

# CANNABIS PROHIBITION



A  
VERY  
SERIOUS CRIME

# **CANNABIS PROHIBITION - A VERY SERIOUS CRIME**

Please distribute widely

## **INTRODUCTION.**

Cannabis has been misrepresented and mis-classified in both national and international law, as a "drug" that is:

- 1) dangerous to health, and
- 2) of no therapeutic value.

Herein, I indicate and present some of the hard scientific that reveals the falsity of those beliefs and hence the very 'wrongness' and injustice of the Misuse of Drugs Act 1971, UK, and other cannabis prohibition legislation world-wide. At best that prohibition is a grievous error, at worst a deep-rooted conspiracy amongst profit-motivated tyrants and businessmen (believed by many).

Consider this:

- the UK Government has already been presented with some of this evidence, t
- the press have reported the safety aspects and medical benefits of cannabis many times,
- the UK Government have refused to comment on this information,
- the UK Government have rejected reports from experts in health, in medicine and in law,
- the present Labour Government have refused a Royal Commission saying that even should such a body declare that cannabis should be made legal again they would not listen.

Does this not suggest 'False Law' is favoured over justice? That is, a law that is anti-health, anti-public order, anti-justice, anti-environment that enables and ensures the profits of many massive multi-national cooperations that produce damaging synthetic alternatives to hemp.

In any case a False Law based upon false information, is a CRIME. That the Governments of this world mostly so stubbornly support a law that, we claim, they KNOW to be a false law makes the guilt ten fold heavier.

That many Governments yet refuse to grant legal access to this beneficial plant for the many sick and dying of this world, refuse therein to enable the production of food from the seed and pollution-free fuel from the biomass, is indeed a VERY SERIOUS CRIME - A CRIME AGAINST HUMANITY.

## **THE EVIDENCE**

In the light of the Rulings of DEA Judge Francis Young (1988) and the Articles of both the United Nations Universal Declaration of Human rights and the European Convention for The Protection of Human Rights and Fundamental Freedoms, the denial of an effective medicine to people is a very serious CRIME AGAINST HUMANITY. All Governments and authorities that participate in this denial are guilty of very serious crimes.

This information should be distributed widely so that the Heads of States and Governments, and the courts, are aware that it is in the public domain.

Here is some of the important SCIENTIFIC EVIDENCE - the sort of thing demanded by the likes of UK Home Secretary Jack Straw. It is followed by an excerpt from the rulings of Judge Young and the Articles of the International treaties.

### **1) Cannabis may help prevent lung cancer**

"Marijuana Use and Mortality", American Journal of Public Health, April 1997.

Table 2 provides data on the relative risk of death for ever users and current users of marijuana, by sex and cause of death: Kaiser Permanente Medical care Program, Oakland and San Francisco, June 1979 to December 1985 (n=65,171), section regarding cancer (Neoplasms) as the cause of death. The table shows that men and women who are or have smoked cannabis but not tobacco have a lesser risk of developing cancer than those who were non-smokers of both marijuana and tobacco.

see: [Cancer Prevention Data from The American Journal of Public Health, April 1997](#) : page 7

## **2) Cannabis may help slow down natural cognitive decline**

"Cannabis use and cognitive decline in persons under 65 years of age", American Journal of Epidemiology, Vol 149, No 9 pages 794-800, 1999.

Table 3 shows the mean change in Mini-Mental State Examination (MMSE) score between wave 2 (1982) and wave 3 (1993-1996) in men and women, by level of cannabis use, Baltimore Epidemiologic Catchment Area study follow-up.

A deterioration in Mental Functioning occurs in all age groups as a natural function of ageing and exposure to toxins. We see less cognitive decline among marijuana smokers than non-users. The authors also acknowledge alcohol and tobacco as two of the prime causes of cognitive decline. They did not publish their conclusion that cannabis caused a significant difference because the measured values were close, the difference between cannabis smokers and tobacco /alcohol users is undeniable.

see [Cannabis Use and Cognitive Decline in Persons under 65 Years of Age. American Journal of Epidemiology. 1 May 1999](#) page 8.

## **3) Cannabis may kill brain tumours**

The type of tumour, a glioma, is relatively uncommon but fatal in humans. Dr Ismael Galve-Roperh and his team at Complutense University, Madrid, infused tetrahydrocannabinol (THC) into the rats' brains through tubes. In a third of the rats, the tumour was eliminated. Another third lived for an extra six weeks instead of dying within two to three. Another third gained no benefit. The team reports in Nature Medicine that the treatment works by stimulating the cancer cells to commit suicide in a natural process called apoptosis. The effect occurs in cancer cells but not in normal ones and, they say, "could provide the basis for a new therapeutic approach for the treatment of malignant gliomas".

The Times, February 20, 2000

see also

[Cannabis May Kill Tumours: The Times, 29 Feb 2000](#) page 9

[High Maker in Marijuana Could Fight Brain Cancer: United Press International, 28 Feb 2000](#) page 10

[Cannabis Hope for Tumour Victims: Daily Record and Sunday Mail, 29 Feb 2000](#) page 12

## **4) Cannabis counteracts the effects of strokes and may help prevent Parkinson's Disease and ALZHEIMER'S**

A team led by the British-born biologist Aidan Hampson, at the US National Institute for Mental Health, in Maryland, has discovered that two active components of cannabis - compounds called THC and cannabidiol - will each act to prevent damage to brain tissue placed in laboratory dishes.

The experiments, reported in the proceedings of the National Academy of Sciences, reveal an unexpected potential use for a drug known for centuries to have valuable medical properties. The discovery is likely to increase pressure to make marijuana and its derivatives more widely available for use on prescription.... Dr Hampson's study has focused on cannabidiol, rather than the psychoactive chemical THC, because this substance has no side-effects. ..Stroke victims suffer a blood clot that starves brain cells of glucose and oxygen, and sets off a cascade of chemical reactions which destroys cells. He found that both cannabis compounds seemed to block the destructive process. Some drugs work well in test tubes, but fail in living creatures because they do not reach the target. Cannabis compounds go straight to the brain.

The results suggest that cannabidiol could also become a treatment for other neurological disorders, such as Parkinson's and Alzheimer's diseases. Dr Hampson said: "We have something that passes the brain barrier easily, has low toxicity, and appears to be working in the animal trials. So I think we have a good chance. (The Guardian, July 4 1999)

See

[Cannabis is Stroke Hope: The Guardian, July 4 1998](#) page 13

## **5) Cannabis relieves pain.**

Cannabis has been used to relieve various types of pain since the time of the Ancient Egyptians and the Ancient China. There have been literally thousands of testimonials claiming relief from pain from everything from spinal injury to menstrual pains. Recently scientists have confirmed the pain-relieving properties of

cannabis.

See

[News Study Indicates that Cannabis Relieves Pain: University of California, 23 September 1999](#) page 14

[Study Finds Medical Benefits in Marijuana: Sacramento Bee, 24 September 1998](#) page 15

[Cannabis Can Kill Pain, Say Experts: Press and Journal, Aberdeen, 24 September 1998](#) page 16

[Drug Has Calming Influence: New Zealand Herald, 30 July 1998](#) page 17

[Lords Back Cannabis For Pain Relief: Chemistry and Industry Magazine, 7 December 1998](#) page 18

see also: Daily Telegraph, UK, Tuesday, October 12 1999

## **6) Cannabis eases the symptoms of Multiple Sclerosis**

NEW YORK, Mar 01 (Reuters Health) - Add the degenerative neurological disease multiple sclerosis (MS) to the list of ailments that might be relieved by marijuana. On the heels of a report that found THC, the active ingredient in marijuana, holds promise as a treatment for a rare brain cancer, another study shows that THC and other cannabinoid compounds relieve MS-like symptoms in laboratory mice.

The evidence is strong enough to justify the testing of these substances in people with MS, researchers report. "For some years there has been anecdotal evidence that some people with multiple sclerosis have found relief from symptoms such as painful spasms by using cannabis," one of the study's authors, Dr. Lorna Layward, of the MS Society of Great Britain and Northern Ireland, said in a statement. "This research sets that evidence in context."

"The study provides a firm basis for the human trials of cannabis in MS that will commence shortly," she said.

In studies of mice with an MS-like disease, Layward and colleagues found that tremors in the mice improved within 10 minutes of being treated with a man-made cannabinoid that attached to structures in the brain called cannabinoid receptors.

Reuters, March 1 2000 see:

[Pot May Relieve Multiple Sclerosis Symptoms: Reuters, 1 March 2000](#) page 20

[Scientists Back Medicinal Benefits of Cannabis: Reuters, 2 March 2000](#) page 21

[Cannabis Hope of Multiple Sclerosis Relief: The Times, 2 March 2000](#) page 22

[MS Hope on Cannabis: Daily Record and Sunday Mail, 2 March 2000](#) page 24

[Mock Cannabis Found to Ease MS: The Guardian, 2 March 2000](#) page 25

[Tests Show Cannabis Can Help With MS: The Scotsman, 2 March 2000](#) page 27

## **7) Cannabis helps the eyesight and help prevent Glaucoma**

Scientists have found a family of chemicals that includes the "psychoactive" ingredients of marijuana plays a role in vision. For the first time, "receptor" proteins activated by these compounds - cannabinoids - - have been reported in the eye, providing a missing link in the understanding of the retina. "The scientific literature on marijuana, the known effects of cannabinoids in other parts of the brain and the places we find the receptor in the retina all make plausible the notion that cannabinoids may well have an effect on light sensitivity or light-dark adaptation," said Alex Straiker of the University of California, San Diego. However the retina is "incredibly complex", so this remains only a possibility, said Straiker, principal author of the report on the prevalence of receptors - docking points for cannabinoids - in the retina. The paper appears today in the "Proceedings of the National Academy of Sciences". It is co-authored by scientists from the Neurosciences Institute in San Diego and the University of Washington in Seattle.

