

The background image shows a woman, Libby Davies, MP, speaking in a parliamentary setting. She is wearing glasses, a black top, and a patterned scarf, and is holding a piece of paper. In the foreground, a man in a suit is seated, looking towards her. The setting appears to be a formal chamber with wooden paneling.

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Ontario Hemp Alliance CORRECTION

In our last issue the article on the Ontario Hemp Alliance contained an error. In the paragraph: High yield – 15,000 lbs per acre – large seeds for dehulling – low THC profile – high essential fatty acid profile – seed heads at a height easy for harvesting of the grain – adequate straw yield for fibre – weed resistance – good colour and taste.

15,000 lbs per acre should have read 1,500 lbs per acre. We wish seed heads could grow that big - we apologize for any confusion this may have caused. For more information please contact: www.ontariohempalliance.org

Cannabis Health

Cannabis Health Magazine is the voice and the new image of the responsible cannabis user. The publication treats cannabis as one plant and offers balanced coverage of cannabis hemp and cannabis marijuana. Special attention is given to the therapeutic health benefits of this plant made medicine. Regular contributors offer the latest on the evolving Canadian cannabis laws, politics, and regulations. We also offer professional advice on cannabis cooking, growing at home, human interest stories and scientific articles from countries throughout the world, keeping our readers in touch and informed. Cannabis Health is integrated with our resource website, offering complete downloadable PDF versions of all archived editions. www.cannabishealth.com

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CONTEST WINNERS ANNOUNCEMENT

Congratulations to our most recent winners!!

Suetaz, Aylmer, ON – winner of the Wong Bong pipe and a one year subscription

A.G, Campbellford, ON – winner of a one year subscription

C.S., Nanaimo, BC – winner of the Pine Needle Basket by Métis artist, Danny Apukoses.

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Editorial

Advocacy or Activism – What are we fighting?

Activism is defined as the theory, doctrine, or practice of assertive, often organized, action, such as mass demonstrations or strikes, used as a means of opposing or supporting a controversial issue, entity, or person. Advocacy, on the other hand, is the process of committing continuous proactive support to an idea, person or cause to bring about sustainable, long-term change.

The cannabis community is made up of many activist and advocates. This edition includes only a few of the many organizations and individuals who continue to challenge the injustices forced upon citizens by the irrational “war on drugs”. This battle has gone on for decades; many people have been criminalized, marginalized and persecuted for their commitment to fight for a dignified existence for all. The best minds have concluded change must happen and we must continue the fight until it does. But who are we fighting? Is it public perception, legislation or corruption?

Many believe public perception is to blame. The general public, according to the opinion polls, is very supportive of the medical use of cannabis, but many are also unaware of most of the real problems. They hear and read only what’s been made available through the mainstream sources and when the majority of information available slants towards propaganda it’s no wonder the “Reefer Madness” stigmatization is still so prevalent. Is the public at fault? I don’t think so, however the lack of accurate information would explain why cannabis reform is being debated on a misguided morals platform, as opposed to an accurate intellectual one.

The Canadian Charter of Rights and Freedoms guarantees all Canadians freedom of thought, belief, opinion, and expression, including freedom of the press and other communication media. We all have the right to a voice. The questions we must ask ourselves are; why has there been such a distortion of fact, who is supplying it and for what purpose?

Corruption is defined as: the act of changing, or of being changed, for the worse; departure from what is pure, simple, or correct. According to this Webster’s definition corruption could be to blame and we know corruption is a by-product of prohibition. Our laws should reflect our society’s need for a corruption free environment, yet the opposite seems to be taking place when it comes to the legislation governing cannabis. Canada’s marijuana laws were declared unconstitutional by the Ontario Court of Appeal in July 2000, yet marijuana is still illegal and the police have again been given an enormous budget to enforce these unjust laws.

Police agencies in Canada are mandated: To enforce laws, prevent crime, and maintain peace, order and security. Their Mission Statement claims that they uphold the principles of the Canadian Charter of Rights and Freedoms. The police are paid to enforce the law. They should not be paid to do things like; unauthorized product analysis on illegally confiscated medical cannabis sent through the mail from a legal designated grower to a legal patient. Nor

should they be involved in the political drug law debate or in the supply of biased information to the masses or our children. Conflict of interest would be in question if they were – wouldn’t it?

Laws are after all a piece of enacted legislation and the only people who can change legislation are our elected politicians. Who elects our politicians? The general public. What or who are we fighting?

Barb St.Jean

Our lives begin to end the day we become silent about things that matter.

Martin Luther King, JR



Letters

Learning the hard way

The first time I ingested cannabis, I learned the hard way how many cookies was too many to eat. I used a milk chocolate chip cookie recipe and used the powder I had been collecting from my grinder to make cannabutter. I ate two cookies when the first batch came out of the oven, then I ate two when they were done and then later I just had to have another and then another. As I was eating that last cookie, I realized I was having a hard time swallowing it because my throat was swelling up. I started making the cookies around 5pm and by 10pm, I was too stoned to function, so I went to bed.

I woke up at 4am with a sore, swollen throat and the worst hangover I’ve ever had.

I couldn’t believe how awful I felt. I was a News Admin at Marijuana.com at the time and I was supposed to have 4 articles programmed to the front page for 4:20am. I couldn’t get my eyes to focus, so I didn’t get the news posted. Thankfully, potheads are understanding about first time eating adventures. I took some Advil, drank some fluids and went back to bed. When I awoke again, I felt just fine, but the last thing I wanted was another cookie.

Before I got too stoned, the high I experienced was absolutely incredible. Eating weed is like getting stoned backwards. Smoking it produces an almost instant high that stays for a while, then gradually wears off. Eating it takes time to digest, so it sneaks up on you and

the high continues to build for much longer than smoking it even lasts. I felt that the high I experienced was completely different from smoking it. Smoking it, to me, is like getting stoned from the outside in, but it never quite reaches the core. Eating it, the high starts at the core and you get stoned from the inside out for a total and complete body buzz.

As for the taste, the weed flavor was like a ghost. The milk chocolate cleansed my palate and erased the weed taste so fast, that I wasn’t sure I had tasted it. Before long, I wasn’t sure of much of anything.

So what did I learn? I learned that the powder from my grinder has a wicked potency. I learned that I have no willpower against

Letters continued

chocolate chip cookies. I learned that there is such a thing as a weed hangover. I learned that cannabis goodies should be tested for potency first and to have some patience waiting for the high to come. I learned that I can trust Marijuana to teach me how much is too much, but not to harm me in any way. I learned to have even more respect for Marijuana and what she is capable of and learned to love her even more. I learned that there really is something better than smoking weed; eating it! *Suetaz*

Simple math tells you

According to some old facts I have read from a tobacco manufacture; in Canada in 1996, alcohol claimed around 1,900 deaths, car accidents were involved in 2,900 related deaths and tobacco was involved in over 45,000. Simple math tells me since this time, over 16,000 people have died due to alcohol, over 24,000 have been killed because of cars and over 350,000 from tobacco. That comes to 400,000 people which seems low to me who died from these three causes. I'm

unsure what the real number is but it's too high. The government has made marijuana illegal because it is apparently harmful to us. Worldwide no one has ever had the cause of death, on a death certificate, be from marijuana - in the over 6,000 years marijuana has been known to man. Where is the harm that they are protecting us from? Since no one has died from it, who is the government really protecting, us or the organized crime element who benefit from prohibition?

Al Graham, Ontario

May 5, 2005: UNITE FOR FREEDOM!! REPEAL CANNABIS PROHIBITION!!

May 5, 2005 is the day a movement will begin to unite our resources and peacefully but relentlessly press Congress to look at the truth about cannabis and then end cannabis prohibition for adults.

On Thursday, May 5, 2005, every person in America who understands that cannabis prohibition does more harm than good can go to his/her local congressional district office to peacefully demonstrate outside the building. We show up and

speak up (Letters and calls) every day until our demand is met: Repeal cannabis prohibition for adults. It doesn't matter if you've never used marijuana; all you need is the knowledge that these laws are wrong and harmful.

It's as simple as that, but don't underestimate our numbers AND the power of an organized, determined group! "United We Stand, DIVIDED WE FALL" (Ben Franklin).

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Canadian AIDS Society gets funding for a project on cannabis as therapy

The Canadian AIDS Society has received funding for a "Cannabis as Therapy: Access and Regulation Issues for People Living with HIV/AIDS" project from the Public Health Agency of Canada, through the Legal, Ethical and Human Rights Fund of the Canadian Strategy on HIV/AIDS. The project will examine and document the access and regulation issues that people living with HIV/AIDS face when they choose to use cannabis as part of their therapy, from a legal, ethical and human rights perspective. For as many as one in three or four people living with HIV/AIDS, cannabis helps them with appetite so that they can maintain their weight. It also helps with nausea and vomiting, a result of both the disease and the medication; pain, stress and mood.

A National Steering Committee, which brings together all of the key stakeholders, has been created to direct the project and provide input and recommendations. A legal consultant has also been hired. The Project Consultant, Lynne Belle-Isle, will be conducting focus groups in Vancouver, Victoria, Toronto and Montreal to speak with people living with HIV/AIDS and

document their stories and realities with using cannabis as therapy to alleviate their symptoms. She will also be interviewing key informants such as lawyers, physicians, pharmacists, compassion clubs, growers, regulators, and law enforcers, to get their perspectives. A document will be produced with these findings.

A key outcome of the project will be to develop materials to provide information to organizations and to people living with HIV/AIDS on how to access the current medical marijuana program, how to speak to a physician about medical marijuana, law enforcement and legal considerations, cannabis as therapy for people living with HIV/AIDS, how to access cannabis, and more. So as not to be a document collecting dust on a shelf, another key outcome will be the development of an action plan to address the issues identified. The action plan will keep the momentum going to improve the situation for all Canadians who wish to include cannabis as part of their therapy to alleviate their symptoms.

For more information about the Canadian AIDS Society's project on cannabis as therapy, please contact Lynne

Belle-Isle at 613-230-3580 ext. 126 or lynneb@cdnaids.ca

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Excerpt from Press Release 21/12/2004 - <http://www.gwpharm.com/>

GW Pharmaceuticals announces that Health Canada, the Canadian regulatory authority, has issued a Qualifying Notice for the approval of Sativex®, a cannabis-based medicinal extract product. Sativex will initially be indicated in Canada for the relief of neuropathic pain in Multiple Sclerosis ("MS").

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Libby Davies Interview

Libby Davies, MP, Vancouver East and Pierre Claude Nolin, Senator, De Salaberry, Quebec, demand an Auditor General's investigation into Health Canada's medical marijuana access program.

Libby Davies has been an outspoken advocate for drug policy reform. In issue 2-3, March/April, 2004 of the Cannabis Health Magazine we interviewed Libby Davies about the criminalization of drug users and the harm caused by Canada's prohibitionist policies.

Here we are one year later and what's happening? The planned consultation with stakeholders did not alleviate the medical cannabis access problems, patients are still criminalized and forced to the unsafe black market for medicine and the proposed changes to the MMAR are unworkable. Libby Davies has stepped up to the plate one more time and is now demanding something be done about this injustice.

On December 2, 2004, Libby Davies and Pierre Claude Nolin sent a letter to Sheila Fraser, Auditor General of Canada, with a cc to Hon. Ujjal Dosanjh, Minister of Health, requesting an investigation into Health Canada's medical marijuana program. Their letter states that from all appearances the Office of Cannabis Medical Access (OMCA) has failed to meet their own mandate on a number of fronts. Excerpts from the letter are as follows:

"Health Canada, through the OMCA, has been unable to provide adequate access for medical marijuana users. The department's own research suggests that there are over 290,000 medical marijuana users in BC alone but the OCMA has only registered 753 exemptees for the whole country in nearly 5 years of operation. In addition, the Ontario Court of appeal in the November 2003 *Hitzig* case found some parts of the program unconstitutional because of a lack of access for those in need.

Many other serious questions have been asked about the Medical Marijuana Research Plan. Very few research projects have been approved and those that have are not adequately moving forward or have been cancelled despite a \$7.5 million, 5-year clinical research grant.

Health Canada's foray into the production of medical marijuana has also been a widely publicized disaster. In December of 2000 Health Canada announced that it was issuing a 5-year, \$5.7 million dollar contract for the production of a domestic supply of research-grade cannabis to Prairie Plant Systems (PPS), which proposed to grow the material in a mineshaft in Flin Flon Manitoba.

