

PERSON OF THE YEAR

*Steve
DeAngelo*

Read our
interview with
the cannabis
entrepreneur
of all time

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2022
The year of green success

CANNABIS
WORLD JOURNALS

by Chnc

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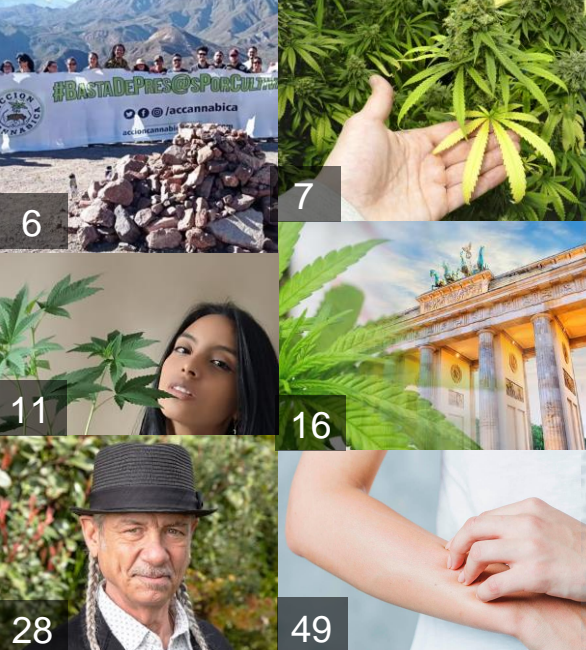
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16th Edition





Our **Magazines Canna Med** and **Canna Law**, each respectively dedicated to the therapeutic area and the legal regulation area of cannabis, have decided to join forces and offer a new and more complete bi-weekly magazine: **Cannabis World Journals**. **Canna Med** and **Canna Law** are now sections of **Cannabis World Journals**. Along with them, two new sections offer a global look at the plant's market: we are talking about **CannaTrade**, its objective will be to reveal the rhythm of the businesses established around cannabis. Lastly, **CannaGrow**, a section dedicated to the botany and cultivation of the cannabis plant.

Cannabis World Journals is the most comprehensive cannabis magazine for discerning readers like you. Without further ado, we extend a warm welcome.

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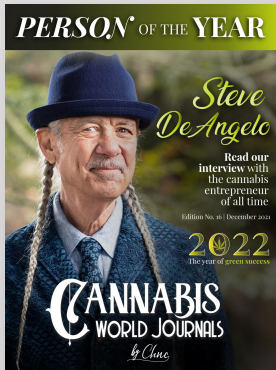
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War Foretold, Victory Assured

The world witnessed the changes brought by the cannabis industry movements during this century. Costa Rica, Peru, Panama and Puerto Rico, nations reluctant to introduce a legalization agenda for cannabis, made a 180-degree turnaround by announcing their major Yes to these initiatives. These countries joined the global trend, in which at least 64 countries have already ventured into various forms of cannabis legalization and regulation. This, hand in hand with a buoyant development for the industry related to the plant.

It is well known that Uruguay is known as the pioneer in Latin America for being the first to move towards the cannabis future. Its legalization scheme is paradigmatic for other nations, both in terms of advantages and disadvantages; little by little, each country is establishing its own legislative frameworks for cannabis, which respond to the needs and the local economic, social and ideological scaffolding.

However, these legislative advances are met by attempts to tarnish the beneficial results and contributions of the cannabis and hemp industry to the global economy. Thus, some organizations, agents or authorities, taking advantage of their image, spread disinformation and terror in the community, in order to entrench the false

myth that cannabis is a symbol of malice and shame, through campaigns based on fear and ignorance.

Still, in the news you see people being arrested and deprived of their freedom for the simple fact of growing cannabis plants at home for medicinal purposes or for possessing CBD oils to alleviate their illnesses. Many are branded as criminals for possessing the plant and are immediately portrayed as negative to society.

How much longer will the war against cannabis last? How many people will be imprisoned and then forgotten in the archives of "justice"? When will certain governments stop taking advantage of the lack of information in their countries about the industry to stop convictions against those who dare to have a cannabis plant in their possession? For now, these are unanswered questions; for now, I am not worried, because I am sure that those who bet on the growth of the plant are in the majority against those who defend the war against it... I am certain that the industry will come out of the golden door of triumph.

Alibert Flores
Editorial Team
Cannabis World Journals

Changing Perception to Appreciation: the Main Challenge.

Cannabis has faced all kinds of challenges over time. Since its prohibition (for religious, racist, political and economic factors), governments have tried to stop freedom of speech using arguments such as: "the gateway to other drugs" or "it makes you crazy." In my opinion, the most forceful of all these lectures was formulated in Colombia in the middle of the last decade of the 20th century, through a television campaign that called cannabis "the plant that kills", thus assimilating in the minds of families the image of cannabis with that of the "devil". For this reason, I find it ironic that now in Colombia, after decriminalizing the use of cannabis for medicinal purposes, the pharmaceutical industry presents CBD as "the plant that cures".

My personal challenge has been to disprove the myths about cannabis, at least in Latin America. Therefore, I believe that education should be focused on the family nucleus, to teach real and new information on the subject.

My vision about the plant I love so much is that of a society and a government with clear rules. I agree with the regulation of its use and consumption. Moreover, I opt for spaces dedicated to consumption because I understand that, for many families, it is something they do not want to share.

Besides, self-cultivation is the best option to end the black market or micro-trafficking, responsible for the death of many people. Self-cultivation is our best way to fight against this war, stop supporting those we should not, and especially have a life in our hands.

In 1994, Steve DeAngelo, an admired activist in favor of cannabis decriminalization, issued one of the most accurate concepts I know, when he pointed out that prohibition goes hand in hand with the benefit of large companies and governments in favor of a few. DeAngelo stated the following:

...there are many other activities that put health at risk and that are not prohibited by the State. Therefore, the real purpose was to impose a set of values necessary for the capitalist exchange system to function".

In other words, the idea should not be to prohibit, but to learn, teach and grow.

Santiago Ramírez *El Club del Cultivo*



Acción Cannábica


Acción Cannábica is a civil association of activists, therapeutic users, adult users, and growers. Their main task is recognizing the right to all responsible uses of cannabis and advising and making visible the different problems within the Argentine congress, such as the situation of those imprisoned for growing. Among its recent activities are the realization of the Festival Cultivando Libertades and the national cannabis march demanding the implementation of the medical cannabis law, the legalization of all uses of the plant, and the release of people detained for cultivation. This year, they accompanied the relatives of Lucia Pérez Montero, murdered by dealers in 2016, who achieved the reopening of the trial and the impeachment of the judges for leaving her case unpunished.



David Fajardo

David Fajardo of Vida420 is a grower with more than 15 years of experience in the cultivation of cannabis. He carries out activism through MARIARTE, an event created in conjunction with other activists to travel throughout Ecuador, providing accurate information about the cannabis plant and its hundreds of benefits through workshops on cultivation, risk, and harm reduction, among others. For November 2022, he has planned the National Cup 2850 of cannabis cultivators in Quito. David's purpose as an activist is the decriminalization of cannabis.



A close-up photograph of several cannabis leaves. The leaves are green and serrated. There are numerous small, bright yellow spots scattered across the surface of the leaves, which are characteristic of a nutrient deficiency or a specific disease. The background is blurred, showing more foliage and soil.

