

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA
FIRST APPELLATE DISTRICT, DIVISION FOUR

BENJAMIN GOLDSTEIN,)	A115899
)	
Petitioner,)	(Superior Court No. 2247329)
)	
v.)	
)	
SUPERIOR COURT OF THE COUNTY)	
OF SAN FRANCISCO,)	
)	
Respondent,)	
)	
SAN FRANCISCO POLICE)	
DEPARTMENT,)	
)	
Real Party in Interest.)	

**AMICUS CURIAE BRIEF OF THE NATIONAL ASSOCIATION OF
PEOPLE WITH AIDS, SAN FRANCISCO AIDS REFERRAL LEGAL
PANEL, COMMUNITY HIV/AIDS MOBILIZATION PROJECT, AND
DRUG POLICY ALLIANCE**

SEEKING REVIEW OF THE ORDER OF THE
SUPERIOR COURT OF THE COUNTY OF SAN FRANCISCO
THE HONORABLE RONALD ALBERS PRESIDING

Theshia Naidoo, State Bar No. 209108
Tamar Todd, State Bar No. 211865
Daniel N. Abrahamson, State Bar No. 158668
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DESCRIPTION OF AMICI

Amicus Curiae National Association of People with AIDS

(“NAPWA”) was founded in 1983 and is the oldest national AIDS organization in the United States, and the oldest national network of people living with HIV/AIDS in the world. NAPWA’s mission is to advocate on behalf of all people living with HIV/AIDS in order to end the pandemic and the human suffering caused by HIV/AIDS.

Amicus Curiae San Francisco AIDS Legal Referral Panel (“ALRP”)

is a non-profit organization whose mission is to help people living with HIV/AIDS maintain or improve their health by resolving their legal issues. ALRP was founded in 1983 for this purpose and, in its more than twenty years, has handled over 50,000 legal matters for its clients. ALRP’s goals are to provide legal counsel and representation on often-complex legal matters with respect to HIV/AIDS for a community of individuals often least able to afford it, and to leverage the resources of the private bar for the public good. ALRP increases resources dedicated to the public interest through the private market, and increase the skill and capacity of the legal community to handle the intricacies of HIV/AIDS related law and representation.

Amicus Curiae Community HIV/AIDS Mobilization Project

(“CHAMP”) is a national non-profit initiative dedicated to establishing, training and mobilizing an independent and HIV/AIDS movement in the

United States. In particular, CHAMP seeks to bridge HIV/AIDS, human rights, and struggles for social and economic justice. CHAMP mobilizes people living with HIV, community activists, researchers, academics and policy advocates in our country, and links them with allies around the world.

Amicus Curiae Drug Policy Alliance (“the Alliance”) is the nation’s leading advocacy organization devoted to advancing those policies and attitudes that best reduce the harms of both drug misuse and drug prohibition, and to promote the sovereignty of individuals over their minds and bodies. The Alliance envisions a just society in which the use and regulation of drugs are grounded in science, compassion, health and human rights, in which people are no longer punished for what they put into their own bodies but only for crimes committed against others, and in which the fears, prejudices and punitive prohibitions of today are no more. Alliance staff attorneys have co-authored various state medical marijuana laws, served as counsel of record for California physicians in *Conant v. Walter*, 309 F.3d 629 (9th Cir. 2002) (upholding first amendment rights of physicians to recommend medical marijuana to their seriously ill patients free from federal government interference), and as *amicus* counsel for state and national medical and public health groups in various state and federal cases touching upon the medical efficacy of marijuana.

Amici have identified this matter as one of statewide significance in which their expertise can be of assistance to the Court. This brief offers a broader perspective of *amici* as to the issues on appeal, namely the importance of marijuana as medicine to persons living with HIV/AIDS. In particular, this case highlights the unnecessary suffering inflicted on patients like Petitioner Benjamin Goldstein who cannot get medicine returned once confiscated by the police.

STATEMENT OF ARGUMENT

A small but significant number of seriously ill patients who suffer from human immunodeficiency virus or Acquired Immune Deficiency (HIV/AIDS) and other serious medical conditions do not benefit from or cannot tolerate the therapies of currently available conventional medicine. HIV/AIDS can result in seizures, vision loss, fever, coughing and shortness of breath, weight loss and extreme fatigue, severe headaches, nausea, abdominal cramps, vomiting, and coma. Many of these patients, like Mr. Goldstein here, have found, together with their physicians, that marijuana effectively alleviates symptoms of their conditions and side effects caused by their primary treatments.