There are currently under 83 exemptees purchasing cannabis from PPS. This equates

to a cost of around \$65,000 per exemptee receiving cannabis from this Health Canada facility. Tests done by organizations like Canadians for Safe Access have found that the cannabis grown in Flin Flon contains dangerously high levels of both lead and arsenic. Many exemptees have actually returned their supply as the product is deemed unusable.

There are many inadequacies with Health Canada's medical marijuana program and an investigation by your office would go a long way in helping those in need of medical marijuana by forcing the department to fix existing problems."

We recently spoke with Libby for update on her current initiatives.

Cannabis Health: Have you received a response to your Dec. 2, 2004 request for an investigation into Canada's marijuana medical access program?

Libby Davies: We have received a response from the Auditor General's office saying they will review our request for an investigation. I'm hoping that because there has been a lot of concern about the medical marijuana program that the Auditor General will pick this up from her perspective of wise use of taxpayer dollars, to examine whether or not this program is functioning properly. We will also be doing a freedom of information request to try to get some more information about what's been going on in the program, in terms of how many applications have been approved, how many turned down, what their risk management criteria are, etc.

CH: Why do you feel so strongly about this?

LD: I know people may find this hard to believe, but I'm actually very anti-drugs personally. I don't use drugs, but I think that prohibition equals chaos. Prohibition equals no control. Prohibition equals criminalizing young people. Prohibition equals criminalizing responsible adult users of marijuana who aren't doing anybody, not even themselves, any harm. I see the impact and I believe it should be a matter of personal choice.

CH: The recent decriminalization debate exposed a disturbingly low level of knowledge in the House of Commons about the medical use of marijuana. Despite ample scientific evidence to the contrary, some of our MP's made statements indicating a belief that marijuana use leads to cancer, lung disease addiction and psychosis. Why, in your opinion, is the level of education among our federal politicians on the medical use of marijuana so inadequate?

LD: Well, we all have different areas of expertise. Having said that, I do feel that the



Libby Davies, MP, Vancouver East
Photo by Joshua Berson

debate around marijuana and drugs generally is very much a political debate. There is this whole mythology, this whole morality; so much of our society is based on the criminalization and the prohibition of drugs. This is a huge infrastructure that we're dealing with. You take on drug prohibition policy and you take on the whole of society in terms of what it stands for. Some of our elected people fully understand the scientific evidence, and yet they continue to pedal the anti-drug, anti-decriminalization line. They have so bought into the ideology of prohibition that they can't face the reality that it isn't working. Their election platform plays on people's fears about crime and the illegal drug trade, but won't talk about how that's driven by prohibition. I think it was Gore Vidal who wrote, "If prohibition of drugs weren't invented as a form of social control, they'd have to invent something else."

CH: Support for the creation of a more accessible medical access program comes from many levels of our society, from the courts, the Senate, the private sector, as well as the public. Yet with each revision to the Marijuana Medical Access Regulations, the program becomes more restrictive and unworkable. What might account for the federal government's failure to recognize changing public attitudes on this issue?

LD: The Federal Government never wanted to do this, but were forced, by court decisions, to set up this program. The medical marijuana program has never had a real champion within the government. That's problem number one. The more you study the bill, the more you can see that it's actually misnamed, and we could end up with a wider net of enforcement than we have now.

Libby Davies Interview

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CH: Yes, that's how it seems to us. We call it the "Recriminalization Bill". It gives the RCMP an increasingly bigger mandate.

LD: To me the issue of substance use is primarily a health issue, whether it's alcohol, tobacco, marijuana or other drugs. It's about realistic education and getting people to understand what they do to their bodies. Why do we have the police as a primary source of education? Whenever there is a debate around marijuana or drugs generally, who are the first ones up there calling press conferences and spouting their opinions? The RCMP. That's all, again, being driven by prohibition. It should be up to the public and the legislators to debate this issue, not the police.

CH: How do they have that power?

LD: Our society has allowed the drug debate to be driven primarily by a law and order enforcement regime. The enforcement agencies - the CCRA, the RCMP and international intelligence - have a huge vested interest in keeping these drugs illegal. They gain enormous power as a result of prohibition. To me, it's a public policy issue; it's a public health issue that we should be debating. The more we can move it into that arena, the more we can have an intelligent debate that's based on science and reasonable objectives.

CH: The most recent amendment to the MMAR includes the long-term phasing out of personal and designated production licenses. Why does the federal government continue to monopolize the production of medical grade cannabis?

LD: It is this whole fear that they have to stop the floodgates from opening. It's got to be controlled. It's got to be secretive and it's got to be very difficult to access, so they decided to go with this sole source monopoly supply situation. They've wanted to keep a lid on this but actually what they've done is create way more problems than if they had been open and actually sought out knowledgeable people and good advice. They just don't have the expertise and I can't, for the life of me, understand why Health Canada wouldn't work legitimately with the medical marijuana community or compassion clubs. This is what has led to us calling for the Auditor General to look at the situation, at how the taxpayers' money is being spent.

CH: Despite a \$7.5 million research allocation by Health Canada, few projects have been approved, and of those, many have had their funding frozen. Recently announced is the "Cannabis for the Management of Pain: Assessment of Safety Study" (COMPASS) funded by

Health Canada in partnership with Canadian Institutes of Health Research. What do you think of the concern expressed by Canadians for Safe Access about the quality, heavy metal content and biological contamination levels of the Prairie Plant Systems cannabis to be used in this study?

LD: I'm not a scientist, but I think it's very difficult to conduct a scientific study based on a single source about which so many serious concerns have been expressed. I think the government should be allowing much better disclosure of what's going on at this PPS growing facility in Flin Flon. They should be allowing other points of production and access. Because of the lack of information available, the medical marijuana community is so suspicious of the product available through the government's monopoly that they prefer to rely on their own sources despite the fact that they are illegal.

Prohibition equals chaos. Prohibition equals no control. Prohibition equals criminalizing young people. Prohibition equals criminalizing responsible adult users of marijuana who aren't doing anybody, not even themselves, any harm. I see the impact and I believe it should be a matter of personal choice.

CH: And strains of their choice, which is not something that Health Canada has even recognized.

LD: I have been reading the material sent to me by Canadians for Safe Access with information about different strains and levels of THC and their efficacy in relieving different conditions. There are people in the medical marijuana movement with a tremendous body of knowledge, and I respect that, and I just wish Health Canada would work with you.

CH: Yes, it is a big problem. It's hard to get them to take us seriously. We were part of the Stakeholders' Advisory Committee through the Canadian Cannabis Coalition, and the impression that most of us got was that they were

tolerating us, but they really didn't plan on listening to us without some preconceived notion that we were just "potheads".

LD: But you know what, I do feel that the community has growing credibility and they can't dismiss you. I think the fact that we've come so far and that this is a real debate that's taking place shows this. The reality is that the government is really under pressure to confront their own inconsistencies in their arguments around marijuana. That's because of the pressure that's come from the marijuana community, so people should never feel that they're completely marginalized and that they don't have any power. I think where we are now in Canada is a testament to how people have worked so hard and pushed so hard to create this debate and to push back against this status quo. We're at a very critical point.

CH: How far away do you think we are from legalization?

LD: I don't know, but I believe the debate is beginning to change and the criticism of the bill is an indication. Yes, we still have a prohibitionist regime primarily, but I think there's a lot more debate. I think there are a

lot of people in the media, even within the mainstream sort of corporate media, who are sympathetic to legalization, who realize what this is all about, and I think, in some ways, will help with the debate.


CH: We've been pushing the magazine into the mainstream and doing studies on demographics over the last six to eight months. We're finding that because it's still an illegal substance, many corporate businesses refuse to get involved in the debate. They sympathize, they believe in legalization but they won't put their names forward in fear of the stigma. How can we change that? The business lobby is huge. If we had their support, surely things would just have to fall into place.

LD: There are business interests that promote legalization because they actually see it as an entrepreneurial enterprise. Fraser Institute is very pro-legalization. They see it as an economic issue, and of course, it is. The Economist, a fairly conservative mainstream magazine in the US, is doing a big article that challenges prohibition. But I don't know that they're going to lead the way on it. I think that public opinion is generally what is going to change, so I would put more of my energy into working with community organizations or

local elected representatives who are close to what is going on. Primarily, we have to focus on getting people to understand the harms that take place as a result of prohibition.

CH: Do you have any recommendation to the medical cannabis community? What could we collectively do to help alleviate our dysfunctional system?

LD: The information that is produced by the community challenging what's taking place is extremely important. If we can get the Auditor General to investigate, that would be a very significant thing, and will in large part be because of the questions raised by the community. I do encourage people to continue on with the emails and the letters, not just to me please, but to your local MP. We have to provide real education to more elected representatives, and Bill C-17 is a good opportunity for that. It is before Parliament and is being sent off to the Justice Committee for presumably more public hearings. I've spoken to lots of MPs privately and I think they know that the current system's status quo is ridiculous. But they need to hear from their constituents. At the end of the day, we all want to be re-elected.



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PRESS RELEASE FEBRUARY 3 2005



James Burton,
voorzitter and spokesman
Stichting Institute of Medical
Marijuana,
Rotterdam Nederland

This week, the Stichting Institute of Medical Marijuana (SIMM), has filed a lawsuit against the Bureau voor Medicinale Cannabis of the Ministerie van Volksgezondheid. SIMM was the first legal provider of medical cannabis for the BMC. Beginning in 2001, SIMM was given an opiumverlof for production of research cannabis. SIMM's contract with the BMC was abruptly ended after statements we made to the media concerning problems with the medical cannabis program.

SIMM believes the BMC has acted unfairly in terminating this contract. The BMC has a monopoly on medical cannabis distribution

in the Netherlands, and as such, has an obligation to manage the program in a fair manner.

SIMM made a very large financial investment in its business, in order to comply with government standards of producing the cannabis according to "pharmaceutical requirements". With the ending of the contract by the BMC, SIMM has suffered a tremendous financial loss. SIMM expected the BMC contract to be in effect for at least 5 years; to make a large financial investment for less than that period would have been unreasonable. info@medicalmarijuana.org / www.medicalmarijuana.org

Below: James Burton and his crop growing at SIMMS, the Dutch contracted grower.



Cannasat, Canada's Newest Cannabis Company

By Paul Henderson & Cannabis Health editors, B.C., B. S. J. & Paul Henderson. Paul is a freelance journalist currently living in Toronto. He has worked as a newspaper reporter in Grand Forks, B.C., a treeplanter for nine seasons in B.C., Alberta, and Ontario, and he currently contributes to various publications across Canada while working as assistant editor of Vitality Magazine.

Canada's newest therapeutic cannabis company – Cannasat Pharmaceuticals Inc. – has barely bloomed into existence, and is eliciting much curiosity. What do we know about it so far?

Cannasat, a Toronto-based company, is the co-creation of Toronto's City-TV founder Moses Znaimer; former head of retail chain Club Monaco, Joseph Mimran; and Hill & Gertner Capital Corporation. Officially incorporated in January 2004, its real birth was many months before that. Financial backing comes from Hill & Gertner, and David Hill of Hill & Gertner has actually moved over to Cannasat as the company's full-time CEO.

Andrew Williams is Cannasat's Vice President of Operations. Andrew has an MBA from the Richard Ivey School of Business (UWO), a BAH from Queen's University and has a background as a Strategy Consultant in Canada and the United States.

In addition to these co-founders, marijuana activist lawyer Alan Young was in from day one, and is thought to be one of the driving forces behind Cannasat's creation. Young is widely reputed as Canada's foremost cannabis lawyer. He is best known for his involvement, directly or indirectly, in most of Canada's landmark marijuana cases. He is one of those rare lawyers who concerns himself more with morality than cash reward. "Anyone who knows me, knows that all you have to do is cry to get free legal work," Young has said. He is also an early film-school enthusiast, outstanding civil rights lawyer, professor of law at Osgoode Hall, Co-Director of the Innocence Project, and an author of full-length works for the theatre. His first published short story appeared in the Christmas 1999 issue of liter-

ary magazine, Taddle Creek. If you would like to read more about Alan Young, Cannabis Health interviewed him in CANADA'S CANNABIS LAWYERS, Issue 3 Mar/Apr 2003.

