

SUPREME COURT COPY

IN THE SUPREME COURT OF CALIFORNIA

SUPREME COURT
FILED

PEOPLE OF THE STATE OF) No. S14S204
CALIFORNIA,)
Plaintiff/Petitioner,)
v.)
ROGER WILLIAM MENTCH,)
Defendant/Respondent.)

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Deputy

Sixth District Court of Appeal No. H028783

Santa Cruz County No. F077429

Honorable Samuel S. Stevens, Judge

BRIEF OF AMICI CURIAE MARCUS A. CONANT, M.D., ROBERT J. MELAMEDE, Ph.D, AND GERALD F. UELMEN IN SUPPORT OF RESPONDENT

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APPLICATION FOR LEAVE TO FILE BRIEF *AMICI CURIAE*

Pursuant to California Rule of Court 8.520(f), *amici curiae* — doctors, researchers, and professors — move for leave to file the attached brief of *amici curiae* in support of Respondent, Roger Mentch.

This case concerns, inter alia, the ability of seriously ill persons to obtain learned advice, guidance and medical-grade marijuana from their personal caregivers. As such, the case addresses matters of law and policy that are within the recognized knowledge and expertise of, and are of fundamental concern to, *amici*.

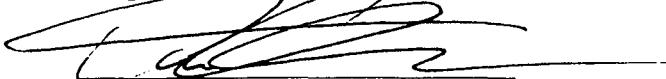
Amici comprise a wealth of expertise on how medical marijuana is used and obtained by patients in California and elsewhere. What unites *amici* is a recognition that the proper resolution of this case requires an understanding of how: (1) particular genetic strains of marijuana can be used to target different medical symptoms to maximize relief; (2) different routes of administration of medical marijuana can afford patients different types of symptom management and side effects; and (3) experienced medical marijuana cultivators who understand the relationship between strains of marijuana, routes of administration, and the alleviation of suffering, provide a valuable, caregiving service to patients who use physician-recommended marijuana.

Amici wish to inform the Court of the critical role that such cultivators-caregivers play in effectuating the intent and purpose of

California's medical marijuana law. By *per se* depriving such persons of the protections afforded caregivers under California's medical marijuana law, as urged by Petitioner, a reversal of the Court of Appeal's ruling would likely harm the health and well-being of medical marijuana patients by deterring knowledgeable and skilled caregivers from providing patients with appropriate types and amounts of medical-grade marijuana, and considered advice on how best to use the medicine. Seriously ill patients will be forced to turn to a legally questionable and possibly dangerous street market to obtain medical marijuana.

Amici submit this brief to highlight the considerable variation in medical marijuana efficacy and the valuable information and assistance that caregivers with expertise in stains and routes of administration can provide. Such services could be irretrievably lost if the Court accepts Petitioners' position.

Respectfully submitted,



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DESCRIPTION OF AMICI

Amicus Curiae **Marcus A. Conant**, M.D., has practiced medicine for over 40 years in San Francisco, California. He is a Professor at the University of California Medical Center in San Francisco, where he has served as Chief of the Dermatology Clinic (1967-1970), Chief of the Dermatology Inpatient Service (1967-1980), co-director of the Kaposi's Sarcoma Clinic (1981-1985), Director of the AIDS Clinical Research Center (1983-1985), and Clinical Professor of Dermatology (1984-present). Dr. Conant is a pioneer in the treatment of AIDS, and helped identify the first cluster of patients with Kaposi's sarcoma, a now well-recognized symptom of AIDS. Dr. Conant has published prolifically in professional journals and textbooks on the treatment of HIV/AIDS and lectures worldwide on the subject. He was appointed the United States Representative to the World Health Organization meeting on AIDS (1983), to the San Francisco City Public Health AIDS Task Force (1983-1987), the Fifth Congressional District AIDS Task Force (1983-1987), and, since 1993, has served on Senator Diane Feinstein's AIDS Committee. As a result of his clinical work with seriously ill HIV/AIDS patients, Dr. Conant has recommended medical marijuana to certain of his patients, has observed the health benefits that can accrue from the proper use of medical marijuana, and is cognizant of how particular genetic strains and routes of

administration of marijuana can be used to individualize and optimize the treatment of particular symptoms and conditions.

