and you really get that by getting out of the building.

Other things we want to prep you for, if you're interested in I-Corps, is that this, this course is focused on learning, and the whole concept of customer develop is not sales. When you go out and talk to people, your goal is not to be selling a product but to be finding out what people, you know, value in a product, not necessarily yours because for those who are developing technologies, at the early stage, you may not even have a product in hand yet.

And then -- and Michael will be sure to tell you that the teams, when they go out and do customer discovery, are actively listening to potential customers and other stakeholders to really understand and learn about what customers want and need. What are the pain points, so that they can develop technology that address those, and what are the features that of a technology that do provide value?

And for those of our -- who are on the webinar to learn about I-Corps at NIH and perhaps familiar with NSF concept of I-Corps, it's very similar, but with a few, a few tweaks because what we have done is we've taken I-Corps programs and worked very closely with NSF, in order to address the needs of life science teams but also life science companies.

So some things remain the same. The floor -- the course format, for instance, you should all be aware includes a three-day kickoff event which, which will be at a, which will be at a -- an undisclosed venue, weekly Web-Ex classes, and then a -- an interesting closing, typically here, at NIH in the Bethesda, Maryland area.

The teams that go through I-Corps are three-person teams. These include a -- what we call a C-level executive person, someone who has decision-making authority; a second person who's defined as the PD or the PI, someone with a strong technical background in the technology being developed; and then the third role is an industry expert, someone who's got the right rolodex to get the team kickstarted in doing their customer discovery and someone who ideally does have experience.

For many teams to come into the I-Corps program or are interested in applying, they don't know who these three people will be. And for many of them, I encourage -- I encourage you, if you have any questions about the team you're thinking of pulling together, to reach out to us, to specifically me, and, you know, be prepared to ask questions, and I can help address -- and just -- and help you understand what, what, what makes a, a good team. I know Edmund will share thoughts on what makes a good team.

Because we are working with life sciences across the NIH and the CDC, we do split the teams up into

what we call the tracks, and tracks are for

therapeutics, diagnostics, and ehealth, also research

tools, and medical devices. And each track is

assigned two instructors. All six of these

instructors are trained in the I-Corps curriculum

delivery. All six of these instructors are sourced

from NSF's national innovation node.

But for each track, we have one who additionally

has what we call domain expertise, and then that's

who focuses on delivering for of the canonical I-

Corps curriculum and lessons.

So to date, we have run five cohorts. We are

preparing to run two more in 2018. If you found out

about the program through PA-18-314, that one is

soliciting for one cohort, but for the five cohorts

we have had to date, we've had 100 teams go through,

and overwhelmingly, we've found positive response

from the teams that participate, in how they find the

program and how they would recommend the program to

others. And so we're very excited to continue

providing I-Corps to our, to our awardees.

I do want to focus on a little bit about, you know,

what's the -- what some of the goals are for I-Corps

at NIH. And, and for many who applied, they will
have what's called a phase one SBIR or STTR award.
What follows naturally for that is a phase two award,
and a lot of what I-Corps will teach a team can be
applied towards that phase two application, namely
putting together, structuring, and communicating back
out a commercialization plan.

   But that's not just for, for phase two
applications. Really, what teams get out of I-Corps
is, is an understanding of how their technology can
be adopted, and it helps them move their technologies
forward in that pipeline from bench to market.

   So where the teams were, if we look back on the
teams that have gone to the cohort, we sort of asked
them before and after, how much understanding do you
gain about the business model canvas concept? And
overwhelmingly, there was a lot of knowledge that is
gained around these core concepts. Something that
justifies this is, when we ask them about some of
these more life science specific commercialization
concepts, like medical reimbursement or re-, or
regulatory strategy, teams don't always understand,
coming in to I-Corps, what it involves for their

particular technology, but by the time they get to conducting 100 interviews, they're much more knowledgeable about, about what that new sort of technology and how to move forward.

And so, you know, many of the teams decide afterwards that they're going to go after additional types of funding, and this is something that we continue to follow for all of our teams that go through the I-Corps programs.

So if you were interested in applying to I-Corps, at this time, we do have 16 participating institute centers, from the NIH and CDC. They are listed here. If you don't see your awarding IC listed, please feel free to reach out so we can talk about how we might change that, but again, the opportunity is PA-18-314, and if you try to apply, we recommend that you apply using what we call ASSIST.

And so here are some of those magic dates, magic numbers, magic links. Again, the funding opportunity announcement for I-Corps at NIH is PA-18-314. The application due date, the next one, is coming up. It's going to be December 18th. You can see what the kickoff dates and the closing dates are going to be,

as well as the Web-Ex sessions, when those are all
going to be.

