



# Oregon's Employers to Cannabis Patients: "You're Sick; You're Fired"

by Edward Glick, RN

Oregonians suffering from disease, who have been bankrupted by America's for-profit medical system, now have another problem to worry about: being fired from their jobs. Patients enrolled in Oregon's Medical Marijuana Program now face employment discrimination because they legally use cannabis for symptom relief- against the wishes of employers who dismiss cannabis as a drug of abuse and nothing more.

The Oregon Department of Human Services, along with the Oregon Nurses Foundation- an affiliate of the Oregon Nurses Association (ONA)- are funding "Workdrugfree" a nonprofit agency dedicated to "...providing tools and technical assistance to prevention coordinators across Oregon..." In War on Drugs speak, this means: "...assisting employers to craft workplace policies depriving employment to medical cannabis patients..." The ONA has long demonstrated hostility to cannabis- using patients. Eight years after the passage of the Oregon Medical Marijuana Act ONA has yet to approve a policy of protection- or compassion- towards cannabis patients. And Oregon's DHS is, on the one hand providing legal support to medical cannabis patients through the medical marijuana program, and on the other, funding groups whose objective is to <continued pg 3 >



## Contigo-Connmigo

Translated means "With you-with me" and is the name of an Oregon-based medical cannabis resource group advocating for the Medical Marijuana Program registrants of this state. Contigo-Connmigo functions as an educational and advocacy organization for nurses, M.D.s, and other medical professionals, as well as the general public. They research, inform and act thru items like the Oregon Medical Marijuana Guide. The OMMG was written for Patients, CareGivers, Doctors, Law enforcement, Landlords, Employers and anyone interested in the Oregon Medical Marijuana Program (OMMP). This is a unique, valueable, must-have tool for participating cardholding members of the Program - and those who care about them. If you have questions, answers (!), concerns or ideas about OMMP cardholder rights as employees or in general, write them: Contigo-Connmigo, 39234 Hwy 99W, Monmouth, Oregon, 97361 \* or visit their website at:

<http://www.or-coast.net/contigo/>

## Federal Medical Cannabis Bill Introduced In Congress

Please visit this link - (<http://www.kintera.org/TR.asp?ID=M712233787861842520886265&af=y>) - to ask your congressperson to cosponsor just-introduced legislation to end the federal government's gag order on medical marijuana patients.

Yesterday, U.S. Rep. Sam Farr (D-CA) — along with nine cosponsors — introduced the "Steve McWilliams Truth in Trials Act" in the U.S. House of Representatives. The bill would end the federal government's gag order on medical marijuana defendants in federal court by ensuring that they can introduce evidence that their marijuana-related activity was for a valid medical purpose under state law.

Will you please take a minute to write your U.S. representative and urge him or her to cosponsor this important legislation?

The bill's namesake, Steve McWilliams, was a longtime California advocate for medical marijuana patients who tragically took his own life on July 12, 2005, while awaiting <continued pg 4 >



**The MERCY News Report** is an all-volunteer, not-for-profit project to record and broadcast news, announcements and information about medical cannabis.

For more information about the MERCY News, contact us.

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*Check it out!*

The MERCY News Report is produced by virtue of the expense and energy of the members and staff of MERCY, the



# About MERCY

MERCY is a not-for-profit, grass roots organization founded by patients, their friends and family and other compassionate and concerned citizens in the area and is dedicated to helping and advocating for those involved with the Oregon Medical Marijuana Program (OMMP). MERCY is based in the Salem area and staffed on a volunteer basis.

The purpose is to get medicine to patients in the short-term while working with them to establish their own independent sources. To this end they provide, among other things, ongoing education to clinics, individual physicians and other healthcare providers about the OMMP, cannabis as medicine and doctor rights in general.

