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BioMediCan Leads the World in Biosynthesized Cannabinoids



Dennis O'Neill
President

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<https://biomedican.com/>

Interview conducted by:
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CEO CFO: *Mr. O'Neill, what is the overall vision behind BioMedican and what is the focus right now?*

Mr. O'Neill: BioMedican is a biosynthesis platform that produces through biosynthesis rare cannabinoids and other high value compounds. On the cannabinoids, we produce scientific cannabis therapeutics. We have four patents that are pending on our process and what we produce is organic, non-GMO, bioidentical molecules to what occurs in nature. We do it for about 70% to 90% less than what the current wholesale markets are.

CEO CFO: *What are the materials that you are using to extract?*

Mr. O'Neill: We have an organic biosynthesis process and what we utilize with biosynthesis is water, a specialized yeast and sugar, and we take it through a fermentation process in which we target certain cannabinoids like CBG/CBGA, THC/THCVA, or CBN/CBNA, and then we produce an organic pharmaceutical grade compound.

CEO CFO: *How did yeast become a solution?*

Mr. O'Neill: First let us back up to what the problem was, obviously we know that the CBD market has been booming. It went from an unknown substance to now being sold in hundreds of thousands of locations globally. The health benefits are well-known. The problem with the grow, harvest, extract and purification process is that these rare cannabinoids show up in very trace amounts in each plant, so you have to grow a tremendous amount of plants to end up with a small amount of these rare cannabinoids. As part of that process, the cannabis plant ends up pulling out all the toxins and contaminants out of the soil, so they all have to be purified out as well. What we realized was that there are significant benefits of these rare cannabinoids that are significantly better than just CBD, like CBG/CBGA, THC/THCVA, CBN/CBNA. The issue became how we could do it better, safer and more cost-effective than to grow, harvest, extract, and purification process.

By utilizing biosynthesis and what we utilize is *Yarrowia lipolytica* as a very specific type of yeast, what we are able to do is produce 99% pharmaceutical grade compound, zero toxins, zero contaminants, and we can produce virtually unlimited amounts because we do continuous fermentation, we harvest every day as opposed to once or twice a year, and we can do it at least at 70% to 90% less than what the current wholesale prices are. What that ends up doing is that the benefits of these rare cannabinoids like CBG/CBGA and THC/THCVA, it makes a better and higher quality product that is 99% pharmaceutical grade and it makes it vastly more affordable to millions if not billions of people around the planet. That was the reason we thought that biosynthesizing rare cannabinoids was something that we should do. The CBD market is expected to be \$146 billion by 2026. The biosynthesize cannabinoid market is expected to be \$10 billion by 2025 and that is according to a Raymond James analyst that covers this space.

CEOCFO: *Are people in general aware of this process; is the industry aware?*

Mr. O'Neill: Basically, what is happening now is that CBG and THCV are the next generation of CBD. It is becoming more and more popular that the audience for these cannabinoids is becoming larger and larger. What we are seeing is that the health benefits by using these rare cannabinoids, a lot of these cannabinoids will be added into CBD products in current products as well. We will see the evolution of these rare cannabinoids. It will be much like what happened to CBD, three to five years ago you never heard of them and now every gas station you show up in has CBD.

CEOCFO: *Where is Biomedican in the development process?*

Mr. O'Neill: We have two products that are ready for large-scale production now. We will be in large-scale production by Q3 or Q4 of next year. We are lining up significant buyers within large distribution networks of CBD distributors, nutraceuticals, cosmetics and lotions, and consumer packaged goods companies, and health food.

CEOCFO: *Are you seeking funding, investments or partnerships as you grow?*

Mr. O'Neill: Yes, we are, we are seeking all of the above. We are currently raising \$12.5 million; we have a lead investor in place if people are interested. The lead investor has invested \$2 million in previous rounds. We are looking for partnerships both within the United States and globally for distribution networks. We are looking to be a supplier to the market to where we supply the compounds and then these companies formulate their own product and then they distribute that into whatever online or retail location.

"I think that at the end of the day what we are producing is a 99% pharmaceutical grade compound that is bioidentical to what takes place in nature so it is 100% organic and we are doing it at 70% to 90% less than the current wholesale prices. What is going to win this market very simply is the people that have the highest quality and the lowest cost." Dennis O'Neill

CEOCFO: *What do you need to have on-hand as far as inventory?*

Mr. O'Neill: It comes in a dry compound so the bioavailability is significantly higher than other methods and it can sit on shelves for over a year and still be 100% viable. The issue now is to get the compounds into large distribution networks so that they can formulate products and start to prepare for rolling this out into global markets.

