TESTIMONY OF <u>Derek William Rosenzweig</u> BEFORE THE PENNSYLVANIA SENATE COMMITTEE ON LAW AND JUSTICE IN FAVOR OF SB 1182 The RAYMOND SHAFER COMPASSIONATE USE ACT OF 2014

Chairmen McIlhinney and Ferlo, members of the Committee, hello and thank you for the opportunity to be heard on the subject of SB1182, the Raymond Shafer Compassionate Use of Medical Cannabis Act. For a variety of reasons, I am very much in favor of this important legislation. I urge this Committee to swiftly schedule a vote in order to move this. There is much to say on this subject, so I beg your forgiveness for the length of this testimony.

First, a little about myself. My name is Derek Rosenzweig, and I am a software developer and aspiring musician from Warminster, PA. I served on the Board of Directors for the National Organization for the Reform of Marijuana Laws, Philadelphia chapter, for 6 years, and currently volunteer with that organization. I've lived in Pennsylvania all my life; grew up in Levittown and received my Bachelors of Science in Computer Science at Drexel University in 2006. I am writing on behalf of myself, my father, my grandmother, and other friends, acquaintances, and members of my family (among the millions of other Pennsylvania residents) who would potentially benefit from the passage of this bill.

Marijuana - Current Schedule I Placement

Marijuana is currently listed as a Schedule I drug under Pennsylvania law by the Controlled Substance, Drug, Device and Cosmetic Act. Federal law also lists marijuana as a Schedule I drug. Both of these placements are contrary to science, history, and medicine. Marijuana does not meet any of the criteria for placement in Schedule I, and placement there is dependent on a substance meeting all three of the following criteria:

- 1.) a high potential for abuse; AND
- 2.) no currently accepted medical use in the United States; AND
- 3.) a lack of accepted safety for use under medical supervision

1.) High Potential for Abuse

There is no record in the extensive medical literature describing a proven, documented cannabis-induced fatality⁽⁵⁾. In fact, there is no known LD-50 in humans for marijuana (LD-50 is a term describing the median lethal dose of a given substance, or how much of a substance will kill 50% of a given population). In 1988, the DEA responded to a petition to remove marijuana from Schedule 1. DEA Administrative Law Judge Francis Young concluded in his landmark ruling:

"At present it is estimated that marijuana's LD-50 is around 1:20,000 or 1:40,000. In layman terms this means that in order to induce death a marijuana smoker would have to consume 20,000 - 40,000 times as much marijuana as is contained in one marijuana cigarette. NIDA-supplied marijuana cigarettes weigh approximately 0.9 grams. A smoker would theoretically have to consume nearly 1,500 pounds of marijuana within about fifteen minutes to induce a lethal response. (6)"

This is due to the way cannabinoids interact with our biology. The endocannabinoid system, a series of receptor sites throughout the body and brain, bind the various cannabinoids when consumed. What's important to note is where the receptors for these cannabinoids reside in our bodies - in the brain, they exist in the cerebral cortex, the hippocampus, the cerebellum, and the Basal ganglia. These areas, respectively, control: memory, pain, perception, higher thinking and emotions; memory; movement; co-ordination. The receptors also reside in our immune system, pituitary gland, thyroid gland, gastrointestinal system, fat cells, muscle cells, liver cells, the lungs

and kidneys⁽¹²⁾. Unlike opiate receptors, they do not reside in the parts of the brain that control breathing or autonomic functions.

In 1944, New York Mayor Fiorello LaGuardia commissioned research⁽³⁾ to be performed by the New York Academy of Science. Among their conclusions: they found marijuana did not lead to significant addiction in the medical sense of the word. They also did not find any evidence that marijuana led to morphine, heroin or cocaine addiction⁽⁴⁾ (what's usually, and incorrectly, called the "gateway theory").

According to the 2012 National Survey on Drug Abuse and $Health^{(8)}$, approximately 18.9 million Americans 12 or older who were surveyed used marijuana within the last month; 31.5 million reported using it in the last year⁽⁹⁾; and only 5.4 million reported use on a daily/almost daily basis.

A number of studies have shown that marijuana is not addictive. According to the National Institute on Drug Abuse $^{(1)}$, approximately 9% of cannabis users become dependent. For comparison, approximately 15% of alcohol users become dependent, and 30-32% of tobacco users become addicted. Heroin hooks 23-25% of users. Cocaine, a Schedule II substance, causes addiction in about 17-20% of users $^{(31)}$. Aside from heroin, none of these substances are listed in Schedule I, so it strikes me as unreasonable that marijuana is, given the facts.