National Post (Canada), December 7 1999

see:

The Daily Telegraph (UK), Tuesday 7 December 1999

[Yes, Cannabis Does Help You See In The Dark: National Post \(Canada\), 7 December 1999](#) page 29

[Marijuana Plugs Into Eye Cells, US Study Finds: Reuters, 6 December 1999](#) page 30

## **8) Cannabis helps prevent epileptic attacks.**

see:

[Patients Testimonies and Scientific Evidence](#) page 32

This list is not exhaustive. However, it does provide powerful and irrefutable evidence that

1) Cannabis has many uses as a medicine

2) The prevention of the use of cannabis is of detrimental effect on the health on almost every person in the world, resulting in unnecessary pain, debilitation, and premature death.

3) The classification of cannabis in national law or international treaty as a drug with no medicinal value is at best a grave error.

During the preparation of this document the UK Government has announced that trials into the medicinal effects of cannabis on certain ailments are to begin, using extracted cannabinoid preparations and systems of delivery other than smoking. This is an admission that cannabis does have medical uses - otherwise the tests would be a gross waste of public funds.

See:

[Patients Recruited to Test Cannabis: Daily Mail, December 4 1999](#) page 34

[Cannabis Given Medical Trials: East Anglian Daily Times, December 14 1999](#) page 35

[Straw Supports Case For Medical use of Cannabis: The Independent, April 3 2000](#) page 36

[Cannabis Trials Go Ahead: The Express, 7 April 2000](#) page 37

## THE JUDGE'S RULING

This is what the USA's own Drug Enforcement Administration's Judge, Francis Young, said in 1988 about marijuana (cannabis)

"In strict medical terms marijuana is far safer than many foods we commonly consume. For example, eating ten raw potatoes can result in a toxic response. By comparison, it is physically impossible to eat enough marijuana to induce death. "Marijuana, in its natural form, is one of the safest therapeutically active substances known to man. By any measure of rational analysis marijuana can be safely used within a supervised routine of medical care." see [Judge Young's Rulings](#) page 38

[The REPORT OF THE FCDA, EUROPE](#) page 40

"Denial of general legal availability of life-saving Preventive Cannabis premeditatedly and maliciously causes early deaths. By definition and in Law, this constitutes Murder (UK) - Homicide (US). The acute need of politicians, bureaucrats and others implicated, to try and cover up their wrong-doing and culpability for their Capital Crimes and other Crimes Against Humanity, explains the conspiratorial fictions invented and circulated which derogate benign Cannabis. Motive - behind the installing of Prohibition further explains this behaviour"

[The Report of the FCDA, Europe](#), 5th Ed, 1997

United Nations Universal Declaration of Human Rights and European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) (page 42)

Article 3 of the UN Declaration recognises the Right to "Life, Liberty and security of person."  
This is Article 5 of the ECHR.

How can a person be expected to feel secure when ill or when a member of the family is ill? The prohibition of a safe preventative and curative medicine is a contravention of these Rights.

Article 5 of the UN Declaration recognises the Right not to be subjected to "torture, cruel, inhuman or degrading treatment". It is Article 3 in the ECHR.

The denial of a medicine to sick and well people is tantamount to torture and certainly results in degradation.

Article 12 of the UN Declaration recognises the Right to privacy, family, home ...". This is Article 8 of the ECHR.

The implementation of the prohibition of cannabis through the sometimes armed raiding of people in their own homes and often separation from their families, without justifiable cause, is an infringement upon these Rights.

Article 18 of the UN Declaration grants the Right to "Freedom of thought, conscience and religion... and freedom, either alone or in community with others and in public or private, to manifest his religion of belief in teaching, practice, worship and observance." This is Article 9 of the ECHR.

The denial of people's rights, without justification, to use cannabis to their personal benefit, alone or in community, and the Right to supply a natural plant as a therapeutic agent within a community, is a blatant contravention of this Right. It is applicable to those members of religious communities who use cannabis but not limited to religion.

see:

**The implementation of the prohibition of cannabis itself causes further violations to Human Rights**

### **Inferences:**

**The prohibition of cannabis is an offence under Supreme and International Law. Government employees who participate in the application of the Misuse of Drugs Act upon the people of your country, including prosecution and defence solicitors who ignore Human rights, police, forensic scientists, prison officers, politicians, etc, are guilty of malfeasance. If they have been told of their crime, then the guilt is magnified.**

**The prohibition of cannabis creates unnecessary suffering and premature death. It is tantamount to Homicide (USA) and murder, as ruled by the eminent US Judge.**

### **Action.**

**It is the duty of every citizen who believes in Human Rights, Justice, Health and Freedom, to bring this to the attention of the PRESS world-wide, and their political representatives, MP's, Senators etc.**

**Please spread this information far and wide**

***Legalise Cannabis Alliance (LCA), PO Box 198, Norwich, Norfolk, NR2 2DE***

**E Mail the LCA : [lca@shuggie.demon.co.uk](mailto:lca@shuggie.demon.co.uk)**



**CANCER PREVENTION DATA**  
**"Marijuana Use and Mortality"**  
**AMERICAN JOURNAL OF PUBLIC HEALTH**  
**April 1997:**

**TABLE 2 Relative Risk of Death for Ever Users and Current Users of Marijuana, by Sex and Cause of Death: Kaiser Pemanente Medical Care Program Members (n = 65,171), Oakland and San Francisco, June 1979 through December 1985 - section of table regarding cancer (Neoplasms) as the cause of death:**

<b>MEN</b>	
<b>Ever Users</b>	<b>Relative Risk of Cancer Death</b>
	<b>Full Model 0.78</b>
<b>Nonsmokers/ Occasional Drinkers</b>	<b>0.46</b>
<b>Current Users</b>	<b>Full Model 0.97</b>
<b>Nonsmokers/ Occasional Drinkers</b>	<b>0.75</b>
<b>WOMEN</b>	
<b>Ever Users</b>	<b>Full Model 0.82</b>
<b>Nonsmokers/ Occasional Drinkers</b>	<b>0.70</b>
<b>Current Users</b>	<b>Full Model 0.86</b>
<b>Nonsmokers/ Occasional Drinkers</b>	<b>0.56</b>

**Here, numbers less than one for Relative Risk of Cancer Death represent a lower rate of fatal cancer among marijuana smokers in the large Kaiser Study from California. For example, women who are current marijuana smokers but did not smoke tobacco, were found to have only 56% of the risk of cancer death as compared to other women who were non-smokers of both tobacco and marijuana.**

**CANNABIS DOES NOT CAUSE CANCER**

BOSTON, Jan. 30, 1997 (UPI) -

The U.S. federal government has failed to make public its own 1994 study that undercuts its position that marijuana is carcinogenic - a \$2 million study by the National Toxicology Program. The program's deputy director, John Bucher (<http://www.niehs.nih.gov/dirtob/bucher.htm>), says the study "found absolutely no evidence of cancer." In fact, animals that received THC had fewer cancers. Bucher denies his agency had been pressured to shelve the report, saying the delay in making it public was due to a personnel shortage.

The Boston Globe reported Thursday (1-30-97) that the study indicates not only that the main ingredient in marijuana, THC, does not cause cancer, but also that it may even protect against malignancies, laboratory tests on animals show.

The report comes on the heels of an editorial in the prestigious New England Journal of Medicine that favors the controlled medical use of marijuana, and calls current federal policy "misguided, heavy-handed and inhumane."

The Clinton administration has said that doctors prescribing marijuana could be prosecuted for a federal crime.

Marijuana has been reported to ease the pain, nausea and vomiting in advanced stages of cancer, AIDS and other serious illnesses, but the federal government claims other treatments have been deemed safer than what it calls "a psychoactive, burning carcinogen."

However, The Boston Globe says the government's claim appears to be undercut by its own \$2 million study.

## **US: Cannabis Use and Cognitive Decline in Persons under 65 Years of Age**

**URL:** <http://www.mapinc.org/drugnews/v99.n1330.a12.html>

**Pubdate:** 1 May 1999

**Source:** American Journal of Epidemiology

**Copyright:** 1999 Johns Hopkins University School of Hygiene and Public Health

**Ref:** American Journal of Epidemiol 1999; 149: 794-800

**Mail:** 111 Market Place, Suite 840, Baltimore MD 21202 U.S.A.

**Website:** <http://www.jhsph.edu/Publications/JEPI/>

**Authors:** Constantine G. Lyketsos, Elizabeth Garrett, Kung-Yee Liang, and James C. Anthony (Osler 320, The Johns Hopkins Hospital, 600 North Wolfe Street, Baltimore, MD 21287-5371)

### **CANNABIS USE AND COGNITIVE DECLINE IN PERSONS UNDER 65 YEARS OF AGE**

The purpose of this study was to investigate possible adverse effects of cannabis use on cognitive decline after 12 years in persons under age 65 years.

This was a follow-up study of a probability sample of the adult household residents of East Baltimore. The analyses included 1,318 participants in the Baltimore, Maryland, portion of the Epidemiologic Catchment Area study who completed the Mini-Mental State (MMSE) examination during three study waves in 1981, 1982, and 1993--1996. Individual MMSE score differences between waves 2 and 3 were calculated for each study participant. After 12 years, study participants' scores declined a mean of 1.20 points on the MMSE (standard deviation 1.90), with 66% having scores that declined by at least one point.

Significant numbers of scores declined by three points or more (15% of participants in the 18--29 age group). There were no significant differences in cognitive decline between heavy users, light users, and nonusers of cannabis.

There were also no male-female differences in cognitive decline in relation to cannabis use. The authors conclude that over long time periods, in persons under age 65 years, cognitive decline occurs in all age groups. This decline is closely associated with ageing and educational level but does not appear to be associated with cannabis use.



