Court File No.: T-2030-13

FEDERAL COURT

BETWEEN:

NEIL ALLARD TANYA BEEMISH DAVID HEBERT SHAWN DAVEY

Plaintiffs

and

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

Defendant

AFFIDAVIT OF ROBERT MIKOS

I, Robert Mikos, Professor, of the City of Nashville, in the State of Tennessee, SWEAR THAT:

- 1. I am currently a Professor of Law at Vanderbilt University and Director of the Law School's Program in Law and Government. As such, I have personal knowledge of the matters hereinafter deposed to by me, except where same are stated to be based on information and belief and where so stated I verily believe them to be true.
- 2. I have been retained by the Department of Justice, Canada in the above proceeding to provide an expert report for the Court. Attached at Exhibit "A" is my expert report, dated October 10, 2014.

- 3. On June 19, 2014, the Attorney General of Canada provided me with an instruction letter to complete my expert report. Attached as **Exhibit** "B" is a copy of the instruction letter.
- 4. Further, on June 19, 2014, I was provided with a copy of the Code of Conduct for Expert Witnesses. Attached as **Exhibit** "C" is a signed copy of the Certificate Concerning Code of Conduct for Expert Witnesses.
- 5. Attached as Exhibit "D" is a copy of my Curriculum Vitae.

SWORN before me at the City of Nashville, in the State of Tennessee, this 10th day of October, 2014.

Commissioner for taking Afficial and for the State of Tennessee

Viv Commission Expires MAY 8, 2017

O.f. 10, 201

Robert Mikos

Exhibit A

Notary Public

NOTARY PUBLIC SON COUNTRIES

My Commission Expires MAY 8, 2017

10-16-L4

(Date)

*

Robert A. Mikos

106430

(Date)

Expert Report in Allard et al. v. Her Majesty the Queen in Right of Canada Prepared by Robert A. Mikos

Professor of Law, Vanderbilt University Law School, Nashville, Tennessee USA October 10, 2014

The Mandate

- 1. The Department of Justice Canada has asked me to prepare an expert report on state laws governing the supply of medical marijuana in the United States. More specifically, the mandate asks me to address three inter-related questions:
 - Question 1: "In states in the United States that permit the use of marihuana for medical purposes, how are qualified residents supposed to obtain the drug? In particular, how do states regulate the supply of medical marihuana?"
 - Question 2: "Are there any trends with respect to state laws regulating the supply of marihuana, and if so, how can these trends be explained?"
 - Question 3: "What explains the approaches that states have taken with respect to regulating the supply of marihuana for medical purposes?"

Summary of Conclusions

- 2. Question 1: At present, 35 states have legalized medical use of marijuana, including 24 that allow use of marijuana containing Tetrahydrocannabinol (THC) and 11 that allow use of marijuana containing Cannabidiol (CBD) but not THC (or only trace amounts of THC). These states have adopted six distinct models to supply marijuana to qualified patients:
 - (1) Personal cultivation only (3 states); the only way for patients to obtain marijuana (legally, under state law) is to grow it themselves (or with the assistance of a caregiver).
 - (2) Commercial cultivation only (12 states); the only way for patients to obtain marijuana (legally, under state law) is to procure it from a state-licensed commercial medical marijuana operation.
 - (3) Mixed supply (9 states); patients may choose to grow marijuana themselves or procure it from a state-licensed commercial medical marijuana operation.
 - (4) Commercial cultivation preferred (3 states); patients must procure marijuana from a state-licensed commercial operation when one is reasonably available, otherwise patients may grow marijuana themselves.

- (5) Federal cultivation only (3 states); the only way for patients to obtain marijuana is via a federally approved source, namely, the National Center for Natural Products Research at the University of Mississippi (currently the sole supplier of marijuana approved by the federal government).
- (6) None (5 states); there is currently no state-approved way for patients to obtain a drug they are permitted (under state law) to use for medical purposes.
- 3. Question 2: Since 2009 when the federal government began to tolerate the supply of medical marijuana in compliance with state law, two clear trends have emerged:
 - (1) States are increasingly prone to authorize commercial cultivation centers to supply marijuana to qualified patients.
 - (2) States are increasingly disinclined to authorize patients to cultivate marijuana at home.
- 4. Question 3: Although federal law governing marijuana has not changed, the federal government announced in 2009 a willingness to respect state marijuana policy decisions. This shift in the federal government's stance on state marijuana reforms has enabled states to choose a supply model based on considerations of good public policy rather than one driven largely by fears of a federal crackdown against commercial marijuana suppliers. In particular, it appears that states have recently turned to commercial cultivation and turned away from personal cultivation due to the belief that commercial cultivation provide a satisfactory even superior source of marijuana for many patients and also poses less of a threat of diversion and other safety hazards to the general public.

Methodology

5. To complete this report, I consulted a wide range of primary sources, including the laws of 35 states (including the District of Columbia (D.C.)) that have legalized marijuana for medical purposes; judicial opinions interpreting those laws, where applicable; federal laws governing marijuana; judicial opinions interpreting those federal laws and their relationship to state laws governing medical marijuana; and other federal and state government documents concerning the issues in this report, including memoranda from the U.S. Department of Justice. I also drew upon my own previously published legal research, other scholarly literature on state medical marijuana laws, and relevant news media reports.

Background

6. As of August 2014, 35 states (including D.C.) have passed laws permitting certain residents to use marijuana for medical purposes. 24 of these states have legalized marijuana that contains Tetrahydrocannabinol (THC), marijuana's principal psychoactive

chemical compound. The other 11 states have legalized marijuana extracts containing Cannabidiol (CBD), one of the non-psychoactive compounds found in marijuana, as long as the substance contains no—or only minimal amounts of—THC. **Table 1** below lists the 35 medical marijuana states. It also notes the method of adoption, i.e., ballot initiative voted on by the people of the state or statute voted on by the state legislature, and the scope of the medical marijuana law, i.e., THC or CBD only:

Table 1: States that have legalized the medical use of marijuana

State	Year of law legalizing medical use adopted	Method of adoption	THC allowed or CBD only
California	1996	Initiative	THC
Alaska	1998	Initiative	THC
Oregon	1998	Initiative	THC
Washington	1998	Initiative	THC
Maine	1999	Initiative	THC
Colorado	2000	Initiative	THC
Hawaii	2000	Statute	THC
Nevada	2000	Initiative	THC
Montana	2004	Initiative	THC
Vermont	2004	Statute	THC
Rhode Island	2006	Statute	THC
New Mexico	2007	Statute	THC
Michigan	2008	Initiative	THC
Arizona	2010	Initiative	THC
D.C.	2010	Initiative	THC
New Jersey	2010	Statute	THC
Delaware	2011	Statute	THC
Connecticut	2012	Statute	THC
Massachusetts	2012	Initiative	THC
Illinois	2013	Statute	THC
New Hampshire	2013	Statute	THC
Maryland	2014	Statute	THC
Minnesota	2014	Statute	THC
New York	2014	Statute	THC
Alabama	2014	Statute	CBD
Florida	2014	Statute	CBD
Iowa	2014	Statute	CBD
Kentucky	2014	Statute	CBD
Mississippi	2014	Statute	CBD
Missouri	2014	Statute	CBD
North Carolina	2014	Statute	CBD
South Carolina	2014	Statute	CBD
Tennessee	2014	Statute	CBD
Utah	2014	Statute	CBD
Wisconsin	2014	Statute	CBD

- 7. The first of these measures was very simplistic. California's Proposition 215, a ballot initiative passed in 1996, ran only 442 words. But over time, the states have adopted increasingly sophisticated regulations to govern their medical marijuana programs. In 2011, for example, Colorado promulgated a Medical Marijuana Code comprising 70 pages of rules governing just the operation of commercial medical marijuana centers in the state. Colorado Code Regulations § 212-1 (2011).
- 8. These 35 states vary in the way they regulate both the use and the supply of medical marijuana. I discuss the state laws governing the supply of medical marijuana in the following sections; I do not address state laws governing the use of marijuana, as those laws are beyond the scope of my mandate. Suffice to say that notwithstanding variations in state laws, there are enough similarities to treat these 35 states as a coherent group, as I do in my report below.
- 9. All but 2 of these states Colorado and Washington continue to ban the use, possession, cultivation, and distribution of marijuana for non-medical purposes. In most cases, a violation of one of these state bans constitutes a criminal offense. To be sure, a few states have decriminalized very minor marijuana offenses (e.g., simple possession of an ounce or less) without regard to its use. But outside the context of recently enacted medical use exceptions, in 33 of the 35 states above marijuana remains a strictly forbidden and usually (though not always) criminal drug at the state level.
- 10. A very large number of patients are now using marijuana lawfully, at least in the eyes of these states. It is impossible to provide a precise figure for all of the states because some of them, including the largest, California, do not track medical marijuana users. But many states require medical marijuana users to register with the state in order to gain the legal protections afforded by recent state reforms, and some of these states have released registration statistics for their programs. The statistics demonstrate the popularity of state medical marijuana laws. In Colorado, for example, there were 113,506 registered patients as of June 2014; this figure represents 2.1% of the state's population, or roughly 1 out of every

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 residents.

 https://www.colorado.gov/pacific/sites/default/files/CHED_MMJ_06_2014_MMR_report.pdf.
- 11. Eleven (11) of the states listed in **Table 1** above allow certain residents to use marijuana that contains a high content of Cannabidiol (CBD), as long as it contains no (or very little) Tetrahydrocannabinol (THC), the drug's psychoactive compound. Apart from allowing patients to use only one compound found in marijuana (CBD), these 11 states typically allow that compound to be used as a treatment for only a very narrow range of medical conditions, such as intractable epileptic seizures. Moreover, some of these 11 states also require qualified patients to receive their medical care from a small group of physicians, usually ones associated with a state university medical center. Because these 11 CBD programs are generally narrower in scope than the other 24 state medical marijuana programs, I generally discuss the CBD only and THC programs separately in my analyses below.

