Company: **22ND CENTURY GROUP, INC.**

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Moderator: **John Brodfuehrer**

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Operator: Good day and welcome to the 22nd Century Second Quarter 2018 Business Update Conference Call. Today's conference is being recorded. At this time, I would like to turn the conference over Mr. Thomas James. Please go ahead.

Tom James: Thank you very much. I appreciate everyone bearing with us as I read the required Safe Harbor text.

The statements made on today's call that are not based on historical information are forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, but are not limited to, statements regarding our Company's business strategy, futures plans and objectives, and future results of operations or that may predict, forecast, indicate or imply future results, performance or achievements. The words estimate, project, intend, forecast, anticipate, plan, expect, believe, will, will likely, should, may or the negative of such words, or words of similar meanings, are intended to identify forward-looking statements.

These forward-looking statements are not guarantees of future performance and all such forward-looking statements involve risks and uncertainties, many of which are beyond our Company's ability to control. Actual results may differ materially from those expressed or implied by such forward-looking statements as a result of various factors, including but not limited to the risk factors disclosed in our Company's most recent Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission on March 7, 2018.

22nd Century does not undertake and it disclaims any obligation to update any forward-looking statements or to announce revisions to any of the forward-looking statements.

During this conference call, we will also disclose certain non-GAAP financial measures, including Adjusted EBITDA, which we define as earnings before interest, taxes, depreciation and amortization, as adjusted by 22nd Century for certain non-cash and non-operating expenses as described in our Company's earnings press release for the quarter end June 30, 2018, as publicly issued yesterday on August 7, 2018, and which is available on our Company's website.

And with that, I will turn it over to our Chief Financial Officer, John Brodfuehrer.

John Brodfuehrer: Thanks, Tom. Good afternoon everyone and thank you for participating in the 22nd Century second quarter 2018 business update call. For those of you that are participating in the call for the first time, my name, again, is John Brodfuehrer and I am the Chief Financial Officer of 22nd Century Group. Today's conference call will be one hour in duration and we will conclude at 5:00 pm Eastern Time. We will take questions at the end of the presentation as time permits. This afternoon I will provide you with a summary of the Company's financial results for the three and six months ended June 30, 2018.

I will first discuss the Company's net sales revenue from sales of products. As reported in our Form 10-Q as filed with the SEC yesterday and as stated in yesterday's press release, net sales revenue for the second quarter of 2018, in the amount of $6,915,000, was the highest quarterly amount for product sales in the Company's history. The net sales revenue for the second quarter of 2018 of approximately $6.91 million represents an increase of approximately $3.01 million, or 77.4%, over net sales of approximately $3.9 million for the second quarter of 2017.

The Company's net sales revenue for the six months ended June 30, 2018 of approximately $13.03 million represents an increase of approximately $6.9 million, or 112.6%, over net sales

revenues of approximately $6.13 million for the six months ended June 30, 2017. This increase in net sales revenue for both the second quarter of 2018 and the six months ended June 30, 2018 was primarily the result of continued additional net sales revenue generated from a contract to manufacture existing brands of filtered cigars that commenced back in mid-May of 2017.

I will next discuss the gross profit or loss on those products sales. While our factory was still not at production capacity during the six months ended June 30, 2018, we continued to make progress towards utilizing more capacity due to the contract to manufacture the existing brands of filtered cigars as just mentioned. As a result of this increased capacity utilization, we generated gross profit on net sales for both the second quarter of 2018 and the six months ended June 30, 2018.

During the second quarter of 2018, we generated gross profit on product sales of $162,000 as compared to a gross loss on product sales of $165,000 during the second quarter of 2017. This swing from a gross loss of $165,000 in the second quarter of 2017 to a gross profit of $162,000 in the second quarter of 2018 represents an improvement of $327,000, which is an improvement of nearly 200%.

During the six months ended June 30, 2018, we generated gross profit on product sales of $233,000 as compared to a gross loss on product sales of $439,000 during the six months ended June 30, 2017. This swing from a gross loss of $439,000 in the six months ended June 30, 2017, to a gross profit of $233,000 in the six months ended June 30, 2018 represents an improvement of $672,000, which is an improvement of approximately 150%.

I will next discuss our operating expenses. Our net cash operating expenses are up for both the second quarter of 2018 and for the six months ended June 30, 2018, as compared to the same periods in 2017. This increase was primarily due to increased expenses attributable to our Modified Risk Tobacco Product application with the FDA for our Brand A Very Low Nicotine

cigarettes. Our expenses relating to the MRTP application amounted to $2,725,000 and $4,021,000 for the three and six months ended June 30, 2018, respectively.

Our net cash operating expenses, that exclude non-cash equity-based compensation, amortization and depreciation, increased during the three months ended June 30, 2018 by $2,486,000, or 91%, from $2,732,000 for the three months ended June 30, 2017 to $5,218,000 for the three months ended June 30, 2018.

Our net cash operating expenses increased during the six months ended June 30, 2018 by $4,372,000, or 86.9%, from $5,030,000 for the six months ended June 30, 2017 to $9,402,000 for the six months ended June 30, 2018.