So it's very important, if you're interested in
applying to I-Corps, that you understand what will be
required. This is a time intensive course. We
expect that everyone coming in is aware and
appreciates the time commitments up front, and so we
do our best to set your expectations by giving you
these dates and times in advance.

And does so with that, I would like to pass over to
my colleague, Edmund Pendleton, control and, and have
him speak as an instructor about why I-Corps.

Ed: All right, so thank you very much, Christie. I hope
you can hear me okay. Does this sound good?

Christie: Thank you, yes.

Ed: All right. So welcome, everybody. I thought I would
give a very high level overview of why I-Corps, and
I'm gonna start with the one and only slide I would
show if I only had one, and this is the reason. If
you look at startup statistics, and even if you look
at new innovative product concepts with a lot of big
companies, many of which I've actually worked with,
this is what you'll see. It's a very high failure

rate. Ninety-plus percent, within five years, don't
make it.

   Now, this is a real challenge, right, and one of
the things that we're trying to do is, of course,
increase your odds. And as we point out, it sounds
kind of obvious in retrospect, but the reality is
that most startups fail from a lack of customers, not
so much from the fact that a product or technology
doesn't work. So we really try to make sure we spend
a lot of time with the teams truly understanding
this, and we'll talk about it in a minute.

   But when we say customer here, we're not just
talking about the patient because there can be a
variety of people involved in getting your device or
new therapy from you all the way into the hands of
the person that needs it, or into the hands of the
person that will use it to benefit a patient. So
keep that in mind.

   And if you look at the top ten startup mistakes,
and I'll just zoom into the top three, there are
three here listed. One is building something no one
wants, which literally means building something not
enough people want. And it's more nuanced than it

may first appear, but that's the number one reason,

right, just not enough people buy the thing.

Number two, hiring poorly. We don't really do

anything in I-Corps related to number two, although I

will tell you the process is pretty intense, and so

the teams have to be very cohesive, or otherwise

you'll find out right quickly whether you can get

along together.

And then number three, lack of focus. So this is

another challenge for startups, and again, it may

seem self-evident, but sometimes you may be thinking

you're focused without even realizing that you're

not. And we talk about the fact in the course that,

for example, if you're selling into a hospital, not

all the hospitals are the same. A community hospital

buys something very differently than a large

institutionally affiliated hospital, for example. So

we really help teams understand how to properly

segment their markets and understand the needs in

those segments so that you can better build and

deliver products that meet those needs.

So our goal, as I mentioned, is really to improve

your odds. If you want to look at the graph again,

it's this concept of shifting the curve. I've used
the baseball analogy since it's World Series time,
but we're trying to get more base hits and hopefully
some more home runs, too, right? So that's the
ultimate goal.

   But I do want to point out something, which is it's
not the only goal we have in the course. We
obviously want to improve your odds, and we hope that
you're successful, but one of the other things we
really talk a lot about is a concept we call
Innovation Culture Change. Let me explain what that
means here very briefly.

   A lot of people conflict the terms invention and
innovation. To kind of keep it very simple, I'll say
that invention is usually much more about technology,
and that's what most people, when they say
innovation, they really are using it in this context,
but that's not what we use the word innovation for
and where the word I-Corps comes from because it is
Innovation Corps. The when we say innovation, we
mean it's all about the customer needs, right, and
really understanding that and really changing a
mindset here.

Now, if you look at other methodologies, other ways people have developed products in the past, and again, even large sometimes successful companies do this, they throw a lot of stuff at the wall. They hope some of it sticks, and it tends to be a game of chance. And we believe if you follow a systematic, sort of a scientifically based process for building your startup, just like you might in forwarding your science, you can significantly improve your odds, and that's really what we're all about.

And Christie already mentioned it. One of the themes is pushing you to get out of the building. Why? Because this is one thing we all tend not to want to do. We all like to do research on our laptops, which can be helpful. Some of us might even like to do focus groups. That can be helpful, but really, where we tend to fall down are getting out and actually interacting one on one with potential customers and stakeholders in their actually real world environments. And you learn things by doing that, that you can't possibly learn behind a laptop or sitting in your office, so that's the real push

for this course, if you want to use that approach to test and validate assumptions.

Now, a lot of times with life sciences, we, we have teams. They're saying, look, we know we're doing something that can really benefit patients, and we all agree. That's one of the reasons we love teaching the course. And we want to get your technology into the hands of those patients, or at least into the hands of folks who will use it for the patients.

But you really have to understand it's not about just the patients. It's not about just making the science work. It's about building a business, and that's the real focus of using the business model canvas and the focus of what we do in the process of I-Corps.

So let's talk a little bit about the instructors for a moment. So what's important to understand is that we're a variety of individuals that have had actual real world experience.   So I like to say we're practitioners and not academics. Now, there's nothing wrong with being an academic, but what I want

to emphasize here is most of us have been entrepreneurs, worked in the life sciences space.

