THE LEGISLATIVE COUNCIL GOVERNMENT ADMINISTRATION A COMMITTEE MET IN COMMITTEE ROOM 2, PARLIAMENT HOUSE, HOBART ON MONDAY, 22 SEPTEMBER 2014.

LEGALISED MEDICINAL CANNABIS

Mr TROY LANGMAN, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR (Forrest) - Everything you say here is recorded on *Hansard* and it is a public hearing. It will form part of the transcript that is put onto our website and become public evidence. There is media here as well. Everything you say is covered by parliamentary privilege while you are presenting before the committee. But if you speak the media afterwards, you are not covered by parliamentary privilege at that time. You need to bear that in mind. If there was some evidence you wanted to provide of a confidential nature, you can request that we go into an in camera session and the committee will consider that request at a later time, otherwise it is all public.

Mr LANGMAN - That will not be necessary.

CHAIR - Thanks. We have your submission and we would you to speak to that submission and elaborate on it to a degree and also that proposal you sought to put forward to the minister some time ago, around those issues and members will have questions for you.

Mr LANGMAN - I will briefly outline how this all came about.

CHAIR - Yes, that would be great.

Mr LANGMAN - I literally started this by myself. I was working for a bank and I was presented with film footage of a young girl in Victoria, Tara O'Connell, who goes to I was taken by her story and the amazing and life-saving effects that the cannabinoid tincture had on her and I started doing my own research and saw what was happening overseas and that prompted me to leave my employment. Call it crazy, but I decided to set out and do this.

I chose Tasmania for a couple of different reasons. I felt this would be a good place to start this business, given there is already narcotics grown here and the climate suited certain cultivars. It does not suit all the cultivars we need to grow but a great deal of them.

Originally I sought advice from Greg Barns, which I paid for myself. I paid for everything myself. I funded the whole thing out of my own pocket to-date, including the trip to get here from Norfolk Island for the upper House inquiry. Greg drew up some advice which outlined what was possible from a state by state basis. Along the way, I gathered a team which has evolved to what it is today. We originally approached the last premier's office, Lara Giddings and her office referred me to the health minister of the

day, Michelle O'Byrne who I met with in Launceston. Present at that meeting was the Chief Pharmacist, who I believe is still the Chief Pharmacist, Mr Jim Galloway and also her chief of staff at the time. I was surprised in the meeting because of the level of support that it received from her office. She was incredibly supportive and she suggested that we seek to do a clinical study with the university, which we did and we started a relationship there. Her office also drafted a letter which was approval in principle for the whole concept. We were copied into that letter but the letter was sent to the Vice Chancellor of the university.

We were fortunate enough to have a clinical study drafted. As terrible as it sounds, having to decide what clinical study you want to do, that was not my preference, I wanted to do something along the lines of what they were doing in Israel, where it is very broad. They have a clinical study but there are many different elements they are taking into consideration there and that has been running since the 1990s. They started researching medicinal cannabis in the 1960s. That was my preference but I was steered in the direction of focusing on one thing at a time and we chose chemotherapy induced, nausea and vomiting and that has been done before. It has been done since the 1960s. We wanted to improve on that by using vaporising devices rather than smoking. Smoking does work but it is not palatable for most people and certainly not for the medical profession.

Vaporising devices only came about, from my knowledge, in the 1990s. They are an electronic device. I do not know if you have come across them at all. Basically it heats the cannabis or the extract to a certain point where it turns it into vapour rather than smoke and the reason why it is so important to either smoke or vaporise in this condition and there are a couple of different reasons. The first is they are so sick that they cannot put anything in their mouth anyway and secondly it is the fastest way of providing relief to those patients. We were focusing on vaporising and we had some ideas around measures dosing as well. We spent considerable time, well I did anyway, starting to develop relationships at the university which I felt was going really well.

I guess along the way we were introduced to Lucy Haslam whom you are all probably familiar with. Lucy and Dan started their public campaign at the same time I started a year ago just by coincidence. We formed a great working relationship supporting each other through this, they have done an incredible job loving their local community starting with the, if I am telling the story correctly, the local Mayor on site and local area Commander who are on the front page of the paper saying we are not arresting these people.

Then it extended to people like Barnaby Joyce and eventually to their local member for New England, Kevin Anderson. The reason I am telling this part of the story s because Lucy told Kevin about what we were trying to do down here and they contacted me and I had lengthy discussions with Kevin and also two members of the Legislative Council in NSW. Both of those members were involved in the upper House enquiry there into medical cannabis.

I was up front with him in terms of the very earlier stages that we were at because we had just started out but they decided they wanted to come down anyway and meet us. Kevin's

words were 'I am coming down to see you' I, of course, welcomed him, I would not say no.

What it did do is that it meant that we had to probably prematurely meet with the new Government, we wanted to wait a while for them to settle in. We felt we needed to have the clinical study approved by the ethics committee at the university which it had not got to that stage yet. Kevin and his team were coming down so we thought we had better, at least out of courtesy meet with Mr Ferguson which we did. Did you have any questions at this point?

CHAIR - No, its fine. Is there more of the story to tell from where you have got to since then?

Mr LANGMAN - It is a huge story.

- **Mr MULDER** What is it you are proposing to do with the university trial? You said you had started a relationship. What sort of a trial were they planning to do and what was your particular role? In the end you set up a business what is that business going to do?
- **Mr LANGMAN** Primarily we feel our role is as a primary producer of the product. Having said that though we are really keen to set up a lab to do the extractions as well because making the medicine is a relatively simple process, believe it or not. I am not a scientist or a doctor, I follow it as best I can but from my understanding it is a fairly simple medicine.
- **Mr MULDER** Your product will be, is it the herbal form or is it taken to the next stage with extracting the active ingredients?
- Mr LANGMAN Well both actually. In my view it is the tintia that are the most important. Are you all familiar with that or would you like me to explain, in my words at least? It is a simple plant extraction, you are removing the resonance from the flower head in the same way that you would remove resins from a poppy head. That is put into a carrier and it needs to be something either oil based or very high alcohol based otherwise the resins will not dissolve. It is literally in a tintia bowl about this big and just given with a dropper. Normally about 5 mils twice a day. That is convenient for people particularly older folk.

CHAIR - How is the tintia as opposed to the vaporiser?

Mr LANGMAN - People could use both potentially. The reason you want to use a vaporiser or if people really want to smoke, if you are 90 years old and you want to smoke. There is a great video from our holiday travelling in Israel where the gentleman is a Holocaust survivor and he wants so smoke, so I'm not going to argue with him. That's what he wants to do and it makes him feel better, so be it. But certainly that's not palatable for most people. Again the reason why you want to vaporise is because it provides immediate relief. So if you've suddenly got serious pain or really bad muscle spasticity if you have MS, whatever the case may be, that's probably what you want to do, because if you take the tincture or a capsule of the extract orally it's going to take an hour or two to relieve your pain and suffering. So it's quite important.

- **CHAIR** So what scientific advice have you had?
- **Mr LANGMAN** I've just basically done my own research from overseas. We do have a scientific advisory board which we are just putting together now actually. I'm not pretending to be anything I'm not. I just saw this as a simple solution that has been used overseas for many, many year and I just want to help people.
- **CHAIR** Where did you get to with UTAS? You said you were in discussion with UTAS. It was a bit pre-empted by the fact that Kevin was coming down.
- **Mr LANGMAN** Yes, it was, it probably wasn't helpful, I guess. It did raise the issue, so I think it probably was worthwhile in the end.
- **CHAIR** So where did you get to with UTAS then? What stage? Are you still working with them?
- **Mr LANGMAN** It just all fell over in the end. I was given the impression that they were told not to continue with it. That was the impression I was dealt. I guess that's hearsay.
- **CHAIR** So there is no formal proposal with UTAS at the moment?

Mr LANGMAN - No.

CHAIR - Right.

Mr LANGMAN - The actual clinical study was written by Professor Laurence Mather from Sydney University. He did that for us for free, which was very kind. That was, of course, provided to the university. The main issue they were having was trying to find oncologists to come on board to help them. It seems that it was too controversial. They just weren't interested. We eventually did find an oncologist in Sydney but our feeling towards the end was that the government just really wasn't interested in pursuing this. Our attention then went to Norfolk Island. I've just come back from there, I've been there for the past five weeks.

Mr MULDER - What was the nature of the clinical trial?

Mr LANGMAN - The treatment?

- **Mr MULDER** We've heard stories about major drug trials that take five years and the equivalent numbers of billions of dollars to complete to get right up to that standard. Then we've also heard there are things like post-market research of the effects of this particular thing when it's prescribed by doctors and the results are monitored. So between those two, what was being proposed?
- **Mr LANGMAN** This was really just to relieve the nausea and vomiting from chemotherapy.

- **Mr MULDER** So it was almost like a post-market assessment of the impact that this had on
- Mr LANGMAN From the other drug you mean? I'm not quite following.
- **Mr MULDER** One end of the trial we've heard is that we get the THC or the CBD and the doctor would prescribe that in a measured dose and then report back the results of the effect of the medication.
- Mr LANGMAN That's essentially it.
- **Mr MULDER** I'm just trying to get from what sort of a clinical trial. Was it this huge big thing with double blinds and all the rest of it, or was it this post-market assessment of the
- **Mr LANGMAN** That's probably the best way to describe it, I guess. It's a simple clinical study, this particular one that we chose, and that's why we chose it. Also it would only have taken a matter of months because at the end of the day the person is on heavy chemo. They can't keep food down and they're throwing up and they've got terrible nausea and vomiting.
- **Mr MULDER** You're not going to risk giving someone who is getting effect from the medicine a placebo just to test whether or not it is working.
- Mr LANGMAN I would hate to do that to somebody, exactly, that's right.
- CHAIR One of the other comments was that you could test it against some of the new generation anti-emetics, like Ondansetron, which is relatively new and fairly effective. It is not cheap, but it can be given IV, it can be given orally, given sublingually. They have Ondansetron wafers and that sort of thing. One of the comments that has been made is trialling cannabinoids against so rather than not giving the patient anything, which you wouldn't get ethics approval for that, I don't believe if I was on this committee I wouldn't -
- **Mr LANGMAN** Could you do that to somebody?
- **CHAIR** That is right, but to get ethics approval for something like you to have one of these new generation anti-emetics or the cannabinoids.
- **Mr LANGMAN** My understanding was and please correct me if I am wrong that the current drugs that stop nausea and vomiting work about 50 per cent of people was my understanding. That is what I have been told.
- CHAIR I am not sure.
- **Mr LANGMAN** This comes from Dr Washer, who is our chairman, that there is no drugs available that stimulate appetite. That is so important because you can stop the nausea but then they do not feel like eating and, as I am sure you would all appreciate, eating is so important when you are sick but for any time but certainly then.

- **CHAIR** If the Government decided they would support a criminal trial would you then seek to put in application again for this sort of process?
- **Mr LANGMAN** I think we would need to be assure of an outcome because at the end of the day we need to raise money to pay for this so if we were able to support that with a business down the track then we could entertain that.
- **CHAIR** How were you planning to fund the trial had you got it going when you first approached Minister Ferguson?
- **Mr LANGMAN** We have financial backers and this particular trial is not very expensive to do.
- **Mrs HISCUTT** We have been told that there is not enough critical mass in Tasmania to give a good judgment of a trial so what is your opinion of that? What do you have in mind?
- Mr LANGMAN My blunt opinion is that I do not actually think we should even do clinical trials. I think that we should do research and development perpetually absolutely, I think that is really important because the medicine has not been explored to its full potential so that is hugely important but, to me, it is not about money and it is not about anything other than providing relief to people and we can do that immediately for people and when it is being done overseas for so many years and we know that it is non-toxic and we know that it does not kill people and we know that it is extremely non-addictive. I think the Prime Minister put it, better than I could ever put it in his letter to Allan Jones last week, why would we leave people suffering in the interim so again I do not think we should delay the relief to that suffering. That is my -
- **Mrs HISCUTT** So you want to step away into production and distribution? Is that what you imagine?
- Mr LANGMAN What we should do is we should look to international best practise and what is being achieved overseas so that we make sure that it does right, so that we make sure that we do not put people in harm's way because certainly you do not want to be overdosing on this medicine, it is not going to kill you but it is very unpleasant, so that is really important. Just to give you an example, we are engaging with an organisation in the states that are now actually providing really professional training for staff, as an example. I think in the first instance I would be looking towards Israel and that would be my first choice.

Mrs HISCUTT - Sorry, choice for?

- **Mr LANGMAN** For looking to see how things are being done overseas because they have been doing it for so long and their study is so broad or their trial, whatever we want to call it, is too broad. They are using it for everything from aged care to kids with epilepsy.
- Mrs HISCUTT Is Israel still in the trial stage or has it moved to general usage?

- **Mr LANGMAN** I think we need to decide what we mean by trial because you have your traditional clinical trial or study but this is more of a monitored program. That is how probably I would best approach it and there would be studies within that program looking at specific indications, of course.
- **CHAIR** It is ongoing research is what you are talking about.
- **Mr LANGMAN** Yes, and that is, of course, hugely important.
- **Mrs HISCUTT** One last question, I notice with have Greg Barnes coming in later. He is a director in your company?
- **Mr LANGMAN** No, he decided to remain impartial actually and remain as our legal counsel if we need any.
- Mrs HISCUTT I wondered why he would not be with you.
- Mr LANGMAN He was going to but -
- Mrs HISCUTT He is not a director of your company anymore.
- Mr LANGMAN No, we are actually doing a bit of a restructure at the moment.
- **Mr FARRELL** I was just wondering have you had any discussions or meetings with any of the major drug companies in Australia?
- Mr LANGMAN No, not at all.
- **Mr FARRELL** It would probably only be your opinion, but why haven't they, with all their resources, advanced a study into medicinal cannabis? Is it based on what they can recover out of it as a medicine? We have heard from several people -
- Mr LANGMAN I will probably get shot if I say this, but there is Sativex that is being produced by GW Pharmaceuticals in the United Kingdom. That sometimes gets confused as being a synthesised medicine, but it is a natural cannabis medicine. You can easily find a documentary that was filmed in the facility where they are showing the extract being done. It is what is being called the 'oil'. It is quite a simple extraction. There are a lot of They make it into a tincture and then into a mouth spray. pharmaceutical companies involved in that business including Baer, Novatis and quite a few others. It is out there. From my understanding as a lay person, a businessman who does his own research as best he can, is that cannabis seems to be a very complex medicine, given there are around cannabinoids and given those cannabinoids bind to a receptors throughout our body - coined as the 'endocannabinoid system'. Our bodies produce cannabinoids, cannabinoids found in mothers' milk. It is incredible there is a plant that is provided by nature that has such a complex medicine that works on such a wide range of indications in the human body. Not just the human body, it is also fantastic for our pets as well because they can endocannabinoid systems as well. There are companies in the United States that are producing veterinary medicines as well.

What we are seeing from places such as the United States is people are changing to medicinal cannabis extracts and then they are not having to use their mainstream products anymore, so it could be seen as threat possibly to the pharmaceutical industry. I wouldn't want to say for a moment there isn't a need for those drugs, they do fantastic work and of course there is a need for opiate. To me, this is just another tool in the kitbag. It is another option for people. Some people may not need medical cannabis. If something else works for them, great, but if they have tried everything else and nothing else works, why shouldn't they try another medicine.

This is has been stigmatised for, it seems, about 100 years. It is a very complex story. It is all well documented on line, on Wikipedia, which we think is very reputable at this point. It seems to me this prohibition started not so much for medicine but from petrochemicals or other fibres, cotton et cetera. It seems that is where the shift happened, from my own reading. I think it is a crime against humanity. I have personally seen the results of this medicine in my travels meeting people. One great example I can give is a friend of mine's mother - she is in her 70s, was a school teacher originally, a very conservative lady. When I first met her she was basically stuck in her chair at home. She couldn't do anything, her hands were shaking very badly. I met her months later and I was telling her about what I was doing and of her own accord she joined one of these compassions clubs and was provided with a tincture. She told me she was taking a very small amount. I visited her just before I went to Norfolk Island and she didn't say anything, she just bolted out of her seat, put her hands up and they were as steady as a rock and she shook my hand firmly. Next to her was a big pile of knitting and she told me she has been driving her car and going to church.

As the interview stated, they interviewed some old folk in an Israeli nursing home. They said similar things that they were awakened to life because it is a neuro-protectant. It is helping with everything from epilepsy to Alzheimer's, to dementia and all of those things. I see those results and I see somebody who is not suffering any more, well, nothing is going to stop me from continuing on doing this. I do not care if I never make a cent out of it.

Mr FARRELL - How much of a barrier is it to you that it is a schedule 9 classified?

Mr LANGMAN - Well, it makes it impossible. I just felt that we should set up a company and gather a group, and it has taken me a while, of professional people who can take this where it needs to be and help to force the issue really, because this is going to happen. The genie is out of the bottle. When people see their loved ones suffering and they read on the internet that there might be something that can help them, or it can help themselves, well, when you are so desperately ill you are going to try anything aren't you? At the end of the day I mean Canada reintroduced in 1999, United States, first California reintroduced in 1996 and I do not know what we are up to now in terms of states, it was 23 when I left to go to Norfolk Island, but I have been out in the middle of the Pacific, so I think it has increased since then.

Israel, they started their program in the nineties, but they started researching it in the sixties. Professor Raphael Mechoulam, who first isolated CHC and CBD, 10 countries in the EU, England allows GW to grow, but for some reason they have not been allowed

the actual medicinal use of it, though I have been reading lately that Sativex is going to be allowed. The Netherlands has a medicinal cannabis program, but that is not to be confused with the recreational side of things that they have there, it is totally separate. They have an Office of Medicinal Cannabis in the Netherlands. There is only one licensed producer and the medicinal cannabis has to go through the Office of Medicinal Cannabis and then is dispensed through pharmacies.

In Canada it is different. I heard mention, I think it was somebody from the poppy industry, saying there was only licensed producer in Canada. There is actually at least 11. There is many. One of them is Bedrocan, which is the licensed producer in Holland and they were invited over. In the United States it is different state-by-state. It is a bit of a basket case really. It is a shame they are not all aligned, but certainly there are some good models there we can look at, but I am getting off the track, sorry.

- **Mr FARRELL** If you were given the go ahead, what steps would you then take to get this underway and what methods would you use to produce the end product?
- **Mr LANGMAN** There is a lot in that question.
- **Mr FARRELL** If they said okay you can start what you want to do now, if they gave you permission?
- Mr LANGMAN It is a huge undertaking that is for sure. I guess to start with the product might be best. Firstly you cannot just grow any cannabis. If we were to walk into a dispensary in the United States or Canada or wherever you will find that there is probably about 50 different strains that would be on offer. Some will be in dried flower form, because that is what works for some people, vaporiser smokes and I am sorry, but we cannot get away from the smoking thing because some people like to smoke, that is a fact. If that is what they want to do and if that relieves their suffering as far as I am concerned so be it, I am not going to argue with them. If it makes them feel better who are we to argue with them? Obviously that is not palatable for most people and we need to steer people in the direct of vaporising if they need that immediate relief. Because they have been doing it for so long overseas they have a very good understanding of which strains or which cannabinoid profiles work well for certain conditions. I know that they are actually assaying the cannabis over there. Is everybody familiar with that term? You do it with metal as well. You find out what is in it. It will tell them what the cannabinoid profiles were. There is high THC or low THC or high CBD or whatever it is.

I have MS and if I go into a dispensary, and it will be suggested that I use certain types of strains. Having said all of that, what works for one does not necessarily work for another. So if somebody tries something, and it does not work well for them, they should try another strain. People will also use multiple strains. They might use a lower THC strain during day, so that they can operate, and they use a higher THC strain for pain at night or to help them sleep. It really depends on the person. Our goal as a company is to produce the primary product. We want to do the extracts as well, but we would also be happy to produce, to be the farmers essentially. In Tasmania there is cold climate strains that need to be grown, and then on Norfolk Island there is equatorial strains that I am told have much better medicinal properties, but they are all important.