In strict clinical terms, a diagnosis of dependence is only one part of a diagnosis of full-on addiction. Addiction consists of the following⁽²⁾:

- Withdrawal: Presence and severity of characteristic withdrawal symptoms.
- **Reinforcement:** A measure of the substance's ability, in human and animal tests, to get users to take it again and again, and in preference to other substances.
- **Tolerance:** How much of the substance is needed to satisfy increasing cravings for it, and the level of stable need that is eventually reached.
- **Dependence:** How difficult it is for the user to quit, the relapse rate, the percentage of people who eventually become dependent, the rating users give their own need for the substance and the degree to which the substance will be used in the face of evidence that it causes harm.
- **Intoxication:** Though not usually counted as a measure of addiction in itself, the level of intoxication is associated with addiction and increases the personal and social damage a substance may do.

Marijuana's score on these criteria indicates, relative to other highly used substances, that it is among the least likely to cause dependence and withdrawal. Some people who regularly use cannabis, upon cessation of use, do report mild withdrawal symptoms. These symptoms can include anxiety, nausea, and insomnia. These typically last only a couple days and are mild⁽⁴⁾. Withdrawal from alcohol, in comparison, can be so severe that it can cause death. A persons tolerance from using cannabis increases by a much smaller amount than any compared drug. Typically, a regular user will feel the same effect from one or two puffs from a pipe more than a person who does not use it regularly. At the potency levels of many marijuana strains today, a person doesn't even need to smoke a whole joint to feel the effect they want. The effects of marijuana typically last 3 - 4 hours, with peak effect (plateau) happening roughly 15 - 30 minutes after smoking or vaporizing it⁽¹¹⁾.

Marijuana can make a user feel euphoric, lifting the mood and lowering depression. This can increase its reinforcement score to slightly higher than caffeine. At lower doses it can significantly lower anxiety, though at high doses not mitigated by other compounds in cannabis (such as CBD) it can raise anxiety. Marijuana could be considered intoxicating, but not in the same way as alcohol. Whereas alcohol inhibits a person's ability to make rational decisions in their best interest, and seriously inhibits motor control, marijuana does not. Marijuana can also cause some slight paranoia, dry-mouth, red eyes, and "the munchies". Generally, the effects of marijuana are well tolerated.

After years of maintaining that marijuana is a dangerous narcotic, President Barack Obama recently conceded that, "I don't think [marijuana] is more dangerous than alcohol," and that in regards to the individual user, it is less dangerous than alcohol⁽¹⁰⁾. Technically, marijuana is objectively safer than alcohol. The two substances are radically different from each other and how they interact with the human body. The question becomes, can a person use cannabis responsibly without abusing it or becoming addicted? The facts, data, history, and medical record suggests that for the vast majority of people, the answer is yes.

It can therefore be argued that marijuana does not have a high potential for abuse. Perhaps a low-to-moderate potential. Dr. Sanjay Gupta, CNN Medical Correspondent, said⁽⁴⁾ after over a year of researching medical marijuana and realizing how incredibly wrong he was about it for his entire life:

"[...] it is hard to make a case that [marijuana] has a high potential for abuse. The physical symptoms of marijuana addiction are nothing like those of the other drugs I've mentioned."

That determination alone means that marijuana does not meet the criteria for placement in Schedule I.

2.) No Currently Accepted Medical Use in the United States

Marijuana was added to the US Pharmacopeia in 1850. Between then and 1937, it was used for all kinds of ailments including neuralgia, tetanus, typhus, cholera, rabies, dysentery, alcoholism, opiate addiction, anthrax, leprosy, incontinence, gout, convulsive disorders, tonsillitis, insanity, excessive menstrual bleeding, and uterine bleeding, among others. Patented marijuana tinctures were sold all over the United States. Marijuana was first made Federally illegal in 1937 through the "Marihuana Tax Act", and it wasn't until 1942 that it was removed from the US Pharmacopeia⁽²⁷⁾. The passage of the Marihuana Tax Act, and the subsequent removal of marijuana from the pharmacopeia, was not based on sound science. It was primarily due to misinformation on the part of William Randolph Hearst and Harry Anslinger's campaign against African-American minorities and Mexican immigrant workers.

