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Transcript of
Inovio Pharmaceuticals, Inc.
Second Quarter 2018 Financial Results Conference Call
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Participants

Benjamin Matone - Investor Relations
Joseph Kim - President and Chief Executive Officer
Peter Kies - Chief Financial Officer

Analysts

Chris Raymond – Piper Jaffray
Gregory Renza - RBC Capital Markets
Jason McCarthy – Maxim
Yi Chen - H.C. Wainwright

Presentation

Operator
Greetings and welcome to the Inovio Second Quarter 2018 Financial Results Conference Call. At this time, all participants are in a listen-only mode. A question-and-answer session will follow the formal presentation. [Operator instructions]. As a reminder, this conference is being recorded.

I would now like to turn the conference over to your host, Mr. Ben Matone. Thank you. You may begin.

Benjamin Matone - Investor Relations
Thank you. Good afternoon, everyone and thank you for joining us for the Inovio Pharmaceuticals 2018 second quarter corporate earnings conference call. This call is also being webcast live on our website, ir.inovio.com and a replay will be available as indicated in our press release.

During this call, we will be making forward looking statements that relate to our business which include our plans to develop our DNA immunotherapy platform in combination with our proprietary delivery devices, in addition to our capital resources, all of which involve certain assumptions, risks, and uncertainties and could cause actual results to differ materially from these statements.

These statements are based on the beliefs and expectations of management as of today. Our actual results may differ materially from our expectations. Investors should read carefully the risks and certainties described in today's press release as well as the risk factors included in our filings with the SEC. We assume no obligation to revise or update forward-looking statements, whether as a result of new information, future events, or otherwise.

Joining us from Inovio are Dr. J. Joseph Kim, President and CEO and Peter Kies, Chief Financial Officer.

I would now like to turn the call over to Inovio's President and CEO, Dr. Kim.

Joseph Kim - President and Chief Executive Officer

Thank you, Ben, and good afternoon everyone. As we highlighted in our press release, the second quarter included many important strategic accomplishments for Inovio. Today's results further showcase the value and versatility for the company's technology in both cancer immunotherapy and infectious disease.

In this call, I am going to go over four topics with you today. First, I'll discuss the positive Phase 3 clinical trial progress for our lead product VGX-3100 for cervical dysplasia. Second, I'll highlight the expansion of our anal dysplasia indication for this lead product VGX-3100, increasing the overall product value. Third, I'll provide an update on our immuno-oncology pipeline, and something I'm sure most of you being extremely excited about, I'll update you on our GBM Phase 1/2, INO-5401 study for which we dosed our first patient in July. And lastly, I'll update you on significant data and advancements in our infectious disease programs.

You've heard me state our goal for HPV treatment before. We want to own it from pre-cancers by ourselves to cancers with our partner MedImmune. HPV infection is the most frequent sexually transmitted disease and represents a significant commercial opportunity for VGX-3100 and MEDI0457. For our Phase 3 cervical dysplasia trial, I'm very pleased to report that enrollment remains on track for REVEAL 1. We have already opened 70 sites across 16 countries as of the end of June and we anticipate opening approximately 90 sites globally by the end of August.

As a reminder, REVEAL 1, which is the primary portion of our Phase 3 study for treating women with high grade cervical dysplasia, is scheduled to enroll 198 patients by very early part of next year. We will then immediately begin enrolling for REVEAL 2, the confirmatory study of the Phase 3 trial, where we will also enroll 198 patients. While REVEAL 1 and 2 have different start times, they will close at the same time. That's because REVEAL 1 has a study follow-up through week 88, while REVEAL 2 has follow-up through week 40. Taken together, we expect all data from both studies to be available in 2020.