## **UK: Cannabis 'May Kill Tumours'**

**URL:** <http://www.mapinc.org/drugnews/v00.n289.a05.html>

**Pubdate:** Tue, 29 Feb 2000

**Source:** Times, The (UK)

**Copyright:** 2000 Times Newspapers Ltd

**Contact:** [letters@the-times.co.uk](mailto:letters@the-times.co.uk)

**Address:** PO Box 496, London E1 9XN, United Kingdom

**Fax:** +44-(0)171-782 5046

**Website:** <http://www.the-times.co.uk/>

**Author:** Nigel Hawkes, Science Editor

### **CANNABIS 'MAY KILL TUMOURS'**

CANNABIS may have uses in cancer treatment. Researchers have used the main active ingredient in the drug to treat brain tumours in rats.

The type of tumour, a glioma, is relatively uncommon but fatal in humans. Dr Ismael Galve-Roperh and his team at Complutense University, Madrid, infused tetrahydrocannabinol (THC) into the rats' brains through tubes.

In a third of the rats, the tumour was eliminated. Another third lived for an extra six weeks instead of dying within two to three. Another third gained no benefit.

The team reports in *Nature Medicine* that the treatment works by stimulating the cancer cells to commit suicide in a natural process called apoptosis. The effect occurs in cancer cells but not in normal ones and, they say, "could provide the basis for a new therapeutic approach for the treatment of malignant gliomas".

## **US: Wire: 'High' Maker In Marijuana Could Fight Brain Cancer**

**URL:** <http://www.mapinc.org/drugnews/v00.n289.a09.html>

**Newshawk:** [hempman@taima.org](mailto:hempman@taima.org)

**Pubdate:** Mon, 28 Feb 2000

**Source:** United Press International

**Copyright:** 2000 United Press International

"HIGH" MAKER IN MARIJUANA COULD FIGHT BRAIN CANCER  
NEW YORK - The chemical in marijuana that produces a "high" has shown promise as a weapon against deadly brain tumors, Spanish researchers have shown in early research.

In the study on rats a research team from Complutense University and Autonoma University in Madrid found that marijuana's active ingredient -- called THC -- killed tumor cells in advanced cases of glioma, a quick-killing cancer for which there is currently no effective treatment. But, the scientists stress, it is unlikely that lighting up a joint will do anything to prevent or cure cancer.

Lead researcher Manuel Guzman says he hopes to start studies in humans in about a year.

Guzman says, "we observed a very remarkable growth inhibiting effect." Also, about one third of the treated rats lived "significantly longer" than those given no drug, some up to about three times as long.

He injected the active compounds -- called cannabinoids -- directly into the brain cancers.

Guzman, who is with Complutense University, says that the current experiment, published in the March issue of Nature Medicine, tested THC at very low doses and at a late stage, when untreated mice were already starting to die.

He predicts that THC should work better if given earlier.

The scientists decided to test the marijuana drug in brain tumors after laboratory studies showed that THC killed glioma cells while leaving normal brain cells unharmed.

Researchers are not sure why, but Guzman's team says the drug caused a buildup of a fat molecule called ceramide, which provoked a death spiral in cancer cells.

The scientists say, "These results may provide the basis for a new therapeutic approach for the treatment of malignant gliomas."

Asked if this work suggests that smoking pot may be an effective way to fight or prevent cancer, Guzman says no. "When one smokes, only a small part of the cannabinoids are expected to reach the tumor," he says.

Pharmacologist Daniele Piomelli, a marijuana researcher who was not involved with the Spanish study, was more emphatic. His answer was, "No, with a capital letter."

"It is very important that the public does not get the impression that from smoking pot cancer may be cured," says Piomelli, who is concerned that cancer patients may learn about the study and decide to pass up proven therapies in place of a joint.

"Lives are at stake here," he says.

Piomelli wrote a commentary on the Spanish research for *Nature Medicine*.

Piomelli says that this is the first convincing study to show that a marijuana-based drug treatment may combat cancer. If the drug works as well in humans, he says, "Then this will be a paper of great importance." But, he points out that it will take a lot of testing, both in animals and in people, to prove it is effective.

He says, "A lot of research in rats and mice didn't pan out."

Several laboratories are exploring the potential of compounds from marijuana for treatment of such conditions as multiple sclerosis, excessive weight loss related to AIDS or cancer and pain, he says.

Scientists are also trying to develop drugs that deliver therapeutic benefits without unwanted side effects, such as the "high" and amnesia, says Piomelli, who is with the University of California, Irvine.

## **Spain: Cannabis Hope For Tumour Victims**

**URL:** <http://www.mapinc.org/drugnews/v00.n289.a08.html>

**Pubdate:** Tue, 29 Feb 2000

**Source:** Daily Record and Sunday Mail (UK)

**Copyright:** 2000 Daily Record and Sunday Mail Ltd.

**Contact:** [editors@dailyrecord.co.uk](mailto:editors@dailyrecord.co.uk)

**Address:** Anderston Quay, Glasgow, Scotland, G3 8DA

**Website:** <http://www.record-mail.co.uk/rm/>

### CANNABIS HOPE FOR TUMOUR VICTIMS

CANNABIS could be a cure for brain cancer, according to research results out today.

Experiments on rats have shown that the main chemical in the illegal drug can sometimes wipe out the deadly tumours.

Other rats with the cancer had their lives extended by more than a month.

MSPs are already calling for a review on using cannabis for medical treatments and the findings will bring more pressure on the Government.

Thousands of patients with brain cancer will be given new hope by the research.

The tumours usually kill, with victims surviving less than a year despite a variety of treatments.

But Spanish scientists found cannabis pumped into the tumours cleared the cancer in more than a third of the test rats.

The drug also prolonged the life of another third by up to 40 days but was ineffective in the rest.

The cancer has not come back in any of the survivors.

More research is planned as doctors say they do not fully understand how the cannabis cure works.

They believe it may stimulate the body's immune system to attack the cancer cells.

Cannabis supporters claim it can help treat cancer, glaucoma, AIDS, multiple sclerosis, epilepsy and some pains.

But brain tumor expert Mr Vakis Papanastassiou, of Glasgow's Southern General Hospital, warned the drug could harm some patients.

## **Cannabis 'is stroke hope'**

**By**

**Tim Radford, Science Editor**

**The Guardian, UK : Saturday July 4, 1998**

Contact: [letters@guardian.co.uk](mailto:letters@guardian.co.uk)

**Extracts of the marijuana plant could one day be routinely used to prevent brain damage after stroke, according to United States government scientists.**

**A team led by the British-born biologist Aidan Hampson, at the US National Institute for Mental Health, in Maryland, has discovered that two active components of cannabis - compounds called THC and cannabidiol - will each act to prevent damage to brain tissue placed in laboratory dishes.**

**The experiments, to be reported next week in the proceedings of the National Academy of Sciences, reveal an unexpected potential use for a drug known for centuries to have valuable medical properties. The discovery is likely to increase pressure to make marijuana and its derivatives more widely available for use on prescription. Already, a House of Lords committee is considering the issue, the British Medical Association has reported on the drug's virtues and the Royal Pharmacological Society is looking into the matter.**

**Cannabis was widely used centuries ago. There is archaeological evidence from the Stone Age of cannabis being used to ease birth pains. It is known to suppress nausea for patients on cancer chemotherapy, relieve pain and muscle spasm for multiple sclerosis sufferers, and reduce pressure in the eye for people with glaucoma.**

**Dr Hampson's study has focused on cannabidiol, rather than the psychoactive chemical THC, because this substance has no side-effects. He stumbled on the finding while trying to find out why the human brain had so many "receptors" for cannabis compounds and what the receptor system was designed to do.**

**"There are almost as many cannabinoid receptors as there are of any major neurotransmitter, so while no one knows what it does, it seems to be pretty important."**

**Stroke victims suffer a blood clot which starves brain cells of glucose and oxygen, and sets off a cascade of chemical reactions which destroys cells. He found that both cannabis compounds seemed to block the destructive process. Some drugs work well in test tubes, but ail in living creatures because they do not reach the target. Cannabis compounds go straight to the brain.**

**The results suggest that cannabidiol could also become a treatment for other neurological disorders, such as Parkinson's and Alzheimer's diseases. Dr Hampson said: "We have something that passes the brain barrier easily, has low toxicity, and appears to be working in the animal trials. So I think we have a good chance."**

## New Study Indicates that Cannabis Relieves Pain

**Dr. Ian Meng and researchers from the University of California at San Francisco released the results of a report this week (9/23) which indicates that cannabinoids act upon the same part of the brain as morphine and, while they effect the brain differently, reduce pain without the unpleasant side effects or the threat of addiction commonly associated with opiates.**

**The study, conducted with a synthetic drug that mimics marijuana, showed that cannabinoids affect the rostral ventromedial medulla (RVM), an area of the brain responsible for the sensation of pain.**

**"These results indicate that the marijuana-like drug can reduce pain by affecting the same pain modulating neurons as morphine, but through separate mechanisms" said Meng.**

**Meng continued, "the implications for future development or treatment would be looking at different combinations of therapies, a lower dose of morphine combined with a low dose of cannabinoid. Perhaps you could eliminate the nausea (caused by the opiates) or at least reduce it and increase the pain-killing effects."**

## **US: Study Finds Medical Benefits In Marijuana**

**URL:** <http://www.mapinc.org/drugnews/v98.n833.a04.html>

**Source:** Sacramento Bee (CA)

**Contact:** [http://www.sacbee.com/about\\_us/sacbeemail.html](http://www.sacbee.com/about_us/sacbeemail.html)

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

**Pubdate:** September 24, 1998

### STUDY FINDS MEDICAL BENEFITS IN MARIJUANA

SAN FRANCISCO (AP) -- A new study showing how the active ingredient in marijuana works on the brain apparently backs claims that smoking pot relieves pain.