I will now move on to discuss our net loss. We experienced a net loss for both the three and six months ended June 30, 2018. We incurred a net loss of $6,739,000, or $0.05 per share, for the three months ended June 30, 2018, an increase in the net loss of $3,383,000, or 100.8%, from a net loss of $3,356,000 for the three months ended June 30, 2017.

This increase in the net loss was primarily attributable to the increase in net cash operating expenses of $2,486,000, as discussed above, an increase in equity-based compensation of $1,528,000, and an increase in depreciation and amortization expense of $71,000, that were partially offset by the improvement in gross profit of $327,000, and an increase in net other income of $375,000.

The increase in the equity-based compensation was mainly due to the recognition of equity-based compensation expense in the amount of approximately $1,227,000 related to stock options granted to our former Senior Vice President of Science and Regulatory Affairs that vested upon his unexpected death in April of 2018.

We incurred a net loss of $5,352,000, or $0.04 per share, for the six months ended June 30, 2018, a decrease in the net loss of $625,000, or 10.5%, from a net loss of $5,977,000 for the six months ended June 30, 2017. The decrease in the net loss was primarily attributable to the increase in net other income of $6,382,000 and an improvement in gross profit of $672,000, partially offset by an increase in net cash operating expenses of $4,372,000 as discussed above, an increase in equity-based compensation of $1,923,000, and an increase in depreciation and amortization expense of $134,000.

The net increase in other income of $6,382,000 was primarily the result of an unrealized gain recorded for our investment in Anandia Laboratories in Canada during the first quarter of 2018 in the amount of $6,147,000, which resulted from the adoption of a new accounting standard that became effective on January 1, 2018, and the increase in equity-based compensation that I addressed in my earlier comments.

I will next discuss our Adjusted EBITDA. Our Adjusted EBITDA, a non-GAAP financial metric previously defined by Tom James in his opening statement, for the three months ended June 30, 2018 was a negative $5,098,000, or ($0.04) per share, as compared to a negative $2,897,000, or ($0.03) per share, for the three months ended June 30, 2017, an increase in the negative Adjusted EBITDA of approximately $2,201,000, or an increase of 76%. This increase is primarily the result of the increase in our net cash operating expenses of $2,486,000 as discussed above, partially offset by an improvement in our gross profit on product sales of sales of $327,000.

Our Adjusted EBITDA for the six months ended June 30, 2018 was a negative $9,211,000, or ($0.07) per share, as compared to a negative $5,469,000, or ($0.06) per share, for the six months ended June 30, 2017, an increase in the negative Adjusted EBITDA of approximately $3,724,000, or 68.1%. This increase is primarily the result of the increase in our net cash operating expenses of $4,372,000 as discussed previously, and is partially offset by an improvement in our gross profit on product sales of $672,000.

Finally, I will discuss the Company's cash position at June 30, 2018. We continue to be in a strong cash position with a total of cash, cash equivalents and short-term investment securities totaling $53.5 million at June 30, 2018; an amount we believe will be adequate to cover normal monthly operating expenses of approximately $850,000 and meet all current obligations as they come due for a number of years. In addition, we expect to incur an estimated amount of approximately $7.5 million in additional expenses relating to or Modified Risk Tobacco Product application with the FDA over approximately the next six to nine months.

That concludes my remarks. Thank you for your time, consideration, and continued interest in 22nd Century. I will now turn the remainder of this conference call over to our President and CEO, Henry Sicignano, who will provide you with business review and update. Thank you very much.

Henry Sicignano: Thank you, John. Good afternoon and thank you again for joining us today. About a year ago, by announcing its ground-breaking plan to dramatically lower nicotine in cigarettes to non-addictive levels, the FDA explained to the world the importance of very low nicotine cigarettes. In recent months, Big Tobacco companies, public health officials, and regulatory leaders alike have recognized that 22nd Century's proprietary Very Low Nicotine tobacco and technology will likely shape the future of what all combustible cigarettes sold in the United States will look like.

As you know, the public comment period closed on July 16th for the FDA's Advanced Notice of Proposed Rulemaking, also known as the ANPRM, regarding the FDA's new rule for the dramatic reduction of nicotine in cigarettes. The public comments submitted by 22nd Century to the FDA's ANPRM described how the FDA's proposed rule is (1) supported by rigorous independent science, (2) urgently needed in the interest of public health and (3) exceedingly practical and feasible.

In our public comments to the FDA's ANPRM, 22nd Century cited the fact that we have produced and delivered tens of millions of our proprietary Spectrum® research cigarettes since the year 2011 for use in numerous completed and on-going independent clinical studies. The results of these clinical studies show that upon switching to 22nd Century's Very Low Nicotine Content cigarettes, smokers reduce their cigarette consumption, experience lessened withdrawal symptoms, and increase their attempts to quit smoking.

The results of these completed studies are not ambiguous. The findings are crystal clear. Very Low Nicotine Content cigarettes will save millions of American lives. Indeed, dozens of peer-reviewed and published studies provide a solid foundation for the FDA's proposed nicotine reduction mandate. Furthermore, 22nd Century's production and delivery of tens of millions of our proprietary Very Low Nicotine Content cigarettes for use in independent studies shows that the FDA's proposed rule is in fact immediately feasible.