We need to work with governments, we need to have the doors open to us to work with the universities, the doctors, the hospitals, everybody needs to work together. I am not a doctor or a scientist. I can run the business and I can produce the product but I need the support of medical professionals to make it happen.

- **CHAIR** On that point Troy, you are talking about the trials, looking at what products you can grow, where you can grow it, and how you get the different components right. How you get the different components of the medication right. Would you be willing to collaborate with other states to do a more broad trial?
- **Mr LANGMAN** Absolutely. I am a team player so I am willing to collaborate with everybody. I would love to.
- **CHAIR** We had evidence last week from doctors who were involved in research and understand the challenges it can bring. And how you need a decent, cohort of patients to actually get some meaningful results. In spite the fact that it is not being done in Israel and other places, as you say but if you want to do this in Australia, maybe collaborating would get the results quicker, but with a larger enough cohort of patients to actually speed up that process of getting it into the mainstream.
- **Mr LANGMAN** Definitely, absolutely. It was said to us actually in the early days when we were talking with Uni that there may be a bit of a limited pool of people here. Particularly for some indications like, CDKL 5 and Androvea, I think the reason why those kids are suffering so much is because they do not send, and I could be wrong here, but I do not believe they are doing clinical studies.

CHAIR - It is a bit hard to.

Mr LANGMAN - Because there is not many of them and it is not worth it for them financially.

CHAIR - And ethically it is challenging.

Mr LANGMAN - Right, yes. But they give them opiates though. They dose them up with opiate and they are basically in a catatonic state and they have to wear head gear and cannot speak, and they cannot do anything. So I mean if you are giving them a very small dose of a cannabis extract, which is so small that it cannot get them high. And also I need to explain something as well, there is a couple of different extraction processes, involving heat, and if you do a cold extraction the THC is actually in a different form. It is in a THC a form they call it. I can only explain as basically as I can, THC A is not as psycho-tropic basically as THC. So THC only occurs when it is de-carboxulated, heated to a certain point. So the tinctures I believe that this guy Mullaways is making in New South Wales is a cold extraction and that is why when he gets the assain done it does not show THC, because it has not been heated. I have heard arguments that THC can work better for epilepsy. I have heard arguments CBD work better, but there is also the view, particularly, it came out of Israel, from Professor Mechoulam. Something known as the entourage effect, where they feel that the cannabis works better when all the cannabinoids and terpenoids and all the other compounds are kept together whole, rather than separating things out, so again we need to, there is such a great opportunity to do

- more research on this medicine and really find out. Nobody really knows. We do know it is at least relatively safe. It is not going to kill you.
- **CHAIR** Troy, before I go to Tony, when you are looking at being the farmers, if you like, in doing that you would be looking at buying different plants and seeing what works, or what would you be doing?
- **Mr LANGMAN** We don't need to reinvent the wheel luckily. We need to look overseas and gain knowledge from them.
- **CHAIR** And see if our climate provides for it, you mean?
- **Mr LANGMAN** In Australia we have all the climate necessary. We have everything from equatorial to the cold climates. As we build the business it is my dream to then hire scientists and doctors and get all the necessary expertise.
- **CHAIR** Isn't it the case that most of this, as I understand it, is grown in contained environments anyway and it would not matter where you were? Is that a fair call or not?
- Mr LANGMAN There are fors and againsts growing indoors and outdoors. Ultimately if you grow outdoors you are going to get a much better quality product. The reason is because as soon as you bring it into a controlled environment you are susceptible to disease and also to bugs and whatnot. You could lose contaminants from moulds. Also, if they are using hydroponics there are contaminants from fertilisers. The way we would envisage it set up is that we have both facilities. Indoors is actually for research and development and breeding of strains and also to house what they call the 'mother' plants. Those are plants that are grown perpetually and cuttings or tissue culture are taken from those plants and that allows for standardisation of cannabinoid profiles. Even if you take seeds from a cultivar and plant them out, each one can be different, just like brothers and sisters. That is not necessarily a bad thing but it is important to standardise as we all know.
- **CHAIR** The only problem with it is under an unregulated system at the moment you do not know what you are getting.
- Mr LANGMAN If we can talk a little bit about what is going on now, and firstly, I would like to say that it is my person view that it should be a human right if people want to grow their own medicine so be it. I would never want to stop that and I think that would be wrong. Having said that, I think that most people, particularly if they are ill, they should not have to grow their own medicine. We do not expect people to grow their own poppies and do a plant extraction and make medicines and I do not see this as being any different.
 - I, of course, get correspondence and phone calls from people all over the country telling me there stories. I stay in touch with them as best I can. One gentleman in particular, was telling me he has cancer and he has tried to grow it himself and he tried over a number of months and then it failed, the crop failed. Now he doesn't have his medicine. What good is that? There is another gentleman I spoke to who was ripped off \$12 000. He was sold something that wasn't even real cannabis medicine. It was rubbish. There

are other people who are driving great distances to source cannabis from say places like Nimbin because they know it is there. They will take it home and they will try and learn via YouTube how to do a plant extraction using highly volatile solvents which I know another gentleman who blew himself up and ended up with terrible burns. The best thing to use I am told is 96 per cent alcohol. If you get one spark, it is all over. It is ridiculous to have to expect people to do that. Then there is the issue of strains. People are going out there to desperately try and source their own cannabis and they have no idea what they are buying and typically the recreational stuff that is grown out there these days is extremely high THC and often they have bred the CBD out of it. I will explain CBD counteracts the THC. It dulls the effect. If you have no CBD in there they are going to get an extreme high and I don't think we want family members having to experience that. It is not what you want. It is just ridiculous. They are not getting the right cannabinoid profiles plus then they are susceptible to poor manufacturing processes, contamination from pesticides, herbicides and even more frightening is that I am hearing, and it is hearsay, I do not know if it is true but it is plausible, is that there is low quality cannabis being grown and then they are spraying synthetic cannabinoids on it which can kill you. To even add to that even further desperately sick people are even visiting sex shops to buy synthetic cannabinoids because they think that is going to help them. It is a crazy situation we are in and you cannot stop these people because they are desperate so we have to help them.

- **Mr ARMSTRONG** I think Ruth has already touched on the question I was to ask is growing inside and outside. What is being raised through this committee by different people is the security of the growing of the plant. Growing it inside I think the security could be a lot easier to secure it but what about outside. Have you ever thought of anything about the security of growing these plants.
- **Mr LANGMAN** Yes absolutely. Of course it would be easier to secure an indoor facility particularly the mushroom farm at Glen Huon is ideal. I am not saying that indoors is not a good option. It is and another reason why it is important is because at least you will have successful crops if you have experienced people. Then you are not susceptible to the weather wiping out a crop.

Just getting back into the security side of things, on Norfolk Island the licence that we were issued there stipulated that we needed to have three metre perimeter fences and actually double fences. You do not need broad acre sites. You really only need a couple of hectares is ample and then there is this fantastic fencing that is available these days. As soon as you cut it it triggers the alarms. CCTV cameras, netting over the top to keep animals out, so it is all achievable.

- **Mr ARMSTRONG** Would the cost of doing that then make the finished product too expensive.
- **Mr LANGMAN** It is just an initial outlay but, no, it wouldn't is the short answer. You get such a high yield from the crop.
- Mr MULDER It makes you wonder why we don't do that for poppies which are harmful.

CHAIR - It is not in the terms of reference.

Mr LANGMAN - It is a bit of a worry. When we were working with the Department of Health and Human Services and they were helping us navigate this which they were, we needed to engage with the police and the drug squad. It was just preliminary discussions. I do not want to paint any picture because it has been said that we have been overstating which we haven't. We were starting the ball rolling. In my conversations with the drug squad I had heard that there was security around the poppy fields of some sort.

Mr MULDER - There is.

Mr LANGMAN - Electronic monitoring.

Mr MULDER - No, no. There is just a barbed wire fence with a sign on it.

CHAIR - It is in English.

Mr LANGMAN - Somebody told me that there was electronic monitoring so I spoke to,

Mr MULDER - Inside the processing plants.

Mr LANGMAN - Okay, and then he said mate it is just thebaine. What do you mean? Well it kills people. That is a deterrent.

CHAIR - As long as they know.

Mr ARMSTRONG - You were saying, Troy, that if you got a licence to produce here to grow the plant you would be growing inside and outside.

Mr LANGMAN - That would be my preference.

Mr ARMSTRONG - Because you have the different strains inside and outside was it?

- Mr LANGMAN That, but also if you grow outdoors then the cost is reduced significantly because you do not have to pay for power. That is a fair cost. To be honest, even under lights we can still provide the medicine to people at a reasonable price and we really are committed to doing so. We are also committed and I have said from the very beginning that if people cannot afford the medicine then they will either get it for free or at a reduced cost and we will spread the load.
- **Mrs ARMITAGE** You are actually growing but you are not talking about finishing the product off as far as manufacturing the final product. You are talking about just growing here, your company, or you are talking about going through the whole process.
- **Mr LANGMAN** My intention was to finish the product as well. We were in conversation with a local company here to take care of that Essential Oils of Tasmania, who are very keen to assist with that side of things.

CHAIR - The downstream processor here?

Mr LANGMAN - Yes. Everybody has their role, I am the manager. It is not a problem to hire people with those skills and I believe we have the skills here in the state to do so. The process for making the oil, I can tell you very quickly. Do you want to hear it?

CHAIR - Yes.

Mr LANGMAN - You can Google it. There is a BBC documentary where they took cameras through GW Pharmaceuticals. They grow the cannabis and cure it by drying it for approximately two weeks. They put it through a milling machine that grinds it up and then soak it in food-grade alcohol, approximately 96 per cent. They sift off the plant material and then evaporate the solvent off and you end up with something that looks a bit like molasses. They then dilute that in a carrier such as alcohol, olive oil or coconut oil. It is then dispensed. They have chosen to do it in a mouth spray. It would not be my preference but it is an option for people. From the resin people are also putting that high-concentrate resin into capsules and they will take that orally for pain, but more often than not they are trying to go through a protocol to cure their cancer. It has been found to have anti-tumour properties. I believe we could develop that a lot better by perhaps making it into a medicine that maybe can be injected straight into the cancer. I could be totally wrong here because I am not a doctor, but rather than trying to saturate your body, could we not do some research and development to get it to the point where it is needed? I don't know, I am just making assumptions.

Mr MULDER - I suggest you need to buy a few rats first.

Mr LANGMAN - They have been in Spain for many years.

Mrs HISCUTT - Just moving on from what you're talking about, your vision is you are going to grow the crop, some inside and some outside. Did you talk to Essential Oils Tasmania enough to get a contract agreement or was it just a verbal chat?

Mr LANGMAN - Just verbal, a lot of verbal chat.

Mrs HISCUTT - So after you have Essential Oils to extract the resin, what happens after that?

Mr LANGMAN - The concentrate needs to be made into either tinctures, as GW Pharmaceutical does -

Mrs HISCUTT - I know what has to happen physically, but who do you have lined up to do this?

Mr LANGMAN - Essential Oils was going to take that role.

Mrs HISCUTT - So your main objective is to grow the poppies and sell them to Essential Oils?

Mr LANGMAN - We were going to do a joint venture of some description.

Mrs HISCUTT - But they were going to seek the markets or do the experiments?

- **Mr LANGMAN** We are working this out step by step as we go. We need the support of government, university and the medical profession to make it happen. We had that support in the last government and that is why we continued on.
- **Mrs HISCUTT** At the minute it is illegal in Australia and in this state, so providing we get all the permits et cetera, where is the market? Where was your market anticipated to be, within Australia after the laws are changed or overseas?
- **Mr LANGMAN** Australia was my main focus. I know what you are asking about, the Canadian thing. They heard about us, and they have a desperate shortage of medical cannabis in Canada so they are desperate for supply. Because of their climate they can only grow indoors in Canada. When they heard we had got a licence on Norfolk Island, I have a contract with them I can't do anything with it, but I have a contract.

Mrs HISCUTT - So you are hoping to export?

Mr LANGMAN - I just want to be able to start an industry.

Mrs HISCUTT - I am looking at your business plan here.

Mr LANGMAN - I am Australia so I wanted to help Australians.

Mrs HISCUTT - Had you imagined growing more than the Australian market would need?

Mr LANGMAN - I think that would be challenging. I think we would have enough people to look after here.

Mrs HISCUTT - So you don't need the funds of an export for an income.

Mr LANGMAN - No.

- **Mrs HISCUTT** You say in your submission here that you are going to provide jobs, careers and opportunities for young people and the economy. How big had you imagined this getting? How many jobs had you imagined this creating? Had you thought that far?
- **Mr LANGMAN** It's in a way how long is a piece of string kind of situation. When we researched how many people can benefit from this type of medicine, it's about half the Australian potentially, if other medicines aren't working for those people. This used to be a mainstream drug. It was the drug that was prescribed for pain in the United States pre 1936.
- **Mrs HISCUTT** It was put to us that this is not going to be the saviour crop because it's so small of Tasmania, it was not going to be the broad-acre crop. Is this what you see or not?
- **Mr LANGMAN** I wouldn't purport that it's a saviour for the whole economy, no. But it would be lucrative. Because there are lot of manual processes involved in -

- **Mrs HISCUTT** Had you done a forecast on estimated income for the state?
- **Mr LANGMAN** Yes, we have now. Well, we have for Norfolk Island, which I'm happy to share with you, probably not on camera, because it's a proprietary business, but -
- Mrs HISCUTT No, we don't need to know that, it's just nice knowing you've got an idea.
- **Mr LANGMAN** Actually when we did the numbers for Norfolk Island what we realised was that we needed a lot more people than what we thought. Whether or not people want to do that kind of manual work is another thing.
- **Mrs HISCUTT** The poppy industry did come and present to us, and they didn't seem riveted with the idea. Had you talked to them before, or had you made any approach to them?
- Mr LANGMAN I was contacted by Jarrod Ritchie, who was very supportive.
- **Mrs HISCUTT** I don't think he is part of the Poppy Growers' Association. You hadn't contacted the main body group?
- Mr LANGMAN No.
- Mr MULDER Why did these trials in Norfolk Island stop?
- **Mr LANGMAN** It was stopped by the administrator, ultimately by Jamie Briggs, he was the junior administrator, I believe, federally.
- Mrs HISCUTT You don't know why?
- **Mr LANGMAN** Why was it stopped? I could show you the correspondence if you like. It was all the usual concerns of safety and this and that. Then they said something along the lines of environmental concerns relating to the endangered green parrot.
- **CHAIR** It would be good to see that letter.
- **Mr MULDER** That, of course, raises an issue here, is our swift parrot going to be affected by it?
- Mr LANGMAN The answer is no. The answer is as simple as that if you want to do it outdoors for starters you put netting over it so it's not going to be an issue. But they eat the seed. The seed has no cannabinoids in it, it would actually be quite good for them. But there is no seed in the crop because they are all female plants, so it's not really an issue.
- **CHAIR** Are you happy to provide that, Troy?
- Mr LANGMAN Sure, I'm probably being a bit naughty here.
- **Mrs HISCUTT** Don't do anything that would be compromising to you.

- Mr LANGMAN No, it's out there anyway, it has been reported in the media.
- Mr MULDER If it's been reported in the media it's available under right to information anyway.
- Mrs HISCUTT It would only be us seeing it.
- **CHAIR** We can take it in camera anyway, if you want to.
- **Mr LANGMAN** Can I make a point as well, just to put it on the record, that it was said several times that we wanted to sell it to Canada for smoking. Also I think it was even insinuated that it was for recreational purposes. But Canada doesn't have a recreational well, it would illegally, but a medical market and Health Canada allows licensed producers and distributors to import 30 per cent of their needs.
- Mrs HISCUTT If a recreational market opened up would you be -
- **Mr LANGMAN** Not interested. That's not my focus, I just want to help people relieve their suffering. I'm not interested at all in that.
- **CHAIR** Troy, can I ask where to from here? The government federally, as well as state-based now, Minister Ferguson has indicated that they are open to considering a trial now, and through the university and through the normal process, so will you reengage?
- **Mr LANGMAN** If it is a broad trial, like a broad program like they do in Israel, where it allows people who are suffering to access this medicine under a supervised -
- **CHAIR** Hence the need for a doctor.
- Mr LANGMAN Exactly, yes. I would not feel comfortable being involved in focusing on one very specific indication that is going to take 10 years, because people just do not have a lot of people will not even be alive. They need it now. We are looking all over the country. We are actually unfortunately going to shift our head office to Sydney. It saddens me because I really wanted to base the company in Hobart and I really love Tasmania and I found the people here to be extremely progressive and open to this, but things are happening there.
- **CHAIR** If there was a chance to collaborate, though, we asked you that a little earlier, would you collaborate with New South Wales and Tasmania doing something together?
- **Mr LANGMAN** Love to, absolutely.
- **CHAIR** If New South Wales move more quickly and it appears they will, then when you prepare a submission or a proposal, whatever it is, required on New South Wales, will you also submit that to the Government here?
- Mr LANGMAN The New South Wales Government is setting up their own program, I believe and we do not know what that is going to look like yet. I have read that Premier

Baird is wanting and reaching out to other premiers and other governments across the country, so it looks like he is wanting to get everybody involved as well, so there is that opportunity, absolutely. I think we will get there.

CHAIR - It would be a shame if Tasmania misses out. It does not mean to say we cannot come back. I would like to company.

Mrs HISCUTT - Are you changing the name of your company with your restructure?

Mr LANGMAN - We are, yes.

Mrs HISCUTT - Is that your main reason for the restructure?

Mr LANGMAN - No, we have a new team, some of the old members, but we have a really robust new team.

Mrs HISCUTT - This is your directorship changing?

Mr LANGMAN - Not just that, but the team, directorship as well and a slight name change.

CHAIR - What will it be called?

Mr LANGMAN - To be divulged.

CHAIR - Troy, did you want to make any closing comments before you finish up?

Mr LANGMAN - I just hope that we can do this sooner rather than later just to help those who desperately need it, that is all.

CHAIR - Thanks for your submission and thanks for your time today and for coming back. We wish you all the best.

Mr LANGMAN - Thank you.

THE WITNESS WITHDREW.

Mr IAN GRAHAM OATES AND Mrs OLGA OATES WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR (Ms Forrest) - Thank you both for coming and thank you for your submission. Just to explain how the committee works, everything is recorded by Hansard and transcribed and it will be part of the public record on our website. Everything you say in front of the committee is protected by parliamentary privilege but if you speak to the media afterwards you are not covered at that time so you need to keep that in mind.

Mr OATES - Our motivation for submitting this letter to you was to point out that there are more ailments that medical cannabis can treat. Those we have read about and seen in the media in recent times have usually dealt with small children with seizures, and nausea and pain associated with chemotherapy. We have been married for 53 years and for the past 13 years I have been my wife's carer. She was diagnosed with severe osteoporosis after various little accidents, and she was hospitalised. She had a fall three years ago, which caused a lot of trouble. Over the last 40 years she has suffered from all sorts of ailments, which I detailed in our letter, but we were fortunate enough to receive from a friend of ours on the mainland a supply of cannabis oil.

My wife left it in the fridge for about a week before plucking up the courage to take it. One night she took 2 mls then went to bed. Prior to that she would wake up at least six times a night, every night. That night she slept all night like a baby. That was the first thing. Within two weeks - which is the time it usually takes to have its effect of rebalancing your metabolism and resetting your immune system so that the body can heal itself - all sorts of things stopped happening

Over the years she had been stricken by Meniere's disease, asthma, irritable bowel syndrome, sinus trouble, boils under the arm, severe joint pains and those sorts of things. After taking the hemp oil for a little while, all of these sorts of things stopped happening. Altogether we have counted 11 different things which don't happen anymore and her quality of life is the best it has been in 40 years. There are a couple of little side effects from the oil, her skin has gone from being like my old boot leather to quite soft and reasonable. Her hair used to be like rusty barbed wire or something like that but it is now soft and silky. Something has happened and a lot of the time, in the last 13 years since I have been caring for her, she has been suffering from oedema, which is swelling and fluid retention in the body. She used to just swell up like a balloon and you can see here how her skin has been all blown up and it has gone down since she has had the hemp oil, and her legs are the same, they have gone down back to normal. The colour of her skin is totally different to what it used to be, and a lot of good things have happened.

