Event Name: INO - Inovio Pharmaceuticals Corporate Update Event Date: Wednesday, July 17, 2019, 8:00 AM Eastern Time

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Presentation

Operator: Good morning, and welcome to the Inovio Pharmaceuticals Corporate Update Conference Call.

(Operator Instructions)

Please note today's event is being recorded.

At this time, I would like to turn the conference over to Ben Matone, Director of Investor Relations. Please begin.

Ben Matone: Thank you, operator. Yesterday afternoon, we issued a press release which provided an update on the company's corporate strategy. The press release and recording of today's call can be found under the Investor and Events section on our website, ir.inovio.com.

With us this morning from Inovio are the company's President and CEO, Dr. J. Joseph Kim, and our Chief Financial Officer, Peter Kies.

During our discussion, we will be making forward-looking statements, and actual results may differ materially from such statements. The descriptions of the risks and uncertainties associated with investments in Inovio are defined in the press release and included in the company's SEC filing.

I would now like to turn the call over to our President and CEO, Dr. J. Joseph Kim.

J. Joseph Kim: Thank you, Ben, and good morning, everyone. Yesterday we announced our sharpened corporate strategy to focus on the commercial development of our later-stage HPV assets while reallocating capital to develop fast-to-market product candidates. Specifically, the

company has cut selected early-stage R&D programs and discontinued further development of its Phase 1/2 study in advanced bladder cancer. This has led to a reduction of our annual burn rate by 25%.

Overall, our realignment enables Inovio to focus on two main areas: first, our later-stage HPV immunotherapy; and second, accelerating product candidates which hold the potential for an expedited time to market. Collectively, these key areas of therapeutic focus will provide the best opportunity to capture long-term value for our shareholders and new therapeutic options for patients and providers.

Before I cover the areas where we have decided to cut and downsize, there are three HPV areas that I want to speak to, and on how our latest realignment positions us for growth.

First, we're continuing our focus on commercializing our lead asset, VGX-3100, to treat high-grade cervical dysplasia caused by HPV. As we announced this spring, we recently completed enrollment of our pivotal Phase 3 registrational trial, called REVEAL 1, and are now focused on enrolling REVEAL 2.

Second, Inovio is redeploying resources to rapidly advance INO-3107 to treat RRP, or recurrent respiratory papillomatosis. RRP is a rare, orphan disease caused by HPV 6 and 11 infections, for which Inovio recently demonstrated clinical efficacy in a pilot study. Take note: Inovio plans to initiate the next clinical trial of INO-3107 within 12 months.

I'll take a moment to lay out why targeting RRP represents a win for patients and for Inovio. The current standard of care for RRP is surgery. Left untreated, RRP obstructs air pathways and impairs vocal ability. In addition, noncancerous tumors always recur after surgical procedures to remove them. Moreover, RRP symptoms are often more severe in children than in adults, where in children the disorder is most often diagnosed between the ages of 2 to 4. Taking overall prevalence rates of roughly 20,000 in the U.S., and particularly the disease occurrence among pediatrics, we see a robust market opportunity for INO-3107. We look forward to sharing more on the trial design later this year, as we feel that INO-3107 for RRP is definitely a fast-to-market candidate.

The third HPV area I want to stress is Inovio's partnership with AstraZeneca. It remains a top priority to advance MEDI0457 in combination with AstraZeneca's checkpoint inhibitor in HPV-associated cancers, including the ongoing Phase 2 study for the treatment of head and neck cancer. AstraZeneca estimates completion of this study by next August.

Let me remind everyone that we continue to function as the core partner for the development and advancement of MEDI0457. AZ continues to lean on our device and DNA expertise, and we continue to communicate our developments associated with VGX-3100 with them in order to complement the continued efforts and developments for treating HPV-associated diseases, and in AZ's case, HPV-caused cancers.