To make Very Low Nicotine Content cigarettes a prompt reality for all smokers, 22nd Century's ANPRM response also announced that we are willing to license the use of our proprietary VLN™ technology and our proprietary VLN™ tobacco seeds to all interested companies. The availability of this licensing opportunity negates any argument by other tobacco companies that contend it is somehow not possible to comply with the planned FDA nicotine reduction mandate.

The other publicly filed comments to the FDA's ANPRM can roughly be divided into three primary groups: (1) scientists and public health advocates, (2) tobacco related parties, and (3) Big Tobacco companies.

First, the publicly filed responses from independent scientists and public health advocates overwhelmingly support the FDA's plan to limit nicotine in cigarettes to minimally or non-addictive levels. In fact, these scientists recommended that the FDA swiftly adopt and implement a specific nicotine content. For example:

The independent researchers Drs. Benowitz, Donny, Edwards, Hatsukami, and others co-authored a letter from the University of California - San Francisco that identified a “minimally addictive” nicotine content for cigarettes as "The amount of nicotine needed to make cigarettes minimally addictive appears to be 0.4 to 0.5 milligrams nicotine per gram of tobacco in the tobacco rod. This represents a reduction of nicotine content of 95% or more compared to currently available commercial cigarettes."

Other noted scientific researchers, Drs. Piper, Drobes, and Walker explain, "There is direct evidence that smoking Reduced Nicotine Cigarettes is associated with reduced dependence (both self-reported dependence and dependence related criteria, such as withdrawal and cravings) and ultimately, smoking abstinence."

The American College of Cardiology wrote, "Given the immense public health benefits predicted by the FDA, the ACC strongly supports the implementation of a nicotine product standard in cigarettes to a minimally addictive or non-addictive level…the FDA should move quickly to develop and issue a final regulation to maximize the number of lives saved."

And one last passage... The American Society for Addiction Medicine recommended a specific timeline: "We urge FDA to move forward with a proposed rule within six months after release of its ANPRM and a final rule six months after."

The second broad group of ANPRM commenters were from tobacco-related parties and industries, such as farmers and convenience store owners, for example. Their comments were mostly form-letters, including written solicitations by Big Tobacco companies soliciting respondents to reply to the FDA's ANPRM. These comments focus on the impact that a reduced nicotine standard might have on tobacco growing and tobacco sales. Of course, these commenters are concerned for their livelihoods. It is true that after the FDA requires all cigarettes

sold in the United States to contain only minimally or non-addictive levels of nicotine that sales of combustible tobacco cigarettes will necessarily fall.

However, the cost of the death, disease and healthcare problems caused by smoking combustible cigarettes is far greater than the value of decreased product sales of cigarettes. For example, more than 16 million Americans are living with a disease caused by smoking and more than 480,000 Americans die from smoking each year. Measured in cold, hard dollars, smoking-related illnesses in the United States cost more than $300 billion each year in direct healthcare and lost productivity costs. Every day that passes without the implementation of a new FDA rule on reduced nicotine sees thousands of young people smoke their first highly addictive cigarette; more than 2,000 underage youth and young adults, who are first occasional smokers, but then become daily smokers under the influence of conventional cigarettes with highly addictive levels of nicotine.

Or, as stated by FDA Commissioner Dr. Scott Gottlieb and FDA Center for Tobacco Products Director Mitch Zeller: "Evidence shows that most cigarette smokers are concerned about their health and are interested in quitting, and that most have tried to quit. A nicotine limiting standard could make cigarettes minimally addictive or non-addictive, helping current users of combustible cigarettes to quit and allowing most future users to avoid becoming addicted and proceeding to regular use. Disrupting that progression -- from experimentation, to regular use, to tobacco-related disease and even death -- could save millions of American lives."

On May 3, 2018, *The New England Journal of Medicine* published an independent study that stated: (1) in the first year of implementation of the FDA's new reduced nicotine rule, more than 5 million people would stop smoking in the United States, (2) in the first 5 years after the implementation of the new FDA rule, more than 13 million people would stop smoking, and (3) by the end of the century, more than 33 million Americans would either stop smoking or never

develop the addiction to smoking, and there would be 8 million fewer smoking related deaths within that time.

It is for these many compelling public health reasons that the FDA is so focused and absolutely committed to the implementation of a new rule that will require all cigarettes sold in the United States to contain only minimally or non-addictive levels of nicotine. As is the case with any industry-wide regulatory action, there are always changes to the market. With a dramatic reduction in nicotine content for cigarettes, convenience stores will likely sell fewer packs of cigarettes -- however, the packs they do sell will likely contain our Company's premium VLN™ tobacco. But convenience stores will also find that consumers will buy other products with the money they formerly spent on addictive cigarettes. Case in point, in 2014, the national retail chain CVS stopped selling tobacco products altogether and recorded only a temporary 1% decline in revenue.

Tobacco farmers could grow fewer acres of tobacco destined for the U.S. market, but may grow more tobacco for international markets or may switch to other crops entirely, including hemp, which has a growing future. Already, the number of tobacco-growing farms has declined dramatically from nearly 180,000 farms in 1980 to about 10,000 farms in recent years. It is even possible that U.S. tobacco farmers will see an increase in demand as more sophisticated, U.S.-grown tobaccos, like our premium VLN™ tobaccos, ultimately make up a larger and larger percentage of the total tobacco used by major cigarette manufacturers around the world.

