Submission No. 039
Received 11 July 2016

Submission to the Medical Cannabis Committee

Firstly, the opportunity to forward a submission to the Committee is appreciated. It is a pity that I only found out about the Committee on Friday the 1st of July so I feel that I have not had a reasonable time to construct this submission. I must add I have never written to a government Committee before today and ask that the Committee exercise tolerance and understanding towards my hastily written submission.

As a preamble, the following 4 paragraphs illustrate a point regarding fair and proper opportunity to participate in the medicinal cannabis debate:

Unfortunately the Health Dept. has thwarted my enquiries on several occasions and it seems that there is an unofficial policy to discourage and turn away my genuine enquiries. The official answer on the phone from the Ministers Office about how to get the latest information and even contribute to the Medical Cannabis debate in Queensland was "we are not interested" which was repeated to me several times "we are not interested", "we are not interested" and eventually I hung up the phone wondering how to find the correct information.

After several repeated contacts with the Health Department I eventually got a call from then Manager of the Medical Cannabis team who was very helpful.

It only took from March 2015 when I made my initial enquiry until July 2016 to get the correct information from the Health Department.

[redacted]. It is my wish that the culture within the Health Department improve its attitude towards the subject of medicinal cannabis as it is a legitimate form of treatment.

Anyway, lets move on to the main points:

This document is advocating use of Cannabis for Medical Application.

Medical Cannabis can also be referred to as Cannabis, Hemp and Marijuana etc the Latin Cannabis means Useful Hemp, Hemp means Cannabis and Marijuana is similar in Spanish. The species of Cannabis being Sativa, Indica and Ruderalis..

The truth of the matter is that the same plant can be used for industrial. Recreational or Medical purpose it comes down to intention of use and application.
The distinction is in the intention of use. Traditionally Cannabis has been used in many cultures as a medicine – the reason is because cannabis works

Initially my interest was the use of Medical Cannabis in palliative care as I had witnessed the suffering of my best friend who, the day before she died, was pleading with the Palliative Care Doctor to kill her so she didn't have to suffer anymore. It was distressing to witness the pain she was experiencing and even more distressing when she pleaded with family and friends, and the Doctor to end her life. The official medicines and painkillers were NOT ENOUGH to mitigate her suffering and the fact that she had to die in so much pain was abhorrent,
and the prevention of access to Medical Cannabis was a cruel political punishment. as Medicinal Cannabis is know to assist with pain management very effectively

In my eyes the fact that Medical Cannabis was not available to my friend was a crime of omission, i.e. the true crime is that the political processes have taken so long, far too long to make Medical Cannabis a treatment choice for those with no hope of survival – for the law to dictate that people cannot mitigate their own pain and suffering as they die is an affront to reason.

Medical Cannabis is know to have many healing benefits, many of which have been studied in other jurisdictions and there is more that sufficient evidence of the efficacy of Medical Cannabis to treat or relieve a wide range of health conditions. Borders and jurisdictional boundaries and political opinion make NO difference to the useful or effectiveness of Medical Cannabis and so research and information documenting the effectiveness of Medicinal Cannabis from other jurisdictions should be used to develop a better understanding of the health benefits that Medicinal Cannabis can provide. It is not necessary for medicinal cannabis to be researched as if it only exists it this jurisdiction – information from other jurisdictions should not have to be proved again to be valid.

It is established fact and undeniable reality that Medical Cannabis is able to provide relief from pain because it alters the way that pain is perceived and felt.
and Medical Cannabis must be made available to treat the full spectrum of health conditions that it can relieve or treat.

The USA Department of Health and Human Services which describe a broad range of health benefits.
And from the patent 6630507 BI

Cannabinoids as antioxidants and neuroprotectants

ABSTRACT

"Cannabinoids have been found to have antioxidant properties, unrelated to NMDA receptor antagonism. This new found property makes cannabinoids useful in the treatment and prophylaxis of wide variety of oxidation associated diseases, such as ischemic, age-related, inflammatory and autoimmune diseases.The cannabinoids are found to have particular application as neuroprotectants, for example in limiting neurological damage following ischemic insults, such as stroke and trauma, or in the treatment of neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease and HIV dementia."

As it is not the role of government to limit how people can mitigate their own pain and suffering so there must be easy access to Medical Cannabis for any pain related issues whether for recuperative situations or palliative care.

Importantly there should be no synthetic or GMO derived products, as natural Medical Cannabis products are easily derived from natural plants. There is no need to improve on what nature provides in this instance, and natural derivatives of Cannabis for medical application can be distilled or concentrated very easily and successfully.