MERCY wants to be a strong patient advocate, which can manifest itself in a variety of ways. One of these has been maintaining lines of communication with other patient advocates and the OMMP director and workers, which we are trying to do.. At the same time we attempt Doctor education and support programs, and Patient and Caregiver projects like learning to grow and different methods for consumption. These are especially important for the first time medical cannabis user as well as those unable to apply their medication.

During the past year MERCY has assisted a number of people in getting into the OMMP as well as helping them find access to excess medicine. Through the above actions, MERCY intends to build a volunteer base for constant recruitment & administration of the organization for the future. Through marketing and communications we hope to coordinate with business and organizations to make a lasting, positive change in the community.

The mission of the organization is to help people and change the laws so that action like this isn't necessary any more. We advocate reasonable, fair and effective marijuana laws and policies, and strive to educate, register and empower voters to implement such policies. Our philosophy is one of teaching people to fish, rather than being dependent upon others. Lasting change will require that each citizen be active enough to register and effectively vote. You, and only you, the people, can make it happen. We will help in any way we can, but you have to tell us what you need. Work with us to make this your "tool shed", or resource guide, to successful medical cannabis utilization and activism.

## Monthly Meetings and Office Hours

One of the missions of MERCY is to establish regular get-togethers in each community where the are (or will be!) medical cannabis patients. The purpose is to get patients networking and self-sufficient within their neighborhoods, assist those seeking information about the OMMP and pass on (or pick up!) action items of interest to the group. **Next ones happen Thursday - December 29, 2005 and January 26, 2006**

**!SORRY!** We REALLY do want to help everybody as much as they feel they need it. **BUT** the expenses of maintaining the resources - just being there - has caught up with the starting poverty level of the organizers. Therefore, a **\$20 Day Use fee** is being instituted for use of MERCY facilities at **Monthly meetings, Office hours and such.** We will still accommodate the public and cardholders with their registration issues for (dumb looks still) free!, of course.

<continued from "SICK? YOU'RE FIRED!", pg 1> terminate cannabis patients' ability to make a productive living.

## Cannabis, the miracle drug

Drug-treatment advocates express surprise that the Medical Marijuana Program has grown continuously since its inception in January of 1999- to more than 11,000 registrants. Medical cannabis advocates know better. It's wide therapeutic range, relative safety in comparison to pharmaceutical medicine, and the vast number of people ignored by the medical establishment, guaranteed that cannabis therapy would be widespread. This trend will continue.

World-wide, there is now a feeding frenzy of research into the complexities of cannabis. As the physiological and pharmacological mechanisms are described, cannabis has emerged as a drug with a risk-benefit relationship unheard of with any other drug or herb. It is used, most notably for treatment of pain. Pain is a complex, neurological response to trauma or disease. Many other physical or psychological symptoms accompany severe pain including depression, insomnia, nausea, anorexia, and dysregulation of practically any body system. Cannabis is usually reported by patients as the single most valuable medication they use, because it reduces groups of symptoms, not just the pain. Cannabis buffers other medications, decreasing nausea, allowing patients to maintain important drug therapy. It acts synergistically with opioids like morphine. Thus, smaller doses of each drug yield better analgesia, with less risk of adverse reactions. Cannabis also reduces dysphoria, or depression, by stimulating Dopamine receptors in the brain. This effect, derisively labeled a "high" by drug-war miscreants, is perhaps its central basic benefit. In any case, whether cannabis is a psychotropic medication that relieves physical symptoms, or vice-versa, its use by suffering people is likely to increase.

## Employers beat up on sick people

The 2005 Oregon Legislative Assembly was notable for, among other things, House Bill 2693. Sponsored by the Judiciary Committee at the behest of employers, it would have, if passed, permitted employers to fire cannabis patients registered in Oregon's registry program. This discriminatory legislation was based upon the ongoing legal challenge Washburn v. Columbia Forest Products. Employers argued that Mr. Washburn is not disabled because cannabis mitigates the effects of his disease. Additionally, employers argue that the Medical Marijuana Act states that employers are not required to accommodate the use of marijuana in any workplace. Both arguments are spurious. Mr. Washburn is clearly covered by the protections of not only the Oregon Disability Act, but its

federal counterpart, the Americans With Disability Act. Federal and State Statutes clearly articulate a position that medicines or assistive devices used by patients to relieve symptoms, do not disqualify them from the protection of the law.