As I have said in my letter here, that first supply ran out and she was without it from 1 May 2014 through to 19 June 2014 and within a couple of days of it running out, she was back in a miserable state again. She takes slow-release pain killers three times a day and between those times in the day when she takes it, she has to go and lie down to try to stop the pain a little bit - the pain never goes away, it is there 24 hours a day. For 13 years she has never been able to sleep on her back or on her left side or her right side, she sleeps in a half sitting-up position, just like trying to sleep in an aeroplane, which is not very good, she has been sleeping like that for 13 years. She has two braces, a big metal

one which, when I take her out, she has to use that. She can't sleep in it of course, but she has another big all-over one which she wears 24 hours a day and that is to sleep in. Both of them have steel bones in the back, not very pleasant to sleep in, but that will remain so for the rest of her life. She bears it well, never complains, we are old citizens of the Huon, we are a bit tough but our life is what it is and her quality of life, as I have said, is much better than it has ever been in the last 40 years. If she can't access this product continually, I am afraid that she is going to be back where she was before.

CHAIR - Can I ask, Mrs Oates, when you first started taking it, one of the fears about this is that the THC part of it gives people a high feeling. Did you experience any hallucinations or feeling really high or not quite with it? How did you feel when you took it?

Mrs OATES - I didn't have any effects like that whatsoever. The only thing that I noticed was it didn't have any taste. It didn't affect me. Normally I am vomiting all day long. I didn't have any of those kinds of effects that I have with most medications. It just gave me a really good night's sleep. No, I wasn't really worried about taking it or getting the high that people talk about because I knew it wouldn't occur.

CHAIR - Do you take it during the day as well?

Mrs OATES - I take drops under the tongue which are not the same. They are like a tincture. It is like a calmer. For me it takes the place of diazepam, which is a relaxant. It has that effect. Two drops under the tongue, two or three times a day, and then 1.5 ml to 2.0 ml of the oil at night-time.

CHAIR - Have you been able to reduce the number of other medications that you take or do you still take all the others as well? I assume that is what that is full of.

Mrs OATES - We're not making you over it.

Mr OATES - This is what she doesn't have to take anymore.

CHAIR - They are the ones she has got rid of.

Mrs HISCUTT - So you have replaced all those with one?

CHAIR - So you still take a few others?

Mrs HISCUTT - What do you have left to take?

Mr OATES - That is what she does take.

Mrs OATES - You can get rid of that now. I don't need that anymore. He is my constant companion.

CHAIR - There is still some medication you take?

Mr OATES - This is what she still takes.

Mrs OATES - Like Warfarin, for instance.

CHAIR - Yes, things they can't replace. In that lot over there, there would be some pain relievers, and I see a few of the others there.

Mrs OATES - The asthma medication.

Mrs HISCUTT - I do see Mylanta in there, which is not a prescription drug. How many prescription drugs are in there?

Mrs OATES - Count them up, dear. I just had Mylanta with Nexium.

CHAIR - When you were requiring all of these medications, do you have an idea of how much it cost you every month to take all those?

Mr OATES - As her carer, they pay me \$115 per fortnight.

Mrs OATES - It took all of that.

CHAIR - You would be on a pension so you would get them all on the PBS.

Mrs OATES - Yes.

CHAIR - As far as paying for the cannabis oil, is it very expensive and does it compare with this?

Mrs OATES - I don't pay for it at all. It is posted to me at no cost whatsoever.

Mr MULDER - I take it isn't manufactured by a major drug company then?

Mr OATES - We would be quite happy to pay for it.

Mrs HISCUTT - What sorts of drugs do you still take? As you said, you take a painkiller three times a day - what for?

Mrs OATES - This is a spray for my heart, which, when my oedema is bad enough, I have to go into hospital with it and that causes heart failure. That is for angina. I don't like to say what that is. Just let's say it is slow-release painkiller. Then there is Warfarin.

CHAIR - Which is a blood thinner.

Mrs HISCUTT - They are things that are not related to pain as such?

Mrs OATES - No. Because I am allergic to paracetamol even. There are so many drugs I cannot take. All of the others and those there - they all had a side effect. Without that it is wonderful.

- **CHAIR -** You say in your submission that you hope minister Ferguson and all members will educate themselves fully. What would you like to see happen? All of the drugs you have shown us have been tested at length. Some of them can be quite dangerous and have unintended side effects and consequences for patients. There is a process to make new drugs available to the general public. When we see drugs being approved and then later withdrawn, we realise they cause nasty side effects like death and things like that.
- Mr MULDER That's a pretty nasty side effect.
- **CHAIR** They do not always get it right, but that is the normal process. There has been a lot of work done in other countries looking at some of the effects of cannabinoids. What do you think we should do?
- Mrs OATES It should be passed for use, for starters. I do not believe we need to be testing. There could be certain things that have not been tested like asthma and other conditions I have suffered. There has never been a trial for those things, that I know of, and we have done a lot of research. We would like to see it passed for use because there are so many people out there who are suffering needlessly. They are paying so much money for medications which, when you are on a pension, you cannot afford to do.
- **Mrs HISCUTT** If I was taking that many drugs I would be as cranky as a bear with a sore head. Have you found your wife a lot better to live with now she is off all that stuff?
- Mr OATES Much better. For example, on one occasion the hospital gave her a drug they should not have given her. She was taking it at home and one day she was cleaning the lid of the toilet the lid, not the toilet. She was completely out of it. The medical person came along and said, 'You should not be taking that. What did they give that to you for?'. She stopped taking it and came back to normal. It was really bad. In answer to your question, what can you do? I do not think we can go past what Tony Abbott said last week -
 - My basic intention is that something that has been found to be safe in a reliable jurisdiction should not need to be tested again here. If a drug is needed for a valid medicinal purpose and is being administered safely in another jurisdiction and proven to be safe in another country and is needed here it should be available. I have no problem with the medical use of cannabis just as I have no problem with the medical use of opiates.
- **CHAIR** Now he needs to have a chat with the Therapeutic Goods Administration to progress this.
- **Mr OATES -** I have spent a lot of time looking at websites to do with these sort of things and there is a huge amount of work being done. Why do we need to do it all again? Do we have to reinvent the wheel or something?
- **CHAIR** There is a risk, when you are taking so many drugs, of possible interactions between them. So, the fewer you take, the less the risk of that occurring. It must be easier to swallow fewer drugs as well.

- **Mrs OATES -** Oh yes, definitely. Just not being on OxyNorm, which is quite strong, and the diazepam, which put me in another world completely just those two things are good.
- **Mr OATES** The problem we face is getting through all the red tape, rules and regulations.
- **CHAIR** There are good reasons for patient safety processes. As Prime Minister Abbott said, if it is being used safely in jurisdictions where it has been tested, it begs the question as to why we cannot rely on that. That is what you are saying.
- **Mr FARRELL** Did you just reached a point of desperation and thought might as well give it a go?
- **Mrs OATES** My sister died in March from aplastic anaemia for which there was not a cure and the friend, who is a medical person, sent his supply of the oil for her to use but it was too late for her. I wanted to send it back to him knowing that he really needed to use it and he said, no, I want you to use it. After he had been to visit he thought that I would benefit. It was there and it took a week for me to come to grips with it and I have not looked back.
- **Mr FARRELL** How did you feel when you started to feel better and your skin and hair improved. Could you believe it?
- **Mrs OATES** No. I could not believe that such a miracle had happened. I just sobbed my heart out to think that there was such a miracle.
- **CHAIR** This is why it is important to hear. We have heard from parents of children taking it for epilepsy and things like that, but it is nice to be able to talk to an adult, a confident adult, who can talk about how it was for them. How would you feel if you no longer had access to it?
- Mrs OATES Absolutely devastated, and I would be in bed for at least 22 or 23 hours a day because I can only stay up without the oil for 15 minutes at a time and then I am vomiting and the pain is excruciating. It fluctuates between acute and chronic pain. I have done it before and I would get through it again. As my husband said I have never complained once.
- **CHAIR** But you know the difference.
- Mrs OATES I know the difference.
- **CHAIR** It is helpful to us to hear the real person's experience.
- **Mr ARMSTRONG** Since you have been taking the oils, how much do you think your quality of life has improved. Fifty per cent, 80 per cent?
- **Mrs OATES** A hundred per cent because if I am without all of those other things that I was putting up with, the asthma and all of those things that were going on and the oedema, a constant oedema. I can deal with the pain. I can deal with that if I have not got those other things.

Mr GAFFNEY - Ian, I want to ask what process you used to find a lady who does not complain, because that is worth gold. I need to talk to you.

Mrs OATES - I am a country girl.

Mr GAFFNEY - There you go. I knew that was the reason.

Mr OATES - She comes from pioneer stock at Glen Huon. I come from pioneer stock at Mountain River and we are taught to get up and get on with it.

CHAIR - Thank you so much for sharing your story. It is really helpful to hear from someone who has had the direct personal experience and to see that change. Is there anything you would like to say in closing?

Mr OATES - The product Sativex has been available in Australia for some time. That had to go through a tortuous process with the pharmaceutical companies and these things can take five or 10 years. Once it goes back to the pharmaceutical companies they have to identify a need for the product and then decide whether they are going to commit millions of dollars to the tests and it can take 10 years.

I notice the bill being introduced into the Victorian Parliament tomorrow, to get this moving, is supposed to be reported on by August of next year. People could be dead by then. Do we have to wait that long, I do not think so. There must be some way of cutting through the red tape and bureaucracy.

CHAIR - Finding that balance.

Mr OATES - When I worked for the government for 32 years, I was involved in the registration of agricultural chemicals in Tasmania and that was a tortuous process and it used to go on and on, a huge amount of time, work and money. This sort of research takes even longer because it involves people and their lives.

CHAIR - That is right. Thank you very much for coming along and sharing your story.

Mrs OATES - Thank you for the opportunity.

THE WITNESSES WITHDREW.

Mr STEPHEN SULLINGS, GALLAGHER SECURITY FENCING, WAS CALLED, MADE THE STATUTORY DECLARTION AND WAS EXAMINED.

- **CHAIR** Stephen, thanks for coming along. The committee is a public hearing. Everything is recorded on *Hansard* and transcribed and will be on our website as part of the public record. While you are here, what you say is covered by parliamentary privilege. If you speak to the media outside it is not the case. Keep that in mind. If you have any confidential information you wanted to provide to the committee you can make a request. Otherwise it is all public.
- Mr SULLINGS I have been reading a lot about it in the paper and the reason I wanted to come down and talk about it was that security on farm is an issue but it can be overcome now with electronic devices and electric fences, so you can actually secure the crops. If someone cuts a wire or enters a gate, it will notify the owner or another person instantly that someone is entering into the property. As soon as someone has broken that circuit, the alarm goes off. It depends what they are going to be growing. If it is going to be grown in a paddock, you can totally secure the paddock. If it is grown in a hothouse then a perimeter security fence can be put up around that, similar to Risdon jail and places like that. It is a total security system, so you don't have to have a situation of being concerned about the wrong people getting their hands on the crop.
- **CHAIR** One of the concerns of the minister initially, and the Government broadly was the public safety issue. We have had discussions about how the poppy industry has a level of security, and they claim the biggest deterrent is the fact that it can kill you if you get a thebaine poppy. How do you see this generally in terms of securing a crop that does need to be secure in such a way that diversion can't occur?
- **Mr SULLINGS** If it is on an existing farm, it would be a matter of putting up some electric fences, putting some warning signs up letting the public know that there is power on, and then it is just a matter of connecting that up to the monitoring system. If someone came into contact with it they would get a shock. It is not a lethal shock, but it is at their own risk if they come onto that property.
- **Mrs HISCUTT** With electric fencing, how high would you imagine this would have to be because if it is standard height you can climb over it and hold it down with your hat, so per dollar per hectare, are you talking about a lot of money? When you say electric fence, I imagine to be a two- or three-strand electric fence that you put your hat on to hold it down to step over.
- **CHAIR** Depends on how tight it is strung.
- **Mr SULLINGS** Yes, it depends on how tight it is, and obviously the height. We use electric fencing to control deer and all sorts of animals, so it can be as high as 6 feet if you wanted it to be.

Mrs HISCUTT - How much is that worth?

- **Mr SULLINGS** You are going to be looking around \$6 000 a kilometre for a fence of that height and then it would be around \$4 000 for all the electronics that would go on that to make it totally secure, and that would then connect to a phone system, which would cost you about \$17 a month to run.
- **Mrs HISCUTT** If an electric fence was breached but not cut, the electronic system would still register?
- Mr SULLINGS Yes, it would.
- **Mr MULDER** When we talk about fencing, which is a risk management strategy, what particular risks have you identified with a crop?
- **Mr SULLINGS** Just people taking it like they do with the poppies. You often hear through the papers that people have got into the poppy crops.
- **Mr MULDER** Have you done any assessment of the likelihood of that, given the fact that it is pretty widely available and there is no shortage of supply in the recreational sphere anyway?
- **Mr SULLINGS** No, I haven't done any. I just read that that was a problem that the Government kept throwing up and I thought well, we can fix that by putting some electric fencing in it. If it is just a plain wire fence, someone will just easily climb over it, but they would give it a second thought if it has some power in it.
- **Mr MULDER** Have you thought about and looked at the consequences of someone taking a crop?
- Mr SULLINGS I haven't really, no. I assume that the people -
- **Mr MULDER** Your system is deter, detect and delay that is the basic approach that you have.
- **Mr SULLINGS** Yes, it is and it is readily available from any rural store, so a farmer can just go and buy it. Any other questions?
- **CHAIR** Not really. This is really about it.
- **Mrs HISCUTT** You are just saying it can be done.
- **Mr SULLINGS** Yes, it can be done. If there was the situation where that was going to be holding back the crop to be grown in the state, it is not an issue, it can be done if you wanted to secure it.
- **Mr FARRELL** It just seems odd that the poppy industry doesn't have to have that security at the present time.
- **Mr SULLINGS** No, and they may want to go down that way, but at the moment they don't. I am assuming that in the poppy industry the crops are rotated around the state. I

wouldn't expect that this would be the same situation. You could grow this particular crop in the same spot every year, I would say.

Mr FARRELL - Poppies are fairly harsh on soil.

Mr SULLINGS - Yes, they are, plus the chemicals that they are using.

CHAIR - In addition to that though too, the poppy crops are more broadacre.

Mr SULLINGS - Yes.

CHAIR - And so the cost involved with security fencing would be significantly more than a small crop that is grow in a couple of hectares, it would not take much to fence that off, compared to fencing a whole -

Mrs HISCUTT - You wouldn't grow poppies if you had to do a \$6000 fence; you would not do it.

Mr SULLINGS - No, you wouldn't do it.

CHAIR - That is right, it would not be economical. There is a balance there obviously. Okay, thank you.

Mr SULLINGS - Thank you very much, much appreciated.

THE WITNESS WITHDREW.

Mr JOHN REEVES, MEDICAL CANNABIS TASMANIA, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - To explain how the committee works, it is a public hearing. Everything is recorded by *Hansard* and transcribed. It will be placed on our website as part of the public record. You are covered by parliamentary privilege while you are before the committee, not before and not after, once you are sworn. As soon as the hearing ends your parliamentary privilege also ends. So if you speak to the media afterwards, you are not covered. It is only while you are in front of the committee.

We've read your submission. You talk a lot about the research that's gone on, so it would be helpful if you could summarise that for us.

Mr REEVES - Broadly in the world in relation to medical cannabis?

CHAIR - Yes.

Mr REEVES - Have you read the Bible? Have many people here have read the Bible? One of the oldest documentations of medical cannabis use is in the Bible and pre-Bible literature, whether it's the Egyptian pharmacopoeia from about 2 800 years ago, or the Chinese pharmacopoeia from about 3 400 years ago. The Bible itself - the Torah - talks about a mix that Jesus used for healing, which had kaneh bosem in it. Kaneh bosem is 'cannabis' in Hebrew. Jesus was a herbalist, and a healer - he was a member of the Essenes religious group. Pretty much most parts of the world have used medical cannabis for thousands of years - Indian medicine, Chinese medicine.

A couple of thousand years later, cannabis was a medicine that was widely used all over the world. In fact, it was the primary medicine from about the 1850s onward. It was on the pharmacopoeia in America in the 1850s, and the top three selling medicines were all cannabis-based. They were produced by pharmaceutical companies at the time. In the 1930s, when Prohibition first really took hold, it was used in Australia. It was available over the pharmacy counter in tincture form, which is pretty much the plant soaked in alcohol.

You could buy cigarettes of rolled herbs from pharmacies in the 1930s. In Tasmania it was made illegal around 1959, but the first prohibition in Australia was in 1929 in Victoria. That was based upon the Hague Convention on cannabis. It was a unilateral prohibition, but the American AMA at the time - when it was done in America - haggled an extra five years for medical use. It was pretty much squashed, primarily for political reasons.

Since then, a lot of research has been done - by Dr Mechoulam in Israel, and there are people in Spain. The Americans have done a huge amount of research into it, and they have patents for medical cannabis.

In direct answer to your question, Ruth, the main thing is that the endo-cannabinoid system in the body was discovered around 1988, roughly 60 years after CBD was discovered. THC was discovered in the 1960s. The endo-cannabinoid system is your

body's natural endogenous cannabinoid system, it's a part of your nervous system. It is a part of all living creatures, and it goes back to sea squirts 600 million years ago. It is part of your basic nervous system.

In 1992, a substance called anandamide was discovered. Anandamide is a natural neurotransmitter, and THC in the cannabis plant, once it has been heated and released, is exactly the same molecular structure as the anandamide in your body. The molecules are identical. There is a broad range of research. On PubMed there are about 12 000 citations. There are thousands of papers on cannabinoids.

- **CHAIR** There has been a bit of a lull, though, after the prohibition. It was more difficult to carry out research, we heard. With the emergence of some of the newer drugs for treating things like chronic pain or nausea and vomiting -
- **Mr REEVES -** Yes, it went the way of the dinosaurs for a long time. You had aspirin, opiates all sorts of stuff. The way cannabis works in the body is very different for pain. I have used it myself heavily for six or seven years, since I was diagnosed with spinal arthritis and fybromyalgia I have suffered with a spinal injury for over 30 years.

The way it works is very different and that is one of the real benefits. People can live with it on a daily basis. Other pain medications and anti-inflammatories are all very toxic. I have been told not to use mine for more than two weeks. That is the Arthrexin I use. I have found it a lot better.

In terms of your direction question about research, a lot has been done in recent years in places like Israel and Spain. Dr Mechoulam is the grandfather of cannabis research in the world. The Americans have been delivering it to people with tumorous cancers for the last 30 years.

Americans have had legal medical cannabis for the last 17 years in California. There has been a huge amount of research done. Dr Donald Abrams, Professor of Oncology at the University Medical Centre in San Francisco has put dozens of papers together on all sorts of things related to cancer.

There is a huge amount of research. The stuff I submitted has 42 cancer studies and there is another paper with 700 studies. It is a matter of having a look at them. If you look at them, they are between 80 - 90 per cent favourable, and 10 - 15 per cent non-favourable, which is better than anything else that is around. A lot of other medications are not that favourable. They are quite damaging.

It is an ongoing thing for me - learning about it. I read as much as I can. I try to understand what I am doing. I enjoy reading science papers - some people are weird - but I find it informative. In relation to this debate, people need to have a good look at some scientific papers. PubMed is easy to go through. Robson, 1996, is probably one of the pre-eminent scientific papers on cannabis in the last 20 years. Robson is a professor of psychiatry in England. He was contracted by the British Home Office in 1994 to write the paper and that was the basis of GW Pharmaceuticals work. He works for them as their product development guide. It is a really good paper to read about the therapeutic benefits of cannabis.