Amicus Curiae Robert J. Melamede, Ph.D., is Associate Professor of Biology and former Chairman of the Biology Department at the University of Colorado, Colorado Springs. Dr. Melamede received his Ph.D in Molecular Biochemistry from the City University of New York in 1980 and has held prior faculty, research and lecturing positions at various institutions, including the University of California (CME), University of Virginia (CME), LCCRO Monoclonal Facility, University of Vermont, N.Y. Medical College, and Lehman College. Dr. Melamede is a nationally renowned expert on the biochemical constituents of cannabis plants and has researched and published extensively on the topics of medical marijuana and the effects of its active chemical components on the human body's endogenous cannabinoid receptor system. He also has taught courses on the Biology of Endocannabinoids and Medical Marijuana, in addition to classes on Cell Biology, Advanced Immunology, and related subjects.

Amicus Curiae Gerald F. Uelmen, J.D., is Professor of Law and former Dean at Santa Clara University, School of Law, where, for more than twenty years, he has taught a wide variety of courses including Evidence, Advanced Trial Advocacy, Criminal Law, Advanced Criminal Procedure, Legal Ethics and Drug Abuse Law. He has also practiced law extensively throughout California and other jurisdictions, including as

Assistant U.S. Attorney, Central District of California, Los Angeles, California, from 1966-70. Professor Uelmen is also author of Drug Abuse and the Law Sourcebook, a leading treatise on drug abuse law and policy used by professors, students and practitioners across the country. In his capacity as a teacher, legal researcher, law school clinician and advocate, Professor Uelmen has had the opportunity to investigate the implementation of California's medical marijuana law since its passage in 1996, to interview many patients and their caregivers and physicians from across the state, and to develop a nuanced understanding of the different ways in which patients access adequate and effective supplies of medical marijuana and learn best practices for using medical marijuana to alleviate suffering.

INTRODUCTION AND SUMMARY OF ARGUMENT

Until his arrest in this case, Roger Mentch served as a stable source of medical grade marijuana and essential health-related information for qualified patients. Specifically, Mr. Mentch educated his care recipients about the most appropriate genetic strains of marijuana and the most appropriate routes of administration to use. For example, he taught patients about vaporized honey oil, while counseling them about what genetic strains of marijuana might be most efficacious for their medical needs. (6 RT 1319-1320, 1330) In so doing, Mr. Mentch was performing a role

common to health care providers who assist seriously ill patients to manage their illnesses by sharing specialized knowledge and experience to maximize the benefits, and minimize the adverse side effects, of treatment.

It is the considered view of *amici curiae* that persons like Roger Mentch play an important therapeutic role as caregivers by sharing their knowledge, experience and expertise about types of marijuana and routes of administration with seriously ill persons, and providing patients with a safe, consistent, unadulterated supply of medicine free from the dangers and vagaries of the black market. Through their counseling, such persons can spare patients months or years of suboptimal treatment by circumventing the need of patients to undergo trial and error in order to chance upon an effective treatment regimen. (See 4 RT 802-803; 5 RT 1044; 6 RT 1319-1320). As is discussed herein, the type of advice and services that Mr. Mentch consistently provided are integral to the caretaking function sought and needed by patients who use physician-recommended marijuana to alleviate their symptoms.

There are many genetic strains of marijuana, each with unique chemical properties. Researchers and patients alike have discovered that certain strains of marijuana are better at alleviating certain symptoms than other strains, and there is a small but growing literature in the field which addresses the matching of marijuana strains to medical conditions.

