Bringing REAL science to pharmaceutical cannabis

HEALTHCARE | BIOTECHNOLOGY

JEFF NIELSON
STOCKHOUSE

As the cannabis industry moves from purely medicinal use to also recreational-use markets, there is a certain amount of irony in this transition. The irony begins as follows: legalizing recreational use of cannabis is now taking place in large part because of the success in providing documented relief to millions of consumers of **medicinal** cannabis products.

Where is the irony? In fact, medicinal cannabis is *not* currently medicinal in the sense that people normally use that term. In the minds of most people, "medicine" equals drugs. Here is where we see the large disconnect between medicinal cannabis versus conventional medicines (i.e. drugs).

Before any drug can come to market to be used for medicinal, human treatment, it is subjected to a long and exhaustive testing and regulatory approval process. If a pharmaceutical company wants to bring a new drug to market to treat pain, it generally requires many years to move through the drug-approval process (via Health Canada in Canada, and through the FDA in the U.S.).

What about medicinal marijuana? If a producer of medicinal marijuana wants to bring a strain of cannabis to market to treat chronic pain, does that producer go through some long (and scientific) drug approval process? No.

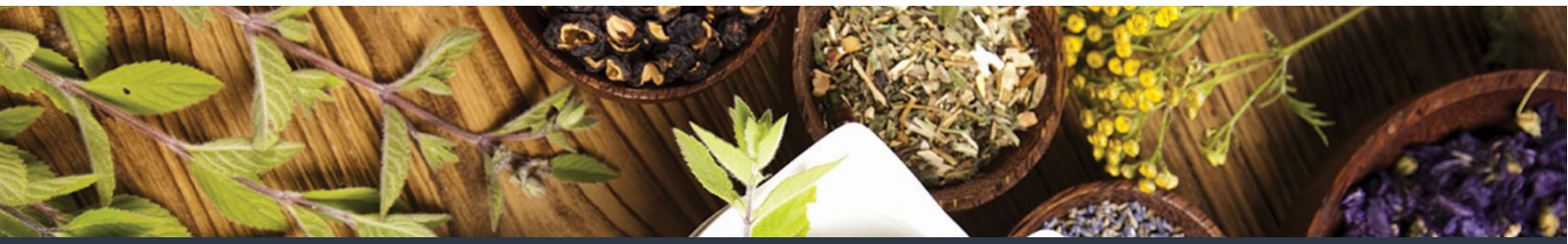
How does medicinal cannabis currently become approved for use as an alternative medical therapy? Simply via anecdotal reporting. Some physician(s) reports seeing positive results (empirical data) using a particular strain of cannabis to treat pain, and suddenly that strain of cannabis is now "approved" for use in treating chronic pain.

This is producing symptomatic relief for cannabis-using patients or the cannabis wouldn't continue to be used by patients and prescribed by physicians. However, it falls far short of clinical science. This is the mission of **Tetra Bio-Pharma** (CSE: TBP, OTCQB: GRPOF, Forum): bringing rigorous, pharmaceutical science to the world of medicinal cannabis. The Company's CEO, Andre Rancourt was emphatic.

"We are working hard to transform Tetra as one of the global leaders in pharmaceutical cannabis. Our strategy is to focus on the real science of cannabis in positioning Tetra to stand out from the rest."

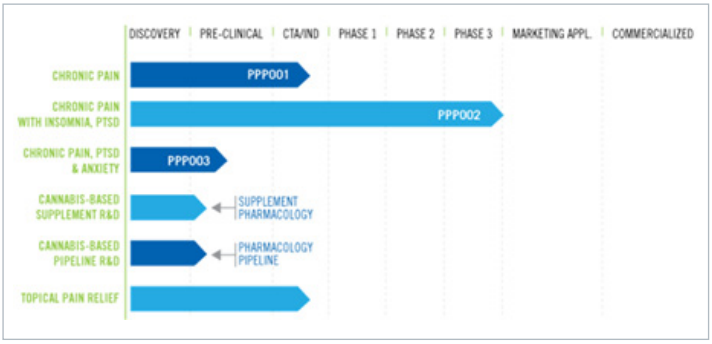
This new approach to medicinal cannabis provides three investment angles:

1. Producing superior quality cannabinoid drug products through a scientific process which will create intellectual property which the Company can protect via patents.
2. Licensing its pharmaceutical-grade cannabinoid drug products to third-party vendors or custom-producing unique, patented, medicinal products for other LP's.