Cannabis **Diseases,** *an Ongoing Struggle*

Many growers encounter this major problem. It is a struggle, sometimes difficult to fight, and in the worst cases, a lost one



All living organisms on earth are prone to acquire some disease that can be given by pathogens that infect and cause different complications, both for growth and survival. Cannabis is no exception, and many growers run into this enormous problem. It is a struggle, sometimes challenging to fight, and in the worst cases, a lost one. <<Diseases appear or are promoted by factors such as poor drainage, poor or unbalanced soil, inadequate air circulation, insect damage, or unhygienic conditions. Poor soil fertility and drainage usually result in diseased plants being susceptible to insects and diseases. Fertilizing the soil more and trying to control pests in diseased plants will cause more significant problems when there is poor soil. It is better to uproot diseased plants, condition the ground and start with new and healthy plants>> (Cervantes, 1999).

Cannabis diseases can occur at different stages, mainly by pests or pathogenic insects,

fungi, viruses, and bacteria. On the one hand, insects are found in the environment and are attracted to the plant to feed often on the sap; they can affect locally or systemically and cause complications because they can carry bacteria or viruses that infect the plant and make it sick. In the case of fungi and similar organisms, they appear when the plant's environmental conditions are not suitable, and their spores proliferate more quickly. A clear example is a humid environment ideal for the oomycete *Plasmopara viticola* to emerge and generate the "mildew" disease, which is usually perceived because white powdery mildew starts to appear on the leaf surface. Other indirect factors that lead to diseases also interfere, such as nutrient deficiencies that make plants more susceptible to parasitism and infections. High temperatures, very closed spaces, overhydration, inadequate care, and more can also influence the plant's vulnerability.



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Diseases appear or are promoted by factors such as poor drainage, poor or unbalanced soil, inadequate air circulation, insect damage, or unhygienic conditions.



It is difficult to identify the diseases since no initial symptoms denote the appearance. When it is possible to observe something abnormal in the plant with the naked eye, the infection has already originated, and the plant is in a severe health condition.

Among the most representatives diseases are:

- **Rust:** symptoms include dark spots on the foliage, slow growth, sudden wilting, and death of the plant. A good treatment can be copper sulfate or lime sulfate to control it, but one of the best solutions is to remove the plant from the crop if the rust is in an advanced stage.
- **Damping-off:** is a disease caused by several microorganisms, mainly fungi. Damping-off attacks, especially, seedlings and also cuttings. When it is present, you can notice that the stem is infected because it rots where it has contact with the soil or substrate.
- **Mildew:** The most significant symptoms of this disease are when a fine whitish powder

appears on buds, shoots, and leaves. When present, it causes yellowing of the foliage, and growth slows down. In the advanced stage, it is dangerous, especially when the roots are dry and the leaves are wet. For this, you should know how to use copper sulfate or lime and dissolved yeast.

- **Botrytis cinerea or gray mold:** is a fungus that primarily attacks the buds. You can notice that brown mottled spots start to appear with a rapid mobilization; in this way, they can spread quickly. You can control it by pruning and destroying the infected parts.
- **Fusarium:** is an infection generally caused by fungi of the genus Fusarium. The appearance of the condition is more common in greenhouses and growing rooms that are kept warm. It starts as small spots on the lower and older leaves. Chlorosis quickly appears between the leaf veins, and leaf tips may grow out before suddenly wilting and drying to a crisp. The best way to control this infection is to clean, avoid over-fertilization of nitrogen and make some antifungal applications. (Cervantes, 2007).

- **Verticillium:** This infection is caused by fungi belonging to the genus *Verticillium*. When this infection is present, the lower leaves develop chlorotic yellowing at the edges and between the nerves before turning a dull brown color. Plants eventually wilt and die as fluids within them are blocked.

- **Viruses:** can appear through open wounds in plants and are transmitted by some pests. Once the plant is infected, there is not much to do but eliminate it.

Good cultural practices, integrated pest management, and attention to environmental circumstances are the best way to prevent these conditions from appearing in plants. It would be best to make sure that the substrate

is healthy and clean, that the plant has enough nutrients within reach to develop, and that hydration is in accordance. In short, good cultivation practices and a lot of hygiene.

When a crop has any of these diseases already advanced, it is best to eliminate the poisonous plants, thus preventing the transmission of these diseases to other plants. However, if you want to treat them, you must resort to severe methods to eradicate them. Those methods can be applications of fungicides, bactericides, and other inputs that may or may not affect the plant's health, depending on the toxicity

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Two dreamers and passionate about cannabis decided to create a community to expand the cannabis culture in their city through self-cultivation, education, and intended use, characterized by growing quality flowers that today make Killa Cultiva a national and international reference.

In the expert's room section, Ty Vasquez, one of its members, tells us a little about the history of Killa Cultiva.

CWJ: What is Killa Cultiva?

Ty Vasquez: It is a Colombian company focused on creating a conscious community about medical cannabis, its uses, properties, and excellent benefits. How do we do it? Promoting self-cultivation, research, developing educational spaces, and creating an experience in the cultural environment and art boosts this fantastic plant's welfare without leaving behind the industrial development that comes with it. For the country, that is Killa Cultiva.

What do we do? We generate educational spaces such as workshops, talks, and we teach people to self-cultivate mainly because we believe it is the best way to connect with the benefits of the plant. We also provide advisory services and consulting at the industrial level.

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”

CWJ: When was Killa Cultiva founded, and why?

Ty Vasquez: Killa Cultiva is a project that began to germinate in 2009, thirteen years ago, but in 2015, we leaped to make it 100% public. It was not an easy step to be pioneers in Barranquilla. When we started at that time, there was a myth that in Barranquilla - that is, on the Caribbean coast - you could not grow cannabis because of the climatic conditions. When we started, there was a lot of misinformation. Even though it was



The Expert's Room:

Interview with **Ty Vasquez** Killa Cultiva

legal, I don't think that even the police entities knew about it. There was too much misinformation, so taking that leap to make it 100% public and start doing workshops was not simple, but it was a great experience. It was opening the way for an educational approach. It was a rewarding experience because we realized that the first people who connected with our project did not have a profile that anyone would have imagined. Many people of different ages arrived who had never been cannabis users in their lives; in fact, they were people who were looking for cannabis as a medicinal alternative, and that was a great experience. We started in 2009, but in 2015 we made it official, that is to say, to make the activities to the public.

CWJ: Who constitutes the Killa Cultiva team?

Ty Vasquez: Mainly my husband and I, who are the founders, the rest we have a very talented team where the main feature and requirement is the love and passion for the plant; we like to work with people who genuinely connect with the subject. It is not to say that they are users, but they connect with the issue. It is something very personal that we like; the team comprises self-cultivators who came to us through the workshops that we conducted and became part of the family. We also have medical cannabis users, both patients and health professionals. Since we started, we had health professionals here in Barranquilla who favored cannabis, which was a great support. The filmmakers and audiovisual designers who support us from the marketing side also do a great job. All of them are the Killa Cultiva team.

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When we began, there was a lot of misinformation. Even though self-cultivation was legal, I don't think that even the police entities knew about it. There was too much misinformation, so taking that leap to make it 100% public and start doing workshops was not easy, but it was a great experience.
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CWJ: Who is Killa Cultiva aimed at?

I would like to say first the meaning of our name Killa Cultiva. Killa comes from Barranquilla; it is like a diminutive of Barranquilla. In the United States, it is a term with a different connotation, so it is good to clarify it. Killa Cultiva is for anyone interested in being informed and having safe access to cannabis as a medicine. Currently, we are at a point where, in drugstores, you can already buy the drug and magistral formulas. But, we also teach people to self-cultivate and make their own medicine. Who it is aimed at is very broad because it is for anyone interested in expanding their knowledge and improving their cultivation, that is to say, anyone who connects with the plant in some way or another. It is pretty broad; it can be anyone, whether for medicinal use or people interested in the industry. however, each of these people plays a crucial role in breaking that negative stigma and making the community more solid in the ecosystem. In turn, the whole issue of legalization and regularization worldwide progress for that reason; that is why it is for anyone who vibrates and connects with it.