This case was heard by the Oregon Supreme Court on November 7. A decision is pending. But regardless of its outcome, employers groups, spearheaded by Oregon Associated Industries are planning a new attack in 2007.

## A rational approach to patients who "use drugs" in the workplace

Millions of Americans use drugs in the workplace every day. antihistamines, coffee, analgesics, steroids and tobacco all have the potential to impair a persons job performance. Impairment is the key term here, not drugs.

Employers have an obligation- and a legitimate right- to ensure a safe working environment, whether it be impairment or working conditions. Employees who drive heavy machinery, fly airplanes, or perform surgery are obligated to perform these duties unencumbered by mind-altering chemicals. But there are- or should be- limits on employers who enforce codes of conduct upon their employees. These limits are crossed when legal cannabis patients are fired for their cannabis use simply because metabolites for THC show up in their urine. The presence of THC metabolites, while indicating past use, simply does not indicate present impairment. Should this standard become the legal basis for firing patients engaged in legal behavior, it will set a precedent which may be extended to any employee who uses any potentially mind-altering drug. The protections of the Americans With Disabilities Act will be rendered meaningless, and all ill people, not just cannabis patients, will be subject to dismissal without recourse to unemployment benefits.

This cruel and senseless scenario may be averted through a cooperative engagement between patients and employers. Employers should constrain their authoritarian impulses, without ceding their legitimate interest in a safe working environment. Policies should reflect a desire to accommodate any legitimate (legal) medication use, saving punitive measures for employees who evidence an impaired condition at work. Cannabis should not be separated from other prescribed medications of abuse. Mandated drug testing should be based upon strong evidence of impairment, and blood (as opposed to urine) testing should be used as a credible marker for intoxication.

Employees who use any medication should continuously evaluate their fitness to perform their duties, follow accepted dosage recommendations, and strictly avoid working when impaired. For cannabis <continued next pg >

patients, this means not working within 4 hours of pulmonary ingestion (smoking) or 8 hours within oral ingestion (eating). If cannabis is being used in conjunction with other psychotropic, analgesic or mind-altering medications these times may increase. Just as employees should not work during acute illness, so should they not work if they are using medications which cause drowsiness or altered mental functioning.

As medical cannabis use continues to increase, pressure will continue to build for some rational justification for punitive and illogical placement of cannabis in Schedule One of the Controlled Substances Act. Eventually, common sense will prevail, and cannabis will lose its position as the number one public health priority of the war on drugs. In legislation, as in reality, methamphetamine, alcohol and tobacco will compete for that dubious distinction. In the mean time, employers who value the life and energy given by their employees, will base employment more on the content of their actions than contents of their urine.

*Edward Glick is a Registered Nurse and author of the Oregon Medical Marijuana Guide (OMMG), information on OMMA and medical cannabis in general. Visit:*

<http://www.or-coast.net/contigo/>

<continued from BILL, pg 1> federal sentencing for providing medical marijuana to seriously ill patients in San Diego.

McWilliams had been growing marijuana for sick and dying patients, including a 73-year-old leukemia patient, a 70-year-old prostate cancer patient, and a terminal transplant patient. Even though the San Diego city government had officially recognized the legitimacy of McWilliams' medical marijuana collective — he was growing marijuana for patients in compliance with state law — the Drug Enforcement Administration targeted him for prosecution.

Under federal law, McWilliams was barred from mentioning in federal court that he was providing marijuana to sick and dying patients in compliance with state law. He pleaded guilty to the charges because, without a plea agreement, he faced 40 years in federal prison. Facing years in prison and unable to present jurors with accurate information about his activities, McWilliams took his own life.