- 12. It is important to note that there are still more states in addition to the 35 states listed above -- that have authorized patients to use marijuana when the drug is prescribed by their physician. Most of these laws were passed in the 1970s, but even though they remain on the books today they have proven wholly ineffective. The primary reason is that the federal Drug Enforcement Agency (DEA) could strip physicians of their privilege to prescribe other controlled substances, such as pain killers, seizure medications, and antibiotics, if they prescribe a drug the federal government has banned outright. This is why all of the states (except a few CBD states) that have adopted medical marijuana laws since 1995 have required patients to obtain instead only a physician's recommendation to use marijuana. Under this requirement, a physician need only indicate that marijuana might improve a patient's outlook. The theory is that such a recommendation constitutes protected speech under the First Amendment, so the DEA could not constitutionally punish a physician for merely recommending, as opposed to prescribing, marijuana, Conant v. Walters, 309 F.3d. 629 (2002). Given the ineffectiveness and obscurity of these state laws requiring a physician's prescription to use marijuana, I have not included them in my analyses below.
- 13. It is necessary to give some background on federal law governing marijuana as well because it is impossible to understand state medical marijuana programs without understanding the constraints that federal law has imposed on them, as the prior paragraph should demonstrate.
- 14. Congress has banned marijuana outright since 1970, recognizing no permissible medical use for the drug. 21 U.S.C. § 801 et seq. The federal government has made only two, very limited exceptions to its marijuana ban. In the late 1970s, it began allowing a small group of patients to use marijuana supplied by the federal government as part of a compassionate use program. However, in 1992, it stopped accepting new entrants into this program, which now serves only a handful of previously enrolled patients. The second and only other way to obtain marijuana legally under federal law is by participating in a Food and Drug Administration (FDA) approved research study. The FDA has approved few studies involving marijuana again, all of it supplied by the federal government so this exception covers only a small fraction of the people who now participate in broader state medical marijuana programs.
- 15. Violation of the federal ban carries a variety of modest-to-severe sanctions, both criminal and civil. Most marijuana users would be criminally prosecuted, if at all, for simple possession, though they could also be considered traffickers if they grow their own marijuana. Simple possession constitutes a misdemeanor under federal law, punishable by up to one year imprisonment and a minimum \$1,000 fine plus costs. 21 U.S.C. § 841(a). Federal law does, however, authorize the Attorney General to treat simple possession as a civil offense rather than a criminal one. 21 U.S.C. § 844a. Those who cultivate or distribute marijuana face even more severe consequences under federal law. The manufacture, distribution, or possession with intent to distribute any amount of marijuana constitutes a felony, carrying a maximum sentence of five years imprisonment and a maximum fine of \$250,000 for individuals and \$1 million for entities. 21 U.S.C. § 841(b)(1)(D). Sentences and fines increase as the quantities involved in a trafficking offense grow. For example, cases involving more than one hundred kilograms or more

- than one hundred plants carry a mandatory sentence of five years imprisonment (the maximum is life) and a maximum fine of \$10 million. 21 U.S.C. § 841(b)(1)(B).
- 16. The federal ban has withstood constitutional challenge. Most notably, in *Gonzales v. Raich*, 545 U.S. 1 (2005), the United States Supreme Court affirmed the federal government's power to regulate even the non-commercial cultivation and distribution of marijuana occurring entirely within one state.
- 17. The United States Constitution makes federal law the supreme law of the land, so the states may not shield their residents from the federal marijuana ban. The fact that a state has legalized the use (and cultivation) of marijuana does not change the fact that these very same activities remain criminal under federal law; in other words, federal law enforcement agents may continue to arrest, prosecute, and punish individuals who possess, use, grow, and / or distribute marijuana, regardless of whether those people are acting in compliance with state law.
- 18. At the same time, however, the federal government may not force the states to ban marijuana, nor may it force the states to help the federal government enforce its own ban. Printz v. United States, 521 U.S. 898 (1997). This means that if the federal government wants to stop marijuana from being grown, distributed, and consumed for medical purposes, it must do so on its own i.e., using federal law enforcement agents.
- 19. From the adoption of California's Proposition 215 in 1996 until 2009, the federal government continued to enforce its marijuana ban as it always had, making no exceptions for medical (or other) uses of marijuana allowed by the states. It focused its enforcement resources on large-scale marijuana traffickers, including commercial medical marijuana centers in the few states where they were operating. For example, the DEA raided more than 200 medical marijuana cooperatives in California, and it threatened forfeiture proceedings against landlords who knowingly rented property to those cooperatives. The federal government focused on marijuana suppliers as opposed to marijuana users for two reasons. First, there are far fewer suppliers than users. There are more than 18 million regular marijuana users spread across the United States, far too many for the federal government to identify, arrest, prosecute, and punish, even if it were so inclined. (Keep in mind that the DEA has only about 4,400 agents to police all federal controlled substance laws worldwide.) Since a large marijuana distributor might serve thousands of users, shutting down even one supplier should, in theory, make a bigger impact than punishing one or even a few hundred users. Second, the federal penalties for cultivation and distribution of marijuana are significantly higher than for simple possession. The biggest marijuana suppliers face possible life imprisonment and a \$20 million fine under federal law, meaning that expected legal sanctions might be high even if the federal government catches and prosecutes only a small number of them. (As I discuss below, the states' initial reliance on personal cultivation to supply marijuana can be explained in large part by the federal government's hostility toward commercial cultivation during this period.)
- 20. Though federal law has not changed meaningfully since 1970, federal law enforcement has recently displayed far more tolerance toward the use and supply of medical

marijuana. In October 2009, the United States Department of Justice (DOJ) issued guidance to federal prosecutors (United States Attorneys) urging them not to enforce the federal marijuana ban against persons who act in "clear and unambiguous compliance" with state medical marijuana laws. Memorandum from David W. Ogden, Deputy Attorney Gen., to Selected U.S. Attorneys (Oct. 19, 2009). In August 2013, the DOJ issued an even bolder memorandum, urging federal prosecutors not to target marijuana traffickers operating in compliance with "strong and effective" state regulations, so long as other federal priorities (e.g., stopping gang violence) are not implicated. Guidance Regarding Marijuana Enforcement (Aug. 29, 2013). Likewise, in February 2014, the DOJ issued guidance urging federal prosecutors not to target financial institutions that deal with state-licensed marijuana distributors, as long as certain conditions were met. Guidance Regarding Marijuana Related Financial Crimes (Feb. 14, 2014). To be sure, these memoranda do not bind the federal government; but they have signaled a major shift in the federal government's tolerance of state medical marijuana reforms. In essence, they have given the states far more latitude to design effective and wellregulated medical marijuana programs.

Report Question 1: How States Regulate the Supply of Medical Marijuana

- 21. The mandate first asks how qualified patients are supposed to obtain marijuana, in other words, how the states regulate the supply of medical marijuana.
- 22. Currently, states have authorized three distinct sources of supply for medical marijuana: (1) personal cultivation; (2) commercial cultivation; and (3) federal cultivation. States that permit personal cultivation allow qualified patients to grow marijuana at home for their own consumption. States that permit commercial cultivation authorize thirdparty organizations to grow and / or distribute marijuana to qualified patients. These third-party organizations assume different forms across the states (e.g., collective, corporation, etc.), and they may operate on either a for-profit or not-for-profit basis, depending on state law. Regardless of form, commercial cultivation organizations typically (though not always) maintain a storefront (i.e., retail) operation. In some states that allow designated caregivers to grow marijuana on behalf of their wards, personal cultivation starts to resemble commercial cultivation. For present purposes, however, I distinguish the two models of supply by the scale of the operation; commercial cultivation centers supply large numbers of patients (tens, hundreds, even thousands) whereas individual caregivers typically supply one or just a handful of patients. States that permit federal cultivation authorize the National Center for Natural Products Research at the University of Mississippi to supply marijuana to qualified patients. The Center is the only entity currently authorized by the federal government to cultivate and distribute marijuana, and then, only for use in federally approved research projects. (It is worth noting that state authorization of federal cultivation may not be necessary, given the Supremacy Clause of the United States Constitution.)

Regulations in the 24 states permitting medical marijuana with THC

23. Consider, first, regulations governing the supply of medical marijuana in the 24 states that have legalized strains containing THC. As of August 2014, 15 out of 24 states allow

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personal cultivation by at least some patients: Alaska, Arizona, California, Colorado, Hawaii, Maine, Massachusetts, Michigan, Montana, Nevada, New Mexico, Oregon, Rhode Island, Vermont, and Washington. The states commonly authorize patients to grow their own marijuana by defining "medical use" to include "cultivation" or "production" of marijuana. See, e.g., Oregon Measure No. 67, § 3(7) (defining "medical use" to include the "production, possession, delivery, or administration of marijuana") (emphases added). The states impose a number of regulations on personal cultivation. Some states, for example, require patients to obtain separate state authorization to grow marijuana. New Mexico, for example, requires patients to apply for a personal production license; in the application, the patient must specify where they will grow marijuana and they must also detail the steps they will take to ensure the marijuana is not stolen or diverted to illegal purposes. See http://nmhealth.org/publication/view/form/136/. Some states require that patients cultivate marijuana in an enclosed (i.e., indoor) locked facility. Every state that allows personal cultivation imposes limits on the quantity of marijuana and number of plants that patients may possess at any point in time, though the limits vary considerably across states. For example, Alaska allows patients to possess 1 ounce of usable marijuana and 6 marijuana plants at any given time, whereas Colorado allows some patients to grow up to 99 plants at a time. States also typically permit caregivers to assist patients in growing marijuana, though they have different rules regarding the qualifications for serving as caregiver and the total number of patients that each caregiver may serve (normally 5 or fewer). And as discussed in more detail below, 3 of these 15 states ban personal cultivation when patients have access to marijuana via commercial cultivation.