I've actually spent a number of years not just doing that, but also training, doing innovation training, not just for academic teams and SBIR companies, but also for now corporate clients. So we all have a lot of experience that we're here to share with you.

The primary thing I want to point out, though, is that we're really coaches. We're not consultants. So what does that mean? That means we're going to teach you a process. We're not going to tell you what to do in terms of what market to go after or what indication you should look into or any of that nature, but we will help you understand the process, learn a set of skills that you can continue to use beyond this course, not just for your current company, but hopefully for the next one and the next one, too, should you end up going on and creating more opportunities for yourself in the future. So it's a skill set we want you to take with you. As we like to say, we can teach you how to think and not literally, specifically what to think.

Now, on that note as a final point, I will say that
we also try to be respectfully direct, and what I
mean by that is we're gonna kind of hold you
accountable. We expect you to do the work if you
come into this course. We're taking our time. NIH
is investing their money into you, even after they've
already made a pretty significant investment into a
phase one award, right?

So we want people that are gonna take the process
seriously and do what we ask them to do because it's
really important that we actually go out and validate
and test some of the things -- or I should say test
and validate some of the assumptions you have. At
the end of the day, we're all trying to do the same
thing: increase your odds for success. We're all
investors in your success to some degree as
taxpayers, and we're all excited to help you because
all of you are out there trying to make an important
difference in the world, and again, it's one of the
reasons we love teaching in the NIH course.

So one final thing, and I know that we probably
will have time to discuss this at the end as well.
And I have no slides except for this one, when it

comes to talking about the team. So what makes a good team? So from my perspective as an instructor, the very most important thing is that the team members buy into the process, that they jump in feet first and they understand that doing this discovery actually is equal to, and in some ways, more important than making the science and the technology work.

Trust me, it pains me to say that as a technologist myself, but it is literally true. People will often think if we can just make it work, everyone will want it, right? The reality is you've really got to spend time, at this early stage, in your sort of company's trajectory, making sure you're headed in the right direction. So we like to see teams that are gonna jump in with, with, with both feet.

We also like to see that we least have one C-Suite type of representative on the team because it is imperative that everyone in the company buys into the process and is open to hearing what they've learned in the market. Now, you will note as I wrap up here, I haven't said a single thing about your technology, because at the end of the day, we're not evaluating

whether your technology is gonna make a huge
difference. We don't know.

   We do know if you come in with an open mind and
you're open to the process, we can help improve your
odds for success, and all of you, again, are working
on very interesting and important things to help
improve the lives of people not just in this country
by the world over. So with that, I'm gonna stop.
I'm gonna turn it over two Michael who's actually
been in one of the cohorts, and I'll let him kind of
describe from his perspective what he got out of it.

Christie: Thanks, Edmund. Michael, you're up.

Michael: Thanks, Christie, Edmund. I think that was a
     great lead in. Can everybody hear me?

Edmund: I can hear you, Michael. I think you're in good
     shape.

Michael: Okay, great. Thanks, Edmund. And so I think
     that, that Christie and Edmund, you know, that --
     those were great segues into what works out to be
     Viewpoints I-Corps story. So Viewpoint has gone
     through the I-Corps program, and I, and I feel like
     we benefited greatly from it. And, and I'm delighted

to spend some time talking about, you know, our
story.

So this is basically sort of, you know, my
perspective on the I-Corps journey for the company
and, and hopefully, it's gonna be something that
you'll benefit from in making decisions about, you
know, is the I-Corps right for you or, or are we --
or is our company right for I-Corps?

So this slide that you see here is, is the
introductory slide that you'll get very used to
presenting if you decide to take part and participate
in the I-Corps program. So I'm Michael Schultz. I'm
the chief science officer for Viewpoint Molecular
Targeting, and we've developed a targeted radio
therapy for metastatic melanoma. And our CEO,
Heyward Coleman and chief medical officer Frances
Johnson were the other two people from the company
who joined me.

And you'll notice here that we have a -- what we
call a business thesis. So this was the slide that I
presented -- it was our first slide in our final
presentation, and I'm not gonna talk so much about,
about the technology itself, but there's some key

points that are made in this business thesis that
come from what you see there is our interview count.

And, and we talked with over a hu-, over a hundred
people during the I-Corps experience, including
people that were all across -- if you look to the
right there, people who are all across the, the
ecosystem in the value chain that would bring this
new technology for metastatic melanoma -- this new
therapeutic to, to metastatic mel-, melanoma
patients.

And, and one of the key things that you learn is
how to direct your initial activities towards an
initial indication that will help you to be
successful early on with the, with the introduction
to your product. And then you'll learn later how to
expand that indication to, in this case, frontline
therapy for all metastatic melanoma patients.