Dr. Lester Grinspoon MD, has also come on board as a scientific advisor for Cannasat. He is an emeritus professor of psychiatry at Harvard Medical School and has been studying cannabis since 1967. He has published two books on the subject. "Marihuana Reconsidered" was published by Harvard University Press in 1971. "Marihuana, the Forbidden Medicine", co-authored with James B. Bakalar, was published in 1993 by Yale University Press. The revised and expanded edition appeared in 1997 and is now translated into 10 languages. (Medical Uses rxmarijuana.com Uses of Marijuana - marijuana-uses.com)

Grinspoon also wrote a piece entitled "A Cannabis Odyssey" September 15, 2003 for the Harvard Crimson Online and republished in Cannabis Health, THE CANA / DUTCH MODEL, Issue 7 Nov/Dec 2003, in which he explains how his cannabis enlightenment

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began back in 1967. Lester writes; "I was concerned that so many young people were using the terribly dangerous drug, marijuana, so I decided to review the medical and scientific literature on the substance and write a reasonably objective and scientifically sound paper on its dangers. Young people were ignoring the warnings of the government, but perhaps some would seriously consider a well-documented review of the available data. As I began to explore the literature, I discovered, to my astonishment, that I had to seriously question my own understanding. What I thought I knew was based largely on myths, old and new. I realized how little my training in science and medicine had protected me against this misinformation. I had become not just a victim of a disinformation campaign, but because I am a physician, one of its agents as well." The full story can be found at: http://www.cannabishealth.com/issue_07/#production

Also involved is Hilary Black, founder and past figurehead of the largest compassion club in Canada, the BC Compassion Club Society. The Society is a provincially registered non-profit organization which has been distributing medicinal cannabis to those in need since May of 1997. Hilary wrote an article for Cannabis Health in COMPASSION UNDER ATTACK, Issue 2 Jan/Feb 2003, in which she states, "One of the fundamental principals that the BCCCS will always hold as a priority in this battle is the right to access, grow, and use whole-plant cannabis. As corporate interests take notice of the progress we as a community are making, they will find ways to use the legal room we have created to reap their profits; such is the nature of this capitalist society. It is our shared responsibility to ensure the rights of those in need are never compromised in order for the profiteers to profit, or in order for the government to maintain the status quo."

When we asked Hilary how she felt about the Cannasat team she said; "I am inspired by the integrity, motivation and dedication of these folks. The politics surrounding this plant have dramatically inhibited the ability of researchers to create a body of clinical data on the therapeutic application of medicinal cannabis. Although we are working in an extremely political arena, we are determined to focus the safety and efficacy of this plant and it's unique chemical compounds. A reliable body of clinical data will be a significant contribution to ensuring patients' rights to access medicinal cannabis and cannabis-based medicines."

Young, Grinspoon and Black are well-known champions of the medical marijuana movement, but the experience of Cannasat's personnel is patient-based as

well. Hilary shared with us the story of Sara Lee Irwin, a Cannasat employee who holds a license from Health Canada to possess marijuana for medical purposes. As one of the first employees of the company, Sara has been given the unique opportunity to educate the uninformed, debunk many of the myths surrounding the medical usefulness of the cannabis plant, and to tell the moving and hopeful story of how cannabis has improved her life.

Nearly 16 years ago, at the age of 32, Sara was diagnosed with cancer in her pelvis and hip, resulting in the removal of her left hip and the left half of her pelvis. She says "Although I was fortunate to receive a transplant and an artificial hip, ever since this ordeal I have walked with a cane and experienced pain that has been constant, sometimes debilitating."

Sara has chosen to use cannabis as her primary source of medicine. "Before I had heard of the concept of medical marijuana, I used medications such as Tylenol 3 and Percodans. These medicines were legal and prescribed by my doctor, but for me, they are harsh with many negative side effects and do not work as well as cannabis. Cannabis has allowed me to function as a mother, an employee and most importantly, to come out from under the fog of heavy pain killers and enjoy my life."

According to Young the company is recruiting figureheads and supporters of the medical marijuana movement, not merely to gain credibility, but rather because they believe they share the same end goals. "Cannasat, by recruiting these people, makes a commitment to the movement, and that's part of the point," he said. "So we stay on the right path, because it is all about money eventually, and money can distort things. We've put together a team that will have a lot of integrity and we will remain true to our original commitments."

Cannasat plans to conduct clinical trials on the potential medical uses for extracts from the plant, but – and this is of crucial significance – they are also committed to working with whole, herbal marijuana. "What makes us unique, I think, is that we are interested in working with the whole plant," Williams told Cannabis Health. "But for people who don't like to smoke, or use a vaporizer, or have different conditions that don't necessarily require rapid onset, there will be a whole line of products developed." It is here that Cannasat hopes to cash in on an almost brand new market with billion dollar potential.

"There are over 20 drugs derived from the opium poppy," Williams said. "Today there are really only two drugs on the market that are derived from cannabis even though

cannabis is more versatile in that it has implications for pain, inflammation, appetite, and spasticity...our longer term view is that there will be a whole new class of drugs derived from the plant. If you have something that requires rapid onset like nausea, you'd have to find something that mimics smoking or some inhalation route based on the time that it takes to get into your blood stream. But if you have something chronic in nature, like chronic pain, you probably want slow release and that is where patches are very good."

With a five to seven year head start on Cannasat, GW Pharmaceuticals from England will probably soon get their cannabis-based drug to market in Canada. The drug is a sub-lingual spray called Sativex. But many in the Cannasat camp – and elsewhere – are critical of GW for their politically correct stance and what is being called "smokephobia" and "euphoriaphobia." Specifically, according to GW executive chairman Geoffrey Guy, Sativex has been designed to work at levels that will not cause the side effects of euphoria familiar to marijuana smokers.

There have been criticisms of the so-called pharmaceuticalization of marijuana because of these attitudes and statements in the UK. But according to those involved, Cannasat will take a different approach. "We are not going to be a GW that is very anti-smoking and euphoriaphobic," Williams said. "I think they've done it that way for political reasons, but the Canadian landscape is different than the UK was five years ago."

Some fear that if Health Canada approves drugs X, Y, and Z, from Cannasat, GW, and others, they could then say, "Cannabis has been pharmaceuticalized. We don't need smoked herbal marijuana or compassion clubs any more. Time to crack down."

This is precisely a concern of Rielle Capler of the B.C. Compassion Club Society. "The fact that the pharmaceutical industry has taken a serious interest in cannabis means that they acknowledge that many people are finding it effective for relieving a range of symptoms," Capler said, adding, "The record shows that some of these companies are not necessarily ethical, and that some of their products are ineffective and even potentially dangerous. A situation where the whole plant remains illegal, while the pharmaceutical can be legally produced and sold, enhances their ability to make a profit."

Dr. Lester Grinspoon has said that "the commercial success of any psychoactive cannabinoid product will depend on how vigorously the prohibition against marijuana is enforced." Given this fear, why would a pot activist legend such as Dr. Lester



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Cannasat, Canada's Newest Cannabis Company

Grinspoon be on board with a company that plans to make pharmaceuticals out of cannabis, if he truly supports marijuana legalization?

When Grinspoon sat down with the Cannasat folks he had three priorities: first, develop a good, reliable, herbal marijuana product that can be ready for medical use; secondly, look at isolated cannabinoids and develop analogs that people might prefer from a medical and economic point of view; and thirdly, look at different systems of administering cannabis and cannabis products.

"In my clinical experience the gold standard of medicinal use of cannabis for most people is whole, smoked marijuana," Grinspoon told Cannabis Health. "But I believe that herbal marijuana is not the only thing we can get out of cannabis. We hope to make use of the receptor sites and the neurotransmitters, and so forth, discovering all sorts of things, where we might manipulate part of that system in a way, conceivably, that whole cannabis cannot."

Alan Young confirms the Cannasat commitment to research and to herbal marijuana. "The reason Hilary and I are on board is that we are committed to working with the herbal product and to developing extracts from it," he said. But does this address the fear that if Cannasat creates good quality products derived from marijuana, the government and police might feel justified in cracking down on smokers?

Young says that the reason he got involved and has put his credibility on the line for Cannasat is because he thinks the opposite will happen. "This is the only way I

see out of the MMAR (Marihuana Medical Access Regulations)," he said. "If there are approved cannabis products, then you have normalized the product and it will become available in the ordinary course by prescription. And then the MMAR will be obsolete."

But if marijuana becomes a prescribed drug – like any other drug – wouldn't that hinder, or at least not help, universal access that many seek?

"The only solution is legalization," Young said. "Ultimately that has to be the goal. Cannasat is just working on the medical side. We are not a political lobby group. However, I and many others will continue to work toward the overall goal." Young is now engaged in meeting with Health Canada, seeking approval for clinical trials.

Given the massive amounts of money involved, the company will certainly have to come up with one or more proprietary products to recoup the investments. With an eye to long term clinical studies on the medical benefits of marijuana, Cannasat has bought a non-controlling minority interest in Prairie Plant Systems (PPS) – the government's only provider of marijuana under the MMAR. Vice President, Andrew Williams told Cannabis Health, "At present, Cannasat owns less than 25% of PPS on a fully diluted basis. We expect our investment in PPS to be a good one for a number of reasons. While it is true that PPS is the only Good Manufacturing Practices (GMP) compliant and biosecure cannabis production facility in Canada, the strength and track record of PPS' management team and board of directors is really the key to this investment. It is strategically important

because PPS is an innovative biotechnology company that we believe can help us accelerate our research and development activities and goals."

Cannasat's plans include running clinical trials to determine the effects of different strains of marijuana on a variety of physical conditions, but PPS grows just one strain at this time. Clinical trials are many years off so the issue of different strains might be easily resolved in time. But different strains aside, the quality of the marijuana currently being produced in the mine shaft in Manitoba is of concern to some.

Concern about the quality and safety of the Prairie Plant Systems marijuana has been vehemently expressed by the Canadians for Safe Access in their open letter, posted on their website, www.safeaccess.ca.

Rielle Capler of the BC Compassion Club Society also expressed reservations. "The quality and safety of that product has been called into question by researchers and patients, and these concerns need to be adequately addressed."

Cannasat states on their website: "We understand and acknowledge that there have been some concerns raised about the quality of PPS product. We have been assured by PPS management and by Health Canada of the quality of the product and that they will continue to make improvements and address all valid concerns."

Hilary Black comments, "Cannasat supports PPS' efforts to continue to work with both Health Canada and patients to develop and upgrade their product. I am convinced that to best serve Canadian patients, we all need to co-operate with each other to take full advantage of the unique opportunity we have in Canada to advance this issue and to meet pressing patients needs."

Cannabis Health looks forward to watching this picture develop. Cannasat's principals, its supporters and its critics all share the same hope – that Cannasat will earn the respect and trust of the medical marijuana community by doing useful research into cannabinoids, developing useful therapeutics, and providing a good quality herbal product.

Dr. Lester Grinspoon looks at Cannasat with a hopeful enthusiasm. "I see these guys as seeing much more of the whole picture," Grinspoon said. "I'm with them. I think their hearts are in the right place."



Photo courtesy of Prairie Plant Systems Inc., Canada's contracted grower

An Even Brighter Future



Dominic Cramer

Dominic Cramer founded Toronto Hemp Company (THC) in 1994. Since then he's been an integral part of many organizations, events, and advances within the Canadian cannabis community, including the Toronto Compassion Centre, Sacred Seed exotic seed and houseplant shop, The Herb Collective garden supply shop, Green Truth drug policy conferences, Dominizer herbal vaporization technology, the Canadian Cannabis Coalition, Canadians for Safe Access, NORML Canada, the Canadian Cannabis Society, various press conferences and television productions, and Fill The Hill. Details: www.torontohemp.com.

The past couple of years have brought phenomenal advancement in the acceptance and understanding of cannabis in Canada and beyond. Calls for an end to our outrageous prohibition are not coming from just a handful of radicals or visionaries. People from all backgrounds, beliefs and walks of life are finally speaking out to encourage drug policy modification based upon logic and compassion.

Unfortunately, we still face enormous uncertainty and resistance to positive change. There seems to be no end in sight to the ignorance and propaganda, or to deceptive policies full of counter-productive half-measures. Our courts and leaders continue to repeatedly let us down, and many steps forward seem to inevitably cause a backlash of fear, lies and back-stepping. Progress has been a very slow and difficult exercise in patience, persistence and, far too often, futility.