Retaining the equilibrium of oils from plant to distilled concentrate is important for across-the-board healing benefit however specific components of Cannabis may also be used for targeted application. The natural plant is compatible with humans and the human endocannabinoid system within our bodies.

There has been a huge endeavor to stamp out the use of Cannabis and a political agenda, until recent times, has been to prevent access to Medical Cannabis AND ALL THE WHILE the governments have not prevented or stopped the addiction or damage that alcohol abuse and cigarettes provide.

There is no evidence regarding death from overdosing using medicinal cannabis.
There is no evidence of any death certificate listing cannabis as the cause of death.
There is plenty of evidence of people dying from man-made prescribed drugs due to "side" effects and plenty of evidence of people dying from abusing man-made prescription drugs.
Cannabis can be overused like anything else however even in the instances of overuse of natural cannabis there is no evidence of cannabis causing death.

Whilst there is a concern for the criminality that surrounds the subject of recreational use of Cannabis I am unable to find any authentic evidence of even one instance of overdosing or fatality from Cannabis, and I am completely sure that if any such evidence existed it would publicised with tiresome repetition.

It would seem that natural Medicinal Cannabis, in comparison with the deaths that amount from prescription drugs, has the potential to be one of the safest medicines to use

"Because cannabinoid receptors, unlike opioid receptors, are not located in the brainstem areas controlling respiration, lethal overdoses from *Cannabis* and cannabinoids do not occur."

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Marijuana (Cannabis) is not a narcotic. .. it is pharmacologically distinct from the family of opium derivatives and synthetic narcotics. (Wolstenholme, 1965; Watt, 1965; Garattini, 1965; 1 Crim 5351 Calif. District Court of Appeal, 1st Appel. Dist.)

Marijuana (Cannabis) is not detrimental to the user's health. Even when used over long periods of time, it does not appear to cause physical or psychological impairment. (Mayor's Committee on Marihuana, New York City, 1944; Freedman & Rockmore, 1946; Fort, 1965a, 1965b; Panama Canal Zone Governor's Committee, 1933; Phalen, 1943; Indian Hemp-Drug Commission, 1894; Becker, 1963)

I am unable to find any authentic information regarding medicinal cannabis addiction. There is no physical dependence demonstrated and I have never met or heard of anyone who has a physical addiction to recreational or medicinal cannabis.

Marijuana (Cannabis) is not addicting. The use does not develop any physical dependence (see below). (Mayor's Committee on Marihuana, New York City, 1944; Allentuck & Bowman, 1942; Freedman & Rockmore, 1946; Fort, 1965a, 1965b; Panama Canal Zone Governor's Committee, 1933; Phalen, 1943; Indian Hemp-Drug Commission, 1894; Watt, 1965; I Crim 5351 Calif. District Court of Appeal, 1st Appel. Dist.; United Nations, 1964a, 1964b)

There is HUGE impact on the health of individuals who abuse alcohol, there is a HUGE impact on the families of alcohol abusers and there is a HUGE impact on our society and a HUGE drain of resources from Law Enforcement, the court system and the Health System. And the current government attitude towards the impacts from tobacco on health is clearly evident in the packaging and social stigma that tobacco use attracts

"A characteristic marihuana psychosis does not exist. Marihuana will not produce a psychosis de nova . . ." "But even excessive marijuana use is less likely to lead to aggressive or anti-social conduct than immoderate consumption of alcohol." (Allentuck & Bowman, 1942; Boyko et al., 1967; Murphy, 1963)

Four separate official studies have been conducted on this question, as a part of a larger study: New York City Mayor's Committee in 1944; a committee of the health department of the U. S. Army; another U. S. Army committee, concerned with discipline effects; and a very thorough study by a committee established by the British Government to study the effects in India where it is-and was-in as widespread use as is alcohol here. All of these studies came to the conclusion: marijuana (Cannabis) is not damaging to the user or to society, and therefore should not be outlawed.. (Mayor's Committee on Marihuana, New York City, 1944; Panama Canal Zone Governor's Committee, 1933; Phalen, 1943 ; Indian Hemp-Drug Commission, 1894)

There is no evidence that responsible use of Medical Cannabis is unsafe or dangerous to individuals, there is no evidence that use of Medical Cannabis has a detrimental effect on families of those individuals, and there is certainly no evidence that responsible use of Medical Cannabis detracts from the effective functioning of our society. It would seem that this is an opportunity for this Committee to recommend that the government do the right thing by the people and grant full access to Medical Cannabis for any legitimate reason.