And I can tell you that we came into the I-Corps
program with a very different adar-, very different
perspective on what Viewpoint Molecular Targeting
was, and I was -- really appreciated the, the
conversation about team building. And I'm gonna talk
a lot about that because I think the team that you

bring into the I-Corps program reflects the
importance of the team at the early stage of
development for, you know, any startup-based company.

   And you can see here from the, the, the
descriptions of the cofounders and the team that,
that, that worked on the -- that participated in the
I-Corps program, that, you know, these are people
that have lots of experience. I have 15 years'
experience in the radio pharmaceutical business and
in -- and, and as a professor of radiology at the
University of Iowa.

   Dr. Johnson has experience, cofounded a previous
molecular diagnostics company. Heyward Coleman is a
Harvard, Harvard MBA, has been successful in
business. But the reality is in bringing this
technology forward, we, we really didn't know what we
didn't know.

   At the same time, we've also been very successful
in the lead up to the I-Corps program, so -- and I
guess, you know, these numbers are here to kind of
get the idea that we're -- that we were a group of
people that were coming into the I-Corps program with
-- you know, I think with -- as a strong team that

was, that was, you know, fully knowledgeable about the, the, the ecosystem of the product of all that other into rested in, but we were really looking for how to take ourselves to the next level.

And we did to schools and the I-Corps program in securing a phase two SBIR; very excited about our progress so far, and we feel like this I-Corps program was, was something that was really value will bowl for us in developing the business aspects of, of Viewpoint Molecular Targeting.

So if I had some goals for, you know, what I, what I'm hoping to help you to make some decisions about, I'm guessing that you're here because you're int-, you're interested in finding out a little bit more about what is I-Corps. But I'd like you to think a little bit along those lines to about, you know, who are you as a company, and as a team of, of people that are interested in the I-Corps program. And, you know, and hopefully what we're talking about is going to help you to be able to answer, you know, questions like is, is I-Corps the right thing for us right now, and, you know, are we in the right place, as a company, to participate and, you know, and really

drive and leverage further successes and advance our company in a big way by participating.

Couple things about I-Corps. You know, from our perspective, this is in intentra-, intensive entrepreneurship program, and, you know, there's lots of entrepreneurial boot camps going on around the company right now. Just Google that entrepreneur boot camp, and, you know, you'll come up with hundreds of thousands of, of, of hits on your search. The big thing here is that this is a -- an intensive program that emphasizes customer discovery as a me-, as a means to, you know, really focus your business and energize your business. And I would say maybe even more than that, but really to help you to define exactly what this startup phase of development is

What definitely one of the things that I-Corps is not is, is I corpse. I just thought that I would print it out, because I've seen it pronounced several ways, and I thought that was something that should be pointed out.

So as I mentioned earlier, you know, you know, I'm, I'm, I'm here to try and help you to make some decisions based on our experience with the I-Corps.

You know, you know, who are we as a company? Why are we, you know, interested in what the I-Corps program could be?

And what I'm expecting is that your -- from my experience in I-Corps that it's likely that you're an academic entrepreneur. And I have some thoughts on that, that I can share, that I'll share in a couple of slides. But, you know, what I'm guessing, I'm betting that you have a great idea. You started a company around this. You've, you've probably gotten your phase one SBIR and you're interested in how you can increase your odds for getting a phase two SBIR. But more than that, you're really looking to try and take your company to the next level, and you're interested in trying to understand your own -- maybe this I-Corps program can help us to be able to do that.

That at the same time, you know, I think that it's important, as you're trying to make this decision about, you know, whether or not this is the right thing for you, to kind of think a little bit about what it means to be an academic entrepreneur. And, you know, my feeling on this is that, you know, the

term academic entrepreneur is actually an oxymoron.
And, and this first slide on this subject kind of
gives you sort of the flavor of why I think that's
true and how you may need to begin to start
rethinking -- redefining yourself in a different way.

The -- you know, academics is really, you know,
related to education and scholarship. It's about
papers and grants and teaching, and that's not
necessarily something that is of real practical
relevance. It is -- it's really a theoretical kind
of thing, and I, and I love this part of what I do.

But as you move into and start to -- you know, as
your business starts to expand and you start to learn
more about what ha-, what the differences are between
the way you thought before and the way that you're
gonna need to think, which is, you know, some of the
process that you go through in the I-Corps program is
gonna help you to see that, you know,
entrepreneurship is different. You know, the big,
the big word in the middle of the slide there is
risk, right? So this is -- so entrepreneurship is
all about, you know, setting up a business and taking
financial risks in hope of profit.