Indeed, the Big Tobacco dinosaurs are the final broad group of responders to the FDA's ANPRM. As expected, Altria, BAT, and Phillip Morris devoted hundreds of pages to explaining why the FDA's plan is supposedly too hard to comply with, detrimental to public health, and outside the FDA's authority. Reynolds American stated that it is simply unable to satisfy a standard for minimally or non-addictive tobacco. Michael Ogden, Ph.D., Senior Vice President of RAI Services, which is part Reynolds American, wrote: "At the present time, the science lags behind

on this important issue and additional methods, possibly used in conjunction with traditional breeding practices, would need to be developed. Reynolds believes that the industry is at least 20 years away from producing tobacco at a commercial scale that would meet the range of low-level nicotine discussed in the ANPRM."

It almost seems like Ogden is saying that a nicotine standard is just too hard for Reynolds to accomplish, but he recognizes that 22nd Century is way ahead of Reynolds when Ogden continued by stating, "Commercialization of such products [meaning tobaccos with very low levels of nicotine] is also made difficult by: (1) the fact that genome editing technology (such as CRISPR-Cas9) currently does not appear to be available to tobacco companies and (2) the various patent restrictions on the use of certain genetic engineering techniques (with the patents on nicotine synthesis pathway genes, for example, being held almost exclusively by 22nd Century Group)."

The Big Tobacco companies further show their desperation in this matter when they incorrectly claimed in their responses to the FDA's ANPRM that there is supposedly insufficient science to implement a limit on nicotine in combustible cigarettes and that smokers will allegedly smoke a greater number of Very Low Nicotine Content cigarettes when the FDA's new reduced nicotine rule is implemented. Of course, just the opposite is true. Implementation of a national nicotine reduction mandate is immediately feasible and smokers simply do not smoke more when they switch to Very Low Nicotine Content cigarettes; they smoke less. This has been known for some time. For example, Dr. Neil Benowitz, a tobacco science expert and a professor at the University of California, San Francisco School of Medicine, wrote an article published last August explaining that an FDA-mandated 95% reduction in nicotine content would, "make it impossible to compensate by smoking cigarettes more intensively or smoking more per day."

Free from the misleading propaganda and the brazenly self-interested prejudice of Big Tobacco, multiple independent clinical studies have clearly demonstrated that Very Low Nicotine cigarettes

lead smokers to reduce their cigarette consumption, experience lessened withdrawal symptoms, and increase their attempts to quit smoking. Accordingly, the FDA is now evaluating the ANPRM responses and preparing the FDA's proposed nicotine rule, which will be published in the near future in the Federal Register under an official “Notice of Proposed Rulemaking,” or NPRM. 22nd Century's offer to license our proprietary tobaccos and technology to any interested third-party company negates any objections about the feasibility of complying with the reduced nicotine standard. 22nd Century can make available enough of our VLN™ tobacco seed to supply the entire U.S. tobacco market in very short order. As such, we greatly look forward to the next step in the FDA's rulemaking process.

And, as the FDA continues to pursue the rule-making process, 22nd Century is simultaneously advancing our Company's Modified Risk Tobacco Product (or MRTP) application for Brand A Very Low Nicotine content cigarettes. A key component of our revised MRTP application are three limited-scope, clinical studies sponsored by our Company. These studies will confirm and substantiate data previously collected by independent researchers and will also expand the demographic reach of previous clinical trials. By using Very Low Nicotine Content cigarettes produced in a single batch for all three of these studies, we will prove reproducibility and comparability of results.

Two of these studies are entitled “Evaluation of the Abuse Liability of Very Low Nicotine Content Cigarettes” and “Evaluation of the Abuse Liability of Very Low Nicotine Content Mentholated Cigarettes.” These two studies will measure the potential for addiction of 22nd Century's Very Low Nicotine Content cigarettes in comparison to participants' usual brand of cigarettes and nicotine gum. We intend to show that 22nd Century's Very Low Nicotine Content cigarettes are much less addictive than conventional cigarettes and that their potential for addiction is at least as low as that of nicotine gum. Positive data from these two studies is already coming in.

The third study is a much longer and more intense study called “A Longitudinal Ambulatory Study to Assess Changes in Cigarette Consumption Behavior and Biomarkers of Exposure during a 6-Week Switch to Very Low Nicotine Cigarettes.” In this study, we are switching smokers from their usual brands of cigarettes to our Very Low Nicotine Content cigarettes and measuring smokers' physiological responses over the course of six weeks. We will measure biomarkers of exposure to nicotine-related compounds. In addition, we will measure smoking topography – in other words, how each participant smokes our Very Low Nicotine Content cigarettes, including puff draw, puff duration, puff interval, and so on. Last, and perhaps most importantly, we will measure cigarettes smoked per day, smoking urge, and withdrawal symptoms, if any.

As we have previously announced, we are planning to submit our revised MRTP application to the FDA by the end of this year. While the FDA pursues the required rule-making process for its new nicotine reduction national mandate, our MRTP application gives the FDA a chance to approve the marketing and sale of a Very Low Nicotine Content cigarette in the U.S. market before the national mandate takes effect. We anticipate a timely review by the FDA of our MRTP application. With an MRTP marketing authorization from the FDA, we will be able to disclose the nicotine content of our Brand A VLN™ cigarettes as being at least 95% less nicotine than conventional cigarettes, and we will introduce an exceedingly important product to the market wherever cigarettes are sold across the United States.