The experiences of these patients and the observations of their physicians accord with the conclusions reached by blue-ribbon government panels and in federally-funded, peer-reviewed scientific studies: that marijuana has therapeutic properties not replicated by other currently

available medications. These studies have consistently found that: (1) marijuana is an effective, analgesic, appetite-stimulant, antiemetic, and anti-inflammatory and antispasmodic agent; (2) its side effects are often less debilitating than those of drugs currently approved for treating the same ailments; and (3) for some individuals marijuana is the only meaningful therapeutic option. For Mr. Goldstein the medical use of marijuana helps to alleviate the severe pain caused by his HIV induced neuropathy. At a minimum, marijuana provides Mr. Goldstein the gift of relative health and the ability to function as a productive member of society.

Despite the strong scientific underpinnings for the medical use of marijuana to treat symptoms related to HIV/AIDS, the fact that Mr. Goldstein is a qualified medical marijuana patient under California's Compassionate Use Act, and that he was in lawful possession of the medical marijuana at issue, the San Francisco Police Department continues to deny the return of Mr. Goldstein's medicine. For reasons set forth more fully below, *amici* urge this court to compel the return of Mr. Goldstein's property.

ARGUMENT

I. RELIABLE RESEARCH AND CLINICAL EXPERIENCE PROVIDE SOUND EVIDENCE THAT MARIJUANA IS A PROPER, MEDICALLY SANCTIONED TREATMENT FOR CHRONIC PAIN AND OTHER SERIOUS MEDICAL CONDITIONS

Clinical experience and a growing body of medical research confirm that for a small but significant number of patients, marijuana serves as the *only* effective medicine for suppressing nausea, stimulating appetite, or relieving pain.¹ The scientific literature, not to mention highly respected research panels from the United States and Great Britain, make clear that there is widespread agreement that cannabis is effective in alleviating the symptoms of many patients who have not obtained relief from conventional treatments. The findings of medical practitioners, researchers and patients, in turn, are reflected in state laws like those of California, which expressly recognizes the real and substantial health benefits that marijuana can provide seriously ill individuals. To date, 28 states have recognized the benefits of cannabis in some form.²

¹ See e.g. *Conant v. Walters*, 309 F.3d 629, 640-43 (9th Cir. 2002) (Kozinski, J., concurring), *cert. denied*, 124 S. Ct. 387 (2003) (summarizing the medical evidence supporting limited medical use of marijuana).

² Eleven States have enacted laws allowing medical use of cannabis. See Alaska Stat. §§ 11.71.090, 17.37.010 et seq. (Michie 2003); Cal. Health & Safety Code § 11362.5 (West Supp. 2004); Colo. Const. Art. 18, § 4; Haw. Rev. Stat. Ann. §§ 329-121 et seq. (Michie Supp. 2003); Me. Rev. Stat. Ann. tit. 22 § 2383-B (West 2004); Mont. Code Ann. § 50-46-201 (2004); Nev. Rev. Stat. Ann. § 453A.200 (Michie Supp. 2003); Or. Rev. Stat. §§ 475.300-.346 (2003); R.I. Gen. Laws §21-28.6-4 (2006); Vt. Stat. Ann.

A. Marijuana Is an Effective Pain Killer and Helps Patients to Function as Fully as Possible

The goal of pain management is to enable patients to function as fully as possible—“enabling individuals to work, attend school, or participate in other day-to-day activities.”³ For some patients, the use of medical marijuana is the only way to effectively achieve that goal.

tit. 18 § 4272 *et seq.* (2004); Wash. Rev. Code Ann. §§ 69.51.010-.080 (West 2004).

Five additional States have enacted laws recognizing the therapeutic benefits of cannabis but authorize use only by prescription, *see* Ariz. Rev. Stat. § 13-3412.01 (West 2004); La. Rev. Stat. Ann. § 40:1201 (West 2003); N.H. Rev. Stat. Ann. § 318-B:10(VI) (2003); Va. Code Ann. § 18.2-251.1 (Michie 2003), or classify cannabis as having “currently accepted medical uses,” *see* Iowa Code §§ 124.205, 124.206(7)(a) (West 2003).

Two additional States have passed resolutions urging the federal government to allow the medical use of cannabis. *See* Mo. Sen. Con. Res.14 (1994); N.M. Sen. Memorial 42 (1982), *available at* <<http://www.sumeria.net/nmku/memorial.html>>.