And the, the terminology acano-, adna-, academic
entrepreneur, in that sense, is really kind of an
oxymoron, but at the same time, I think that as you
consider this idea of participating in I-Corps
program, you're gonna start -- you're gonna -- when
you go through the program, you're gonna, you're
gonna start to think differently about what your --
what, what are the right things that need to get
done.

It's not so much about the technology. It's about
really learning more about, you know, what the
customer really needs and, and thinking about the
development your -- of your company around what the
customer tells you. So the other thing that, as you
go through this, this process of learning more about
how to take your company to the next level bo-, by
going through this intensive customer discovery
process, is you'll begin to develop a sense for the
changes in your perspective that are necessary for
you to be successful in, in transitioning through
this technology continuum, to provide that real
return on investment dollars for the academic
discovered that was done early on in -- you know, in

that phase of development when you were purely an
academic.

   And so at this point in time, I think that you're
probably somewhere along that continuum where you see
the star on the top of that page. And -- but now
you're gonna start to think about things a little bit
different as you head towards your phase two and
equity investments for your, for your product. And,
and you know, at the early stages, I can say for
myself personally and for other economic
entrepreneurs that I've, that I've -- you know, that
I've met along the way, there's -- you know, there's
a, a -- there's a little bit of hesitancy about
moving towards that purely commercial -- through the
-- through this continuum to that purely coner-,
commercial stage of development.

   You know, we, we really see ourselves more on the
far left-hand side of the curve or, or this
continuum, but the reality is, is you're gonna have
to be all in to develop this -- towards this pearly -
- purely commercial stage of development, and that's
something that you really need to reflect on as you

think -- try to make decisions about whether or not this, this is the right thing for you.

And so why -- you know, Edwin did a -- Edmund did a great job at talking about, you know, the reasons why most startups fail, and these thoughts are things that came up in the early stages of the I-Corps program that we found really helped us to gel as a team to be what I think was, was really successful in taking the company to the next level.

And, you know, there were other things that Edwin brought up, you know, things about, you know, building a product that nobody really wants or a lack of focus. You know, and here are some other ideas, and, and the reality is, is that, you know, all of these things that we're talking about are reasons why they, you know, most startup companies fail. And, and, and from our perspective, I think building the right team of people for the stage of development that your company is at right now, turns out to be one of the most important things. And I think this is the area where the academic entrepreneur might find it difficult to find the right people to be able to do this.

You know, the first thing that you're gonna be
doing here is you're gonna be going out and you're
gonna be recruiting people that you know and respect
that have the right kind of experience that you
trust, and you're gonna ask them to make a big
commitment of their time to, to help you to be able
to take your company to the next level by going out
and talking to people in your business ecosystem to
develop a better understanding of, of, of what you
really are as a company and where you are.

And, and, and you're really gonna find out, you
know, is the product that we think we have targeted
to the right market place? You never find out
whether or not the product that you have actually can
be built into a -- you know, a, a, a company that can
be a real return on investment in that continuum.

And, you know, to take that a little bit further
than, you know, are we right for I-Corps? So, you
know, I guess, you know, my experience is that we
were fortunate that we, we actually took an extra
year to go to the -- to participate in the I-Corps
program, in order to align what I felt and what we
felt -- you know, the, the, the company to align our,

our availability to be able to participate to make
sure that people at the highest level of, of our
company had the time to participate.

And the other thing that, that, you know, that I
can add to that is by having people at the highest
level in your company out doing the customer
discovery, you have people that are there that have
knowledge and skills that allows them to be able to
continue to ask better and better questions as you go
through the program.

And the other side of that coin is those are gonna
pe-, be the people that are gonna be in the [cab
cable?] [00:37:38] that are, you know, in, in all
likelihood gonna be the most excited about it and
have the, the biggest chance to benefit from it. And
so those are the kinds of people that you really want
to -- you know, to try to put in place to participate
in , in the I-Corps program. And, and so that was
the Viewpoint experience on that.

So I mentioned that we were -- you know, we felt
like we had a strong team, and Christie and Edmund
mentioned the business model canvas. And this was
our initial business model canvas one. This was the

one that we filled out before we started the, the, the program. And there is will to things on this business model canvas that I can go into that we learned some paradigm shifting things about.

But I think mainly the -- you know, one of the things that Edmund brought up was that, you know, you know, building focus into your company was a -- is a critical, a critical mis-, or a lack the focus is a critical issue that causes companies to fail. And, and I'm, I'm just gonna point out here that we have for products that we went into the I-Corps program with.