As the 'cannabis community' has grown in size and diversity, our unavoidable and often underappreciated differences have given us great strength, but have also increasingly threatened to detrimentally divide us or

damage our credibility. Competing commercial interests and egos, minor personal disputes blown out of proportion, lapses in judgment and tact, built-up frustrations and stress, and unexplainable negativity cannot be permitted to confuse or muffle our message.

It is time, more than ever before, for us to embrace our differences. That supporters of cannabis compassion are so diverse is a clear indicator of the importance and enormity of our efforts. We must all, individually and collectively, strengthen and sharpen our efforts with a major focus on unity, co-operation and mutual respect.

Many among us wisely feel that cannabis prohibition has been, from the start, a massive and counter-productive blunder and that we must do whatever it takes to demand full legalization-eradication of this injustice once and for all. Others among us are, perhaps equally wisely, more accepting of (or unconcerned about) the greater inadequacies and inconsistencies in our established traditions, protocols and industries; and are quicker to allow compromise and accept step-by-step measures in the negotiation and carrying-out of drug-peace treaties.

Some faithfully believe that prohibition of nature's creations is obviously contrary to God's will, while others analytically detest the damage done by drug prohibition and the hypocrisy of a system that creates and magnifies the very ills it is purportedly protecting us from.

Some feel that cannabis is such an important plant that it should not be used for financial gain, while others feel that it's high time for legitimate business people and our tax revenue to profit from this plant instead of only 'criminals' having that ability.

Some argue that marihuana is an important source of chemicals to be used

in the manufacture of pharmaceuticals; others refuse to disrespect the plant or 'play god' by using anything except the highest-grade sun-nurtured and organically grown unadulterated flowers.

Some fight for the rights of even their children to benefit from the medicinal effectiveness of cannabis products, while others fight for an end to prohibition so that we can realistically protect our children from an unregulated black market.

While many of these opinions seem incompatible, it must be recognized that we cannot and have not made much real progress without the support of a wide cross-section of our general population. However, we must also be vigilant and cautious of efforts (including those unintended) whose effect might be to cause conflict and distract from or diminish our progress.

While our Controlled Drugs and Substances Act remains ridiculous, and our government's Marihuana Medical Access Regulations remain inaccessible - a hugely disappointing boondoggle with most medicinal users left out in the cold and most doctors left scared, unwilling and cautioned not to cooperate - both mainstream medicine and

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An Even Brighter Future

the herbal 'underground' are still somehow making amazing progress. And while this effort has stretched on for decades, time is of the essence; millions of people, many of our loved ones, are suffering and even dying unnecessarily and prematurely.

With recent drug and research approvals, Prairie Plant Systems and GW products are gaining pharmaceutical acceptance in Canada. At the same time, Compassion Centres and similar organizations have been established in more and more cities and small towns across the nation to meet the immediate medical necessities of our population. The scope of services offered, the range of people assisted, and the level of support and collaboration are growing at an almost incredible rate. Also, some kind of 'decriminalization' for personal recreational/medicinal/spiritual use and cultivation is definitely looming on the political horizon, and many challenges to the constitutionality of prohibition continue in our courts and the courts of public opinion. As productive and momentous as the past few years have been, the next few likely hold even greater potential for positive change.

It is clear that a major diversification is

occurring. As capitalism and our health-care establishment finally run with the mainstream marketing of cannabis-based prescription medicine, cannabis is also gaining some of the respect it deserves as a medicinal herb, a 'natural health product' and as an option for use and experimentation for whatever purpose by any adult Canadian who so chooses. As the diversity of cannabis supporters brings us strength, so too does the diversity of uses, products, revenues, and markets for cannabis.

While it has become ever more apparent that the fears and threats of the administration of the United States have held us back, those same States and organizations within them have made remarkable moves forward with medicinal and more general decriminalization. Many States, notwithstanding contradictory federal policy and action, are far more advanced in this regard than we Canadians even believe ourselves to be. This is a sad situation, considering the opportunity Canada has had to help lead the way on this issue, the chance to further and to strengthen our international reputation as a human-rights and peace-keeping superpower and forward-thinking sovereign nation.

With so many frontiers for us to work on, and so special a long-standing tradition of harmony and cooperation within our ranks, the future couldn't be much brighter for unifying organizations such as the Canadian Cannabis Coalition, NORML Canada, Educators for Sensible Drug Policy, Law Enforcement Against Prohibition, and the Canadian Cannabis Society. Groups like these are allowing alliances of Compassion Centres, Cannabis-related businesses and organizations, medical and civil liberty associations, and all sorts of Canadians with an interest in this issue to connect, communicate, and support each other. Our message is being presented with ever more volume and clarity, and is reaching audiences and strata of society that were previously mostly out of our reach.

We must ensure that this momentum continues – keep educating ourselves and those around us, joining and supporting unifying organizations, participating in events and campaigns, contacting our leaders and media, and encouraging positivity, cohesiveness and collaboration.



By Al Byrne

Al Byrne is co-founder and Secretary-Treasurer of Patients Out of Time, a national non-profit devoted to educating health care professionals and the general public about the therapeutic uses of marijuana. www.medicalcannabis.com

The first five patients in the US who received their cannabis medicine from the federal government were featured speakers at the National Organization for the Reform of Marijuana Laws' (NORML) annual conference held in Washington, DC in 1990. The prime movers of that conference were two members of its Board of Directors, Al Byrne and Mary Lynn Mathre, RN. A fellow member of the Board made a call to a friend at C-Span, the local civic orientated TV channel that is broadcast nationwide, suggesting this conference was worthy of its attention. They agreed and broadcast the entire conference live and repeated the entire program on several occasions.

Forty thousand phone calls poured into the NORML offices that month. The patients had put a new face on marijuana. These were not the stoner hippies so often portrayed in the press, but men and women with gray hair, soft words and serious illnesses. They were everybody's dad, grandmother or son and the US government provided them with their medicine. The callers were from all over the country, supportive, and wanted to know more about "medical marijuana."

After working together informally for a few years, the five federal patients and health care professionals with expertise in clinical cannabis applications, formalized their work by incorporating as Patients Out of Time, co-founded by Mathre and Byrne, in the spring of 1995. The organization's mission was and is to educate health care professionals and the public about therapeutic cannabis.

To execute the mission the organization decided to approach national professional

organizations that were health care focused or had national significance in related fields. Individual MD's, RN's and other professionals we had all dealt with over the years were almost universally supportive of medical cannabis but only in private. To overcome the obvious intimidation that had infiltrated medical conversation of individuals publicly, we concluded that a professional organization, taking a supportive stand, would offer personal protection to each member and grant the issue the prestige of the organization.

Mary Lynn Mathre, "ML", had made the first such presentation to the Virginia Nurses Association in 1994 and they passed a Resolution in support of medical cannabis, the first nursing organization to do so. Over the years the list of support groups has grown to dozens. It includes the oldest and largest health care organization in the US, The American Public Health Association; the

Patients out of time

American Nurses Association; thirteen state nursing associations; and the Institute of Medicine.

To maximize our educational effort we created tools for other patient advocates to utilize. Our first project was to produce, "Marijuana as Medicine", an eighteen-minute award winning video (US and Canada) that has been viewed thousands of times in over 20 countries. This video again reinforced the true image of the patients as everyday folks who were ill and used cannabis successfully as medicine. In their own words they told their stories of sickness, prescription drugs, operations, depression, oncoming blindness, and then the reversal of all those negatives when they started on a protocol of therapeutic cannabis.

The second tool was Cannabis in Medical Practice: A Legal, Historical and Pharmacological Overview of the Therapeutic Use of Marijuana, edited by Mathre and contributed to by seventeen experts from Brazil, The Netherlands, Jamaica and the United States. This book was created to answer the questions that were being asked by hundreds of patients, to assist their caregivers in understanding the full spectrum of therapeutic cannabis use and to provide hundreds of references should the reader wish to learn more. It has become a classic in its field and continues to be referenced.

By the end of the nineties the awakening provided by C-Span had blossomed into a full-scale awareness that the US government policy on medical cannabis was at best, misguided. To us it seemed just plain mean, based on a relentless propaganda machine that just lied about the issue. The public seemed to agree. Over the decade polls about medical cannabis efficacy and medical necessity climbed from the low 40's to the mid 70's, even into the 80 percentile in some states.

In order for research to be considered of merit it must be replicated and peer reviewed. The results must be made public, scrutinized, and validated. To overcome any federal government dialog that indicated that such research did not exist we started a

series of clinical cannabis conferences beginning in 2000.

The first such meeting was sponsored by the College of Nursing and the College of Medicine of the University of Iowa. This sponsorship was critical to our work. It enabled the agenda to be accredited for professional education for MD's, RN's, SW's, JD's and other professionals. To be so honored the faculty and the presentations had to meet the highest of academic standards. All conferences in the series have received this accredited status. The entire conference was broadcast live to various locations including McGill University in Canada and to the health education network of the State of Oregon. The faculty was of the highest quality; the press response supportive and the studies were presented under the theme of Science Based Clinical Applications – this formed a benchmark of knowledge from which there has been no retreat.

Our second conference was sponsored by the Health Department of the State of Oregon, the Oregon Nurses Association and other groups. The faculty included a number of speakers from European countries and we involved the hemp community in the proceedings by discussing the positive impact on health that cannabis used as food, hemp, proffered for sick and well alike. The main focus of this forum was to discuss pain of all types, since over 70% of the Oregon patients reported pain relief as their primary purpose for the use of cannabis.

The Third National Clinical Conference on Cannabis Therapeutics was held in May of 2004 in Charlottesville, VA. It was co-sponsored by the Virginia Nurses Association, the Pain Management Center

and the Medical, Law and Nursing Schools of the University of Virginia, known in the US for its conservative ways. The faculty included the world's finest cannabis researchers, clinicians, patients and caregivers from the US, England, Israel, and Canada. At this venue cannabis use as medicine ranged from the therapeutic use by infants and children to use with Hospice patients.

Our Board of Directors includes four of the seven US federal cannabis patients left



Al Byrne at the 3rd National Clinical Conference on Cannabis Therapeutics. Photo courtesy of www.Medicalcannabis.com

alive, Irv Rosenfeld, George McMahon, Corrine Millet and Barbara Douglass and a fifth patient, Elvy Musikka, is our national spokesperson (the other two patients wish to remain anonymous). In the spring of 2001 in Missoula, MT, four of the patients underwent an extensive three-day examination of every system in their body to determine the long term effects of cannabis. Known widely as The Missoula Chronic Use Study, the investigators concluded that after using cannabis therapeutically for a range of 11 to 27 years, with a dose of nine cured ounces per month for Barbara and others, and eleven cured ounces every 26 days for Irv, they were all in fine condition exempting their original illness and the wear and tear of age. We



Patients Out of Time is pleased to announce

The Fourth National Clinical Conference on Cannabis Therapeutics

April 6 - 8th 2006 — Santa Barbara, California

In the preliminary stages of development, this cutting edge conference will bring replicated, science based research to clinicians, patients, legislators, the press and the public.

Plan on being part of this important event. Conference agenda and faculty will be available at this site soon.

Patients out of time

assume that the federal government never bothered to conduct such long-term studies because it did not want to scientifically validate the efficacy of cannabis. A thorough review of the study, Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis was published in the Journal of Cannabis Therapeutics and is available for review online at www.medicalcannabis.com.

An ongoing action of which we play a part is the Petition to Reschedule Cannabis that has been submitted to and forwarded by the US Drug Enforcement Administration (DEA) to the US Department of Health and Human Services (HHS). The petition, presented as required by government regulations, requests a complete review of all existing literature and research by HHS concerning medical cannabis with the purpose of having cannabis rescheduled to a minimum of schedule three ("off label" prescription level) or less. The complete document is available at www.drugscience.org. The review must be completed no later than the summer of 2007 by HHS rules. Under US law a finding by HHS that cannabis has medical use would require the DEA to reschedule cannabis. The war on cannabis in the US for medical use would be over. Advocates for medical cannabis in the US are being asked to request their elected representatives to press for an expedited review.

Patients Out of Time is not a membership organization. We are a volunteer cabal of patients, clinicians and scientists who work in the cannabis arena. We depend upon dona-

tions from individuals and grants from companies and foundations for our financing. These have included GW Pharmaceuticals of the UK, Advanced Nutrients of Canada, and the Marijuana Policy Project and Solvay Pharmaceuticals of the US. One hundred percent of the donations are expensed for education. No one takes a wage and no speaker has ever asked for an honorarium. We strive to present ourselves as pure to the issue.