Seven additional States have enacted laws recognizing cannabis's potential medical benefits for persons suffering from conditions including cancer, nausea, and glaucoma, and establishing therapeutic research programs for the benefit of such persons. *See* Ala. Code § 20-2-111 *et seq.* (1979); Ga. Code Ann. §§43-34-120 *et seq.* (1980); 720 Ill. Comp. Stat. 550/11 (1971); Mass. Gen. Law Sch. 94D, §§ 1-3 (1991); N.Y. Pub. Health Law §§ 3328(4), 3397-a to 3397-f (1980); Minn. Stat. § 152.21 (1980); S.C. Code Ann. §§ 44-53-620 *et seq.* (1980).

The courts of two additional States have allowed cannabis patients to raise a necessity defense to charges of marijuana possession. *See Sowell v. State*, 738 So.2d 333, 334 (Fla. Dist. Ct. App. 1998); *State v. Hastings*, 801 P.2d 563, 565 (Idaho 1990). A third State recently limited the penalty for possessing cannabis for medical purposes to a \$100 fine. *See* Md. Code Ann., Crim. Law Art. § 5-601(c)(3).

³ National Institute of Neurological Disorders and Stroke, National Institutes of Health, *Pain: Hope Through Research*, at 5 (2001), *available at* <http://www.ninds.nih.gov/disorders/chronic_pain/detail_chronic_pain_pr.htm>.

There are a small but significant number of patients who cannot tolerate opioid analgesics or other conventional treatments or their accompanying side-effects.⁴ For some of these patients, marijuana has proven to be the only effective medicine for relieving pain and nausea.⁵ The scientific literature and research make clear that there is widespread agreement that marijuana is effective in alleviating pain and other symptoms for many patients who have not obtained relief from conventional treatments.

It is understandable then that many Californians currently manage their pain with the help of physician-recommended marijuana pursuant to California's Compassionate Use Act.⁶ An estimated 100,000 seriously ill persons in California use medical marijuana pursuant to and in compliance with the Compassionate Use Act.⁷ Surveys of Compassionate Use Act patients conducted by the Association for Cannabis Medicine demonstrate that *nearly half* of all Californians who use medical marijuana—45.7 percent—do so under the supervision and with the recommendation of their

⁴ Nathalie Do Quang-Cantagrel, et al., *Opioid Substitution to Improve the Effectiveness of Chronic Noncancer Pain Control: A Chart Review*, 90 *Anesthesia & Analgesia* 933 (2000) (reporting opioid analgesics are effective for only 36% of patients, ineffective for 34% and intolerable for 30% of patients).

⁵ See, e.g., *Conant v. Walters*, 309 F.3d at pp. 640-43 (9th Cir. 2002) (Kozinski, J., concurring) (summarizing the medical evidence supporting limited medical use of marijuana).

⁶ See Cal. Health & Safety Code §§ 11352.5 *et seq.*

⁷ Dean E. Murphy, *California Reins In Clinics Using Marijuana for Medical Purposes*, N.Y. Times, June 15, 2005.

physicians to treat acute or chronic pain.⁸ Indeed, the Compassionate Use Act is expressly intended for “chronic pain” patients to benefit from the Compassionate Use Act’s many protections.⁹

Respected research panels from the United States and Great Britain confirm that cannabis alleviates the symptoms of those who suffer from severe pain. In 1999, a report by the National Institute of Medicine of the National Academy of Sciences (“IOM”)¹⁰ concluded that “[s]cientific data indicate the potential therapeutic value of cannabinoid drugs, primarily THC, for pain relief. . . .”¹¹ This exhaustive year-long study, which was commissioned by the White House Office of National Drug Control Policy, analyzed relevant scientific literature, scientific workshops, and consultations with biomedical and social scientists before acknowledging

⁸ See *Cannabis and Cannabinoids: Pharmacology, Toxicology, and Therapeutic Potential* (Franjo Grotenhermen and Ethan Russo, eds., The Haworth Integrative Healing Press (2002)) (reporting that surveys of 2,480 medical marijuana patients indicated that 45.7 percent of respondents used the drug to treat common pain).

⁹ Cal. Health & Safety Code § 11352.5(b)1(A).

¹⁰ The IOM was chartered in 1970 by the National Academy of Sciences (“NAS”) to bring professionals in different disciplines together to examine policy matters pertaining to the health of the nation. The IOM furthers NAS’s responsibility to advise the federal government on such issues pursuant to an 1863 congressional charter.