Since 1996, twenty one (21) states, plus Washington D.C., have legalized marijuana for medical use. That is 42% of states in the USA. The cannabinoids in cannabis (Δ 9THC, Δ 9THC-A, Δ 8THC, CBD, and CBN among others) provide the sought after effects. These palliative effects include muscle relaxation, stress relief, pain relief, headache/migraine relief, anti-inflammation, and reduced nausea. To date, there are over 20,000 published studies or reviews in the scientific literature referencing the cannabis plant and its cannabinoids, nearly half of which were published within the last five years according to a key word search on the search engine PubMed Central⁽¹⁶⁾. Over eighty two percent (82%) of Pennsylvanians consider marijuana to have medical value, and believe the Commonwealth should legalize it for medical use. Thirty six percent (36%) believe it should be legal in general⁽¹⁵⁾.

Marijuana has been shown to help people with arthritis, epilepsy, seizures, cancer, HIV/AIDS, chronic pain, neuropathic pain, asthma, spasticity, glaucoma, dementia, Cronh's disease, depression, post-traumatic stress disorder, ALS (Lou Gehrig's Disease), Alzheimer's disease, and multiple sclerosis⁽¹⁶⁾. In addition to treating pain management, spasticity, depression, and fatigue, there is some evidence that cannabinoids present in marijuana can inhibit the progression of multiple sclerosis⁽¹⁹⁾. Marijuana has been shown to be neuro-protective, stimulating grown of brain cells and protecting the brain during trauma. DEA Judge Francis Young's findings in 1988 included testimony from fifty (50) physicians who accept that marijuana has medical value - and that's just for Multiple Sclerosis⁽⁷⁾. This was, again, in 1988. Medical science has since determined innumerable medical uses for marijuana and its constituent cannabinoids.

Research also indicates that in concentrated doses, cannabinoids can trigger apoptosis (programmed cell death) in glioblastoma (brain cancer) cells while ignoring healthy ones $^{(17)}$. Cannabinoids are being researched to treat various types of cancer, including breast cancer, colon cancer, and lung cancer. This research is still in its early stages $^{(28)}$, is extensive $^{(20)}$, yet is held back

by Federal policies. This research shows that preparations of hash oil, such as the widely known "Rick Simpson Cannabis Oil⁽¹⁸⁾" preparation, deserve to be put through further research and medical trials. Many people who have used cannabis oil preparations reported a complete remission of their cancer; however, more research, especially placebo-controlled, double blind studies, are needed to make that determination in humans for specific types of cancer. That type of research will only be possible once marijuana has been legalized for medical use. Since SB1182 allows for medical marijuana research of this type, I am in favor of it.

Institute of Medicine

In 1996, after California passed Proposition 215, the Clinton Administration commissioned the National Academy of Sciences' Institute of Medicine to report on medical marijuana. In 1999 they released their report, entitled "Marijuana and Medicine - Assessing the Science Base⁽¹³⁾. "In that report, they came to the conclusion that marijuana has significant potential as medicine for a number of ailments; that "except for the harms associated with smoking, the adverse effects of marijuana use are within the range of effects tolerated for other medications," and that "the short-term immunosuppressive effects are not well established but, if they exist, are not likely great enough to preclude a legitimate medical use." The report concluded:

"Scientific data indicate the potential therapeutic value of cannabinoid drugs, primarily THC, for pain relief, control of nausea and vomiting, and appetite stimulation; smoked marijuana, however, is a crude THC delivery system... ...Because of the health risks associated with smoking, smoked marijuana should generally not be recommended for long-term medical use. Nonetheless, for certain patients, such as the terminally ill or those with debilitating symptoms, the long-term risks are not of great concern. Further, despite the legal, social, and health problems associated with smoking marijuana, it is widely used by certain patient groups. (13)"

President Clinton's administration unfortunately did not act on this report, and marijuana has remained under Federal Schedule 1 placement to this day. Research continues, including lines recommended by the IoM report.

With the advent of vaporization, the problems associated with smoking essentially vanish. In comparison with smoking, vaporization offers a number of advantages. Most important is the lack of combustion gases such as carbon monoxide. Vaporization is just as effective as smoking, and is actually more efficient. According to a study conducted by Dr. Donald Abrams,

"Vaporization of marijuana does not result in exposure to combustion gases, and therefore is expected to be much safer than smoking marijuana cigarettes. The vaporizer was well tolerated and preferred by most subjects compared to marijuana cigarettes. The Volcano's device is an effective and apparently safe vehicle for THC delivery, and warrants further investigation in clinical trials of cannabis for medicinal purposes. (14)"

Just as with smoking, patients are able to control their dose via titration, stopping once they feel the desired effect.