There are also many different ways by which patients can administer medical marijuana – including inhaling burnt marijuana into the lungs by smoking, or inhaling marijuana that is not burnt but vaporized, ingesting marijuana prepared as foodstuffs or pills, or drinking it as a tincture or tea, absorbing it via suppository, or through mucosal membranes in the mouth, such as when marijuana is sprayed in aerosol form under the tongue or on the inside of the cheek, as is done with Sativex, a cannabis-derived pharmaceutical manufactured by GW Pharmaceuticals and Bayer Inc., and available in the U.K. and Canada. (See Gonzalez et al., Marijuana in Neuropsychology and Substance Use (Gonzalez et al. (eds.) 2007) 139-140; see also, GW Pharmaceuticals Website, available at <http://www.gwpharm.com/> (visited September 11, 2007.) The chosen route of administration will help determine how quickly the active ingredients of marijuana will reach the patient's bloodstream and for how long, and at what intensity, marijuana's constituent compounds will produce a therapeutic effect.

The science of medical marijuana use, in other words, cannot be divorced from the art of choosing, cultivating and preparing appropriate genetic strains of marijuana to target the particular symptoms of the seriously ill patient, and the selection of the most effective means of administration that takes into account those symptoms and the patient's preferences. Both aspects of medical marijuana practice – the particulars

of the plant and the process for administering the medicine – currently rely upon and largely derive from the experiential knowledge and experimental practices of patients and their caregivers, who, out of patient necessity, often double as medical marijuana cultivators.

Many of the most sophisticated medical marijuana caregivers in California are those who take the time and effort to identify and grow particular genetic strains of marijuana, who carefully observe how different strains affect patients differently, and who methodically work with patients to find the most effective way for them to take their medicine. Such persons have become important repositories of information on the subject of medical marijuana, not least because, for nearly four decades, the federal government has banned the medical use of marijuana, blocked nearly all research involving medical marijuana, and has enforced its views with the threat of arrest and criminal sanctions.

ARGUMENT

I. MARIJUANA IS A BENEFICIAL MEDICINE FOR A HOST OF HEALTH CONDITIONS.

There is increasing consensus among medical professionals that marijuana provides beneficial effects in symptom management of a number of medical conditions. Highly regarded medical information organizations such as the New England Journal of Medicine, the American Medical Association, the American Cancer Society, and the Leukemia and

Lymphoma Society have either acknowledged the promise of marijuana as a medicine or provided an outright endorsement of it. (See, inter alia, Kassirer, Federal Foolishness and Marijuana, (1997) 336 New England J. of Med. 366; AMA Council on Scientific Affairs, Report 6, 2001 AMA Annual Meeting (2001) (available at <http://www.ama-assn.org/ama/pub/category/13625.html>)).)

In 1999, the Institute of Medicine (IOM) released a landmark report stating that marijuana was particularly promising in managing symptoms such as pain, nausea and vomiting, and loss of appetite. Joy, et al., Marijuana and Medicine: Assessing the Science Base, Division of Neuroscience and Behavioral Research, Institute of Medicine (1999). By reviewing prior studies, IOM concluded that the data on marijuana demonstrated vast potential therapeutic value, particularly in pain relief and for people with AIDS or undergoing chemotherapy, by offering a broad spectrum of relief not found in any other single medication. (Id. at 145 and 177.) In response to the mounting evidence of the efficacy of marijuana, twelve states to date have adopted laws permitting its medical use.

II. THE THERAPEUTIC BENEFITS OF MARIJUANA VARY DEPENDING ON STRAIN AND ROUTE OF ITS ADMINISTRATION.

- A. Marijuana Exists in Three Species and Several Sub-Species, Each with Widely Divergent Chemical Properties and Therapeutic Effects.