Like morphine, the substance known as THC affects an area at the base of the skull that blocks pain impulses, the University of California at San Francisco study said.

They appear to give credence to the claim that marijuana has medical benefits at a time when communities are considering whether to legalize pot use for illnesses.

In laboratory experiments, researchers gave rats tiny doses of a synthetic form of tetrahydrocannabinol, a cannabinoid, and then measured how long it took the rats to move their tails from a heat source. Cannabinoids are the major active ingredient in marijuana.

Researchers focused on a region deep in the brain called rostral ventromedial medulla, or RVM, which researcher Ian Meng described as a relay station for pain signals similar to the volume knob on a stereo.

THC, like morphine, turns down the volume -- minimizing the intensity of pain sensations reaching other parts of the brain -- by switching off certain cells.

That suggests that marijuana-like drugs might be developed as effective painkillers without the unwanted side effects of opiates like morphine, which is highly addictive and can cause nausea. Marijuana-like drugs, in contrast, are less addictive, tend to counteract nausea and stimulate appetite.

"I think in the future you'll see different kinds of drug combination therapies, where you can use cannabis-like drugs with a lower dose of a morphine compound and possibly reduce side effects," Meng said.

The findings were cheered by marijuana users who say the drug helps them cope with diseases such as AIDS and cancer.

"These patients ... should not be going to jail," said Chuck Thomas of the Marijuana Policy Project.

Five states and the District of Columbia have initiatives similar to Proposition 215, the 1996 ballot measure that lets Californians with doctors' notes grow and use marijuana for pain relief.

## **UK: Cannabis Can Kill Pain, Say Experts**

**URL:** <http://www.mapinc.org/drugnews/v98.n834.a04.html>

**Pubdate:** 24 Sep 1998

**Source:** Press and Journal (Aberdeen, Scotland)

**Contact:** [editor@pj.ajl.co.uk](mailto:editor@pj.ajl.co.uk)

**Website:** <http://www.pressandjournal.co.uk/>

CANNABIS CAN KILL PAIN, SAY EXPERTS

CANNABIS can kill pain, scientists confirmed last night.

They discovered that the drug acts on a circuit of the brain stem in a similar way to morphine.

The results of the research -- published today in Nature magazine -- will delight campaigners who want cannabis legalised for medical use.

Last night the Home Office signalled that the Government would amend drug laws if the results are confirmed and the Medicines Control Agency issues marketing authorisation.

Scientists at the University of California, found that cannabis acts in a similar way to morphine in producing pain-relieving analgesia in a part of the brain stem called the rostral ventromedial medulla.

Marijuana and its active constituent, D-9-THC, have been touted as potential pain-relieving drugs, but until now there has been no conclusive demonstration of this.

The House of Lords is due to report in November on cannabis and the Royal Pharmaceutical Society is working on guidelines for research into the drug.

The British Medical Association wants the drug medically legalised.

A spokeswoman for the Home Office said: "If the benefits of cannabis-based medicine are demonstrated scientifically and the marketing authorisation was issued by the Medicines Control Agency, the Government would be looking to propose amendments to the misuse of drugs legislation."



## **New Zealand: Drug Has 'Calming Influence'**

**URL:** <http://www.mapinc.org/drugnews/v98.n634.a03.html>

**Pubdate:** Thu, 30 July 1998

**Source:** New Zealand Herald (Auckland)

**Contact:** [editor@herald.co.nz](mailto:editor@herald.co.nz)

### **DRUG HAS 'CALMING INFLUENCE'**

WELLINGTON - Police acknowledged yesterday that they had not strong evidence to back claims that cannabis made people violent.

But they said they were concerned at the violence surrounding cannabis dealing.

Assistant Commissioner Ian Holyoake told a parliamentary select committee inquiry into cannabis that police did not support decriminalisation.

Mr Holyoake was asked if, as with alcohol, cannabis made people violent.

"Yes. Cannabis, from our practical experience, seems to make people violent," he told the health select committee, adding that it was difficult to measure.

Detective Superintendent Harry Quinn told the committee that statistics showed cannabis was a "factor" in a "large number" of homicides each year.

However, when pressed by MPs he acknowledged that all this meant was that either the victim or the offender had used the drug, or that violence had occurred as a result of a cannabis drug deal gone wrong.

Mr Quinn, in an apparent contradiction of Mr Holyoake's statement that cannabis made people violent, said it had a "calming influence."

"We don't have any definitive evidence that says that cannabis use is in itself a violent behaviour - and I think our evidence would be that it has a calming influence in some respects on those who use it."

He said it was the violent criminal activity surrounding cannabis dealing that was of concern. - NZPA

## **UK: Lords Back Cannabis For Pain Relief**

**URL:** <http://www.mapinc.org/drugnews/v98.n1148.a08.html>

**Source:** Chemistry & Industry Magazine (UK)

**Contact:** [webletters@chemind.demon.co.uk](mailto:webletters@chemind.demon.co.uk)

**Website:** <http://ci.mond.org/current/home.html>

**Copyright:** 1998 Society of Chemical Industry

**Pubdate:** Mon, 7 Dec 1998

### **LORDS BACK CANNABIS FOR PAIN RELIEF**

Medicinal use of cannabis has come a step closer in the UK. A report by the science and technology select committee of the House of Lords has called for doctors to be legally allowed to prescribe the drug for multiple sclerosis and chronic pain.

Committee chairman Lord Perry of Walton said the Lords had made the decision 'primarily for compassionate reasons' despite accepting that there was a lack of rigorous scientific evidence that cannabis relieves pain.

While hundreds of patients in the UK smoke cannabis illegally for its therapeutic benefits, clinical trials will not determine the efficacy of the drug for at least another five years, the 53-page report concluded. 'We consider it unjustifiable and inhumane to make them wait quite so long before they can get supplies legally,' said Perry, a former pharmacology professor.

The committee said it had heard sufficient anecdotal evidence of the pain-relieving qualities of cannabis to warrant downgrading it from the list of schedule 1 drugs - which can only be used in medical research - to schedule 2, meaning it could be prescribed by doctors and pharmacists.

Although the committee was not convinced about the drug's effect against glaucoma, asthma and epilepsy, doctors should still be free to prescribe it as they see fit, said Perry.

The report will add to the pressure on the government to relax the blanket ban on cannabis introduced in 1973. But the findings have split the medical community.

The Royal Pharmaceutical Society, which is about to begin clinical trials of the drug, supported the Lords' call for legal cannabis prescriptions but said the drug must be given in a standardised form.

The British Medical Association said it was disappointed that the Lords had not made the distinction between cannabinoids, the active ingredient

in cannabis, and the crude form of the drug which contains a number of toxins.

Making the drug widely available could hamper research into its effectiveness by limiting the number of patients available for clinical trials, said William Asscher, chairman of the BMA's board of science and education. The association, however, said it was broadly sympathetic to the report.

The Department of Health rejected the committee's proposals, saying it would not countenance the use of a drug that has not undergone clinical trials.

## **US: Wire: Pot May Relieve Multiple Sclerosis Symptoms**

URL: <http://www.mapinc.org/drugnews/v00.n302.a02.html>

**Pubdate:** Wed, 01 Mar 2000

**Source:** Reuters : SOURCE: Nature 2000;404:84-87.

**Copyright:** 2000 Reuters Limited.

### POT MAY RELIEVE MULTIPLE SCLEROSIS SYMPTOMS

NEW YORK, Mar 01 (Reuters Health) - Add the degenerative neurological disease multiple sclerosis (MS) to the list of ailments that might be relieved by marijuana. On the heels of a report that found THC, the active ingredient in marijuana, holds promise as a treatment for a rare brain cancer, another study shows that THC and other cannabinoid compounds relieve MS-like symptoms in laboratory mice.

The evidence is strong enough to justify the testing of these substances in people with MS, researchers report.

"For some years there has been anecdotal evidence that some people with multiple sclerosis have found relief from symptoms such as painful spasms by using cannabis," one of the study's authors, Dr. Lorna Layward, of the MS Society of Great Britain and Northern Ireland, said in a statement. "This research sets that evidence in context."

"The study provides a firm basis for the human trials of cannabis in MS that will commence shortly," she said.

In studies of mice with an MS-like disease, Layward and colleagues found that tremors in the mice improved within 10 minutes of being treated with a man-made cannabinoid that attached to structures in the brain called cannabinoid receptors. Treatment with THC produced similar effects, the researchers report in the March 2nd issue of the journal *Nature*. Cannabinoids and THC also relieved spasticity - muscle stiffness and rigidity - in the animals.

"From our studies using an experimental model, there are clear signs of significant reduction of tremor and spasticity for substantial intervals - some hours - after administration of cannabinoids," another of the study's authors, Dr. David Baker, of University College in London, said in a statement. "Although not a cure, our research suggests that cannabinoids can play a crucial role in controlling some of the neuromuscular problems seen with MS."

In the report, however, the researchers note that most of the beneficial effect appears to come from the receptor that also causes the 'high' of smoking marijuana. But using cannabinoids that block another receptor may offer some relief without causing people with MS to get high, according to the report.

## **UK: Scientists Back Medicinal Benefits of Cannabis**

**URL:** <http://www.mapinc.org/drugnews/v00.n302.a08.html>

**Pubdate:** Thu, 02 Mar 2000

**Source:** Reuters

**Copyright:** 2000 Reuters Limited.

SCIENTISTS BACK MEDICINAL BENEFITS OF CANNABIS  
LONDON (Reuters) - British scientists said they had for the first time scientifically demonstrated the link between cannabis and the suppression of Multiple Sclerosis (MS) symptoms.

“This is the first time it has been shown objectively and scientifically that cannabis derivatives can control some of the symptoms of multiple sclerosis,” Lorna Layward of the MS Society of Great Britain told Reuters.