Second point on today's call is that in our last quarter we opened our third indication in our goal to own HPV treatments. So we now have ongoing late stage trial for cervical dysplasia and mid stage trials for vulvar dysplasia and anal dysplasia, all caused by the HPV virus infection. Treating this broad range of indications is important because we are expanding the potential commercial value of our lead product VGX-3100. More specifically, we are very confident in VIN and AIN trials because of our cervical dysplasia Phase 2 data already showed clearance of cervical lesions and elimination of HPV virus. HPV virus clearance was something truly exciting and valuable as no other company has been able to demonstrate this previously.

We now look forward to demonstrating this efficacy again in Phase 3 trials for cervical dysplasia and bringing VGX-3100 to the market. Just to touch further on the new indication of anal dysplasia, this HPV-caused disease is the precursor to anal cancer which is estimated to cause more than 1,100 deaths in the United States in this year alone. Just like VIN, we expect to obtain orphan drug indications for AIN which would increase the overall value of VGX-3100.

Approximately half of men and women who have this disease also have HIV infection, so we have already initiated our compact 24-patient open label Phase 2 efficacy trial in HIV negative patients and have already dosed our first patients and the recruitment is rapidly ongoing.

Yesterday, we announced that we have partnered with NCI-funded AIDS Malignancy Consortium or AMC to evaluate VGX-3100 for the treatment of anal dysplasia in HIV positive patients. AMC will conduct and pay for the trial. The recruitment for this multi-site open label Phase 2 trial is already ongoing and will enroll approximately 75 patients.

I'll state here again that anal dysplasia represents a great commercial addition for VGX-3100, a game changing solution to a truly unmet medical need. We expect both of these anal dysplasia Phase 2 studies and our vulvar

Phase 2 trial to have early efficacy data available in 2019. With these efficacy data at hand, we plan to obtain orphan drug status for VGX-3100 for anal and vulvar conditions shortly thereafter.

Let me state again our overall goal here. Inovio will become the go-to immunotherapy solution provider for all major HPV related conditions and specifically pre-cancers caused by HPV, while working with our partner MedImmune for HPV-related cancers, thus covering both ends of the HPV disease field.

Moving to our immuno-oncology, I want to first speak about MEDI0457. As many of you are aware, MedImmune is evaluating MEDI0457 in combination with durvalumab as approved PD-L1 checkpoint inhibitor in patients with recurrent metastatic HPV-associated head and neck cancers in a clinical trial.

In terms of an early indicator of things to come, let's review the data that was presented at SITC last year. In a Phase 1 model therapy study of MEDI0457 in 22 HPV-positive patients with head and neck cancer, MEDI0457 generated robust antigen-specific CD8 killer T-cell responses in most treated patients. In particular of interest, one patient in that trial did develop a progressive disease at 11 months into the study and subsequently received a PD-1 checkpoint inhibitor. What's truly exciting is that one patient has sustained a complete response or cure or remission, in layman's language, after only four doses of a checkpoint inhibitor treatment and continues on anti PD-1 therapy with no evidence of cancer 24 months after the initiation of a PD-1 inhibitor and counting. While no one gets too excited by one patient data, even as impressive as this one, we must also remind ourselves that the anti PD-1 therapies alone have shown overall response rate of about 15%. So we expect to have additional efficacy data in the future from this Phase 1 patient group to shed an additional light into this data. And of course, we're all waiting for the Phase 2 data from the durva combination study MedImmune is currently conducting.

Furthermore, MedImmune is expanding the testing of 457 durva combination therapy to other cancers associated with HPV infection in a separate Phase 2 clinical study. MedImmune has recently posted on clinicaltrials.gov its plan to test this combination therapy in a separate open label Phase 2 study in patients with multiple recurrent metastatic HPV-associated cancers, including cervical, anal, penile, vulvar, and vaginal cancers. This trial, which has been sponsored and conducted by the MD Anderson Cancer Center, is very important. What does this mean for Inovio? Such expansion of cancer targets is great for Inovio since this will bring about additional milestone payments to us in the near future and a greater royalty payment once the product is on the market. While we would not be providing any updates from MEDI on the enrollment and potential milestones associated with the trial at this time, we do anticipate the trial to begin in the third quarter and we'll provide an update after the study has officially begun enrollment.