One of the unique attributes of our company is that all the federal and state regulations both within the United States and outside the United States are all around, if you touch the cannabis plant or if you produce THC in any quantity. We do not touch the plant and we produce 0.0% THC at all points in time during our process, so we have a legal opinion that states we are outside the federal and state regulation which means that we can sell this just like a nutraceutical in any distribution network.

CEOCFO: *Where do you see the best potential market, and are they perhaps areas of the world that might be more receptive to something natural?*

Mr. O'Neill: The people that are growing marijuana to smoke, that is like fine wine. People do not buy fine wines at the cheapest price and in the largest jug, they buy it by quality. CBDs are a little bit like that as well, but you have to understand that these rare cannabinoids cannot be commercially, viably produced by farming because you would have to do thousands of acres and it would take a significant amount of natural resources and energy and the cost would be prohibitive to do so.

We have a 100% organic process because what we end up with is bioidentical to what takes place in nature, there is absolutely no difference between our molecule and the molecule that takes place in nature. The only difference is and the reason why these large distribution networks prefer to use BioMedican is that every single plant is a little bit different, every single grow season is a little bit different no matter what you do, so you cannot produce in nature the same exact product every single time, kind of like you cannot produce the same wine every year.

With biosynthesis we produce the exact same molecule each and every time and we can do it at significantly less cost but we also utilize 90% less energy and natural resources which makes this a sustainable model to where we are not burning up massive amounts of natural resources and energy as part of the process. As long as it is organic and bioidentical, about 90% of the market is in full support of it.

CEOCFO: *How are you reaching out to let everyone know what you have?*

Mr. O'Neill: We have had maybe 25 to 30 articles published over the past three months or so. We are being interviewed on Bloomberg today at 4:00 pm Eastern time on the 15th. We will have a copy of that interview. We are reaching out through all the PR methods. I think on the other side we have industry partnerships with multiple different companies that are really well positioned and connected throughout the industry, both here, Latin America, Asia, and Europe. We are building long-term relationships with groups that can buy large supplies.

On the science side, we have four PhDs that are part of our scientific management team which is probably the best in the world, and we have research relationships with four major universities globally including Clemson University, The Institute of Genetics in Moscow, Imperial College London, Denmark Technical University, so both in the academia, the finance side and the industry side, we have made significant inroads in relationships to build partnerships.

CEOCFO: *What if any challenges do you foresee?*

Mr. O'Neill: The challenge in this market is that you have to understand that there are dozens of companies that are in the biosynthesized cannabinoid space. Many of these companies have raised significant amounts of money and they have produced minimal results. The major problems have been the question of whether you can biosynthesis these rare cannabinoids. Some companies do some cannabinoids, we do not know any that can do all like us. The next part is to get the cost down is yields, so we are the only company that has spoken about our yields which are 5% dry cell mass yield which is an industry terminology. Based on our intel, most of the other companies are well below 1%.

The next major issue for many of these companies is whether they can scale, which means can they go from small batches to getting high yield or some yields, to where they are producing tons of this product and the yield stays the same. We have yet to go into large-scale production. We do have somebody on our staff that has decades of experience in running large-scale synthesis manufacturing facilities.

We have a very clear path to how we go about doing this and I think that is the reason why our IP or intellectual property is more valuable than anybody else in the industry because there are two things that we produce that we do not know of anyone else that can do it, which is we have significantly higher yields than anybody else in the industry. We have the easiest and clearest path forward for large-scale production. The largest cost in biosynthesis is sugar and we have developed a process to where we are utilizing 60% to 70% less sugar. All in all, I think that the last hurdle for us will be to prove that we can do this in large-scale production.

CEOCFO: *Would you be doing that at your own facility?*

Mr. O'Neill: We are setting up contract manufacturing now. We will start with a contract manufacturing facility and then we will start building our own facility here in the United States, Europe, Brazil, and Asia. We will be building multiple facilities around the world to supply those markets directly instead of doing all the shipping.

CEOCFO: *When did you know you had it right?*

Mr. O'Neill: Our business model was that if we could get a quarter percent to 1% percent yield, we thought we would have a major viable business. That was in our business model that if we could get at least a quarter percent. We could not imagine that we would have more than 1% percent dry mass yield. When we received 5% dry mass yield, that was when the holy-crap moment happened and we were like wow we are onto something here and this could potentially be a multibillion-dollar business.

CEOCFO: *Final thoughts?*

Mr. O'Neill: I think that at the end of the day what we are producing is a 99% pharmaceutical grade compound that is bioidentical to what takes place in nature so it is 100% organic and we are doing it at 70% to 90% less than the current wholesale prices. What is going to win this market very simply is the people that have the highest quality and the lowest cost. I think that nobody is going to be able to beat us in quality or cost, and our cost of production will be significantly less than any of our competitors.