Center for Medicinal Cannabis Research

California established, as part of their medical marijuana program, a Center for Medicinal Cannabis Research. Since 2000, the CMCR has worked to "...conduct high quality scientific studies intended to ascertain the general medical safety and efficacy of cannabis and cannabis products and examine alternative forms of cannabis administration. (21)" Their February 2010 report examined the results of seven clinical studies published, or submitted for publication. These topics included:

- 1. Cannabis for Treatment of HIV-Related Peripheral Neuropathy
- 2. Vaporization as a Smokeless Cannabis Delivery System
- 3. Short-Term Effects of Cannabis Therapy on Spasticity in MS

- 4. Placebo-controlled, Double Blind Trial of Medicinal Cannabis in Painful HIV
- 5. Analgesic Efficacy of Smoked Cannabis
- 6. Double Blind, Placebo Controlled Trial of Smoked Marijuana on Neuropathic Pain

The CMCR report⁽²²⁾ summarized:

"By design CMCR clinical studies focused on conditions identified by the Institute of Medicine for which cannabis might have potential therapeutic effects, based on current scientific knowledge (Institute of Medicine, 1999). To date, four CMCRfunded studies have demonstrated that cannabis has analgesic effects in pain conditions secondary to injury (e.g. spinal cord injury) or disease (e.g. HIV disease, HIV drug therapy) of the nervous system. This result is particularly important because three of these CMCR studies utilized cannabis as an add-on treatment for patients who were not receiving adequate benefit from a wide range of standard pain-relieving medications. This suggests that cannabis may provide a treatment option for those individuals who do not respond or respond inadequately to currently available therapies. The efficacy of cannabis in treatment-refractory patients also may suggest a novel mechanism of action not fully exploited by current therapies. In addition to nerve pain, CMCR has also supported a study on muscle spasticity in Multiple Sclerosis (MS). Such spasticity can be painful and disabling, and some patients do not benefit optimally from existing treatments. The results of the CMCR study suggest that cannabis reduces MS spasticity, at least in the short term, beyond the benefit available from usual medical care."

and concluded:

"As a result of this program of systematic research, we now have reasonable evidence that cannabis is a promising treatment in selected pain syndromes caused by injury or diseases of the nervous system, and possibly for painful muscle spasticity due to multiple sclerosis. Obviously more research will be necessary to elucidate the mechanisms of action and the full therapeutic potential of cannabinoid compounds. Meanwhile, the knowledge and new findings from the CMCR provide a strong science-based context in which policy makers and the public can discuss the place of these compounds in medical care."

Personal Note

Passing SB1182 is of high priority for me because of my father, Louis Rosenzweig. My father worked as an employee of the US Post Office for 16 years before his condition forced him onto medical leave. While I was growing up, he taught me many things about life; being a man, taking responsibility, how to drive, how to play baseball, to study hard, how to be a leader, among countless others. He was a good father and is a good man.

After numerous mis-diagnoses, in 2003 my father was diagnosed with Reflex Sympathetic Dystrophy (RSD), also known as Complex Regional Pain Syndrome (CRPS). RSD is a chronic neurological/neuropathic syndrome characterized by severe burning pain, burning sensations, pathological changes in bone and skin, excessive sweating, tissue swelling and extreme sensitivity to touch. This leaves him in almost endless and random pain. One minute he'll be sitting on the couch watching TV, the next he'll have agonizing back/neck pain because he slightly moved his head. Stubbing a toe, something which you or I would get over after a minute or so, would be painful to him for the rest of the day, if not the next. Sunlight, light touch, and excess vibration can cause pain. It's a rare condition that can follow 5% of all nerve injuries, and can be caused by even minor injuries such as a sprain or a fall.

Things like going out to come visit me at my home, going to the theater to see a movie, going to family functions/holiday dinners, going to the ballpark to watch a game... have been out of the question since 2004. Going for a car ride can cause him to be in pain for days. He was barely able to make it halfway through my sister's wedding reception this past November, luckily he made

it through the ceremony. He has one of the worst cases of RSD known to his doctors. His history of treatment includes the following:

- 4/02 and 5/02, physical therapy;
- 6/02 and 7/02, cervical epidurals;
- 12/02, acupuncture;
- 1/03, nerve root injection. 4/03, carpal tunnel injection;
- 7/22/03, 7/29/03, sympathetic nerve block;
- 8/03, stellate ganglion block;
- 10/03, quantitative sensory testing;
- 11/03 inpatient stay intrapleural catheter with bupivacaine 3 days;
- 2/04, IV with lidocaine in hickman catheter 4 days;
- 5/05, inpatient stay 4 days, IV with ketamine drip.
- 5/06, psychological help and biofeedback.