¹¹ Institute of Medicine, *Marijuana and Medicine: Assessing the Science Base*, (Janet E. Joy, et al., eds., National Academy Press 1999) (“IOM Report”), at 15, 179. The complete IOM Report is *available at* <<http://www.nap.edu/books/0309071550/html>>.

that marijuana provides the only alternative for certain people for whom other medicines are ineffective.¹²

Great Britain's House of Lords reached similar conclusions after conducting hearings and taking testimony from leading researchers, clinicians, and patients regarding the medical benefits and drawbacks of cannabis.¹³ The House of Lords found that "cannabis almost certainly does have genuine medical applications, especially in treating the painful muscular spasms . . . and in the control of other forms of pain."¹⁴

Building on this and similar research, Health Canada, the federal agency responsible for helping Canadians maintain and improve their health, promulgated regulations in 2001 that authorize Canadian physicians to recommend and prescribe medical marijuana to persons suffering from severe pain, muscle spasms, and other ailments, who have not found relief from conventional therapies.¹⁵ Canadian government officials, in turn,

¹² *Id.* at 10-11, 179.

¹³ Select Committee on Science and Technology, House of Lords, Sess. 1997-98, 9th Report, *Cannabis: The Scientific and Medical Evidence* (Nov. 4, 1998) ("Lords Report"). The complete Lords Report is available at <<http://www.publications.parliament.uk/pa/ld199798/ldselect/ldscitech/151/15101.htm>>.

¹⁴ Lords Report § 8.2 at 41.

¹⁵ Controlled Drugs and Substances Act, *Marihuana Medical Access Regulations: Regulations Amending the Narcotic Control Regulations* (July 4, 2001) (Can.) available at <http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hecs-sesc/pdf/marihuana/marihuana-reg_e.pdf>.

have undertaken to cultivate and distribute marijuana to qualifying patients.¹⁶

In addition to treating pain commonly associated with musculoskeletal disorders, cannabinoids have proven particularly effective at treating neuropathic pain, as suffered by Mr. Goldstein. Neuropathic pain is a symptom commonly associated with a variety of illnesses or conditions, including metastatic cancer, HIV/AIDS, multiple sclerosis (MS), and diabetes. Debilitating pain can also be a side effect of the recommended treatment for many of these conditions.¹⁷ For example, neuropathic pain can be caused by HIV infection or by the drug therapies used to treat it.¹⁸

¹⁶ Health Canada: Drugs and Health Products, *Medical Use of Marijuana*, (Dec. 13, 2006) (Can.) available at <http://www.hc-sc.gc.ca/dhp-mps/marihuana/index_e.html>.

¹⁷ Many of the reverse transcriptase and protease inhibitors commonly prescribed as part of the “AIDS cocktail” cause side-effects including peripheral neuropathy, nausea, and vomiting. See, e.g., *Physician’s Desk Reference* (54th ed. 2000) at 889 (Didanosine) and 895 (Stavudine).

¹⁸ See, e.g., David M. Simpson et al., *Selected Neurologic Manifestations of HIV Infection: Dementia and Peripheral Neuropathy, Improving the Management of HIV Disease* (Dec. 1999); Nathalie Do Quang-Cantagrel et al., *Opioid Substitution to Improve the Effectiveness of Chronic Noncancer Pain Control: A Chart Review*, 90 *Anesthesia & Analgesia* 933 (2000) (reporting opioid analgesics are effective for only 36% of patients, ineffective for 34% and intolerable for 30% of patients); Neurologic AIDS Research Consortium, *Peripheral Neuropathy* (2004), available at <<http://www.neuro.wustl.edu/narc/peri-neuropathy.html>> (“Treatment of neuropathic pain...is notoriously difficult. Even narcotics may not fully relieve [it].”).

A growing body of research demonstrates that cannabinoids are effective in controlling the neuropathic pain due to HIV/AIDS. A pilot study supported by the University of California, Center for Medical Cannabis Research found a greater than 30% reduction of pain from the use of marijuana in 10 of 16 patients with neuropathy.¹⁹ Further studies are currently in progress to confirm these preliminary findings.

Conventional treatments have substantial limitations in their effectiveness for relieving neuropathic pain. The absence of more effective and acceptable treatments for neuropathic pain is particularly problematic for certain HIV patients for whom there are no good alternatives to antivirals causing neuropathic pain, either due to drug resistance or other side-effects from alternative drugs.²⁰ For many of these patients, marijuana has been effective at treating neuropathic pain.

B. Medical Marijuana Ameliorates the Harmful Side-Effects of AIDS/HIV, the Conventional Therapies, and Medications Associated With These Ailments

Medical marijuana also has an important role to play as an adjuvant therapy, helping improve patients' response to—and even their ability to tolerate—first-line medical interventions. For example, marijuana has been

¹⁹ Cheryl Jay, et al., *The Effect of Smoked Marijuana on Chronic Neuropathic and Experimentally-Induced Pain in HIV Neuropathy: Results of an Open Label Pilot Study*, University of California, San Francisco (2004), available at

<http://www.retroconference.org/2004/cd/PDFs/496.pdf>.