Shifting to our other immuno-oncology programs. We are very excited to have dosed our first patient as part of our Phase 1/2 trial in patients with newly diagnosed glioblastoma or GBM. This is an important step forward in Inovio's plan to use the T-cell generating therapies in combination with PD-L1 inhibitors for GBM and other multiple cancers to improve overall efficacy. In pre-clinical studies, combination of Inovio T-cell generating therapies along with checkpoint inhibitors have shown to strength tumors and improve overall survival of tumor bearing animals. In this GBM trial, our goal is to increase the overall survival of the patients facing a disease were neither a standard-of-care, nor clinical outcome have not changed in a clinically significant way in more than a decade.

This efficacy trial is designed to evaluate Inovio's INO-5401 T-cell activating immunotherapy in combination with Regeneron 2010, a PD-1 inhibitor developed by Regeneron pharmaceuticals. While the primary efficacy endpoint is overall survival, we will also measure PFS or progression free survival. If initial enrollment rate is any indication, we expect enrollment to go extremely well. We have six clinical sites already open and actively recruiting in the U.S. where we expect to open up to 25 sites. Overall, this open label trial will enroll 50 newly diagnosed GBM patients. This strong enrollment rates should move our anticipated interim readout, such as the six months PFS in this study, to 2019.

Moving now to the sister efficacy trial for INO-5401 in metastatic bladder cancer. This study is being run in combination with Genentech's PD-L1 inhibitor atezolizumab and is very close to dosing the first set of patients. We have posted the Phase 2 study design on clinicaltrials.gov and we plan to open roughly 25 sites in the U.S. and Spain. The primary endpoint of this Phase 2 study will be ORR, T-cell immune responses, and safety. The enrollment has begun and we should have interim efficacy Phase 2 readouts in 2019 as well.

While speaking about our immuno-oncology programs, I have a couple of updates in INO-5150, our prostate cancer product candidate. We presented a poster at ASCO this June, where we showed a clinically meaningful PSA stabilization post-dosing of INO-5150 in patients with no documented disease progression during the study. In particular, of the 61 patients, 77% demonstrated strong T-cell immune responses.

Looking ahead, additional analyses are underway to confirm the correlation between the immune responses and clinical benefit. Here I'm very happy to report that our prostate cancer study was recently accepted for presentation at a major oncology conference in the fall.

We have been very successful in the past attracting valuable partnerships and collaborators with big pharma and biotech company and we remain in active outreach and discussions with a wide range of companies looking for combination therapy agreements, or licensing opportunities with our pipeline for R&D products, especially for INO-5150 and INO-1800, both of which successfully completed Phase 1 trials. Both of these products address two of the largest therapeutic markets out there. We already touched on the potential impact of INO-5150 and prostate cancer in our hepatitis B therapy INO-1800 for which recent Phase 1 result showed it led to a generation of T-cells that recognized key HBV antigens and reacted by making antiviral cytokines such as Interferon gamma, a protein believed to be linked to the clearance of HBV from the liver. We look forward to turning those active partnering discussions into valuable agreements in the future.

Finally as we previously reported, we are also in active collaboration with the Parker Institute to identify and begin the first set of cancer combinations trials that complements our checkpoint combination strategy before year-end. Stay tuned for more updates later this year.

Turning now quickly to our broad infectious disease platform. As you recall, early in the second quarter, we announced a $56 million partnership in funding with CEPI, under which Inovio will develop and CEPI will fully fund our vaccine candidates against Lassa fever and MERS through the end of Phase 2. The ultimate goal of these development plans is to successfully complete Phase 2 trials and create a stockpile of these vaccines for future pandemic countermeasures and bring additional early revenues from the stockpile.