At many points during his treatment, it was impossible for him to hold a conversation with me or my family without these horrible pharmaceuticals affecting his memory, speech, and ability to stay awake. It should be noted that the effects of marijuana are much better tolerated than any of the medications listed. His history of prescribed medicines includes the following:

- Pamelor 10mg, did not help;
- Neurontin 300mg, made him spaced out;
- Percodan 5/325, then Percocet 5/325, made him tired and constipated and only helped a little;
- Paxil 10mg, didn't help;
- Fentanyl patch, didn't work, caused allergic reaction;
- Oxycontin 10mg larger dose caused reaction;
- Ultram 50 mg no help;
- Pamelor 10mg and neurontin 300 mg at same time, really made him spaced out;
- Colace for constipation;
- MS Contin (morphine) 15mg, larger dose caused reaction;
- Zanaflex 4mg, made him very tired;
- Lexapro for depression, didn't help;
- Oxycodone 5mg am still on, this one helps with pain some, causes constipation;
- Valium 5mg. and miralax for constipation, still on;
- Wellbutrin and Zoloft for depression didn't help;
- Lvrica 50 mg made him tired;
- MS Contin (morphine) 15mg, then switched to Opana 40mg

I was able to convince him to try vaporizing some cannabis a few times a couple of years ago after the medical marijuana bill in the PA House died in committee, and it did help him without causing any problems. Given its current illegal status, my dad is reluctant to use it on any kind of regular basis. He rightly doesn't want to risk jail time, nor the jail time that someone helping him obtain cannabis would face if caught. His pain management physician is required to drug test him, and as you well know, cannabinoid metabolites can persist in the human system for up to 30 days after use. His pain management physician would be required to cease my father's pain medication if he tested positive for marijuana. My dad could gain a palliative benefit and higher quality of life by using marijuana as a regular part of his medical regimen. A study entitled "Effects of Vaporized Marijuana on Neuropathic Pain⁽²⁴⁾" attempted to determine if participants would report a 30% or greater reduction in pain intensity, and concluded:

"Ten of the 38 subjects (26%) who were exposed to placebo had a 30% reduction in pain intensity as compared to 21 of the 37 exposed to the low dose (57%) and 22 of the 36 receiving the medium dose (61%) of cannabis."

A "low dose" in this context is 1.29% THC by weight; "medium/mild dose" is 3.53% THC. Higher doses were not tested. This study tested the conditions Neuropathic Pain, Reflex Sympathetic Dystrophy, Peripheral Neuropathy, Post-herpetic Neuralgia, Spinal Cord Injury, and Multiple Sclerosis. Besides the clinical research, which concluded that:

"Psychoactive effects were minimal and well tolerated, and neuropsychological effects were of limited duration and readily reversible within 1 to 2 hours. Vaporized cannabis, even at low doses, may present an effective option for patients with treatment-resistant neuropathic pain⁽²⁶⁾."

Numerous anecdotal reports have shown RSD and chronic pain patients to do better with medical cannabis than without it. A 30% reduction in pain intensity might enable my father to reduce the use of some of his other narcotic medications, thus helping avoid some of the more unsavory side effects of said medications.

My father deserves the best possible treatment for his condition, and passing SB1182 would give his doctors the freedom to provide written certification for medical marijuana. He could then use it without fear of going to jail or losing his pain management physician. *There is no possible moral, ethical, or legal justification for denying him, or others like him, the medical benefits of marijuana.*

In addition to my father, my Grandmother would benefit from medical cannabis for her rheumatoid arthritis; my cousin Kellen, at only 2 years old, who had to undergo numerous chemotherapy treatments for liver cancer⁽²⁵⁾, could have had to endure less - or no - chemotherapy if cannabis oil were available to his physicians and hospital staff as a medical tool. A series of cannabis oil injections into the tumor site on his liver could have shrunk the tumor without causing damage, which unfortunately the chemotherapy did. His treatment regimen caused him hearing loss. Thankfully, he is in complete remission and is doing very well now. Many others are not so lucky. Chemo-therapy can be very damaging to healthy cells and tissue, whereas cannabis oil is known to only kill cancer cells and leave normal tissue alone.

Conclusion: Currently Accepted Medical Use in the United States Exists

Throughout the last decade researching marijuana and my years working with PhillyNORML, I've met dozens of patients with conditions ranging from HIV/AIDS to severe PTSD, and all of them self reported receiving medical benefits from using cannabis, and many reported being able to quit or significantly reduce use of pharmaceutical narcotics prescribed by their physicians. Some of whom, such as Barry Busch, a longtime activist and HIV patient, have unfortunately since passed away due to their conditions.