CHAIR - They have developed and released Sativex, which is limited in its -

Mr REEVES - It is very limited. They have done a lot of clinical studies to get it passed for use as a clinical product, as opposed to a herbal product, which would come under the complementary medicines category. It would not be prescribed. They have done some fantastic work. They have built a huge factory. They have managed to get \$100 000 000 worth of Bayer's money to build a giant computerised cannabis factory. That is helping multiple sclerosis patients. It is very restrictive - I don't think it can be useful for a lot of people. They only have a 20 tonne a year licence.

CHAIR - Isn't the benefit of cannabis the fact that it is a consistent product? You are suggesting in your submission that people should be able to grow and use as much medicine as they like. There is a whole range of active ingredients in cannabis. If you want to have a consistent response, you need to have the right product. If it is done through a more regulated framework, you have a better chance of getting a consistent product.

Mr REEVES - That is out of context, Ruth. The problem with Sativex - a consistent product is really important to get through the prescription system. If you are in the complementary medicine system - the Therapeutic Goods Administration in Australia has a complementary medicines category for herbal medicines - the requirements are much broader. They do not have to be as specific. With the cannabis plant - and that is why I brought the plant in to show you - each plant that is grown properly, with proper genetics and the proper strain has a coded amount of THC it will produce and a coded amount of CBD. I buy my seeds from Europe where there are legal businesses and seed banks. If you look on the back of the seed cards it tells you exactly what that plant will do. The difference between the herbal medicine and drugs like Sativex, is that Sativex is locked down, everything will be exactly the same. The work I am doing with people is people taking less strength drops in the day time, stronger at night. I have a guy in Launceston, Jim, severe adult epilepsy, had viral encephalitis when he was six years old. He takes THC at night, to help him sleep, and he takes the CBD in the day to help the seizures in the day.

You have to be really flexible with herbal medicine. People take it in different ways and doses. Sativex gets through the prescription system, it meets the needs of the pharmaceutical regulators basically. Beyond that it is inflexible. I know people that have taken it for Parkinson's Disease and said it was not very effective at all, was not as strong as the stuff they had been taking.

If you look at these cards - I will submit these as evidence - on the back, and you will need a little magnifier, it shows you the strength of the plant. If I go and buy those plants from the legal seed bank overseas, the legal Craig, and there is a shop in Amsterdam, you walk in off the street and buy the seeds. Ten bucks a seed. You grow this plant under normal conditions, that plant will produce whatever it says on the card - 12 per cent THC, maybe it will be a bit higher broadly, but it will produce a certain amount of CBD and you know what it is doing. The problem with cannabis and the perception of cannabis that has happened under the illegal prohibition system, is there is no quality

control. It is zero. So all the cannabis that is out there, and everybody's judgement on the cannabis that is out there, no one knows what the strength is.

If I buy it from a bikey on the corner, or whatever, I do not know what the strength is. I do not do that and that is why I grow it myself so I know what I am doing. I know what the strength is. But as it is a herbal medicine, people tend to dose themselves and say, I need a little bit more, little bit less. Like most of the people I work with, and this is purely voluntary, I am a homemaker for myself for my arthritis. People ask me, I give it to them. It is not a hippy thing. You share it with people if someone asks you.

Most people start off dosing very low, like three or four drops. I have a lady with neuropathic pain at the moment and she has gone up to 10 drops. She started low, and increasing it worked better with her sleep. It seems like it is a good idea from the pharmaceutical prescription perspective to get that through. You have to have a Sativex dose. Herbal, as long as you know what your plant is, you know what is a strong plant, and what is a weak plant, what your mix is, you are fine. It is exactly the same system that is currently used for all herbal medicines, whether it is rosemary, calendela, all the stuff you will buy down at Goulds or Hattens up in Launceston.

CHAIR - Is it still managed by someone knowing what they are doing, as opposed to potentially buying a crop that may be high THC and very little CBD and all you get is the psychogenic affect.

Mr REEVES - I have been using, smoking, dropping cannabis for like 40 years. I started when I was 13 years old. I was diagnosed with a family hereditary nervous disorder when I was eight years, which is now known as fibromyalgia. I have had this disorder all my life and I have used cannabis most of that time. I have never seen anyone become seriously psychotic from cannabis. I have seen about five people who had a pre-existing condition, either psychosis, or they have used too much amphetamines, too much LSD, have a negative reaction. You can calm them down within a couple of hours, and they are basically right. What has happened with the stuff, high THC and low CBD, is it is basically quite picky. You would not really use it a lot medically, even if you

CHAIR - I am not talking about people using it, what I am saying

Mr REEVES - The control.

CHAIR - Yes, you are saying that everyone should be able to grow whatever they want, but unless there is some quality control around that, people are not necessarily going get the medicinal benefit.

Mr REEVES - No, you have work with it, and learn about it. I do not think it is a problem, people growing plants themselves. Thousands of people already do. I have never had a problem with it to be honest and no one I know has. The problem is if they do not learn about it. If you buy your seeds, like this, you know what is in it, and that is why I brought the particular plant in, because that is a low THC plant, or lower than the standard doses and I find it really good medically.

Growing it yourself is really important for people, like you would grow any other herbs or veggies. I do not think you can seriously get harm from it, as long as people are aware of what they are doing, like tending to be a bit careful with herbs they are putting into themselves. If someone does have a bad reaction, it will be over in a couple hours, they will fall asleep, honestly. I was testing something a while ago, some really high THC oil, which comes in a chocolate from a spinal injury guy down here, and I had to test it before passing it on to anyone else. Because we get donations, we give medicines to people. I tested it out and it was really high THC, like ridiculous, 17 per cent. Purely for people with like chronic spinal pain and stuff like that. I fell asleep and I woke up feeling fantastic, and that is all it will do to you, Ruth.

- **CHAIR** You cannot deny there is well-conducted research that shows there are people with a tendency towards psychotic illness, schizophrenia being the worst form of that.
- **Mr REEVES** It can set them off a bit. There is a lot made of it. I would not necessarily say all this research is well conducted. I would say a lot of it is poorly framed, as Dr Robson would say. Do you mind if I give you an example of that?

In England they did research with high strength THC. It was synthetic. They used 26 subjects, they injected THC into their veins. They did all those 26 subjects with liquid synthetic THC, not plant-based. They all showed some signs of psychosis after doing that. Out there in the world nobody is injecting pure liquid THC. The study they did was on pure liquid THC. A lot of those studies might be well conducted but they are poorly framed.

- **CHAIR** There may be some like that but that happens in all areas of research.
- **Mr REEVES -** A good example, in the states in America where it is legal all of the states allow self-growing. Some are very limited, you can grow a small amount of plants, some you can grow 20 or 30.
- **CHAIR** I think Canada moved away from that.
- Mr REEVES Well, they are in court. There is a class action because the medicine away from patients, the ones that like growing it. There are 150 people suing them because they took the medicine away from the patients. They are setting up big factories, biomedical companies under security, growing under lights so they get four crops a year. They are selling it as pure herb to people. You might hear from them that it is working well but that is why [inaudible] was asked to supply a tonne of cannabis. They did not have the supply sorted out at all. A lot of the patients have taken them to court. There is a civil action. There are several court cases because they have literally taken medicine away from patients.

The people that were growing it themselves, usually in their gardens, are happy with it. It is really if the patients are happy. What you are suggesting is something which really does not happen. If someone smokes it and they feel bad, or if someone has a psychotic illness they are prone to all sorts of other things. They have taken other medications. They might be drinking, they have taken prescriptions, they know what is going on. If someone does have an anxiety reaction you give them a cup of tea and you sit them down

and you say basically that it did not work for them and do not have any more. People are not silly, Ruth.

CHAIR - People who get schizophrenia have a terrible experience.

Mr REEVES - Which is about 1 per cent of the population and that has not gone up under cannabis use at all; it is roughly the same. I have seen schizophrenics. I know heaps of them and I give them cannabis. I up the CBD and lower the THC and they are fine. It is not an issue. It is a fantastic medicine for people with schizophrenia if you remove that highly psychoactive component. Everyone who uses cannabis knows about that. They say, 'Do not take the peaky stuff, do not use the high sativa; use the indicas, something that people know about. It is a herbal medicine; it cannot cause you harm in that context. If someone is harmed, if they feel it is not right for them, they simply stop using it.

Mr GAFFNEY - I hear what you are saying John. In your paper you talk about a full-scale statewide trial of the system which includes from growing and clinical trials. We have heard from a couple of our speakers saying that we should get rid of the idea of a clinical trial because the cost of a clinical trial and the rigour it would have to go through to actually hold up as a trial would not be worth the process. It would take forever and hold up the whole concept of making this stuff accessible. If you allow people to grow it for medicinal purposes, which is a good idea, a number of people within our community would not use it for medicinal purpose but would see the capacity of getting a business out of it.

Mr REEVES - You mean an illegal business?

Mr GAFFNEY - Yes.

Mr REEVES - Well that is already happening. You raised a couple of questions and I will answer the first one about the clinical trial. My suggestion was to do all basically, which is what is happening everywhere else in the world. Pretty much in Holland or in America. Relying totally on a clinical trial and nothing else is what you are hearing negatives towards. I have no opposition personally to a clinical trial of any kind on cannabis seed. You will learn something. Your problems are twofold. One is the actual cost. I will do it for you for \$20 000 if you want. I will grow the plants and the patients are already seeing the GPs. All you have to do is correlate the results. They are going to tell you it will cost you \$2 million. You will have a dozen people in white coats and supports spending two years on it. The question I would really have personally is whether that trial going to replicate what is already available overseas from trials. Prime Minister Abbott said recently that if something is approved and it has been trialled overseas we should take that evidence?'. There is no point in spending extra time or money, but I think it is fantastic if you take University of Tasmania gets involved.

I think clinical trials are great. I don't have a problem, but you're going to find out the problem at the moment - and this is really vital, this is what I really want to get across to you - lots of people are using this medicine. Lots of people value it. As far as growing it themselves, we don't care if you let us do it or not. I've been doing it for four years, I will keep doing it, other people will keep doing it. You can come and arrest us and take our plants like they did at my place last year.

Cops came up on another reason, to do with a traffic matter, saw my vegie patch, saw the plants. 'Geez, John, we will have to take some of these.' I negotiated with them, I showed them my sheet here, which says I use medical cannabis for fibromyalgia, which the doctor signed off. The police were pretty good, they took half the plants, about 10. They said, 'Look, we can't not take any, John', but they left half and I still have a little bit of medicine left. The unfortunate thing was a lot of patients didn't get it. I think the second half of your question, Mike, if you wouldn't mind repeating the last bit -

- **Mr GAFFNEY** You said it's used widely now, but it is still an illegal crop. If police suspect anybody is doing the wrong thing with they get a seed, they might look at this and match it with another one to grow a different strain -
- **Mr REEVES** Okay, I've talked to quite a few people about this. I know a lot of people in the cannabis community, I know what is going on. Pretty much most people wouldn't, because they would just be so happy not being able to get busted for the few plants they grow. Most of those people would buy it from herbalists. Most of those people would get it from their doctor if they could.

The question you're asking about it filtering into the black market, you would have to come up with what would be basically the cannabis misuse act. You would have to say 'You are not allowed to sell it, you will have to lock it up, it has to be under reasonable security. Even if it's five plants in your vegie patch it has to have a fence around it. You store it in jars in cupboards where children can't get it.' If someone is caught selling it you come up with a punitive list. The thing you really need to do is to move this away from a police issue into basically an economic, a tax department issue. If someone is growing it to try to sell it, they are tax evaders. You can bust them for tax evasion. If they start driving up and down the neighbourhood in a Ferrari, they are going to be a little obvious. Basically I don't sell it, I've never sold it in my life and I don't, and I think most people wouldn't. I think the level which you're talking about is really unrealistic. I think a lot of people who are involved in organised crime or the high end of the issue, are going to be doing it anyway - the bikie groups and those sorts of people.

Mr GAFFNEY - This isn't the drug that they want to deal in as much.

- Mr REEVES The problem you have, Mike, is this is something I would really like to get across to you the entire underpinning of organised crime in Australia for the last 40 or 50 years since prohibition is paid for by cannabis. They will grow this and they will go and buy a speed lab or something like that. They will buy some illegal guns or buy a Harley Davidson or whatever. The crime that has been created in the recreational market, not the medical market, is huge. That's a real issue here. Every time this issue comes up you're going to ask me that same question, is someone going to grow it and sell it to make money?
- **Mr GAFFNEY** The general public, the parent out there who is not involved in medicinal cannabis and that sort of thing, they worry that their son is going to go to the neighbour's place and they may have a medicinal cannabis plant there.

Mr REEVES - If you come up with a set of laws, the person doing it medicinally is doing it for personal use, they're not growing it -

Mr GAFFNEY - It has to be well-regulated within -

Mr REEVES - You have to have some good regulations. I don't think you're going to have people breathing down people's throats over it. I think most people are going to be fairly relaxed about it. I think you will end up with a situation similar to America, where most of the transactions happen within the dispensaries. I understand it's a concern. I'm not concerned about it because I don't think it's a real problem. I also don't really think if someone sells a little bit to their friends, it's not a big thing. They're not even making enough money to get over the tax bracket. What you want to do is take this opportunity to try to remove some of that black market, because the people who grow a bit themselves don't buy it on the black market if it's not available.

If they have good-quality stuff, let's say Gould's Naturopathica, the herbal shop, or Hatton's up in Launceston, most people do it. Some people aren't going to grow it at all. But for people like me who have a rural property, I'm way off the road, I'm a kilometre from the highway, I enjoy growing my plants. I do it for a quality thing, I know what I'm doing, I know what is in the plant, I know what the strength is, that sort of thing. When I give it to people and they ask me, I say start with a really low dosage. I'm not interested in the buying and selling, I really don't have a need to do it myself.

I think in a real answer to your question, Mike, people need to realise that this is already happening out there. There are kids all over Hobart buying pot on Friday afternoons. They are buying an ounce and selling it to their friends. They are already doing it. The only way you're going to stop it is to take the road that Colorado and Washington and Holland have gone and legalise the entire recreational cannabis industry. That way you're not going to have an illegal problem. It all becomes taxed and it all becomes controlled. You are basically cycling organised crime out of the business. As long as you have a demand, you have a black market; it is a licensed organised crime to print money - and trust me, cannabis legal or illegal is license to print money, except for the people that grow it themselves, all they are paying is the seeds.

As part of the Medical Cannabis Tasmania group, we were looking at setting up a formal group, Medical Cannabis Users Association, we will be totally opposed to anybody who has been given permission to grow it themselves for medical use selling it. I'd just say, 'Don't sell it, personal use'. I think you just have to come up with sensible laws, the same laws that you have for personal use of anything - guns, cars; they are all dangerous, more people get killed by cars than cannabis. It is a worthy concern but have a look at other places like Holland. This is the big example, you will love this one, Ruth. The report has gone up in recent years; Holland legalised cannabis about 30 years ago, it was the best thing they ever did. I think they shut 19 jails recently, they are running out of criminals - why are they running out of criminals?

Because they haven't indoctrinated teenagers and people into the crime cycle. They wanted to basically create a situation where soft drugs were easy to get, hard drugs were harder to get. They didn't want young people going into hard drugs like heroin and stuff like that. Now they are closing jails, they started off with eight jails, then they were

closing 12, now they have closed 19 jails. They don't have criminals because people aren't getting indoctrinated into the cycle of crime which your 16-year-old will do if he goes to his mate and buys pot off him, it is a crime cycle; from that it goes into the harder drugs and develops a crime mentality. People work out they can make money from it, it is easier than paying tax and working, it is like bees to honey, so you have to stop this happening and you need to stop it by letting people have a little responsibility for themselves and for their medicine.

CHAIR - Anything you want to finish up with, John?

Mr REEVES - I want you guys to have a look at this, this is my general practice management plan from my list of GPs: physiotherapy, chiropractor, rheumatology; down here under fibromyalgia I've got osteoarthritis secondary to spinal injury, down here is my medical cannabis and I want you to have a look at that. That just proves to the doctors I am using the cannabis for medical use. Most of my doctors are happy with it, a couple of them are scared. I will pull out the drops, I want you guys to look at this: this is basically just soaked in standard-grade alcohol and you just crush up the plant when it is dry and this is cold, it does not have THC released at all. The THC, the part that is psychoactive, is only released from the plant when you heat it, it is called decarboxylation. You can use every other part of the plant cold, it will not get you high at all, have a look at that, Craig. And I put them in hot tea and it heats up a bit and breaks it up but it doesn't boil it. I will put most of it in my submission but basically I think the bottom level which is being used widely in America.[?] In Canada they are really having problems with it, the patients aren't happy, they are all in court, it is not a sensible thing to do. In places like Holland, you just have this broad range of availability.

The current demand that I am getting from people on a weekly basis is ridiculous, I've had three in the last two days. At the rally last week in Launceston, about 12 people came up, there was one poor fellow, Trevor, who had just been diagnosed with liver cancer, lung cancer and spleen cancer, he was crying, he followed us up and asked us for some medicine, we were able to give him some. Then there was this one:

Hi John, I've just been talking to Debbie. She said you may be able to help me. I have multiple sclerosis and I'm stuffed a lot of the time. I just needed a way to help my mum's cousin who is in her 70s with her cancer in her neck. Mum asked me to cook something but I don't know if that's a good idea so I told her that I can teach her how to roll joints.

So I said, 'Look, forget about the joints, go to the cannabis cookbook website, find a recipe for butter, get that into her and we can't help up you with medicine at the moment, we are out.' This is the last bottle I have for the year. That is what happens every week. I'd be really happy if you guys can take on some responsibility for this. People with cancer, like Natalie Daly who has put some of the comments on my submission, she is on the television ad, you see her with her adrenal cancer, she is a mother of three, she is 32 years old, we just busted her gut trying to get enough oil for her. I ran out because the cops stole the plants. We got some from the mainland. She got her scans back after three months on the oil and chemotherapy and her lung tumours have gone right down. These people are really hurting. These people are scared. Their children are worried

their parents are going to die. They are crying. I have them on the phone every night. I talk to Nat. I say, 'How are you going there?'. She goes, 'I can't keep out of the fridge'. This is someone with stage 4 adrenal cancer, two lots of chemotherapy and her hair falling out. She has put on weight and her hair is growing back since she started using the oil. She said it is fantastic. It has made a huge amount of difference. The demand in society for this is enormous at the moment. It is not going away.

I would also like to talk about Tasmanian Alkaloids, and the concern that a cannabis industry might harm their business. There is really not much evidence of that. The poppy industry is growing in Victoria and Western Australia. The problem with the poppy industry is that three people have died in the last few years. Everyone is worried about cannabis, which can't kill you and you have three deaths from poppies. One of those deaths was a 17 year-old kid up in Burnie who had run out of pot. His parents didn't worry about him because he looked stoned like he looked on cannabis except he woke up dead, because he took the opium. He wandered in and took it from the paddock. Every year the cannabis harvest is around April, and by November/December everyone is running out, but kids want to get high. I think it is good they are not getting drunk. It leads to a lot more trouble.

Back to Tasmanian Alkaloids - Tasmanian Alkaloids is not the same business model as medical cannabis. The psychiatrist you heard from was talking about the perceived harms. Those harms are largely to do with poor quality control of the cannabis and poor usage patterns. Poor usage patterns is people getting up in the morning and smoking, and smoking too heavily. Unfortunately, cannabis is like everything else in society. It you eat too much butter you get too fat, or too much alcohol and you will fall over. If you have too much cannabis you might get a bit slow, or a bit stupid, or a bit flippy, if it is the wrong type of cannabis. You can't do anything about people having too much.

There was a huge study done in the 1890s in India - probably one of the largest cannabis studies every done. It is on the National Library of Scotland website. They came to the conclusion after studying 1 500 patients and about 300 doctors, that cannabis use in the right dose, which is about three doses a day, like normal medication, will not cause significant problems. The problems they were seeing were from much higher usage. That is another reason why it needs to be legal, so this information is available to people. Three doses a day, guys. If you feel uneasy, or if you have schizophrenia, don't take the high THC stuff. Take the CBD stuff. It has an anti-psychotic in it.

