

OBTAINING AN INDEPENDENT SUPPLY OF RESEARCH MARIJUANA: THE FIRST OF TWO PREREQUISITES TO A REALISTIC MEDICAL MARIJUANA RESEARCH EFFORT

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Obtaining MAPS' own supply of marijuana that can be used in FDA-approved research studies is one of the two developments that I consider necessary to justify the expense (roughly \$5 million in donations would be required over 5 years) of a realistic, non-profit, privately-funded, FDA-approved medical marijuana drug development research program. Such a program would be designed to gather sufficient information about the safety and efficacy of marijuana for one specific medical condition, with the data to be submitted to FDA as part of a New Drug Application (NDA) seeking FDA approval for the prescription use of marijuana for that condition. If successful, MAPS would use the income from the sale of prescription marijuana to patients to fund additional research into other uses of marijuana.

The other necessary development is FDA acceptance of the use of a vaporizer in clinical research. My strategic view is that medical marijuana research protocols should be designed to compare safety and efficacy in at least three groups of subjects: 1) subjects who smoke marijuana, and 2) subjects who inhale marijuana vapors from a vaporizer, and 3) subjects who receive the best currently available prescription medicine for the condition being studied. MAPS and CA NORML's prior research has shown that vaporizers deliver substantial amounts of cannabinoids while eliminating combustion products and substantially reducing the amounts of undesirable particulate matter. As a result, vaporizers enable us to address the recommendation of the Institute of Medicine (IOM) for the development of non-smoking delivery systems, with the vaporizer being the only such system that works with the plant itself rather than an isolated extract. My working hypothesis is that smoking high-potency marijuana isn't likely to pose a significant risk of lung problems. Nevertheless, for both scientific and political reasons, I think it's wise to hedge our bets and design research studies with both smoked and vaporizer groups.

It now looks quite likely that FDA will approve the first human protocol in which a marijuana vaporizer will be used. The study is to be conducted by Dr. Donald Abrams, UC San Francisco, and to be funded by California's Center for Medicinal Cannabis Research (CMCR). The study will compare cannabinoid blood levels, carbon monoxide levels and subjective effects in subjects who at different times consume similar amounts of marijuana, by smoking or through the use of the vaporizer.

“The letter from Senators Kerry and Kennedy supporting the UMass Amherst DEA license application has changed the political dynamics considerably.”

Status of UMass Amherst DEA License Application

MAPS has for the last four years been seeking to sponsor a privately-funded marijuana production facility at UMass Amherst, under the direction of Professor Lyle Craker, Director of the Laboratories for Natural Products, Medicinal and Aromatic Plants, Department of Plant and Soil Sciences. The goal of the UMass Amherst facility is to create an independent source of supply of high-potency material for use exclusively in federally-approved research. The UMass Amherst facility would provide an alternative to the monopoly on supply held for the last 39 years by the National Institute on Drug Abuse (NIDA), which has marijuana grown under contract at the University of Mississippi. Problematically, NIDA provides researchers with low potency material, and only if NIDA and the Department of Health and Human Services (HHS) approve the protocol as well as FDA. NIDA has twice refused to provide marijuana to MAPS-sponsored and FDA-approved protocols. MAPS already has independent sources of MDMA and psilocybin for use in MAPS-sponsored, FDA-approved clinical research studies. There seems to be no reason, other than to obstruct research, why marijuana is currently treated differently than all other Schedule I drugs.

Dr. Craker initially submitted his application to DEA for a license to establish a growing facility on June 25, 2001. On July 24, 2003, after stonewalling for over two years, DEA finally posted a *Federal Register* notice about Prof. Craker's application, with the public comment period ending September 22, 2003. A decision from DEA about Prof. Craker's application is expected within the next month or two.

On October 20, 2003, Senators Kennedy and

Kerry (a Democratic presidential candidate) wrote a strong letter to DEA Administrator Karen Tandy urging DEA to license the UMass Amherst application (<http://www.maps.org/mmj/kkletter102003.html>). While it's got to be conceded that DEA is more likely to reject the UMass Amherst application than approve it, I'm not convinced yet that the situation is heading for yet another lawsuit before a DEA Administrative Law Judge.