Turning to our immuno-oncology combination program, Inovio will continue -- will focus its INO-5401 development efforts on treating GBM, or glioblastoma, while discontinuing its I-O

Phase 1/2 study in advanced bladder cancer. Although the bladder trial has yet to provide evaluable data -- and let me emphasize, no data from this trial at this point -- the decision to discontinue the trial was made because of the high expense of the trial and the recognition that several new therapeutic alternatives have been approved, such as Balversa, and although not yet approved, the data from enfortumab vedotin were very positive and the BLA was recently submitted. Looking at the present and future costs and the competition, we decided to discontinue the program early and focus elsewhere.

You'll also remember that when we entered into a clinical collaboration agreement with the Parker Institute for Cancer Immunotherapy last year, we indicated that we would potentially target muscle invasive bladder cancer with INO-5401. We still continue to work with the Parker Institute on developing a novel cancer combination therapeutic study. However, the cancer target will no longer be bladder. Parker maintains full control of designing and fully funding the trial, and our expectation is to share the intended target and clinical plan with you later this year.

As it pertains to INO-5401, our immunotherapy cancer combination strategy, we remain committed to INO-5401 and the development progress in GBM. We completed enrollment of GBM study three months ahead of schedule earlier this year, clearly indicating unmet medical need and market potential. I can share with you that we continue to expect interim progression-free survival and safety data for GBM before year-end, and overall survival data in 2020. If positive clinical benefits are observed at these time points, INO-5401 for GBM treatment could represent another fast-to-market candidate.

I must add that as part of our sharpened focus, we eliminated selected early-stage R&D programs. Our R&D refocus is all about leveraging recent advances in our potentially transformative dBTE and dMAb technologies, making us leaner within our innovative R&D and ensuring that we allocate capital and resources toward our most promising earlier-stage programs, which must also complement our technology's core competency and business strategy.

On the financial side of things, all together, given our latest reported cash of \$128 million last quarter, combined with the anticipated expense reduction of 25%, we're showing you a strong balance sheet and hold the current financial resources to fund our operation comfortably into 2021. In addition, we still anticipate to receive incoming grants and funding support from our important partner-funded programs, which are unaffected by the realignment. These partners include AstraZeneca, CEPI, the Bill & Melinda Gates Foundation and the MCDC. We will provide further financial details from this realignment when we announce our second quarter financial results in August.

In closing, Inovio has sharpened its focus to create a more efficient organization with greater financial flexibility and a longer runway. With a refined strategy, Inovio will continue to advance our later-stage HPV programs while devoting more resources to develop fast-to-market product candidates such as GBM, RRP and dBTE. We continue to expect near-term value drivers in the second half of this year that include interim data from our Phase 2 VIN and AIN studies, as well as from our Phase 2 GBM study. We also anticipate the potential for significant new partnerships as our technology continues to attract attention from U.S. and international markets.

I now look forward to your taking questions. Operator, please open the lines for Q&A.

Questions & Answers

Operator: (Operator Instructions)

Today's first question comes from Charles Duncan of Cantor Fitzgerald.

Charles Duncan: Increased focus, we like it. So a couple of quick questions, and then I wanted to ask you about the VGX-3100 program. But first of all, with regard to the RRP program, you mentioned that as being a fast-to-market study, or program, and I'm just wondering if you could lay out a little bit more detail on, say, the next clinical design, or at least the endpoints and timelines that you would anticipate.

J. Joseph Kim: Yes, Chas, we're very excited about the data that we see from the last pilot study of RRP. Just to remind everyone that we treated two patients with RRP who were receiving surgery to remove the noncancerous tumor about every six months. Each of those patients -- the first one at least did not receive surgery for almost three years and counting. Second patient, over 18 months. So we think this is a very exciting data for this orphan rare disease.

Later this year, we plan to meet with the FDA to get a concurrence of our study design. We are hoping that because this is an orphan disease, the next trial will be a registrational trial, but we can only confirm that after we concur with the FDA. We expect the trial design and trial size to be relatively small due to this being a rare disease.

So that's why we're very excited about this program, because of the medical impact we saw in our pilot study, number one. Number two, the potential quick-to-market of the next study, and number three, the potential market size opportunity for Inovio could be immense. So those are the reasons why we're excited. We'd like to start the next trial within the next 12 months, if not earlier. Obviously we want to move this as rapidly as possible.