...that the US government policy on medical cannabis was at best, misguided. To us it seemed just plain mean, based on a relentless propaganda machine that just lied about the issue.

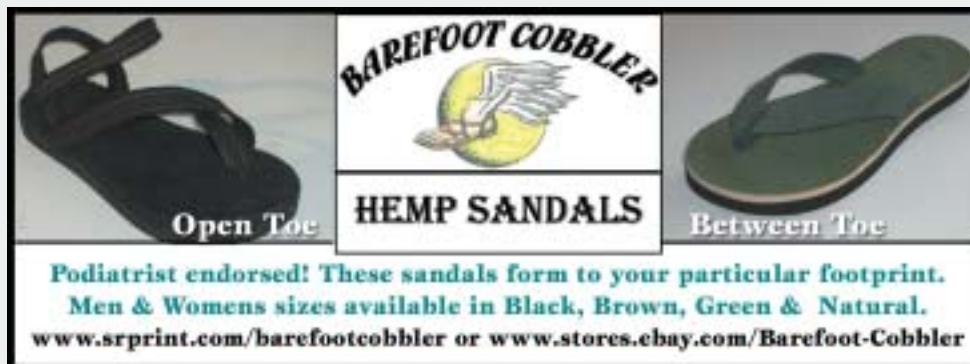
We think that purity is very important and it is highly recommended that our Canadian cohorts give that look some thought. Our official policy statement is clear: "Patients Out of Time has no other interest, nor does the organization have any opinion, stated or unstated, about any issue other than therapeutic cannabis." No one is confused about whom we represent or what we want and the federal government has found that disarming. No member of the federal government has ever risen to our call to debate us. The reason is obvious. They can call us no name except "patient advocates" and we would win.

We also believe that the manner of publicly presenting the therapeutic cannabis argument in the US is now counterproductive. Since the beginning of the 1960's when cannabis had escaped from the jazz world in the US south and major cities; migrated from the dens of the beatniks in Harvard Square; and began its journey through the high schools and colleges of the US, the press, the government, even sometimes by the advocates themselves, users of marijuana have been presented as young, rebellious, dumb and of little value.

A parallel line to this canned image of a marijuana user is the representation of these patients by the legal community. The talk shows, political wisdom programs, even "specials" dealing with medical cannabis feature a lawyer or a lobbyist discussing medical use. This is not only an ineffective visual message, it is the wrong silent message as well. Our organization believes that the primary representative who should "face the camera" in discussions concerning medical cannabis is a health care professional. This is our basic criteria and we would like you to consider adopting it in Canada. This is a health issue not a legal issue. A health issue should be discussed and defended by a person trained in that area of expertise, who has the practical experience and command of the state of the art science to do the argument justice. Lawyers and lobbyists are not acceptable under that standard. Health care professionals are available and should be utilized by the funding and lobbying efforts in both countries. Medical professionals such as Drs. Ethan Russo, Denis Petro, Mark Ware and Juan Sanchez-Ramos, Registered Nurses such as Dr. Dreher and M.L. Mathre and specialists like Michael Aldrich, PhD are all part of our group and available for the asking. There are others besides Dr. Ware who are in Canada and would present the patients' case equally well. If you have the opportunity in the future to arrange any press event for medical cannabis please consider this advice.

Our next major project is The Fourth National Clinical Conference on Cannabis Therapeutics to be held in Santa Barbara, California in a little over a year, hosted by City College of that location and accredited by California health organizations. The dates are April 5-8, 2006. The theme of the conference is: The Body-Mind Connection. While various aspects of clinical use will be covered, the core of the forum will involve both physical cannabis treatment and the use of cannabis for PTSD, ADD, depression and other emotional or psychological problems.

We would welcome a Canadian counterpart to our educational mission but until that time we are providing a venue for cannabis science through our clinical conference series. We have changed the media face of a cannabis patient in the US forever by presenting a dignified, composed and articulate cast of patients. We have elevated the level of discourse about therapeutic cannabis through the education of health care professionals and their organizations and associations. We will not give up or grow weary of making therapeutic cannabis available for all patients. We can't, we are Patients Out of Time.





Rob Appleton

Cannabis for the Management of Pain: Assessment of Safety Study (COMPASS)

Funding Agency: Canadian Institutes of Health Research

Canadian studies have shown that 10-15% of chronic pain sufferers currently use cannabis to treat their pain. The Canadian government has implemented the Marihuana Medical Access Regulations to allow patients with severe pain and other symptoms access to cannabis for medical purposes. Research-grade cannabis is currently cultivated under contract to Health Canada, and a quality-controlled product has been available for medical and research purposes since early 2003. There is considerable pressure for physicians to manage the distribution of this material to patients who possess the legal right to use it, but physicians and their organizations have pointed out the lack of informa-

tion on risks and side-effects associated with medical use.

The distribution of herbal cannabis to patients under the new regulations has generated concern among provincial medical licensing authorities, physician advocacy groups and medico-legal advisory groups. Cannabis is an unregulated product, and too little is known about the safety and efficacy of cannabis use for physicians and their insurers to take responsibility for the supply of cannabis to patients.

The risks of cannabis use among healthy populations have been widely studied, but there is virtually no information on risks associated with medical use. Concerns about risk of addiction, cognitive impairment, respiratory and cardiovascular damage and endocrine disturbances have been presented in the research. Chronic pain patients often take other medications including pain relievers and antidepressants. Long-term cannabis use may change the effectiveness of these drugs. The potential for long-term effects of cannabis use on immune function, renal and liver function and interactions with conventional medicines are a concern for medical



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users and their physicians, and need to be addressed in clinical studies.

A first-of-its-kind study of safety issues surrounding the medical use of cannabis has just been launched. Known as the COMPASS study (Cannabis for the Management of Pain; Assessment of Safety Study), the research initiative will follow 1400 chronic pain patients, 350 of whom use cannabis as part of their pain management strategy, for a one-year period. Seven participating pain clinics across Canada are now enrolling patients for this study. The study is funded by a \$1.8 million grant from Health Canada through the Marijuana Open Label Safety Initiative, a grant partnership program with Canadian Institutes of Health Research.

The primary objective of this study is to collect standardized safety data on the use of cannabis when used in the treatment of chronic pain. The secondary objectives are to describe dosage patterns for the various pain disorders, collect data on satisfaction with the Health Canada cannabis product, explore predisposing factors for adverse events and examine the feasibility of web-based adverse event reporting.

"Patients in COMPASS will typically have pain resulting from spinal cord injuries, multiple sclerosis, arthritis or other kinds of hard-to-treat neuropathic or muscle pain," explains Dr. Mark Ware, principal investigator and pain physician at the McGill University Health Centre Pain Centre. "We are not recruiting cancer patients for this study."

Patients who are 18 years old or above, with chronic non-cancer pain for 6 months or longer, and a diagnosis of moderate-to-severe pain, in whom conventional treatments have been considered medically inappropriate or inadequate will be eligible. Patients who are pregnant or breast-feeding,

or who have a history of psychosis, or with significant and unstable ischemic heart disease or arrhythmia, or with significant and unstable bronchopulmonary disease will not be eligible for enrolment. Recruitment of participants is not dependent on previous cannabis use status, however a history of drug dependency or discordance between self-reported drug use and urine drug screening would be disqualifying factors.

Only cannabis grown under contract to Health Canada, by Prairie Plant Systems Inc.

A first-of-its-kind study of safety issues surrounding the medical use of cannabis has just been launched.

will be used in this study. The cannabis is standardized to delta-9-tetrahydrocannabinol (THC) content (14 + -1%) and cannabidiol (CBD) content (0.4%). Cannabis will be distributed and dispensed by on-site pharmacies in foil packets, each containing 30 grams of dried herbal material. Participants must not use any other source of cannabis during the study.

Dosage will be established at onset by study physicians and will be titrated gradually over a one month period to the desired drug effect or until intolerable side effects develop. The average daily dosage of cannabis in this study will not exceed 3g per day.

Most current medicinal cannabis users employ smoking as the primary delivery system, however participants in this study may use other modes as well, including vaporization and ingestion in prepared food. Subjects who currently use cannabis will continue to use it in the manner to which they are accustomed.

All participants will undergo a baseline health, medical and quality of life assessment. Regular visits with their investigator will allow for adjustment of dosage, where necessary, and collection of data pertaining to the effects of treatment. Subjects will use their usual medication and any changes in dosage will be recorded. They will undergo blood and urine tests, heart tests (ECG), chest X-rays and lung function tests at specific intervals during the study, as well as tests of memory and concentration.

All adverse effects will be recorded for each participant over a one-year follow-up.

The study will provide 350 patient-years of safety data on medical cannabis use, with a large control group for comparison. The information gathered will assist in policy decisions and inform discussions of cannabis use between patients and physicians. The data will complement other studies under this initiative.

The study results will be written up following completion of data collection and analysis. The total duration of the study, from funding to publication of results, is expected to be three years.

Patients wishing to participate in the COMPASS study should call 1-866-302-4636 (toll-free) and leave their names and telephone numbers. A study coordinator will contact prospective patients to assess whether they meet study requirements. All patient information will be held in strict confidence. Further information is available from www.gereq.net/compass.



Cancer Cure Cover Up



By, Paul Armentano, senior policy analyst for NORML and the NORML Foundation in Washington, DC. NORML is a nonprofit, public-interest lobby that for more than 30 years has provided a voice for those citizens who oppose marijuana prohibition. NORML, along with its sister organization, the NORML Foundation, seeks through public education, lobbying and public advocacy to assist legislators sympathetic to marijuana law reform at the local, state and federal level; educate the public and the media about alternatives to criminal prohibition; transform inaccurate and discriminatory stereotypes regarding marijuana users; and sway public and political opinion sufficiently so that the medicinal and responsible use of cannabis by adults is no longer subject to penalty. To learn more about NORML and the NORML Foundation, please visit: www.norml.org or call toll free: 1-888-67-NORML.

Pot May Cure Cancer But Not If US Politicians Have Their Way

Clinical research published recently in the journals Cancer Research and BMC Medicine touting the ability of cannabis to stave the spread of certain cancers is the latest in a three-decade long line of studies demonstrating pot's potential as an anticancer agent.

Not familiar with this research? You're not alone.

For more than 30 years, politicians and bureaucrats, primarily in the United States, have turned a blind eye to any and all science indicating that marijuana may play a role in cancer prevention, a finding that was first documented as early as 1974. That year, a research team at the Medical College of Virginia (acting at the behest of the federal government, which must pre-approve all US research on marijuana) discovered that cannabis inhibited malignant tumor cell growth in culture and in mice. According to the study's results, reported nationally in an August 18, 1974, Washington Post newspaper feature, marijuana's psychoactive component THC, "slowed the growth of lung cancers, breast cancers and a virus-induced leukemia in laboratory mice, and prolonged their lives by as much as 36 percent."