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- 24. As of August 2014, 21 of the 24 states allow commercial cultivation to supply medical marijuana to patients: Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Illinois, Maine, Maryland, Massachusetts, Minnesota, Montana*, Nevada, New Hampshire, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, and Washington. Not all of these states have commercial cultivation organizations up and running yet. There is typically a lag time - perhaps 1 year or more -- between the adoption of a law authorizing commercial cultivation of medical marijuana and the successful opening of cultivation centers, due to the need to promulgate rules for the industry, screen applicants for licenses, obtain locations, and so on. Commercial cultivation is heavily regulated, far more so than personal cultivation. For example, Colorado has passed more than 70 pages of regulations governing the operation of medical marijuana centers. Among many other things, Colorado requires medical marijuana centers to apply for a special license from the state, collect taxes from customers, maintain detailed records of inventory, install advanced security systems, submit to 24/7 web-based video monitoring, and verify customer eligibility with every purchase. Colorado Code Regulations § 212-1:1.100 (2011). Though I focus here on their role in supplying marijuana, medical marijuana centers commonly provide other services to qualified patients as well, including counseling and support.
 - * Note that the legal status of commercial cultivation organizations in Montana is uncertain at this time. Montana passed legislation in 2011 and a subsequent initiative in 2012 that would effectively ban commercial cultivation by limiting a caregiver to serving at most 3 patients; under the state's original medical marijuana ballot initiative,

- caregivers could serve an unlimited number of patients, which effectively allowed them to operate large-scale dispensaries. The 2011-12 amendments have been challenged in ongoing litigation and a court has preliminarily enjoined their implementation.
- 25. Needless to say, some states authorize more than one source of supply for medical marijuana. It is possible and helpful to characterize each of the 24 states into one of four distinct supply models: (1) personal cultivation is the only source of supply; (2) commercial cultivation is the only source of supply; (3) commercial cultivation is the preferred source of supply; and (4) mixed, i.e., both personal cultivation and commercial cultivation are authorized sources of supply.
- 26. As of August 2014, 3 states out of 24 authorize only personal cultivation: Alaska, Hawaii, and Michigan. These three states forbid commercial cultivation centers to supply marijuana to patients, though they do allow individuals known as caregivers to assist 1 (Alaska, Hawaii) or as many as 5 (Michigan) patients to grow marijuana. Each of these states regulates personal cultivation by requiring patients to register with a state agency, by limiting the quantity patients are allowed to possess (Alaska allows 1 ounce and 6 plants, Hawaii allows 3 ounces and 4 mature and 4 immature plants, and Michigan allows 2.5 ounces and 12 plants), and at least one of them (Michigan) requires patients to grow marijuana in an enclosed, locked facility. I refer to these three states as personal cultivation only states.
- 27. As of August 2014, 9 states out of 24 authorize only commercial cultivation: Connecticut, Delaware, District of Columbia, Illinois, Maryland, Minnesota, New Hampshire, New Jersey, and New York. Each of these states bans personal cultivation of marijuana. For example, Connecticut General Statutes, Chapter 420f, section 21a-408i expressly provides that "No person may act as a producer or represent that such person is a licensed producer unless such person has obtained a license from the Commissioner of Consumer Protection pursuant to this section." And Illinois law defines "medical use" as "the acquisition; administration; delivery; possession; transfer; transportation; or use of cannabis" i.e., it does not include "cultivation" or "production" in that definition. These are commercial cultivation only states.
- 28. As of August 2014, 3 other states out of 24 authorize commercial cultivation, but also allow patients to cultivate marijuana at home if they do not have reasonable access to a commercial cultivation center: Arizona, Massachusetts, and Nevada. Arizona's Proposition 203 (2010) expressly provides that qualified patients "will obtain marijuana from nonprofit medical marijuana dispensaries regulated by ADHS. Private cultivation will be allowed by ADHS only when no dispensary is available." Section 11 of Massachusetts' Question 3 (2012) authorizes patients to personally cultivate marijuana if they demonstrate "verified financial hardship, a physical incapacity to access reasonable transportation, or the lack of a treatment center within a reasonable distance of the patient's residence." Likewise, Nevada recently amended its laws to require patients to obtain marijuana from a commercial marijuana dispensary unless they live more than 25 miles from a dispensary or had been previously authorized to personally cultivate marijuana (this grandfather exception will expire in 2015). These are commercial cultivation preferred states.

- 29. As of August 2014, the remaining 9 states out of 24 authorize both personal cultivation and commercial cultivation and allow patients to choose between them: California, Colorado, Maine, Montana*, New Mexico, Oregon, Rhode Island, Vermont, and Washington. These are **mixed** states.
 - * How we classify Montana again depends on the as-yet-uncertain legal status of its large-scale caregiver-operated medical marijuana dispensaries (see above). It is either a personal cultivation only state (if the new rules are upheld) or a mixed state (if the new rules are invalidated).

Regulations in the 11 states permitting medical marijuana with CBD only

- 30. Consider next regulations governing the supply of medical marijuana in the 11 states that have legalized strains containing CBD but not THC. It is possible to characterize each of the 11 CBD states as following one of three distinct supply models: (1) commercial cultivation is the only permissible source of supply; (2) federal cultivation is the only permissible source of supply; and (3) there is no state-approved source of supply.
- 31. As of August 2014, 3 CBD states have pursued a **commercial cultivation only** model, roughly similar to the model adopted by 9 of the states that legalize marijuana containing THC: Florida and Missouri have authorized state-licensed commercial cultivation centers and Tennessee has authorized a public university to supply CBD.
- 32. As of August 2014, 3 CBD states (Mississippi, South Carolina, and Wisconsin) require patients to obtain the drug through a source approved by the federal government. I refer to these states as **federal cultivation only** states.
- 33. As of August 2014, the remaining 5 CBD states (Alabama, Iowa, Kentucky, North Carolina, and Utah) have not yet addressed the supply issue. In other words, qualified patients who may legally possess and use CBD in these states have no legal way to acquire the drug. I refer to these states as **none** states.
- 34. Notably, none of the 11 CBD states has authorized personal cultivation.

Summary of the current regulations of all 35 medical marijuana states

35. Chart 1 displays the current approach favored by the 24 THC states, the 11 CBD states, and all 35 medical marijuana states combined as of August 2014:

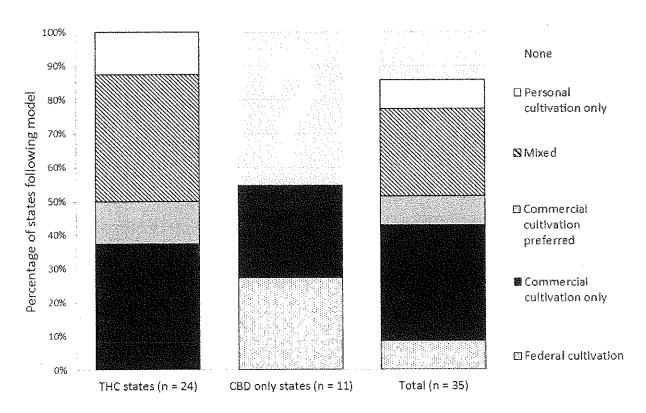


Chart 1: State supply models, 2014

36. The Appendix at the end of the report provides a brief capsule summary of each state's approach to regulating the supply of marijuana, including the method of enactment and the dates of any important changes in its approach.

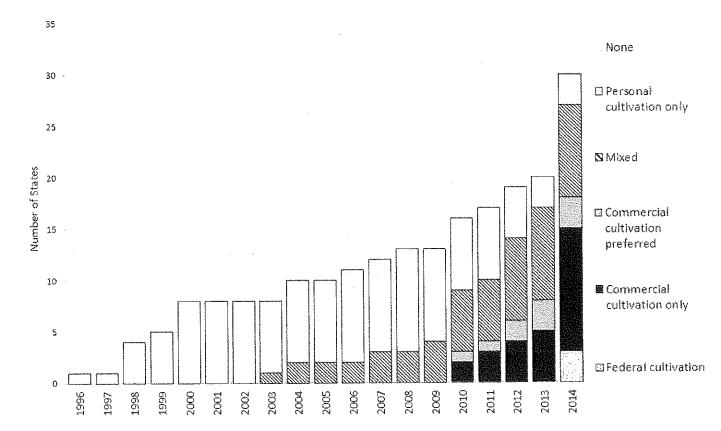
Report Question 2: Trends in How States Regulate the Supply of Medical Marijuana

- 37. The mandate asks me to identify any trends in the ways that states have regulated the supply of medical marijuana. To identify trends, I examined changes in the ways that states have regulated the supply of medical marijuana over time. For present purposes, I focus on the date of adoption of relevant changes, rather than the date on which such changes became effective.
- 38. State regulation of the supply of medical marijuana has undergone an upheaval in the past few years. From 1996-2008, personal cultivation was the exclusive source of supply in