CHAIR - We are out of time, John. Thank you for that.

Mr REEVES - Thanks guys. To finish off, this is something that is happening worldwide. The prohibition really hasn't worked and I want people to come up with some positive recommendations based on patients' rights. We should get a council together with members of Parliament, members of the patients' groups, and doctors. Get a bit of a roundtable happening on a regular basis. Work through these issues. Setting it up as a trial, including self-growing, to see how it goes.

CHAIR - Thanks for your time.

THE WITNESS WITHDREW.

Mr DAVID KING WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome to the committee. Everything that you say here is recorded by *Hansard* and it will form part of our transcript. It will be on our website as a public hearing. If you have matters of a confidential nature you want to raise, you could make that request to the committee and we could take that evidence in camera, subject to the committee's decision. You are protected by parliamentary privilege while you are before the committee, but if you talk to the media afterwards, then you are not covered at that time, so just keep that in mind.

Can you tell me a bit about your organisation - history, membership, that sort of thing?

Mr KING - My organisation is me. I have plans.

CHAIR - Is you? Okay. There is a picture of lots of people on the front of your submission and I thought maybe they were part of the team. Can you explain your business and your interest?

Mr KING - I'm not here as a medical expert. I don't claim to be a carer, or a healer. I have no vested interests. I am interested in the subject and have been for a while. I am interested in Tasmania and Tasmania's development potential. I am here to help show how this can be done effectively and safely if a decision is made to go ahead with a medical cannabis trial and/or industry.

I have my own health issues - I have glaucoma in one eye and hypertension. They are very minor compared to some of the people who rely on cannabis, people who are dying in a few months time. I feel that my issues are inconsequential compared to some of the pain and suffering out there. I don't represent anyone but myself, going back to my alleged organisation, but I do feel -

Mrs HISCUTT - You're saying you represent yourself. I want to clarify that you don't know Ian Macleod or Serve-Ag or Peracto.

Mr KING - No.

Mrs HISCUTT - Do they know that you've used their picture?

Mr KING - I didn't realise it was them. The picture I got was uncredited.

Mrs HISCUTT - I was led to believe this was a Peracto signature.

Mr KING - I apologise to the committee if I have misled them. I didn't realise. That seemed to be a generic picture that I found.

Mrs HISCUTT - I know these people, and I thought, 'They know what they are talking about'. So you are nothing to do with them?

- **Mr KING** I have to make that clear I have nothing to do with them. I have no alignment. Is that an issue for the committee?
- **CHAIR** We have very little information about your background, and it was presented in a way that looked like this was the team you were working with and represented.
- **Mr KING** I am sorry to have given you that impression. It was just clip art I found and I couldn't find a credit for it. I couldn't find a photographer, or a date.
- Mrs HISCUTT Okay, now we know where you're coming from.
- Mr KING Otherwise I would have sourced it, and given credit to the owner. I am just one voice in this committee. Obviously there are many people who would have liked to have made their own submissions, but the committee doesn't have all year to consider them. I believe that I represent possibly 70 to 80 per cent of the electorate. When you look at polls conducted in Tasmania and throughout Australia, throughout the world, people are saying they believe medical cannabis should be legalised. Some people cannot appear due to socio-economic issues and some people are just too busy caring for their sick relatives to form networks, build political capital and push this issue forward. So I'm here also speaking for those people, if that's appropriate.

The committee has heard, over Thursday and Friday, and probably this morning, from some highly regarded experts in their field, but I believe that for some of those people, their field is not cannabis.

The biggest issue we have is overcoming ignorance and fear about cannabis, cannabinoids, and the various aspects of the drug. US President Nixon commissioned a report over forty years ago and even though it came back affirmative, that cannabis was not a problem, this did not fit with his political agenda and to silence the war protestors, he demonised cannabis. We have had the war on drugs now for over 40 years. I think most people would acknowledge, including Kofi Annan, Richard Branson and a number of ex-presidents of central American countries, that the war on drugs has failed. Billions have been spent, lives wasted, chasing drugs, cannabis especially. Tens of thousands of people in Mexico are killed each year, due to the illegal drug trade. As John alluded to earlier, the amount of money involved is astronomical and money will cause people to do all sorts of stupid inhumane things.

Eric Ratcliff appeared, I think Friday, and he said that the medical cannabis trial must be based on proper scientific evaluation and not anecdote alone. They have asked you to disregard the many anecdotal reports of the effectiveness of cannabinoids, with those people saying, 'Oh, big deal, this has helped my cousin', or whatever. Sure, they are not scientific studies, but the assertions of harm and social disruption are also anecdotal. There have been no studies which prove that cannabis leads to crime or leads to this or leads to that. The reality for most people now is overtaking the prejudice and misinformation that has been around for over 80 years.

Eric Ratcliff also suggested that it must be a proper trial, and not one based on a few stories that tug at heart strings. I have thousands of links to peer review studies from all over the world, and I can supply those, if required. I did not attach them to the

document, in the draft stage, and there was another 20 pages of internet links, and I did not think you would be clicking on each of those. I have one document that lists over 700 individual scientific studies on cannabis. A simple search online can locate hundreds more studies. It is not hard to find information, scientific peer reviewed information, on PubMed or Google Scholar.

CHAIR - Are you aware of the Cochrane data base?

Mr KING - Yes, I have some links for that, but I am not a medical expert so I am not searching these things all the time and keeping up with that side of it. I tend to come from a policy and other perspective. I am watching other jurisdictions, other legislation, to see how they are playing out. How they might be applied and contextualised in Tasmania. But, yes, you are aware that there are many data bases out there. It is increasing every year, it is becoming a field of study which is attracting a lot of interest.

Dr Ratcliff, with all respect, and to others in his profession, is living in fear of change and ignorance I believe. He does not fully understand the potential of cannabis and cannabinoids. I do not know that he has done any recent study or re-educated himself on these matters. In the medical area it is hard to keep up with all the latest developments, all the research, all the latest drugs. And doctors do fall behind. Your GP can not know about specific new drugs, so I believe that some of the doctors, some of the specialists, may not be fully up to speed on some of the issues they are talking about.

CHAIR - Before you go on, Dr Ratcliff did not suggest that he was up to date on all other forms of treatment that cannabinoids could be used for. What he was saying was that as a psychiatrist he has seen patients with schizophrenia and he is aware of the research in that area, which is his area of expertise, where you would expect him to be up to date. So in being reasonable to Dr Ratcliff that is where he was focusing his comments and attention, not on the other areas.

Mr KING - Sure, I did qualify that with respect to him and his profession. I am not here to run down people I do not know. I am just suggesting there are two sides to each and every story. The movement that recognises cannabis as a legitimate and beneficial therapeutic option is now non-reversible, I believe. There is enough impetus and enough critical mass that it is an ongoing thing.

Some states in the US will hold out longer, though it was announced that Texas, on 1 January, will be legalising medical and recreational cannabis which a lot of observers and a lot of people I network with in America, think is a tipping point. If Texas has gone over then that is it. It is now inevitable for the rest of the United States. Georgia, another one of the conservative southern states, has passed legislation about medical and recreational cannabis. I believe we are seeing jurisdictions - Colorado, Washington State, California - seeing the benefits and following the policy option.

I believe medical cannabis, cannabis law reform, are the 21st Century's equivalent of a suffragette movement. It is such a big social change. It is bigger than any social movement ever because it applies to all seven billion people on the planet. Men, women, young, old, rich or poor. It also applies to every Tasmanian due to the therapeutic and economic potential.

Carers also benefit, even if they are not taking the medication themselves. An example is, if you are caring for an epileptic child who is having hundreds of seizures a day, it must be so stressful. I cannot imagine, as a parent, being under the stress of having to watch and go in and check like a new-born baby that they are still breathing. All that sort of thing. If these children can be helped, if they are not seizing every day, if they are not having these issues, surely that must be of benefit to the parents, the carers, and also these people are not in the system. They are not taking up beds in hospitals. They are doing it because they love their children at home, on very little money, some of them. The benefits flow to every Tasmanian, both in the medical field and the economic potential which I will come to later and I have mentioned something of that in my submission.

Poppies have one use. They are turned into opiate drugs. Cannabis has 50 000 or more uses. That is an important point. Glynn Williams urged a very cautious approach to allowing cannabis crops. There were not many farmers prepared to grow it. He has called for a cautious approach to growing it in Tasmania. If a poppy crop fails for a farmer, basically he has very expensive mulch. It is animal bedding, if that. It has to still be sorted out. All the poppy heads have to be taken out. If a medical cannabis crop fails you still have seed and even if that fails you still have fibre and pulp. It is a redundant crop in a way. If you grow medical cannabis and it fails then you have grown industrial hemp. You can still get some value from the crop. As a safeguard for farmers, it is less risky than growing poppies if you look at it from an agronomy point of view.

You are also unlikely to get large private investment to grow big crops of medical cannabis until the political certainty is there. Private investors are not going to come in with tens of millions of dollars, set up big operations, such as we see in other jurisdictions, until they know that laws, regulations, systems, are in place.

Mr GAFFNEY - The last comment before you said if you had a failed medicinal crop?

Mr KING - If you are growing cannabis of a particular strain or cultivar, say it gets mouldy or say you forget to water it at all, the watering system breaks down or something, you may not get the required compounds that you are hoping for but you can still harvest it and you can still process the stalks, the leaves, the roots, into other usable products. You can get CBD from leaves and roots. So you can still make balms for skin treatments. You may not get the THC or the CBA or other things that you may get from the flowers, but you can still recover a lot of other compounds from the crop. Even if it fails for various reasons, it can be chopped up and turned into hemp building materials or, at worst, garden mulch.

CHAIR - When we are talking about a medicinal sort of product used for treating a particular condition, say the young child with intractable epilepsy, then common sense would dictate that you would want a fairly consistent, reliable product.

Mr KING - That's right, yes.

CHAIR - To say that if this doesn't work, use it for something else, how do we know this something else is going to be an effective, quality-controlled product as well?

Mr KING - I'm not saying that you would just take what's left of that - are you talking about the crop failure?

CHAIR - Yes.

Mr KING - If it failed then you would write that off probably as a medical possibility. You could have it lab-tested and you could discover what there was available and process it accordingly. But I'm not suggesting that you grow a particular type of medicine and, say, call it the anti-epilepsy crop and when that fails, still pass it on to the patients. That's not what you do. There are certain compounds which are shown to work effectively for epilepsy, and so those compounds are available across various parts of the plant. You can extract those - you saw the oil before. There are other ways of extracting as well. You can still extract some of the compounds, but you may find after laboratory testing that it's only suitable as a skin cream or as something else, or to be compounded with another crop. I'm not saying there is only one crop in Tasmania and if it fails then it has to be used anyway. There would be other crops which would cover the losses. I think my submission covers that. You would have to have a stockpile as well to anticipate any crop failures or any issues that might arise. It's a botanical farming operation, whether it's indoors or outdoors. You're dealing with issues; all farmers will have them. That sort of thinking should inform the trials, the number of growers, the growing locations and you wouldn't try to pass off a crop which wasn't suitable to those people who needed that particular strain or that particular balance of THC, CBD or whatever.

That's when the laboratory testing and professionalism of the organisation and the industry itself comes into play. Everything would be lab-tested before it was sent out, everything would be lab-tested before it was packaged up. You have to label it with the strength, the quantity et cetera. Collecting that sort of data also feeds back into any taxation regime you have, or any other scientific data you're collecting. You need to collect the information to say we grew so much of this and it was suitable for this and it was packaged as dried flowers, or as oil, or as this, or as a cream or whatever. The industry is responsible for managing that level of harvesting and processing. I don't think there would be an issue there.

Mr GAFFNEY - On that, what concerns me is when we listen to the industrial - and I know this inquiry is not about industrial hemp, but what you've just said - the industrial hemp fraternity want it really well known that it has nothing to do with the medicinal trials or the cannabis for recreational users because it's a totally different product, as in the levels and whatever, for its growth. It doesn't want to be associated. It concerns me if, on one hand you're saying that if a medicinal cannabis crop fails, and it hasn't the required levels it needs for medicinal use, we can just assume that it can become part of the industrial hemp, because I don't believe that that's the case.

Mr KING - I understand what you're saying here, but I'm saying that, say, the individual farmer grows a medicinal crop but for some reason it fails; that farmer individually can then process it for your industrial products - the stalk, the leaf, whatever, can be processed down to the same products as industrial hemp farmers would grow. He has that option to then sell his crop at a reduced price because it has less value, but he doesn't

have to suffer total failure, he will get his planting costs back, if nothing else. He may not profit from it, whichever model is done, whether it's a social business or a capitalist business, whatever idea. But the farmer has the option of basically recovering some of his input by selling it as animal bedding, or mashing it up with lime and building houses out of it or whatever else it can be used for.

There are 50 000 uses. You can sell the contaminated seed to a fuel supplier who would crush it up and make biodiesel out of it. There is no reason to just plough it back into the ground and just lose your money, you might as well - even if you just dig up the roots, the extract from the roots is a valuable commodity. I am not saying that the industrial people will suddenly be passing it off as what they have done, but that individual farmer, has that fallback position to say he has some animal bedding available from his failed crop or seed stock for biofuel. It is as I was saying, poppies have one use and if it fails, and if it doesn't come up to grade, then the farmer has lost totally. With your medical cannabis, you reverse and it downgrades to industrial hemp, and so that is the fallback position. That is something I don't know if it has been brought up by anyone else.

Just going back to your point, with the Tasmanian Farmers and Graziers Association saying the debate over medical cannabis is hurting industrial hemp. In my submission I talk about the need to address all three sectors, which means industrial hemp, medical cannabis and recreational cannabis, in the broader picture. I know this inquiry here is dealing with medical cannabis but I don't think that any policy, any future legislation can treat it in isolation. And yes, we have heard, what if some of is diverted to the recreational market? How can the police tell that it is industrial strength and it has no value compared to something which has a high value. That's where you need to look at the entire picture and frame your legislation, frame your policies, get your systems working which address all of those issues. Again, my submission goes into some of that detail, and the ability to transfer policy if it is working from other jurisdictions such as Colorado, and contextualise it for Tasmania, so that we can hit the ground running, or should we reinvent the wheel and do all these trials again, go through the whole process and get people and do this? One of the submitters on Friday said there wouldn't be enough people available in Tasmania to a large-scale trial, and the cost to do it. Also it is prohibitive for any private person or for the Government to do it on spec. We can take the research and the policy from overseas, contextualise it for Tasmania, tweak it for our needs, learn what has gone wrong, or what might have been done better. I think Tasmania can quite easily come up with world-class, leading-edge systems that prevent it from being an issue that many people think it will be - that it will be diverted to a recreational market or that people will just be able to steal it out of a field and smoke it until they go insane or whatever other things people think are going to happen.

Just going back to the Farmers and Graziers Association, they are always suggesting that medical cannabis is going harm industrial hemp. I believe that the farmers and graziers have failed in their advocacy of industrial hemp. They have had over 20 years to get something done with it and they have concentrated on poppies, they have concentrated on dairy, they have concentrated on other agricultural sectors, but they have done nothing with industrial hemp. So to stand up and say that it is going harm hemp, is a little bit off-putting, especially for some of the people who are pioneers in Tasmania. Frits and Patsy Harmsen tried to do this 20 years ago or more and got nowhere. They

- have grown old now, they have retired, and they have seen nothing happen in their lifetime, and it was their life's work.
- **CHAIR** The TFGA was quite involved with the inquiry in the lower House last year or the year before.
- Mr KING Yes, I attended that as well in Launceston and yes, their submission was vanilla. Again, I'd approached them directly and they don't seem to be interested. To them, they also have the same thing as the industrial hemp, and they think it is going to be seen as a drug thing. And so if they support industrial hemp and have a picture of a cannabis leaf, somehow everyone will think that they are involved in drugs. This is the biggest issue that people have to get over: sure, it is the same plant or variations of the same plant, but the three sectors can be kept separate, they can be controlled separately and it is purely education.
- **CHAIR** More recent comments of the CEO would belie your comments there about TFGA. I have only heard Jan Davis on the radio recently commenting about this inquiry and making very strong comments about industrial hemp and the need to progress with that.
- **Mr KING** Yes, but as I say, for 20 years they have been making comments and noises, but nothing has come out.
- **CHAIR** They can't make it happen, the Government has to make it happen.
- **Mr KING** I realise that, but they are there to advocate and to keep this issue in the forum, and it doesn't seem that is what they do. Again, that's just my considering other people's submissions to this. I believe I'm one of the last to submit, so it's almost like a closing statement for some of these things on my behalf.
 - If the inquiry decides, or if from this inquiry you make recommendations and the lower House and the Liberals decide that they still don't want to go ahead with any trials, any way of developing an industry, that, I believe, is putting the political class above doctors in deciding what is best for patients. If cannabis is legalised or available for patients through a regulated, structured way, if doctors can prescribe it, patients can get it like a normal medicine, then that gives those doctors the option. To say no to it again and to keep it outlawed takes that option away from patients.
- **CHAIR** What you think then of the more recent comments of the Prime Minister, Mr Abbott, and Mr Ferguson and the Premier, who have indicated willingness to be perhaps a bit more open-minded about this and take it to COAG?
- Mr KING Those are all very promising noises and statements from politicians, but I also observe that almost every opposition leader in Australia, every Labor state opposition leader has said, 'If you elect us next time, we will look into it'. Health ministers in New South Wales were saying, 'We are going to look into it'. Everyone has a response because it is in the media. They are trying to get some political capital from it. I do believe that while some people are in it for political capital and media exposure, others are more genuine. It's those who are genuine, I think, who can advance the cause that

will take this forward. I believe it's almost inevitable, it's a snowball, and that there is no holding it back now.

I would like to see Tasmania capitalise on this, and I pushed that point in my submission. I moved to Tasmania a few years ago and I believe it has huge potential. It's almost hard not to describe it in terms which make it sound unrealistic, but it has huge potential. It also has huge social potential. The opportunity is there to not only supply Tasmania - this is going back to the economic point - but also to supply the rest of Australia, to supply New Zealand and then considering other export markets.

I will expand on it a bit. As I was saying before, many other states are saying they will do a trial, they have had some people come to them with their sick, terminal people, their kids, whatever, they're going to look into it. However, the issue for a lot of these people is, even if they allow the use of it they still have to get to the practicalities of a production and processing trial. They have to source it from somewhere. That, I think, is a bridge too far for some jurisdictions, and that is where Tasmania can step in. Again, if Mr Hodgman takes it to COAG, puts the proposal to them that Tasmania can be the supply and processing centre for the mainland, then all those other health ministers can then say, 'Right, we will allow our people to have it. This is how we're doing it, we're going to have cards, we're going to do this, or you're going to get it through your doctor' or whatever, but the supply and production issues are isolated in Tasmania.

CHAIR - Wouldn't for anyone to go into business, a number of organisations or whatever to provide a product like that, then surely you will need more than 'we will look at it once you get it developed', because it's currently illegal around all of Australia.

Mr KING - That's right, yes.

CHAIR - So it would be a brave person who went into business on the hope that something will change.

Mr KING - Yes. Perhaps I can explain myself. I am saying that if Tasmania sets it up, it can be grown and processed here, and it is available to patients in a legitimate way, with cards, with prescriptions, with doctors - however the policy and legislation are structured. You are going to have seven different sets of laws. Other states will be saying, 'Okay, this is how we are going to grow it. Our growers are going to be licensed in this way and the tax is going to be this and that'. They are going to do that seven times.