CWJ: What are your activities? Mission, Vision, Objectives?

Ty Vasquez: I consider that our primary mission and essence is to share our knowledge to continue expanding all the experience and continue increasing all this universe. Furthermore, our mission is also

to generate incredible experiences in synergy with medical cannabis, to continue generating those educational environments, advising companies so that the industry in the country continues to develop legally and with professional processes and with a super "top" quality. That's because we consider that we have, or Colombia has, a great potential to be a producer at a global level. Our vision is to become a much more solid, informed, and aware community of cannabis, conscious users of cannabis, its uses, benefits, and that everyone shares that experience. Our objectives are to transform the socio-cultural stigma of the plant into knowledge and wellbeing because after we internalize that information and change that stigma, I believe that many things will develop from there, as they have been doing. Many enterprises, many companies, and at the same time job opportunities; all this presents massive growth at a national level, especially in the economic aspect. I have a very positive vision.

CWJ: What is the legal outlook in Colombia, and how does it affect your activities?

Ty Vasquez: The outlook in Colombia is favorable compared to other countries. Fortunately, we have self-cultivation that allows any natural person to have a maximum of 20 plants. You can set out 20 plants for personal use only, that is to say, any person can have their self-cultivation for their own use and cannot sell it, that is a great advantage. It is not even possible in Argentina and other countries to have a plant, so it is positive from the self-cultivation point of view. In fact, it is connected with the industrial aspect because these people who are self-cultivating today are

people who are acquiring knowledge; they are preparing themselves and can be possible entrepreneurs, possible workers of this company. So let's say that the view is positive from the self-cultivation side. Basically, they are allowing us access to grow our own medicine.

From the industrial side, it is also positive because the medicinal use of the cannabis

industry allows any natural person or company to acquire licenses to use sedes to grow cannabis, either psychoactive or non-psychoactive.

For therapeutic or scientific purposes, it also allows having a license called Manufacture of Cannabis Derivatives, which authorizes to produce all the white line of products to make medicines and cosmetics. So, although it is a nascent industry and is still growing, the path is being adjusted in many ways. We are walking under what the law allows us right now. We are preparing for what is coming

in the future; that is why we are doing a lot of research work and community work, which is social work, that when adult use is 100% legal - which is what Colombia expects so much- we are prepared for it. I think it is a positive aspect of the legal issue here in Colombia, and we are preparing for it to be better.

CWJ: As an organization, what challenges have you faced?

Ty Vasquez: When we started, we faced several challenges, and we still face many challenges today, especially here in the city of Barranquilla. Let's say Barranquilla because Antioquia is a little more open on this issue of cannabis. Still, Barranquilla is full of prejudices, a lot of wrong information, so at the beginning, it was a challenge to start. It was a challenge to find

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Killa Cultiva is aimed at anyone who is interested in being informed and to have safe access to medicinal cannabis.
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friendly spaces with the subject. We tried to find educational spaces to do events and all these kinds of things, and in the beginning, it can still be a little complicated because many people, many places, are afraid. The challenge was the fear of the community, the background of that fear was misinformation, but when people connected with our project, with our company, they already knew us; they saw how we did things, and the process changed completely. But yes, in the beginning, many people could be afraid of the subject because it was a population that for many years was told: "the killer that kills." Therefore, they had a negative thought, so changing it was a whole process. It is understandable! Perhaps at some point, we all repeated that phrase, that information that our parents or past generations used to say. Basically, the challenge is the same that we were talking about, the stigma that we had in the city and the country, so being pioneers was a challenge, but we are proud to open roads and see how it is today in Barranquilla. When we started, it was challenging because they said it was impossible. Secondly, all the information on the internet about cultivation was related to Spain and the United States, which have different climatic conditions than ours, so it is not the same. We say that it is "cool" how the community has grown, that suddenly you are growing, you want this information and you have someone to talk to, you have someone to share ideas with, that is very nice. But, when we started, it was complicated because there was no community with whom to grow and share the knowledge. That was the biggest challenge, to open the roads.

CWJ: How has cannabis progressed in Colombia? Is there still a stigma about cannabis use?

Ty Vasquez: There are associations working day by day to open the doors to cannabis. I

believe that even though they have shelved the issue of adult-use, there has been much progress for cannabis in Colombia. In the socio-cultural aspect, such as the issue of self-cultivators, every day, more and more people are acquiring knowledge, experience, etc. In what area have we also made progress? In the news! There is positive information about cannabis; you see news that gives hope to people at the labor level; companies are already growing, it is already more common. People already know the term cannabis; you find cosmetic or medicinal products in drugstores. Let's say that if we look at ten years ago, the change has been positive. We have a lot of connections with companies, and to see today those greenhouses full of plants, cannabis grown in Colombia legally cultivated, that is very nice, and it is a significant advance. We must focus on the positive advances and be confident that there have been many changes. Today some tell you: "Put on the news, they are talking about this." Before, it was crazy, so what if there is a stigma? Yes, we still have to keep fighting against that, but there has been a lot of progress because the population is receptive. It is not the same reception of ten years ago, when we talked about fear, now people speak more naturally and tell you that they use drops to sleep. I have met people whose doctors have recommended them cannabis alternatives. Back then, it was more difficult. Still, I do consider that there has been tremendous progress.

CWJ: How do you envision cannabis in Colombia in the near future?

Ty Vasquez: As a more consolidated industry with well-defined processes, I believe that the medicinal use part will advance a lot, companies will generate and create medicines, and the cosmetic side will also

increase. I visualize a very positive future at the industrial and economic level; many job opportunities are opening now and will continue to open in the future. If you look at the number of licenses the government is issuing every year, many companies will need an increasingly more significant number of personnel. That is also part of what we do; all this element of teaching and educating people is part of training this staff to be employees of these companies. So I believe that the future of cannabis in Colombia promises a positive change at an economic, industrial, and medical level.

CWJ: What are your following projects?

Ty Vasquez:By 2022, we want to develop many events and educational spaces in the city and the country. We have the project to create the cannabis cup in our town; we are already working on that on the Caribbean Coast. There are many things to do and continue with our research work. We look forward to having that endorsement legally to show everyone everything we have worked on for years. So our project is to continue moving at the community level, creating events and activities, and continuing very strongly in our research work.





Germany

In 2017, Germany introduced a new law that allows the use of cannabis for medicinal purposes. This has led the country to become the largest medical cannabis market in Europe.

Germany is under the focus of the international news thanks to its recent change in the government, which will bring great announcements about the legalization of cannabis use.

In this edition, we share with you the legal scenario of cannabis currently in force in this country of the European continent, and we will visualize a little about the future proposed by the new government.

REGULATIONS

In Germany, the sale and supply of cannabis is considered a severe crime. The person involved could be sentenced to up to five years in jail if caught. In case of aggravating circumstances, the sentence could be increased from one to two years or from five to 15 years.

Within the German legislation for drug control, we can find:

The German Narcotic Drugs Act (Betäubungsmittelgesetz, BtMG): is the country's central legislative instrument for regulating drug use and possession penalties.

The German Code of Social Law (Sozialgesetzbuch, SGB): defines the conditions for funding the treatment of drug dependence and drug-related illnesses.

As part of the European Union (EU), and according to EU law, it is legal to use, buy and sell CBD as long as it meets the requirement of having less than 0.2% THC. However, there are specific details to keep in mind regarding this law.

For example, it is legal to buy a CBD product in a store, but some other forms of low-THC cannabis products may not be permitted.

German patients have three medical cannabis products available: Sativex, Dronabinol, and Nabilone. However, given their high cost, access appears to be limited for some, unless they are covered by health insurance.