Now, as it turns out, the -- this business model canvas worked out to be something that was completely revised over the eight weeks, and we feel like it was streamlined into something. And I'm gonna talk a little bit about, about that, but, but, you know, here's what we did. So this is what the I-Corps program is really all about, right? So during the eight weeks, after the kickoff meeting in Boston, we really realized that in order for us to be successful in, in using this program, you know, and leveraging this program for us to, you know, to, to transform

the company and to really put ourselves in a position
where we could make a strong statement about the
potential value of the company, we were gonna have to
get out of the building.

   And so we, we went literally to all, you know, the
major Medical Centers that, that have active programs
that are, that are focused on the kind of technology
that we might have, and we started asking those open-
ended questions. And, you know, is one else we did.
I would limit what you think that you can get done
over the period to the United States, and we continue
this process now, as part of what the company does on
a regular basis. We find opportunities to be able to
go out and, and, and find a high density of people
that are in our field that can help us to understand,
you know, is there another marketplace for us? What,
what, what's different about the marketplace in
Australia and, and, and the European Union and in
China.

   And each of these places, we found out things that
helped us to, to focus the company the right
direction for the potential for moving into those
marketplaces. And in some cases, we found that it

probably wasn't a good place first ago, and in other

places, we found that there was gonna be a, a -- that

there was an ecosystem there that our technology

would fit into the, into the, into the business

environment.

So we talked to experts at all of the places that

you see here on the screen, from the Mayo clinic to

companies in New York City, chief sciences officer

from the Melanoma Research Alliance, and so, you

know, as -- with this allows you to just take those

data and redefine your -- you know, your business

thesis and create a regulatory strategy for how

you're gonna introduce your product that's gonna be

able to place a real value on it, that's based on

data.

And I can tell you that the, the interviews that

we, that we conducted over time helped us to -- you

know, develop that place in the market that we were

gonna be able to be successful early on. It was

gonna keep the company moving towards that first line

therapy for metastatic melanoma patients that we,

that we wanted. And, and I can -- you know, I can

tell you that we anticipated in our early -- just in

our early, in our early thoughts, you know, we --

this is what we thought earlier, that, you know, we

would be going up in competition against, you know,

all of the front line therapies.

   And what we really learned is that our initial

indication would be more like, you know, patients

that had recurred, and that if we could, if we could,

if we could provide a -- you know, six-month

improvement in survival in 20 percent of those

patients, that would be a, a really exciting thing.

And since that time, we've continued to go out and,

and refine that thesis, and we -- the number 16 there

is what we did during the I-Corps program of pure

medical oncologists. We're up to 34 now.

   And what are the reasons why we are focused on

medical oncologists, and you'll learn this as you

participate in the program, you would -- you know,

you really, you really work through the ecosystem.

So all of the people -- value chain to help you to

figure out who the real decision maker is. You know,

who are gonna be the people who are gonna be your

early evangelists and the people that are gonna want

to help you to, to move your product into the marketplace.

And, and so you're gonna really be able to define those people based on, based on personal interviews. And, and, you know, a final thought on that here; you know, after the initial weekend, we started out with four products. By the end of the, by the end of the first Monday of interviews, we were down to two. And finally, after 40 interviews, we realized that we really only had one product, and that was the thing that we were gonna take forward. And, and, and I think that -- and you can imagine, for a startup company, the kind of costs and, and, and approval kind of impact that that would have on a startup company, in helping us to be able to go to eq-, equity investors to make a case for why the company was a great investment.

So as I mentioned, you know, we're -- I feel like the I-Corps program was a, was a great thing for Viewpoint, and this slide kind of gives you a, a description of one of the other, one of the other things that you're gonna -- that you would -- that, that you'd leverage out of going through the program.

And, and we have a real clear understanding of what we are going to do and what it's gonna cost and what the timeline is for getting there.

And all of the values that you see on this screen are values that we really had an intense scrutiny of, with customer discoveries over the, over the -- o-, over the eight-week period. And you can imagine with the things that are in this, in this diagram, you know, that your -- you know, the team is, is an important part of this, and I would encourage you to consider bringing your top-level people into your I-Corps experience, to make sure that when you're evaluating these things when you're in the field asking questions, that you have a person who's knowledgeable on board, that's there to listen to the, the, the people that you're talking to in your ecosystem, so that they really are thinking through how this diagram's gonna be organized, you know, when you're finished with the program.

So a, a couple of slides on closing. So, you know, I, I think that it's pretty clear that I feel like we, we had a great experience, and this has really helped our company, but there's a few things that I

think that, that, you know -- things that I think

that I can help you, if you've decided or as you're

deciding.

  So if you're still deciding, you know, you know,

this is a time when there's lots of decisions to

make, and -- for your company. You know, where are

we gonna go? What's the direction that we're gonna

take? And I would, you know, just encourage you to

think about our program like I-Corps could really

help you to, to be able to make the right decisions

and understand, you know, if you have in investable

product before you go too much further.