If this state can do that and if we can benefit economically from it with jobs, employment and investment for the entire population of Tasmania - or the south Pacific region even - it is easier for the other states to say, 'Well, your patients are allowed to have it and this is how they are going to get it'. We package it up and we send it securely to other states. It is exporting from Tasmania to all the other states so they do not have to set up their own growing regulations and their own growing watchdog or whatever. Each individual state may want to take that opportunity or they may want to do it in their own way. The potential is there for Tasmania. If there are half a million people here, there are 45 times as many in the whole of Australia.

CHAIR - If it is as lucrative as some people suggest, I would imagine every state would want to grow their own because it is relatively simple to grow.

Mr KING - That is the issue. If we move quickly, we can capitalise on it; if we do not, we may lose the opportunity. We may just end supplying out own little island state and that will be a loss for us. That is where the timing is important and this is why this enquiry is going ahead. They are obviously going to report early next year. If Mr Hodgman, Mr Ferguson and other people can take it to COAG before that time, then possibly we get a foot in the door.

I am interested in Tasmania's future and I see opportunity for us. I am suggesting that if we move faster than the other states, that could be our opportunity. They could be our jobs and our investment. In the north-west - your area, Madam Chair - there could be other industries closing down with new ones opening up. That is what I am looking at.

I will summarise here and I will be happy to answer questions. I think medical cannabis today needs an impartial proactive champion in Tasmania. Whether that champion is in government, a bureaucrat, or a personality, I believe that someone has to carry the cause forward. I implore the committee to not let this opportunity pass by. Again, I draw reference to industrial hemp; it has a huge potential and has floundered for 20 years.

With the right approach and the right policies, both industrial hemp - which I believe should be revisited in the same policy discussions - and medical cannabis - which is what this enquiry is about - can both rise up to be significant economic drivers in Tasmania.

Colorado has incremented a mature, well-regulated and profitable model. They have appointed someone to head the implementation. They have a commissioner - in title, I suppose - and I believe that Tasmania needs something like a commissioner and an agency which deals exclusively with it. I have mentioned that in my submission.

This goes across many agencies. There is health, education and police. You cannot have one person in one agency driving it. It has to be a cross-agencies network governance model and then it will be incremented successfully. That is there to safely benefit all patients and to benefit Tasmania in the long run.

Mrs HISCUTT - I cannot get over your front picture so I presumed you were a researcher. I have done a quick Google search and I cannot find anything on you. Could you tell me something about your background and where you are coming from? What you are presenting here today is very thorough.

Mr KING - I am a full-time student and I study in Launceston. I study politics and policy; that is why my submission has a policy slant. I was approaching it from the idea that there were going to be plenty of doctors, users and other people offering their stories. There would be plenty of sick people who will impress you with the benefits, and I believe them. I wanted to come along in the hope that your recommendations will progress this idea -

Mrs HISCUTT - Are you a student or a teacher?

Mr KING - I am a student and politics policy is my major. I wanted my submission to be different to, 'Here is this study and there is that study, and it does this and that'. Sure, we have got over that. We have seen the evidence and made our recommendations. But how do we put it into practice? How do we implement it? I wanted to try to be that next point. So when you go through the door it says, 'Yes, it has valuable uses for patients and it has these benefits and these issues which we can deal with'. As you go through that door into the agenda-setting and the framing of the legislation and policy, that is where I wanted my submission to come and say, 'Here we have other jurisdictions doing it successfully. We can transfer some of that and look to other people'.

On my LinkedIn profile I have hundreds of people who are the heads of their organisations. So there is a huge network of knowledge out there and we can draw on that. We don't have to reinvent the wheel. We don't have to do the trials again. They have been done and peer-reviewed. We don't have to draft brand new legislation from the beginning. We can see what is happening in other jurisdictions and we can contextualise that with Tasmania. So I believe that to move from a recommendation and an acceptance by the Hodgman Government to an actual physical on-the-ground trial could take as little as six months, once the processes are done through Parliament and once contracts are signed and people are appointed, et cetera. It can happen quickly and that is why I see we can capitalise it in Tasmania.

- **CHAIR** I want to take you to one point in your submission where you suggested the establishment of a GBE for production, processing and distribution. Is this not something the private sector should really do? We have an agricultural sector here that is privately operated. Why would you think that the Government should involve themselves in an agricultural and effectively a pharmaceutical business when we should be encouraging the private sector to get involved if we do?
- **Mr KING** I made the point that you will not get large investment and companies moving to set up or be headquartered in Tasmania without the certainty of legislation that is in place, effective and guaranteed. They are going to want five-year or 10-year guarantees.

My initial suggestion, and it is only a suggestion, is that it can be very profitable for the government. If the Government is looking to put some revenue back into the Budget, instead of making cuts and slashing frontline services, they can do that through taxes and licences and the profit from such an enterprise. It will also kick-start the enterprise in Tasmania and show that the Government has confidence in it. It is obviously at arm's length. It is not run by the Health department; it is run as an individual enterprise. I also believe that it can channel all the economic benefits back into society and so the Health department budget is bolstered up to 10 per cent. I have a table in there and an example of who might hold shares - the University of Tasmania partners with us and they get the research -

- **CHAIR** I have read all that but why should it be the government who does it and not the private sector? I think you said it would act as a guarantee.
- **Mr KING** To summarise, the government gets a maximum return from it because they are the shareholders and, two, they can get it done quicker; three, it is probably easier to make it sure and stick to the regulations and the controls government employees would

be bound more so than private enterprise. You could look at a GBE as a way to start the industry. That maybe an asset you can sell off in the future or in two or three or five years' time you may invite others to come alongside and they can see that it has been successful and that it could be privatised. There are a number of ways it can work out but I was looking at a way to get it happening fast, to get it happening big enough to be substantial.

CHAIR - That is not what happens in other countries. In Canada it is not a government business. It is done by licensed growers.

Mr KING - That's right, but they do other things to survive. They grow industrial hemp to keep their cash-flow going and branch out into medical cannabis.

CHAIR - Thanks very much, Mr King.

THE WITNESS WITHDREW.

Mr GREGORY JOSEPH BARNS WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Thanks for joining us, Greg. We have got your submission and would really appreciate it if you could speak to that and add anything you wish to. Then members can address some questions for you.

Mr BARNS - Thank you for the opportunity. I am speaking today as an individual and a columnist in the *Mercury*. But I don't speak for the *Mercury* and I don't speak for the Australian Lawyers' Alliance on this occasion.

This inquiry is probably one of the most important inquiries that Parliament has had in Tasmania for some time because it is an opportunity to break the absurd cycle, that is, the war on drugs. It is fair to say that no-one believes in the war on drugs anymore. We know, as the economists have always said, you don't have wins, you only have Pyrrhic victories. In relation to medical cannabis, the reality is that every day of the week there are people using cannabis for medicinal purposes with no deleterious impact on their health and, in many cases, with a very positive impact.

It is absurd that we live in an area where we find police having to prosecute laws and courts having to deal with cases where people are using cannabis for compassionate purposes. Criminal law has no place in relation to medical cannabis. I would go further and say 'cannabis generally' but let's just stick to 'medical cannabis'.

What I have tried to do with this submission is to say that there is no need to reinvent the wheel. I think one of the disturbing features of the debate so far has been this idea that we need to do a trial. We no more need a trial for medical cannabis than we do for Panadol. That is because there have been numerous trials, in fact a voluminous number of trials around the world, that have established the veracity of medical cannabis as a form of treatment - not as a cure-all, but as a form of legitimate treatment. Therefore, in the United States you have now seen about 22 states adopt various legislative models for legal cannabis. I have highlighted a couple of them. I have deliberately stayed away from California and the so-called 'liberal' states. I have gone to Illinois and I have also had a look at Pennsylvania. Furthermore, I have had a look at Israel. Israel has an extremely well-developed legal cannabis industry which is regulated now to the extent that there are now a substantial number of providers.

The idea that has been expressed by some that there is some security risk in legal cannabis is not borne out by fact. In fact, if you bring the market out of the shadows and regulate it, you will find that criminal elements are not interested because there are no super profits to be made. In relation to medical cannabis, that is a fact. Bloombergs have reported on numerous occasions over the past four or five months on the growing venture capital market for medical cannabis in the United States. President Obama has said that whilst federally it is against the law to use medical cannabis, his federal prosecutors will not prosecute banks which facilitate transactions between venture capital and medical cannabis providers.

There is an opportunity for Tasmania here. It is not a panacea in the same way that tourism is not a panacea. But it is certainly an opportunity for Tasmania to develop a very robust medical cannabis industry. To pick up the point I think you were just addressing, Ruth, I don't see why the government ought to play any substantive role other than regulating the market. There is a well-developed medical cannabis market in Israel with a number of pharmaceutical companies involved, as they are in the United States, and they are always looking for new market opportunities.

In relation to the regulatory framework, if you look at the Illinois legislation, it provides for a strict capacity around the use of medical cannabis. That is, unless there are physicians involved, and unless there is medical treatment involved, you cannot get access to medical cannabis. Furthermore, you also have a number of dispensaries which have been established or are being established around Illinois, and that is the model in most states.

There is certification of patients. In Israel, for example, patients have to be seen every three months. It is a highly regulated market. It is a conservatively regulated market, I think, because of the stigma that was associated with cannabis. If you look at the regulatory frameworks, some might say that in fact they are over-regulated markets and there probably will be a diminution in regulation as people understand that the risk is very low. At the moment, there are a range of models that could be used to regulate a medical cannabis market in Tasmania.

There are now 14 000 medical cannabis users in Israel, which is a very large number considering that it was only established in 2008. By 2018, there will be 40 000 registered cannabis users in Israel.

CHAIR - What is the population there, Greg, do you know?

Mr BARNS - The population of Israel is around about 6 or 7 million, so it is a substantive number of patients.

The use of medical cannabis, I would argue, is an act of compassion. It is the role of Government to ensure that all available treatments are available to patients. Whether or not that will be cannabis or some other drug that is currently illicit, seems to me to be irrelevant. What is relevant is the capacity of that drug to do something meaningful for people's lives. The law has no role in preventing people from utilising a substance which has inherent worth in the pharmaceutical sense. That is why I say you do not need trials. I think my good friend, Dr Alex Wodak, would agree. When we saw the recent announcement in Victoria that we will have a trial, what that means is no one will benefit.

All these people who are currently using medical cannabis, or their children who have been prescribed medical cannabis by doctors, will have no benefit if you want to have a five-year trial. You might as well just say, 'We will not do it'. You do not need trials. I would urge this committee to listen to the medical research on this. There is a propensity on the part of legislators - and I say this with respect, particularly for governments in controversial areas - to say, 'Let's have a trial'. Some conservative American states have

adopted medical cannabis without any trial framework. They went straight to the implementation of a regulatory framework because the trials have been done.

In fact, if you have a look at the preamble to a bill that has been introduced by Scott Perry from Pennsylvania - he is a Republican in the US Congress - he talks about the fact that there are 300 000 children in American suffering some form of epilepsy. He gives about anecdotal evidence and then he talks about the fact that there is a great deal of medical research that has been undertaken. If you look there on page 4 of my submission, you will see that the 2013 Illinois act sets out as one of the justifications for the medical use of cannabis the fact that since 1999 there have been a number of reports from the American Academy of HIV Medicine, the American College of Physicians, the American Nurses Association, the American Public Health Association, the Leukaemia and Lymphoma Society, and many others that have backed medical cannabis. These are not radical bodies. These are conservative, peer-reviewed, mainstream, scientific bodies.

- **CHAIR** Greg, on that area. In Australia, for drugs to made available through doctors' prescriptions and those things, they have to be approved by the Therapeutic Goods Administration and put onto a scheduling list. What do they do in the United States? Are they overriding that process? Do they have a similar process there?
- **Mr BARNES** As I understand it, in the United States it is much more state-based because the nature of federalism in the United States is that you tend to have state schedules as well as a federal schedule. What you have now in the United States is cannabis being illegal at the federal level for any purpose, but at state level, being legal, including for medicinal purposes.

I noticed the comments of the Prime Minister on this and it is not often I agree with him. But he is absolutely right to say that there no need for further trials if there have been overseas trials of significance. Therefore, whilst the TGA needs to be involved, it should not be involved to protect pharmaceutical players. Never underestimate pharmaceutical companies and a bucket of money. Also, let us not forget the vested interests of poppy growers and others. It seems to me that poppy growers have two views on this and there seem to be some who are protectionists and some who are not. The TGA role should only be to verify the science. If the science has been done overseas, as they do with other drugs, there should be a relatively quick turnaround in terms of putting this on the schedule.

- **CHAIR** In the interim, before we put it on a schedule through the TGA process, if Tasmania or any other state brought in legislation to do what they are doing in the United States, could the Commonwealth override the legislation?
- **Mr BARNES** I do not think so, Ruth. The problem is that if there were an import or export permit required, you would not get it. The Commonwealth cannot override state legislation. The only reason the Norfolk Island proposal was overridden was because the Commonwealth has power in relation to a territory.

But if Tasmania wanted to introduce medical cannabis legislation, then the risk would arise because the Commonwealth drug laws dovetail with state drug laws. If you had people in Tasmania who were selling medical cannabis, they may be deemed to be

trafficking under Commonwealth drug laws. It would be much better for the Commonwealth to amend its laws so it brought them into line with states and territories.

I do not think there is an issue there. I saw the Prime Minister's comments and they were robust. It is the Liberal Government in New South Wales which is legislating in this area. Alex Wodak and I were commenting recently around this issue that we have not seen one hippie - and I do not mean any disrespect to hippies. But this is not an issue about lifestyle. This is a substance which, once upon a time, was a useful one. It became criminal in the war on drugs and we have now woken up to the fact that people are using it every day, and we ought to bring that out into the open.

Mr MULDER - One of the issues I have, Greg, is that everyone talks about trials and then we talk about two things. One is a full medical trial that you go through if you invented some medicine you thought might work - and heaven knows how many rats had to die to get us to that stage. The other trial, which a lot of people have talked about, is an aftermarket trial. In other words, we dispense it and under medical supervision, we monitor and report the effects of it.

Listening to a number of presenters, and despite some of their best efforts to dissuade me, I wonder why is there a need for regulation of this herb which has not been able to be established to have hurt anyone except the 1 per cent of the population who were predisposed to schizophrenia anyway?

- Mr BARNES You will get no argument from me.
- **Mr MULDER** It is a fairly long step to where we are now.
- **Mr BARNES** I am totally with you on that. Any drug researcher will tell you that alcohol is far more harmful than cannabis.
- **Mr MULDER** Some people will say you should put sugar through therapeutic trials to see the damage that has had on western nations in the last 300 years.
- **Mr BARNES** You and I would agree on that. I do not see the need for an incredibly complex regulatory framework. The political realism around this is such that the legislators and governments want some form of regulatory framework. There are a bunch of models you could utilise out of the United States. You don't have to reinvent anything or do the medical trial.
 - One of the issues in relation to the after-market is that tracking of patients. As I understand it, that happens in any event with new drugs coming on the market.
- **Mr MULDER** Part of it, too, in that the after-market you are looking for is undesired side effects those things you do not get in the people with the miracle cure stories; you only hear that side of the stories. The others who might have had some horrible effects, we never get to hear of. I believe that would be an important part of an after-market work.
- Mr BARNS Absolutely. If you regulate a market in relation to drugs, you are less likely to have those side effects. You and I both know from our other lives that one of the

problems with cannabis is you don't know what you are smoking. You may be mixing it with other substances and people are taking all sorts of drugs.

Mr MULDER - That is a quality issue.

Mr BARNS - If you regulate the market and have a properly structured market with product and quality assurance, you lessen the risk. You are never going to completely eliminate the risk but you lessen the risk substantially.

Mr MULDER - And you manage the risk.

Mr BARNS - Yes, that's right.

CHAIR - Which also creates a relatively consistent product. As a plant, it can vary a bit.

Mr BARNS - Yes, you know what you're getting at. I can say from the perspective of the law, I think there is a real degree of discomfort. I have talked to police about this and they don't want to be involved with the person who is a genuine user. I did a case last year in front of Chris Webster. The woman had a letter from her doctor saying he encouraged her to use it and Chris said, 'Why are we here?'. We all agreed: why are we here? There is enormous amount of resources used in relation to detection and then prosecution. Those funds could be much better used in establishing a properly-functioning medical cannabis market. I do not say it is a new wonder drug. It is not; it is simply there. It has various uses and they are well established.

There is an opportunity - and I do not purport to speak on the economics of cannabis - for Tasmania to legislate for this in a way that is not overbearing and does not make it almost impossible for people to get cannabis. Let us not make it so hard that theoretically you can get it, but no-one can actually get it. For example, the Health minister says, 'You get this product' - I think it is called Sativex - but you can't. He might think you can, but you can't. TGA rarely lets it into the country. We ought to be knocking on the head some of the mythology that you can get Sativex in Australia. You just can't get it, and that is a fact. Alex Wodak will tell you that. It is not always in the format that people need it. You should be making it available in other forms, so people can utilise it.

CHAIR - It is for a defined purpose and quite expensive.

Mr BARNS - It is extremely expensive.

Mr MULDER - I had a look at your Illinois trial and I was wondering why the state government didn't leap at it. I notice their cost regime is nice. For the dispensaries to sell the product, the state proposes a \$5 000 non-refundable application fee, proof of \$400 000 in assets, a \$30 000 permit fee and the yearly permit fee of \$25 000. How could they not resist? You have created not a regulated industry but a regulatory industry.

Mr BARNS - The reason I picked up Illinois was because this is a very conservative, Midwest state. I think that idea of cultivation centres is quite a good one. You have

these cultivation centres where you can grow plants and do some research and development around it. To pick up your point, Tony, one of the things to be aware of is that governments will always seek to 'tax the bejesus' out of anyone who has a new product. We know that; that is what governments do. If you look at Illinois, for example, there is a 7 per cent cultivation privilege tax, and there are taxes all the way along the line. I am not arguing for that, I am just arguing for the fact that some elements of this framework are very good. For example, having registration initially is probably useful. We do, I understand, have it with some other drugs which are in short supply or where you have got a health economics question. The bottom line though is that if you make the industry too regulated, you will not get a market. No-one is interested. It is just too hard.

- **Mrs HISCUTT** Following on from here, with your Illinois case, the private businesses have been given the right to reject users or restrict it within there. If it is a medicine, why do you reckon they put that in there?
- **Mr BARNS** I think this is coming from a conservative legislature where employer groups were saying, 'We do not want somebody turning up to work saying, "I am on medical cannabis; I need to go out for a joint".' I think that is where that comes from. There are aspects of this that I would not support but I am putting here because it is an example of a conservative state and how it is regulated.
- Mrs HISCUTT It looked good until I thought, 'Well, that is pointless'.
- **Mr BARNS** There are aspects of that. The other thing is that, as I understand, medical cannabis is very rarely smoked. It is generally taken in other forms.
- **Mrs HISCUTT** I can understand not smoking at work; that is fair enough.
 - Greg, I expected to see you here with Troy.
- Mr BARNS I am involved with Tasmanian Health Cannabinoids. I was going to be a director. I have decided not to do that because I wanted to give them more independent assistance which I have been doing. Can I say just to update that, Mal Washer who is a former federal Liberal MP who chairs that company, is doing a great job. They have gone back to Norfolk Island. They had a very good meeting with Gary Hardgrave who is now the Administrator. As I understand it, Gary Hardgrave said his argument is not with Tasmanian Health Cannabinoids, it was with the government on Norfolk Island and there are bigger politics at play, there as I understand it, about how accountable that government is.

Also I think now with the Prime Minister's imprimatur, this is a weird issue. You have got Alan Jones who hassles Troy continually apparently looking for quotes and things. Jones has done a good job on this because he got out and out on it. My understanding is that Norfolk Island is going to happen. I know that they have now signed up with a venture capital firm to raise funds. I have got to say I think it was a real pity the way in which it was dealt with by the Health Minister here. I think there was an opportunity. I note the Government has changed on this but it did miss an opportunity. Be that as it may, I would expect to see Tasmanian Health Cannabinoids in Norfolk Island and

possibly in New South Wales as well. I do not know whether Troy is giving evidence to this committee but I am just giving an update.