Charles Duncan: Okay, that makes sense, and it sounds like a delay in surgery would be clinically valuable and perhaps quite useful to the patient.

J. Joseph Kim: Absolutely. And as I mentioned, these patients see recurrence always, so it's a matter of, if we can delay the surgery for one or two or three years, obviously this is a huge benefit to the patients and the medical system as well.

Charles Duncan: And then just moving on to that AstraZeneca partnership and the ongoing head and neck cancer, I was a little bit confused. I think you mentioned that completion by next August -- would that be complete with data presentation or just completed in another way? Can you clarify?

J. Joseph Kim: Yes. As a partner of AstraZeneca, we can't really speak for AZ. Based on their publically listed date for completing, fully completing, the head and neck Phase 2 study, it's August. But I conjecture, I guess, that they would present data by next 2020's AACR or ASCO.

And that's just my guess at this point.

Charles Duncan: Okay, that makes sense. And then last question, regarding the VGX-3100 Phase 3s that are ongoing, can you just remind us how REVEAL 1 versus REVEAL 2 compares in terms of number of sites or the use of certain sites, and how is that enrollment going in REVEAL 2? I know REVEAL 1 is fully enrolled.

J. Joseph Kim: Yes. So thank you. Both studies are identical in design, enrolling 198 patients each. As you mentioned and I mentioned earlier, we completed the enrollment of REVEAL 1. We had started the initiation of REVEAL 2 before that. We have the benefit of leveraging the knowhow from REVEAL 1 enrollment into REVEAL 2, on which sites that we can target which have been good enrollers. So we plan to be a lot more efficient, using the previous knowledge from REVEAL 1 and applying to REVEAL 2. So we believe we can enroll REVEAL 2 much quicker using more targeted sites. We took more of a shotgun approach in REVEAL 1. We can be sharper in REVEAL 2. And this ties into our overall financial and corporate strategy that we outlined yesterday and today as well.

So we're very optimistic that we can more quickly enroll REVEAL 2, and obviously we're still on track for BLA filing in 2021, and we're very excited about this lead program.

Charles Duncan: Yes, as are we. Last question, if I could just throw one in, regarding the bladder cancer study that you stopped. I know that you haven't made any -- had any evaluable efficacy data, but have you -- can you talk about any safety observations, anything of note in that trial?

J. Joseph Kim: Now, so, our bladder 5401 study, as well as our GBM study, we have not noted any related, drug-related to 5401, safety concerns at all. Obviously, both of these cancer studies, patients are very ill, but we have not seen any remarkable safety concerns from either the bladder or GBM study.

Operator: The next question comes from Chris Raymond of Piper Jaffray.

Allison Bratzel: Hi, this is [Allie] Bratzel on for Chris this morning. Thanks for taking the question. So first, just looking at some of the recent delays and the timing of some events, with REVEAL 1 enrollment finally completing late last month, REVEAL 2 data guidance shifted from second half 2020 to first half '21, the longstanding guidance for three IL combo read-outs in second half '19 now whittled down to just one with the GBM data this year, and now MEDI0457 data pushed back to second half 2020 -- I know some of these read-outs and timing events are in your partners' hands, but can you just talk about your internal process to come up with timeline guidance? And maybe more specifically, describe your overall level of confidence and what gives you confidence in giving the new REVEAL 2 timing guidance? And I have a couple follow-ups after that.

J. Joseph Kim: Okay, so let me just clarify. MEDI0457 is solely in AstraZeneca's hands. So we're a passenger in that vehicle. And if it was under -- if we were driving the study, we would have presented the data already. So let me put it that way. AZ, being a big pharma, I think they

will be very conservative with the full data set. So when we expect -- and all of our guidances are given with that qualifier, that we don't have any say, really, in when they present the MEDI0457 Phase 2 head and neck cancer data.

That being said, all along we've said it could be later this year, but could be other cancer conferences. So our current estimate is probably AACR or ASCO in 2020. We are very optimistic about that and about the study, and we remain very excited about MEDI0457, as we've seen very interesting complete response data from Phase 1 results in combination with the checkpoint inhibitor. So that's a top priority program, partnered program, for Inovio with AstraZeneca.