  And, and if you've really already made this

decision and you think that this is something that

you really want to do, there's a few things that I

would say I would do right now. And I think if you

were thinking about, you know, starting -- doing the

kickoff in April and making your application in

December, right now would be a time to start planning

the interviews, so that you can really maximize the

number of people that you can talk to and really

start thinking about who the best interviews are

gonna be, to help you to understand, you know, your

product and to decide whether or not you have an investable, an investable business.

The other thing; you know, start creating your team right now. Start the interview process. Start getting better at it, and then review that plan and, and, and start talking about your results every week. The other thing is, you know, really start clearing your calendar now. If you, if you -- you know, if you want to take the -- get the most out of this $50,000 that you have, you know, plan on using that to be able to get to, you know, not only get out of the building, but get -- you know, get out of the state. Get out of the city. Get to the people that can really help you to understand your company and what you have.

And then when you get to, to I-Corps, I was, you know, happy that I, that I wasn't interve-, interrupted during this presentation 'cause I'm sure there was a lot of questions that Edmund probably had. But be prepared to be interrupted. Be prepared to be really challenged about what you think, and be prepared to present data that comes from interviews that -- you know, that your customers told you what -

- you know, what your, what your business -- that, that validate the business thesis that you have.

   And remember during those interviews -- you know, and Christie brought this up. I think Edmund brought it up. You know, this is not about selling your product. You're really not pitching your company. You want these interviews to be some -- to be kind of open-ended. You know, you'll start with four products, and you'll wind up, you know, having only one because one of the products might be a product that can actually interfere with your biggest value proposition.

   So, so these are -- you know, this is about learning the ecosystem and finding about -- finding out about the ins and outs of how your product can make it into the clinical setting to help patients. And if you do the interviews right, you're gonna, you're gonna get the right information to help you to be able to make those calls.

   With that, that's the Viewpoint experience, and I would be -- I appreciate the opportunity to come and talk about is. I'm always happy to talk about

Viewpoint, and I would be happy to answer any
questions if there's time for that now.

Christie: Thank you, Michael. We really appreciate your
perspective there. You had a lot of really wonderful
things to, to bring up and highlight for, for folks
who are following us on the webinar.

So I do have a few questions here, and I will start
with, I will start with one to Michael. So there is
-- I liked your slide you had about, about grit
because, you know, this does take a lot of, this does
take a lot of grit to, to get through the eight
weeks. So one of the concerns that teams have is
about the time required for the program. So it's an
eight-week program. Can you give us a sense for why
it was valuable for your company, even with the time
you had to put into it? How much time do you
dedicate per week?

Michael: So that's, that's a great question, and, you
know, it's, it's interesting that you should ask
because right now, I'm feeling kind of jetlagged
because I just got back from a international meeting,
and I'm doing a webinar, and it kind of feels like I-
Corps déjà vu all over again. So it is a big

commitment. I think, you know, it's one of those

kinds of things where, you know, you were able -- I

was able to do other things during the week, but they

were generally things that I could you remotely.

   So I think if I had time to plan it all over again,

you know, I would be a little bit better prepared for

being able to -- being able to work remotely. And to

be able to work on things, you know, as and academic

entrepreneur, I'd be thinking about things like,

okay, I have a paper that, you know, when I'm not

doing interviews, I could work on.

   And, you know, I adapted and, and the team adapted

to that after the kickoff weekend. It was, it was at

the end of the kickoff weekend that we really

realized, you know, if we really want to get -- this

is a different kind of program than other things that

we have been involved in. So, so it's kind of a

fulltime commitment that you can do things while

you're working on it, but I would -- you know, I

would clear as much space for yourself to be able to

use that -- the dollars to get out there and do, you

know, face-to-face interviews, to get the best

information, when you're talking one on one with

someone in your ecosystem and you have developed some specific questions, you know, to help you learn more about what that person thinks about, you know, what the big challenges are in, you know, in their part of the value chain.

And so you just need to work to try and clear some space for yourself to be flexible to make sure that you can get at those interviews. And, you know, we all have -- at this phase of development, you know, I can certainly understand, and, and you will have coaches that are at the -- you know, that are there, that have been through the same kind of thing where, you know, they have other things going on, but they've got this startup company that they're trying to take to the next level.

You know, the big thing is to try and, you know, clear your decks to be flexible during that time so that you can make it to a, a really fantastic interview in Chicago that you lined up with, you know, some world expert on your topic, that can really help you in some part of the value chain.

Christie: Thank you, Michael. I'm gonna quickly answer a few more that came in. You must have exactly three

people on your team. That was a question that came
in, can you have more? We will not support more than
three attending the kickoff or the closing or the
webinar. So you do have that three people. Can you
support psychosocial technologies, behavioral
technologies -- yes, like iPad apps. Some of those
are accepted.