With the FDA continuing to push forward diligently in its rule-making process and with our MRTP application now coming together for filing before the end of this year, the next few months at 22nd Century will be a very intense, exciting time. We are working hard to introduce Very Low Nicotine Content cigarettes to smokers in the U.S. We are working with public health officials outside of the United States regarding the use of our VLN™ tobacco to help address the tobacco smoking problems in international markets. We are ready to license our proprietary VLN™ technology and our unique VLN™ tobaccos to all interested companies and, thus, to make possible the FDA's

plan that will require all cigarettes sold in the U.S. to contain only minimally or non-addictive levels of nicotine.

As FDA Commissioner Gottlieb explained when he introduced the ANPRM, "This milestone places us squarely on the road toward achieving one of the biggest public health victories in modern history and saving millions of lives in the process."

I expect 22nd Century shareholders will be pleased both by our success in this enormously important public health imperative, and by the financial rewards we will realize in the process.

In conclusion, I thank you all again for joining us today and for your continued interest in our extraordinary Company. At this time, I will open up the call to questions.

Operator: Thank you. If you would like to ask a question, please signal by pressing star 1 on your telephone keypad. If you are using a speakerphone, please make sure your mute function is turned off to allow your signal to reach our equipment. Again, press star 1 to ask a question. We will pause for just a minute to allow everyone the opportunity to signal for questions.

Our first question comes from James Burgess.

James Burgess: Good afternoon, Henry. How are you?

Henry Sicignano: Hello! Thank you for calling.

James Burgess: Yes, sir. I was interested to see if you could shed some more light on the Aurora Cannabis acquisition of Anandia and how that will potentially affect our relationship with Anandia and moving forward with our hemp research and the future of our relationship with Anandia.

Henry Sicignano: I will let Tom address that question.

Tom James: Sure, thank you. I think, in general, we have a very good relationship with Anandia. But Anandia is not our only location where we are conducting hemp research. As you can see from our public filings, we are doing research in the U.S. and in Canada, and not just at Anandia in Vancouver. We are still working with Anandia. We look forward to continuing to work with Anandia, but we want you to know that it is not the only location in which we are conducting research. So, if things change with Anandia, the change will have no impact because we have duplication in what we do.

James Burgess: Right, absolutely. Can you shed a little bit more light on how the acquisition affects us from a financial standpoint as far as our next steps with the warrants and the options to purchase shares of Aurora?

Henry Sicignano: Well, the transaction has not closed yet. We expect the transaction to close very soon… this month. But, for example, if the transaction were to close today let's say, and let's just say we were to sell whatever securities we received in Aurora today at the current market price, we would realize more than $9 million in cash. Now, the transaction has not closed and I am not saying that we intend to sell immediately, but that is the potential transaction if it were to close now and if we were to sell at market now, not including the warrants. of course.

James Burgess: Great. I appreciate the update and keep up the great work.

Operator: Thank you. Our next question comes from Jim McIlree.

Jim McIlree: Thanks and good afternoon. Henry, in the Company's response to the FDA's ANPRM, you guys talked about the different varieties that you can grow currently and what you are working on in the future. And I was hoping that you could talk a little bit about the challenges that you might

face in growing different varieties and so that is part one. Part two would be can you give us a summary of what type of future growth that you are expecting, either in terms of the number of crops, or the size, or the timing. And then part three on that would be how much would that cost or is that included in the $850,000 per month cash operating expenses. Thank you.

Henry Sicignano: That is a lot of questions! Thank you, Jim. I guess we will start off with the fact that we do not have any problem. We are pleased to be able to grow Very Low Nicotine burley tobacco and Very Low Nicotine flue cured tobacco, and we expect to have Very Low Nicotine, meaning 95% less nicotine, non-GMO crops -- of both of those varieties -- in short order.

So, I guess that is the good news. Those two tobacco varieties make up about 95% of all cigarettes sold in the U.S. Oriental tobacco is another variety that we are working on in the lab. But we see no problem and we think that we are many years ahead, if not decades ahead, of the Big Tobacco companies in our work in those tobacco varieties.

As I have publicly mentioned in the past, tobacco plants produce so many seeds that we could literally grow enough seed to supply the entire country if we were to grow, say, 20 acres of tobacco and put all of that to seed. So, it is not tremendously expensive or difficult for us to produce enough seed to supply the entire country with Very Low Nicotine tobacco. It is a rounding error, really, when you talk about how much it would cost us to do that. So, I guess the answer is no, the cost of growing commercial quantities of tobacco seed is actually not in our $850,000 monthly burn, but that cost will not be an especially significant investment if and when we choose to make the investment. Did that answer all your questions?

Jim McIlree: Yes, it does. And can you talk maybe just a little bit about what kind of growing schedule you are on right now. I guess what I am really trying to get at is, as you pointed out in your comments, Big Tobacco is claiming this cannot be done, it is just impossible. And my thought was that maybe one way you counter that argument is you grow the crops and say that is an

incorrect statement. So, I am just wondering if that is maybe part of your strategy, and, if so, how you intend to go about demonstrating to the FDA and to all of the constituents that, yes, there is a way to grow this type of tobacco at commercial quantities.