In the science journal *Nature*, Layward and colleagues said Wednesday that their study of mice suffering from chronic allergic encephalomyelitis (CREAE) -- an animal model for MS -- found that compounds which mimic cannabis ameliorated CREAE symptoms.

“This work gives support to anecdotal reports from people that say cannabis can alleviate spasticity and tremor,” Layward said.

MS sufferers have been calling for a cannabis medicine for years and many have broken the law by buying the drug from street dealers.

“It is an unacceptable state of affairs when people suffering from a serious disease feel driven to break the law,” Layward said.

Clinical trials into the medical benefits of cannabis for MS sufferers were about to start in the UK, Layward added.

Layward said it was now up to drug companies to develop compounds that mimicked cannabis but avoided the side-effects experienced by cannabis smokers.

“We are going to get away from the plant,” Layward said.

MS is an auto-immune disease in which the body's immune system destroys a sheath which protects the nerve cells in the brain and spinal cord. It affects about one million people worldwide and 85,000 in Britain. There is no cure.

## **UK: Cannabis Hope Of Multiple Sclerosis Relief**

**URL:** <http://www.mapinc.org/drugnews/v00.n302.a05.html>

**Pubdate:** Thu, 2 Mar 2000

**Source:** Times, The (UK)

**Copyright:** 2000 Times Newspapers Ltd

**Contact:** [letters@the-times.co.uk](mailto:letters@the-times.co.uk)

**Address:** PO Box 496, London E1 9XN, United Kingdom

**Fax:** +44-(0)171-782 5046

**Website:** <http://www.the-times.co.uk/>

**Author:** Nigel Hawkes, Science Editor

### **CANNABIS HOPE OF MULTIPLE SCLEROSIS RELIEF**

CANNABIS may ameliorate the symptoms of multiple sclerosis, experiments on mice have shown.

There have been many anecdotal reports of benefits from MS sufferers who have taken cannabis illegally but scientific evidence has been lacking. Now a team led by David Baker of the Institute of Neurology in London has shown that in a strain of mice which suffer a similar disease, the active agents in cannabis reduce rigidity and trembling of the muscles.

The team also found that synthetic chemicals mimicking tetrahydrocannabinol (THC), an active chemical in cannabis, had a similar effect, pointing the way to new drugs to treat MS.

The results will boost calls to legalise cannabis for medical use. But the scientists say that their main result may be a move from cannabis to related synthetic drugs that are even more effective.

The mice were injected with THC and three other compounds: methanandamide, similar to a cannabinoid produced naturally in the body, and two synthetic compounds. All reduced both tremor and spasticity (rigidity), but a synthetic compound called WIN55 proved the best against tremors, halting uncontrolled limb movements in as little as a minute. Dr Baker said: "The effect was really startling. It was a question of 'Now you see the tremor, now you don't'."

The compounds lock on to two receptors in cells of the brain and spinal cord. Blocking the receptors not only prevented the therapeutic action of the compounds but made the existing symptoms much worse.

The scientists conclude in *Nature* that the purpose of the receptors and the natural chemicals that bind to them is to maintain control of the muscles. Dr Baker said: "One of their functions is to provide a protective filter

mechanism to limit excess excitation of the nerves. In a normal animal or human being it provides fine control over motor function."

One implication of the research is that it may be possible to increase levels of the natural cannabinoid, in the same way that anti-depressant drugs lift the levels of chemicals in the brain linked to mood.

Additionally, the same receptors are found in the pain centres of the spinal cord. That may explain the claimed benefits of cannabis for pain relief.

Lorna Layward of the Multiple Sclerosis Society, co-author of the report, said there was a "crying need" for new drugs for MS because current treatments were either not very effective or caused severe side-effects. Tremor was particularly difficult to treat and could be severely disabling, she said.

A Medical Research Council clinical trial is examining the effect of cannabis and THC on spasticity in 600 MS patients. It will report in two years.

*MAP posted-by: Jo-D*

## **UK: MS Hope On Cannabis**

**URL:** <http://www.mapinc.org/drugnews/v00.n302.a09.html>

**Pubdate:** Thu, 02 Mar 2000

**Source:** Daily Record and Sunday Mail (UK)

**Copyright:** 2000 Daily Record and Sunday Mail Ltd.

**Contact:** [editors@dailyrecord.co.uk](mailto:editors@dailyrecord.co.uk)

**Address:** Anderston Quay, Glasgow, Scotland, G3 8DA

**Website:** <http://www.record-mail.co.uk/rm/>

### **MS HOPE ON CANNABIS**

SCIENTISTS have shown for the first time cannabis dramatically reduces some of the most distressing symptoms of multiple sclerosis.

MS sufferers who have taken cannabis illegally have said for more than a decade the drug had a therapeutic effect although there was no scientific evidence.

But yesterday, a team of British scientists reported findings which showed a psychoactive compound in cannabis could prevent muscle tremor and spasticity caused by MS.

They also demonstrated that synthetic chemicals mimicking the compound had a similar effect, pointing the way to the development of new pharmaceutical drugs.



## **UK: 'Mock Cannabis' Found To Ease MS**

**URL:** <http://www.mapinc.org/drugnews/v00.n302.a11.html>

**Pubdate:** Thu, 2 Mar 2000

**Source:** Guardian, The (UK)

**Copyright:** Guardian Media Group 2000

**Contact:** [letters@guardian.co.uk](mailto:letters@guardian.co.uk)

**Website:** <http://www.guardian.co.uk/>

**Author:** Tim Radford, Science Editor

### **'MOCK CANNABIS' FOUND TO EASE MS**

Scientists have proved that cannabis-like drugs can alleviate some of the worst symptoms of the progressive disease multiple sclerosis, possibly bringing hope to the 85,000 or so sufferers in Britain.

There have been claims for decades that cannabis could help MS patients with spasticity and tremors. But scientists from London, Aberdeen and South Carolina report in *Nature Today* that they have direct proof that a cannabinoid compound used on mice with a multiple sclerosis-like condition helped ameliorate symptoms within minutes.

"Although not a cure," said David Baker, of the institute of neurology at University College, London, "our research suggests that cannabinoids can play a crucial role in controlling some of the neuromuscular problems seen with MS."

Lorna Layward of the Multiple Sclerosis Society said: "The study provides a firm basis for the human trials of cannabis in MS that will commence shortly."

Cannabis was used medically for thousands of years. The Greeks knew of it. Queen Victoria is believed to have been prescribed it. Until 1971 doctors in Britain were able to prescribe it for patients. The drug has been said to help quell nausea during cancer chemotherapy and relieve the pressure in the eye in glaucoma.

But because cannabis is a scheduled drug, and a herb that comes in varying strengths, serious analysis of its value has been difficult.

The London team - backed by pharmacologists in Aberdeen and South Carolina, and a government-funded medical research council group - chose to work not with the drug itself but with cannabis-like chemicals.

"We have naturally-occurring cannabis receptors in our body," said Dr Layward.

"We used compounds that stimulate the receptors. Whether these are safe and acceptable remains to be seen."

Shug -- "There is no evidence to suggest that the continued use of marihuana is a stepping-stone to the use of opiates. Prolonged use of the drug does not lead to physical, mental, or moral degeneration, nor have we observed any permanent deleterious effects from its continued use. Quite the contrary, marihuana and its derivatives and allied synthetics have potentially valuable therapeutic applications which merit future investigation."

Psychiatric Aspects of Marihuana Intoxication Samuel Allentuck, MD,  
and Karl Bowman, MD

## **UK: Tests Show Cannabis Can Help With MS**

**URL:** <http://www.mapinc.org/drugnews/v00.n302.a12.html>

**Pubdate:** Thu, 2 Mar 2000

**Source:** Scotsman (UK)

**Copyright:** The Scotsman Publications Ltd 2000

**Contact:** [Letters\\_ts@scotsman.com](mailto:Letters_ts@scotsman.com)

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

**Forum:** <http://www.scotsman.com/>

### TESTS SHOW CANNABIS CAN HELP WITH MS

Campaigners who want cannabis to be legalised for medicinal purposes received a boost yesterday, writes Jennifer Trueland.

Scientists showed for the first time that an ingredient in the drug reduces some of the most distressing symptoms of multiple sclerosis. People with MS have long claimed that smoking the drug helps the symptoms of the disease but have found themselves on the wrong side of the law.

The evidence that it helps multiple sclerosis sufferers and those with other conditions such as glaucoma has until now been anecdotal. The government has agreed that clinical trials should be carried out, but the results are not expected for two years.

The first of these Medical Research Council trials has just started, but work from a British team of scientists suggest that the results may well be positive.

The researchers, from the Institute of Neurology at University College London, reported that a psychoactive compound in cannabis can prevent muscle tremor and spasticity caused by MS. They also demonstrated that synthetic chemicals mimicking the compound have a similar effect, pointing the way to the development of new pharmaceutical drugs.

On Monday, a separate team of Spanish scientists showed that the same active ingredient, tetrahydrocannabinol (THC), destroys malignant brain tumours in laboratory rats.

The scientists say the most significant outcome may be a move away from cannabis to designing artificial drugs.

The researchers used mice given an animal equivalent of MS which produces the same disease pattern and symptoms seen in humans.

Someone with MS typically suffers a series of episodes of paralysis, with

periods of remission in between. As the disease progresses spasticity, or muscle rigidity, and severe tremors may appear which can have a devastating effect on the sufferer's quality of life.

In the study mice were injected with the cannabinoid THC as well as three synthetic compounds. One, methanandamide, was similar to a cannabinoid produced naturally in the body. All had a significant ability to reduce both tremor and spasticity. A synthetic compound called WIN55 proved the most effective.

Dr David Baker, one of the UCL scientists, said: "The effect was really startling. It was a question of now you see the tremor, now you don't."