With the bladder versus GBM, we decided to discontinue the bladder trial for everything that we already discussed earlier. So obviously we won't have any data for later this year. GBM, we remain on track. In fact, we believe we were a quarter earlier in enrollment. And what we will have is progression-free survival at Month 6 for all patients and potentially PFS-12 in about half the patients before the year-end. Obviously we will have overall survival at 12 months and 18 months in 2020, which is perhaps the most exciting efficacy read-out for that trial. But 2019 read-out will give us some sense of how the trial is going as well.

REVEAL 1 and REVEAL 2 -- REVEAL 1, we just completed enrollment. REVEAL 2, we just started the enrollment. As I said, we're very optimistic. As we're very early in the recruiting process, we're able to leverage -- our team is able to leverage all the knowhow and experience from REVEAL 1 to apply to REVEAL 2. These are global studies, and obviously I would like to get this enrollment completed sooner than later, and we have full efforts, full-court press, at Inovio to make these things happen.

Allison Bratzel: Okay, thanks. And then maybe shifting gears a little bit to the restructuring. So it just looks like your prior fulltime employee count was just over 280, and now you'll be at about 200. So I guess, could you talk about what gives you confidence that you've right-sized the organization, and maybe talk about those -- where those cost savings are coming from, split between the early-stage R&D programs and the discontinuation of the bladder trial? And then also, could you clarify if we should think about any potential one-time charges in Q3 or Q4 '19, and just how to think about the spend trajectory going into second half '19 and 2020?

J. Joseph Kim: Right. So last part of the question first, the one-time charge is about \$2.3 million; that was in our 8-K last night as well. In the third quarter, fully charged in the third quarter. Our savings, we expect, as inclusive of that one-time charge, is about 25% of our annualized burn for next 12 months.

In terms of the reduction, it really pains us to reduce our staff, but we made the tough choice. Our leadership team has made the tough choice in doing that. And those cuts came all over the organization. But in terms of the programs where those cuts came out of, predominantly from the early research programs in both viral and bacterial vaccine candidates, as well as the new cancer antigen vaccine programs, and as we mentioned, also from discontinuing our bladder Phase 1/2 study as well. So inclusive of that, we were able to reduce the headcount collectively by 80 people.

We still have a very strong team of 200-person strong from R&D to clinical to regulatory to manufacturing, and we're also devoting resources to get us commercial-ready for VGX-3100. So we feel very confident and strong that we have the right size team to take on the challenge ahead of us at this time.

Operator: The next question comes from Gregory Renza of RBC Capital.

Gregory Renza: I just wanted to touch on just some of the events over the last several months of 2019. You and the company did do a streamlining -- I believe it was in March -- with an R&D alignment, and I'm just curious to what extent that process informed this cost cut effort, in addition, of course, with the AZ realignment collaboration for the early programs last month as well? And I think related to that, you had the realignment appointment of a Medical Council. And I'm just curious, is that leadership still intact? Should we be thinking about Inovio still across that three-vertical approach of HPV, oncology and infectious disease? Thanks.

J. Joseph Kim: Yes, thank you, Greg. So last part, again, first. HPV, oncology and ID are still remaining intact. We have, within those areas, we have streamlined significantly. ID is fully devoted to partnered programs from CEPI and Gates Foundation and others. Oncology we already talked about in the later stages, but also bringing forward the new and exciting dBTE programs and HPV. We're streamlining for 3100 as well as our new RRP, INO-3107.

So I can confidently say that all of our realignments and streamlining is done to make sure that we have the right team and we have the right structure in place to fully capture the shareholder value ahead of us, both in our later-stage programs in HPV as well as the cancer and earlier high-value programs in RRP and dBTE. So we continually look at how we can streamline and do things better. And we're certainly not a huge organization, but we felt that we can do things more efficiently and more productively across the organization. And we think we have achieved that. Our leadership team, as well as our full-scale team, we are devoted in executing these trials and bringing out the data that we think will propel for the next level of catalysts, and so on.

So we think we have achieved that, and that started at the top, including our C-levels as well as our VPs, all the way down to our junior staff. We think we have the lean and mean team to really execute on our plan.