The fact that marijuana has such overwhelming evidence for its medical value, and is currently being used to treat conditions in 21 states and Washington D.C., means that marijuana does not meet the criteria for placement in Schedule I.

SB1182's definition of a "Debilitating medical condition" for which cannabis can provide medical value is well thought out and is in line with current medical literature, research, clinical trials, and anecdotal evidence. It lists "Chronic pain" or its treatment as a condition, which would cover my father's RSD. Whether it can do it more effectively and/or more safely than other treatments, should be left up to the medical professionals to make the final determination. Since the medical and scientific literature have clearly shown that marijuana has a currently accepted medical value in the United States SB1182 does this, and also allows for a process to more specifically add conditions through the legislative process, I am very much in favor of its passage.

3.) A Lack of Accepted Safety for Use Under Medical Supervision

As previously mentioned, it is impossible to die from using marijuana. Substances with potential harm considerably higher than marijuana, such as Percocet, Vicodin, Warfarin, Viagra, and thousands of others, are used every day by millions of Americans with or without medical supervision. Millions of humans have used marijuana safely, at all sorts of dosages, for over 5,000 years, the vast majority with no medical supervision.

President Barack Obama recently conceded that, "I don't think [marijuana] is more dangerous than alcohol," and that in regards to the individual user, it is less dangerous than

alcohol⁽¹⁰⁾. DEA Judge Francis Young, in his 1988 hearing findings concluded that, among other things:

"Another common medical way to determine drug safety is called the therapeutic ratio. This ratio defines the difference between a therapeutically effective dose and a dose which is capable of inducing adverse effects... By contrast, marijuana's therapeutic ratio, like its LD-50, is impossible to quantify because it is so high."

"In strict medical terms marijuana is far safer than many foods we commonly consume. For example, eating 10 raw potatoes can result in a toxic response. By comparison, it is physically impossible to eat enough marijuana to induce death. Marijuana in its natural form is one of the safest therapeutically active substances known to man. By any measure of rational analysis marijuana can be safely used within the supervised routine of medical care⁽⁵⁾."

On the subject of marijuana's safety, Dr. Lester Grinspoon, MD, Professor of Psychiatry at Harvard Medical School, stated:

"There are many thousands of patients who currently use cannabis as a medicine... There is no question about its safety. It is one of humanity's oldest medicines, used for thousands of years by millions of people with very little evidence of significant toxic effects. More is known about its adverse effects than about those of most prescription drugs. (30)"

On the subject of increased potency of marijuana today compared to even the 1970s, he notes:

"The whole issue on potency is a red herring. The more potent the pot, the less you use. Marijuana users smoke until they achieve symptom relief, and then stop, whether it took two hits or an entire joint. In this regard, today's higher-potency pot is no more 'dangerous' than the bunk weed of yesteryear⁽³⁰⁾."

National Commission on Marihuana and Drug Abuse (a.k.a. the Shafer Report)

Starting in 1971, the US Government began funding a commission to report on the state of marijuana. Colloquially known as the Shafer Commission or Shafer Report, and the basis of the name of SB1182. This report concluded that:

"A large amount of research has been performed in man and animals regarding the immediate effect of marihuana on bodily processes. No conclusive evidence exists of any physical damage, disturbances of bodily processes or proven human fatalities attributable solely to even very high doses of marihuana. Recently, animal studies demonstrated a relatively large margin of safety between the psychoactive dose and the physical and behavioral toxic and lethal dose. Such studies seemed to indicate that safe human study could be undertaken over a wide dose range⁽²⁹⁾."

and that:

"In most instances, the marihuana intoxication is pleasurable. In rare cases, the experience may lead to unpleasant anxiety and panic, and in a predisposed few, to psychosis⁽²⁹⁾."

It's reasonable to say that based on these ample facts, under medical supervision, a person can use marijuana safely.

Conclusion: It is Widely Accepted that Marijuana Can be Used Safely at Many Dose Levels

We have clearly shown that marijuana has a currently accepted medical value in the United States, is safe to use with or without medical supervision, and does not have a potential for abuse. **Therefore marijuana does not fit any of the criteria for placement in Schedule I.**

Since this act, SB1182, would remove marijuana from its wrongful placement in Schedule I, I am very much in favor of its passing into law.