Despite an extremely inhospitable federal climate for marijuana research,¹ significant evidence exists that supports the conclusion that different genetic strains of marijuana, and different routes of administration

¹ While marijuana has demonstrated exceptional promise as treatment for many disorders and conditions, extensive study of its numerous varieties and strains and methods of administration has not been undertaken. The major reason why these important differences are rarely studied is the federal government's monopoly on the production of research marijuana and its long-standing refusal, with few exceptions, to sanction marijuana-related research. In fact, marijuana is considered to be the most difficult drug in the country to study (see AMICUS CURIAE BRIEF OF THE MARIJUANA POLICY PROJECT AND RICK DOBLIN, PH.D. IN SUPPORT OF THE RESPONDENTS, Gonzales v. Raich, 545 U.S. 1 (2005), at p.18, available at <http://www.maps.org/mmj/AvR101304.pdf>) (visited October 2, 2007.)

One recent example of federal efforts to thwart medical marijuana research is the federal government's continued denial of a request by Dr. Lyle Craker of the University of Massachusetts at Amherst to cultivate different strains of marijuana with varying levels of THC and other cannabinoids, for use by researchers to investigate the clinical significance of different genetic strains of marijuana. Because the federal government authorizes the production of only one strain of low potency marijuana – a strain that many clinical researchers have found to be inadequate -- a federal Department of Justice Administrative Law Judge expressly found that "that there is currently an inadequate supply of marijuana available for research purposes, that competition for such purposes is inadequate...and that [Dr. Craker's] registration to cultivate marijuana would be in the public interest." *In the Matter of Lyle Craker, PhD*, Department of Justice, Drug Enforcement Administration, Docket # 05-16, Transcript of proceeding, August 22, 2005 at 35-39 (available at http://www.aclu.org/medicalmarijuana/legal/082205_transcript.pdf); Transcript of proceeding, August 24, at 85, 114-116, 122, 136, 139 (available at http://www.aclu.org/medicalmarijuana/legal/082405_transcript.pdf); Opinion and Recommended Ruling, Findings of Fact, Conclusions of Law, and Decision of the Administrative Law Judge, at 87 (available at <http://www.medicalmarijuanaprocon.org/pdf/CrakerOpinion.pdf>.) The federal government, however, has refused to follow the judge's recommendation and continues to deny Dr. Craker's application.

of medical marijuana produce different therapeutic effects, and that the individualized needs of patients who use medical marijuana are best met when the type of marijuana used, and form of administration employed, are tailored to address the symptoms and medical conditions of those patients.

The Cannabis plant has many genetic strains. Within the Cannabis genus, there are three putative species: *Cannabis Sativa*, *Cannabis Indica*, and *Cannabis Ruderalis*. Of the three species, *Cannabis Sativa* and *Cannabis Indica* are common in the United States.² *Sativa* and *Indica* have a number of differentiating features, the most pronounced of which are varying levels of *nearly five hundred* active, chemical compounds, including *seventy* known chemical compounds—called cannabinoids, which bind to cannabinoid neurotransmitter receptors in the brain—that are entirely unique to Cannabis. (ElSohly & Slade, Chemical Constituents of Marijuana: The Complex Mixture of Natural Cannabinoids (2005), 78 Life Sciences, 539, 540; Mitch Earleywine, Understanding Marijuana, A New Look at the Scientific Evidence (2002), p. 121.)

Sativa and *Indica* have been extensively cross-bred, yielding numerous sub-species hybrids. Each of these hybrids contains three main cannabinoids that have proven therapeutic and psychoactive properties:

² *Cannabis Ruderalis* is predominantly limited to eastern and central Europe and Asia. (See Hillig, Genetic Evidence for Speciation in Cannabis (Cannabaceae)(2005) 52 Genetic Resources and Crop Evolution, 161, 170-175.)