Henry Sicignano: Well, I guess what I can say is that every single crop that we grow demonstrates that we are capable of meeting the contemplated FDA standard of Very Low Nicotine tobacco. And if you can grow 50 acres, you can grow 500 acres, which means you can grow 5,000 acres. And in terms of seasons and seasonality, we have actually grown in different hemispheres and in different countries. And we do that so that we can grow essentially 12 months of the year. And without disclosing non-public information, I will just tell you that, right now, we are growing in places outside the United States specifically so that we never miss a season. We are spending a lot of time each and every season of each and every year researching, growing and experimenting with our proprietary lines.

Jim McIlree: Okay. And you mentioned 50 acres. Is that kind of the general amount that you are growing right now?

Henry Sicignano: Our Very Low Nicotine tobacco has been grown on tens of acres to thousands of acres. At any one time, we grow different amounts. If it is a test pilot on a new variety, it might be a very small number of acres. We are not going to put in inventory millions of pounds of tobacco without purchase orders. But, we are growing lots and lots of tobacco and further developing these different varieties that I talked about earlier. In particular, the non-GMO varieties.

Jim McIlree: That is it for me today. Thanks a lot and good luck with everything.

Operator: Thank you. Our next question comes from Brandon Porco.

Brandon Porco: Hi, I have a couple questions that are probably going to Tom anyway. But they may be tougher to answer but I think it will give you a good opportunity to show that investor interests are still well protected and that is beyond Henry not selling any shares. But I will ask you to bear with my stuttering if you will. When you talk about working collaboratively with the FDA on the ANPRM, can you talk about or can you tell us if we financially or contractually engaged in some manner with the FDA at some time? And that does not mean the SPECTRUM contract. I mean are you having discussions with people in the FDA regarding the assumption of our patents?

Henry Sicignano: No. I will just say a flat out: no. We are not.

Brandon Porco: Thank you. To meet the ANPRM goal, it is interesting to have the ability to license and that is kind of like we are open for business sign. But without those licensing agreements in place or the discussions, it seems to be like there is a threat of a monopoly on the tobacco market if you were to go through with the ANPRM, that creates a problem. So, I wondered if those discussions, when you talk about working collaboratively, what does that mean then?

Tom James: Obviously, we are a regulated company in a regulated industry, and our regulators are the FDA and SEC. So, we are always in discussions with our regulators, and that does not mean anything bad. What we are talking about here is our ability to help facilitate the new nicotine rule, but there are other solutions, like chemically stripping out the nicotine, that have been around for decades, but which are just not preferred and not scalable. So, we have the best solution, we believe, but there is no discussion about assumption of patents per your prior question. There is nobody that can assume our patents. We own our patents. We have the option to…

Brandon Porco: That is not actually - Tom, I hate to interrupt. That is not actually technically correct. I am sure you know about Bayer and Cipro and what the government can do if it meets the public health's interest.

Tom James: Brandon, you are wrong, but go ahead and finish.

Brandon Porco: I am not going to be argumentative, Tom. It is technically accurate to say that they could.

Tom James: No, it is not. I am the lawyer. We have numerous law firms that have looked at this. I answered this on the last quarterly conference call. It is not true. It is not going to happen. Not possible.

Brandon Porco: So, to get off of that one, I am sorry, do you have, if you will allow me, and I understand if you do not, are there any other surprises out there? I mean have we considered the impact to our business if maybe the FDA mandate fails or stalls due to litigation. What does our Plan B look like?

Henry Sicignano: Our biggest Plan B, which was Plan A before the FDA nicotine mandate was announced, is our MRTP application. Our MRTP application has, I guess, more fuel behind it now than ever before because, in fact, public health officials and regulators around the country have come out and said that Very Low Nicotine cigarettes are imperative for public health. They [Very Low Nicotine cigarettes] are the single most useful tool in either encouraging people to quit smoking or never to become addicted to cigarettes in the first place, or to migrate down to a non-combustible product.

You have such a huge tidal wave of support behind Very Low Nicotine cigarettes. So, if one were to say somehow that the FDA decided one day not to enact the national mandate, I would argue that our MRTP application would be back to Plan A to have perhaps the only and maybe the first approved MRTP product on the market in the United States. That would be invaluable.

Brandon Porco: Thanks, Henry. I appreciate you guys putting up with my questions. Have a good day now.

Henry Sicignano: They were good questions but we have to be careful with what we say that is non-public. In our IP situation, we either own or control those couple of hundred patents and pending applications. And all of the patents protect us squarely. You have Reynolds out there saying that too. I think that should give you some comfort.

Operator: Thank you. Our next question comes from John Davis.

John Davis: Henry, in relation to some comments you have made on the last two conference calls, you mentioned loosely that you have been in negotiations with several different parties. Without saying any non-public information, because that is not what I am getting at, I wonder if you could discuss how those negotiations have gone, are they still ongoing, and if they have ended for some reason, maybe a reason why they have ended. Once again, not looking for non-public, just general, information about these negotiations you have mentioned for a couple of quarters here. Thank you.