The targets for the compounds were two cannabinoid receptors - docking points where molecules of the right shape interlock and produce biological effects - found in the brain and spinal cord.

Blocking the receptors with other chemicals not only prevented the therapeutic action of the compounds, but made the existing symptoms worse.

The scientists concluded that a natural control mechanism was being interfered with as well as the effect of the compounds. This suggested that the purpose of the receptors - and the natural cannabinoid which bound on to them - was to maintain motor control.

## **Yes, Cannabis Does Help You See In The Dark**

**URL:** <http://www.mapinc.org/drugnews/v99.n1326.a12.html>

**Pubdate:** Tue, 07 December 1999

**Source:** National Post (Canada)

**Copyright:** 1999 Southam Inc.

**Contact:** [letters@nationalpost.com](mailto:letters@nationalpost.com)

**Address:** 300 - 1450 Don Mills Road, Don Mills, Ontario M3B 3R5

**Fax:** (416) 442-2209

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

**Forum:** <http://forums.canada.com/~canada>

**Author:** Roger Highfield

YES, CANNABIS DOES HELP YOU SEE IN THE DARK Caribbean fisherman's claims that a punch made of cannabis extract and rum helps them see in the dark may have some basis in science.

Scientists have found a family of chemicals that includes the "psychoactive" ingredients of marijuana plays a role in vision. For the first time, "receptor" proteins activated by these compounds - cannabinoids - - have been reported in the eye, providing a missing link in the understanding of the retina.

The work also provides greater understanding of the effects on vision of marijuana and hashish, suggesting reports of the perception of a "snowy" visual field, increased light intensity and altered vision may be due to effects in the retina, rather than the brain.

"the scientific literature on marijuana, the known effects of cannabinoids in other parts of the brain and the places we find the receptor in the retina all make plausible the notion that cannabinoids may well have an effect on light sensitivity or light-dark adaptation," said Alex Straker of the University of California, San Diego.

However the retina is "incredibly complex", so this remains only a possibility, said Straker, principal author of the report on the prevalence of receptors - docking points for cannabinoids - in the retina.

The paper appears today in the "Proceedings of the National Academy of Sciences". It is co-authored by scientists from the Neurosciences Institute in San Diego and the University of Washington in Seattle.

## **US: Wire: Marijuana Plugs Into Eye Cells, U.S. Study Finds**

**URL:** <http://www.mapinc.org/drugnews/v99.n1321.a09.html>

**Pubdate:** 06 December 1999

**Source:** Reuters

**Copyright:** 1999 Reuters Limited.

### **MARIJUANA PLUGS INTO EYE CELLS, U.S. STUDY FINDS**

Marijuana and hashish may affect vision by plugging into tailor-made receptors in the eye, researchers said on Monday. They said they found the receptors -- which are chemical doorways into cells -- in animals ranging from chicks to salamanders to monkeys.

This suggests that chemicals similar to the cannabinoids in hashish and marijuana, known to occur naturally in the human body, are ancient and highly important in eye function, the researchers said: "The fact that this system is so highly conserved in species separated by hundreds of millions of years of evolution suggests that it's important," Alex Straker of the University of California, San Diego, who led the research, said in a statement.

"Nature likes to tinker, so any time you see something this consistent, it raises eyebrows."

Working with colleagues at the Neurosciences Institute in San Diego and the University of Washington in Seattle, Straker found cannabinoid receptors known as CB1 receptors in the retinal cells of rhesus monkeys, chicks, salamanders, goldfish, mice and rats.

They also occurred in both the rods and cones, which are the eye structures that respond to light, the researchers wrote in a report in the Proceedings of the National Academy of Sciences.

"We understand very little about how the retina works. By demonstrating that this receptor system is present, we add another piece to the puzzle, opening one more window into how the eye works," Straker said.

"It also suggests that marijuana affects vision because it plugs into an existing signaling system that is abundant in the retina."

Cannabinoids naturally occur in vertebrates. For instance, pain triggers the release of one class of cannabinoids known as anandamides. Anandamides are neurotransmitters, or message-carrying chemicals.

The chemical THC found in marijuana also is a cannabinoid.

Cannabis has been used for centuries to help relieve pain, and some research suggests it can affect vision and also may be able to help relieve symptoms of the eye disease glaucoma.

Researchers think THC must plug into the body's natural system for using anandamide and other neurotransmitters.

# Epilepsy

## Patient's Testimonies

## Scientific Evidence

### Comments

Epilepsy is a neurological condition that affects approximately 1 in 100 people. Depending on how wide spread in the brain the neurological disturbance is (the focus), there are a range of possible seizures from lapses in consciousness (absence) or convulsions (Grand Mal) to grimacing or repetitive movements (temporal) to just odd sensations (auras).

Epilepsy is as individual as the people who have it and everyone has their own patterns of seizures. There are sometimes triggers for seizures such as sleep loss, low blood sugar, stress or even boredom. Some common causes of epilepsy include head trauma, birth injury, hormonal imbalances, and viral attacks.

Some kinds of epilepsy can be well controlled by anti-convulsant drugs, but a few forms do not react well to these. Anti-convulsant drugs have potentially serious side-effects, including bone softening, reduced production of red blood cells, swelling of the gums, and emotional disturbances. Other occasional effects include uncontrollable rapid eye movements, loss of motor co-ordination, coma and even death.

Cannabis has long been known to have anti-convulsant properties, and these were investigated in the 19th Century. Cannabis analogues have been shown to prevent seizures when given in combination with prescription drugs. Patients report that they can wean themselves off prescription drugs, and still not experience seizures, if they have a regular supply of cannabis.

## Patient's Testimonies

There are two moving accounts from epilepsy patients in *The Forbidden Medicine*. Both find cannabis to be the best medicine for their condition and ask why they are criminalised for seeking relief. Would you like to transcribe them?

Since he was a teenager Carl Ogelsby has suffered from a seizure that includes an uncontrollable grin on one side of his face. When he was 37 he discovered that cannabis eliminated his seizure, so he used it until he was 54, when his discomfort at the legal risks of using cannabis forced him to endure the seizures once again.

Gordon Hanson, 53, suffers from both grand mal and absence attacks. They were partially controlled by standard drugs, but there were serious side effects of depression and mood-swings, and he became an alcoholic. In the early seventies he began using cannabis, and found his seizures were less frequent and less serious, and he was able to cut his synthetic drug intake considerably. He has twice been imprisoned for growing cannabis, 2 months in 1985 and six months in 1991.

## Scientific Evidence

In 1949 **Davis & Ramsey** administered THC to 5 institutionalised children who were not responding to the standard treatment (Phenobarbital and Phenytoin). One became entirely free of seizures, one almost completely free of seizures, while the other three did no worse than before.

In 1975 **Consroe et al.** described the case of young man whose standard treatment (Phenobarbital and Phenytoin), didn't control his seizures. When he began to smoke cannabis socially he had no seizures. However when he took only cannabis the seizures returned.



In 1980 **Cunha et al.** reported a study on 16 grand mal patients who were not doing well on conventional medication. They received their regular medication and either 200-300mg cannabidiol or a placebo. Of the patients who received the cannabis product, 3 showed complete improvement, 2 partial, 2 minor, while 1 remained unchanged. The only unwanted effect was mild sedation. Of the patients who received the placebo, 1 improved and 7 remained unchanged.

## References

- Davis, J P., & Ramsey, H.H. (1949) Antiepileptic Action of Marijuana-active Substances. *Federation Proceedings* **8** 284-285
- Consroe, P.F., Wood, G.C. & Buchsbaum, H. (1975) Anticonvulsant Nature of Marihuana Smoking. *J.American Medical Association* **234** 306-307
- Cunha, J.M., Carlini, E.A., Pereira, A.E. et al. (1980) Chronic Administration of Cannabidiol to Healthy Volunteers and Epileptic Patients. *Pharmacology* **21** 175-185

## Comments

This comment is from Eleanor Logan, Chair of the Youth Commission of the International Bureau for Epilepsy, and a former fundraiser for Enlighten, Action for Epilepsy in Edinburgh.

Each anti-convulsant drug has its own suite of side effects and people with epilepsy have to decide whether these are counterbalanced by seizure control. Not everyone experiences the side effects, and it can take up to 2 years to find the right drug and more importantly the right level of medication to give control.

In the last 10 years there has been a great increase in the variety of drugs available to treat epilepsy as well as the development of surgery. In addition, there has been a great increase in research into alternative methods of treating epilepsy, including a self-control method and aromatherapy. I don't know anything about treatment of epilepsy with cannabis.

**Taken from the UKCIA web site at: <http://www.ukcia.org>**

## MS PATIENTS RECRUITED TO TEST CANNABIS PILL

**Source: Daily Mail, UK**

**Pub Date: Tuesday December 14 1999**

**ART: MS patients recruited to test cannabis pill**

**Author: Beezy Marsh**

**Contact: letters@dailymail.co.uk**

**A STUDY to test the pain relief cannabis can give people with multiple sclerosis could pave the way to the drug's legalisation.**

**The Medical research Council has approved a grant of nearly one million pounds for the first clinical trial into the health effects of regularly taking cannabis.**

**People with MS, which effects the brain and spinal cord, say cannabis can ease he pain, muscle stiffness, sickness and tremors associated with the illness.**

**Doctors are preparing to recruit 650 patients for the three-year trial which will test whether extracts from the Class B drug can really offer effective relief.**

**Campaigners say up to 10,000 of Britain's 65,000 MS patients break the law by using cannabis to relieve the symptoms for which there is no known cure. Several have been prosecuted.**

**The British Medical Association wants any ingredients in the drug that prove beneficial in trials to be made available on prescription.**

**The MRC research will be co-ordinate by Dr John Zajicek, a consultant neurologist at Derriford Hospital in Plymouth, who specialises in treating MS. The study will look at the ability of chemicals in cannabis to relieve severe muscle stiffness, known as spasticity, in the legs.**

**MS patients, aged between 18 and 65, will be given one of three treatments in capsule form: extract of cannabis, tetrahydrocannabinol (a constituent of cannabis) or a placebo. 'If cannabis alone is found to offer the best relief for patients then we will have to publish that evidence and the Government will have to make its own decision about whether the drug should be legalised,' said Dr Zajicek.**

**Peter Cardy, chief executive of the MS Society, said: "Thousands of people with MS suffer from the often very painful symptoms of spasticity." He said that it was unacceptable that many were driven to break the law."**

## MS Cannabis given medicinal trials

Source: East Anglian Daily Times, UK

Pub Date: Tuesday December 14 1999

Author Maxine Frith:

Contact: EADTLetters@ecn.co.uk

The first clinical trials into the medical benefits of cannabis on people suffering from multiple sclerosis are to be carried out by the Medical Research Council, it was announced yesterday.