- the vast majority of states. Starting in 2009, however, two new trends emerged: (1) more states started to allow commercial cultivation to supply medical marijuana to patients; and (2) more states banned or limited personal cultivation by patients.
- 39. In the early years of state medical marijuana reforms, personal cultivation was the only authorized method of supply. From 1996-2000, 8 states legalized medical marijuana. Each of them allowed personal cultivation; not one expressly permitted commercial cultivation to supply medical marijuana.
- 40. It was not until California's legislature amended the state's medical marijuana laws in 2003 (SB 420) that a state appears to have formally approved of commercial cultivation. Although medical marijuana collectives had been operating in California before 2003, they arguably did so outside the boundaries of state law.
- 41. From 2004-2008, 5 more states legalized medical marijuana. Once again, each of them allowed patients to cultivate marijuana at home; but 2 of them also allowed commercial cultivation to supply medical marijuana to patients. In 2004, Montana legalized medical marijuana. The law allowed caregivers to supply marijuana to patients, but because Montana imposed no limits on the number of patients each caregiver could serve, it effectively allowed commercial cultivation (see notes above). In 2007, New Mexico legalized medical marijuana and became only the third state to allow commercial cultivation.
- 42. Starting in 2009, states became much more favorably disposed toward commercial cultivation as a source of supply. From 2009-2014, 11 new states (including D.C.) legalized medical marijuana containing THC. Each of these new states authorized commercial cultivation as a source of supply of medical marijuana. In addition, 7 states that had previously banned commercial cultivation adopted new laws to formally authorize third-party organizations to supply marijuana: Maine (2009); Colorado (2010); Vermont (2010); Rhode Island (2012); Washington (2012); Nevada (2013); and Oregon (2013). As noted above, Montana adopted new laws in 2011-12 that arguably banned commercial cultivation in the state, but implementation of these laws has been preliminarily enjoined by the courts. In addition, in 2014, another 11 states legalized medical marijuana containing CBD but not THC. As discussed above, only 6 of these states expressly addressed the supply of CBD; 3 authorized commercial cultivation and 3 authorized supply only through the federal government (federal cultivation).
- 43. Over the same time period (2009-2014), there has also been a trend of banning or limiting personal cultivation of marijuana by qualified patients. Of the 22 new states to legalize medical marijuana (THC or CBD only) from 2009-2014, only 2 (Arizona in 2010 and Massachusetts in 2012) allowed any personal cultivation; and, as noted above, both of those states allowed personal cultivation only by patients with limited access to commercial cultivation. In addition, Nevada's 2013 statute that authorized commercial cultivation simultaneously barred patients from personally cultivating the drug unless they lived more than 25 miles from one of the newly authorized commercial cultivation centers.

44. Chart 2 shows the number of medical marijuana states following each of the six models from 1996-2014. The chart reveals the shift from reliance on personal cultivation toward commercial cultivation over that time period.

Chart 2: Evolution of state supply models, 1996-2014



45. It seems likely that these two trends – states relying more on commercial cultivation and less on personal cultivation -- will continue. Voters in the state of Florida will decide upon a medical marijuana initiative this fall. Amendment 2 would authorize commercial cultivation centers, but it would not allow personal cultivation by patients. http://election.dos.state.fl.us/initiatives/fulltext/pdf/50438-2.pdf. Michigan and Hawaii -- two of the remaining 3 personal cultivation only states – are considering their own legislation to authorize commercial cultivation. See http://www.mlive.com/lansing-news/index.ssf/2014/07/medical_marijuana_dispensaries.html; http://khon2.com/2014/09/09/lawmakers-explore-possibility-of-medical-marijuana-dispensaries-in-hawaii/. Likewise, some states are considering limiting personal cultivation by patients. For example, the New Mexico Department of Health is currently considering new rules that would push more patients toward commercial suppliers, both by reducing the number of plants individual patients may grow at home and by increasing the number of plants that commercial suppliers are allowed to cultivate.

http://nmhealth.org/publication/view/help/238/.

Report Question 3: Explaining Trends in the Way that States Regulate the Supply of Medical Marijuana

- 46. Lastly, the mandate asks me to explain the rationale behind state regulation of marijuana supply and why those regulations have evolved across time.
- 47. The regulation of the supply of medical marijuana is heavily motivated by two broad sets of objectives: (1) serving qualified patients who would benefit from medical marijuana; (2) preventing marijuana (or the production thereof) from harming other persons.
- 48. On the one hand, all 35 medical marijuana states want to ensure that residents who might benefit from medical use of marijuana have access to a safe, reliable, and effective source of supply. In other words, the states want to ensure not only that patients can obtain a drug that remains illegal under federal law, but also that patients know what they are buying (the drug's potency, etc.) and will not be harmed by the substance or contaminants in it (e.g., mold or harmful pesticides).
- 49. On the other hand, these states also want to prevent marijuana produced for the legitimate medical needs of patients from being diverted to prohibited users. All but 2 of the 35 medical marijuana states continue to ban marijuana for recreational purposes; and Colorado and Washington continue to ban minors from using marijuana for recreational purposes. Apart from preventing diversion to prohibited users, states also want to minimize harms that some have attributed (rightly or wrongly) to the production of marijuana, such as fires triggered by indoor grow lights and environmental damage caused by the use of chemical growing agents.
- 50. Personal cultivation, commercial cultivation, and federal cultivation address these concerns to different degrees. Not surprisingly, personal cultivation offers at least some patients easier access to marijuana; it is, after all, difficult to imagine a more accessible source of medicine than one's own basement or backyard garden.
- 51. Nevertheless, personal cultivation is not a convenient source of supply for many patients who need marijuana. Personal cultivation requires some up-front investment to purchase equipment lighting, irrigation, security measures, and so on. What is more, many patients do not have the skills or the time necessary to tend plants successfully on a continuous basis. Even patients with a green thumb and ample time may encounter threats, such as mold, that can cause lengthy interruptions in personal sources of supply. The Washington state Department of Health aptly summarized the risks of personal cultivation in a July 2008 report on Patient Access to Medical Marijuana in Washington State (p. 27), available at Washington report http://www.doh.wa.gov/portals/1/Documents/2000/PatientAccess.pdf:

"Even with the physical ability, time, space, location to grow and the assistance of a provider, there are still challenges. Home cultivation can be a very unreliable source. Crop yields vary and even expert growers can end up with too little marijuana. Many patients growing their own supply said they struggle to produce a consistent, adequate amount. Reasons for difficulty range from grower inexperience to common gardeners' problems like bugs, molds, and disease."

- 52. Apart from these patient-centered concerns about reliability and convenience, personal cultivation also raises serious compliance concerns. Simply put, it is difficult - if not impossible - for states to enforce meaningful restrictions on personal cultivation. State agencies do not have the resources needed to supervise personal cultivation by all - or even a small fraction of - qualified medical marijuana patients. Consider the task facing the state of Colorado. It has more than 113,000 medical marijuana patients, each of whom is allowed to grow 6 (and perhaps many more, in some cases) plants and to possess an additional 2 ounces of usable marijuana. Not all patients, of course, are disposed to breaking state law; but there is no way to ensure that all of them - or even the vast majority of them – will keep their supplies to themselves. Indeed, the New Mexico Department of Health has recently stated that "Personal production licenses (PPL) are the one area where the Department most often encounters law enforcement concerns regarding diversion of cannabis." http://nmhealth.org/publication/view/help/238/. Law enforcement agencies in other states have expressed similar concerns over the flouting of other safety regulations governing personal cultivation. The Oregon Department of Justice, for example, has stated that "there is no program oversight or inspection of homes outfitted by cardholders to grow marijuana under the [Oregon Medical Marijuana Program] OMMP. Multiple electronic ballasts used to generate sufficient heat and light for growing plants indoors have been the cause of structure fires throughout the state." Oregon DOJ, Threat Assessment and Counter-Drug Strategy, p. 14 (June 2014). "Irrigation of a large number of plants indoors often produces a toxic environment where black mold proliferates and creates a serious health hazard for inhabitants and responding officers." Id. at 13-14. "In addition, as medical marijuana cultivation has become more prevalent in the state, grow sites have become lucrative targets for theft and violence due to excess cash on hand. Caregivers are increasingly arming themselves to defend medical marijuana grow sites from theft and home invasion robberies." Id. at 14.
- 53. Not surprisingly, compared to home cultivation sites, commercial cultivation centers are much easier to supervise to protect against diversion and other harms. From the perspective of regulators, the key advantage of licensed commercial operations comes from their limited number. The precise number of operations varies by state each decides how many licenses to issue but it is by definition far less than the number of patients who could otherwise grow marijuana. Colorado, for example, has roughly 500 licensed medical marijuana centers; and New York allows even fewer (a maximum of 20), even though that state does not permit personal cultivation. To be sure, commercial cultivation centers are no panacea; they too might divert marijuana to prohibited users and cause health hazards. But they pose a far less daunting regulatory challenge than do personal cultivation sites. What is more, commercial cultivation offers a far more accessible source of supply than the third model federal cultivation given that the federal government will supply marijuana only to patients participating in a small number of federally approved clinical research trials.

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- 54. For many patients, commercial cultivation centers also offer a superior source of supply compared to personal cultivation. Namely, for patients without the requisite skills, scale, and resources, commercial cultivation centers provide a more *convenient* source of supply. In addition, their scale allows such centers to minimize the risk of catastrophic loss caused by mold, irrigation malfunctions, etc., and thereby provide a more *reliable* source of supply.
- 55. There are, of course, downsides to commercial cultivation centers compared to personal cultivation. For some adept patients, personal cultivation arguably provides a more convenient and potentially cheaper source of supply, though the advantages will depend greatly on how the commercial cultivation system is designed (e.g., how many centers are allowed, etc.). In addition, commercial cultivation centers may take more time to set up than some personal cultivation sites, though again, this depends on the particulars of the regime. To promulgate commercial cultivation regulations, complete the licensing process, organize the business, and cultivate the first plants could take one year or more; Minnesota, for example, enacted its medical marijuana law in May 2014, but it does not expect to have an operational commercial cultivation system in place until July 2015 at the earliest. http://www.health.state.mn.us/topics/cannabis/faq.html#when. Still, on balance, it would appear that commercial cultivation centers do a superior job of balancing the competing interests governments have in regulating the supply of marijuana.
- 56. Given the comparative advantages commercial cultivation has over personal cultivation, it might seem surprising that so many states relied exclusively on personal cultivation during the early years of medical marijuana reform in the United States. To some extent, this choice may have reflected a genuine preference for personal cultivation over commercial cultivation at the time. But a far bigger reason is that personal cultivation was simply the only viable supply option states had in the first 13 years of reform. Recall that the federal government was initially quite hostile to state medical marijuana reforms, and it focused its limited law enforcement resources on marijuana traffickers - and especially large scale marijuana traffickers. Since state-licensed commercial cultivation centers are marijuana dealers in the eyes of the federal government, they would be prime targets for federal enforcement actions. Indeed, the very trait that makes commercial cultivation centers so appealing to state regulators - their relatively large size and limited number - also makes them particularly attractive targets for federal law enforcement agents. As the Washington state Department of Health Report cited above surmised, p. 31, "[b]ecause group growing scenarios would probably involve a large number of marijuana plants, they might attract the attention of federal agents." In addition, other characteristics of state-licensed commercial cultivation centers, such as their visibility and detailed record-keeping, help to make them particularly tempting targets for federal law enforcement agents. Indeed, in 2011, Governor Lincoln Chafee of Rhode Island declared that he would refuse to implement the state's medical marijuana dispensary system because he feared a crackdown by the United States Attorney for Rhode Island: "I cannot implement a state marijuana cultivation and distribution system which is illegal under federal law, and which will become a target of federal law-enforcement efforts . . . Federal injunctions, seizures, forfeitures, arrests and prosecutions will only hurt the patients and caregivers that our law was designed to protect." W. Zachary Malinowski,