Final Thoughts

Senate Bill 1182 is a well thought out bill that protects patients, medical professionals, caregivers, and growers/farmers. It spells out a workable program for cultivation, manufacturing of concentrated forms, and distribution. It gives medical professionals wide berth in the types of conditions for which they can write a patient a recommendation for medical cannabis. It gives physicians, registered nurse practitioners, dentists, physician assistants, nurse midwives, psychiatrists, and other professionals who are licensed under Pennsylvania law to prescribe Schedule III to give written certification that a patient qualifies for medical marijuana. For writing a valid certification for a patient, no medical professional can be fired, fined, arrested, or penalized by the state Medical Board, which is very important.

Commercial farms, manufacturers, and compassion centers would all be non-profit. It allows patients to grow their own medicine if they are registered as a farmer. They would keep up to 25% of their harvest and would have to donate the rest to a compassion center, manufacturer, or research facility. There is a solid procedural system for handling complaints and hearings on violations of the new law. There are no unreasonable limits on potency or strain type. As a matter of policy, most of this bill is quite good; however, a couple things should definitely be changed:

- 1.) The bill must specifically bar State and local police from having direct access to the database list of registered patients; when making a determination at the scene if a person is violating state law in regards to this program, they may only verify with the Board that a person is a current registered patient. This could be considered private data and should be treated the same way a hospital would treat patient data under the HIPAA Act.
- 2.) We need to find a way to make this retroactive, and release convicted marijuana offenders if they would have been legal under this bill. We cannot simply forget about people currently rotting in jail for marijuana offenses if they could have been protected under this law. It would be wrong not to relieve that burden from the criminal justice system.

So long as it's implemented in good faith, and without unnecessary barriers, I believe Pennsylvania can use this to create a vibrant and successful medical marijuana program that will serve the needs of the medical community and the patients. For their sake, my father's, grandmother's, and all the other people who may one day need to use medical marijuana, I hope this committee will move this legislation along. Let us do the right thing and vote YES on SB1182, the Raymond Shafer Compassionate Use of Medical Cannabis Act.

I thank you for your time and consideration.

Sincerely,

Dated: January 24, 2014

Derek William Rosenzweig 495 Nemoral St. Warminster, PA 18974

References:

- (1) "Is marijuana addictive"
- http://www.drugabuse.gov/publications/marijuana-abuse/marijuana-addictive (Accessed January 23, 2014)
- (2) "Addictive Properties of Popular Drugs (1)" and "Drug Rankings by Harm (5)"
- http://drugwarfacts.org/cms/?q=node/28 (Accessed January 23, 2014)
- (3) "The La Guardia Committee Report The Marihuana Problem in the City of New York"
- http://www.druglibrary.org/schaffer/library/studies/lag/lagmenu.htm (Accessed January 23, 2014)
- (4) "Why I Changed my Mind on Weed" Dr. Sanjay Gupta, MD, CNN Chief Medical Correspondent
- http://www.cnn.com/2013/08/08/health/gupta-changed-mind-marijuana/index.html (Accessed January 23, 2014)
- (5) "Judge Young Part 4."
- http://www.druglibrary.org/schaffer/Library/studies/YOUNG/young4.html (Accessed January 23, 2014)
- (6) "What is the lethal dose of marijuana?."
- http://www.druglibrary.org/SCHAFFER/LIBRARY/mj_overdose.htm (Accessed January 23, 2014)
- (7) "Judge Young Part 3."
- http://www.druglibrary.org/schaffer/Library/studies/YOUNG/young3.html (Accessed January 23, 2014)
- (8) "Results from the 2012 National Survey on Drug Use and Health: Summary of National Findings"

http://www.samhsa.gov/data/NSDUH/2012SummNatFindDetTables/NationalFindings/NSDU Hresults2012.htm

(Accessed January 23, 2014)

- (9) "2012 Tables: Illicit Drug Use 1.1 to 1.46 (PE), SAMHSA, CBHSQ", Table 1.12A Marijuana Use in Lifetime, Past Year, and Past Month, by Detailed Age Category: Numbers in Thousands, 2011 and 2012
- http://www.samhsa.gov/data/NSDUH/2012SummNatFindDetTables/DetTabs/NSDUH-DetTabsSect1peTabs1to46-2012.htm#Tab1.12A

(Accessed January 23, 2014)

- (10) "Going the Distance: On and off the road with Barack Obama." by David Remnick
- http://www.newyorker.com/reporting/2014/01/27/140127fa_fact_remnick?currentPage=all (Accessed January 23, 2014)
- (11) "Cannabis Effects" by Erowid
- http://www.erowid.org/plants/cannabis/cannabis_effects.shtml (Accessed January 23, 2014)
- (12) "Cannabinoid receptor 2 (macrophage) Wikipedia, the free encyclopedia."
- http://en.wikipedia.org/wiki/CB2 receptor)

