Co-Chairs Lininger & Burdick, and Members of the M91 Committee:

My name is Jennifer Alexander and I am from Beaverton, Oregon. I am a mother of four teenage boys, an advocate for cannabis law reform and the Facilities Director for Portland NORML, a consumer advocacy organization that specifically seeks to ensure that responsible legal adult marijuana consumers are provided the same rights, privileges, and responsibilities as adult alcohol consumers.

First, I want to thank you for beginning the important work of implementing M91. I am looking forward to the process of evolving this conversation on the adult use side, as I believe it will provide a lot of clarity to the whole conversation. As we look at the issues surrounding adult use of marijuana, and the rational regulations that we should put into place to implement the regulation of adult use of marijuana, I think that many of the issues that have perplexed the medical marijuana legislative process over the years will steadily become resolved and easy to implement in a way that best meets the needs of the various cannabis consumers. I think that the perspective for the entire conversation has to change, now that marijuana is legal in the state of Oregon, instead of just "exempted from criminal prosecution" under OMMP. It is a pretty significant shift in mindset, and one that will take a little getting used to for members of this committee and citizens of Oregon, but it is very important to keep this in mind as we progress.

I do not have a lot of commentary about the specific current language in the dash 1 amendment for HB 3400. My biggest concern with legalization has always been the allowance for the personal choice to grow my own cannabis, and to have the option to purchase it from a legal outlet if I desire instead – my perspective is very simple. Since those two features are in place in M91 and the current language proposed, I am content with pretty much wherever this conversation goes as a consumer, personally, so long as those two key features remain in place. I think HB 3400 is a pretty good starting framework and I am watching the live stream and OLIS to stay on top of this issue. I do still worry that the local opt-out conversation may continue to pose an obstacle to the objectives of Oregon voters and the guidelines established in the Cole Memo which both seek to discourage illicit markets, but as I expressed in previous testimony, I am far more concerned about allowing local communities to opt out of medical marijuana dispensaries and I have laid out my position pretty thoroughly in previous testimony so I won't reiterate it here.

I just want to offer a few broad and more general comments at this time to lend to the discussion that is just beginning regarding adult use of marijuana, and hope that you will keep these points in mind as you progress with the language that you will pass out of this committee and eventually pass into law, because my own preferences don't necessarily meet the needs of all Oregonians and these topics are important to implementing M91.

## Reasonable taxation rates are critical to competing with alternative illicit markets

I think it is very important to set the taxation of marijuana at a reasonable rate to ensure that consumers aren't driven back into the illicit markets that are abundantly accessible here in Oregon. However, since those tax rates are currently blanks in the dash 1, it is hard to speak to the particular numbers. The tax rate that is ultimately decided upon has a significant impact on consumer behavior and participation in the legal market regardless of the industry involved, and due to the wide availability of alternatives to the legal market for marijuana, even more so here.

I would like to point out that the tax rate in Oregon for a pack of cigarettes is set specifically at \$1.31 per pack of cigarettes, and although the tax is not predicated on the cost of the pack of cigarettes, a pack of cigarettes in Oregon typically averages roughly \$5.00 with the taxes included so that is an approximate tax rate of 35%. Cigarettes are demonstrably far more harmful to users than marijuana and it is no secret that the high tax rate of cigarettes is intended to discourage smoking but also fuels a significant black market for cigarettes in an effort to avoid the taxation. I think the cigarette tax is illustrative of the absolute highest end of tax rates to be considered, but such a high rate should only be considered with the acceptance that illicit markets will thrive in that environment. I would recommend something much lower if the legislature wants to truly compete with illicit markets and bring consumers into the legal framework for purchases, particularly since we are attempting to convert users into a legitimate market whereas cigarette smokers are largely already in the legitimate market and tend to convert to the illicit markets in an attempt to avoid increasing taxation intended to discourage use.