Henry Sicignano: I have to say the negotiations generally have not ended. I would call them discussions. They have not ended. Some of them sort of get busier and more interesting and then fade back, and then get more interesting, and then fade back. It is difficult for a company to pound the table and say that the FDA's mandate is impossible… and then to adopt that technology that proves, in fact, that the mandate is possible. So, I guess that is one way to look at it. And then another thing to think about is not every single company went up and said that the FDA mandate is impossible.

So, our doors are open. We are interested in talking with anyone. It only makes sense though that a potential licensee would have to be very careful with endorsing our technology, while at the

same time saying it is not possible to make Very Low Nicotine cigarettes. Does that make any sense?

John Davis: Yes, of course it does. They cannot talk out of both sides of their mouth, for sure. One follow-up - say that again, I am sorry?

Henry Sicignano: I said at least not publically.

John Davis: Yes, exactly right. So is there an opinion or a belief by you guys as a company that we have this solution and if one company were to try to do an exclusive license deal and/or buy us, doesn't that kind of cripple the rest of the Big Tobacco industry if all of your IP was now taken off the table and belonged to Reynolds or you make one of them up. Doesn't that cripple the rest of them almost?

Henry Sicignano: Oh, I do not know. That is competitive advantage and strategy. I guess you can imagine that the most lucrative scenario for 22nd Century would be to license our technology and our products to all the tobacco companies that do business in the United States. But I am sure that there are scenarios where we would partner with fewer – or even one company, especially with an MRTP product.

John Davis: Yes, exactly. Okay, thank you for the answers. Appreciate it.

Operator: Thank you. Our next question comes from Tom Fernandez. Tom, your line is live. If you muted your phone, please unmute.

Tom Fernandez: Hello?

Henry Sicignano: Yes, sir. Good afternoon.

Tom Fernandez: Hi, I guess she said the wrong name completely. Okay, it does not matter who the caller is. My question is,.. The $53 million that you stated that we had in cash and cash equivalents, was that inclusive of the possible value of the Anandia Labs sale?

Henry Sicignano: No, that was not inclusive -- the $53 million does not include whatever cash proceeds we may realize if we were to sell our Aurora stock when that Anandia transaction goes through.

Tom Fernandez: Okay. So that does not have that in there. Okay. That is positive. Two, you might not even be aware, but I get the strangest requests to allow me to utilize your stock position and put in Type 2 for people to want to borrow the shares. So, you are definitely getting some people who do not want to see you succeed. I am not even sure if you are aware of that and that might be creating a major hamper in our ability to prove that we are who we are.

My other question was actually brought to me by one of my clients and he asked me, he said I wanted to buy some of their seeds to plant on my land because he has 2,000 hectares of coffee and he kind of wants to diversify. And I am like, I do not even know if that is even possible. Do you ever get farmers that ever come to you and say, I have all of this land and I want to try something different. Can we use your seeds?

Henry Sicignano: We actually do have farmers come to us and we establish relationship with farmers in all different ways, sometimes through existing farmers where we have had existing relationships for some years. Other times, farmers approach us. So, you can send us separately the contact name and number for your client and, who knows? Maybe we would contract grow on his farm. That is possible.

Tom Fernandez: He is international, so I do not know. Do we have to be secure? Are you doing any business with anybody in Brazil?

Henry Sicignano: Well, we do not want to get crazy with non-public information, but if you have a potential grower…

Tom Fernandez: Are we in South America? Are we somewhere in the Southern Hemisphere?

Henry Sicignano: We have test grown, as have licensees of ours, in the Southern Hemisphere. That is public information. But I am not going to be more specific than that.

Tom Fernandez: That is fair enough. I do not need specifics. I do not want to be able to brush off his idea; it could turn out to be something really good. And then my next question was: although we are working on getting the ability to be the first combustible cigarette that can assist a smoker, which I am and I can see the true value in that, but more importantly, are we looking at providing the vapor market with the liquid equivalent to our SPECTRUM® cigarettes that could then assist those who have now believed that the vapor pens are actually their best bet?

Henry Sicignano: Not currently. That is sort of a loaded question, but currently we are focused squarely on cigarettes and that is an $80 billion market just in the U.S. So, we think there is plenty of opportunity right now in just combustible cigarettes.

Tom Fernandez: But do we have that ability?

Henry Sicignano: Well, sure, we could produce a very low nicotine extract in a liquid, but I think the vapor guys already have lower and high nicotine concentration liquid. So, I am not sure we would have a huge competitive advantage there. It is a good question, but it is not our focus right now and just because it is 5:00pm and we are only going to take maybe two more questions because really, we have already gone over the time allotted. So, I will take two more callers. Thank you very much for calling in. Thank you.

Operator: Thank you. Your next questions are from Paul Slatry.

Paul Slatry: Yes, good afternoon. My question has to do with the Modified Risk Tobacco Product. This has obviously been a major effort by your Company and you have indicated that you expect the application to go in by the end of the year and hopefully reviewed quickly because you have been coordinating with them. That is the statements that you have made. What I am asking is what is the business plan for -- assuming that you get this designation approved for your Brand A cigarettes -- what would be the scale of the rollout that you would contemplate and do you have the funds for a number of cities or are you going to apply to do that? Could you give a little more information about what your business plan would be if you get this authorization to have your product labeled in this way?