Chafee halts licenses for dispensaries, Providence J. Bulletin, Sept. 30, 2011. By contrast, the federal government has never seriously targeted medical (or other) marijuana users or even small-scale producers, including patients. Hence, states knew that the federal government would not (and almost certainly could not) stop patients from growing marijuana themselves. To be sure, personal cultivation causes its own problems for state regulators, as discussed above; but it seems likely the states believed strongly enough in the medical value of marijuana that they were willing to tolerate those problems when there was no other way to ensure that qualified patients could obtain the drug.

57. In 2009, however, the federal government signaled a shift in its enforcement policy, thus opening the door for state-regulated commercial cultivation of marijuana. In other words, once the states believed they could set up a viable commercial cultivation system to serve patients, they created commercial cultivation systems and began to limit or even eschew personal cultivation altogether. For example, Maine's legislative library attributes the state's 2009 decision to allow commercial cultivation to the apparent change in federal enforcement policy. It writes that "Maine has allowed prescribing [sic], and limited possession, of medical marijuana since 1999 but the law lacked any distribution mechanism and questions arose of noncompliance with federal law and of how patients could legally obtain the prescribed [sic] marijuana. In October 2009 the Obama administration announced that it would halt prosecution of medical marijuana users and caregivers if they were in compliance with their state's law. On November 3, 2009 Maine approved Question 5 [authorizing commercial cultivation centers]." http://www.maine.gov/legis/lawlib/medmarij.html. Even Governor Chafee, who blocked Rhode Island's commercial cultivation system due to fears of a federal crackdown in 2011, signed new legislation in 2012 to establish three cultivation centers he believed were small enough to avoid drawing the attention of federal law enforcement officials in the state.

Appendix

- 58. The following appendix provides a brief capsule summary of the approach each of 35 states and D.C. have taken toward regulating the supply of medical marijuana, including relevant changes over time. The states are listed in alphabetical order.
- 59. Alabama: There is no legal source of supply since the state legislature legalized the use of CBD to treat debilitating seizures via statute in 2014. The statute allows certain medical professionals employed by the University of Alabama to prescribe and distribute—but not to *produce*—CBD.
- 60. Alaska: Personal cultivation has been the only source of supply since the state legalized medical marijuana in a 1998 ballot initiative. Ballot Measure 8 (1998), codified as A.S. § 17.35.070(d) defines "Medical use" to include the "acquisition, possession, *cultivation*, use, and/or transportation of marijuana" (emphasis added).
- 61. Arizona: Commercial cultivation has been the preferred source of supply since the state legalized medical marijuana in a 2010 ballot initiative. Proposition 203 (2010) expressly provides "Qualifying patients who register with the Arizona Department of Health

Services will obtain marijuana from nonprofit medical marijuana dispensaries regulated by ADHS. Private cultivation will be allowed by ADHS only when no dispensary is available." The Arizona Department of Health adopted rules to implement Proposition 203, including a provision authorizing patients to cultivate marijuana at home only if the nearest operating dispensary is at least 25 miles away. http://www.azsos.gov/public_services/Register/2012/52/final.pdf.

- 62. California: Personal cultivation was the only source of supply formally recognized by the state from 1996-2003. The state legalized the medical use of marijuana in a 1996 ballot initiative (Proposition 215), which also repealed the prohibition on marijuana cultivation by qualified medical patients. See http://vote96.sos.ca.gov/bp/215text.htm, codified as C.A. Health & Safety Code § 11362.5(2)(d). In 2003, the state legislature passed a new statute (SB 420) that formally authorized cooperatives and collectives to cultivate and dispense marijuana, though some such organizations had already done so even before SB 420 was adopted. In 2008, the state Attorney General provided additional non-binding guidance on the operation of marijuana cooperatives and collectives. http://www.ag.ca.gov/cms_attachments/press/pdfs/n1601_medicalmarijuanaguidelines.pdf.
- 63. Colorado: Personal cultivation was the only source of supply from 2000-2010. The state legalized medical marijuana in a 2000 ballot initiative. The state legislature passed a statute in 2010 (the Medical Marijuana Code), that formally legalized commercial cultivation. See Colorado Medical Marijuana Code C.R.S. 12-43-3.101 et seq. Though some commercial cultivation centers had opened before the statue was adopted, their legal status was in doubt in light of state regulations that had been promulgated in 2007 and 2009.
- 64. Connecticut: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via statute in 2012. Connecticut General Statutes, Chapter 420f, section 21a-408i expressly provides that "No person may act as a producer or represent that such person is a licensed producer unless such person has obtained a license from the Commissioner of Consumer Protection pursuant to this section." And the state Department of Consumer Protection has adopted implementing regulations specifying that "Only a producer shall own and operate a production facility." See id. at §21a-408-52.
- 65. Delaware: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via statute in 2011 (the Delaware Medical Marijuana Act). See http://dhss.delaware.gov/dph/hsp/medmarhome.html#qp7.
- 66. District of Columbia: Commercial cultivation has been the only source of supply since the city legislature legalized medical marijuana via statute in 2010 (Legalization of Marijuana for Medical Treatment Amendment Act of 2010). The statute, § 3(d), expressly provides that "A qualifying patient . . . Shall only possess . . . medical marijuana . . . obtained from a dispensary registered with the Mayor." See http://doh.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/Legal-Marijuana-Med-Treat-Amend-Act-2010 0.pdf. It is worth noting that D.C. voters had

- originally attempted to legalize medical marijuana via initiative in 1999, but Congress prevented that initiative from taking effect.
- 67. Florida: Commercial cultivation has been the only source of supply since the state legislature legalized the use of CBD to treat seizures and cancer via statute in 2014. The statute authorizes the operation of five centers to distribute CBD.
- 68. Hawaii: Personal cultivation has been the only source of supply since the Hawaii legislature legalized medical marijuana via statute in 2000 (SB 862). Section 1 of the statute acknowledges that federal law poses a challenge for the supply of marijuana: "The legislature is aware of the legal problems associated with the legal acquisition of marijuana for medical use." Section 2 of the statute expressly defines "medical use" to mean "the acquisition, possession, *cultivation*, use, distribution, or transportation of marijuana" http://www.capitol.hawaii.gov/session2000/acts/Act228_SB862_HD1_.htm (emphasis added). The Hawaii legislature is currently considering proposals that would legalize commercial cultivation to supply medical marijuana to patients. http://khon2.com/2014/09/09/lawmakers-explore-possibility-of-medical-marijuana-dispensaries-in-hawaii/.
- 69. Illinois: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via statute in 2014. The statute authorizes operation of state regulated centers, but rejects personal cultivation by defining "medical use" to include only the "acquisition; administration; delivery; possession; transfer; transportation; or use of cannabis." See http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=3503&ChapterID=35.
- 70. Iowa: There is no legal source of supply since the state legislature legalized the use of CBD to treat epileptic seizures via statute in 2014. The state's Office of Drug Control Policy suggests that "CBD must come from out-of-state sources. The IMCA does not permit CBD production/cultivation, sales or other distribution in Iowa." Iowa Office of Drug Control Policy, 2014 Iowa Medical Cannabidiol Act Quick Facts, http://www.iowa.gov/odcp/docs/CBDFinalFactSheetIowaJune2014.pdf.
- 71. Kentucky: There is no legal source of supply since the state legislature legalized the use of CBD to treat seizures via statute in 2014. The statute allows certain medical professionals employed by a medical school in the state's public university system to authorize treatment using CBD, but it does not authorize them (or anyone else) to supply the drug.
- 72. Maine: Personal cultivation was the only source of supply from 1999-2009. The state legalized medical marijuana via initiative in 1999 (Question 2). It implicitly authorized personal cultivation by providing that a patient could possess both usable marijuana and marijuana plants.

 http://ballotpedia.org/Maine Medical Marijuana for Specific Illnesses, Question 2 (1 999) ("A patient with physician authorization will not be able to possess an amount greater than 1 1/4 ounces of harvested marijuana and 6 marijuana plants, of which no more than 3 may be mature, flowering plants.") (emphasis added). In 2009, the state

expressly authorized commercial cultivation to supply medical marijuana in a ballot initiative (Question 5). The Maine legislative library suggests that the change was brought on by the apparent shift in federal enforcement policy that same year. "Maine has allowed prescribing [sic], and limited possession, of medical marijuana since 1999 but the law lacked any distribution mechanism and questions arose of noncompliance with federal law and of how patients could legally obtain the prescribed [sic] marijuana. In October 2009 the Obama administration announced that it would halt prosecution of medical marijuana users and caregivers if they were in compliance with their state's law. On November 3, 2009 Maine voters approved Question 5." http://www.maine.gov/legis/lawlib/medmarij.html.