Beer is taxed at a much lower rate than cigarettes, at just \$2.60 per barrel of 31 gallons, or \$0.08 per gallon. Since beer is commonly 12 ounce servings, that is less than a penny per beer, or in different terms, about ten cents per twelve pack of beer. If we accept \$10 as an average price for a twelve-pack of beer, that is less than 0.1% tax equivalent. Wine is taxed at a slightly higher rate per gallon, at \$0.67 per gallon, and a bottle of wine averages about 25 ounces, so a gallon of wine is roughly five bottles and incurs approximately a \$0.13 tax per bottle. Wine varies widely in price, but if we accept \$10 as a fairly cheap bottle of wine, that is still about a 1% tax equivalent, and a higher price per bottle results in a lower tax rate percentage. The significantly low tax rate of these products plays a critical role in why our wine and beer industry thrive and have evolved into such an appealing legal industry for both consumers and industry participants.

I would also note that none of these taxes are a percentage of the purchase price, but instead a flat tax that is applied to a particular weight, volume or other measurable quantity of the product. I would recommend that this committee look at this range of approximately 1% to 35% and consider the implications of the known markets for comparison to determine the most viable tax rate that ensures we are encouraging the consumer behaviors that meet the intent of M91 and the guidance in the Cole Memo. The lower the rate, the more likely consumers will choose a legal option for supply over an illegal one. There are also other factors that weigh into consumer decisions, such as labeling and quality, but taxation plays a huge role. I would recommend that this committee retain the tax per weight or measurable unit concept when determining the appropriate taxation of adult use marijuana, so that revenues are tied to consumption rates and not dollar value of product, but also ensure that the rate is comparable to the current legal substances of alcohol and cigarettes to appropriately divert consumers to the legal markets. The closer we are to beer and wine in terms of taxation, the closer we are to the will of Oregon voters in treating marijuana like alcohol.

I will make one note that it may be appropriate to tax extracts in the recreational market more closely to how taxes are applied to spirits in Oregon, due to the higher potency of these products, but otherwise, there is no reason to apply a higher taxation rate to marijuana products than we do to beer or wine — the equivalent of roughly a 1% tax rate. But it is also worth noting that the taxation of spirits in Oregon is among the highest in the country, and extracts are most certainly one of the products that we want to ensure falls under the regulated framework due to the potential hazards in illicit, unregulated production. Therefore, even with extracts, it is important to consider what impact the tax rate will have on consumer behavior to best meet the needs of all Oregonians and work to ensure that the taxation rate remains low enough that we encourage most consumers to use legal regulated outlets instead of seeking alternative illicit markets for extract products.

## The significance of licensing and where it applies

There are a few different things occurring with marijuana in Oregon and I think it is important to make the appropriate distinctions between the various activities. Senator Ferrioli rightfully pointed out that licensing of any activity is an invitation for oversight and regulation, because a license is seeking permission to engage in a behavior that is otherwise illegal. It is clear that certain activity falls into this licensed category, such as commercial production, processing and retail sales. Other activity clearly falls outside this licensure, such as personal home cultivation.

There is some grey area that isn't as clear, however, and I think it is important that this committee clearly draw lines to illustrate what areas are subject to the oversight of licensing and which are not for home-based businesses in this industry. For instance, if a person obtains licensing to do processing in their home, then certain areas involved in the business may become subject to inspection and regulation and that is reasonable. A person who makes edible products at home for resale may have to have their kitchen inspected, or may be subject to other intrusions into their privacy that those who aren't engaged in a business activity would not be subject to. However, I think it is important to clearly note that areas not related to or used for the business are not subject to the same oversight and regulation; in essence, that a licensed home business does not open the door to intrusive home inspections of areas unrelated to the business activity, such as personal spaces like bedrooms. If a business is exclusively occurring in a separate out-building and a separate residence is maintained for personal use on the same property, the personal residence should not be included in the regulatory oversight and inspections. There may be laws that already draw these lines, but I think it is important that the language in HB 3400 clearly point to those laws or clearly identify the boundaries of intrusion into home-based businesses, especially as it relates to this industry where participants are used to being on the "wrong side of the law" and all that this entails.