3. Significantly **reducing the barriers for sale** of medicinal cannabis products.

Tetra Bio-Pharma is not just "talking the talk" about bringing the highest scientific standards to its production of medicinal cannabis products, the Company is walking the walk. TBP is currently conducting official **clinical drug trials** with a strain of cannabis which is targeting chronic pain. Other strains are also being advanced into its pipeline for pain management as well as related conditions such as insomnia, PTSD, neurological disorders, and other ailments.



This is exactly the same process in which conventional pharmaceutical companies engage in order to bring their own drugs to market. This is the point which Andre Rancourt wanted to stress in a recent conference call with Stockhouse. Tetra Bio-Pharma is a pharmaceutical company, it's just not a conventional pharmaceutical company.

Tetra Bio-Pharma is working to move drugs through its product pipeline like any other pharma corporation. What makes TBP unique is its **natural health products strategy:** bringing efficacious "drugs" to the marketplace, with the same rigorous scientific standards, but using only *natural ingredients* in these bio-pharmaceutical products.

In terms of true science, research on the use of cannabinoids to treat a wide assortment of medical conditions has barely scratched the surface to date. The anecdotal evidence which has been used to justify cannabis therapy has allowed sufferers of many ailments to obtain relief. What has been lacking is data at the clinical level.

What is the precise strain of cannabinoid which provides optimal relief for a particular condition? What is the optimal range for dosage? What is the best delivery system? None of these questions are currently being answered with anything resembling genuine science.

This is where there is no substitute for true, clinical, pharmaceutical testing. We *require* chemical pharmaceutical products to go through this process in order to ensure that they are safe for human use. While safety is not nearly as great a concern with cannabinoids, all the remaining reasons to pursue a clinical approach to drug testing certainly apply.

This is TBP's competitive edge: bringing medicinal science to cannabis therapies, in a world which currently relies upon little more than word-of-mouth anecdotal evidence. The Company is already moving forward on two, separate product lines.

Prescription Drugs

- **PPP001*:**
  - bringing 'smoked' marijuana to patients.
- **PPP002:**
  - Insomnia a comorbidity in chronic pain patients.
  - Botanical drug to increase quality sleep in patients suffering from chronic pain.
- **PPP003*:**
  - Combination product – oral administration.
  - Chronic pain, PTSD and other neurologic and psychiatric conditions.
  - Compete against GW with proprietary extracts.
- **PTGR*:**
  - Topical prescription drug for pain management.
- **R&D***
  - to generate pipeline (create IP and disease-specific treatments).

*cannabis sativa based products.

Over the Counter NHP Pipe Line

- **AGT001*:**
  - Topical product for pain management.
- **AGT002 product line-oral*:**
  - Cardiovascular disease prevention, athletic performance, and well-being.
- **AGT003 product line*:**
  - Topical products for skin care.
- **AGT004*:**
  - Topical for women - quality of life.
- **R&D*:**
  - Create IP and pipeline for supplement health care market.

*cannabis sativa based products (may or may not contain psychoactive ingredients)
Targeting both Canada and USA supplement (OTC) markets.

One pipeline is for the design, testing, and commercialization of prescription cannabinoid drugs. The parallel pipeline in the Company's

operations is focused on bringing a line of over-the-counter medicinal cannabis products to market.

Tetra is not currently a licensed cannabis producer in Canada. The Company has a pending application for an ACMPR cultivation license which is in the third of five stages of review. How does a Company which is not licensed to cultivate cannabis design and test unique strains of cannabis through the clinical drug trial process? Synergies.