Despite these favorable preliminary findings, US government officials dismissed the study (which was eventually published in the Journal of the National Cancer Institute in 1975), and refused to fund any follow-up research until conducting a similar — though secret — clinical trial in the mid-1990s. That study, conducted by the US National Toxicology Program to the tune of two million dollars, concluded that mice and rats administered high doses of THC over long

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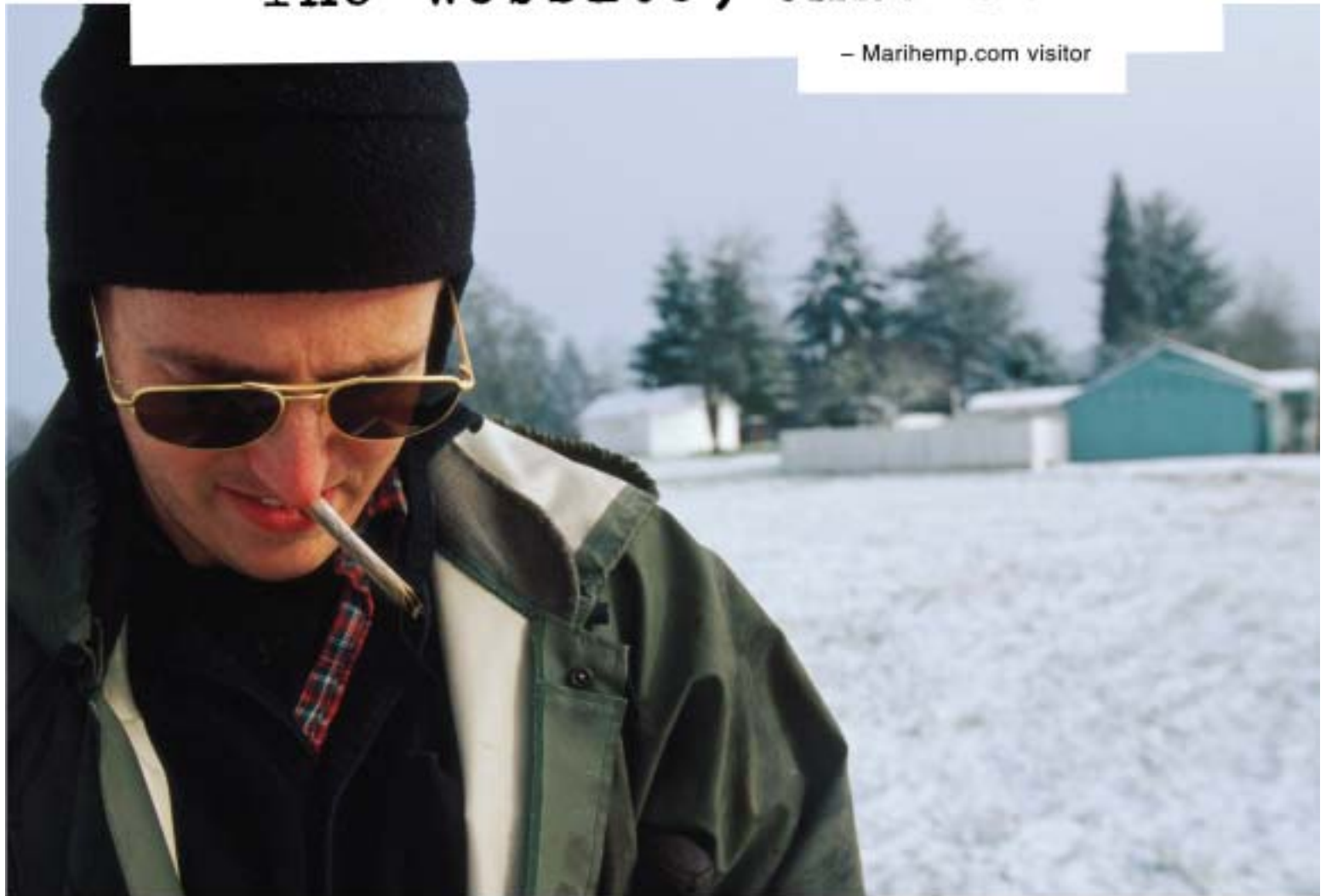
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periods had greater protection against malignant tumors than untreated controls.

Rather than publicize their findings, government researchers once again shelved the results, which only came to light after a draft copy of the findings were leaked in 1997 to a medical journal which in turn forwarded the story to the national media.

Nevertheless, in the eight years since the completion of the National Toxicology trial, the US government has yet to encourage or fund additional follow-up studies examining the drug's potential to protect against the spread of cancerous tumors.

Fortunately, scientists outside of North America have generously picked up where US researchers so abruptly left off. In 1998, a research team at Madrid's Complutense University discovered that THC can selectively induce programmed cell death in brain tumor cells without negatively impacting surrounding healthy cells. Then in 2000, they reported in the journal *Nature Medicine* that injections of synthetic THC eradicated malignant gliomas (brain tumors) in one-third of treated rats, and prolonged life in another third by six weeks.

In 2003, researchers at the University of Milan in Naples, Italy, reported in the *Journal of Pharmacology and Experimental Therapeutics* that non-psychoactive compounds in marijuana inhibited the growth of glioma cells in a dose-dependent

manner, and selectively targeted and killed malignant cells through a process known as apoptosis.

More recently, researchers reported in the August 15, 2004 issue of *Cancer Research*, the journal of the American Association for Cancer Research, that marijuana's constituents inhibited the spread of brain cancer in human tumor biopsies. In a related development, a research team from the University of South Florida further noted that THC can also selectively inhibit the activation and replication of gamma herpes viruses. The viruses, which can lie dormant for years within white blood cells before becoming active and spreading to other cells, are thought to increase one's chances of developing cancers such as Kaposi's Sarcoma, Burkitt's lymphoma and Hodgkin's disease.

Regrettably, politicians in North America have been little swayed by these results, and remain steadfastly opposed to the notion of sponsoring — or even acknowledging — this growing body of clinical research. Their stubborn refusal to do so is a disservice not only to the scientific process, but also to the health of the seriously ill.

Nonetheless, it appears that their silence will be unable to put this genie back in the bottle, as overseas research continues to move forward at a staggering pace. Writing last fall in the journal of the American Society of Hematology, researchers at Saint Bartholomew's Hospital in London reported

that THC induces cell death (apoptosis) in three leukemic cell lines. Authors further noted that the cannabinoid appears to function in manner different than standard chemotherapeutic agents such as cisplatin, and begins taking effect within mere hours after administration.

Swiss researchers are also weighing in on the use of cannabinoids' anticancer properties, reporting in a recent study published in the *Journal of Neuropathology and Experimental Neurology* that endogenous cannabinoids (naturally occurring compounds in the body that bind to the same receptors as the cannabinoids in marijuana) induced apoptosis in long-term and recently established glioma cell lines. Even more notably, a review article published in September in the journal *Neuropharmacology* concluded that cannabinoids' ability to selectively target and kill malignant cells set the basis for their potential use in the management of various types of cancers.

Unfortunately, as long as North American politicians continue putting pot politics before patients' lives, it appears that any potential breakthroughs regarding the potentially curative powers of cannabis will only emerge in a land far, far away — well beyond the reach of close-minded Washington and Canadian bureaucrats.



Human Hemp Health

Hemp Users Medical Access Network – HUMAN

**Author: Blaine Dowdle,
Founder/Operator**

Human beings and cannabis have enjoyed a symbiotic relationship stretching back to the dawn of civilization. It has a recorded history of being used as a food source, medicine and raw material for many industries for at least the past 8000 years. However, during the past hundred years of the “modern” era blind forces have driven us into a disconnected relationship with nature and the ability of the earth to sustain our material needs. Prohibition against cannabis was one of the main instruments deceptively conceived in order to break down society's agricultural and natural foundation and to protect the interests and resource monopolies of major petrochemical companies. Many

cannabis-based industries were prevented from developing and the single most balanced food source for humanity, the cannabis seed, was removed from our food supply. In addition, the pharmaceutical industry refused to utilize the traditional therapeutic properties of cannabis. As a result, millions of people with common and chronic conditions were prevented from gaining access to the safe effective relief cannabis could have provided. As time progressed, the ills and toxicity of exclusively using petrochemicals and pharmaceuticals became more apparent and no alternative was widely recognized or discussed. What's more, the nutritional deficiencies of the processed diet were being recognized as having detrimental individual and societal health effects with no curative dietary alternative available. Rightfully this situation was not unchallenged and, thanks to the dedicated work of thousands of indi-

viduals, the hidden truth about cannabis and its unique ability to ease the harms in each of these situations was not forgotten.

In the bustling metropolis of the Greater Toronto Area lives a large contingent of therapeutic cannabis users who have found the benefits of cannabis outweigh the propaganda, hassle and fear of obtaining it. Whether they had difficulty finding access to cannabis seed or oil, or locating safe effective medical grade cannabis, many had to expose themselves to the dangerous nature of the black market just to access nutritional or medical treatment. This eased somewhat in the late 1990's with the resurrection of the commercial cultivation of cannabis for food and textiles on Canadian farms, and the monumental Parker decision requiring a constitutional medical exemption. The continued prohibition on cannabis handcuffed the fledgling food and textile industries in red

Human Hemp Health

tape and delayed the effective implementation of the Parker decision with confusion. As before, it was the role of the individuals who had benefited first hand from the nutritive and medical benefits of cannabis to enlighten the populace. Unfortunately the Federal Government's reluctance to forge ahead boldly with this situation has left therapeutic users of cannabis with many gaps in their ability to utilize and access cannabis health products. Through hard work and determination many organizations across the country have strived to fill specific needs within the current framework for cannabis access.

The reintegration of cannabis into people's daily lifestyles could be the single most important step in moving towards a healthier society. In 2003, during the period of court ordered licensing of compassion clubs by the Hitzig decision, the Hemp Users Medical Access Network (HUMAN) was formed. HUMAN is a new style of Compassion Club, one dedicated to integrating and emphasizing the whole plant approach to cannabis health. It incorporates the incredible nutritional benefits of the seed with the medicinal properties of the flowers. With this fusion a better realization of the full health potential of cannabis can be emphasized and our members can utilize it to work towards optimal health.

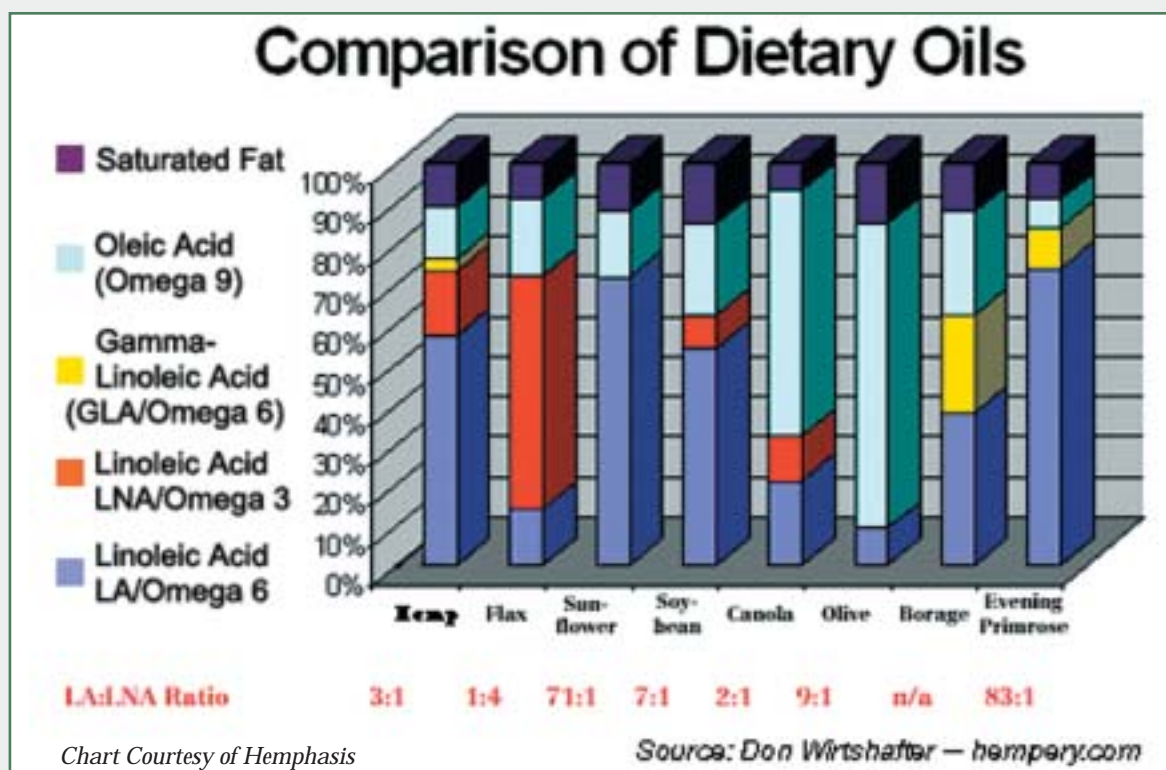
Many people familiar with the medical use of cannabis have never been exposed to the nutritional benefits of the same plant and are amazed at the difference that it can make in their overall health. The active ingredients when ingested are vital for a strong immune system, healthy skin, mental stability and general good health. Many members at HUMAN have had success in reducing depression and incidence of illness. The essential fatty acids (Omega 3, 6, 9) found in the seed are the foundation elements to the normal development and functioning of cells throughout the body. We cannot produce EFA's internally and they are hard to find in the North American diet. Shelled cannabis seeds also have a good balance of protein, good fat and carbohydrates that make them a well-rounded dietary package.