Dr. Russo speaks at UMass Amherst

On September 29, 2003, MAPS arranged for Dr. Ethan Russo to speak at UMass Amherst about the production of marijuana for pharmaceutical research, the history of marijuana's medical uses, and recent clinical research with marijuana and its extracts. Dr. Russo is

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the editor of the *Journal of Cannabis Therapeutics* and is one of the two researchers MAPS worked with who obtained FDA approval for a medical marijuana protocol (but were then denied marijuana by NIDA, effectively preventing the study from taking place). (For more details on MAPS and Dr. Russo's struggles to conduct FDA-approved research into the use of marijuana in subjects with treatment-resistant migraines, see: <http://www.maps.org/mmj/>). Dr. Russo's talks were quite well received by some previously skeptical faculty members in the Department of Plant and Soil Sciences, and by quite a few previously supportive but now better informed students. Dr. Russo did an excellent job of presenting the serious and science-based approach that MAPS is seeking to implement.

Public comments in support of UMass Amherst license

According to the DEA, its public comment period wasn't actually open to comments from the public. The only people that DEA invited to comment were potential competitors of Prof. Craker, people who either already hold a similar license or are in the process of applying for one. We've been able to learn from DEA that only one comment was submitted, though we were required to file a Freedom of Information Act (FOIA) request to obtain a copy of that comment. MAPS' FOIA request was submitted on October 7, 2003. We expect to receive a copy of the comment submitted sometime in the next several months.

It doesn't seem likely that DEA will make a decision on such a controversial issue as whether to break NIDA's 39-year monopoly on the supply of marijuana that can be used in federally-approved research without taking direction from Drug Czar John Walters, Director of the Office of National Drug Control Policy (ONDCP). Since DEA didn't welcome comments from the public, MAPS worked closely with the Drug Policy Alliance, NORML, DrugSense, DRC-NET, and Americans for Safe Access (ASA) on an action alert/letter-writing campaign directed at Dr. Andrea Barthwell, the official in the Drug Czar's office who has spoken out most forcefully against the medical use of marijuana. I'm proud to report that over 2000 letters and faxes were sent to Dr. Barthwell. These faxes and letters urged ONDCP to recommend that DEA approve the UMass Amherst application in order to help resolve the controversy over the medical uses of marijuana through FDA-approved research. Perhaps in part as a result of the letters, I was able to have cordial and thorough discussions about the UMass

Amherst project with David Murray, special assistant to Director Walters. As a result of these conversations, Murray invited me to write a short memo for his use expressing my view of the obstacles in the way of medical marijuana research and my analysis on why DEA licensing of the UMass Amherst facility is part of the solution. I hope to hear back from him on this shortly (see <http://maps.org/mmj/mmjfacility.html>, for the memo and latest news).

In a humorous moment that I'm probably reading way too much into, David Murray showed me that he had done his homework when he asked me near the end of an initial conversation what I thought of Burning Man, from which I

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had just returned. I was surprised and then realized that he must have read the August 29, 2003 *Boston Globe* article on the UMass Amherst DEA license application (<http://www.maps.org/mmj/bglobe8.29.03.html>). The article concluded by reporting that MAPS was the organization seeking to sponsor the project and that its president was unavailable for comment since he was away at Burning Man! I took the question to be, in part, a challenge to determine whether I was actually a hippie burnout stuck in the 60s (Burning Man is definitely not stuck in the 60s!). I told David Murray that Burning Man was amazing (see article on page 28), and followed up quickly by explaining that MAPS provided psychedelic emergency services there, offering support to people going through difficult experiences. That seemed to return me in his eyes to the realm of the professional, and left me pondering whether the news that the psychedelic community was providing services to take care of its own would make ONDCP more comfortable with Burning Man, or less. I don't know, but I think the effort to reduce problems shows that

the event doesn't cry out for government action.

In any case, ONDCP's rhetoric is that marijuana can't be a medicine unless more research demonstrates, to the satisfaction of the FDA, that marijuana is safe and efficacious for specific medical conditions. The UMass Amherst application is an effort to facilitate research, giving ONDCP a chance to live up to its rhetoric, or be shown in a transparent manner to be urging more research on the one hand yet blocking that research with the other.

ONDCP's New England Governor's Summit, October 8

Dr. Barthwell's comments on the medical marijuana panel at ONDCP's New England Governor's Summit, held in Boston on October 8, were not encouraging. ONDCP is fearful that acceptance of the medical use of marijuana will send a mixed message about marijuana to kids. This is despite survey evidence to the contrary paid for by ONDCP itself showing that kids in California, which is awash in messages about the medical use of marijuana, don't use marijuana at a greater rate than kids in states that haven't passed medical marijuana initiatives. ONDCP seems to prefer blatant denials of the obvious to the intellectually challenging, but ultimately rewarding, hard work that would be required to develop nuanced but credible (and therefore more effective) drug abuse prevention and education messages. On October 14, 2003, the US Supreme Court has let stand the Ninth Circuit Court of Appeals ruling that prevents the DEA from revoking the medical licenses of doctors who recommend marijuana, and on October 20, 2003, Senators Kennedy and Kerry sent their letter to DEA. ONDCP may be beginning to realize that the medical marijuana issue is spiraling out of federal control and may, in response, decide to remove the obstacles in the way of the FDA drug development process.