I'm pleased to report that Inovio and CEPI are moving together with a sense of urgency on developing these products, for which there exists no vaccine, in both pre-clinical and clinical preparations, all with the goal to move into a later stage trials as rapidly as possible and we gain approval for emergency use.

Focusing specifically on our MERS vaccine, with CEPI and other external funding, we are already moving in a rising speed. We recently reported positive Phase 1 MERS vaccine results from our U.S. trial funded by the U.S. military. The results showed that the vaccine was well tolerated and about over 90% of treated patients achieved overall high levels of antibody responses and robust T-cell responses. The Samsung/IVI funded Phase 1/2 MERS vaccine study should also start in the third quarter in Korea. Leveraging the results from this study, we're working to advance our MERS vaccine into a field Phase 2 testing in the Middle East in 2019 with full CEPI funding.

Staying on our IV infectious disease theme, we're in the process of completing study visits for our 160-person Zika vaccine study in Puerto Rico and we're targeting a study completion and data report on this study in the fourth quarter.

There's also been a significant progress on our HIV vaccine PENNVAX-GP which is designed to generate both antibody and T-cell responses and cover multiple HIV strains globally. In May, long-term data was presented that showed this global vaccine in development maintained strong and durable memory immune responses at month 12 of the trial, a full six months after the after the last dose in a Phase 1 clinical study. This is a significant data further supporting our earlier finding that PENNVAX generated the highest level of T-cell and antibody immune responses rates ever demonstrated in a clinical study by an HIV vaccine. We expect to report more HIV vaccine data and trial initiations before the year-end.

Overall we expect to publish several papers in 2018 from our Phase 1 data from our Ebola, HIV and MERS vaccine studies. In all of these studies we have consistently demonstrated over 90% of immune response rates across the trials while maintaining a favorable safety profile.

I'm going to stop here to turn it over to Peter Kies our CFO, who will discuss our second quarter financials. Peter?

Peter Kies - Chief Financial Officer
Thanks, Joseph, and good afternoon, everyone. Inovio reported total revenue of $24.4 million for the three months ended June 30, 2018, which compares to $20.4 million for the same period in 2017. Total operating expenses were $29.7 million compared to $30 million for the same period in 2017. Inovio's net loss for the quarter ended June 30, 2018 was $6.6 million or $0.07 per share basic and $0.08 per share dilutive, compared to $9.5 million or $0.13 per share basic and dilutive for the quarter ended June 30, 2017.

Cash and cash equivalents and short-term investments were $95.6 million compared to $112.8 million as of March 31, 2018. With $95.6 million in reported cash and, as we have previously stated, our annual net burn at approximately $70 million, we currently estimate to have more than a year of cash runway on hand.

In addition, we continue to have attractive partnering discussions for corporate activities and with a very strong track record of obtaining non-dilutive funding which we have raised over $150 million in non-dilutive funding in the last year eight years. With all this, we are considering all of the variables, we expect to maintain a strong financial foot hold to fund our development.

While the following material can be found in our latest press release and 10-Q, I want to emphasize in keeping with the changing accounting regulations, all contributions received from current grant agreements in 2018 have been recorded as a contra expense as opposed to revenue on the consolidated statement of operations. For example, for the three months ended June 30, 2018, $1.9 million was recorded as a contra research and development expense which would have been classified as grant revenue in the prior years. Had this change in presentation not occurred, total revenue would have been $26.3 million for the three months ended June 30, 2018 compared to $20.4 million for the same period in 2017. Total operating expenses would have been $31.6 million compared to $30 million for the same prior period.

Additionally, the increase in comparable revenue recognized for the second quarter in 2018 compared to 2017 was primarily due to the recognition of the gross upfront payment from ApolloBio of $23 million during the period. Please note that in the first quarter of 2018, we did not recognize the revenue from Apollo, but it was recorded in our cash.

This quarter, we are able to recognize the ApolloBio gross upfront payment in our reported revenue. As it relates to ApolloBio, our kickoff meeting occurred in the second quarter of 2018 where we began to implement our strategic plan in order to move aggressively in accessing the Chinese market for VGX-3100.