Henry Sicignano: That is a great question. I think first, I just have to quibble a little bit. I think it is ***when*** we get authorization! ***When*** we get this authorization, we have a two-pronged strategy. One will be to launch our own brand. We do have our own manufacturing facility in Mocksville, North Carolina and we have been growing our sales quite nicely there, frankly, to demonstrate that we are capable of growing a nice consumer products business. And some folks on the phone might remember, my background includes growing the American Spirit franchise from about $30 million in sales to about $150 million in sales over the course of a few years when we subsequently sold the brand for $356 million to R. J. Reynolds… back then we only had 0.22% market share. Back then, our 0.22% share was worth $356 million.

Today, that same quarter percent market share in the premium cigarette market is worth more like a $1 billion in market cap. American Spirit back then did not have a health claim or a modified risk authorization. We are very excited by the opportunity to bring a modified risk cigarette to market that will, in fact, reduce smokers' exposure to nicotine -- dramatically. Given

our very unique and proprietary product, we think we can capture substantially more than 1% of the market, which would be very valuable to our Company and our shareholders.

But, at the same time, while launching our own brand and manufacturing our own brand in our Mocksville facility, we fully intend to license our technology and our MRTP authorization possibly to one of our bigger, large competitors. So, we think that will represent a pretty important revenue stream as well. Is that helpful?

Paul Slatry: Yes, in fact you made a statement that the MRTP is something you could license to a company? I thought that was specific to the product that you were putting out yourselves. But, you basically could license that label, I guess.

Henry Sicignano: I use that term lightly. It is probably a lot more complicated than a simple license, but conceptually we could do that. Conceptually, we could work with, or collaborate with, or partner or a bigger tobacco company and "license" the technology to that company.

Paul Slatry: Does your $53 million in cash provide you enough? That is not a normal business expense. That is not a regular operating expense because you are not doing it now. So, did you have enough headroom in your cash to actually do a major rollout?

Henry Sicignano: Well, American Spirit was very successful with guerilla marketing and focusing on opinion-leading markets and selling cigarettes profitability and reinvesting those profits to grow the business further. I think that strategy is an important one, but I also think that if we are successful, as I believe we will be with the MRTP, that our share price will appreciate substantially and if we are short marketing funds, then I am pretty sure that we could either partner with another company or raise additional funds to do whatever we need to do.

Paul Slatry: So, that is your plan because March 2020 was about as fast as the final ruling could come out. At least that is the date that you had here. So, there would be some time in which if you could get this or when you get this, if it falls in there, that could be a major business plan.

Henry Sicignano: Very much so. We could do a lot. With that MRTP authorization that would change the face of the Company and we would be really a major player in the market and I think you would see analysts being very interested in covering us. I think everything would fall into place with an MRTP authorization. So that is something that is pretty exciting. We will take one more caller.

Paul Slatry: Thank you very much.

Henry Sicignano: Thank you, sir. We will have one last caller because we have exceeded our allotted 60 minutes. So, we will just take this one last call and I will say thank you very much to all the other callers. I know there are several more on hold here, but we only have time for this one last call.

Operator: Thank you. Our final question comes from Andy Wiznia.

Andy Wiznia: I am a physician, so my question is that you talked about the FDA and U.S. regulatory affairs. I am wondering if we could talk about what the obstacles or what the obligations are for regulatory approval, for example, with involvement of the AMA, other nations, and whether or not there are activities going on with the WHO with regard to Very Low Nicotine cigarettes.

Henry Sicignano: Well, I can say that we have had discussions with several different foreign countries about our tobacco and about the potential for our technology to greatly improve public health. As recently as last week, we had one of those important discussions and, I am not sure if you know, but the World Health Organization issued a special report recommending that all member countries adopt and mandate Very Low Nicotine cigarettes for their countries.

So, we are very proud of that fact and that has given rise to several of these different member countries contacting us and discussing what needs to happen to test and research our products in their market. That is where we are right now. I suspect that anything that the FDA does will be very, very closely followed around the world and that, with each step the FDA takes, closer to the nicotine mandate, or with each step that we take to get closer to MRTP authorization, I think you will see more and more interest and conceivably more deals.

Tom James: This is Tom. I just want to add to what you just said. You also asked as a physician, how can the AMA, the American Medical Association, weigh in more on this regulatory process, and I just want to highlight, as you may be aware, the AMA joined 40 other major health organizations in writing that collective letter to the FDA in May, urging the FDA to implement this new rule promptly. And that is where the mid-September projection for the draft rule and final rule in March of 2019 comes from, and then the projected implementation in March of 2020. So, as a physician, all that you can do to work and help in this regard is greatly appreciated and highly respected. We thank you for that.

Andy Wiznia: Thank you. And the AMA, I am wondering, at the moment, the AMA is sort of taking some of its lead from the FDA. My area is in more with HIV, so there has been sort of a push internationally that has pushed the FDA; it has been back and forth. I am wondering if you have seen that with regard to tobacco.

Henry Sicignano: We have seen a lot. If you want, you should email us. We can have a dialogue and share with you what we are seeing publicly around the world.

Andy Wiznia: Okay. Thank you.

Henry Sicignano: Thank you. Operator, I think we have exceeded our 60 minutes, so I think we will close the call and thank our callers very much.

Operator: Of course. Thank you, ladies and gentlemen. This does conclude today's presentation. You may now disconnect.