(Tetrahydrocannabinol (“THC”), Cannabidiol (“CBD”), and Cannabinol (“CBN”)).³ The levels of these cannabinoids vary dramatically between sub-species. Moreover, these sub-species contain, in varying levels, terpenoids -- additional chemical components which also have been found to have medicinal and psychoactive properties.⁴ In short, the different medicinal effects and uses of marijuana are inextricably tied to chemical structures of the genetic strains. As a result, different strains of marijuana will produce different physiological and psychological effects. (See Joy, et al., eds., Marijuana and Medicine, Assessing the Science Base, supra at p. 71; Carter, et al., Medicinal Cannabis: Rational Guidelines for Dosing (2004), IDrugs, 464-70.)

Only one published study has assessed the efficacy of different strains of marijuana on symptoms associated with different medical

³ Marijuana strains vary in concentrations of multiple compounds beyond THC that lead to different anti-inflammatory, analgesic, anti-anxiety, and anti-psychotic properties. (Grotenhermen, Cannabinoids and the Endocannabinoid System (2006), 1 Cannabinoids 1) (See also Hillig & Mahlberg, A Chemotaxonomic Analysis of Cannabinoid Variation in Cannabis (Cannabaceae) (2004), 91 AM. J. OF BOTANY, 966-975, (Indica and sativa have very different chemical makeups such that they can be scientifically considered two different species.); House of Lords, Select Committee on Science and Technology, Cannabis, the Scientific and Medical Evidence (1998), section 5.53.)

⁴ Different strains (biotypes) likely “exhibit distinctive medicinal properties due to significant differences in the terpenoid composition.” (Hillig, A Chemotaxonomic Analysis of Terpenoid Variation in Cannabis (2004), 32 Biochemical Systematics & Ecology, 875.)

conditions. (Corral, Differential Effects of Medical Marijuana Based on Strain and Route of Administration: A Three-Year Observational Study, (2001) (hereafter “Strains and Routes Study”).) Three strains of marijuana were examined: Sativa, Indica, and a hybrid, each containing different levels of THC and CBD. The study found that, while every category of symptom management experienced improvement with the administration of medical marijuana, there were statistically significant therapeutic differences between the different genetic strains depending on the symptoms being treated. For example, certain strains of marijuana proved more effective at improving the appetite and perceived energy levels of patients, while other strains demonstrated greater analgesic properties. (Id. at 9.) The Strains and Routes Study concluded that patients’ well-being can be improved when the genetic strains chosen by patients (often with the assistance of caregivers) are targeted to address patients’ particular therapeutic needs.

The results of the Strains and Routes Study verified what has long been reported anecdotally and are consistent with the scientific understanding of the physiological effects of marijuana’s constituent chemical compounds. The results also reinforce Roger Mentch’s understanding of the importance of marijuana strains in providing care to seriously ill patients. (6 RT 1319-1320) While there is an unquestioned need for additional study of the medicinal benefits of different marijuana

strains, medical marijuana patients have informally refined and reported the effects of different strains for many years. (See The Vancouver Island Compassion Society, Effective Use of Medical Cannabis (2007), available at <http://thevics.com/publications/vics/VICSMedsGuide2007.pdf>, (visited September 12, 2007); see also Duncan, Medical Cannabis 101 – Choosing Medicine, available at http://www.aboutmedicalmarijuana.com/PDF_files/medicann.pdf (visited September 12, 2007).) For example, Indica is widely considered within the medical marijuana community to have more potent analgesic properties than Sativa, while Sativa is regarded as better-suited for persons with compromised immune systems who risk bacterial and viral infections. (The Vancouver Island Compassion Society, Effective Use of Medical Cannabis, supra.) Patients also widely report that genetic strains can be differentiated by their side effects, the ease with which they can be titrated, the length of time between administration and relief, and the length of the therapeutic impact. (Swift et al., Survey of Australians Using Cannabis for Medical Purposes (2005), 2 Harm Reduction Journal, 4-6.) Each of these differences is relevant to the determination of which genetic strain is medically most appropriate to alleviate a particular patient's symptoms given that patient's medical history.