It's time for Congress to correct this injustice. If you've read this far but haven't taken action yet, please visit this link:

<http://www.kintera.org/TR.asp?ID=M712233787861842520886265&af=y>

and take just one minute to urge Congress to correct this unjust policy.

Your voice really does count, and we need your support.

Sincerely,

Rob Kampia  
Executive Director  
Marijuana Policy Project

*Marijuana Policy Project (MPP) works to minimize the harm associated with marijuana - - both the consumption of marijuana, and the laws that are intended to prohibit such use. To this end, MPP focuses on removing criminal penalties for marijuana use, with a particular emphasis on making marijuana medically available to seriously ill people who have the approval of their doctors. Contact: MPP Foundation, P.O. Box 77492, Capitol Hill, Washington, DC 20013 \* Fax: 202-232-0442 \* or visit:*

[www.mpp.org](http://www.mpp.org)

## Two Medical Marijuana Victories In Michigan

On November 8, 2005, voters in two Michigan cities passed medical marijuana initiatives by dramatic margins, joining the growing national trend of voters who are bypassing legislators and using the ballot box to protect medical marijuana patients from arrest.

In Ferndale, by a margin of 61% to 39%, voters removed the threat of arrest and jail under city law for seriously ill people who use and grow marijuana with their doctors' recommendations. In Traverse City, by a margin of 63% to 37%, voters made the prosecution of medical marijuana patients the city's lowest law enforcement priority.

Donal O'Leary at Ferndale Coalition for Compassionate Care — as well as Laura Barber and Melody Karr at Traverse City Coalition for Compassionate Care — should be congratulated for collecting the signatures to put these initiatives on their respective ballots ... and for running enormously successful campaigns.

The Marijuana Policy Project provided funding for the post-signature drive portion of each campaign, as well as strategic advice and media training.

This is what MPP does: They receive generous contributions from people and groups and use the money to fund operations, as well as provide activists on the ground with what they need to win.

Ferndale and Traverse City are the third and fourth Michigan cities in 16 months to pass medical marijuana initiatives. Last year, Detroit voters passed its initiative by

60% to 40%, and Ann Arbor voters passed a similar measure by 74% to 26%. No medical marijuana initiatives have failed in Michigan, which is typical of the rest of the country.

The sweeping wins of Nov. 8th come on the heels of Denver's vote last week to allow the possession of small amounts of marijuana. By 53.5% to 46.5%, Denver voters eliminated all city-level penalties for the possession of up to an ounce of marijuana by adults aged 21 and older.

Also Nov. 8th, New Jersey voters elected Jon Corzine as the state's new governor. Corzine — like his opponent, Douglas Forrester — has vowed to sign a medical marijuana bill if one is passed by the state legislature.

Unfortunately, a medical marijuana bill is currently stalled in committee. Visit:

<http://www.mpp.org/NJ/news/10445.mpp>

to read Corzine's and Forrester's endorsements of medical marijuana access.

In city after city, voters are sending a strong message to elected officials that support for marijuana policy reform is overwhelming and bipartisan.

You can help MPP continue to build on these successes. They've vowed to not give up until marijuana prohibition is just a sad, distant memory. Visit:

<http://www.mpp.org/donate5001>

to help them continue the fight, or write to: *MPP Foundation, P.O. Box 77492, Capitol Hill, Washington, DC 20013 \* Fax: 202-232-0442*

## JAMA Commentary Calls For Marijuana's Rescheduling

Chicago, IL: Cannabis provides therapeutic relief for patients and should be reclassified by the federal government to allow for its legal use as a prescription medicine, according to a commentary in the August 17 edition of the Journal of the American Medical Association (JAMA).