With that I'll turn it back to you, Joseph.

Joseph Kim - President and Chief Executive Officer
Thanks, Peter. We have about five months to go before the end of 2018 and during those next 150 days before we get to 2019, you can expect thus to hit on several important value drivers such as new additional data from our prostate and head and neck cancer trials, new cancer trial initiations, and additional significant non-dilutive funding, and new milestone payments from our current partners. We also hope to share with you information our new collaborations or licensing activities.

Looking past the next 150 days, 2019 will mark a new phase of Inovio's development, a giant step forward. That's because next year we will report on our first cancer combination efficacy results from head and neck, GBM and bladder studies. We remain quite bullish for these study data to come for which I hold great optimism, credible optimism based on our previous clinical data.

We couple the true emergence of Inovio as a cancer company in 2019 with equally important advances in our HPV and infectious disease franchises. We will also have Phase 2 efficacy data from our vulvar and anal dysplasia studies and will be steps closer to our Phase 3 cervical dysplasia data. We look forward to rewarding our shareholders for their support while offering new hopes to patients with immunotherapies that go beyond current treatments.

Thank you very much. Operator, please open the line for questions.

Operator
Thank you. At this time, we will be conducting a question-and-answer session. [Operator instructions]. Our first question is from Chris Raymond with Piper Jaffray. Please proceed with your question.

Q: Hi, this is Alli Bratzel on for Chris today. Thanks for taking the question. So actually a couple questions, I think last quarter you talked about the ApolloBio agreement opening the door for site activation for REVEAL 1 in China. I guess, when do we expect to see site activations there and do you need those to hit your 100 site target or would site activation and enrollment there would be upside?

And then just circling back to the VGX-3100 news from yesterday with the AIDS Malignancy Consortium, you touched on this little bit on the call, but could you maybe talk about the unmet need there in that indication and particularly the HIV positive population and how this trial would fit into a regulatory or commercial strategy, and just kind of what a pivotal trial or data package is going to look like there? Thanks.

Joseph Kim - President and Chief Executive Officer
Absolutely. Thank you, great question. So China is not currently part of our REVEAL 1 strategy, 100 sites does not include China. There is a potential to include China and their sites in REVEAL 2. So both companies are working to approach that as aggressively as possible.

Of course regulatory environment in China is evolving and we cannot count on that and we don't actually count on that. Our current timing is based on not having China. Bringing China to REVEAL 2 will just increase the timeline or accelerate the timeline from the base case. So 2020 is a base case that we have without China. So everything is an upside for us, if we can execute the China strategy as we expect with ApolloBio.

The second part of the question, anal dysplasia is a huge unmet medical need. Current treatment option is surgery and has one of the highest modality issues. You can imagine it's a very painful and uncomfortable procedure. The recurrence rate for anal dysplasia is greater than 50% and many of these patients actually have to have surgery multiple times in the year.

So there's a huge unmet medical need. As we said, about half of the patients are also infected with HIV both men and women, and we're able to leverage our relationships and bring in a partner AMC to not just use their networks to conduct the trial, but also fund the trial as well.

So we have a small compact HIV negative trial in 24 patients that Inovio is conducting, and our partner AMC is conducting a 75-person trial both being Phase 2. Our goal is to get the efficacy readouts in 2019 and then approach the FDA for an accelerated potentially approval.

In this path, it's hard to project without any efficacy data yet, but if we were to bring about a similar level of efficacy in anal as we did in cervical, I think we will have a very great path to add this very important indication, orphan indication, to our arsenal targets for VGX-3100.

Q: Great. Thank you.

Joseph Kim - President and Chief Executive Officer
Thank you.

Operator
Our next question is from Gregory Renza with RBC Capital Markets. Please proceed with your question.

Q: Hey, Joseph and team. Thanks for taking my question. Congrats on the progress.