It has approved £959,000 grant for a 3-year study into the therapeutic effects of extracts from the drug on MS sufferers.

People suffering from the disease have claimed it can ease their symptoms. Several patients have been prosecuted in recent years after using the drug to alleviate their pain.

The research will be carried out by Dr John Zajicek, a consultant neurologist at Derriford Hospital in Plymouth. Dr Zajicek will recruit 660 patients with MS from across the country who have significant spasticity in some of their leg muscles.

Each patient will be randomly given one of three treatments in capsule form: extract of cannabis, tetrahydrocannabinol (a constituent of cannabis) or a placebo (containing only a vegetable oil). Neither the patient nor their doctors will know which treatment is being taken until after the study.

Dr Zajicek said: "We hope the study will provide definite scientific evidence about whether or not taking cannabis is helpful to people with MS".

Peter Cardy, chief executive of the Multiple Sclerosis Society, said: "For years we have pressed for proper medical research to assess the clinical effectiveness and safety of these substances. Thousands of people with MS suffering from often very painful symptoms of spasticity (spasms). "It clearly an unacceptable state of affairs when many people suffering from a serious medical condition feel driven to break the law. The trial will provide us with the evidence we need to know whether cannabis or cannabinoids (extracts of the drug) are safe and effective treatment of spasticity in MS."

Around 85,000 people in the UK suffer from multiple sclerosis, a disease of the nervous system. It is the most common neurological disease affecting young adults in the western world.

There is no cure for MS and the best treatment available at the moment for slowing the progression of the disease is the expensive drug beta interferon. But the cost of beta interferon means some health authorities refuse to make it available

### BREAKING THE LAW TO EASE THE PAIN

Mother-of-two Clare Hodges describes herself as a "middle-aged, middle class woman" but she is forced to break the law daily in order to relieve the symptoms of MS. Mrs Hodges, 42, has suffered for 17 years and has used cannabis to alleviate spasms and pain for eight years, since reading of its effects in an American magazine.

She heads the Alliance for Cannabis Therapeutics, which campaigns in favour of people with medical conditions, including MS, being allowed to use the drug.

The alliance estimates that more than 10,000 people in the UK use cannabis to relieve medical conditions. Mrs Hodges, a former TV producer who has been forced to give up work because of MS, grows her cannabis plants at home in Leeds.

She smokes the drug daily and estimates that buying, growing and smoking the plants costs her around £30 a week.

While welcoming further research into MS, Mrs Hodges is scathing about the medical establishment's reaction to calls for cannabis to be legalised for patients like her. "Of course any research is welcome, but we need help now", she said after yesterday's announcement.

## Straw supports the case for medical use of cannabis

By Greg John

**Date: 3 April, 2000**

**Source: The Independent**

**Website: <http://www.independent.co.uk>**

**Contact: [letters@independent.co.uk](mailto:letters@independent.co.uk)**

**Jack Straw said yesterday that he had no problem with the principle of legalising cannabis for medicinal use. The Home Secretary said the drug "will become available on prescription" if the nine ongoing research trials underway, revealed last month by The Independent, recommended that cannabis or its derivatives could safely be used as a medicine. "I have no problem whatsoever with this in principle," he said.**

**Mr Straw ruled out fully decriminalising the drug, although he accepted there was a "coherent argument" for legalisation on the grounds that its effects were different from heroin or cocaine and no more serious than tobacco or alcohol.**

**He said the law as it stood, based on the Misuse of Drugs Act 1971, was "pretty sensible". He argued that legalising cannabis would make consumption rise as prices fell and would attract drugs tourists to Britain.**

**Writing in the News of the World newspaper, Mr Straw stated: "As the Dutch police warn us, the semi-legal trade in cannabis in the Netherlands has helped make that country a safer place for big-time crooks. If we legalised cannabis, Britain could follow."**

**His argument was dismissed by the Labour MP Paul Flynn, who said possession of cannabis for personal use was decriminalised in Spain, Italy and Portugal as well as Holland. Mr Flynn, a long-time campaigner for reform of drugs laws, said: "Britain has the harshest laws in Europe and the worst drug problems. Countries with pragmatic, intelligent laws have fewer problems. The UK's mindless prohibition is doing more harm than the drugs themselves." He called for a "legal, licensed" market to replace the "irresponsible, illegal" one.**

**Sir John Stevens, the Metropolitan Police Commissioner, fuelled the debate yesterday by saying possession of cannabis was a low priority for police and that they could "work with" legalisation to decriminalise it. Sir John, speaking on a trip to New York, said: "Our job is to enforce the law. If the law says it's illegal then we enforce the laws. If they say it's legal in Parliament, then so be it."**

**Scotland Yard later said the Commissioner opposed legalising cannabis but had been pointing out that Parliament makes the law and the police enforce it.**

## **Cannabis trials go ahead BY ANTHONY BEVINS POLITICAL EDITOR**

**Date:** 7 April, 2000

**Source:** The Express (UK)

**Contact:** [express.letters@express.co.uk](mailto:express.letters@express.co.uk) (Letters must include address and phone number)

**Website:** <http://express.lineone.net/login/cgi-bin/l1login.cgi>

**HUNDREDS** of thousands of patients suffering from arthritis, cancer, multiple sclerosis and back pain could be helped by cannabis, chemists claim. Now they hope to wear down the "prejudice" of Premier Tony Blair and Home Secretary Jack Straw by proving its effectiveness in clinical trials.

Dr Geoffrey Guy, chairman of GW Pharmaceuticals, announcing the launch of the licensed trials yesterday, said the numbers of people who could have their suffering relieved was "mind-boggling." Leading campaigners who favour the liberalisation of the law see the trials as the first step on the road to legalisation.

Two thousand patients will take part in the trials over the next two or three years. They will spray the cannabis under the tongue from where it will be absorbed quickly into the system.

"We hope to demonstrate to the authorities the safety and efficacy of the medicine," said Dr Guy. "There are patients who will benefit from these medicines but who would not think of taking cannabis if they had to break the law."

It is estimated that 10,000 people suffering acute pain and distress take cannabis illegally. One of them is 52-year-old Elizabeth Ivol. She and 8,000 other MS sufferers regularly use cannabis in defiance of the law. She risked jail three years ago when she was caught growing marijuana at her home in the Orkneys but escaped with an admonishment. Since then she has continued to use the drug and to supply it to other sufferers. She said yesterday: "There is a huge network of people who are using cannabis and helping each other get the drug. One of the favourite ways of taking it is in melted chocolate. It controls my pain which is otherwise unbearable. One thing that happens to me is that my eyesight goes. I only need to smoke cannabis and my vision is restored."

There are 85,000 people suffering from multiple sclerosis and 45,000 with spinal cord injury - two conditions being targeted in the trials. It is possible cannabis as a prescription medicine could be available from 2003.

Labour MP Paul Flynn, who has a Bill to legalise medicinal cannabis coming before the Commons, said: "I'm sure the trials will be successful. Cannabis was even used by the Egyptians who built the pyramids."

*Cannabis Prohibition: A Very Serious Crime*

Note : In Judge Young's report cannabis is referred to as marijuana  
UNITED STATES DEPARTMENT OF JUSTICE  
Drug Enforcement Administration

\_\_\_\_\_  
In The Matter Of )  
 )  
MARIJUANA RESCHEDULING PETITION ) Docket No. 86-22  
\_\_\_\_\_ )

**OPINION AND RECOMMENDED RULING, FINDINGS OF  
FACT, CONCLUSIONS OF LAW AND DECISION OF  
Administrative LAW JUDGE.**

**FRANCIS L. YOUNG, Administrative Law Judge**

**DATED: SEP 6 1988**  
FRANCIS L. YOUNG, Administrative Law Judge

.....  
**Part VIII.**

**ACCEPTED SAFETY FOR USE UNDER MEDICAL SUPERVISION**

With respect to whether or not there is "a lack of accepted safety for use of [marijuana] under medical supervision", the record shows the following facts to be uncontroverted.

**Findings of Fact**

- Point 3. The most obvious concern when dealing with drug safety is the possibility of lethal effects. Can the drug cause death?
- 4. Nearly all medicines have toxic, potentially lethal effects. But marijuana is not such a substance. There is no record in the extensive medical literature describing a proven, documented cannabis-induced fatality.
- 5. This is a remarkable statement. First, the record on marijuana encompasses 5,000 years of human experience. Second, marijuana is now used daily by enormous numbers of people throughout the world. Estimates suggest that from twenty million to fifty million Americans routinely, albeit illegally, smoke marijuana without the benefit of direct medical supervision. Yet, despite this long history of use and the extraordinarily high numbers of social smokers, there are simply no credible medical reports to suggest that consuming marijuana has caused a single death.
- 6. By contrast aspirin, a commonly used, over-the-counter medicine, causes hundreds of deaths each year.
- 7. Drugs used in medicine are routinely given what is called an LD-50. The LD-50 rating indicates at what dosage fifty percent of test animals receiving a drug will die as a result of drug induced toxicity. A number of researchers have attempted to determine marijuana's LD-50 rating in test animals, without success. Simply stated, researchers have been unable to give animals enough marijuana to induce death.
- 8. At present it is estimated that marijuana's LD-50 is around 1:20,000 or 1:40,000. In layman terms this means that in order to induce death a marijuana smoker would have to consume 20,000 to 40,000 times as much marijuana as is contained in one marijuana cigarette. NIDA-supplied marijuana cigarettes weigh approximately .9 grams. A smoker would theoretically have to consume nearly 1,500 pounds of marijuana within about fifteen minutes to induce a lethal response.