Encouragingly, the comments of Massachu-

setts Governor Mitt Romney at ONDCP's New England Governor's Summit were eminently reasonable and suggest that his work as a venture capitalist has made him justifiably suspicious of government monopolies. Gov. Romney asked Dr. Barthwell if marijuana could be treated like any other drug and evaluated through the FDA drug development process. It was all I could do to restrain myself from yelling out (no public comments were permitted at ONDCP's meeting) that the private non-profit sector was eager and willing to sponsor medical marijuana research if ONDCP and DEA would get out of the way and treat marijuana like any other drug by licensing a private producer. On November 10, I was able to discuss the project with Governor Romney's senior policy advisor in a meeting facilitated by the Drug Policy Forum of Massachusetts. This was arranged, and attended, by Leo Kahn, a major Republican supporter of Governor Romney. We hope to hear the governor's position on the project soon (An October 17 article from the *Boston Phoenix* about ONDCP's Governor's Summit can be found at: <http://www.maps.org/media/bp101703a.html>).

In the Wings

NIDA's National Advisory Council on Drug Abuse

MAPS has also sent a letter to all the members of NIDA's National Advisory Council on Drug Abuse (NACDA). In January 1998, the NACDA issued a report, "Provision of Marijuana and Other Compounds For Scientific Research - Recommendations of The National Institute on Drug Abuse National Advisory Council," in which the NACDA proposed most of the procedures for the provision of marijuana for research that are currently in place. MAPS' letter explained the goals of the UMass Amherst project and requested that the NACDA recommend that NIDA support the UMass Amherst project.

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Purchasing marijuana from NIDA, importing marijuana from the Dutch Office of Medicinal Cannabis

In a related effort, the laboratory that is conducting vaporizer research for MAPS and CA NORML has submitted an application to DEA for a license to import ten grams of marijuana from the Dutch Office of Medicinal Cannabis, and has submitted an application to NIDA to purchase ten grams of marijuana. The material would be used for further vaporizer research in a protocol submitted for review as part of the applications. The study is designed to measure the release of various cannabinoids, THC, CBD and CBN. On October 10, I received copies of letters to the research lab from the senior drug policy advisor to the Secretary of Health and Human Services (HHS) and from DEA, responding to the applications. Basically, HHS is requesting additional information about previous vaporizer research conducted prior to the specific protocol that was submitted for review, along with more information about the staff, facilities and equipment involved in the research. The information requested by HHS seems reasonable and won't be that difficult or time-consuming to prepare. DEA said that it won't move forward with its review unless the scientific merit of the protocol is approved by HHS. We anticipate another month or two before final decisions are made by HHS and DEA.

As far as we know, we are the first group seeking to import marijuana for research into

the United States from the Dutch Office of Medicinal Cannabis. If DEA ultimately decides to approve the import permit, NIDA's monopoly on supply will have been ended but there might still remain a cumbersome process for obtaining marijuana for research that could continue to involve both HHS and DEA.

Working towards unobstructed research

Ideally, marijuana should be treated like any other drug, with the scientific design of research protocols needing to be approved by FDA, with the protection of human subjects requiring approval for the protocol and informed consent form by an Institutional Review Board (IRB), and with DEA reviewing the study from the perspective of diversion control, to ensure that material approved for medical research isn't diverted to non-medical uses. As long as protocols are privately-funded and do not involve any support from government grants, there is no need for additional protocol reviews to be conducted by NIDA/HHS, especially since the institutional mission of NIDA does not include, and is considered by some officials (I believe mistakenly so) to conflict with, the development of the beneficial medical uses of marijuana.

It seems probable that FDA will approve the first human protocol in which a marijuana vaporizer will be used, and it looks at least remotely possible that NIDA's monopoly on the supply of marijuana that can be used in FDA-approved clinical trials will eventually come to an end. If these two developments do come to pass, then the necessary prerequisites will have been achieved for a realistic, drug development program designed to obtain FDA-approval for the prescription use of marijuana. MAPS would then be eager and ready to embark on the massive effort of obtaining funding and implementing a 5-year, \$5 million medical marijuana clinical research plan. ■