Another grey area that I think this conversation will hopefully highlight that runs parallel to the adult use conversation is that OMMP registration is not, and has never been a "license" to participants – despite the fact that many people refer to the registration card as a license when talking about cardholders informally. Instead, the registration process simply has been used to identify participants who have certified that they qualify under the guidelines in the OMMA to be exempt from criminal prosecution, more like an identification card or school id serves to prove that a person is who they say they are and/or a part of a group that they claim to be part of. It is really important that this committee clearly distinguish the OMMP registration card from the "licenses" that are being considered for the various commercial interests in this emerging industry. Whether a person is a patient, caregiver or grower under the OMMP – they are not "licensed" but instead registered with the state to certify their exemption from certain criminal laws.

In the conversation surrounding SB 844 and SB 964, it seems that a lot of committee members and community members do not recognize the difference between licensure and exemption from specific laws. This distinction naturally draws the lines necessary to preserve the privacy and rights of participants in the OMMP program by distinguishing between licensed commercial activity (whether for adult use or medical purposes) and noncommercial activity that is simply exempt from criminal prosecution. There is certainly a blurred line between the two, in that some growers convert their noncommercial excess into a commercially available product through dispensaries, so it may be prudent to set a dollar value or quantity of excess that can be sold through those channels and yet not cross over into commercially licensed activity, as some growers and producers rely on the sale of the excess to

cover the costs related to providing to their patients but not necessarily with the intent to profit or run a business. There are many comparable industries that may help evolve where the appropriate line should be – such as selling excess eggs from your home-based chickens, or other similar activities like hobby income.

If the line is drawn simply by nature of providing for someone other than yourself under OMMP, requiring "licensure" to grow for someone other than yourself, for instance, or requiring intrusive home inspections simply because a person is assisting another patient by growing for them, this will discourage otherwise compassionate growers and processors from helping patients in need and drive up the costs for both the grower and the patients impacted, so I would argue that a noncommercial grower for up to four patients should not require the same oversight as a commercial garden. The costs of complying with the additional oversight and regulation alone are too burdensome, and the intrusion into personal privacy is not justified in the noncommercial situation that almost certainly takes place in a home environment. I would also argue that the exchange of a single dollar doesn't necessitate the licensing and regulation that the commercial industry should entail, yet the implication of the previous conversations around this topic indicate that if a grower or processor sells any product into the dispensaries or provides it to other patients even gratuitously, that the person must obtain licensing or be in violation of the law. I think that both of these lines need to be drawn somewhere above zero, where they currently are being drawn, although I am not certain where those lines should be drawn. It is definitely an area that should be considered both in terms of the adult use conversation and the medical conversation. Commercial production and sales should require licensing but we need to carefully consider where the line is between licensed activity and exempted activity under OMMP if we are going to preserve the intent of OMMA and protect those patients who are most vulnerable and dependent on the program for their medical marijuana needs. There are quite a few patients who will not find what they need in the adult use paradigm, and they shouldn't be overlooked.

## The forgotten part of the conversation: industrial hemp

While not the topic of the current legislative concept before you, I do want to say how fascinating the potential for industrial hemp is for our state and encourage you to not forget that cannabis is so much more than what most people think about when they hear words like "marijuana" or "pot". While M91 largely focused on adult use of marijuana, there was also the intent and language to ensure that industrial uses of marijuana were liberated from the drug war as well, and the industrial uses are beyond numbering. Our legislature recognized this when they legalized cultivation of hemp in 2009, but since that language required federal permitting, it did not enable Oregon to recognize the potential of industrial hemp despite its legalization. Hemp seeds are an incredibly nutritious food. Hemp plastics, fabrics and ropes offer alternatives to the many oil-based products that are commonly used in our society. While some of these items have been available in recent years through importation, we have not had the opportunity to explore the industrial uses of hemp domestically for many years, and the additional costs of importing the hemp has stifled the economic potential of this incredible crop.

There are some incredible uses for industrial hemp that I am excited to see evolve and grow our local economy — I've long argued that the economic potential for industrial hemp for the state of Oregon is probably of far more consequence in terms of GDP for our state than marijuana taxation and sales. I don't know if it will be, as I think that is largely up to the legislature in ensuring that there aren't unnecessary obstacles that prevent this industry from taking off, but I think opening up the doors wide for industrial hemp right now puts Oregon in a position to create jobs and gain a competitive edge in

this emerging industry, since this is an opportunity that is still emerging nationwide at a rate much more rapidly than the legalization of marijuana.