*Cannabis Prohibition: A Very Serious Crime*

9. In practical terms, marijuana cannot induce a lethal response as a result of drug-related toxicity.
10. Another common medical way to determine drug safety is called the therapeutic ratio. This ratio defines the difference between a therapeutically effective dose and a dose which is capable of inducing adverse effects.
11. A commonly used over-the-counter product like aspirin has a therapeutic ratio of around 1:20. Two aspirins are the recommended dose for adult patients. Twenty times this dose, forty aspirins, may cause a lethal reaction in some patients, and will almost certainly cause gross injury to the digestive system, including extensive internal bleeding.
12. The therapeutic ratio for prescribed drugs is commonly around 1:10 or lower. Valium, a commonly used prescriptive drug, may cause very serious biological damage if patients use ten times the recommended (therapeutic) dose.
13. There are, of course, prescriptive drugs which have much lower therapeutic ratios. Many of the drugs used to treat patients with cancer, glaucoma and multiple sclerosis are highly toxic. The therapeutic ratio of some of the drugs used in antineoplastic therapies, for example, are regarded as extremely toxic poisons with therapeutic ratios that may fall below 1:1.5. These drugs also have very low LD-50 ratios and can result in toxic, even lethal reactions, while being properly employed.
14. By contrast, marijuana's therapeutic ratio, like its LD-50, is impossible to quantify because it is so high.
15. In strict medical terms marijuana is far safer than many foods we commonly consume. For example, eating ten raw potatoes can result in a toxic response. By comparison, it is physically impossible to eat enough marijuana to induce death.
16. Marijuana, in its natural form, is one of the safest therapeutically active substances known to man. By any measure of rational analysis marijuana can be safely used within a supervised routine of medical care."

**New Title Information**

## **The Report of the FCDA, Europe.**

Cannabis: The Facts, Human Rights And The Law; K.E.A. d' Oudney, ALAM(hons) Dip GSA & J.R. d'Oudney New Edition, 1997, 242 pages, A4 size, Large Hardback, ISBN 0-9524421-3-2, £29.95 plus £6 p&p or Large Softback, ISBN 0-9524421-9-1, £19.95 plus £4.50 p&p

TEXTBOOK EXPOSITION on Cannabis in context of: AGRICULTURE (Food) /CRIMINOLOGY / ECOLOGY / ECONOMICS

e.g. see below:-

ENGINEERING & METHANOL-FUEL TECHNOLOGY / GENERAL KNOWLEDGE / HEALTH / HISTORY / LAW / MEDICINE / POLITICS / SOCIOLOGY.

For example, see in The Report: \* Economics:

The Cannabis Biomass Energy Equation (CBEE), given practical application in the Cannabis Biomass Resource and Pyrolysis Functions (CBRPF), explains and establishes, *for the first time on record*, how Cannabis, uniquely among plant species, produces fuel-energy *cheaper* per BTU than fossil fuels and uranium, and is capable of their *economic* replacement. Profound amelioration is made available to the world and its peoples from these facts, which are expounded in-depth. Chemistry: shows Cannabis-Methanol fuel-energy pollution-free, which will have stabilising result on Global Warming.

On Health / Medicine: The state-funded Empirical Studies completely vindicate cannabis. Official Findings of Fact: 1.) exonerate cannabis from all allegations of 'harm'; 2.) conclude from replicable, mental/physical co-ordination, memory and ability skill-tests that use of cannabis herb produces categorically no 'impairments', and 3.) confirm cannabis is *profoundly benign* to human Health. The Exonerative Studies are not promulgated by DEA, Home Office, CPS and others: perjury is thereby committed.

On Law: The Report exposes the fraudulent basis to the legislation; Lawyer's Guide: The Evidence which shows specific infractions of Common, Substantive and International Laws by this Prohibition, demonstrating the 'Act' as abrogate and its enforcement as constituting Crime per se. Evinces current ex parte tampering of the Trial by Jury (system) by State/judges producing foregone guilty 'verdicts'. Gives cogent references.

On Criminology: 1.) The Report reveals the utmost corrupt financial motivation from which spurious 'legislation' is contrived. The Report shows how mass false indoctrination of 'harm' is fabricated and Cannabis Prohibition comprises the greatest fraud of all time. 2.) Evidence presented shows that Prohibition per se engenders most of all peacetime Crime, both small-scale and Organised. Examines the complex of relationships between Prohibition, its enforcement and the Economics of the Black Market.

Much more information. Helpful Bibliography.

Presents case histories of patients' supervised uses: Statistics: superior efficacy in numerous treatments and conditions: Recommendations of US Judicial Review of modern medical applications. "*.....a splendid job of producing a comprehensive summary of the evidence documenting that the current prohibition of the production, sale and use of cannabis is utterly unjustified and produces many harmful effects.*" Excerpt from Foreword by: Economics' Nobel Laureate Prof. Milton Friedman, Senior Research Fellow, Hoover Inst. on War, Revolution and Peace; Professor Emeritus, University of Chicago.

*"a fine document", U.S. Judge's letter to Authors.*

*"The Report's thesis is sound." U.K. Judge's letter to Authors.*

*"Eloquent, I welcome the addition of this Report to the world's store of important writings", Don Doig, BS, US National Coordinator, Fully Informed Jury Association.*

*"I did enjoy reading it. The Report should contribute much", Ecologist and t.v.. broadcaster, the Hon. Jonathon Porritt, Bt.*

*"I am totally amazed at The Report's quality and overall goodness." Dr. Anne Biezanek, ChB, BSc, MB, MFHom.*



**Universal Declaration of Human Rights, G.A. res. 217A (III),  
U.N. Doc A/810 at 71 (1948).**

---

***PREAMBLE***

Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world,

Whereas disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people,

Whereas it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law,

Whereas it is essential to promote the development of friendly relations between nations,

Whereas the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have determined to promote social progress and better standards of life in larger freedom,

Whereas Member States have pledged themselves to achieve, in cooperation with the United Nations, the promotion of universal respect for and observance of human rights and fundamental freedoms,

Whereas a common understanding of these rights and freedoms is of the greatest importance for the full realization of this pledge,

Now, therefore, The General Assembly, Proclaims this Universal Declaration of Human Rights as a common standard of achievement for all peoples and all nations, to the end that every individual and every organ of society, keeping this Declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms and by progressive measures, national and international, to secure their universal and effective recognition and observance, both among the peoples of Member States themselves and among the peoples of territories under their jurisdiction.

***Article 1***

All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

***Article 2***

Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.

***Article 3***

Everyone has the right to life, liberty and security of person.

***Article 4***

No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

**Article 5**

No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.

**Article 6**

Everyone has the right to recognition everywhere as a person before the law.

**Article 7**

All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.

**Article 8**

Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.

**Article 9**

No one shall be subjected to arbitrary arrest, detention or exile.

**Article 10**

Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.

**Article 11**

1. Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defence.

2. No one shall be held guilty of any penal offence on account of any act or omission which did not constitute a penal offence, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offence was committed.

**Article 12**

No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

**Article 13**

1. Everyone has the right to freedom of movement and residence within the borders of each State.

2. Everyone has the right to leave any country, including his own, and to return to his country.

**Article 14**

1. Everyone has the right to seek and to enjoy in other countries asylum from persecution.

2. This right may not be invoked in the case of prosecutions genuinely arising from non-political crimes or from acts contrary to the purposes and principles of the United Nations.

**Article 15**

1. Everyone has the right to a nationality.

2. No one shall be arbitrarily deprived of his nationality nor denied the right to change his nationality.

**Article 16**

1. Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family. They are entitled to equal rights as to marriage, during marriage and at its dissolution.

*Cannabis Prohibition: A Very Serious Crime*

2. Marriage shall be entered into only with the free and full consent of the intending spouses.

3. The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.

**Article 17**

1. Everyone has the right to own property alone as well as in association with others.

2. No one shall be arbitrarily deprived of his property.

**Article 18**

Everyone has the right to freedom of thought, conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with others and in public or private, to manifest his religion or belief in teaching, practice, worship and observance.

**Article 19**

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

**Article 20**

1. Everyone has the right to freedom of peaceful assembly and association.

2. No one may be compelled to belong to an association.

**Article 21**

1. Everyone has the right to take part in the government of his country, directly or through freely chosen representatives.

2. Everyone has the right to equal access to public service in his country.

3. The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

**Article 22**

Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality.

**Article 23**

1. Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.

2. Everyone, without any discrimination, has the right to equal pay for equal work.

3. Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.

4. Everyone has the right to form and to join trade unions for the protection of his interests.

**Article 24**

Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay.

**Article 25**

1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood,

old age or other lack of livelihood in circumstances beyond his control.

2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

***Article 26***

1. Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.

2. Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

3. Parents have a prior right to choose the kind of education that shall be given to their children.

***Article 27***

1. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.

2. Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

***Article 28***

Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized.

***Article 29***

1. Everyone has duties to the community in which alone the free and full development of his personality is possible.

2. In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society.

3. These rights and freedoms may in no case be exercised contrary to the purposes and principles of the United Nations.

***Article 30***

Nothing in this Declaration may be interpreted as implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.

---