"Sound regulation of medical marijuana requires government oversight based on public health, a rigorous research agenda, a private physician-patient relationship, and respect for patients who seek relief from suffering," the commentary states. "A first step would be to reclassify marijuana as a schedule II drug because, like the schedule II substances cocaine and morphine, it fits well within the statutory definition of having ... 'a currently accepted medical use with severe restrictions.' This would allow for

medical prescriptions subject to strict regulation without unduly interfering with federal drug policy. ... The public can make a distinction between a drug of abuse and a drug prescribed by a physician for a compassionate purpose."

The commentary further argues that the federal classification of cannabis as a Schedule I prohibited drug needlessly obstructs investigators from conducting clinical research of the plant's medical properties. "To objectively answer the questions about the safety and efficacy of marijuana, the federal government must be open to the results of scientific research," it states. "Yet research has been sporadic, with the federal government posing multiple hurdles to scientists."

The commentary concludes: "The data suggest that marijuana may offer respite for some patients - a position supported by patient experiences and physician opinions. The 'drug war' metaphor does not justify an ideology that removes hope from patients when they are most vulnerable and in need."

The American Medical Association (AMA) has previously called (see [http://norml.org/index.cfm?Group\\_ID=3390](http://norml.org/index.cfm?Group_ID=3390)) for "adequate and well-controlled studies of smoked marijuana [to] be conducted in patients who have serious conditions for which preclinical, anecdotal, or controlled evidence suggests [that cannabis holds] possible efficacy," but has yet to take a formal position in favor of the plant's rescheduling.

*For more information, please contact either Allen St. Pierre <[director@norml.org](mailto:director@norml.org)> or Paul Armentano <[paul@norml.org](mailto:paul@norml.org)> of NORML at (202) 483-5500. Full text of the commentary, "Medical marijuana, American federalism, and the Supreme Court," appears in the August 17 issue of the Journal of the American Medical Association.*

## NIDA Rejects MAPS/Cal NORML Cannabis Vaporizer Study

Washington, DC: After an 18 month regulatory delay, a scientific protocol to investigate the types of emissions produced by cannabis vaporization (see: [http://norml.org/index.cfm?Group\\_ID=6636](http://norml.org/index.cfm?Group_ID=6636)) has been rejected by NIDA - the National Institute on Drug Abuse. Visit: <http://www.nida.nih.gov/> for more about this agency.

The protocol, submitted to NIDA in February 2004 on behalf of Chemic Laboratories in Massachusetts, sought to purchase 10 grams of marijuana from the agency so that researchers could conduct a chemical assessment of the cannabis vaporization process. <continued on next page>

Previous studies ([http://norml.org/index.cfm?Group\\_ID=5641](http://norml.org/index.cfm?Group_ID=5641)) have shown vaporization to suppress respiratory toxins by heating cannabis to a temperature where cannabinoid vapors form (typically around 180-190 degrees Celsius), but below the point of combustion where noxious smoke and associated toxins (i.e., carcinogenic hydrocarbons) are produced (near 230 degrees Celsius). A 1999 review of marijuana and health by the National Academy of Sciences Institute of Medicine <http://www.iom.edu> strongly urged the government to conduct research into non-smoked, rapid-onset delivery systems for cannabis. See:

<http://www.nap.edu/readingroom/books/marimed/>

In its letter rejecting the protocol, NIDA claimed that the study would "not add to the scientific knowledge base in a significant way." Chemic Laboratories says that it will challenge NIDA's decision. See:

[http://www.maps.org/mmj/legal/chemic\\_dhhs\\_7.27.05/1.html](http://www.maps.org/mmj/legal/chemic_dhhs_7.27.05/1.html)

"Once again, the government has displayed its bad faith by creating a Catch-22 for medical marijuana," said California NORML <http://www.canorml.org> coordinator Dale Gieringer [http://norml.org/index.cfm?Group\\_ID=4490](http://norml.org/index.cfm?Group_ID=4490), who co-sponsored the protocol in conjunction with the Multidisciplinary Association for Psychedelic Studies (MAPS) <http://www.maps.org/>.