CULTIVATION

At present, cannabis cultivation is illegal, and those charged receive the same penalties as for sale or supply. However, The German government realized the potential that growing cannabis domestically could have. Because of that, an official press release in early 2019 indicated that the government launched 79 tenders to grow medical cannabis in the country.

MEDICAL CANNABIS IN GERMANY

In 2017, Germany introduced a new legislation allowing the use of cannabis for medicinal purposes, which led the country to become the largest medical cannabis market in Europe, as well as boasting one of the strongest programs on the continent.



PROJECTIONS

A study commissioned by the German Hemp Association and performed by the Institute for Competition Economics (DICE) of the Heinrich Heine University of Düsseldorf concluded that legalizing the use of cannabis could generate additional annual tax revenues of around €3.4 billion (USD \$3,854 approximately). In addition, it could result in cost savings in the judicial system of 1.3 billion euros per year (USD \$1,470), and the creation of 27,000 new jobs by 2025.

PRESENT

Recently, the government of the country changed. The new German coalition,

composed of the Social Democrats (SPD), the Greens, and the Liberals (FDP) announced, through a document delivered during the presentation of the new government plan, the sale of cannabis legalization, as well as an evaluation of this measure after 4 years to determine its effect on German society.

Lars F. Lindemann, a member of one of the political parties of this coalition, commented on Twitter: "The legalization of cannabis,

previously blocked by the past government, allows us to have a taxed dispensary, with a controllable amount, and an effective protection of young people through education".



Justice for Cannabis Patients in *Argentina*



Numerous people who grow cannabis at home for medicinal purposes have been harmed by anonymous complaints, accusing them of being drug traffickers.

A 59-year-old dentist was arrested in Gonnet, La Plata, for cultivating medical cannabis specifically to treat her fibromyalgia, a condition she has had for several years.

"They put me up against the wall. After snatching my cell phone, they read a document accusing me, as a result of an anonymous complaint, in a criminal case of drug trafficking, for which, they said, they had to carry out a house search".

Although the cultivation of cannabis for medicinal use was legalized in Argentina in November 2020, there are still clashes regarding this mandate, since some patients must fight for this right to be freely practiced despite the fact that the law establishes it.

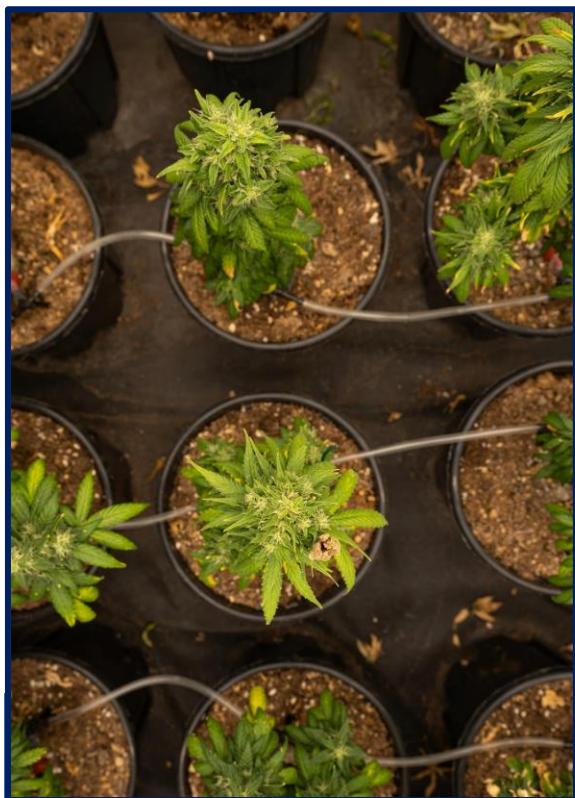
In this sense, this decree allows the sale of cannabis oils and creams in drugstores and cultivation for personal use and a network for users, patients, and researchers

registered in the National Cannabis Program, created by the law but not yet operative.

On the other hand, according to the law, in the private domain, cannabis can only be cultivated for personal use by those who, after having obtained an individual authorization or being allowed access to cultivation by a third party, have a medical indication for the use of cannabis and its

derivatives, and must be registered in the Registry of the Cannabis Program (Registro del Programa de Cannabis (REPROCANN)).

Often, many people who grow cannabis at home for medicinal purposes have been harmed because of anonymous accusations, claiming they are drug traffickers, for which they end up paying the consequences, being unjustly treated as criminals.



Dentist Arrested for Growing Cannabis to Treat her Fibromyalgia.

Considering the above, in recent days a 59-year-old dentist was arrested in Gonnet, La Plata, for growing medical cannabis especially to treat her fibromyalgia, a condition she has suffered from for several years. This unfortunate episode happened despite being registered in the Registry of the Cannabis Program (REPROCANN) and also being part of research projects of the University of La Plata related to cannabis. Uniformed members of the Naval Prefecture abruptly entered her home in an attempt to search for the cannabis crops she had in her possession.

"They put me up against the wall. After snatching my cell phone, they read me a document incriminating me, based on an anonymous complaint, in a criminal case for drug trafficking, so they said they were obliged to search inside," said the dentist Edith Bernstein. She also added, "They asked me if I had elements of cutting, supply, and sale of cannabis, I told them that I am not a drug dealer, I dedicate myself to medical cannabis because of my own pathology, I do not sell flowers, I do not traffic. I only have medicinal strains. But they replied 'you shut your mouth and sit there'. They didn't let me explain anything.

According to Bernstein, this unpleasant meeting with the authorities of the Naval Prefecture lasted long hours without considering the statements of the dentist, who despite having the necessary permission to carry out the cultivation, her explanations were in vain, seeing how her house was brutally disarranged.

"They turned everything upside down and took pieces of the plants I was going to give to moms of children with epilepsy," she said.

The representatives of the Naval Prefecture then violently took the dentist away to be interrogated and inspected. "They kept me until 6:30 when my records appeared, and they admitted they were spotless, so they were going to let me out. I asked for my cell phone back, the things for my medical cannabis, and the money they had taken from my house, 19,000 pesos and 3,500 dollars, but they said no. I asked to speak to the judge and they also refused", she said.

Like Bernstein, many people rely on medical cannabis to combat their ailments, and like her, they still have to deal with and fight against the harsh comments of others, who as victims of misinformation easily point fingers at anyone who has a cannabis crop at home. "I have consumed oil since 2015, and in 2017 I had my first harvest. It greatly improved my

life quality. I have a good diet and exercise, but I had never achieved what I achieved with cannabis," she described, an experience that "encouraged other people around me to also try it", Bernstein said.

"I am a great searcher; I researched a lot about what was wrong with me. I ended up diagnosing myself along with a doctor from the south who showed solidarity, and, together, we investigated. Then I confirmed it with Marcelo Morante, a specialist in medical cannabis, and he advised me to start consuming and then start cultivating," she added.

People hope that at some point in the near future, medical cannabis patients in Argentina will be treated with due respect and receive the same support as others when it comes to using their right to improve their health.



Colombia:

When Will Adult Use of Cannabis Be Available?

Colombia's medical cannabis industry has been gradually opening up as a source of raw material for the growing market.



The nation continues on the road to normalizing the plant and its derivatives until it becomes a powerful industrial producer.

Colombia is a country of great opportunities for the cannabis industry, both industrially and medicinally. The numerous companies and pharmaceutical laboratories dedicated to the plant's research are proof of this, which is an excellent source of jobs for more than one person.

Thus, with a market in full growth, the medical cannabis industry has been gradually opening in Colombia, aiming to be a source of raw material and products capable of satisfying the demand and leaving in oblivion the relationship it had with drug-trafficking violence. In this sense, the nation continues on the path of regularizing the plant and its derivatives until it becomes a powerful industrial producer.