In terms of the Medical Council, we like how that is executing, and we have Medical Council still remaining, and we think that's been functioning very well over the last several months, and we expect that to continue going forward.

Gregory Renza: Got it, thank you. And then your mention of the potential for significant new partnerships in store, could you just perhaps provide a little more color on that? Is that on the device side or the therapeutic side [inaudible] how we would think about what we can expect, not just in terms of content but also timing? Thank you.

J. Joseph Kim: Yes, thanks, Greg. Yes, we have all pistons firing in our BD front, both starting from VGX-3100 -- we have interest from major players globally as well as regionally. As you

remember, we have a China-specific partnership on VGX-3100 that's going extremely well, and we're excited about -- we can also see other regional markets for VGX-3100. We also have potential partnering discussions for the rest of the world, including the U.S.

We also have interest in other programs. You could imagine significant interest in RRP and dBTEs. Certainly in RRP's case, we would love to retain this and capture the bulk of the upside of this, and we can think we can achieve that internally, but certainly dBTEs and dMAbs have been garnering lots of potential partnering interests.

And last but not least, our device development, our commercial devices, both for vaccine and immunotherapy, has also garnered a lot of interest from potential partners from here and abroad. So we can expect -- we hope to bring about multiple meaningful partnerships in the next several quarters.

Operator: Our next question comes from Ellen Sands of Stifel.

Ellen Sands: Hi, this is Ellen on for Steve Willey. Just one from me about RRP: I was wondering if you could give us a little more color around how you're viewing market potential here, considering it is a rare disease, and maybe talk about how that diagnosis process goes, if it's potentially underdiagnosed, and if you'd think about doing any type of diagnostic work there? Thanks.

J. Joseph Kim: Yes. RRP is a medically important disease. About 20,000 patients in the U.S.; obviously more globally. About 2,000 new cases every year. About half and half, maybe slightly more in pediatrics. So there's also a potential for a priority review voucher upside in this because of the pediatric part of this orphan disease.

In our pilot study, the patients received four doses of this product, and then we expect to have a semiannual boosting dose continually as they -- as maintenance dose. So we think with the higher-value product, as rare disease products are, we think INO-3107 has great potential as a medical breakthrough, first of all, but secondly, commercially also, a very attractive segment in the market for Inovio going forward.

Ellen Sands: Great, thanks. And do you think that there's potential that this is underdiagnosed, or do you think that it's pretty accurate?

J. Joseph Kim: Actually, we think this is underdiagnosed, and as we have been devoting a lot of effort into diagnostics in biomarkers for our VGX-3100 product, we think we can apply to other HPV-related diseases, and certainly RRP could be one. We think there's an opportunity to bring awareness to this segment as well, because if surgery is the only option, there's a lot of reticence in trying to treat this until the patients can't handle it anymore. But as a noninvasive immunotherapy, we think we're able to provide significant medical benefit to these patients in a very well tolerated and noninvasive manner. So this certainly will be a great medical breakthrough, as I said, but a potential market breakthrough for Inovio as well.

Operator: The next question comes from Joel Beatty of Citi.

Joel Beatty: The first one is on bladder cancer. It looks like that trial initiated around October of 2017. I'm curious if you're able to have any clinical data that was able to help inform the decision, or if you're able to share anything about the number of patients enrolled in the trial and if there'll be any potential to share data from that trial in the future?

J. Joseph Kim: Yes, Joel, I just wanted to say, we started enrolling for that study in the summer of last year, so around the same time as the GBM. And we actually saw GBM and bladder as the twin sister studies. Per-patient cost for bladder was significantly higher, and we felt that the enrollment rates were great indicators of the competitiveness of this product in the medical field. Obviously the clinical trials are very competitive, especially in cancer, and we felt that seeing our GBM trial enrolling in a breathtaking pace, even to our expectation, even beating our very high expectations in the enrollment rate, really spoke to us in terms of the market need as well as the medical need. Bladder, as we mentioned, has been very competitive, even from our study inception design, but also about the last 12 months of enrollment, it was lagging. And it really wasn't because our teams weren't trying. We put a lot of effort and funds into this. But because of the new products that were coming out, we felt that it wasn't wise for us to devote our resources to this area. And it really pained us to make this decision, but we felt this was the best decision for the company.