²⁰ See Neurologic AIDS Research Consortium, *supra*.

found effective in treating common yet serious side-effects, such as nausea, wasting and pain, induced by many mainstay therapies, including chemo and radiation therapy, and various pharmaceutical medications. Opioid analgesics, including codeine, hydrocodone, oxycodone, propoxyphene, pentazocine, meperidine, morphine, hydromorphone, levodromoran, fentanyl, and methadone, are the most common, and generally the most effective agents used to control pain.²¹ Yet the nausea-inducing properties of these analgesics, like certain chemotherapies for cancer and HIV/AIDS, are uncontroverted,²² and if left unchecked, can lead to patient malnourishment, anorexia, and a decline in strength so dramatic that some patients would rather discontinue treatment than endure these side-effects.²³ As a result, alleviating these serious side-effects is a critical part of medical practice.²⁴

Many patients have used marijuana to successfully combat these debilitating side-effects. In this regard, Dr. Donald Abrams, Chief of

²¹ Joint Statement from 21 Health Organizations and the Drug Enforcement Administration, *Promoting Pain Relief and Preventing Abuse of Pain Medications: A Critical Balancing Act*, available at <http://www.ampainsoc.org/advocacy/promoting.htm>.

²² See, e.g., Am. Med. Ass'n, *Encyclopedia of Medicine* 98 (Charles B. Clayman ed., 1989) ("Nausea [and] vomiting . . . may occur with narcotic analgesic drugs."); *The Merck Manual of Diagnosis and Therapy* (Robert Berkow ed., 17th ed. 1999) (same). See also, IOM Report, *supra*, at 151 (observing that patients receiving aggressive chemotherapy have a 20-30% likelihood of experiencing acute emesis").

²³ See, IOM Report, *supra*, at 147.

²⁴ *Id.*

Hematology/Oncology at San Francisco General Hospital, observes that in his clinical experience “people with HIV are one of the largest groups who use cannabinoids for medical purposes.”²⁵ Moreover, a small but significant minority of patients have found marijuana to be the *only* effective medication.²⁶ Consistent with these findings, a 1991 Harvard survey of more than 2,400 oncologists found that over 40 percent of respondents had recommended the use of marijuana for the control of nausea and vomiting to at least one cancer patient.²⁷

Marijuana is also an effective appetite stimulate as used for patients suffering from wasting syndrome. Wasting syndrome is a symptom associated with the end-stages of AIDS, where “weight loss of as little as 5% is associated with decreased survival, and a body weight about one-

²⁵ Donald Abrams, et al., *Does Marijuana Affect Viral Loads in People with HIV?*, *Annals of Internal Medicine*, Volume 139 Issue 4, at I-44 (19 Aug. 2003).

²⁶ A New York State-sponsored study examined the effects of herbal cannabis on cancer chemotherapy patients who were unresponsive to standard antiemetics and found that 78% responded positively to cannabis. Vincent Vinciguerra et al., *Inhalation Marijuana as an Antiemetic for Cancer Therapy*, *N.Y.S.J. Med* 525 (Oct. 1988). Several other states have undertaken similar trials with similar results. *See generally*, Richard E. Musty and Rita Rossi, *Effects Of Smoked Cannabis And Oral Delta-O-Tetrahydrocannabinol On Nausea And Emesis After Cancer Chemotherapy: A Review Of State Clinical Trials*, 1 *J. Cannabis Therapeutics* 29 (2001). *See also* Lords Report, *supra*, § 5.12, at 21 (finding cannabis effective in alleviating acute nausea and vomiting); IOM Report, *supra*, at 153-54, 157.

²⁷ *See* Richard Doblin & Mark Kleiman, *Marijuana as Antiemetic Medicine: A Survey of Oncologists’ Experiences and Attitudes*, 9 *J. Clin. Oncol.* 1314 (1991).

third below ideal body weight results in death.”²⁸ An additional problem occurs because many AIDS medications decrease appetite which could lead to further weight loss. The therapy for wasting in HIV/AIDS patients focuses on appetite stimulation. Marijuana is a known appetite stimulant and a 1988 study found that healthy men “consumed an extra 1,000 calories after smoking marijuana ... 40% more than after smoking [a] placebo.”²⁹ Furthermore, cannabinoids could be used as appetite stimulants for patients undergoing resistance exercises or anabolic therapy to help increase their lean body mass. Cannabinoids are also beneficial in mitigating the afflictions of wasting such as nausea, appetite loss, pain and anxiety.³⁰

The side-effects caused by conventional therapies can render the patient unable to function in daily life. Marijuana helps restore the patient to a functioning capacity by stimulating the patient’s appetite, decreasing the nausea and vomiting frequently induced by many first-line medications, and ameliorating pain. For these reasons, marijuana has come to play an undeniable role in the physician’s armamentarium.