"First, it claimed that marijuana couldn't be used as a medicine because there weren't sufficient FDA studies of safety and efficacy. Then it refused to provide marijuana to conduct the studies. Next it contended that marijuana was inappropriate for FDA approval in the first place due to the dangers of smoking. Now it is blocking the very studies called for by the Institute of Medicine to develop non-smoked alternatives to smoking."

Last week, Gieringer and MAPS Executive Director Rick Doblin [http://norml.org/index.cfm?Group\\_ID=4492](http://norml.org/index.cfm?Group_ID=4492) testified [http://norml.org/index.cfm?Group\\_ID=6652](http://norml.org/index.cfm?Group_ID=6652) before the Drug Enforcement Administration (DEA) that a private, independent source of cannabis is necessary in order to conduct the clinical trials required to establish cannabis as an FDA-approved drug. Currently, all federally approved research on cannabis must utilize cannabis supplied by and grown under contract with NIDA. However, according to the agency's director, it is "not NIDA's mission to study the medical uses of marijuana." See:

<http://www.maps.org/mmj/hhs060904.html>

*For more information, please contact either Paul Armentano [paul@norml.org](mailto:paul@norml.org), NORML Senior Policy Analyst, at (202) 483-5500 or California NORML (<http://www.canorml.org>) Coordinator Dale Gieringer at (415) 563-5858 or [canorml@igc.org](mailto:canorml@igc.org).*

## Marijuana Less Cancerous Than Tobacco

WASHINGTON, Oct. 17 (UPI) -- Marijuana is less carcinogenic than tobacco smoke and may even have some anti-cancer properties, new research suggests.

Robert Melamede, chair of biology at the University of Colorado in Boulder, reviewed studies of the illicit drug and published his findings in the Oct. 17 issue of Harm Reduction Journal.

Melamede's conclusion is certain to factor in the medical-marijuana debate, because the cancer-causing potential of the drug is one of the reasons often cited by those who oppose legalizing it for medicinal uses. He said he was motivated to investigate the issue because the Drug Enforcement Administration has made the argument that marijuana has four times the amount of tar contained in tobacco smoke, so it is potentially carcinogenic.

"I said, 'Let's see what's true because the government doesn't have a very good record on telling the truth about cannabis,'" Melamede, who classifies himself as a medical-marijuana advocate, told United Press International.

He said the studies indicated although marijuana smoke does contain carcinogens, it does not appear to induce cancer because of its unique pharmacological properties. Lung cancer, for example, is caused by a combination of carcinogens in conjunction with nicotine found in tobacco smoke.

"It's the nicotine that's really the cancer-promoting agent," he explained. "That's absent in marijuana smoke so you don't have that enhancing factor."

Studies to date have not linked marijuana smoking with the lung, colon, rectal and other cancers associated with tobacco smoking, Melamede said. In addition, other studies have indicated compounds found in cannabis might even kill certain cancers, including lung, breast, prostate and skin, as well as leukemia and lymphoma, and a type of brain cancer called glioma.

"That's not to say smoking marijuana is good," Melamede noted. It is a lung irritant and can cause respiratory problems, such as coughing. Also, it is full of carcinogens, so "even if it's not causing cancer, it's having negative effects," he said.

One alternative would be to use a vaporizer, rather than smoking, to deliver the marijuana.

"It should be noted that with the development of vaporizers, that use the respiratory route for the delivery of carcinogen-free cannabis vapors, the carcinogenic potential

of smoked cannabis has been largely eliminated," Melamede wrote in the journal.

At least 10 states, including California and Colorado, have moved in the direction of allowing patients to use marijuana with a doctor's approval. The DEA has attempted to enforce a federal ban on the drug, however, and has arrested patients using it. This policy has discouraged doctors from recommending it for medical use.