The physiological significance of the chemical composition of marijuana is such that patients have reportedly detected differences in taste,

THC content, harshness and humidity, even within the same strain where different plants of that strain are cultivated, or their products are prepared, differently. (Ware, *et al.*, Evaluation of herbal cannabis characteristics by medical users: a randomized trial (2006), 3 Harm Reduction Journal, 2, 4-5.)

In sum, with seventy, naturally-occurring chemical compounds in marijuana that have been identified to date, which vary in amount from genetic strain to genetic strain, medicinal effects of specific strains can be quite particularized. The choice of which strain (or strains) should be used for therapeutic purposes is tied to the individualized needs of patients and often entails a process of trial and error until optimal relief is achieved. What is more, patients may develop tolerances to particular strains of marijuana and so may need to alter or rotate the strains they use to maintain therapeutic efficacy without unduly increasing their dosage.

Caregivers like Mr. Mentch can serve a vital role in mitigating the potential lengthy trial and error facing patients by enabling medical marijuana users to select more efficiently the appropriate strain of medicine to target effectively their particular and sometimes changing symptoms.

B. The Therapeutic Effects of Marijuana Are Also Mediated by the Route of Administration.

Another important variable in the use of medical marijuana is the route by which patients administer their medicine. There are a number of

different methods for using marijuana, including heated vapor inhalation, smoked honey oil, brewed tea, topical solutions, tinctures, and even suppositories. (Gonzalez, *et al.*, Marijuana, supra., at pp. 139-141.) The two most common methods of administration are inhalation of burnt or vaporized marijuana and ingestion as a food or liquid. (See *Id.*, at p. 139; Earleywine, Understanding Marijuana – A New Look at the Scientific Evidence, supra, at pp. 131-133; Swift *et al.*, Survey of Australians Using Cannabis for Medical Purposes, supra., at p.5. See also Dagmar *et al.*, Survey of Cannabis Use in Patients with Amyotrophic Lateral Sclerosis (2004) 21 Am. J. of Hospice and Palliative Med. 95, 97 (reporting, *inter alia*, that patients employ differing routes of administration of medical marijuana, with inhalation and ingestion being the most common.)

The differences between inhalation and ingestion of marijuana and their effects on medical conditions are primarily due to different absorption and metabolism rates within the human body. When inhaled, marijuana is absorbed into the user's bloodstream within seconds (a parallel situation would be the near-instant relief many asthmatics experience when using prescription inhalers.) The immediacy of the therapeutic effect of inhaled marijuana typically allows the patient to be highly efficient at managing symptoms and side-effects by increasing or decreasing -- or "titrating" -- the amount of medicine inhaled. Inhaled marijuana is also metabolized relatively quickly, further increasing the ability of the patient to regulate,

and thereby achieve their optimal dosage. Because inhaled marijuana is usually processed from the bloodstream within an hour, patients can medicate themselves as the symptoms occur without concern of over-medication. (See Gonzalez et al., Marijuana, *supra*, at pp.139-141, 159; National Institutes of Health (“NIH”), “Workshop on the Medical Utility of Marijuana,” <http://www.nih.gov/news/medmarijuana/MedicalMarijuana.htm> (1997); Earleywine, Understanding Marijuana – A New Look at the Scientific Evidence, *supra*, at pp. 131-136.)

Differences in therapeutic potential exist even within the same general route of administration. For example, inhaling *vaporized* marijuana yields equivalent therapeutic THC levels at even faster rates of absorption while lowering or eliminating exposure to gaseous toxins that result from the combustion of burnt (or “smoked”) marijuana. (See Abrams, et al., Vaporization as a Smokeless Cannabis Delivery System: A Pilot Study (2007), Clinical Pharmacology and Therapeutics, 5; see also Earleywine & Smucker Barnwell, Decreased Respiratory Symptoms in Cannabis Users Who Vaporize (2007), 4 Harm Reduction Journal; Hazekamp et al., Evaluation of a Vaporizing Device (Volcano ®) for the Pulmonary Administration of Tetrahydrocannabinol (2006), 95 J. of Pharm. Sci., 1308-1317; Geiringer et al., Cannabis Vaporizer Combines Efficient Delivery of THC with Effective Suppression of Pyrolytic Compounds (2004), 4 J. of