Also, on July 23, President Iván Duque authorized the Decree of Safe and Informed Access to the Use of Cannabis (811 of 2021), allowing the export of dried cannabis flowers for medicinal purposes and guaranteeing access to its derivative medicines. In this regard, the law provides medical and scientific access to cannabis, strengthens licensing requirements, and establishes measures to protect and reinforce small and medium-sized producers and growers.

Thanks to it, Colombia gave the green light to the manufacture of textiles, food, or beverages based on cannabis and to the plant's exportation for medicinal purposes. That is a solid reason to highlight that, despite the myths, stigma, and lousy reputation the plant has had, it is rising stronger and more powerful.

However, the struggle continues in the nation concerning cannabis for adult use, since recently, the House of Representatives rejected the bill that sought to regulate it. One of the goals of this law was to authorize the possession and adult use of cannabis by senior citizens, and the bill also stated that the State would ensure the treatment of dependent people.

Unfortunately, despite the battle of many members of the House that fought to emerge victorious in favor of adult-use cannabis, the bill failed to proceed and was shelved for a second bill in 2021. What was the purpose of the bill? It intended to allow people who use cannabis to buy it in regulated establishments for the sale of cannabis and not be forced to access it illegally.

Furthermore, the law considered modalities such as non-profit "self-cultivation", allowed without a license on private property with less than 20 plants, or the opening of "dispensaries." In addition, it proposed that the State could directly manage the online sale through websites.

Sadly, for those betting on a 180-degree change regarding the adult use of cannabis and are in favor of it, it ended up in the vault of oblivion. However, we know that the fight for this will continue, and we will see again in the networks and television news of cannabis and its great benefits.



Recap 2021: The Most Important Legal Changes in the Industry

2021 was undoubtedly a challenging year globally in so many ways. However, one of the market segments that continued to advance while others stagnate was the cannabis industry.

In this article, we review the most significant changes that the year brought...

United States...



Federal Level

The MORE (Marijuana Opportunity, Reinvestment, and Expungement Act) is pushed forward. If passed, it would end the criminalization of cannabis and permanently remove it from the U.S. Schedule of Controlled Substances at the federal level. It would also remove cannabis-related criminal penalties for non-violent crimes, as a criminal justice reform, social justice reform, and a change in the current economics of the industry.

Project Particularities

- It would work retroactively - convictions, arrests, and charges would be automatically cleared for convicted individuals.
- A 5% tax on retail sales of cannabis would be created, and these tax revenues would be allocated to the Opportunity Trust Fund. The fund would seek to promote inclusion and diversity in the industry
- The Office of Cannabis Justice would be created to monitor social equity arrangements.
- It will improve banking and fiscal opportunities, expand resources for research, and boost economic growth.
- It would eliminate criminalization for people who use cannabis, including immigrants at risk of deportation.

The Medical Marijuana Research Act

A Bill pushed by both the Republican and Democratic parties seeks to quicken the research and approval process for those who wish to study cannabis.

Project Particularities:

- It would force the Drug Enforcement Administration (DEA) to license more growers.
- It would remove the limit on the number of entities that can register to grow cannabis for research purposes.
- It would require the Department of Health and Human Services (HHS) to submit to Congress within five years the results of federal studies on cannabis to study its reclassification at the federal level.

State Level:

Connecticut: In July 2021, bill 1201 became law, legalizing adult-use cannabis.

New Mexico: In 2021, the state passed the HB 2 bill, which legalized cannabis for adult use.

New York: In 2021, the state assembly approved Bill A01248, legalizing cannabis for adult use.

South Dakota: In 2020, voters in the state approved both Measure 26 initiated to legalize medical cannabis and Constitutional Amendment A to legalize adult use of cannabis. A circuit court blocked the enactment of Constitutional Amendment A, and the circuit court decision has been appealed to the state Supreme Court.

Virginia: Fully legalized adult-use cannabis this year by passing HB 2312, but legal sales of recreational cannabis will not begin until 2024.



Latin America

Colombia: Decree 811 of 2021 is approved:

Changes: Export of dried cannabis flowers abroad is allowed.

The system of national quotas is improved in compliance with the provisions of the International Narcotics Control Board (JIFE in spanish).

A new license for the manufacture of non-psychoactive derivatives is established.

Argentina: a Bill that seeks to allow the industrial production of the cannabis plant, aiming to advance in the national economy

Mexico: In June 2021, the Mexican Supreme Court of Justice approved, with 8 votes in favor and 3 against, the annulment of the prohibition of the recreational use of cannabis contained in the General Health Law.



New players on the market:

Lebanon

In 2021, as a measure for the economic survival of farmers, there has been an increase in the number of growers switching their crops to cannabis. It happened especially after April 2020 when the Lebanese parliament voted in favor of legalizing the cultivation of cannabis for medical use.

Morocco

In Morocco, the government validated in March 2021 a bill authorizing the medical, cosmetic, and industrial use of cannabis but prohibiting its recreational use.

Gaps yet to be filled: Before the legalization of the cannabis industry, this market belonged to small growers and black-market players.

Some believe that the cannabis industry will be a new market that will allow the inclusion of minorities and be an example for the other segments of true diversity.

However, several factors worry those who have been fighting for the industry for years, which is the "corporatization" of the market. In other words, the moment when large conglomerates enter the market, they monopolize it and leave out those who have been in it illegally for years.

Taking as an example countries such as Colombia, Morocco, and Lebanon where they seek to generate new sources of employment, formalize an already operating industry, and give a place to those who have suffered for generations, it seems that another direction is on the horizon. Regulation will not be enough in these and other countries, but some assume that those who should initially benefit from a legal industry are those who have been operating on the margins for years.

Therefore, it is not enough to legalize; it must be a well-structured legalization designed to close social gaps, historical conflicts, opening the door to those who have been spectators from obscurity.

Changes for 2022

While there has been a boost in 2021 on the legislative side, this is still not enough. The market is experiencing an unprecedented development, where it must seek to align itself with current practices. Surely, next year, there will have to be reforms in the banking system to give

more opportunities to those who want to enter the industry. Another change that people expect is the lowering of taxes, one of the significant factors that continue to give strength to the black market, as it disproportionately increases the costs for the legal market.

Conclusions

We should also follow the initiative proposed by New York, which seeks to create social programs that educate the community and encourage their entry into the regulated market.

This industry entails a global responsibility, driven by activists, growers, and operators of local markets. In these joint efforts, along with governments, we seek to create an industry where those who truly benefit are part of the historical legacy of cannabis, not just the new players.

Personality of the Year

Steve De Angelo

The cannabis entrepreneur of all time



A Conversation between *Steve DeAngelo* and CWJ

Cannabis World Journals had the opportunity to sit down for a conversation with the father of cannabis legalization, Steve DeAngelo, to talk about his influence on this industry, upcoming changes and new opportunities. We dug into the man, his story and the inspiration that brought this movement to life. Here's what he revealed...

CWJ: It is a great pleasure to have you with us today. I know that our entire audience at Cannabis World Journals, our global magazine, will be thrilled to read about your experience.

As we well know, you have been involved with the cannabis industry for about 20 years. Where do you see cannabis

heading? ¿What obstacles remain to be overcome and what surprises can we expect in the near future, or in the next three years?

Steve DeAngelo: What we do know is that after several decades of very little progress in cannabis legal reform, we have seen a global movement take hold over the last 20 years.

Today cannabis is legal in many parts of the world, including 12 states where it is completely legal of the U.S. and Canada. Many countries around the world, such as Colombia, are also achieving this step by step, as is Mexico.