The U.S. Supreme Court ruled last June that the federal prohibition supersedes state laws and the DEA can arrest patients who use the drug.

Karen Tandy, the DEA's administrator, wrote in an article titled, "Marijuana: The Myths Are Killing Us," which appeared in the March issue of Police Chief magazine, that the drug is hazardous to health and does not help patients.

"The scientific and medical communities have determined that smoked marijuana is a health danger, not a cure," Tandy wrote in the article, which also appears on the DEA Web site. "There is no medical evidence that smoking marijuana helps patients."

Tandy did not claim marijuana caused cancer, but she implied it by saying, "marijuana smoke ... contains 50 to 70 percent more carcinogenic hydrocarbons than tobacco smoke and produces high levels of an enzyme that converts certain hydrocarbons into malignant cells."

She also said marijuana can cause anxiety and depression, particularly in teens. However, a study released last week from Canadian researchers found a synthesized version of a marijuana compound actually promotes development of new brain cells in rats, and this in turn was accompanied by a reduction in anxiety and depression.

Other risks of marijuana cited by Tandy included impaired cognitive function, such as short-term problems with perception and memory.

Allen St. Pierre, executive director of the National Organization for the Reform of Marijuana Laws, told UPI that Tandy's assertions "run up against the known science," which indicate the toxicity of the drug is minimal.

"While not harmless, marijuana comes very close to being benign when compared to other prescription drugs," St. Pierre said.

He noted that Dr. Tod Mikuriya, a psychiatrist in El Cerrito, Calif., had conducted a study with medical-marijuana patients and did not find evidence they developed cognitive impairments, paranoia, anxiety or other mental problems after they began using the drug.

"The government has insisted there are no pros and there are

only cons of marijuana, but this is totally lacking in science and totally lacking in any realistic credibility," Melamede said.

He predicted medical marijuana ultimately will be permitted in the United States.

"It's unavoidable that it will eventually triumph because it works," he said. "The government is lying and it will eventually win out in the end. It's just a matter of how many people have to suffer between now and then."

*Story by STEVE MITCHELL, Senior Medical Correspondent, Health Business. Visit:*

<http://www.upi.com/HealthBusiness/view.php?StoryID=20051017-053500-7215r>

## Marijuana May Spur New Brain Cells

Washington, D.C. -- Scientists said Thursday that marijuana appears to promote the development of new brain cells in rats and have anti-anxiety and anti-depressant effects, a finding that could have an impact on the national debate over medical uses of the drug.

Other illegal and legal drugs, including opiates, alcohol, nicotine and cocaine, have been shown to suppress the formation of new brain cells when used chronically, but marijuana's effect on that process was uncertain. Now, a team led by Xia Zhang of the department of psychiatry at the University of Saskatchewan in Saskatoon may have found evidence the drug spurs new brain cells to form in a region of the brain called the hippocampus, and this in turn reduces anxiety and depression.

Marijuana appears "to be the only illicit drug whose capacity to produce increased ... neurons is positively correlated with its (anti-anxiety) and anti-depressant-like effects," Zhang and colleagues wrote in the November issue of the Journal of Clinical Investigation. The paper was posted online Thursday.

In the study, rats were given injections of HU210 -- a synthesized version of a cannabinoid chemical found in marijuana -- twice per day for 10 days.

Zhang told United Press International this would be "a high dose" of smoked marijuana, but he added he is not certain how many equivalent joints it would take or whether patients now using the drug typically would be getting this much HU210.

Although HU210 was injected, Zhang said there would be no difference if it was obtained by smoking marijuana.

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The rats showed evidence of new neurons in the hippocampus dentate gyrus, a region of the brain that plays a role in developing memories.

Zhang's team suspected the new brain cells also might be associated with a reduction in anxiety and depression, because previous studies had indicated medications used to treat anxiety and depression achieve their effect this way.