Hemp seed has a high content of the enzyme lipase, which is used for removing plaque buildup from arteries and cell membranes. EFA's and especially GLA, have been found beneficial in treating various cancers, and studies have shown that phytosterols may offer protection against colon, breast and prostate cancers. Loss of EFA's has been found in neurodegenerative disorders like Alzheimer's and Parkinson's diseases, and it has been suggested that a diet with a proper balance of EFA's may help delay or reduce the effects of these diseases. Also GLA has been found effective for treating rheumatoid arthritis. The GLA and vitamin D content of hemp seed may make them beneficial in preventing and treating osteoporosis. EFAs have been found capable of reversing scaly skin disorder, inflammation, excessive epidermal water loss, itch, and poor wound healing caused by EFA deficiency, and GLA has been shown to be beneficial for atopic eczema and psoriasis. Hemp seed also contains the direct metabolites of linoleic and alpha-linolenic acid which are gamma linolenic acid (GLA) and stearidonic acid (SDA), respectively. Because of this, it can compliment an impaired EFA metabolism which may result from genetic factors, the intake of other fats, aging and lifestyle patterns.

Hemp seed oil has a sunflower, walnut flavor and may be used straight (1-2 tablespoons per day) or in place of all other

vegetable oils; salad dressings, sauces, and low temperature cooking. Hemp seeds and their oil are recognized by the World Health Organization as a natural anti-oxidant, as the only balanced source of Essential Fatty Acids (EFA's) with a perfect 3:1 ratio of Omega 6 to 3. As well as possessing the complete spectrum of all the essential Amino Acids. In terms of its nutrient content, shelled hemp seed is 34.6% protein, 46.5% fat, and 11.6% carbohydrates. (See Chart Below)

Blaine is the author of this great article, a medical cannabis user and one of the original founding members of HUMAN. In grade four he began to experience intense stress related migraine headaches. Tests were ordered, but the doctors gave him no explanation or treatment. Stress reduction was the only way to prevent the debilitating migraines. At age 14 he developed a non-interest in eating and a slight shake in his hands that the doctors diagnosed as essential tremors. Blaine's condition persisted for years, making it difficult for him to take on extra projects or challenging work, as the additional stress would bring on another painful episode. It wasn't until after graduation that he tried cannabis for the first time. He found it alleviated the stress and anxiety he generally felt and it allowed him the opportunity to clearly focus and complete a



Human Hemp Health



Blaine Dowdle one of the original founding members of HUMAN

task without the onset of debilitating pain. About five years ago, Blaine started using cannabis seed oil as a dietary supplement and he quickly realized the amazing benefits to his mood and energy levels. Like many others, Blaine had to educate not only himself, but his friends and family on the therapeutic properties of cannabis. It took eight years to gain the support of his family, and during the whole process he has not had

one recurrent migraine. Blaine's story is a true testament to the efficacy of cannabis. We asked Blaine why he decided to become a cannabis activist and this is what he said:

"I am so indebted to the healing properties of cannabis for allowing me to live a normal healthy life that I jumped at the opportunity to help bring the healing knowledge of the cannabis plant to others. The experiences at HUMAN have all been rewarding. Following along with people's ups and downs and sharing in the joys of discovering new ideas and solutions to health challenges are all part of this great work. It has allowed me to witness first-hand

the miraculous positive effects cannabis can have in the lives of ordinary Canadians suffering from a wide variety of conditions. For me there has been no greater joy than finding a productive way to help alleviate the harms associated with continued cannabis prohibition, which is the one of the largest threats to human health."

Hemp Users Medical Access Network (HUMAN) extends its services to people with Cancer, AIDS/HIV, Multiple Sclerosis, Seizure Disorder, Glaucoma, Muscular Dystrophy, Hepatitis, Spinal Cord Injury, Arthritis, Intractable Pain, PMS, Fibromyalgia or Migraine with a statement of diagnosis from a physician. Many other conditions apply with Doctors recom-

mendation. HUMAN offers a selection of affordable fresh high quality food products from Manitoba Harvest and Hempola along with access to high quality medical cannabis. From humble beginnings of being a delivery service to a few original members, HUMAN's office now services the western Greater Toronto Area's need for support, information and access to affordable, safe and clean therapeutic cannabis products. More information about HUMAN can be found at: www.humanhemphealth.ca



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Marijuana Policy Project



June 6, 2002 — MPP's Bruce Mirken is arrested as he takes part in a national day of protest against the DEA. Photo/Credit: MPP

Bruce Mirken, a longtime health journalist whose work has appeared in *Men's Health*, *AIDS Treatment News* and the *San Francisco Chronicle*, now serves as director of communications for the Marijuana Policy Project, www.mpp.org.



MEDICAL MARIJUANA IN THE US

Overwhelming Support, Steady Progress, Fierce Resistance By Bruce Mirken,

2004 was a year of significant progress toward legal access to medical marijuana for all U.S. patients who need it. It was a year in which it became increasingly clear that the battle would ultimately be won, with strong support emerging in some of the most conservative corners of the country. Unfortunately, it became equally clear that we still face fierce resistance, a sort of political trench warfare against well dug-in, wealthy, powerful opponents.

The good news is that it is now plain that those opponents are true dead-enders, no different than that handful of Japanese soldiers holed up on a Pacific island in 1947, still fighting World War II long after the battle was lost. They cannot win, even as they cling to discredited arguments and obviously phony "facts."

These dead-enders — mostly in the Bush administration, the federal Department of Justice, some other law enforcement agencies and a few private think tanks that do their bidding — are still fighting, in the U.S. Congress, state legislatures, and most recently in the U.S. Supreme Court. There the Bush administration is seeking the right to arrest patients even when their activities are legal under state law, and even when the patient's doctor determines that medical marijuana is essential to their very survival. But in the long run they won't prevail.

Why am I so certain of this? For one thing, public opinion is overwhelmingly against them. Measures to permit medical use of marijuana continued an unbroken winning streak at the polls during 2004, most prominently with a decisive November win in the state of Montana. George W. Bush carried this highly Republican, conservative state with 59 percent of the vote, but the Marijuana Policy Project's medical marijuana initiative got 62 percent, outpolling the president by three points. A bit of number-crunching shows that even a lot of Montanans who voted to ban same-sex marriage also voted to

legalize medical marijuana. Clearly, even "family values" voters don't see anything profamily in locking up sick people for using an herb their doctor has recommended.

2004 also saw a string of local victories. In August, voters in the city of Detroit passed a local medical marijuana law by 59 percent to 41 percent, despite the opposition of the mayor and the city's two daily newspapers. In November, similar measures passed in the cities of Columbia, Missouri and Ann Arbor, Michigan, with 69 percent and 74 percent of the vote, respectively.

That's no surprise. National and state polls on medical marijuana consistently show overwhelming margins in favor — including 75 percent support in independent, statewide polls in Alabama and Texas conducted during 2004. These are among the reddest of the conservative-dominated "red states" that U.S. pundits speak of so often, the very heart of Pres. Bush's political base. What is striking in these polls is how support for medical marijuana cuts across every age group, race, ideology or political affiliation. Sixty-seven percent of Texas Republicans, not a bunch of latte-sipping liberals, support legal access to medical marijuana for the seriously ill. There is simply no constituency in the U.S. for arresting and jailing seriously ill patients for using medical marijuana, and sooner or later America's spineless politicians will be dragged kicking and screaming toward a policy based on science, compassion and common sense.

Also in 2004, Vermont became the second state to pass a medical marijuana law through its state legislature. The Bush White House weighed in against the bill, and Republican Governor James Douglas opposed it, but he allowed it to become law because the public support was so overwhelming.

This tide of public support brought out a hint of desperation in the White House officials and other drug war bureaucrats who by now constitute the only viable opposition to medical marijuana. In the past they have built their case on distortions, exaggerations, and taking small snippets of data that seem to support their case out of context, while simply ignoring the mass of information that contradicts them. But in 2004 they increasingly resorted to blatant, bald-faced lies.

For example, as the Illinois state legislature began considering a medical marijuana bill (which eventually was stalled and will be considered this year), the Chicago Tribune published a column by Dr. Andrea Barthwell, then deputy director of the White House Office of National Drug Control Policy. Barthwell's piece included this amazing paragraph:

"There is a variety of existing, scientifically proven options available to patients in

need of pain relief. Among these is the FDA-approved medicine Marinol. But smoked marijuana advocates refuse to acknowledge Marinol as a viable option. Interestingly enough, the only property that Marinol lacks is the capacity to create a 'high.'"

This preposterous claim is directly refuted by Marinol's Food and Drug Administration-approved package insert, reproduced in full in the Physician's Desk Reference, a standard reference book seen in virtually every physician's office. Barthwell surely knows this, she is many things, but stupid is not one of them, yet she told the Tribune's 700,000 readers a shameless lie. The zealots making drug policy in the Bush administration, having run out of even faintly legitimate arguments and desperate to portray medical marijuana patients as a bunch of stoners simply looking for an excuse to get high, have abandoned even the flimsiest veneer of truth.

These guys are running scared, and they should be. The array of prominent individuals and organizations publicly supporting legal access to medical marijuana continues to grow. Recent additions include television talk show host Montel Williams (who uses medical marijuana to control the symptoms of multiple sclerosis), the American Nurses Association, the American Academy of HIV Medicine, the Rhode Island Medical Society, and the Medical Society of the State of New York, among others. Still, if recent history tells us anything, it's that progress will not come easily. During 2005, the battle will continue on several fronts:

THE COURTS

On Nov. 29, the U.S. Supreme Court heard arguments in *Raich v. Ashcroft*, an important case whose implications were sometimes misunderstood by the news media. The case began when two California patients, protected under state law, sued the

federal government in an attempt to gain protection from arrest by federal law enforcement agencies. After a federal appeals court found in their favor, the U.S. Justice Department appealed to the Supreme Court.

Contrary to some media accounts, this case cannot overturn the medical marijuana laws now in force in ten states. The federal government has never challenged the right of states to pass such laws, and their validity is not at issue now. The only question before the court is whether these laws also give patients protection from enforcement of federal marijuana laws, or whether the federal government has the constitutional authority to arrest patients despite those laws.

This may sound like a narrow, technical distinction, but the federal government makes only one percent of all U.S. marijuana arrests. Ninety-nine percent are made by state and local police acting under state law. While ninety-nine percent protection from arrest isn't perfect, it is substantial — and not in danger. Even if the federal government prevails, there is no danger of state medical marijuana laws being overturned. A decision is expected this spring.

One disturbing note in the Nov. 29 hearing was Justice Breyer's suggestion that the patients should "go to the FDA" to get marijuana approved as a medicine. That, he said,

was "the obvious way to get what they want." Alas, the door to FDA approval of marijuana has been effectively closed by the federal bureaucracy, and just two weeks after the Supreme Court hearing, the Drug Enforcement Administration put a double padlock on that door.

RESEARCH AND REGULATION


That door-slamming came in the form of a letter from the DEA to University of Massachusetts Amherst Professor Lyle Craker, who had applied for approval to establish a facility that would produce marijuana for U.S. Food and Drug Administration-approved research. Currently, all marijuana for research in the U.S. must come from a National Institute on




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Drug Abuse-contracted farm in Mississippi. NIDA's marijuana has been only inconsistently available to researchers and cannot be used for prescription sale.

The DEA letter — a minor masterpiece of distortion and plain falsity — told Craker that the project “would not be consistent with the public interest,” and refused his request. This means that the federal government retains its monopoly on marijuana for research. It also makes FDA approval of marijuana effectively impossible, since testing aimed at such approval would need to be done on the same product that would be sold to patients — something that is not possible with NIDA's Mississippi-grown supply.

Craker and his collaborators at the Multidisciplinary Association for Psychedelic studies plan to appeal, but the process could take years and conceivably decades. Separately, the DEA is sitting on a petition to reschedule marijuana under federal law so that prescriptions would be legally permissible. Unfortunately, the DEA's disinterest in science leaves little reason to expect favorable action anytime soon.

And that leaves patients and their advocates with only one real option for expanding patient protection anytime soon: changing state and federal laws.

CONGRESS AND STATE LEGISLATURES

The Marijuana Policy Project plans an aggressive lobbying effort during 2005. Our past efforts have taught us that politicians remain skittish about the issue, and it can take several years to get a medical marijuana bill through all the legislative hurdles. Still, our success in Vermont last year proved it can be done. We made major strides in a number of states last year, and plan to build on that momentum this year.

