

## ONE WORLD TRADE CENTER SUITE 130 LONG BEACH, CA 90831

## **Operations Update**

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Greetings to all of you. We hope that you and your families are safe and healthy during these strange and trying times.

Let us begin by stating the obvious. The pandemic has created challenges for all of us, and our laboratory testing leading to a commercial efficacy demonstration of our licensed technology is no exception. There have been numerous delays caused by circumstances beyond anyone's control that have hindered our ability to create the sterile laboratory environment needed to seek successful commercial scaling test results.

Each stage of our lab construction required permitting and regulatory inspection and sign off before we advanced construction to the next stage. With many government employees working from home and seemingly daily governmental guideline changes in California, both processes have been challenging. Normal turnaround times for arranging an inspection are a few days. Due to the pandemic, we have been forced to wait for weeks to get the required inspector to the facility. This has meant that subsequent sequential phases of our buildout have been delayed.

As you are all aware, the growth of cells must be done in a completely sterile environment. This is why our facility is referred to as a laboratory and not an indoor grow facility. We must conform to cleanliness and sterility requirements that are akin to hospital operating rooms. One contaminant in our seed or our media cultures, or even the air we feed the bioreactor, can spoil an entire batch or render substandard potency results. We attempted, when it became obvious that COVID 19 would impact our forward progress, with the use of portable laboratories and stepped processes to advance testing while awaiting the occupancy permit for our laboratory. Though helpful and instructive in terms of fine-tuning our proprietary built-from-scratch equipment, there is no substitute for a sterile laboratory, which is a lesson we have learned the hard way.

Nonetheless, we have worked diligently to overcome these obstacles and have reached a point where the laboratory is now complete in every respect with all necessary regulatory approvals. Our test results should begin to accurately reflect the planned execution of our commercial scaling process and not be skewed by external forces that were outside of our control. Our filtration and drying systems have been tested and upgraded in capacity and are fully functional. Additionally, we have 10 fully functional proprietary bioreactors and growth pods that we are using for ongoing commercialization testing. While we will need ongoing retesting and fine-tuning of the variables involved, we are now able to trust the process and the accuracy of the results and make adjustments on the basis of those results without the need to account for non-sterile environmental conditions impacting the process.

Specifically, the accomplishments made to our commercialization laboratory since our last update are as follows:

- Completed the laboratory and required parking lot improvements and passed all final inspections, a total of about 38 clearances;
- Completed and furnished the clean laboratory;
- Completed and finished the sterile laboratory;
- Completed the laboratory security system, alarm, and fire alarm systems;
- Upgraded the security barriers;
- Installed the back-up generator;.
- Successfully negotiated the installation of a gas line feed, completing a five-month effort;
- Installed the medical air resource for the entire facility, switching from portable medical air supply to system-wide medical air with variable air feed pressure for each bioreactor;
- Redesigned the proprietary lid for the bioreactor;
- Completed the ten bioreactors, including temperature controls and related instrumentation;
- Upgraded the filtration capacity of the membrane filtration equipment;
- Fine-tuned the concentrate drying process in the vacuum assisted drying ovens;
- Completed three full-scale runs of the ten bioreactors;
- Sourced the chemicals for the media culture batches for the next 40 bioreactor tests that were unable to be obtained at the onset of COVID 19 because they had not been classified as essential;
- Updated the efficacy demonstration to include an extra process step to reduce cell science concentrate to pure cannabinoid concentrate; and
- Began preparation of the US and Canadian licensing compliance documents.

On other fronts, we are working toward completing our financial statement audits for our annual report on Form 10-K due in late October, to be followed by a registration statement on Form S-1 to enhance the liquidity of current stockholders.

In pushing forward with our financial statements and SEC filings, we determined to clarify ambiguities and better position Bakhu for a vigorous sublicensing program on successful completion of the Efficacy Demonstration by amending the Restated Licensing Agreement between Bakhu and Cell Science. The amended provisions clarified Bakhu's licensee position to support its proposed sublicensing program and release 20,000,000 of the shares initially issued to Cell Science. This will enable Cell Science stockholders to achieve some liquidity. In exchange, instead on an immediate payment in full, Bakhu will have the option of paying the one-time cash fee of \$3.5 million, subject to adjustment and specified credits, owed to Cell Science one year following the results of the Efficacy Demonstration. This gives Bakhu some financial flexibility, which is crucial during the period between proving efficacy and generating revenue from selling sublicenses. We believe the compromises each party made during these intense negotiations will benefit all parties.

We have accomplished much of the preliminary work we believe will be required to meet the Federal Trade Commission requirements for our sale of sublicenses. One procedural matter was to enter into an

estoppel agreement, which perfected Cell Science' rights to the intellectual property that it received from Mentone by way of assignment and Bakhu's standing as licensee in an effort to satisfy anticipated requirements of the FTC and state and provincial regulatory authorities.

These recent document changes are critical as we continue dialogues with literally dozens of interested parties that are properly licensed under state cannabis statutes and have expressed interest in purchasing one or more sublicenses to use the Bakhu process. We must meet FTC regulatory guidelines that we demonstrate a valid chain of rights to the intellectual property to be sublicensed in order to sell those licenses in the United States.

Further, Dr Whitton, the inventor, and Donald Clark, who is leading our sublicensing effort, are working diligently on a detailed manual to be used by sublicensees in building, equipping and operating their laboratories. Bear in mind that we need each sublicensee to be successful in order to create recurring license royalty income for Bakhu. That means that the laboratory build-out and operating manual each of them receives must be meticulously detailed and provide all information necessary for them to operate effectively. We hope that this manual, now in its fifth iteration, will be completed at about the same time as the Efficacy Demonstration. The remaining requirements for this "Cell Science Process Manual" are the details gleaned from the ongoing efficacy tests to be performed over the next 90 to 180 days.

A reminder: No one, anywhere in the world has ever attempted, let alone succeeded, in implementing bio science, at commercial scale, to produce predictable concentrations of cannabinoid concentrate. The Cell Science process has definitive, measurable goals and clearly articulated steps. We are confident we can complete those steps to achieve the desired product specification through carefully monitored and documented ongoing adjustment, fine-tuning, refinement, and experimentation.

We are making measurable and significant progress.

As always, feel free to call us any time to discuss your questions or concerns.