Where are we headed? **Cannabis will be legal all over the world, everywhere.** I think that's going to happen in your lifetimes. Maybe not in mine, but in yours. The reason is simple, the world really can't afford to go on living without this plant. For thousands and thousands of years, cannabis provided humans with medicine, food, shelter, clothing, transportation; with almost everything we needed, as well as spiritual and mental sustenance and nourishment. It was over the course of the last few, several hundred years really, and especially in the last 10 years, that we moved away from cannabis. That will change and we will accept it with open arms. **Cannabis will be the backbone of the global economy, and will be the most valuable commodity on the planet**

CWJ: Yes, it will be back and with force.

We know that in recent years, we have moved away, as you say, from the legalization of cannabis, but it was always consumed. In the event that the government were to regulate cannabis in the United States, do you think there is an understanding of the industry at the molecular, cultivation or scientific level, to intelligently establish federal protocols? Do you think a task force should be implemented? Do you think they require support to put these laws in place and understand all the benefits that cannabis provides?

SDA: It's a big question. If we currently assume and believe that cannabis will be legal, the question is no longer whether it will be legalized. **The question is: How will it be legalized?** How will the new industry be organized? Who will control it? How will the workers be treated? Will it be a sustainable

industry? All the rules, all the standards of this industry are under debate now, it's an incredible opportunity for the cannabis community and people in general.

Most industries are created and formed in back rooms, board rooms, meetings with bankers, and conference rooms. Most ordinary people do not have the opportunity to participate in building a new industry. **But, with cannabis it is different because it requires a legal change.** For those of us who live in countries that are supposed to be democratic, where we are supposed to have political and participatory rights, **we all have the opportunity to shape that industry and see how it turns out.** Therefore, I believe that we must seize this opportunity, and make sure that we do not build just another industry, **but that we build a new style of industry.** An industry that embraces diversity and inclusion, that incorporates equity and sustainability in all its aspects, that spreads prosperity and opportunity more widely than most industries do today.

Is the government capable of doing that? No. The answer is no, the government does not have that capacity. What we have learned in the fight for cannabis is that **we only achieve what we fight for.** If we want a good policy, we have to make it and aggressively push, work and fight for it. That's the only way to get it. The government has spent far less time studying cannabis than we have, plus they're looking at it, usually, through a different lens: How much money can it make them? How much power will they have? So, for those of us who love the cannabis plant, understand its true potential to transform human life and the planet, we must take that knowledge, that love, and think very carefully about how to make sure that the industry we build manifests the lessons the plant teaches us. It is our responsibility, no one else will do it but us.

CWJ: Thank you very much for your answers, Mr. DeAngelo. You know that this industry

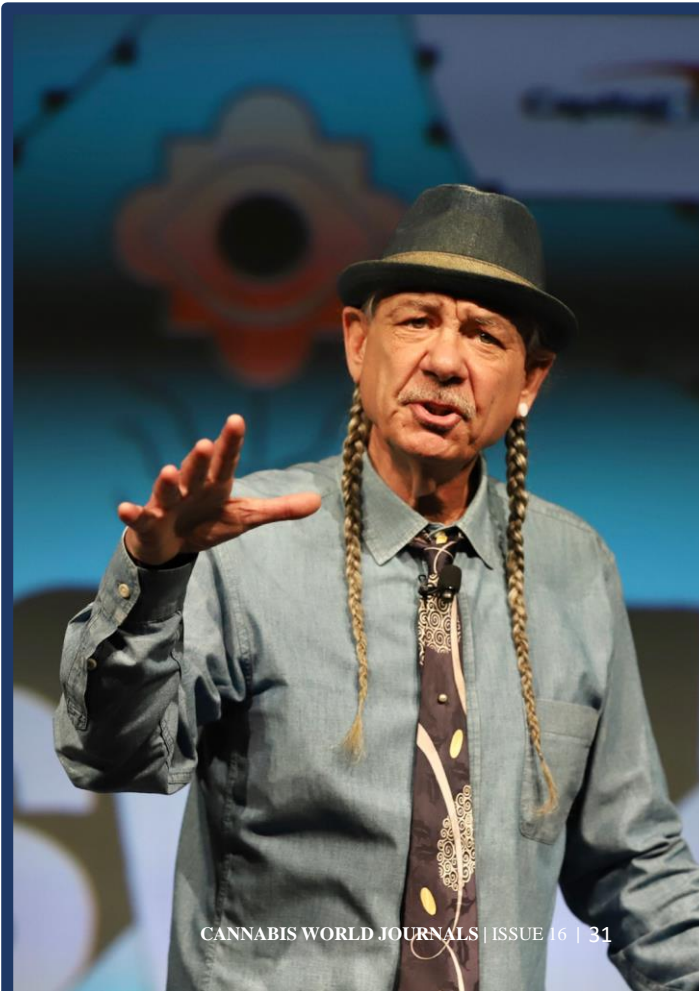
involves billions of dollars. When you talk about the kind of industry we are trying to forge, do you ever fear that it will be monopolized? I mean there is so much money involved in so many different sectors, what do you think about that?

SDA: Well, we are already witnessing the corporatization of cannabis and many of the early markets that legalized it. Particularly my home state of California, where a really tragic situation is occurring. Most of the people who dedicated the last 20 to 30 years of their lives to building the cannabis industry: the activists, the small farmers, the growers, the breeders, those of us who really cared about destroying the limitations on the plant, since the so-called "Legalization of Cannabis" of 2018, have been execrated, for the most part, from the industry. New corporate players were allowed in, funded with huge amounts of money coming, for the most part, from the Canadian stock market and public markets. These companies came in and, on the one hand, they are absorbing all the other existing companies, taking up all the space. On the other hand, they are not doing a good job. Therefore, no one benefits because of the situation in California. Hence my answer above, we can only expect from corporations what they have always done: grabbing a bigger and bigger share of the pie, and leaving less and less opportunity for others. The only way to prevent this is for cannabis users, those who love cannabis, to participate in the political process and insist that rules be written that spread prosperity more broadly.

I will give you an example. In the United States, in the state of Florida, there are ten licensed cannabis companies. They are allowed to have an unlimited amount of cultivation, manufacturing and retailing of the product, but there are only ten of them. Therefore, each of these ten companies is a huge corporation with

hundreds of millions, or billions, of dollars in capital. There are no legal small farmers in Florida, no legal small manufacturers. There is no such thing.

In New York, which has just legalized cannabis, and has not yet issued licenses, they learned their lesson from what happened in Florida and California. They created a type of license that will allow a small grower to have up to 5000 square feet, about 1500 square meters, of cannabis canopy, and sell that cannabis directly to retail customers. That will generate a lot more small growers in New York, extending the opportunity more broadly than in Florida. That's the kind of detail that people interested in cannabis will have to get involved in as cannabis is regularized and this new industry is created.



CWJ: To give you a more local perspective, especially for our readers, we have many readers in Latin America and Colombia. As you said, you took a global approach when it came to publicizing the cannabis industry. However, you have a special interest in Colombia, why this country in particular, and what did you learn during your travels?

SDA: I have always had a special connection with Colombia, because from the beginning, a little bit of my personal history. I fell in love with the cannabis plant when I was 13 years old. I immediately became a cannabis activist and entrepreneur. I started selling to raise the money I needed to fund my activist work. The first cannabis that I got, that I really made a significant amount of money from, that I really loved, was Santa Marta Gold and Punta Roja from Colombia, during the Marimbera Bonanza. When I was already in the United States, a young man on the receiving end of La Bonanza Marimbera, I knew I would never forget the incredible cannabis I experienced in Colombia. I have not experienced anything similar before or since, I still remember it today. I have a special connection because I love that cannabis coming from Colombia, and it's a special connection because it helped me make the money I needed to start changing the laws and get our movement going in the United States. So for years I was waiting for the opportunity to visit. I was very happy when it finally happened in 2019.