Cannabis Therapeutics, 7-27.) Thus, the use by patients of marijuana vaporizers generally provides greater therapeutic benefits and risks fewer potential harms than the inhaling of traditional smoked marijuana. The vaporization of marijuana is therefore an important consideration for many seriously ill patients. Roger Mentch was aware of this consideration and counseled his care recipients accordingly. (6 RT 1319, 1330)

Ingested marijuana is absorbed and metabolized much more slowly than inhaled marijuana. Absorption of ingested marijuana takes from one to three hours. Thus targeted dosing and titration are considerably more difficult. (See Gonzalez *et al.*, Marijuana, *supra*, at pp.139-141; British Medical Association, Therapeutic Uses of Cannabis (1997), 11-15; NIH, *supra*.) What is more, digestive processes differ widely between people, and even within individuals depending on stress levels, the timing and substance of meals, and levels of activity. Therefore, ingested marijuana is subject to erratic variance in absorption rates. (NIH, *supra*.) Once absorbed, however, ingested marijuana is much slower to metabolize than inhaled marijuana, yielding longer lasting therapeutic effects. (Swift *et al.*, Survey of Australians Using Cannabis for Medical Purposes, *supra*, at pp.4-5.)

The same Strains and Routes Study that revealed therapeutic differences among genetic strains of marijuana also observed therapeutic differences in methods of administration. The Strains and Routes Study

concluded that ingestion and inhalation result in different effects in treating spasms (inhalation was found more beneficial) and insomnia (ingestion was found more beneficial). (Strains and Routes Study, supra, at pp. 8-9.) In other contexts, inhaled marijuana has been found to provide greater appetite stimulation than orally ingested marijuana. (Earleywine, Understanding Marijuana – A New Look at the Scientific Evidence, supra, at p. 195.)

When considering the appropriate route of administration, medicinal marijuana users must also account for the length and magnitude of potential side effects, including psychoactive ones. Inhalation of smoked marijuana can cause the burning of throat cilia (leading to increased risk of infection) and the inhalation of tar and other potentially harmful materials. Inhalation of vaporized marijuana, by contrast, negates or mitigates these side effects. Ingestion of marijuana as a food or liquid meanwhile poses a modest risk of temporary stomach discomfort but avoids exposure to tars and gasses. Ingesting marijuana, however, is a substantially less attractive (and sometimes entirely unviable) option for persons who suffer nausea or extreme loss of appetite.

In short, the variance in absorption and metabolism of marijuana leads to important considerations for the treatment of medical conditions. Inhalation provides targeted relief of symptoms that can be adjusted quickly, while ingestion does not lend itself to fine-tuned, rapid adjustments. On the other hand, ingested marijuana provides much longer

lasting effects for symptom management. (Swift et al., Survey of Australians Using Cannabis for Medical Purposes, supra, at pp.4-5.) These differences affect patients' needs and abilities to target symptoms even when using a single genetic strain of marijuana.

III. MANY SERIOUSLY ILL PATIENTS DEPEND UPON KNOWLEDGEABLE CAREGIVERS TO ADVISE THEM ABOUT THE APPROPRIATE STRAINS OF MARIJUANA AND THE OPTIMAL ROUTES OF ADMINISTRATION FOR THEIR PARTICULAR MEDICAL CONDITIONS.

Like many areas of medical treatment, the use of medical marijuana is as much an art as a science. Often patients must try many different strains of marijuana and different routes of administration before finding the strain(s) and route(s) that provide the most relief from suffering. In light of the federal government's long-term prohibition on scientific research with respect to medical marijuana, the illegal status of medical marijuana under federal law, and the paucity of funding for the collection and publication of patient data with respect to medical marijuana use at the state level, medical marijuana cultivators have become, largely by default, the repositories of knowledge and experience with respect to the therapeutic potentials of different genetic strains and different routes of administration.