²⁸ See, IOM Report, *supra*, at 154.

²⁹ See Mitch Earleywine, *Understanding Marijuana: A New Look at the Scientific Evidence*, 183 (Oxford University Press, 2002). (citing R.W. Foltin, et al., (1988). *Effects of smoked marijuana on food intake and body weight of humans living in a residential laboratory*. *Appetite*, 11, 1-14).

³⁰ See, IOM Report, *supra*, at 157, 159.

II. THE SIDE-EFFECTS OF MEDICAL MARIJUANA ARE TYPICALLY LESS SEVERE THAN THOSE OF MANY CONVENTIONAL PRESCRIPTION MEDICATIONS

Marijuana is considered to have a very wide margin of safety.³¹

That is to say, marijuana has fewer and less severe negative side-effects, and is better tolerated by patients, than many traditional prescription pain medications, and unlike many pharmaceuticals, cannot cause death due to overdose.³² As the Institute of Medicine observed after examining a variety of potential harms associated with the medical use of marijuana, “the acute side-effects of marijuana use are within the risks tolerated for many medications.”³³ To be sure, while some patients who use marijuana on a chronic basis may develop mild physiological dependence and experience symptoms of withdrawal, these are minor in comparison to those associated with other medications routinely administered to treat acute injury or

³¹ *R. v. Parker*, 2000 W.C.B.J. LEXIS 10970, 75 C.R.R. (2d) 233, 47 W.C.B. (2d) 116 (July 31, 2001), available at <http://www.ontariocourts.on.ca/decisions/2000/july/parker.htm> (noting wide margin of safety of, and no evidence of overdose fatality from cannabis). See also Earleywine, *Understanding Marijuana*, *supra*, at. 186-189, 195.

³² See also L. Grinspoon & J. B. Bakalar, *Marihuana as Medicine: A Plea for Reconsideration*, 273 J. Am. Med. Ass’n 1875-1876 (1995); *Opinion and Recommended Ruling, Findings of Fact, Conclusions of Law and Decision of Administrative Law Judge In the Matter of Marijuana Rescheduling Petition*, Docket No. 86-22 (Dep’t Justice D.E.A., Sept. 6, 1988), at 66 (Administrative Law Judge for the Drug Enforcement Administration concluding, after more than two years of evidentiary hearings, that “there is accepted safety for use of marijuana under medical supervision”), available at <http://www.druglibrary.org/schaffer/library/studies/YOUNG/index.html>.

³³ IOM Report, *supra*, at 126.

illness.³⁴ The 1999 IOM Report did caution that the smoking of medical marijuana over the long-term may raise health risks associated with smoking generally. More recently, however, a large-scale study conducted at the University of California, Los Angeles Geffen School of Medicine, concludes that regular, heavy smoking of marijuana does *not* lead to an increased risk of lung cancer.³⁵

Cannabis is a relatively safe therapeutically active substance. No one has ever died of a cannabis overdose.³⁶ The ingestion of marijuana can

³⁴ IOM Report, *supra*, at 90-91 (stating that compared to tobacco and alcohol, dependence on cannabis is relatively rare and that marijuana withdrawal “has been reported only in a group of adolescents in treatment for substance abuse problems and in a research setting where subjects were given marijuana or THC daily [and then precipitously withdrawn from it].” Even then, the withdrawal symptoms “were short lived” and “[i]n four days they had abated.”) (citing T.J. Crowley, et al., *Cannabis Dependence, Withdrawal, and Reinforcing Effects Among Adolescents with Conduct Symptoms and Substance Use Disorders*, 50 *Drug & Alcohol Dependence* 27-37 (1998)); M. Haney, et al., *Abstinence Symptoms Following Smoked Marijuana in Humans*, 141 *Psychopharmacology* 395 (1999); R. Jones, et al., *Clinical Studies of Tolerance and Dependence*, 282 *Annals of New York Academy of Sciences* 221-239.