We will still follow the safety of the patients who had enrolled early and we will track them, obviously, but we think the competitiveness and the costs were really the major driver for this decision.

In the flipside, GBM remains a very high priority for us. It's a dire disease. The bar for showing efficacy, obviously, is high, because it's been a tough cancer to treat, but we think with our INO-5401 plus Regeneron's PD-1, cemiplimab, combination, we think we have a very good shot at making a dent in this very tough-to-crack cancer. And we look forward to sharing the progression-free survival data later this year, and certainly the overall survival data in 2020.

Joel Beatty: Perfect. And then maybe one other question on the dBTE program. Could you just discuss the next steps there?

J. Joseph Kim: Yes. So dBTE is extremely exciting for us. We haven't seen this level of cancer-killing activity at the preclinical stage with -- really, from anything in the field. And as our pharmacokinetics profile is superior to what's out there and what's being developed for bispecific T-cell-engaging space, we think this is internally a fast-track product for us.

The next steps are preparing and meeting with the FDA on how -- getting the guidance on how best to bring this product forward, and we have done our internal down-selection of the lead candidate for our dBTE. All of this information will be shared with the market later this year and we look forward to bringing this either by ourselves or with a potential partner in the future.

Operator: The next question comes from Yi Chen of H.C. Wainwright.

Yi Chen: Could you elaborate on which early-stage R&D programs have been terminated? And

is the companion diagnostic program for VGX-3100 still active? Thank you.

J. Joseph Kim: Hi, Yi. Yes, the second part first. Our companion -- our diagnostic biomarker program, our partnership with QIAGEN is strong and active, and that's a main part of our thrust, part of our commercialization efforts, along with our Phase 3 trial for VGX-3100. So that remains a high priority for us.

In terms of which ones, as I mentioned, these are earlier-stage viral and bacterial vaccine candidates, as well as some novel cancer antigen vaccines earlier in development. We are still very much devoted to infectious disease, in particular with our partner-funded program for a MERS and Lassa vaccine, both in Phase 1 and Phase 2 trials -- 1/2 for MERS and Phase 1 in Lassa. We expect the Phase 2 field trials to be undertaken in 2020, funded with CEPI funding. So these are very active and going very well.

We were, just to remind everyone, we were the first company -- first one in the world to bring a MERS vaccine into clinical testing, with very strong results. We expect the first publication to come out later this year. We also announced in May the dosing of our first patient for our Lassa vaccine -- again, the first in the world.

In terms of our overall R&D efforts, we are aiming to only develop products where we can be either first in class or best in class, and these are emanating everywhere in all of our HPV programs, our oncology programs and our vaccine programs, and those are the level of high standards that we will carry at Inovio in terms of our R&D.

Operator: Our next question comes from Jason McCarthy of Maxim Group.

Naureen Quibria: Hi, Joseph. Actually, this is Naureen on for Jason. I have a few questions --morning. So perhaps I missed it, but you spoke of runway; how long is Inovio's runway now, now that you've streamlined and decreased by 25% your spending?

J. Joseph Kim: Yes, we'll provide more detailed information in our August call in a couple weeks, but as I mentioned in my comments, comfortably into 2021. We have reduced our overall burn rate by 25% while inserting the spend of RRP development. So we think we have done our financial cutting and controls extremely well and diligently, and we feel we have the resources to execute on our core programs that we outlined in our release yesterday and in the call this morning.

Naureen Quibria: Great. And speaking of RRP that you mentioned, will you enroll both adults and pediatric patients for the upcoming study? And will it only be a U.S. trial, or?

J. Joseph Kim: We would expect it to be a U.S.-based trial for the next study, and we are hopeful that we can enroll both adults and pediatric population in the next trial. But a lot more information -- those are our plans, and obviously we will share with you and the investor public once we have concurrence with the FDA later, but we're very -- we're moving this program in an expedited fashion, and we're very excited about this product and this program.