- 73. Massachusetts: Commercial cultivation has been the preferred source of supply since the state legalized medical marijuana in a 2012 ballot initiative (Question 3). Section 11 of the initiative authorizes the operation of state-regulated treatment centers, but it also allows patient to request authorization to self-cultivate if they demonstrate certain defined hardships, including "verified financial hardship, a physical incapacity to access reasonable transportation, or the lack of a treatment center within a reasonable distance of the patient's residence." See http://www.sec.state.ma.us/ele/ele12/ballot questions 12/full_text.htm#three.
- 74. Maryland: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via statute in 2014. The state's medical marijuana program is very tightly controlled, permitting only academic medical centers to oversee patients, who must obtain their marijuana from licensed distributors who in turn procure it from licensed growers. See http://dhmh.maryland.gov/SitePages/Medical%20Marijuana%20Commission.aspx.
- 75. Michigan: Personal cultivation has been the only source of supply since the state legalized medical marijuana via a 2008 ballot initiative. The 2008 initiative, as interpreted by the Michigan Supreme Court, makes no provision for commercial marijuana cultivation. Michigan v. McQueen, No. 143824 (Feb. 2013). But a proposed 2014 statute would authorize commercial cultivation. See http://www.mlive.com/lansing-news/index.ssf/2014/07/medical marijuana dispensaries.html.
- 76. Minnesota: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via statute in 2014.
- 77. Mississippi: The federal government has been the only source of supply since the state legislature legalized the use of CBD to treat epileptic seizures via statute in 2014. The federal government will provide CBD only for FDA-approved clinical trials.
- 78. Missouri: Commercial cultivation has been the only source of supply since the state legislature legalized the use of CBD to treat epileptic seizures via statute in 2014. The statute authorizes the creation and operation of state-licensed commercial cultivation centers.

- 79. Montana: The state arguably adopted a mixed supply system allowing both personal cultivation and cultivation by individual caregivers for large groups of patients in the 2004 ballot initiative that legalized medical marijuana (I-148). Section 2.(4) of the initiative defines "medical use" to include the "acquisition, possession, cultivation, transfer, or transportation of marijuana." manufacture, use, delivery, http://sos.mt.gov/Elections/archives/2000s/2004/VIP2004.pdf. The initiative did not provide any express authorization for commercial cultivation, but because it authorized individual caregivers to cultivate marijuana on behalf of an unlimited number of patients, it effectively legalized commercial cultivation. In 2011, the state legislature passed a new statute (SB 423) that essentially repealed I-148 and replaced it with a much more tightly controlled medical marijuana program. Most relevantly, for present purposes, SB 423 limited each caregiver (now called a provider) to serving a maximum of 3 patients; it also patients from compensating providers. See forbade these http://leg.mt.gov/content/Committees/Interim/2011-2012/Children-Family/Meeting-Documents/June-2011/sb423-summary-of-changes.pdf. In 2012, voters initiative I-124 to uphold SB 423, but the legal status of these reforms is in some doubt given ongoing litigation challenging them.
- 80. Nevada: Personal cultivation was the only source of supply from 2000-2013. The state legalized medical marijuana via ballot initiative in 2000 (Question 9) and the state legislature adopted implementing legislation in 2001 (AB 453). Question 9 merely suggests the state "would authorize appropriate methods of supply to authorized patients." The 2001 implementing legislation section 30.5 expressly permitted personal cultivation by defining "medical use" to include the "possession, delivery, production or use of marijuana." (emphasis added). Section 30.5 of the statute also provided that the department of health "shall vigorously pursue the approval of the Federal Government to establish: . . . (2) A program pursuant to which the department may produce and deliver marijuana to persons who use marijuana in accordance with the provisions of . . . this act." In 2013, the state legislature passed a new statute (SB 374) that authorized commercial cultivation to supply marijuana and also limited personal cultivation to persons living more than 25 miles from an operating commercial supplier and temporarily until 2015 persons previously authorized to grow marijuana at home. See § 453A.200(6). http://www.leg.state.nv.us/Session/77th2013/Bills/SB/SB374_EN.pdf.
- 81. New Hampshire: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana in a 2013 statute (HB 573). Section XIII(c) of the statute plainly states that "therapeutic use" of marijuana does not include "[c]ultivation by a designated caregiver or qualifying patient." See http://www.gencourt.state.nh.us/legislation/2013/hb0573.html.
- 82. New Jersey: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via a 2010 statute (New Jersey Compassionate Use Medical Marijuana Act). The statute authorizes state-regulated marijuana distribution centers, and section C.24.6I-3 of the statute defines medical use to include only the "acquisition, possession, transport, or use of marijuana or paraphernalia by a registered qualifying patient." https://www.nileg.state.nj.us/20082009/PL09/307 .HTM.

- 83. New Mexico: Both personal cultivation and commercial cultivation have been lawful sources of supply since the state legislature legalized medical marijuana via a 2007 statute. The state department of health is considering new rules that would limit personal cultivation and push more patients to obtain marijuana via commercial suppliers. Among other things, the rules would reduce the number of plants allowed for personal cultivation and increase the number of plants commercial suppliers are allowed to grow. The department explained the rationale behind the proposals as follows: "Personal production licenses (PPL) are the one area where the Department most often encounters law enforcement concerns regarding diversion of cannabis. To address this issue, and to also ensure that patients do not exceed the adequate supply of 170 units/six ounces over three months, the Department has proposed a decrease in the number of plants that a qualified patient may possess under a PPL." http://nmhealth.org/publication/view/help/238/.
- 84. New York: Commercial cultivation has been the only source of supply since the state legislature legalized medical marijuana via a 2014 statute (the Compassionate Care Act S7923/A6357-E). The state envisions a system of no more than 20 operations total, a maximum of 4 locations for each of 5 state-licensed marijuana growers. See http://assembly.state.ny.us/leg/?bn=A06357E&term=&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=Y.
- 85. North Carolina: There is no legal source of supply since the state legislature legalized the medical use of CBD via statute in 2014. The statute allows four university medical centers to recommend CBD but it does not specify how patients are supposed to obtain the drug.
- 86. Oregon: Personal cultivation was the only source of supply from 1998-2013. Oregon legalized medical marijuana in a 1998 initiative (Measure No. 67). Section 3(7) of the initiative permitted home cultivation by defining "medical use" to include the administration of marijuana" "production, possession. delivery, or http://oregonvotes.org/pages/history/archive/nov31998/guide/measure/m67.htm (emphasis added). In 2013, the state legislature also authorized commercial cultivation to (HB 3460), supply marijuana via statute https://olis.leg.state.or.us/liz/2013R1/Measures/Text/HB3460/Enrolled, though informal dispensaries had existed earlier because the state imposed few restrictions on the number of patients individual caregivers were allowed to serve.
- 87. Rhode Island: Personal cultivation was the only source of supply from 2006-2012. The state legislature legalized medical marijuana via statute in 2006. The statute legalized personal cultivation by defining medical use to include "cultivation." In 2009, the state passed new legislation that also authorized commercial cultivation, but Governor Lincoln Chaffee suspended implementation of the program in September 2011 due to concerns about federal enforcement. Chafee is quoted as saying at the time "I cannot implement a state marijuana cultivation and distribution system which is illegal under federal law, and which will become a target of federal law-enforcement efforts . . . Federal injunctions, seizures, forfeitures, arrests and prosecutions will only hurt the patients and caregivers that our law was designed to protect." W. Zachary Malinowski, Chafee halts licenses for dispensaries, Providence J. Bulletin, Sept. 30, 2011. In 2012, however, the state

- legislature passed a new statute re-authorizing the creation of 3 small commercial suppliers (each cultivating no more than 150 plants), on the belief that federal prosecutors would not be interested in targeting such small operations.
- 88. South Carolina: The federal government is the only source of supply since the state legislature legalized the use of CBD to treat epileptic seizures via statute in 2014. The statute specifies that patients must obtain CBD from "a provider approved by the United States Food and Drug Administration which produces cannabidiol that: (a) has been manufactured and tested in a facility approved or certified by the United States Food and Drug Administration or similar national regulatory agency in another country which has been approved by the United States Food and Drug Administration; and (b) has been tested in animals to demonstrate preliminary effectiveness and to ensure that it is safe to administer to humans."
- 89. Tennessee: Tennessee Technological University (TTU) is the only source of supply since the state legislature legalized the use of CBD to treat seizures via statute in 2014. TTU is a public university.
- 90. Utah: There is no legal source of supply since the state legislature legalized the use of CBD to treat epileptic seizures via statute in 2014.
- 91. Vermont: Personal cultivation was the only source of supply from 2004-2011. The state legislature legalized medical marijuana and home cultivation thereof via a 2004 statute (SB 76). In 2011, the legislature passed a new statute (SB 17) authorizing commercial cultivation to supply marijuana.
- 92. Washington: Personal cultivation was the only source of supply from 1998-2012. The state legalized medical marijuana in a 1998 ballot initiative (I-692). The initiative authorized personal cultivation by defining medical use to include "the production, possession, or administration of marijuana." Section 6.1. See http://www.sos.wa.gov/elections/initiatives/text/i692.pdf. In 2012 the state legalized recreational marijuana in a ballot initiative (I-502) which also authorized state-regulated stores to serve both recreational and medical markets. In December 2013, the state Liquor Control Board which is responsible for overseeing state-licensed marijuana distributors recommended limiting personal cultivation by medical marijuana patients to 6 plants (from 15, or even more), but the regulation was not adopted. See https://lcb.app.box.com/MMJ-Final-Rec.
- 93. Wisconsin: The federal government is the only source of supply since the state legislature legalized the use of CBD to treat seizures via statute in 2014. The statute permits pharmacies and physicians to dispense CBD but only once the FDA issues an investigational drug permit, and at present, the FDA has approved only one source of supply for marijuana trials the federal government's National Center for Natural Products Research at the University of Mississippi.