Prerequisites based on PA-18-314 do require a -- an
active phase one SBIR or STTR grant. We are trying
something out with contractors, but right now, let's
focus on phase one and you -- in order to apply
through the FOA, you have to have a grant active
between December 18th and, I think it's -- yeah,
June, the end of the course. And if you don't, talk
to your program director.

I have another couple of related questions. I'm
gonna address them to Edmund, and it's about the
industry expert person. What's the time expectation
for industry experts? How do you, how do you find
them? Mostly, it's about the time expectations for
industry experts.

I will speak from the NIH perspective and say that,
you know, all three team members are expected to be

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dedicated to the program. Each of the people on the team will, will leverage their skills in different ways, but absolutely the people who were industry experts should be, should be committed to the success of the team. So Edmund, do you want to add on to that?

Edmund: I'll, I'll first start by just kind of echoing what you said, and it goes back to one of my final points about the teams. The critical thing is to make sure everyone buys into the process. And people will often ask me what makes a good industry expert or a good mentor if they use that word, and I'll say first and foremost, somebody that wants to help, you know, that's gonna put in the time to help you. Clearly if they have relevant industry experience that's related to what you're doing, that can be helpful. It isn't always required.

I've seen some industry experts and mentors come from areas that are adjacent to the one you might be working on, and sometimes even outside of those areas, and they can be equally, if not more valuable. So in terms of the time commitment, we like to say whatever they're willing to put in.

Ideally I would like to see someone that can put in eight to ten hours at a minimum. I've taken teams through this process is a mentor several years ago -- actually, it's been more than that now -- and I would say I put in more time than that. So again, it's challenging, as one of the questions online pointed out, to find people with that amount of time, but we'd say eight to ten hours minimum.

If you have somebody that could be a really good candidate and only available for a few hours a week, then we might suggest you look to augment the team in and some other way and have them affiliated. That's my best answer because it's not a perfect, easy, simple answer, I should say, in most cases. Find somebody that'll help you. That's what I say.

Christie: Thank you, Edmund. Yeah, it is -- and it is true that this course is eight weeks long, so someone who can help you during this eight weeks and ideally beyond. And those eight weeks can also be a great trial period for you to figure out if the team chemistry is the sort of makeup you need to, to build a successful team.

There are a few questions here about eligibility
and timing for participation in I-Corps. I mentioned
that we will have two cohorts in 2018. At this time,
I can only really speak about the first one, which
will run April through June. If your timing doesn't
work out for one of the team members, I recommend you
stay, stay tuned for mid-, late December, to hear
about more opportunities that may be available.

If your, if your budget for your, your phase one is
not active through June, also reach out to your
program director. Things like a no-cost extension
may be appropriate, but that is something you
certainly would want to talk to your -- talk with --
over with your, your program director.

In the process of applying for phase one, when do
you apply for I-Corps? Teams come through the I-
Corps program at different stages of their phase one.
Some come in at the beginning. Some come in at the
end. Some come in during the middle, and depending
on when you do come in, you know, because it's eight
weeks sometimes like I mentioned a, a no-cost
extension may be appropriate for you.

I want to point out also that these slides will be
available afterwards for dissemination. Let's see.
What are the dates for the second cohort?
Unfortunately, I cannot really disclose at this time.
I want to point another one to Edmund. Is this
program mostly for startups or do small companies
that have been established for years have a chance in
finding value in I-Corps programs?

Edmund: Well, I'm glad you asked that, Christie, 'cause
this is one of the questions I definitely wanted to
address. And two things -- number one, I want people
to keep in mind that I-Corps is sort of the brand
name of the curriculum, but in I-Corps, we teach a
set of methodologies that are universally applicable,
from startups all the way through large companies
that are doing new product development.

And you have a great opportunity, to get additional
funding from NIH, to come into a program like this,
where you have access to six instructors. You have
access to fellow teams and mentors on those teams.
And I know in my startup, if someone had offered to
invest in me, to go out and test my marketable -- you
know, my business model, I would've jumped at it.

So that's a longwinded way of saying it's absolutely applicable to anybody in any phase that they're in, understanding that the emphasis might vary based on where you are in your trajectory. So I'll stop there.

Christie: Thank you. I know that we're coming to a close for our time it. I want to thank our panelists, both Michael and Edmund, for their, for their time and their perspectives and for their insights. I want to also thank everyone on the webinar. There are more questions that have come in than we were able to answer, but I will be addressing them, and we will be posting some of the answers to this online.

Everyone who is registered will receive information on how to download the slides, how to view the presentation, and how to review the Q&A that came in through today's event. So again, thank you all for your time today. I wish you all the best moving forward, and we're going to sign off. Thank you.

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