One of the uses that I find most intriguing is hempcrete, which is a building material that is formed by mixing hemp shiv, from the stalks of cannabis plants grown for fiber, with lime and water. This building material has some incredible properties and is low-cost (despite requiring raw material to be imported currently) compared to many other building materials and yet has superior features in most metrics, including fire-resistance, pest-resistance, and moisture-resistance.

I would encourage all members of this committee to look into some of the amazing opportunities that hemp cultivation in our state offers. I would also like to invite you and members of the public to our free Portland NORML meeting that will take place this Saturday at noon at the Tony Starlight at 1125 SE Madison, where Joy Beckerman Maher from Hemp Ace International will be doing a demo of hempcrete for all attendees. I think that this technology and other similar uses for cannabis are still not widely known or understood, and the demo provides a terrific opportunity to learn more about the potential for industrial uses for the cannabis plant. The free demo offers everyone an opportunity to look at this incredible building material and what it offers. We will also have Rep Frederick discussing his bill to reduce sentences for those incarcerated for marijuana crimes and enable them to expunge their records. I think it will be an exciting and very informative meeting.

I would just encourage you to not forget that industrial hemp is also a part of this dialogue, although one that doesn't pose nearly the controversy of the other aspects of the cannabis conversation. Please be sure that by the time this legislative session ends, that the tools are in place to ensure that our industrial hemp market is able to evolve without any unnecessary delays. I do not know if any obstacles remain in place for industrial hemp cultivation, processing and sales at this time, but I do want to ensure that it is something that this committee considers and hopefully resolves before the session ends.

## DUII – the conversation that will come in the future

There has not been a lot of discussion on the portion of the law that surrounds driving under the influence of marijuana, but I do know that the M91 language calls for further analysis and discussion of this topic in the future. So, I would like to plant a seed at this time that will hopefully encourage members of this committee and others to consider the appropriate tools for determining impairment and hopefully allow Oregon to more rationally address the very valid concerns of public safety and impaired driving, rather than jump on the bandwagon for blood testing for marijuana impairment like other states have done.

While alcohol impairment is largely determined by testing bodily fluids, such as blood tests or breathalyzers, there is no equivalent testing mechanism for marijuana. Further, multiple studies, including those commissioned by the Department of Transportation, have indicated that measuring levels of THC in blood does not provide a reliable measurement of impairment; a person with a high THC blood plasma level may not be impaired at all and a person with a low THC blood plasma level may be severely impaired. Measuring bodily fluids will not adequately address impaired driving when it comes to marijuana. I recently read an article where one group is attempting to create a breathalyzer test for marijuana – and this mindset fails to recognize the reality of how marijuana impacts users, which is quite different than how alcohol or other water soluble drugs interact with the human body.

Further, statistics are used in misleading ways to try to illustrate a connection that doesn't actually exist. For instance, in Colorado, there were multiple articles issued by opponents to marijuana legalization trying to tie "crash risk" to the presence of marijuana in the driver's bodily fluids after the crash. This sort of evaluation is looking at the issue backward by asking how many people involved in crashes have used marijuana in the previous week or two, instead of asking how many impaired drivers are involved in crashes. This may not seem a critical distinction, until you consider that those most likely to be involved in a crash are also those most likely to use marijuana – young males. The higher crash risk is well noted and is why young males have such a high premium rate for car insurance, and the federal government has documented for years that this same group is the most likely to use marijuana with the greatest regularity. These statistics aren't informing us of increased crash risk as a result of using marijuana, but instead noting what we already know: young males are more likely to be involved in car accidents and more likely to use marijuana – although not necessarily simultaneously.

Since we know that measuring the bodily fluids will not actually address impairment, but simply create the illusion of addressing it, I would encourage members of this committee to look at some alternatives to those methods. When I began advocating for marijuana reform here in Oregon in 2010, my husband showed me a product that was being developed that was meant to measure impairment through a computerized test that established a baseline and allowed a user to measure against that baseline to demonstrate that they were fit for work. It was developed for safety sensitive jobs and over-the-road drivers, specifically to deal with fatigued drivers. It is very simple to take and simply requires users to answer the question for each display – are these objects all the same or are they different? The time and accuracy are then calculated and compared to the baseline to determine impairment.