³⁵ See Marc Kaufman, *Study Finds No Cancer-Marijuana Connection*, *Washington Post*, May 28, 2006 at A03. See also Lynn Zimmer and John P. Morgan, *Marijuana Myths, Marijuana Fact* 113-15 (The Lindesmith Center, NY 1997) available at <<http://www.drugpolicy.org/marijuana/factsmyths>> (questioning claims of marijuana’s purported health risks); Stephen Sidney et al., *Marijuana Use and Cancer Incidence*, 8 *Cancer Cause & Control* 722 (1997).

³⁶ ALJ Opinion, *supra*, at 56-59. See also, Robert S. Gable, *The Toxicity of Recreational Drugs*, 94(3) *American Scientist Online* (May-June 2006), available at <<http://www.americanscientist.org/template/AssetDetail/assetid/50773?&print=yes>> (reporting “[t]he least physiologically toxic substances, those requiring 100 to 1,000 times the effective dose to cause death, include . . .

raise the heart rate, but there is no evidence that this increase poses a risk of cardiac arrest in patients who do not have pre-existing heart problems or who are not otherwise in a high-risk group.³⁷ Additionally, marijuana shows no indication of having immunosuppressant effects.³⁸

In contrast, many of the commonly prescribed analgesics, particularly opioids, as discussed above can produce feelings of euphoria, as well as drowsiness, confusion, nausea and marked sedation, including depressed breathing.³⁹ Prolonged use of these drugs can lead to physical dependence and tolerance, meaning one has to take more and more of the medication to obtain the same initial effects. These medications can also lead to addiction – defined as compulsive, uncontrollable drug use in spite

marijuana” and noting “no published cases in the English language that document deaths from smoked marijuana”).

³⁷ See IOM Report, *supra*, at 121.

³⁸ See IOM Report, *supra*, at 110; Donald Abrams, *Short Term Effects of Cannabinoids on HIV-1 Infection*, *Annals of Internal Medicine* (August 19, 2003) at 258- 259; Donald Abrams, *Short Term Effects of Cannabinoids on HIV-1 Viral Load*, presented at the 13th International AIDS Conference, Durban, South Africa (July 2000) (the use of cannabis does not adversely affect the immune system of HIV patients taking antiretroviral therapies).

³⁹ See, e.g., *Physician's Desk Reference*, *supra*, at 3050 (side-effects of Phenergan include sedation, confusion, and occasional nausea; side-effects of Thorazine include suppression of cough reflex, drowsiness, fainting and dizziness upon initial dosing, and occasional muscle spasms); “PDR Health” available at <http://www.pdrhealth.com/drug_info/rxdrugprofiles/drugs/tyl1466.shtml> (side-effects of Tylenol with Codeine include dizziness, light-headedness, nausea, sedation, shortness of breath, vomiting; side-effects of Vicodin include dizziness, light-headedness, nausea, sedation, vomiting; side-effects of OxyContin include constipation, dizziness, drowsiness, dry mouth, headache, itching, nausea, sweating, vomiting, weakness).

of negative consequences.⁴⁰ While opioid analgesics have rightly been called “miracle drugs” because of their remarkable ability to relieve excruciating pain for more people more quickly and effectively than many other medical interventions, the risks accompanying their use are not inconsequential. According to a National Survey on Drug Use and Health, an estimated 6.3 million persons age 12 and older had abused prescription pain medication in the month prior to being surveyed.⁴¹ An estimated 415,000 Americans received treatment for pain reliever abuse in the past year.⁴²

⁴⁰ National Institute on Drug Abuse, U.S. Dep’t Health & Human Serv., *NIDA InfoFact: Prescription Pain and Other Medications* (June 2006), available at <<http://www.nida.nih.gov/Infofacts/Painmed.html>>.

⁴¹ Substance Abuse and Mental Health Services Administration, U.S. Dep’t Health & Human Serv., *2004 National Survey on Drug Use and Health*, available at <<http://oas.samhsa.gov/nsduh.htm>>.

⁴² *Id.* at 6-7. Of course opioid analgesics are far from the only prescription medications commonly used by members of the workforce that have potentially dangerous, even deadly, side-effects. (See, e.g., *Physician's Desk Reference* (57th ed. 2003) at 2964 (Valium (diazepam) is prescribed to manage anxiety disorders, or for the short term relief of anxiety. Possible adverse effects include somnolence, confusion, coma and diminished reflexes.); *Id.* at 2794 (Xanax (alprazolam) is prescribed to treat anxiety disorders, symptoms of anxiety & panic disorders. Possible adverse effects include dependence and withdrawal reactions including seizures.); *Id.* at 2305 (Ritalin (methylphenidate) is prescribed to treat attention deficit disorders. Possible adverse effects include irregular heartbeat, convulsions and hallucinations.). There are an estimated 408,285 to 583,179 emergency room visits each year associated with the use, misuse and abuse of over the counter or prescription pharmaceuticals. Drug Abuse Warning Network, U.S. Dep’t Health & Human Serv., *National Estimates of Drug-Related Emergency Department Visits* (2004) available at <<http://dawninfo.samhsa.gov/files/DAWN2k4ED.htm>>.