CWJ: We have a lot of incredible strains that are native. I know that one of your main efforts is to convert "legacy to legal" and Colombia is a perfect example of a country with this kind of history. Do you see it being implemented in this country?

SDA: No. It is really tragic what I see happening in Colombia. In Colombia the policy

of cannabis is entangled in the politics of land, money and power that the country has been fighting against for years. Unfortunately, from my perspective, what is happening in Colombia is that the elites who have run Colombia for decades have taken over most of the legal cannabis industry. They have created a quintessential neo-colonialist economy, where they just produce raw materials and ship them to Europe to turn them into value-added products. Meanwhile, there are people living in conflict zones, who should start participating in the legal industry, but they are denied a license because they are indigenous, because they were in conflict zones. In my opinion, this is completely contrary to the way the peace agreements were supposed to work. The idea was to welcome people from conflict zones into the legal industry and allow them to grow legally, so that they would not have to arm and battle each other. This government policy of distributing industry among the elites in the cities and leaving nothing for the people in the countryside is more of the same and it is discouraging, because I like Colombia very much. But, until the people at the top of the pyramid in Colombia learn to share and love, it will be a real problem.

CWJ: Regarding the relationship between Colombia and the U.S. Do you think there is a future in the exchange of cultural training, business lessons, export or import opportunities. We are growing as an industry, while the United States is already established, do you think there is a possibility of a relationship and exchange between the United States and Colombia in the future within the framework of the cannabis industry?

SDA: Yes, but Colombians have to think carefully about how they want to structure this exchange. Otherwise, they will fall into the neo-colonialist paradigm, which uses

Colombia as a source of raw materials and is actually denied its share of the money coming from that relationship. My wish for Colombia is that instead of seeking to form alliances with American companies, and become their appendage, **Colombia must create a broader cannabis industry with the capacity for many different farmers, many different brands, many different types of products to participate.** I think Colombia already has a great global brand and has a great history with cannabis. It has such a great cannabis and cannabis culture that it should be Colombian products and brands that should occupy the market. Colombian weed should not be used as an input for U.S. brands. I think there is a chance it could happen, **but only if Colombia makes it happen, the Americans won't do it.**



CWJ: I agree completely. It's a shame that when you review the latest laws, they state that at least 10% of cannabis must come from small producers. That's very little when you consider how many people could benefit from the industry. However, we seem to be overrun by Canadian companies taking their piece of

the pie and leaving out who have been using the plant for many years. There is a long way to go.

SDA: The way I see that, is that 90% of the legal cannabis industry has been reserved exclusively for large, highly capitalized corporations. That is outrageous. I don't think that's the way cannabis legalization was sold to the Colombian people. I think the Colombian people accepted cannabis legalization because they saw it as a path to peace. Ten percent is not a path to peace, it is a path to the continuity of the conflict.

CWJ: That is a story that is repeated in most countries. Cannabis legalization has been very controversial, and often tends to negatively impact minorities, as it does in Colombia. The same thing happened in the United States with certain laws that are very strict with minorities and small businesses and growers trying to get ahead. You supported the "last prisoner" project. Currently, one of the proposed federal bills is the elimination of criminal records for non-violent cannabis-related offenses. Do you think this will be a reality in 2022? What is your opinion on this?

SDA: We have made great strides in expunging criminal records. New York State, when it legalized cannabis, included an automatic expungement provision. We have seen expungement at the state level in many different states. So far, we have not seen expungement at the federal level. This is outrageous because our current president, President Biden, repeatedly during the presidential campaign, said that he does not believe that anyone should be in jail because of cannabis.

However, Today, in the United States of America, there are 40,000 people still in jail on cannabis-related charges, and many of them could be released immediately. But, unfortunately, the current administration is not acting on it. I think in the United States, over the next two and a half years, or three years, until we have a new president, most of the progress is going to happen at the state level. I don't hold out much hope for progress at the federal level in the United States as long as Joe Biden is president, because to put it very simply, Joe Biden really hates cannabis.

CWJ: Changing the subject, one of the most beautiful works you have done is the Arcview Group. Could you explain to our readers the process of creation and development of this project?

SDA: The Arcview Group was launched in 2010. That was four years after we started Harper's Site Dispensary Group, which was very successful and had a lot of media attention. We were one of the first six licensed cannabis businesses in the United States. As we generated more attention, with newspaper and television articles, two groups of people started contacting me: One was people who wanted to start cannabis businesses or had cannabis businesses, but needed to find investment money. The second group were people who had money, who wanted to invest in the cannabis industry, but didn't know how to find the deals, how to assess the risks, how to make it happen. So it was really clear that there was a need to create a place, a space, where these two groups of people could meet and get to know each other. It's been a very interesting process. Since then, Arcview has become one of the top ten angel investor networks in the United States, with nearly \$300 million invested in more than 200 different companies. Relatively small amounts

of money to a lot of early-stage companies, what I like most about ArcView is that we've always offered companies a way to meet investors without having to spend a lot of money on it. There has always been, at ArcView, a peer review process so that even companies that don't have money are able to capture sponsorship to present to investors.

CWJ: Now, you must be proud of your creation, Harborside. Could you tell us the factors and the elements for its great success? This is something that we always ask our interviewees, their special ingredient. What would be your factor? The factor of success for the Harborside?

SDA: Well, I think what made Harborside successful is that we always tried to listen to the lessons the cannabis plant teaches us and to take those lessons seriously, and implement them into our business model. So, you know, one of the things that this plant teaches us is to be kinder, to be generous, and caring about the people who are around us. And, so from the beginning of Harborside, we always understood the surrounding community that we were a part of, as part of our stakeholder group. And, so when they first moved into our building at Harborside, there was a lot of crime in the neighborhood. There was a lot of garbage that was on the streets. There was a lot of gun violence that was happening. There were schools that didn't have enough money to really properly educate their students. And, we started working to solve all of those problems. We, you know, sent crews of employees and volunteers out to help pick up garbage along the streets. We had our security guys not just patrol Harborside, but also patrol the neighborhood so that crime went down. We donated money to buy guns off of the street in gun buyback programs.

We opened a free holistic care clinic where we provided free yoga and other holistic therapies to people from the neighborhood. So we took that lesson and it ended up being very, very, valuable for us because it wasn't too many years later that the federal government came to Oakland and tried to close Harborside down and took some very serious legal actions against us. But, because we had been kind to the community because we understand that the community is one of our key stakeholders, the city of Oakland filed legal action against the federal government in order to stop the federal government from shutting us down, and that's one of the reasons that we were able to survive.

CWJ: Now you've said before in regards to the Colombian perspective of it that it's not something that's going to move forward very fast unless the Colombian government decides to, let's say, share a piece of the cake. Now we are expanding the education in Latin America about the medical benefits of cannabis and everything that has to do with a more technical type of growing of cannabis. Do you think education will be a vital part of getting the Latin American Industry to grow? Or would it be just politics?

SDA: I think that education is important. Of course, it's important, but at the end of the day, what's going to determine the shape of the industry and how equitable it is, how sustainable it is, how inclusive it is, are the regulations that are going to be written, that structure that industry. But activism too, engagement, understanding it's not enough to just understand the plant and how the plant works and what an amazing plant it is. It's also necessary for those of us who care about cannabis plants to understand the regulation, the different types of regulation, and the different regulatory approaches. For us to think very, very carefully about what we want to see this industry become and the best type of

regulation to make sure it gets there. If we want an industry that grows cannabis sustainably, we can have one. But we're going to have to have regulations that demand it. Otherwise, it won't happen. You know, we want an industry that spreads prosperity and opportunity more widely rather than concentrating wealth more narrowly. We can have that, **but only if we demand it, only if we come together.** Because of the standard story, the powers that be the way things always operate, it's not going to come from that. It's only going to come from us engaging in this regulatory process with the same kind of passion and the same kind of determination that we have to do to make cannabis legal in the first place.