According to the official Health Canada website, Canada currently has a total of 43 licensed producers of cannabis. Few, if any of these companies are in a position to go through the clinical drug trial process on their own, but many of these LP's would *like* to be able to sell genuine Health Canada/FDA-approved cannabis "drugs" – along with all of the business advantages which this confers.

What advantages?

- Pharmaceutical-grade medicinal products
- Freedom of commerce
- Reimbursement for medicinal consumers via insurance

Canadian LP's strive for consistency of product with both their dried cannabis and cannabis extracts. While several of these companies have done a laudable job in standardization, the level of product consistency still falls short of what is required for (government-approved) pharmaceutical products.

Greater consistency of product implies greater consistency in therapeutic results. Consumers of medicinal cannabis will naturally gravitate towards sources of medicinal cannabis which guarantee such consistency. Purchasing medicinal cannabis in a licensed pharmacy conveys such a guarantee.

This leads to another advantage of producing fully tested and approved cannabinoid drugs to the marketplace. "Drugs" (cannabis or otherwise) can be shipped and sold freely across Canada. Conversely, Canadian LP's selling medicinal cannabis products are still impeded by significant inter-provincial trade barriers. Clearly producers of medicinal cannabis would benefit from full access to Canadian markets instead of gaining access on a province-by-province basis.

Lastly, if medicinal cannabis was produced and distributed as a true pharmaceutical product, it would acquire **much greater eligibility for coverage under drug-coverage insurance.** If patients who are prescribed medicinal cannabis have a choice of buying a quality product from a source which is covered by insurance versus a source where they are required to pay out of pocket, their choice becomes obvious.

The first of these LP's to knock on Tetra Bio-Pharma's door was Aphria Inc. One of Canada's senior licensed producers in terms of both size and experience, Aphria already had a reputation for producing high-quality cannabis.

The management of Aphria looked at TBP and saw a great potential partner to help provide *it* with a competitive advantage versus other LP's. TBP's management looked at Aphria as being an ideal partner to provide the high-quality cannabis strains from which Tetra could derive genuine, licensed pharmaceutical products. Win/win.

Aphria initially invested $1 million in a joint venture. Those funds were dedicated to advancing clinical production and testing of "PPP001", a pain-management cannabinoid drug. This is the cannabinoid drug which is currently in the process of Phase I human clinical testing.

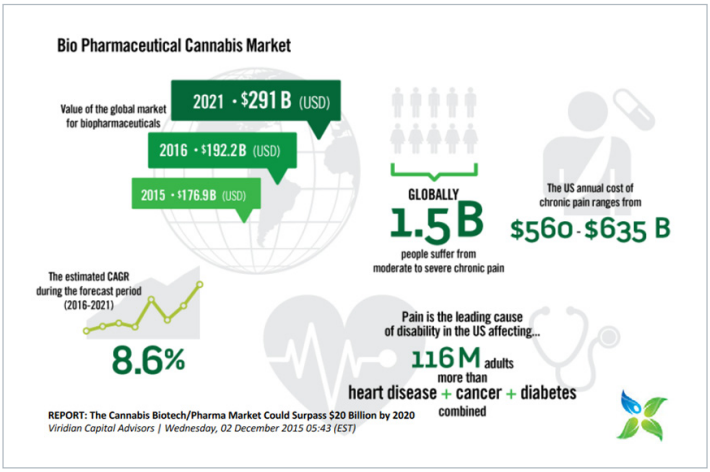
Aphria has since invested another $1.3 million in Tetra. This time the investment was not targeted at any specific operational goal but was simply aimed at Aphria raising its strategic holding in TBP.

PPP001 is designed to be a smoked/inhaled prescription medication. Delivery via combustion has been shown to provide greater efficacy than oral ingestion for certain pain sufferers. PPP001 is aimed at the market for treating cancer patients, specifically Stage 3 and Stage 4 cancer patients. With many of these patients having been diagnosed as terminal, concerns about potential hazards of smoking cannabis are minimal.