As noted above, the side-effects of many opioid analgesics can be quite pronounced and cause significant impairments, including severe drowsiness, nausea and depressed respiration.⁴³ Consequently, the use of medical marijuana measures up favorably against several commonly-used pharmaceutical drugs with respect to its relatively minor impairment potential.

III. SYNTHETIC THC IS APPROVED AS A PRESCRIPTION DRUG, BUT OFTEN IS NOT AS EFFECTIVE, DESIREABLE, OR SAFE AS INGESTED MARIJUANA

Marinol, the pharmaceutical brand name of dronabinol, is the synthetic isomer of tetrahydrocannabinol, or “THC,” the main psychoactive ingredient of marijuana. It is sold in pill form and is approved by the Food and Drug Administration for the treatment of nausea, vomiting, appetite loss and anorexia, but doctors also prescribe it for other conditions, such as depression and muscle spasticity.

Marinol has some distinct disadvantages to medical marijuana. For one, because it is a pill some patients seeking relief from severe nausea regurgitate the Marinol pill before it can suppress vomiting.⁴⁴ In addition, after being swallowed, Marinol is delivered first to the stomach and then to the liver where it is metabolized into 11-hydroxy-delta-THC. This

⁴³ U.S. Department of Health and Human Services, National Institute of Health Research Report Series, *Prescription Drugs: Abuse and Addiction* (No. 01-4881, 2001) (2005) at 10, *available at* <http://www.nida.nih.gov/PDF/RRPrescription.pdf>.

⁴⁴ 64 Fed. Reg. 35,928 (1999).

metabolite is three times more psychoactive than THC delivered to the lungs by inhaled cannabis.⁴⁵ Therefore, not only must patients who use Marinol wait a considerable period of time to obtain relief, but they also often experience harsh, prolonged psychoactive side-effects from the pill.

By contrast, the therapeutic benefits of inhaled marijuana are almost instantaneous, resulting in prompt relief for patients.⁴⁶ Additionally, inhaled marijuana has less debilitating psychoactive side-effects than Marinol and a single dose of inhaled cannabis can increase appetite more than a single dose of Marinol.⁴⁷ This is so because the active agents of inhaled marijuana enter the bloodstream so quickly and efficiently, patients are able to titrate the dose of cannabinoids to achieve the desired therapeutic effect without experiencing the same intensity of psychoactive side-effects.⁴⁸

⁴⁵ IOM Report, *supra*, at 36 (citing Raj Razdan, *Structure-activity Relationships in Cannabinoids*, 38 *Pharmacology Rev.* 75-149 (1986)).

⁴⁶ See, e.g., Opening Statement of Stanley J. Watson, Jr., Institute of Medicine News Conference, *Marijuana and Medicine: Assessing the Science Base* (Mar. 17, 1999) (“Smoking ... delivers rapid drug effect, whereas the THC capsule takes effect slowly, and its results are variable. There are many symptoms for which a quick-acting drug is ideal such as pain, nausea and vomiting.”) *available at* <http://www.4.nationalacademics.org> (search for "Watson and Marijuana").

⁴⁷ See Mitch Earleywine, *Understanding Marijuana: A New Look at the Scientific Evidence*, 185, (Oxford University Press, 2002).

⁴⁸ Lords Report, *supra*, at 178 (“ [S]moking ... is actually a very good route of administration, in some ways; it is very effective, there is a very rapid absorption, and the patients have a great deal of control over how much they take. They learn to titrate.”). See also, IOM Report, *supra*, at 203.

In addition, many physicians find that marijuana's efficacy rivals or surpasses that of other antiemetic drugs for certain patients.⁴⁹ So while a viable option for many patients, Marinol's limitations make the "choice" of using it illusory in fact for some of the most seriously ill patients.

CONCLUSION

For the reasons stated above, Ben Goldstein's return of property motion should be granted.

Respectfully submitted,

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⁴⁹ See, e.g., Sallan, S.E., Zinberg, N.E. (1975). *Antiemetic effects of delta-9-tetrahydrocannabinol in patients receiving cancer chemotherapy*. New England Journal of Medicine, 293, 795-797 cited in Earleywine, M., *Understanding Marijuana, supra* at note 28, 180 (2002).