At the top of the list is New York, where our efforts got a big boost from personal lobbying by Montel Williams and a massive pile of endorsements, including the state medical society, the New York State Association of County Health Officials, the city councils of three cities, including New York City, and even Manhattan's district attorney. Similarly strong coalitions also exist in Rhode Island and Connecticut. Efforts in other states aren't as far along, but even in these there are signs of hope: In Illinois, for example, as soon as MPP's medical marijuana bill was introduced, it was endorsed by the state's two largest newspapers, the Chicago Tribune and Sun-Times. It's never safe to make predictions, but we are cautiously optimistic about making real progress.

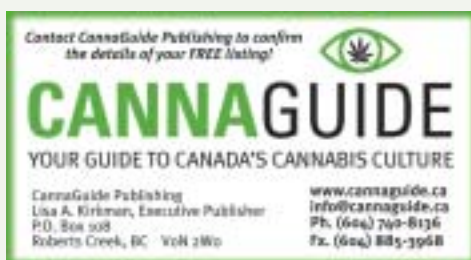
In the U.S. Congress, things will not be easy, but here too there are opportunities for progress. In the House of Representatives we now have a solid core of over 150 members

who have voted to end federal attacks on patients. And late in 2004 the first-ever pro-medical marijuana Senate bill was introduced, and it will be reintroduced in the new Congress convening this year. Progress in the states will continue to build pressure for Congress to adopt national policies based on science and common sense instead of myth and fear.

The key to making all of this happen is grassroots support. Vermont has a medical marijuana law today because last year Vermonters deluged their state capitol with letters, calls, faxes and emails demanding that it be passed. With that kind of pressure, we can make progress nationwide in 2005. And that is where Cannabis Health readers come in.

To receive free email alerts about pending legislation and other important news, log onto www.mpp.org, then click on the link that says “Subscribe to MPP alerts.” U.S. residents can enter their state and have alerts customized for their location, but you can sign up no matter where you live.

We are moving forward steadily, and each victory brings us a step closer to the day when laws that criminalize the sick for using medical marijuana will seem as bizarre and incomprehensible as the burning of witches. With your help, we will win. Please join us.





Dr. Robert Melamede

Robert is an Associate Professor and the Chairman of the Biology Department at the University of Colorado at Colorado Springs. He is the father of two girls (ages 35 and 25) and two boys ages (20 months and three weeks). He's also a registered medical marijuana user and has consumed cannabis for 41 years. <http://www.uccs.edu/~rmelamed/>

Cannabis & Biochemical Balance

Medical Marijuana: Can help biochemical balance / nature's solution for inflammatory pain

Introduction

Modern biology provides new avenues for rational drug design. This approach, made possible with modern tools such as high through-put screening and our rapidly developing biochemical knowledge, allows drug companies to develop new products for very specific pharmacological targets. This paper briefly introduces a systems perspective of health and disease in order to demonstrate the dangers that arise when therapeutic targets are not viewed from a more holistic perspective. The biochemical consequences of inhibiting cyclooxygenase to relieve inflammatory pain will be compared with the use of medical marijuana.

Complex systems

All life is dependant upon the maintenance of its dynamic organization through sufficient input of nutrients and removal of wastes. The more complicated an organism, the more complex the coordination required to accomplish the essential tasks required to maintain this vital flow of inputs and outputs. Coordination requires communication. Cells communicate by thousands of different, but specific receptors on cell surfaces that respond to thousands of different, but also specific molecules (ligands) that

bind to the receptors. A receptor that is bound to its activating ligand causes biochemical changes to occur in the cell. In response to such regulatory signals on the cell surface, biochemical regulation within the cell occurs at the level of gene expression as well as at the level of enzyme action. Ultimately, these changes, through complex biochemical pathways, allow cells to divide, carry out specialized tasks, lie dormant, or die. Any of these cellular activities, when not properly coordinated, can result in illness. The coordination typically involves a thermostat-like balance of opposing forces often manifesting as pro- and anti-inflammatory activities. Evolution has selected the endocannabinoid (internally produced marijuana-like compounds) system as a central player in maintaining biochemical homeostasis.

The Endocannabinoid System

The endocannabinoid system appears to be quite ancient with some of its components dating back approximately 600 million years to when the first multi-cellular organisms appeared. The beginnings of the modern cannabinoid system are found in mollusks and hydra. As evolution proceeded, the role that the cannabinoid system played in animal life continuously increased. It is now known that this system maintains homeostasis within and across the organizational scales of all animals. Within a cell, cannabinoids control basic metabolic

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processes such as glucose metabolism. Cannabinoids regulate inter-cellular communication, especially in the immune and nervous systems. In general, cannabinoids modulate and coordinate tissues, organs and body systems. (including the cardiovascular, digestive, endocrine, excretory, immune, musculo-skeletal, nervous, reproductive, and respiratory systems). Because cannabinoids have such a broad spectrum of biological activities, they are involved directly or indirectly with many illnesses.

The endocannabinoid system has numerous components. Endocannabinoids must be synthesized, bind to and activate receptors, and ultimately they must also be broken down. The breakdown is not simply a biochemical garbage disposal system. Rather, the breakdown products themselves have biological activity often mediated by their own array of receptors with associated biochemical modifications. Life and health is sustained by an intricate and multi-dimensional, dynamic biochemical balancing act. Disease states result from imbalances in biochemical flow. Our pharmaceutical and medical industries focus on developing and using drugs to terminate pathways that are excessively active or to activate those that are not active enough. This process typically ignores the complex web of biochemical flows where the basic rule is that the whole is greater than the sum of its parts.

Changing Health Requirements

With the discovery of antibiotics and increased public health, the leading cause of death in the United States has shifted over the last century from infectious diseases, especially those involving intracellular parasites such as Leishmania, Legionella, and Tuberculosis, to age-related diseases such as cardiovascular, autoimmune, neurological disorders and cancers. All of these diseases, including the aging process itself, are thought

to have free radicals as causative agents. Free radicals are highly reactive chemicals that are produced as a result of using oxygen to burn food for fuel. They modify proteins, DNA, RNA, lipids and carbohydrates thus reducing the efficiency of biochemical processes and leading to genetic changes in cells.

The endocannabinoid system appears to be quite ancient with some of its components dating back approximately 600 million years to when the first multi-cellular organisms appeared.

Current scientific literature regarding cannabis indicates that its use may be beneficial for many age-related diseases because of the prominent role that free radical-induced damage appears to play in these often inflammatory diseases. In general, free radicals can be viewed as biochemical friction while cannabinoids are the biochemical oil of life. Essentially, cannabinoids exhibit anti-aging properties. This view is supported by the decreased lifespan of cannabinoid receptor

(CB1) knockout mice (mice lacking the main neurological cannabinoid receptor), and conversely, the increased longevity of mice fed THC. An overwhelming number of scientific studies also demonstrate the impact of the cannabinoid system on all classes of age-related diseases mentioned above.

Cyclooxygenases: Mediators of Inflammation

Cyclooxygenases (COX-1 and 2), also known as prostaglandin synthases, have been a pharmaceutical target for inhibition because of their role in generating lipid metabolites that often promote inflammatory reactions and which have a fundamental role in the etiology of age-related diseases and their associated pain (for example arthritis). COX enzymes were logical targets for drug development since the inhibition of these enzymes is the mechanism by which aspirin works. However, COX-1 helps protect the lining of the stomach, which is why excess aspirin and NSAID use leads to stomach bleeding and ulcers. As a result, the pharmaceutical industry developed specific inhibitors of COX-2. These drugs have been



hugely successful, both in terms of relieving pain and in terms of being highly profitable for drug companies. However, recent studies demonstrate that these drugs are not as safe as expected. Vioxx was the first of these drugs to be associated with heart and circulatory problems, and was soon followed by Celebrex, and most recently, by the over-the-counter medication Aleve. The significance of this problem is dramatic. For example there have been 20 million prescriptions for Vioxx resulting in a possible 27,000 heart attacks and deaths. The accompanying figure suggests why inhibiting COX-2 is dangerous. Arachidonic acid is an essential fatty acid (an omega 6) and its breakdown leads to a variety of downstream pro-inflammatory lipid metabolites. Inhibiting their production was assumed to be beneficial for inflammatory conditions and their associated pain. We now know that arachidonic acid (AA) can be modified by other enzymes to generate arachidonic acid ethanol amine (AEA) which is one of a growing list of marijuana-like compounds known as endocannabinoids. AEA, acting through cannabinoid receptors and its metabolites acting through other receptors, have anti-inflammatory activities. Furthermore, cannabinoids are protective for cardiac muscle cells and nerve cells. Additionally, AEA has demonstrated pain-relieving properties by binding to vanilloid receptors on pain transmitting neurons. Thus, instead of

restoring the biochemical balance of pro- and anti-inflammatory activities by administering cannabinoids, COX inhibitors shut down both the inflammatory and protective activities of COX products.

Personalized Pharmaceuticals

Additional insights into the medicinal properties of medical marijuana can be gained by further examining the biochemistry associated with the COX enzymes. Medical marijuana patients report profound differences in the therapeutic efficacy of different cannabis strains. There are over sixty cannabinoid-like compounds found in marijuana, and their ratios vary from strain to strain. The combination of COX and other lipid metabolizing enzymes (such as lipoxygenases) will produce a spectrum of biological active metabolites. The medical marijuana patient is best qualified to determine what works most effectively for his/her particular illness. Unlike conventional pharmaceuticals, cannabis has an incredibly high therapeutic index requiring thousands of times the therapeutic dose before potential harm might occur, thereby negating the arguments for FDA oversight. Fortunately, for those who could benefit from medical marijuana but who also want a standardized, consistent medicine, GW Pharmaceuticals is developing commercial pharmaceutical grade extracts of cannabis in a fast acting oral spray format. Approval is

currently pending in England, the EU and Canada. Bayer AG will market the first of these products, Sativex.

Summary

Rather than restoring biochemical balance, COX inhibitors turn down the production of inflammatory mediators while also turning down the production of endocannabinoids thus inhibiting their associated cardiovascular and neurological protective effects. For many people, depending on their genetics and personal history, COX inhibitors may be safe. However, for others this type of medication can be lethal. A safe alternative to inhibiting the COX enzymes exists. For many patients suffering from pain related to inflammation and age-related diseases, the use of medical marijuana would enhance the protective properties of the endocannabinoid system while also reducing inflammation and its associated pain. The rapid change in the causes of death in a modern society requires biochemical adaptation at a rate more rapid than evolution can provide. Fortunately, making sure we consume essential fatty acids, the precursors for endocannabinoids, and using medical marijuana provides us with safe medicine that directly addresses the needs of an aging population.



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Puff Mama: Cooking With Cannabis



Hello weedeaters! For those of you who don't know me, I'm Joey, aka Puff Mama. I run a cannabis bakery through my private club in Toronto. I sell mostly to exemptees and compassion clubs, and



I pop up at various festivals. I don't sell to the general public, but I will tell you all my secrets so you can do it yourself and keep the revolution alive! The following recipe is dead easy and deadly!

Ingredients

Budder Pecan Pie

1/2 cup cannabutter, 3 large eggs, 1 cup white sugar, 3/4 cup light corn syrup, 1/4 cup honey, 1 tsp vanilla, 1/4 tsp salt, 1 cup chopped pecans, softly pre-baked pie crust, whipped or ice cream

Directions:

- 1 Pre-heat oven to 300° F
- 2 On low heat, in a saucepan, watch the cannabutter, but don't stir until it starts to go a shade darker and sizzles. Give one good stir and set aside.
- 3 In a blender or food processor, blend the eggs, sugar, syrup, honey,

vanilla and salt until smooth. Add the browned butter. Then stir in the chopped pecans.

4 Pour the mixture into the pie crust, and bake for 30 - 40 mins, or until the filling has firmed. Remove and cool uncovered on a rack.

5 Serve at room temperature with whipped or ice cream.

To find more recipes and how to make the cannabis butter, go to www.puffmama.ca and click on recipes. You'll find tons of excerpts and recipes (including a vegan section!) from my zine style cookbooks, the Cannabutter Cookbook, The Hard-Core Cannabis Cookbook and How to Eat Hemp. A whole new world of flavour and fun awaits!



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