Joseph Kim - President and Chief Executive Officer
Thank you.

Q: I just wanted to touch a bit on the enrollment momentum. It appears that it looks like you're seeing a good push with respect to the trials as compared to the previous quarters. Just curious to see, number one, the mix involvement is still at a 50-50 mix with respect to U.S. and ex-U.S., and then also if there's anything that you can comment on that, perhaps you've done differently operationally that has helped with that and your guidance on the end of August is certainly helpful and just want to see if there's a chance of perhaps getting those 100 sites even earlier before year end. Thanks.

Joseph Kim - President and Chief Executive Officer
I think there's a potential to do that, obviously. And then we are—all enrollments, both site initiations and patient enrollments, is not a straight line as you know, it's more of a hockey stick or upward curve. It really depends. We have a very dedicated team internally working with our external global CRO to execute this study as rapidly as possible. We're very dedicated and committed to this.

We do think in terms of the U.S. versus ex-U.S., we have 15 other countries open both—I mean it's a strategic reason, one is to get the trials completed as rapidly as possible. The other is these are strategic markets that we expect to enroll approvals for VGX-3100 in the future. So I think with more ex-U.S. sites and countries open, we think the shift is going to be changing between—now we started with predominantly in U.S. in the beginning of the trial and then there is going to be a balancing out. We expect the ex-U.S. to be maybe 70% when we all said and done in terms of the sites and number of patients enrolled.

Q: Got it. That's very helpful. And then just on the AIN indication, I'm just curious if you could perhaps provide some color on maybe the juxtaposition of the trial design with respect to HIV positive and HIV negative trial that you are leading? Just curious if reading anything into the dosing schedule of the HIV positive versus HIV negative, if you have any color on that that would be helpful.

Joseph Kim - President and Chief Executive Officer
They're very much similar four doses. So we expect AIN to be more resilient disease to go after than perhaps VIN. So we have four doses at month zero, one and three and six. So in terms of HIV co-infection in other diseases and other treatments, HIV infection puts up additional barrier, but I'll say this is with caveat because mostly these are HIV-infected volunteers for the study are pretty well controlling their HIV infection. So the true immune effects from their HIV plus status is not—I don't think is as important as it was probably five, ten years ago. But I think that's actually why we are testing both in the HIV positive and HIV negative populations.

Q: Got it, thanks again and congrats on the progress.

Joseph Kim - President and Chief Executive Officer
Thank you.

Operator
Our next question comes from Jason McCarthy with Maxim Group. Please proceed with your question.

Q: Hi, this is actually Naureen Quibria calling in for Jason McCarthy. Thanks for the taking the question. So we've been doing a little bit of reading in the IO space and we came across the fact that the FDA recently changed its guidelines on the approved checkpoints Keytruda and Tecentriq for bladder cancer and we were just wondering, the essentially PD-L1 expression has low expression as associated with poor survival. So can you elaborate on how Inovio views this new guidance and how it may actually impact your trial in bladder cancer or any other solid tumors?

Joseph Kim - President and Chief Executive Officer
Yes, so short answer is, it shouldn't impact our study, but obviously as you know, our first core which is a larger of our total of 80 that we're recruiting, 60 patients were going after previously checkpoint refractory populations, so these folks have already failed, so they're going to be likely in that population group.

So what we're trying to tease out is improvement in overall efficacy. So presumably anything above background would get us excited. Of course, higher the ORR with the combination with INO-5401 and Atezo obviously will get us even more excited. Second core is Cisplatin ineligible patients, chemo ineligible patients and that population we will keep our eye on the PD-L1 expression levels.

Q: Great. And I just have a follow-up question. So you mentioned previously about biomarker data, signatures associated with predicting success of VGX-3100. And I was wondering in your new trials in anal dysplasia, are you actually from collecting biomarker data there?

Joseph Kim - President and Chief Executive Officer
Yes, we are.

Q: Okay.