To find out, they treated rats with HU210 for 10 days and then tested them one month later. When placed in a new environment, the rats were quicker to eat their food than rats that did not receive the compound, which suggested there was a reduction in anxiety behaviors.

Another group of rats treated with HU210 showed a reduction in the duration of immobility in a forced swimming test, which is an indication the compound had an anti-depressant effect.

Asked how he thought the findings might impact the debate over using marijuana to treat medical conditions, Zhang said, "Our results indicate cannabinoids could be used for the treatment of anxiety and depression."

He added that his view is "marijuana should be used as alcohol or nicotine," noting "it has been used for treating various diseases for years in other countries."

Last June the U.S. Supreme Court voted 6-3 that the federal ban on marijuana supersedes the laws of certain states that allow the substance to be used for medicinal purposes, such as the treatment of pain, nausea in cancer patients and glaucoma. Eleven states have passed laws legalizing marijuana use by patients with a doctor's approval, including California, Alaska, Colorado, Hawaii, Maine, Montana, Nevada, Oregon, Vermont and Washington.

The Bush administration, through the Department of Justice's Drug Enforcement Agency, began conducting raids in California in 2001 on patients using marijuana. Two of those arrested by the DEA -- Angel Raich, who suffers from brain cancer, and Diane Monson, who used the drug to help alleviate chronic back pain -- sued Attorney General John Ashcroft, requesting a court order to be allowed to grow and smoke marijuana, which led to the Supreme Court decision.

Paul Armentano, senior policy analyst with the National Organization for the Reform of Marijuana Laws, told UPI he thought the findings "would have a positive impact on moving forward this debate, because it is giving ... a

scientific explanation that further supports long-observed anecdotal evidence, and further lends itself to the notion that marijuana, unlike so many other prescription drugs and controlled substances, appears to have incredibly low toxicity and as a result lacks potential harm to the brain that many of these drugs have."

The DEA Web site, however, contends that "marijuana is a dangerous, addictive drug that poses significant health threats to users," including cancer and impaired mental functioning.

Armentano said this is a distortion of what scientific studies actually show. Studies in animals indicate marijuana actually may protect against many forms of cancer, rather than cause the disease, he said. In addition, studies in marijuana smokers have found little evidence of cognitive deficits, and even when they do, the defects disappear if the person stops smoking for 30 days.

*Author: Steve Mitchell, published: October 13, 2005*

*Source: United Press International (Wire)*

*Website: <http://www.upi.com/>*

## - For more information -

**Medical Cannabis Resources; Web sites to visit. See more at: [MercyCenters.org](http://www.MercyCenters.org)**

\* A guide to OMMA and medical cannabis in general. The OMMA Web Page by Rick Bayer, MD, FACP. Visit:

**[www.omma1998.org](http://www.omma1998.org)**

\* 1999 Institute of Medicine/National Academy of Sciences Report "**Marijuana And Medicine: Assessing The Science Base**" By Janet E. Joy, Stanley J. Watson, Jr. And John Benson Jr., Editors. Visit: **[www.nap.edu/catalog/6376.html](http://www.nap.edu/catalog/6376.html)**

\* **GW Pharmaceuticals Inc.** \* a pharmaceutical company developing a portfolio of prescription medicines derived from cannabis to meet patient needs in a wide range of therapeutic indications. Contact: Porton Down Science Park, Salisbury, Wilts, SP4 0JQ, United Kingdom \* Tel: 01980 557000 \* Fax: 01980 557111 \* **<http://www.gwpharm.com/>**

\* **Cannabis Medicine Internationale (IACM)** \* a scientific society advocating the improvement of the legal situation for the use of the hemp plant and its pharmacologically most important active compounds, through promotion of research and dissemination of information. Contact: IACM - Cannabis Medicine Intl \* Arnimstrasse 1A, 50825 Cologne, Germany \* Phone: +49-221-9543 9229 \* Fax: +49-221-1300591 \* or visit: **<http://www.acmed.org/>**