Like anything else Cannabis be abused or used responsibly it just a matter of having a supply chain that operates with responsibility and accountability.

There are already production, processing, prescription and provisions for poppy-derived medicines and it is reasonable to think that Cannabis can be regarded and treated similarly.

For the best framework within Queensland all Doctors must have easy, prompt and streamlined ways to become approved Prescribers – if the hurdles I have encountered from the Health Department are anything to go by then there is a crucial need for the Committee to recommend that almost any Doctor who is so inclined can have the choice to prescribe Medical Cannabis.

Most Doctors can prescribe natural opiate derivatives and synthetic opiates, both of which are far more dangerous than Cannabis. Doctors and prescribing Pharmasists should automatically be notified that they also have the choice of prescribing Cannabis – whilst they need to be informed of medical guidelines there should be no further test or requirement. It should be as automatic a process as the prescribing parameters for any new product that is allowed to be prescribed. There should be no discrimination because it is Medical Cannabis

Lawmakers must ensure a medicinal cannabis system that works for patients and prescriber. If Doctors are supported to use a system of legal provision of medicinal cannabis then patients will be able to utilize the system and avoid having to look outside the medical system to obtain medicinal cannabis

Doctors and Prescribing Pharmacists must be made to feel welcome in that enquiry rather that discouraged and thwarted
Doctors and Prescribing Pharmacists should have the full cooperation from the Health Department. The Health Department should act with an intention to enable Doctors to have the choice to prescribe Medical Cannabis to be approved promptly and without any delay.

Medicinal Cannabis should be available in any useful form including as herb, ointment, gel, oral spray or any other form suitable for medicinal delivery

In the instance of smoking of Cannabis it is shown to be one of the fastest delivery methods and smoking of cannabis is not demonstrated to cause lung cancer according to the below-mention scientific review. (personally I don't think it is the best method of delivery however it needs to be considered as a method of fast access to relief and soothing of certain conditions.

"A systematic review assessing 19 studies that evaluated premalignant or malignant lung lesions in persons 18 years or older who inhaled *Cannabis* concluded that observational studies failed to demonstrate statistically significant associations between *Cannabis* inhalation and lung cancer after adjusting for tobacco use."
Reference: Mehra R, Moore BA, Crothers K, et al.: The association between marijuana smoking and lung cancer: a systematic review. Arch Intern Med 166 (13): 1359-67, 2006

There is agreat array of health conditions that are soothed or relieved by the use of medicinal cannabis. Medicinal cannabis can also influence the way cancer functions

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and with regards to the fact that cannabis can assist with the treatment of cancer symptoms and I bring the following to the attention of the Committee

How Cannabis Oil Works to Kill Cancer Cells

Bio-chemist Dennis Hill

By: Dennis Hill

First let's look at what keeps cancer cells alive, then we will come back and examine how the cannabinoids CBD (cannabidiol) and THC (tetrahydrocannabinol) unravels cancer's aliveness.

In every cell there is a family of interconvertible sphingolipids that specifically manage the life and death of that cell. This profile of factors is called the "Sphingolipid Rheostat." If endogenous ceramide(a signaling metabolite of sphingosine-1-phosphate) is high, then cell death (apoptosis) is imminent. If ceramide is low, the cell is strong in its vitality.

Very simply, when THC connects to the CB1 or CB2 cannabinoid receptor site on the cancer cell, it causes an increase in ceramide synthesis which drives cell death. A normal healthy cell does not produce ceramide in the presence of THC, thus is not affected by the cannabinoid.

The cancer cell dies, not because of cytotoxic chemicals, but because of a tiny little shift in the mitochondria. Within most cells there is a cell nucleus, numerous mitochondria (hundreds to thousands), and various other organelles in the cytoplasm. The purpose of the mitochondria is to produce energy (ATP) for cell use. As ceramide starts to accumulate, turning up the Sphingolipid Rheostat, it increases the mitochondrial membrane pore permeability to cytochrome c, a critical protein in energy synthesis. Cytochrome c is pushed out of the mitochondria, killing the source of energy for the cell.

Ceramide also causes genotoxic stress in the cancer cell nucleus generating a protein called p53, whose job it is to disrupt calcium metabolism in the mitochondria. If this weren't enough, ceramide disrupts the cellular lysosome, the cell's digestive system that provides nutrients for all cell functions. Ceramide, and

other sphingolipids, actively inhibit pro-survival pathways in the cell leaving no possibility at all of cancer cell survival.