Mrs HISCUTT - He was here earlier.

Mr BARNS - I do some advisory work for them. I have deliberately just stayed a step removed so that I can do that work.

Mrs HISCUTT - So you have never been a director?

Mr BARNS - I was going to be a director and I think he put out a brochure saying I was. Then I said that I had not signed the forms yet. I told him I would much rather stay as an adviser to the company, which is what I am.

Mr ARMSTRONG - In Israel, it says there, 'Prescriptions can only be written by specialists working in a recognised medical facility such as a hospital or health organisation and doctors of independent clinics will not be able to prescribe the drug'. Do you see that is a necessity or do you think that that is overkill?

Mr BARNS - Robert, I think that is the model in Israel because as I understand the Israeli system, it was very much government-driven. It was driven by the department of health and then what happened was that the government decided it was going to invest in a bunch of small companies. I think all the medical cannabis companies in Israel have at least a 40 per cent shareholding owned by the Israeli government. It is possibly a sort of economic protection thing designed to say, 'We will tell you where you can get your cannabis from. We are not going to have a free-for-all for every GP'. I also do not know much about GP clinics in Israel, but my understanding is that there is that sort of command-and-control approach from the big investor which, of course, is the Israeli government. I have not read anything to suggest that there is any other reason for that.

CHAIR - Anything else you wanted to add, Greg?

Mr BARNS - Alex Wodak would be a really useful person for the committee to hear from.

CHAIR - Thank you, Greg.

THE WITNESS WITHDREW.

Mr PETER FEHRE, Mr STEPHEN GLEESON, Mr ROBERT McELDOWNEY, ESSENTIAL OILS, AND <u>Dr TERESA MARIA NICOLETTI</u>, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

- **CHAIR** Thanks to everyone for coming. So that you are aware, the proceedings are recorded on *Hansard* and will become part of the public record and published on our website. It is a public hearing. You are protected by parliamentary privilege while you are before the committee, but if you do speak to the media afterwards, you are not. Just keep that in mind.
- **Mr FEHRE** It is my pleasure to introduce the Essential Oils of Tasmania team, which is here. We thank people for the opportunity to make a presentation, because I guess we have listened to the community, we have listened to government, we have listened to people who have given evidence to the inquiry, and we have put together a team that brings together the skills and the professionalism to address rationally the things that need to happen should we move to legalisation of medical cannabis.

That's not to say we don't feel for everyone giving evidence, but we feel there have been some misunderstandings and other issues that need to be corrected, and we look to pave the way forward. The people with me - next to me is Stephen Gleeson, who is managing director of Essential Oils of Tasmania. He is newly-arrived in Tasmania but with a Tasmanian-born wife. Next to him is Robert McEldowney. Robert, I guess, is the founder of Essential Oils of Tasmania. He is the man who put together the team that either sits behind us or is working in Kingston, and the integral record has been created. At the end of the table is Dr Teresa Nicoletti, who is a partner with Piper Alderman in Sydney. I will leave her to talk about her background. I would like to say that having read it and talked with her, it is outstanding.

As well as that, we have to support us should it be needed, Troy Cook, Essential Oils of Tasmania project development manager. Next to him is Derek Swartz, who is the technical manager, therefore important on this issue, and at the end Dr Alisha Jung of Piper Alderman in Sydney.

CHAIR - How and when was the company established?

Mr McELDOWNEY - In 1986. Essential Oils of Tasmania, EOT, is an unusual company in many ways. I would say it's unique; it's certainly unique in Tasmania. It's probably unique in Australia in that it has such a broad range of activity and experience. It did start in 1986. It started as really out of an R&D program at the University of Tasmania, and the government at the time. It was one of the new industry initiatives coming out of the TDA. It started with a very strong technical background. It has, over the years, developed a very strong base of technology in the extraction of natural botanical extracts. It is now extending those activities even further. So from a specialist botanical extractor, it is now moving into other areas like marine extracts. The extraction technologies are becoming more and more sophisticated.

I hate the words, 'cutting edge' - but it is a cutting edge biotechnology company and that is the way it is evolving. As the name implies, it started off producing essential oils, and that is really just one spectrum of the whole array of botanical extracts that you can

produce. We are steadily moving across that spectrum through a whole range of materials into more bioactive extracts, which kind of leads us fairly nicely to what we're talking about today. We have one or two other products that have some therapeutic benefits, or potentially therapeutic benefits, and this is probably just an extension of the sort of work that we have been doing.

We operate at all levels. We are a highly integrated business, so we are familiar with starting at field level, selecting genetics, following that right through with harvest technologies, extraction technologies, then of course marketing. At this stage we can't claim any particular expertise in the sort of markets that might be involved around this particular extract. Through that process we have developed a number of specialised and unique extracts from some Australian natives and Tasmanian natives. I guess what I'm saying is it is a very broad, deep and extensive knowledge of the extraction of botanical extracts. That's probably as far as I can take it.

- **Mr GAFFNEY** Can you give us an example of how many people work for you in your Tasmanian base and a couple of examples of the different products that you are involved with at the moment? That will be handy.
- Mr McELDOWNEY Certainly. We have sixteen people working for the company at the moment. We are seeking very rapid growth. We anticipate the way the business is going that the staff number is likely to double again over the next couple of years. Probably the first essential oil that started in Tasmania was peppermint, in the Derwent Valley. We produce a very high grade peppermint that is recognised world wide for its quality attributes. We can move through to flavour extracts which are moving a little bit further around the spectrum, produced by different techniques. That would be things like our Tasmanian native pepper extract. It was originally developed and conceived as a flavour extract as a very unusual spice but it is now showing a whole host of other attributes in the bioactive and functional arena. There are a couple of examples. A total product portfolio at the moment is about eight or nine but there have been a number of others that have come and gone over the last 30 years.

Mr GAFFNEY - Where is the factory based?

- **Mr McELDOWNEY -** Our base is at Kingston, at Browns Road, at the moment. We are planning a new and a much larger facility which will be a little further south, towards Margate. There are also distillation units all around the State. We own one at Hamilton.
- **Mr GAFFNEY** Are you producing any marine products?
- **Mr MAC** Yes, we are. We are getting involved with protein extracts from marine sources; so this is a new area for us.
- **CHAIR** Where are your main markets?
- **Mr MAC** Europe and the States, predominantly. We do have important markets in Japan and we have two people, one of them sitting behind me, who has just returned from a marketing trip to Japan last week. We are becoming more and more active in China as

well. The traditional markets for us are Europe, which is the original nucleus for essential oil production, and the United States.

Dr NICOLETTI - I might start first by telling you a little bit about our background. I work for a law firm called Piper Alderman in Sydney. My background is heavily science rather than law. I have spent 20 years working in the pharmaceutical and biotech industries, particularly in relation to the development of therapeutic goods. We have a team of PhD-qualified scientists working in the practice and we have been engaged by EOT to provide regulatory, scientific and legal advice in relation to the potential development of products derived from cannabis. That has been the extent of our involvement.

The slides I have put together are a snapshot of the written submissions I am going to take through today. I will be discussing a lot on the science about cannabis and its therapeutic potential and also discussing the legislative framework in Tasmania and what we see would need to happen if EOT was to engage in the business to develop these types of products.

I want to talk to you first a little bit about the medical benefits of cannabinoids. They are well known to have potent action on the central nervous system and they particularly have a range of therapeutic effects that are known to be anti-inflammatory, anti-oxidant, anti-convulsant, anti-emetic, and anti-psychotic. Within cannabis itself there is a whole of range of compounds but the ones of therapeutic interest are the cannabinoids. There are at least 85 known cannabinoids in cannabis and the ones of particular interest, which I am sure you are aware of, are these three - tetrahydrocannabinol, cannabinol and cannabidiol. The committee may be aware that the constituent of cannabis that has the psychotropic effects, that is the hallucination effects and the undesirable effects, is THC. That tends to alter your visual, auditory and olfactory senses. It also has quite interesting properties such as relaxation, the reduction of pain, the stimulation of appetite and the reduction in nausea.

It is the presence of THC in cannabis that has perhaps raised the most controversy over its use for therapeutic purposes. However, that same controversy does not arise with cannabidiol and that is of particular therapeutic interest. It makes it an ideal candidate for therapeutic use because it avoids the undesirable psychotropic effects that you see with THC.

CBD itself has shown significant promise in relation to its ability to act as a neuro-protective agent and that is based on a combination of its anti-inflammatory and anti-oxidant properties. There has therefore been quite a considerable amount of pre-clinical research in relation to the treatment of a number of neurodegenerative diseases.

Quite interestingly, there has been a recent study in the Illawarra region south of NSW. They found that the treatment of mice with CBD had some quite profound effects and reduced the severity of some of the symptoms, particularly the behavioural symptoms associated with Alzheimer's disease. In this study, mice were treated with a daily injection of CBD for three weeks. After being put through a battery of tests with a control group, the treated mice had quite significantly improved social and object recognition skills over the course of the treatment compared with the control group.

Whilst these are preliminary results, it does quite significantly highlight the potential therapeutic value of these types of products.

Despite its psychotropic effects, in our view THC is nevertheless a potentially important ingredient in a therapeutic agent. It has shown quite significant effects in relaxation, a reduction in pain, and stimulation of appetite. This is one of the drugs that is being considered for the treatment of conditions such as the pain associated with cancer. It is has also shown to have significant benefits in patients with multiple sclerosis by reducing the symptoms of spasticity.

In our view, the concerns about the potential abuse that arise with the use of THC should not be a reason to prohibit its use for therapeutic purposes. If we relied on that as a criterion, other drugs that have a high abuse potential like morphine and oxycodone should not be on the market.

We believe, however, that the legalisation of cannabis itself, rather than specific cannabinoids that are isolated from cannabis, presents a number of political, social and moral challenges which may be difficult for the state, territory and federal governments to overcome. The concern, in particular with the legalisation of cannabis itself rather than the constituents of cannabis, is the potential for diversion.

In our view, these concerns can be overcome by shifting the emphasis from the legalisation of cannabis itself to a coordinated program by government which facilitates research and development into the extraction, purification and isolation of pharmaceutical grade cannabinoid extracts for therapeutic use. That would also include clinical trials involving the use of cannabinoid extracts and, ultimately, for a business like EOT, the commercialisation of cannabinoid extracts for therapeutical use. This is where EOT's interests lie and this is the reason they engaged us to provide them with advice.

The difficulties with embarking on such a venture is that aspects of this program will require amendments to the legislative and regulatory framework in Australia if it is going to happen. Government needs to be the key driver of that.

Mr GAFFNEY - You said cannabinoid extract trials need to be held. There are none already? There have been no trials worldwide that -

Dr NICOLETTI - There are.

- **Mr GAFFNEY** Are those results not conclusive or is there a need to retrial? Aren't those results already there?
- **Dr NICOLETTI** There are insufficient trials at the moment to support a regulatory approval for a particular purpose, other than at the moment Sativex, which is a drug on the market and that is approved for multiple sclerosis. As I understand it the innovator of Sativex is conducting a number of trials on the use of Sativex in other therapeutic areas or for other indications. There certainly needs to be more trials to support an indication that would be approved by a regulator.

The National Standard for the Uniform Scheduling of Medicines and Poisons, which we will call the poisons list, lists cannabis as a prohibited substance. In Tasmania, the Poisons Act defines a prohibited substance as a substance or prohibited plant, other than Indian hemp, that is for the time being specified in schedule 9 to the poisons list. Schedule 9 of the poisons list includes cannabis essentially as a prohibited substance. That places quite a lot of restrictions on its use. It also lists THC and its homologues as schedule 9 substances, except very low levels of THC that we would find in industrial hemp, and there are a couple of exceptions for therapeutic use. Nabiximols at the bottom is actually the Sativex drug.

The Poisons Act then defines a prohibited plant to include Indian hemp, which is quite interesting because based on the current legislative framework in Tasmania, whilst Indian hemp is a prohibited plant it is not a prohibited substance. Essentially that means that under the Tasmanian legislation you can get a licence from the Tasmanian Health minister, provided you meet the conditions of the licence, to grow, cultivate, possess, sell and supply a prohibited plant. Essentially that means that the present legislation allows the cultivation of any hemp containing up to 0.35 per cent of THC under the existing licensing conditions. The period of the licence is not provided in the legislation, but I would assume there are some guidelines as to how long a licence is granted.

Because Indian hemp is excluded from the definition of a prohibited substance under the Poisons Act there is an opportunity for EOT to research the suitability and viability of Indian hemp as a source of CBD, provided it is able to obtain a licence. Presently CBD is not listed in the poisons list, apart from its listing in schedule 8 as a component of nabiximols because that is a one-to-one mixture of THC and CBD. We believe that the listing in schedule 8 of CBD is more likely because of THC being present in nabiximol rather than CBD.

If CBD can be extracted from a strain of Indian hemp that contains no or low concentrations of THC, because Indian Hemp is not a prohibited substance then it follows that CBD extracted from industrial hemp should also not be a prohibited substance.

Mr GAFFNEY - Do you know if there are any things lower than schedule 8 where CBD is -

Dr NICOLETTI - No, it is not listed anywhere.

Mr GAFFNEY - It is not listed in any other lower schedule.

Dr NICOLETTI - No. So apart from that schedule 8 listing for nabiximols, it is not listed separately on its own anywhere.

Mr GAFFNEY - So there are no other substances below schedule 7?

Dr NICOLETTI - No, not CBD. We believe that its listing in even schedule 8 is because of its combination with THC. If you consider that CBD alone does not have the psychotropic properties, there would seem a position for it not being included as a controlled drug or prohibited substance.

- **Mr GAFFNEY** Is there anywhere else that you are aware of outside of Australia where it is not.
- **Dr NICOLETTI -** No. From my knowledge of the therapeutic goods process, if it doesn't have any psychotropic products I think it would be reasonable to put it into schedule 4 as a prescription-only medicine.
- **Mr GAFFNEY** That is through the TGA.
- **Dr NICOLETTI -** Not quite through the TGA. There is a national scheduling committee that determines the scheduling status of substances. If I can use Sativex as an example, when that product was approved by the TGA then it was a matter for scheduling committee to decide what schedule it should go into. That was actually a new product. There's a submission made to the scheduling committee and committee decides what the scheduling status should be.
- **Mr GAFFNEY** So would you have to present a case to the TGA if you wanted it put into schedule 4 or to present it.
- **Dr NICOLETTI -** Yes, you would need to make submissions and the committee would have a view as well. They may choose to up-schedule it for a period of time until there is a longer history of safety with the product. So it would be up to the sponsor company to make a submission, but ultimately the committee has a team of experts that will make a ruling on what the scheduling status should be.
- **Mr GAFFNEY** If something goes to the TGA, is it a lengthy period before they respond, or do they come back quite quickly if it's something they see there is no -
- **Dr NICOLETTI -** Are you talking about a submission for approval of a drug or are you talking about a scheduling?
- **Mr GAFFNEY** A scheduling.
- **Dr NICOLETTI -** A scheduling would usually have to wait until the next committee meeting; we are talking months as opposed to years.
- **CHAIR** What component of the cannabis or cannabinoid is addictive?
- **Dr NICOLETTI -** THC is the well-known constituent with the psychotropic affects, so that is the high feeling.
- **CHAIR** So that is the only component you are aware of that has an addictive nature to it.
- **Dr NICOLETTI -** That I am aware of, yes, but that does not mean there might not be more. EOT would be seeking to target specific cannabinoids and CBD, for example, is one that is not known to have psychotropic effects. There is also another one that we are interested in exploring further and that is tetra-hydro-cannabinolic acid, which is a derivative of THC but it happens to be a non-psychotropic derivate of THC which seems to have similar properties.

- **CHAIR** Hence the suggestion that they should be S4.
- **Dr NICOLETTI -** If they do not have psychotropic properties, yes.
- **Mr MULDER** What are the criteria for deciding whether a substance needs to be on the list at all, or what schedule it lands in?
- **Dr NICOLETTI -** Generally, any new therapeutic good approved that has a new ingredient that has never been registered before will automatically go into schedule 4 or upwards. The decision as to whether it should be in schedule 8 as a controlled drug is usually when there is some potential for abuse or it needs to have quite strict controls in place. So your opiates are all in schedule 8. And then you will have your prohibited substance like cannabis at the moment, and THC for which there is not really deemed to be much therapeutic potential at the moment but that should change with the results.
- **Mr MULDER** We have heard evidence, particularly with the THC, although it is the one with the psychotropic effect, that in terms of long-lasting medical outcomes, it is only a very narrow range of people who are susceptible to something anyway where there is a correlation between THC use and other medical conditions. I am just wondering what other evils are inside THC that justified going up.
- **Dr NICOLETTI** Going up as a prohibited substance?
- **Mr MULDER** Up to where it is in nine.
- **Dr NICOLETTI** It is mainly its hallucinogenic properties that have put it in schedule 9. As you would have seen before, THC and its homologues are currently in schedule 9. That places a lot of restrictions on the ability to explore their therapeutic potential and conduct trials with it. The current legislation only permits the sale and supply of prohibited substances to a licensed manufacturing chemist. More importantly, section 55 of the Poisons Act prohibits a person from importing, making, refining, preparing, selling or supplying or using a prohibited substance unless the prohibited acts are carried out within an exempted public institution. That needs to be declared by the minister and it needs to be for educational experimental or research purposes. So in the shorter term, there would be potential perhaps for EOT in partnership with an exempted public institution, such as a university environment or a hospital attached to a university, to explore the therapeutic potential of THC. But ultimately if this was going to progress to a therapeutic end-of-use product, there would need to be some amendment to the legislation to provide for that.
- **CHAIR** Is that an amendment to the legislation or a rescheduling? Because if it was rescheduled to schedule eight, then you would not have these problems.
- Dr NICOLETTI Yes, definitely.
- **CHAIR** There are two ways of doing this one is a rescheduling and the other is changing the law which takes longer, potentially.

- **Dr NICOLETTI** You are absolutely right. To reschedule it, there would need to be a submission back to the scheduling committee to justify that down-scheduling to, say, S8. But since we already have Nabiximols in schedule eight, it would seem conceivable that you could.
- **CHAIR** Who is best placed to make that application to the scheduling committee? Is it a company like yourselves, or is it the minister?
- **Dr NICOLETTI** I think there needs to be government support for it in the first place at a federal level.

CHAIR - The Chief Pharmacist?

- **Dr NICOLETTI** I do not think there would be any point in putting such an application in unless the government intends to support that change. I do not think that can realistically happen until it is demonstrated that despite the psychotropic effects, there is important therapeutic value to the use of THC. That would be the main justification to downschedule.
- **CHAIR** What about a product like you have in nabiximols that are one-to-one? You may have another ratio of the CBD which is four to one and that sort of thing, for example. If we have got a one-to-one ratio there which to me makes a schedule eight, and then you have potentially got some products that have an eight to three or something ratio, or less in terms of the THC content so what is the battle here?
- Dr NICOLETTI I think nabiximols was put into schedule eight simply because there was a product that was approved that contained derivatives of cannabis. Once it is approved by the TGA then the TGA has to decide, 'How do we regulate this product?'. They place it in schedule 8 to maintain some level of control which I think is correct because of the levels of THC in it. But there is nothing to say that provided a company was lawfully able to develop a different product, to use your example, that say contained 8:3 or 8:1 CBD, THC or CBD alone, that the TGA wouldn't go through the same process of deciding how to schedule that product as well. I think it is a coordinated process whereby EOT would use their expertise to isolate particular extracts. Then there would be a trial process where you would start to look at the therapeutic potential of different extracts, whether they be an isolated extract on its own or a mixture of different extracts. It would then be up to a company with the expertise to develop a therapeutic product that would then be approved by the TGA. Then it would be a decision about how to schedule that.

We have to take it right back to the start to ensure the legislation provides for that development to take place. We are talking about the scheduling of a product as the end goal, but we still have to have legislation which facilitates the research from the start. That may require some amendments to the legislation, unless the Government pushes an initiative that leads to the scheduling committee making the decision now to downschedule THC, for example, from S9 to S8.