Joseph Kim - President and Chief Executive Officer
So we expect each of the diseases, because they're in different organ tracts, even though they're all caused by HPV infection, are likely to have differential biomarkers that could be informative. So right now our big push is in

using our Phase 2 data and predicting in Phase 3 trials, the power of our biomarker predictability. So that's ongoing for cervical dysplasia Phase 3 trial. For VIN and anal Phase 2 study, of course we're studying and exploring identifying the proper biomarkers for those two indications.

Q: Great. Thanks for taking the question.

Joseph Kim - President and Chief Executive Officer
No problem. Thank you.

Operator
Our next question comes from Yi Chen with H.C. Wainwright. Please proceed with the question.

Q: Hi guys. Thanks very much for taking our questions. Just a couple of quick items regarding the clinical trial progression, can you just confirm the timing of the start of enrollment in the REVEAL 2 study please?

Joseph Kim - President and Chief Executive Officer
Yes. So it's literally once we enroll our 198 patients in REVEAL 1, we're going to close down the chapter and then flip the switch for REVEAL 2. Of course, it's not going to be immediately, but in matter of days. So we will likely not—what we're working towards is utilizing the same sites. There are productive enrollers from REVEAL 1 because we will have a lot more information—not all sites are equal and that we will immediately utilize those sites to enroll REVEAL 2 patients.

And as you know, I mean in these enrollments, half of your enrollments are done in the final quarter for the time and vice versa. So having our ability to just flip REVEAL 1 into REVEAL 2, really is going to enhance overall enroll ability and the rate for REVEAL 2. So we're very bullish on our enrollment, both for finishing out REVEAL 1 and also starting on REVEAL 2 subsequently.

Q: Okay. And then with respect to the Zika vaccine study in Puerto Rico, is that still on track to report data by the end of this year?

Joseph Kim - President and Chief Executive Officer
Yes. So we're finishing out the last visits. Now just to remind everyone, it's 160 person study, 80 people have been vaccinated with our Zika vaccine, 80 with placebo in a double-blinded fashion, we were able to those dose them all prior to their hurricane problem with the island and then we've been able to follow-up on all those patients. All the data are getting tabulated and we hope to have the data by before the end of the year in the fourth quarter.

Q: Okay. And then just one mechanistic or I should say treatment continuum question with respect to 5150 and prostate cancer. Can you comment at this point, given that you now have more longer-term immunological data on this candidate in that specific context, what you think might be the preferred line of deployment and/or concomitant medications that you think would be most likely to potentiate its effect? Thank you.

Joseph Kim - President and Chief Executive Officer
Yes. Great question. So we know we can generate T-cell responses, CD8 T-cell, CD4 T-cells to both PSA and PSMA as our antigenic targets in these patients. So in a later metastatic setting, I would say we want to deploy with different checkpoint inhibitors or other immunomodulators that can impact tumor microenvironment. Could be CTLA4, it could be PD-1, it could be other novel immunomodulators, because one thing we know for sure, immuno-oncology, there are a lot of different markers and different expressions that could impact, but you need to CD8 T-cells. Without CD8 T-cells, you just waving your hands. So if you have CD8 T-cell in these patients that can recognize the cancer, you can combine that with different immunomodulators, shutdown the defense

mechanisms and let the CD8 T-cells go at it. And I think the best approach in deploying 5150 is in combination with these various immune modulators and checkpoints in a more metastatic setting.

Q: Great. Thank you very much.

Joseph Kim - President and Chief Executive Officer
Thank you.

Operator
Ladies and gentlemen, we have reached the end of the question-and-answer session. At this time, I'd like to turn the call back to Dr. J. Joseph Kim for closing comments.

Joseph Kim - President and Chief Executive Officer
Thank you, operator, and thank you all the analysts for your attention and your questions. We look forward to providing more updates and our accomplishments in multiple ongoing studies with you during our next earnings call in November. Have a great evening. Thank you.