Naureen Quibria: Right. And actually, somebody mentioned this before, with regards to the bladder cancer trial -- will you ultimately share how many patients did enroll? And you said you're following the safety on those that did enroll; will you be sharing, in terms of that data, somewhere down the line? Or will that be just internally?

J. Joseph Kim: Yes -- well, we were devoting a lot of resources into our bladder trial, and we are devoted, also, committed, in making sure the patients who did enroll are tracked and are taken care of safely. But with regards to that, obviously our resources will be minimized in tracking, and we'll be devoting all of our oncology -- the rest of the oncology programs into our GBM and dBTE. And really, that's were our focus will be. And as I stated before, GBM remains very high in our priority, as well as the new information that we hope to share in our dBTE programs. You will see a lot more from this in the coming months.

Naureen Quibria: Great. And actually, my last one's on GBM, your GBM study. I was looking through the protocol, and it looks like you're stratifying based on MGMT methylation status, and -- but within the cohort for the MG unmethylated group, I believe, you have -- for both of them, you do have radiation and temozolomide treatment, but then for one of the cohorts you might be -- I believe it's unmethylated -- where you'll be adding -- potentially adding TMZ for up to six cycles. What was the rationale behind why you might be adding more? And what's warranted for those patients to be getting that treatment?

J. Joseph Kim: Yes. I don't recall the exact details of that, but certainly we consulted with the KOLs, as well as our coordinating PI, David Reardon, out of Dana-Farber, and getting the concurrence with the FDA. Obviously we want to make sure these patients were properly treated prior to getting onto our 5401 plus checkpoint inhibitor therapy. We would enroll 52 total patients. We are looking at both the status of the unmethylated versus methylated patients. And our hope is that we can positively impact both cohorts with our treatments, and we can follow up on those questions separately if you like.

Operator: Our next question comes from Jonathan Aschoff of National Securities.

Jonathan Aschoff: Hey, Joe, I wanted to kind of pin you down on the cash a little. My first quarter '19 note says that you have cash into 2021, inclusive of things like ATM usage, milestone receipts, warrant exercise. And so here you're kind of saying again, going from 288 down to 200, cash into 2021. And I'm trying to make sense of that. What are you including with that when it comes to these nondilutive and dilutive ways of acquiring cash?

J. Joseph Kim: Yes. So all of these projections are made with different assumptions, and that's why we wanted to provide that our cost savings overall is about 25%, which is extremely -- it's very significant. With 80-person cut and the reprioritization of our programs and cutting of our early R&D, we think we made significant strides into preserving and extending our runway. You can predict 25% of extension of the runway. We want to reserve a detailed discussion of this in our financial call in about two weeks. As you know, we're very fresh in making these cuts and adjustments.

Here are the facts: 25% cut in overall spend, 28% in staff and \$2.3 million in restructuring-

related, one-time hit on our financials, expense in the third quarter. So we look forward to providing more financial picture in our August call, which is about two weeks from now.

Jonathan Aschoff: Okay, but Joe, in just some broad strokes, wouldn't you intend on making up for a lot of those savings with increased and expedited costs for the RRP trial?

J. Joseph Kim: Well, no. The 25% overall cut is inclusive of what we anticipate our costs are in 2019 for RRP. So we have those things included in our anticipated expense, in our overall spend. So when we did our financial recasting, we included the additional cost of these new programs, as well as the reduction in the expense for others.

Jonathan Aschoff: And were all terminated early programs unpartnered, or do any of those terminations come with, now, no receipt of any likely milestones from them? They were all unpartnered?

J. Joseph Kim: Yes, all terminated early R&D programs have been unpartnered.

Jonathan Aschoff: Okay. And finally, you will not tell us how many have enrolled in your bladder cancer trial?

J. Joseph Kim: No.

Operator: This concludes our question-and-answer session. At this time, I would like to turn the conference back over to Joseph Kim, President and CEO, for any closing remarks.

J. Joseph Kim: Thank you very much. Thank you for your time. We look forward to providing our company's financials and guidance in our August earnings calls in a couple of weeks. Thank you for your interest and thank you for your time. Bye-bye.

Operator: The conference has now concluded. Thank you for attending today's presentation.