Fatigued driving is actually one of this biggest threats to public safety on the roads, but there is no way to give a breathalyzer to find out if a driver is too tired, nor is it practical to wait for an accident to determine fitness for safety sensitive jobs such as driving or use of heavy machinery. What this particular product intended to do was allow drivers to test before their shift against their personal baseline and demonstrate to an employer that they were fit for duty. When the test was first developed, it was meant to be taken at a work station computer, but as technology has evolved, so has the potential for this application. A lot of testing went into the development of this product. It was created by a company named Bowles-Langley and you can check out their research and information at their website: <a href="http://www.bowles-langley.com/research/resources/">http://www.bowles-langley.com/research/resources/</a>

I've been following the development of this particular product since then, and now the application is available for free for both android and iphone users. After establishing a baseline (a rather quick thing – you simply take the test five times and it only takes about a minute to take the test each time), you can test at any time to determine if you are impaired. This novel concept has so many practical uses and I have installed it on my phone to test it out, and encouraged a few of my friends to do the same for some informal study of its usefulness. It can be downloaded for free at <a href="www.alertometer.com">www.alertometer.com</a>. I do not drink alcohol myself, but I am very interested in seeing the results of those that do since we know that alcohol has predictable levels of impairment. I have taken the test when I am tired, or after consuming marijuana, but so far, there has not been a noticeable change in my baseline level (although I have tested just slightly lower when I am tired, and slightly higher when I am very alert, but the variation is negligible for my experiences and have all fallen quite close to "average" for my baseline).

I would encourage members of this committee, particularly those who may have an affinity for alcohol, to download this application to their phones and experience it for yourself. From my perspective, this tool is incredibly valuable for self-evaluation of impairment (particularly with alcohol, judgment is

skewed and this provides an objective measurement as a person is leaving the bar, for instance, to ensure that they are as sober as they believe themselves to be). This application can also be used for workplace fitness testing, as a means of complying with drug-free workplace requirements under federal laws, particularly as we evolve past the idea that a joint on the weekend disqualifies a person from being employed during the work week. The application allows a user to test and upload the results for viewing by a third party, such as a supervisor, so even over-the-road drivers could certify their fitness for duty while traveling across the country. I could further see this application being evolved to be an effective tool for law enforcement to use to determine if a driver is impaired in a variety of situations, whether drugs or alcohol or some other cause for impairment were present, if a baseline was established at the time of issuing a driver's license. Or maybe it is possible that this product could be evolved to allow drivers to self-test prior to driving, and if they were pulled over, they could certify their lack of impairment by showing the test as a more voluntary option instead of being used as enforcement option (of course, this sort of use would require that there was some way to certify that the person who took the test was in fact the driver and not a passenger, but I am sure that the technology could be implemented rather easily even if it were something as simple as turning on the self-facing camera for the duration of the test and recording its completion). Or maybe instead of the current breathalyzer based ignition lock systems, something like this application could be incorporated into the technology of vehicles for those convicted of driving under the influence to test for impairment before allowing the car to start. There are many potential uses of this sort of technology that will better address the issues of public safety on our roads and in our workplaces than the current mindset that we must measure bodily fluids to determine impairment, a mindset that doesn't work with marijuana.

There are other similar tests being evolved to test impairment instead of bodily fluids, but this just happens to be the one I have followed and know a lot about. I called and spoke with the people who created this technology a few years ago, and they were very receptive to the idea of researching its potential for use in the applications I have described and expressed their conviction that this would be a very valuable tool for those sorts of uses. I would encourage this committee to reach out to this company and others like it to inform their decisions at this time, so when this topic comes to the forefront of the legislative dialogue, this concept will also be a part of the conversation. And I would recommend that this committee and/or the OLCC commission further research into the usefulness of this product as it relates to marijuana impairment testing for evaluation in the future session when this topic is supposed to be looked at more closely.

Thank you very much for your time and consideration. I'm very excited to see how this issue moves forward in this committee and beyond and what the end results will be.

Jennifer Alexander