- **CHAIR** I ask this from your legal background. Do you have any views about how the Tasmanian legislation, section 55 of the Poisons Act, for example, could be amended to facilitate this work?
- **Dr NICOLETTI** Yes. I think if the legislation which provides for EOT to engage in activities in relation to CBD were to also apply to THC with strict licensing conditions in place, that would facilitate the operation. Right now, the restriction for THC is that it is only attached to an exempt public institution and it is only for educational or experimental research purposes.
- CHAIR So you would have to expand that out to -
- **Dr NICOLETTI** Long-term commercial purposes as well to develop a therapeutic end product. It doesn't mean they can't start the process of research, but for EOT to have some certainty, there would need to be at least a push by government to work towards facilitating the end goal as well.

I thought I would talk very quickly about the regulation in other states because we have looked at this as well. Most of the states are reasonably on par with what the Tasmanian legislation is doing, but New South Wales is slightly different. There is authorisation possible under their Poisons Act to manufacture, possess, use and supply a schedule 9 substance apart from a prohibited drug. That cuts out THC because THC is defined as a prohibited drug.

CHAIR - At any level of THC?

- **Dr NICOLETTI** No. CBD is not a prohibited drug and for a licence to cultivate, grow and commercialise CBD, an authorisation may be given unconditionally or it could be subject to specific conditions. The main difference between the legislation in New South Wales is that they allow for the cultivation and supply of industrial hemp for the TH concentration of less than or equal to 1 per cent in leaves. In Tasmania, the limit is 0.35 per cent. That gives a little bit more flexibility in sourcing different strains of industrial hemp from which to isolate the cannabinoid extracts. For the purposes of isolating different cannabinoids other than THC, a licence may be issued under the Hemp Industry Act for commercial production use in manufacture or scientific research, analysis or study. The licence can be for five years and is renewable.
- **Mr GAFFNEY** Does that mean that in New South Wales it would be easier to facilitate the work that we want to do here with their regulation?
- **Dr NICOLETTI** Slightly easier, because of the limits of THC.
- **Mr GAFFNEY** Okay. Would it be worthwhile to consider a change to our act on the basis of using the same limits as New South Wales? It might be a recommendation or a thought along that line.
- **Dr NICOLETTI** Yes. One of the reasons we did look at other states from a commercialisation perspective is that we want to approach it in a way that leverages from the other states and which is the best state from which to commercialise.

- **Mr GAFFNEY** If a government here was looking favourably upon this whole process, then that is one of the things that they could adopt, at very minimal cost and trouble, because it is already written in an act.
- **Dr NICOLETTI** I have to say that because of EOT's location and because it has a long history here in Tasmania, the preference for the company is to establish the business here, to grow the business here and to look at working with government to see, if there need to be some changes in the legislation, that they are at least on par with what the other states are doing.
- **Mr MULDER** When you talk about purifying before you start producing the actual product, are we talking about purifying the extraction so it is just CBD and nothing else?

Dr NICOLETTI - Yes.

Mr MULDER - We are actually just looking at the particular chemicals. That is the problem. We have plenty of evidence about the use of the botanic types as a whole with varying levels of CBD and THC, so we have no idea about extracting the active ingredient, if you would like to put it that way.

Dr NICOLETTI - No, there is some scientific evidence of the isolated -

Mr MULDER - Just using the isolated product?

Dr NICOLETTI - Yes.

- **Mr MULDER** Rather than having little jars of seeds or heads or stuff kicking around, you will have a concentrated cannabis oil of a known constituency?
- **Dr NICOLETTI** That's right. That makes sense. I spoke before about considering the issue of legalising cannabis itself, as opposed to asking yourself the question, 'What is it in cannabis that is showing this therapeutic promise?'. Then if you focus the attention on, 'Let us isolate those constituents that are having the therapeutic effect so what is marketed is a product derived from the those constituents', as opposed to a substance that still has strong potential for diversion, then I think in the longer term you will remove that stigma from any decision-making process.

Just by the information I presented to you today, EOT is looking at investigating, in the initial stages, processes to extract high concentrations of pure CBD, and processes to extract high concentrations of pure THC, and then to investigate other cannabinoids that may demonstrate therapeutic benefits. In terms of looking at CBD in the initial stages, what EOT's commercial endeavours would be directed at is identifying suitable low-THC strains of hemp, which provide optimum concentrations of CBD which can be extracted from the plant and then purified.

We think this should be achievable through appropriate plant selection and selective plant propagation. That will allow EOT to reproduce a genetic equivalent of a strain of hemp that contains high levels of CBD and very low or no concentrations of THC.

There are obviously already growers of hemp in Tasmania so EOT could look at sourcing, at least in the early stages, hemp from existing growers or growing a plant that has a high concentration of CBD. In the next stage of it, they will be looking at optimising the extraction, fractionation and purification processes. They have state-of-the art-facilities at EOT itself, including supercritical CO2 extractors. They also have a good relationship with the University of Tasmania so if they need additional expertise they would be able to draw on the expertise at an academic level.

- **CHAIR** We have heard from a range of people, if everyone can be believed it is hard to tell at times that there is a range of different conditions that require different concentrations. In cases of pain, a slightly higher THC level would be needed to get the effect and in others the system might need something else, and that sort of thing. Is it part of the thinking of EOT that you look at a range of different concentration products for different purposes?
- **Dr NICOLETTI** Yes. EOT's goal would be to develop extraction processes for the individual cannabinoids. Then it is up to establishing a coordinated research program with clinicians that would either use pure cannabinoids or create mixtures of the cannabinoids. With Sativex itself as an example, the psychotropic activity of THC is somewhat lessened by the presence of CBD. So it is possible that you can find an optimal concentration of the mixture of cannabinoids that might have the pain relief with a certain concentration of CBD but not high enough that the psychotropic effects become too significant.

There are obviously a number of strains of Indian hemp in Tasmania already but there would need to be some research required to develop the best plant sources as the highest concentrations of CDB. It may be that EOT decides that the best solution is to propagate its own plant species for that purpose.

As I said before, the current legislation does not permit the manufacture of THC for commercial purposes. So for that purpose, amendments would need to be made to the legislation before EOT could be in a position, subject to it obtaining a licence, to commercially develop THC in Tasmania for therapeutic end use. That is unless, as you pointed out before, the Government made a decision to down-schedule THC to schedule 8.

As I said before, the New South Wales legislation does allow licences to be issued to cultivate industrial hemp with slightly higher levels of THC, up to a concentration of 1 per cent. New South Wales does seem to be leading the movement towards legalisation of either cannabis or cannabinoids, whatever that decision might be. You may have recently also heard that the New South Wales government has approved clinical trials for the administration of cannabis in terminally ill patients.

CHAIR - How are they defining 'terminally ill patient'? Do we know?

Dr NICOLETTI - No, they haven't defined it, but essentially end-stage cancer is probably the most obvious patient group.

- **CHAIR** It is interesting. If you have a child with intractable epilepsy and they say, 'Do not resuscitate', I suggest they are terminal.
- **Dr NICOLETTI** Yes, you are absolutely right. That is a whole other discussion about what is the appropriate patient group. We could have that discussion for hours as well. I agree with you.

EOT does wish to engage in a long-term partnership with the Tasmanian Government so that it can develop processes to extract high concentrations of CBD from low-THC cannabis as a starting point, and also to look at developing processes to extract pure forms of THC from cannabis, and then to investigate other cannabinoids extracted from cannabis for therapeutic use. A partnership with the Tasmanian Government would enable EOT to be at the forefront of developing these sorts of processes and establishing a smallish industry to develop cannabinoids for therapeutic end use.

In order to this for the entire objective to be achieved, we believe that it would assist to make some amendments to the legislation to allow less restricted investigation of THC because that does seem to be quite an important constituent for pain relief, and also for nausea associated with chemotherapy. If appropriate amendments are made to the legislation and EOT is able to develop commercially viable extraction processes for CBD, THC and other cannabinoids, it is likely that EOT will then set up a production facility in Tasmania. Such a facility will obviously have flow-on benefits to the Tasmanian economy through the creation of new jobs and there would be an economic stimulus in Tasmania.

- **CHAIR** Has EOT made any approach to the Government along these lines seeking a review of the legislation and potential amendments?
- **Dr NICOLETTI** Not to the legislation itself, but we have done this analysis for EOT in the past few weeks and that would be an obvious next step.

CHAIR - So you haven't done it yet?

Dr NICOLETTI - No.

CHAIR - But you plan to?

Dr NICOLETTI - Yes.

- **Mrs HISCUTT** When you say 'partnership', are you looking for money help, or are you looking for legislative changes?
- **Mr GLEESON** Legislative help total support. In terms of a research and development program, we might, as a company, apply for a research and development grant, but we are not asking the government for money.

CHAIR - Through the NH&MRC for example?

- **Mr GLEESON** Yes, we already have the technology. We've got our supercritical CO2 pot; it's the only one in Australia. We have a second unit on its way in. We already have the gear; it's really the legislation that we need so we can press forward with it.
- **CHAIR** So are you are probably one of the few people we've talked to who actually have the systems in place because you are already doing it for other things.
- **Mr GLEESON** Other things, yes.
- **Mr FEHRE** I think, Chair, in the last two weeks when we sat and looked at the team that had to be put together, we recognised the critical nature of getting the expertise that Piper Alderman and the doctor bring to the debate. That debate, we felt, was best placed before the inquiry. I am a consultant to EOT but I would imagine the next step would be for a serious discussion with the State Government.
- **CHAIR** What is your expertise, Peter?
- Mr FEHRE I am an educator, as Mike would know, and I previously worked for the government. I guess my focus as consultant to EOT is the government liaison and community liaison. I have been listening to the community and I have been following the government debate. Very clearly, EOT holds great technical skills and intellectual property. The hurdles to be jumped are being articulated today by Teresa. I think it's clear for me now, having listened to her today, that the way ahead has a bit of a pathway to it. I can walk down that road with EOT with a lot more confidence and clarity than I have achieved before today.
- Mr GAFFNEY I think that the presentation you've made today has been one of the best that we've had. I would think that perhaps it would be well if members of the government could actually sit and listen to this to see whether what seemed like insurmountable hurdles are just issues that need to be dealt with. They can be handled within the regulated framework that's already there, with assistance from the government.
- **CHAIR** I think it is that for you to proceed down this path and expand your business into this area, there needs to be legislative change at a state level and/or a scheduling change from the commonwealth. We need to talk to the scheduling committee and the TGA because I do not understand how that happens. But I imagine that would take longer than it might take to change legislation in this state.
- **Dr NICOLETTI** Can I suggest that in the initial stages there should be no barrier to EOT obtaining a licence for the CBD?
- **Mr GLEESON -** We are glad we can get that licence now.
- **CHAIR -** So you have not applied for that licence as yet?
- **Dr NICOLETTI** No. What we would like to do is to talk with Government about facilitating that licence first because it is committed under the legislation now. That

could get EOT up and running, doing some research on extraction methods that might then be able to be translated to THC as well.

CHAIR - That is obviously in the experimental stage, seeing what you can do. Even if you did that, could you extract less than .35 per cent of THC under the current legislation?

Dr NICOLETTI - Yes.

CHAIR - You could apply to do those two things at this stage.

Dr NICOLETTI - Let me just qualify that. You can use industrial hemp with less than .35 per cent THC but you cannot extract THC from it and then use it because THC itself is currently a prohibited substance.

Mr GLEESON - We could start on the CBD.

CHAIR - Is your company intending to do that?

Mr GLEAASON - Yes.

CHAIR - Which I think it shows a real willingness to engage and be willing to take this risk.

Mr FARRELL - Going through the process today at some stage it seemed like the race with the mainland states was being lost but you mentioned that you are the only company with a -

Mr GLEESON - Supercritical CO2 extractor.

- **Mr FARRELL** Yes and there is another one coming. So does that put Tasmania at the forefront of this.
- **Mr GLESSON** No one else in Australia has this technology. Rob might want to talk about what that machine does.
- Mr McELDOWNEY Certainly, it is a sophisticated method of extracting various botanical products. It does allow quite a degree of selectivity so that we can pull out particular parts of the extract that are there. As I said at the beginning, it is a very broad spectrum. I would not want to understate the complexities of refining it down it down to individual constituents; that will be a technically challenging process. I believe we do have that expertise within this state and Teresa referred to our tertiary linkages. It is going to be a sophisticated R&D program that is required. But as a company we do have the technology now to pull out the cannabinoids en masse, as a bunch.
- **Dr NICOLETTI** From what we have reviewed, supercritical CO2 extraction is the preferred method of extracting cannabinoids. So EOT in that regard is ahead of the game.
- **Mr GAFFNEY** The Premier has also made some statements about going to COAG in January. He would like to take something concrete to be able to take to that meeting to

say where we are placed. We discussed as a committee that that is part of our role - to be able to provide some information back to the Premier or to the Government about how this is travelling. We are well placed to be able to put on record some of the things we have heard from you today so that there might be a change of thinking within the Government about the potential of this for Tasmania, and it is not too late.

- **Mr FEHRE** Chair, I think that is an important statement because we had an earlier meeting where we recognised that after today there is an obligation on this company to talk to the Government. The more you hear COAG being mentioned, as Mr Gaffney said, it is important that there be some sort of agenda they take to COAG rather than going emptyhanded.
- **Mr GAFFNEY** To be the leader in this because I think at a COAG level, they are much more comfortable with a little entity holding the bank, so to speak, and doing that work of research and development.
- Mr FARRELL After a trial period, what would you then expect from the government?
- **Dr NICOLETTI** The amendments to the legislation are clearly the main driver.
- **Mr GLEESON** That is what we want. We will commercialise it. We know how to do that and we partner up with a pharmaceutical company.
- **Mr MULDER** So that is the licensing system?
- **Mr GLEESON -** Yes, and we will produce the drug.
- **Mrs HISCUTT** When it comes the raw product, were you intending on growing it yourselves?
- **Mr McELDOWNEY -** In the case of industrial hemp, that is probably not necessary but if we do need to start being a little bit more selective with our genetics for particular requirements, then -
- Mrs HISCUTT For medical use?
- Mr McELDOWNEY In the initial start, no.
- **Mr GLEESON** Because it is already out there. If we can identify with the hemp that is out and get the oils we need, then that would be the end of it.
- **Mrs HISCUTT** We were left under the impression that Tasmanian Health Cannabinoids had been in lengthy conversation with you.
- **Mr GLEESON** That is not the case. They have been in conversation with us but there is no partnership.
- **Mr McELDOWNEY** They made a preliminary overture and we asked for more information from them that was never supplied. It never really moved beyond that point.

- **Mr GLEESON** They did approach us but we never formed a partnership and I would say we won't be.
- **CHAIR** Are you looking to source your own product in the initial stages for the CBD?
- Mr McELDOWNEY We can do that.
- **Dr NICOLETTI** There is no reason why at the moment EOT can't do the research on what is already growing and extract CDB from that to start their research program. The longer-term commercial strategy might be then to source the optimum strain that has the highest levels of the cannabinoids they are looking at. That is not just isolated to CDB. There may other cannabinoids which are isolated in time that might have important therapeutic potential.
- **CHAIR** That is part of the ongoing research.
- **Mr GLEESON** Yes, so following the question, if we got to a point where we couldn't get the oil that we wanted, then we might want a licence to propagate maybe 20 plants in a warehouse. That is all we are talking about.
- **Mrs HISCUTT** At this point, you envisage yourself supplying, extracting, and giving that extract to another body, like somebody else to distribute.
- **Mr GLEESON** A big pharmaceutical company. That is what EOT does. We are a supplier of bulk raw materials into the flavours and fragrance industries. We don't manufacture our end product. We supply bulk materials that we have extracted.
- Mrs HISCUTT You don't normally supply your raw product, do you?
- Mr GLEESON Yes.
- Mrs HISCUTT So you contract growers for boronia.
- **Mr GLEESON** We have 20 farms in Tasmania. There are about 300 hectares under contract.
- **Mrs HISCUTT** Do you own them or do you contract?
- **Mr ELDOWNEY -** It is a mixture of both, these days. Once upon a time we were solely a contractor. Now we are managing a lot of our own farms.
- **Mrs HISCUTT** Robert, this is all your show, is that right? Do you have a consultant here?
- **Mr McELDOWNEY -** We are quite a substantial team now. Yes, I was the first person off the rank.
- Mr GLEESON He is the founder.

- **Mrs HISCUTT** Yes, I guess he was the founder. But as for consultants and employees, are they full-time?
- **Mr FEHRE** Two employees full-time are right here because of their expertise in case needed, and I'm playing a general role with EOT.
- Mrs HISCUTT I can see you have done your homework.
- **Mr MULDER** Just on the trials, is it not possible to do medical research on THC?
- **Dr NICOLETTI** It is possible. It is not possible to commercialise.
- Mr MULDER Not to commercialise, which you probably would not do unless you trialled it first. The other issue is that you are the first group that has come to us and said, 'What we really need to do is extract the constituent cannabinoids and then have them appropriately listed and managed'. The question is although these things have been widely used, they have used in their botanic form, retaining all the other ingredients. By going to the point of actually extracting it, aren't you putting yourself in a position now where you have to do full clinical trials on a particular element of a product which in combination has proved to have very minimal harmful effects anyway?
- Mr McELDOWNEY To some extent we are following the opiate model. That's exactly what the poppy companies do at the moment. Referring back to Tasmanian Cannabinoids, they came to us with a different model which didn't appeal to us at all. It seemed to rely heavily on using the whole botanical. That's not our scene; we're specialist extractors.
- **Mr MULDER** In this space you're operating alone. In the other botanical products space you're operating against 1000 people who think that they're experts because they have a hydroponic system or something.
- **Mr McELDOWNEY** What we're talking about is a lot more sophisticated than say, a tincture or a broad-based extract.
- **Mr MULDER** My concern with the trials is that when you isolate a particular chemical, you are going to have to do trials to make sure that that chemical, on its own, is not having a harmful effect that, in combination with the others, it would not. You could be producing a pure poison, which is mitigated when taken in conjunction.
- **Dr NICOLETTI** CBD in particular, and THC are known already for their therapeutic properties. Their activity is quite well known. It's the other cannabinoids that we're not aware of.
- Mr MULDER Has the research to date been done on those products in isolation?
- **Dr NICOLETTI** Yes, it has.
- **CHAIR** We've gone a bit over time, but we appreciated your comments. Is it possible to get a copy of that presentation electronically?

Dr NICOLETTI - I can put one on the desktop here.

CHAIR - That would be great.

Mr FEHRE - I thank members for hearing us this afternoon. Someone made a comment that maybe we should have been at the beginning. I tend to take the opposite view. We followed the media through the process. We've stayed away from the media. We've sat down to do a professional presentation because of the skills that we have. I would invite people to go to the Piper Alderman website and have a look at the background of the lady at the end of the table and I think you will be very surprised. For many of your questions about the pathway forward in terms of therapeutic area and all the rest of it, you may get some answers. Time does not allow today. I suggest you have a look at it. If you have a problem with that, you can contact me, and I think someone will have my email.

We thank you for the opportunity and the questions, because it is an important issue. We are all proud Tasmanians and we're looking forward.

CHAIR - I would like to come and visit your facility.

Mr GLEESON - You are most welcome.

Mr GAFFNEY - There may be another occasion later on when we get further into our deliberations that we would like to revisit you about some of the discussions we've had. This is because the ball game may change fairly rapidly, depending on your response from government or whatever, and there may be other pathways.

CHAIR - We would appreciate being updated on feedback from the government.

Mr FEHRE - We would love to do that. Can we anticipate that you are going to make some reference to government before COAG?

CHAIR - We can't pre-empt the committee's work, but they are certainly saying the committee will discuss it.

Mrs HISCUTT - Are you going to do a presentation for government very soon?

Mr FEHRE - It is our intent, yes.

CHAIR - Thank you for your time, gentlemen and ladies. It was very worthwhile.

THE WITNESSES WITHDREW.