Attestation

Kolmlin

0510,2014 (Date)

Robert A. Mikos Professor of Law Vanderbilt University Law School

End of Report

Exhibit B

Notary Public

My Commission Expires MAY 8, 2017

(Date)

Robert A. Mikos

6<u>t. 19</u> 20,4

(Date)

Ministère de la Justice Canada

900-840 Howe Street Vancouver, British Columbia V6Z 2S9 Telephone: 604-666-4031 Facsimile: 604-666-1284

Email: Robert.danay@justice.gc.ca

June 19, 2014

By Email to: Robert.mikos@vanderbilt.edu

Prof. Robert Mikos Vanderbilt University Law School 131 21st Ave. South Nashville, TN 37203

Dear Prof. Mikos:

Re: Allard et al. v. Her Majesty the Queen in Right of Canada

Instruction Letter for Expert Report

Thank you for agreeing to provide the Attorney General of Canada ("AGC") with an expert report in the matter of *Allard et al. v. Her Majesty the Queen in Right of Canada*. As discussed, this Federal Court litigation involves a constitutional challenge to the *Marihuana for Medical Purposes Regulations* (the "MMPR").

Background Information

The plaintiffs in this litigation, all of whom are medical marihuana users, are challenging the constitutionality of the MMPR on the basis that they cause several unjustified violations of their rights to liberty and security of the person under the Canadian *Charter of Rights and Freedoms*.

The plaintiffs' constitutional challenge in *Allard* focuses on four aspects of the MMPR that differ from the old medical marihuana regime: (1) the elimination of personal cultivation of marihuana in favour of requiring approved individuals to purchase from licensed producers; (2) the restriction that licensed producers may not cultivate marihuana in dwelling places or outdoor areas; (3) the limit on possession of marihuana to either 150g or 30 times the amount prescribed for daily consumption by the individual's medical practitioner, whichever is <u>less</u>; and (4) the failure of the MMPR to permit the production and possession of non-dried marihuana such as cannabis oils, salves, tinctures and edibles.

The plaintiffs have obtained an injunction from the Court that permits them to continue personal production of medical marihuana until the constitutionality of the MMPR is decided by the Court.

The AGC is the defendant and it is the AGC's position that the current medical marihuana regime is constitutionally sound, a position that will be defended by legal counsel

Facts and Assumptions

The facts alleged by the plaintiffs are outlined in the Amended Notice of Civil Claim which is enclosed.

Questions for Your Expert Report

Please address the following matters in your expert report:

- 1. In states in the United States that permit the use of marihuana for medical purposes, how are qualified residents supposed to obtain the drug? In particular, how do states regulate the supply of medical marihuana?
- 2. What explains the approaches that states have taken with respect to regulating the supply of marihuana for medical purposes?
- 3. Are there any trends with respect to state laws regulating the supply of marijuana, and if so, how can these trends be explained?

Format of Your Expert Report

Your report must be prepared in accordance with the Federal Courts Rules. As such, we ask that you do the following in the body of your report:

- 1. Set out the issues to be addressed in the report;
- 2. Describe your qualifications on the issues to be addressed;
- 3. Attach your current curriculum vitae as a schedule to the report;
- 4. Attach this letter of instruction as a schedule to the report;
- 5. Provide a summary of your opinions on the issues addressed in the report;
- 6. Set out the reasons for each opinion that is expressed in the report;
- 7. Attach any publications or other materials specifically relied on in support of the opinions;
- 8. If applicable, provide a summary of the methodology used in the report;
- 9. Set out any caveats or qualifications necessary to render the report complete and accurate, including those relating to any insufficiency of data or research and an indication of any matters that fall outside of your field of expertise; and,
- 10. Particulars of any aspect of your relationship with a party to the proceeding or the subject matter of your report that might affect your duty to the Court.

Please number each paragraph of your report as this will aid us in referring to your report in Court.

Please sign and date your report.

Duty to the Court

As an expert witness, you have a duty to the Court which is set out in the attached Code of Conduct for Expert Witnesses. Please carefully review this Code of Conduct and, after doing so, sign the attached Certificate and send it back to us.

Due Dates and Procedural Matters

We are required to file our expert reports on or before November 1, 2014. The trial has been set for three weeks commencing February 23, 2015. You may be required to attend the trial for cross-examination and, if so, we will attempt to accommodate your schedule to the extent possible.

Please keep all correspondence pertaining to this assignment in a separate "Expert Witness Report" folder.

We look forward to receiving a draft of your report the first week of September, 2013.

Please do not hesitate to contact me by telephone at 604-666-4031 if you require further information or have questions regarding the foregoing.

Yours truly,

Robert Danay

Counsel

Enclosures: Certificate for Expert Witnesses; Code of Conduct for Expert Witnesses; Amended Notice of Civil Claim

Exhibit C

STATE OF PUBLIC OF PUBLIC NOTARY Public OSON COUNTY PUBLIC OSON COUNTY

10-10-14

(Date)

Robert A. Mikos

Of 10, 2014

(Date)

Court File No. T-2030-13

FEDERAL COURT

BETWEEN:

NEIL ALLARD TANYA BEEMISH DAVID HEBERT SHAWN DAVEY

PLAINTIFFS

and

HER MAJESTY THE QUEEN IN RIGHT OF CANADA

DEFENDANT

Certificate Concerning Code of Conduct for Expert Witnesses

I, Robert Mikos, having been named as an expert witness by the Defendant, Her Majesty the Queen in Right of Canada, certify that I have read the Code of Conduct for Expert Witnesses set out in the schedule to the *Federal Courts Rules* and agree to be bound by it.

Date (SO , 2014

Robert Mikos

Vanderbilt University Law School

131 21st Ave. South Nashville, TN 37203

Exhibit D

Notary Public Son County My Commission Expires MAY 8.2017

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(Date)

Robert A. Mikos

04,10,2014

(Date)

ROBERT A. MIKOS

Vanderbilt University Law School 131 21st Ave. South Nashville, TN 37203 615,343.7184; robert.mikos@vanderbilt.edu

ACADEMIC APPOINTMENTS

Vanderbilt University Law School, Nashville, TN

Professor of Law, July 2008-present

Courses: Constitutional Law I (structure); Federalism; Drug Law and Policy; Federal Criminal Law; Marijuana Law and Policy (spring 2015); Sentencing, Corrections, and Punishment; Law & Government Workshop

Service: Director, Program in Law & Government, July 2011-present (Co-Director 2010-11); Organizer, VULS Drug Law & Policy Roundtable, March 2015; Member, Promotion and Renewal Committee, 2013-14; Member, Academic Planning Group, Vanderbilt University Strategic Planning, 2013; Chair, Tenure and Promotion Committee, 2012-13; Organizer, VULS Law & Government Workshop; Member, Lateral Appointments Committee, 2010-11; Organizer, Federalism Roundtable, February 2010; Member, Ad Hoc Disciplinary Committee, 2008-09

University of Notre Dame Law School, Notre Dame, IN

Visiting Associate Professor of Law, fall 2007

Courses: Criminal Law; Law and Economics

University of California, Davis, School of Law, Davis, CA

Acting (Assistant) Professor of Law, July 2003-June 2008

Courses: Constitutional Law I (structure and rights); Criminal Law; Law and Economics; Antitrust

• Nominated for William and Sally Rutter Distinguished Teaching Award in 2005 and 2006 Service: Organizer, UC Davis Legal Theory Workshop, 2008; Member, Admissions Committee, 2005-06; Member, Educational Policy Committee, 2004-05

University of Michigan Law School, Ann Arbor, MI

Adjunct Professor of Law, 2002-2003 (taught Economic Analysis of Law) Research Fellow, John M. Olin Center for Law and Economics, 2002-2003

EDUCATION

University of Michigan Law School, Ann Arbor, MI

J.D., summa cum laude, May 2001

Henry M. Bates Memorial Scholarship, the law school's highest honor, May 2001 Darrow Scholar, 1998-2001

Article Editor (Vol. 99) and Associate Editor (Vol. 98), Michigan Law Review

John M. Olin Fellow in Law and Economics, 2000-2001

Saul L. Nadler Award, outstanding work in commercial and corporate law Order of the Coif

Princeton University, Princeton, NJ

A.B., Woodrow Wilson School of Public and International Affairs, cum laude, June 1995

ARTICLES

- Marijuana Localism ___ Case Western University Law Review ___ (forthcoming 2015) (symposium contribution)
- Indemnification, not Interposition, ___ Montana Law Review ___ (forthcoming 2015) (symposium contribution)
- <u>Preemption Under the Controlled Substances Act</u>, 16 Journal of Health Care Law & Policy 5 (2013) (symposium contribution)
- Can the States Keep Secrets from the Federal Government? 161 University of Pennsylvania Law Review 103 (2012)
- Medical Marijuana and the Political Safeguards of Federalism, 89 University of Denver Law Review 997 (2012) (symposium contribution)
- <u>A Critical Appraisal of the Department Of Justice's New Approach to Medical Marijuana</u>, 22 Stanford Law & Policy Review 633 (2011) (commissioned Features Article)
- <u>State Taxation of Marijuana Distribution and Other Federal Crimes</u>, 2010 University of Chicago Legal Forum 223 (2010) (symposium contribution)
- On the Limits of Supremacy: Medical Marijuana and the States' Overlooked Power to Legalize Federal Crime, 62 Vanderbilt Law Review 1421 (2009)
 - Updated and revised in *On the Limits of Supremacy: When States Relax (or Abandon) Marijuana Bans*, Cato Policy Analysis, Nov. 2012
- The Populist Safeguards of Federalism, 68 Ohio State Law Journal 1669 (2007)
- <u>Do Citizens Care About Federalism? An Experimental Test</u> (with Cindy D. Kam) 4 Journal of Empirical Legal Studies 589 (2007)
 - Awarded grant from Time-Sharing Experiments for the Social Sciences (3rd Special Competition)
- "Eggshell Victims", Private Precautions, and the Societal Benefits of Shifting Crime, 105 Michigan Law Review 307 (2006)
- Enforcing State Law in Congress's Shadow, 90 Cornell Law Review 1411 (2005)
- The (Legal) Value of Chance: Distorted Measures of Recovery in Private Law (with Omri Ben-Shahar), 7 American Law and Economics Review 484 (2005)

BOOK CHAPTERS & ENCYCLOPEDIA ENTRIES

<u>Accuracy in Criminal Sanctions</u>, in RESEARCH HANDBOOK ON THE ECONOMICS OF CRIMINAL LAW 84 (forthcoming 2012) (Keith Hylton & Alon Harel, eds.)