The key to this process is the accumulation of ceramide in the system. This means taking therapeutic amounts of CBD and THC, steadily, over a period of time, keeping metabolic pressure on this cancer cell death pathway.

How did this pathway come to be? Why is it that the body can take a simple plant enzyme and use it for profound healing in many different physiological systems? This endocannabinoid system exists in all animal life, just waiting for its matched exocannabinoid activator. This is interesting. Our own endocannabinoid system covers all cells and nerves; it is the messenger of information flowing between our immune system and the central nervous system (CNS). It is responsible for neuroprotection, and micro-manages the immune system. This is the primary control system that maintains homeostasis; our well being.

Just out of curiosity, how does the work get done at the cellular level, and where does the body make the endocannabinoids? Here we see that endocannabinoids have their origin in nerve cells right at the synapse. When the body is compromised through illness or injury it calls insistently to the endocannabinoid system and directs the immune system to bring healing. If these homeostatic systems are weakened, it should be no surprise that exocannabinoids are therapeutic. It helps the body in the most natural way possible.

To see how this works we visualize the cannabinoid as a three dimensional molecule, where one part of the molecule is configured to fit the nerve or immune cell receptor site just like a key in a lock. There are at least two types of cannabinoid receptor sites, CB1 (CNS) and CB2 (immune). In general CB1 activates the CNS messaging system, and CB2 activates the immune system, but it's much more complex than this. Both THC and anandamide activate both receptor sites. Other cannabinoids activate one or the other receptor sites. Among the strains of Cannabis, C. sativa tends toward the CB1 receptor, and C. indica tends toward CB2. So sativa is more neuroactive, and indica is more immunoactive. Another factor here is that sativa is dominated by THC cannabinoids, and indica is predominately CBD (cannabidiol).

It is known that THC and CBD are biomimetic to anandamide, that is, the body can use both interchangeably. Thus, when stress, injury, or illness demand more from endogenous anandamide than can be produced by the body, its mimetic exocannabinoids are activated. If the stress is transitory, then the treatment can be transitory. If the demand is sustained, such as in cancer, then treatment needs to provide sustained pressure of the modulating agent on the homeostatic systems.

Typically CBD gravitates to the densely packed CB2 receptors in the spleen, home to the body's immune system. From there, immune cells seek out and destroy

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cancer cells. Interestingly, it has been shown that THC and CBD cannabinoids have the ability to kill cancer cells directly without going through immune intermediaries. THC and CBD hijack the lipoxygenase pathway to directly inhibit tumor growth. As a side note, it has been discovered that CBD inhibits anandamide reuptake. Here we see that cannabidiol helps the body preserve its own natural endocannabinoid by inhibiting the enzyme that breaks down anandamide.

This brief survey touches lightly on a few essential concepts. Mostly I would like to leave you with an appreciation that nature has designed the perfect medicine that fits exactly with our own immune system of receptors and signaling metabolites to provide rapid and complete immune response for systemic integrity and metabolic homeostasis.

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B. Medical Indications and Benefits

Based on clinical, research and other medical literature the following are only part of the indications that cannabis has therapeutics benefits:

Medical Condition	Benefit
Cancer patient undergoing chemotherapy treatment	Aids in pain management and enhanced appetite
Glaucoma caused by poor blood supply to the optic nerve fibers	Decreases pressure inside the eye
Epileptic seizures	Controls seizures by binding to the brain cells responsible for controlling excitability and regulating relaxation
Alzheimer's disease	Slows the formulation of amyloid plaques by blocking the enzyme in the brain that makes them
Painful symptoms of multiple sclerosis	Binds to receptors in the nerves and muscles to relieve pain
Treatment for Hepatitis C infection (Negative side effects)	Helps lessen treatment side effects such as nausea, muscle aches, loss of appetite and depression
Inflammatory bowel diseases such as Crohn's disease	Interacts with cells in the body that play an important role in gut function and immune responses
Parkinson's disease	Significantly reduces pain and tremors and improves sleep
Concussion or other traumatic injury	Lessens the bruising of the brain and helps with healing mechanisms after a traumatic injury
Chronic pain	Provides relief also when other treatments fail

.....

I ask that the Committee will use this submission in the nature it was intended and enable the easy provision of medicinal cannabis to the people of Queensland

with warm regards

Rohan Moxley