"Cannabinoid receptor type 1 - Wikipedia, the free encyclopedia."

http://en.wikipedia.org/wiki/Cannabinoid_receptor_type_1

(Accessed January 23, 2014)

- (13) "Marijuana and Medicine: Assessing the Science Base."
- http://www.nap.edu/openbook.php?record_id=6376

(Accessed January 23, 2014)

(14) "Vaporization as a Smokeless Cannabis Delivery System: A Pilot Study" - Dr. Donald Abrams - http://www.maps.org/media/vaporizer epub.pdf

(Accessed January 23, 2014)

- (15) "Franklin & Marshall College Poll: SURVEY OF PENNSYLVANIANS SUMMARY OF FINDINGS" February, 2013
- https://edisk.fandm.edu/FLI/keystone/pdf/keyfeb13.pdf (Accessed January 23, 2014)
- (16) "Recent Research on Medical Marijuana"
- http://norml.org/library/recent-research-on-medical-marijuana (Accessed January 23, 2014)
- (17) "Cannabidiol enhances the inhibitory effects of $\Delta^9\text{-tetrahydrocannabinol}$ on human glioblastoma cell proliferation and survival"

- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2806496/
- More information: http://norml.org/library/item/gliomascancer (Accessed January 23, 2014)
- (18) "How Cannabis Oil Works to Kill Cancer Cells"
- http://www.cureyourowncancer.org/how-cannabis-oil-works.html (Accessed January 23, 2014)
- (19) "WIN 55,212-2" From Wikipedia, the free encyclopedia
- http://en.wikipedia.org/wiki/WIN 55%2C212-2
- More information: http://norml.org/library/item/multiple-sclerosis (Accessed January 23, 2014)
- (20) "Cannabinoids as Cancer Hope References"
 - http://norml.org/library/item/references?category_id=558
- http://norml.org/library/cannabinoids-as-cancer-hope
- (21) "CMCR Mission Statement"
- http://www.cmcr.ucsd.edu/index.php?option=com_content&view=article&id=71&Itemid=60 (Accessed January 23, 2014)
- (22) "CENTER FOR MEDICINAL CANNABIS RESEARCH: Report to the Legislature and Governor of the State of California presenting findings pursuant to SB847 which created the CMCR and provided state funding"
- http://www.cmcr.ucsd.edu/images/pdfs/CMCR_REPORT_FEB17.pdf (Accessed January 23, 2014)
- (23) "About CRPS Complex Regional Pain Syndrome (CRPS), also known as Reflex Sympathetic Dystrophy"
- http://www.rsds.org/2/what_is_rsd_crps/index.html
- http://en.wikipedia.org/wiki/Complex_regional_pain_syndrome (Accessed January 23, 2014)
- (24) "Effects of Vaporized Marijuana on Neuropathic Pain"
- http://clinicaltrials.gov/show/NCT01037088 (Accessed January 23, 2014)
- (25) "Falls family: No one fights cancer alone" By Liz Johnson Correspondent
- http://www.phillyburbs.com/00redesign/news/local/falls-family-no-one-fights-canceralone/article_ad99b060-c7bd-5279-af97-587adcdc0430.html (Accessed January 23, 2014)
- (26) "Low-dose vaporized cannabis significantly improves neuropathic pain." Feb. 2013
- http://www.ncbi.nlm.nih.gov/pubmed/23237736 (Accessed January 23, 2014)
- (27) "Historical Timeline: History of Marijuana as Medicine 2900 BC to Present"
- http://medicalmarijuana.procon.org/view.timeline.php?timelineID=000026 (Accessed January 23, 2014)
- (28) "Cannabis and Cannabinoids Laboratory/Animal/Preclinical Studies"
- http://www.cancer.gov/cancertopics/pdq/cam/cannabis/healthprofessional/page4 (Accessed January 23, 2014)
- (29) "National Commission on Marihuana and Drug Abuse Marihuana: A Signal of Misunderstanding, Chapter II, Marihuana use and its effects"
- http://druglibrary.net/schaffer/Library/studies/nc/ncchap2.htm (Accessed January 23, 2014)
- (30) "The Medical Marijuana Problem" Mar./Apr. 2006
- http://medicalmarijuana.procon.org/view.source.php?sourceID=000156 (Accessed January 23, 2014)
- (31) "Experts Tell the Truth about Pot" March, 2012; Scientific American.
- http://www.scientificamerican.com/article/the-truth-about-pot/ (Accessed January 23, 2014)