The technical and experiential acumen that many medical marijuana cultivators possess is invaluable to the patients they serve. Patients who, for lack of knowledge or lack of access to appropriate medicine or ingestion or inhalation techniques, use sub-optimal strains or routes of

administration, or who spend months, if not years, undergoing a process of trial and error with marijuana trying to effectively manage their symptoms and side-effect are at a distinct medical disadvantage from those patients who have skilled cultivators to educate and guide them.

Such cultivators provide an invaluable care-giving service to their patient clientele. By informing patients about different genetic strains of marijuana, the use of different strains to address different symptoms, and the different routes of administration and their relative pros and cons, and by growing for patients the particular strains that are likely to benefit them most, medical marijuana cultivators can and do fill a practical void and play a distinctly therapeutic function in the current system of medical marijuana care.

Skilled and knowledgeable cultivators offer patients another advantage: access to a consistent, quality-controlled supply of medicine. Medical marijuana cultivated under controlled and consistent circumstances helps patients maintain a reliable dosing regimen which, in turn, permits for more consistent symptom management. (Swift, *et al.*, Survey of Australians Using Cannabis for Medical Purposes, *supra*, at pp.6-7.)

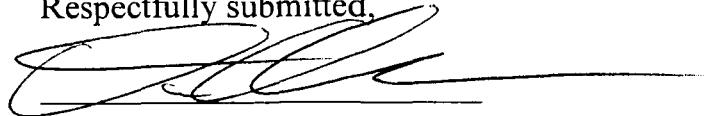
For these reasons, many medical marijuana cultivators in California have assumed the valuable role of counselor and caregiver in the altogether beneficent attempt to facilitate patient well-being through patient education, autonomy and choice. As the record reflects, this is the complex role which

Mr. Mentch both aspired to and was trying to fulfill at the time of his arrest and prosecution.

CONCLUSION

For the foregoing reasons, *amici* respectfully request that the ruling of the Court of Appeal be affirmed.

Respectfully submitted,



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CERTIFICATE OF COMPLIANCE

I certify that this brief complies with the volume limitation of the California Rules of Court Rule 8.204. I hereby certify that I conducted a word count of this brief using Microsoft word processing software. On the basis of that computer-generated word count, I certify that this brief is 3,825 words in length excluding the tables and certificates.

Dated: October 3, 2007.



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DECLARATION OF SERVICE

CASE: People v. Roger William Mentch.

CASE NO: California State Supreme Court Case No. S148204

I am employed in the City of Berkeley and County of Alameda, California. I am over the age of eighteen years and not a party to the within action; my business address is 819 Bancroft Way, Berkeley, California 94710.

On October 3, 2007, I served the following document(s):

BRIEF OF AMICI CURIAE MARCUS A. CONANT, M.D.; ROBERT J. MELAMEDE, Ph.D; GERALD F. UELMEN, J.D.

on each of the following, by placing true copies thereof in sealed envelopes addressed as shown below for service as designated below:

- (A) By First Class Mail: I am readily familiar with the practice of attorney Daniel N. Abrahamson for the collection and processing of correspondence for mailing with the United States Postal Service. I caused each such envelope, with first-class postage thereon fully prepaid, to be deposited in a recognized place of deposit of the U.S. Mail in San Francisco, California, for collection and mailing to the office of the addressee on the date shown herein.
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- (C) By Personal Service: I caused each such envelope to be personally delivered to the office of the addressee by a member of the staff of this law office on the date last written below.
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B	Michele J. Swanson Office of Attorney General 455 Golden Gate Ave., #11000 San Francisco, CA 94102

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 3rd day of October, 2007, in San Francisco, California.



Daniel Robelo
Declarant