United States v. Butler, in Encyclopedia of the United States Supreme Court (2008)

SCHOLARLY WORKS IN PROGRESS

Making Preemption Unpalatable: State Poison Pill Legislation

Compliance in Federal Systems

Reverse Preemption

Power in a Federal System

BLOGGING AND OTHER SHORTER WORKS

Guest Blogger, Marijuana Law, Policy, & Reform (Jan. 2014-present); sample posts:

- Could President Obama Single-handedly legalize marijuana?
- Are contracts with marijuana dealers enforceable?
- Why local governments should not be allowed to opt out of marijuana legalization (or prohibition)
- Banks suggest recent federal banking guidance changes nothing (and they're probably right)
- Which poses the bigger threat: Big Marijuana or Little Marijuana?
- This is your brain on drugs: what a recent fMRI study can and can't tell us about the effects of marijuana use

Almost Legal? What Government Lawyers Should Know about Marijuana's Confusing Legal Status, 19 The Public Lawyer 18 (summer 2011)

Tax Dreams of Drug Decriminalization, politico.com, Oct. 20, 2010 (op-ed)

LEGAL BRIEFS

Brief Amici Curiae of the CATO Institute, Drug Policy Alliance, and Law Enforcement Against Prohibition, Ter Beek v. City of Wyoming, Supreme Court of Michigan, August, 2013 (principal author)

PRESENTATIONS & CONFERENCE PARTICIPATION

Vanderbilt University Law School, Drug Law & Policy Roundtable, March 2015 (organizer and presenter)

University of Florida Law School, Poucher Lecture, National Marijuana Policy, October 2014 (lecturer)

Honorable James R. Browning Symposium, University of Montana School of Law, October 2014 (Indemnification, not Interposition)

Case Western Reserve University School of Law, Federalism and Marijuana Conference, September 2014 (Marijuana Localism)

Lessons Learned: Recreational Marijuana Roundtable Discussion, University of Denver Sturm College of Law, February 2014 (moderator)

Center for the Study of Democratic Institutions, Vanderbilt University, December 2013 (State Poison Pill Legislation)

The Federalist Society National Lawyers Convention, Federalism Practice Group Session, November 2013 (panelist)

University of Wisconsin Discussion Group on Constitutionalism, Federalism in Flux: The United States and Beyond, November 2013 (State Poison Pill Legislation)

American Constitution Society, Federalism, Preemption, and Marijuana Legalization Convening, Washington, D.C., April 2013 (participant)

University of Notre Dame Law Faculty and Law & Economics Workshops, March 2013 (Compliance in Federal Systems)

PRESENTATIONS CONT'D

Tennessee Attorney General's Office, The United States of Marijuana?, March 2013 (CLE presentation)

Cato Institute, The Law and Politics of Marijuana Legalization, Washington, D.C., December 2012 (panelist)

Centers for Disease Control, Law and Science Advisory Group, November 2012 (Can the States Keep Secrets from the Federal Government?)

VULS, Up in Arms: Panel Discussion of the Second Amendment, October 2012 (moderator)

Columbia University Law School, Criminal Law Roundtable, May 2012 (Compliance in Federal Systems)

University of Maryland, Conference on Balancing Science and Politics: The Challenges of Implementing Medical Marijuana Laws, April 2012 (Medical Marijuana Preemption Issues)

University of Denver Law School, Symposium on Marijuana at the Crossroads, January 2012 (Medical Marijuana and the Political Safeguards of Federalism)

Conference on Empirical Legal Studies, Northwestern University School of Law, November 2011 (Compliance in Federal Systems)

Emory University School of Law, Conference on Climate Change and Dissensus, October 2011 (Compliance in Federal Systems)

Loyola Constitutional Law Colloquium, October 2011 (Commandeering States' Secrets)

Midwestern Law & Economics Association Annual Meeting, September 2011 (Compliance in Federal Systems)

University of Colorado Law Faculty Workshop, April 2011 (A Critical Appraisal)

National Organization for the Reform of Marijuana Laws Annual Conference, April 2011 (A Critical Appraisal)

University of Texas Conference on the Future of Federalism, February 2011 (discussant)

VULS Federalism Roundtable, February 2010 (Commandeering States' Secrets)

St. Louis University Law School Faculty Workshop, February 2010 (State Taxation of Federal Crime)

University of Chicago Legal Forum, Symposium on Crime, Criminal Law, and the Recession, October 2009 (State Taxation of Federal Crime)

Midwestern Law & Economics Association Annual Meeting, October 2009 (State Taxation of Federal Crime)

VULS Criminal Law Roundtable, September 2009 (discussant)

Owen School of Management, Vanderbilt University, September 2009 (Drug Legalization)

VULS Faculty Workshop, May 2009 (Co-optive Federalism)

AALS Conference on Constitutional Law, June 2008 (Populist Safeguards)

The Ohio State University, Moritz College of Law, Law Faculty Workshop, February 2008 (State Supervision of Federal Crime)

University of Notre Dame CLE Program, November 2007 (State Supervision of Federal Crime)

VULS Faculty Workshop, October 2007 (Regulating Medical Marijuana)

University of Texas Law School Faculty Workshop, October 2007 (Regulating Medical Marijuana)

PRESENTATIONS CONT'D

University of Notre Dame Law Faculty Workshop, October 2007 (Regulating Medical Marijuana)

Midwestern Law & Economics Association Annual Meeting, October 2007 (Regulating Medical Marijuana Under the Influence of the Controlled Substances Act)

University of Michigan Law & Economics Workshop, March 2007 (Populist Safeguards)

University of Virginia Legal Studies Workshop, February 2007 (Populist Safeguards)

University of Notre Dame Law Faculty Workshop, December 2006 (Populist Safeguards)

Conference on Empirical Legal Studies, University of Texas, October 2006 (Do Citizens Care About Federalism?) (poster presentation)

Midwestern Law & Economics Association Annual Meeting, University of Kansas, October 2006 (The Populist Safeguards of Federalism)

Canadian Law & Economics Association Annual Meeting, University of Toronto, September 2006 (Reining in Leviathan)

Law & Society Annual Meeting, Baltimore, July 2006 (The Societal Benefits of Shifting Crime)

Canadian Law & Economics Association Annual Meeting, University of Toronto, September 2005 (The Law and Economics of Crime Displacement)

American Political Science Association Annual Meeting, Washington, D.C., September 2005 (The Impact of Federalism on Public Support for Federal Legislative Action) (with Cindy D. Kam)

American Law & Economics Association Annual Meeting, New York University, May 2005 (The Impact of Federalism on Public Support for Federal Legislative Action) (with Cindy D. Kam)

University of California, Davis, Faculty Lunch Talk, October 2004 (Federalism and Citizen Support for Congressional Legislation)

Midwest Political Science Association Annual Meeting, April 2004 (Explaining Member State Compliance with Decisions of the European Court of Justice)

Cornell Law School Faculty Workshop, November 2002 (State Crimes Carrying Federal Sanctions)

University of Michigan Legal Theory Workshop, September 2002 (State Crimes Carrying Federal Sanctions)

University of Michigan Law & Economics Workshop, November 2001 (Recovery for "Chance": The Law and Economics of Probabilistic Value)

American Law & Economics Association Annual Meeting, Georgetown University, May 2001 (Recovery for "Chance": The Law and Economics of Probabilistic Value) (with Omri Ben-Shahar)

PROFESSIONAL EXPERIENCE

Weintraub, Genshlea, Chediak, LLC, Sacramento, CA Legal Consultant, 2007-08

The Honorable Michael Boudin, Chief Judge, U.S. Court of Appeals for the First Circuit, Boston Law Clerk, 2001-2002

Williams & Connolly, Washington, DC Summer Associate, summer 2000

United States Attorney's Office, District of Minnesota, Minneapolis, MN Summer Law Clerk, summer 1999

The Parthenon Group, strategy consulting firm, Boston, MA Principal, Senior Associate, and Associate, May 1996-May 1998

Braxton Associates, the strategy consulting division of Deloitte & Touche, LLP, Boston, MA Business Analyst, August 1995-April 1996

OTHER PROFESSIONAL ACTIVITIES

Peer Reviewer

International Review of Law and Economics; Journal of Business Ethics; Journal of Empirical Legal Studies; Journal of Law, Medicine, & Ethics; Journal of Legal Studies; Journal of Politics; Law & Social Inquiry; Political Research Quarterly; Publius: The Journal of Federalism; Yale Law Journal

Select Media Appearances / Mentions:

Associated Press; Bloomberg News; Christian Science Monitor; CNN; Denver Post; El País; Fox News; Governing Magazine; Huffington Post; NPR; New Scientist; OZY; Politico; Radio Free Europe; Reason.com; Reuters; Rolling Stone Magazine; Sacramento Bee; San Diego Union Tribune; San Jose Mercury News; Seattle Times; Slate.com; Tampa Bay Times; Tennessean; Time; The Wall Street Journal