Why pain management? It's all in the numbers. Based on 2008 data; the total annual cost of pain to the U.S. economy is $560 - $635 billion per year. The total value of the U.S. pain management market alone ranges from $261 to $300 billion per year. For Canada, this implies cannabis producers taking aim at a pain management *market* of at least $25 billion per year.

It's a huge market, but just one of many health sector niches for medicinal cannabis. Conventional sales of medicinal marijuana products could never hope to access more than a small portion of this or other health sector niches. In contrast, producers of licensed and approved cannabinoid drugs would have unfettered access to these multi-billion dollar markets.

Helping TBP navigate through the world of FDA and Health Canada drug approval is Dr. Guy Chamberland, the Company's Chief Scientific Officer. A 20-year veteran of the pharmaceutical industry, Dr. Chamberland has great familiarity with the drug testing/approval process.

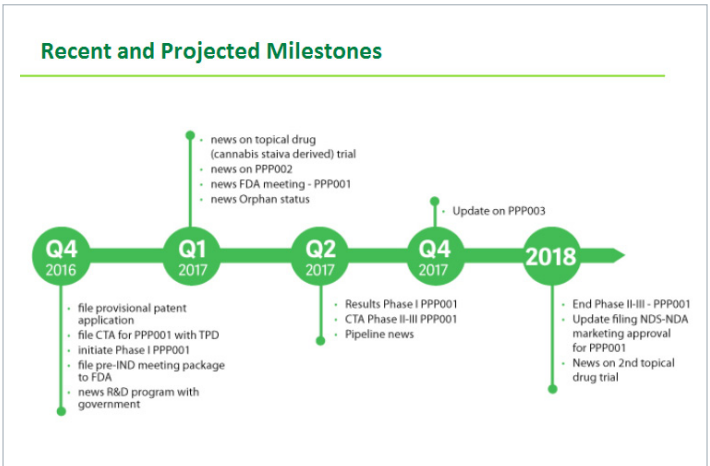


With conventional pharmaceuticals, the time from initial testing of a new discovery to final approval to bring a drug to market can easily exceed a decade. In contrast, cannabis is essentially a "late-stage" drug.

Cannabis has been used/consumed by humanity for thousands of years. This track record of use provides less uncertainty for medicinal cannabis products versus new chemical pharmaceuticals. This makes it possible to entirely eliminate early-stage work at the pre-clinical level for cannabinoid drugs.

In addition, the body of empirical evidence for medicinal use of cannabis already provides considerable guidance on the quantity and frequency of dosage. This helps to dramatically reduce the Phase II testing stage which typically involves extensive experimentation on dosage levels.

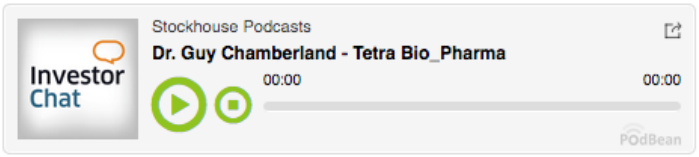
These "late-stage" advantages mean that new cannabinoid drugs can be brought to market in roughly 1/3rd the time of conventional pharmaceuticals – if not less. Naturally, this dramatic reduction in the length of the testing/approval process also translates into much, much lower drug development costs.



The medicinal cannabis market is a very large market. However, the potential market for licensed and approved cannabinoid drugs is gigantic. **The global pharmaceuticals market is roughly a $1 trillion per year industry.** Said CEO Rancourt:

"We are focused on building a team that will accelerate the execution of our business plan of becoming a global leader in pharmaceutical cannabis. Our goal is to capture a sizeable share of this trillion dollar market and drive long- term value for our shareholders."

TBP is moving full-steam ahead on its own, proprietary pipeline of cannabinoid drugs – both prescription and over-the-counter. As that pipeline matures along with the cannabinoid drug market, expect the line of LP's outside the Company's door to grow significantly longer.



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