CWJ: I completely agree. Now 80 percent of the market still goes to the black market. How do you think we can change this in the future? How do we get that number down to incentivize people to go the legal route instead of the dealer on the block?

SDA: So what we've learned is something very interesting in the course of the last few years. If you do not invite the legacy cannabis community, the people who have been carrying this plant through the dark years of prohibition into the legal industry and you try to bring a corporate industry on top of that legacy market without including it, you end up with a complete disaster like my home state of California, where the legacy market is four times the size of the legal market. And the reason is really simple. When regulators started regulating cannabis in California, their attitude was "we are going to eliminate the black market". "We are going to root out the underground market", and they created a series of requirements for licensing to get legal licenses that made it impossible for people who were in the legacy community to participate in the legal market. They were

just too expensive. They were too difficult. There were too many regulations that you had to comply with regulations that didn't make any sense that was not necessary for California.

Cannabis, a natural feeling plant that never killed anybody, is regulated more heavily than radioactive nuclear waste is.

At the same time, they put outrageous taxes on cannabis. And if you go into a legal dispensary in California, the price of the cannabis is going to be 50 to 100 percent more than it would be if you bought it from a guy who was standing out on the corner on the street. So it's a very predictable result. And the reason is that they didn't welcome the legacy market. This is happening in Colombia today, and the result will be exactly the same if you do not invite the legacy market into the legal market, the legacy market will stay and keep doing what it's been doing for the past 50 years. And because it doesn't pay taxes and it doesn't have onerous regulations to comply with, it will outcompete the legal market.

CWJ: There is currently a very huge opioid epidemic going on, and it has caused thousands of deaths within the United States. Do you think the opioid crisis and the additional benefits of cannabis will help in the change of the legislation and the public view towards this plant?

SDA: I think that the connection between cannabis and a reduction in opioids is not very well known. There's actually a lot of very, very solid science that shows that when people have access to legal cannabis and affordable cannabis, that the rate of opiate consumption and the rate of opiate prescriptions, the rate of opioid overdoses, the rate of opiate addiction all drop quite significantly. But this science is not it's not very well known. It's not very well-publicized. And I think that that's really something that should change because I think a lot of lives could be saved. Unfortunately, in

the few places where people have really tried to introduce cannabis as a therapy for narcotics addiction, there's been a lot of pushback, even though many people within the addiction recovery community clandestinely use cannabis and understand that it's a helpful substance within the recovery community itself. It's kind of a taboo subject. Not many people are willing to talk about it. So I think there's a lot of work that is yet to be done publicizing the beneficial effects of cannabis relative to opiate addiction and opioids.

CWJ: We want to know, considering all your great journey, innovation and challenge now, what projects or surprises do you have in store for 2022?

SDA: Well, you know, my main quest for 2022 is focusing on making sure that here in the state of New York that legalization is put into place, that the incredible legacy operators in New York have a place in that system. **And my goal is to make New York a model and then to take that model out to other places around the world.** I think that this is the most critical thing that's happening in the world of cannabis today, and it's where I really hope to be. So I don't know if that's really going to be a surprise to anybody. You know, given my history and what I've focused on. But that's the mission that I'll be making my main mission. But I continue to be very interested in cannabis media and cannabis media projects and storytelling.

CWJ: I'm sure, we will very much enjoy everything that you have to offer. Now as some final words, do you have any words for our readers, which are new entrepreneurs looking for information and guidance within this brand new industry?

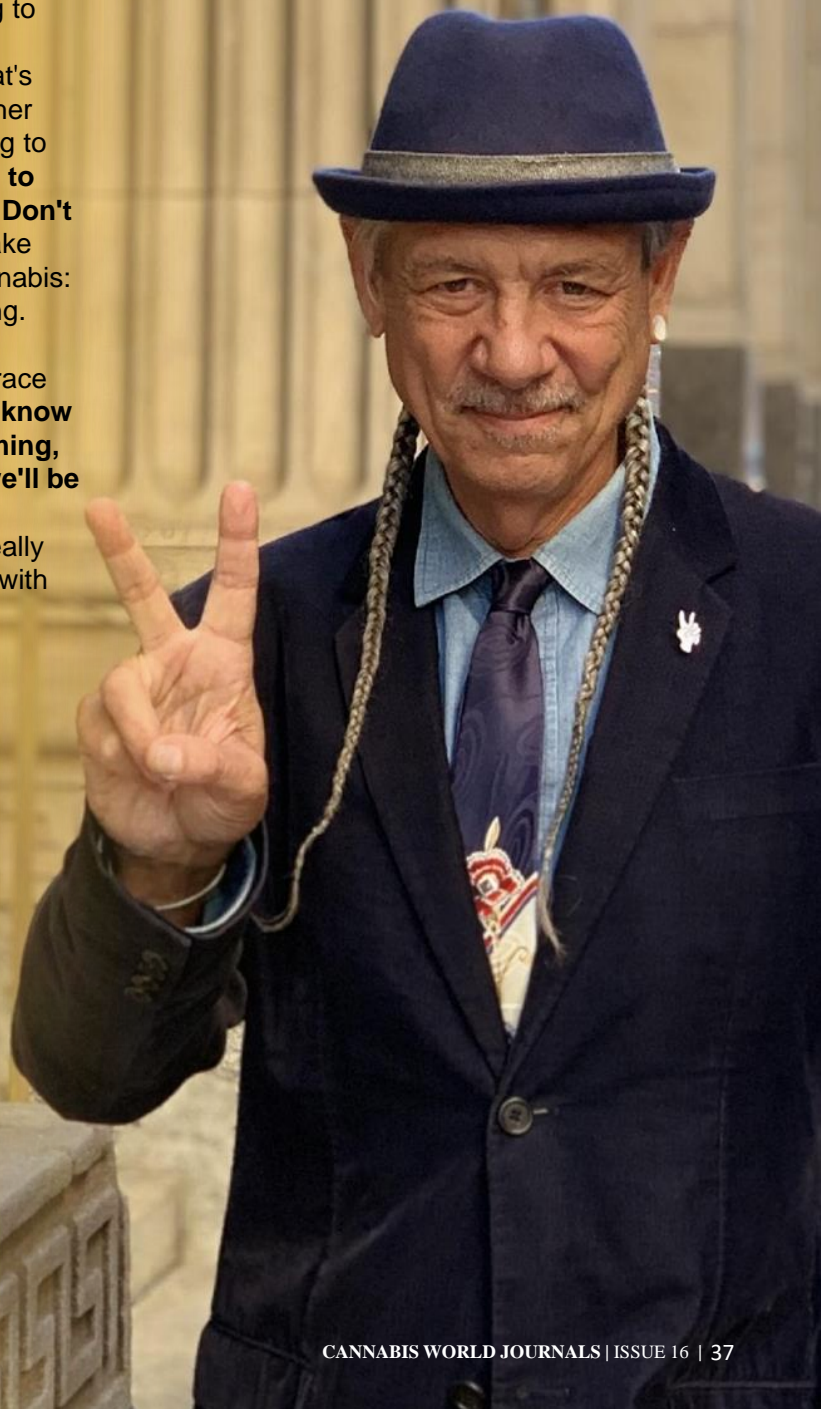
SDA: Well, I think that you are all incredibly lucky to be here at this time in this place, to

have the opportunity to work with this plant because I am absolutely convinced that over the course of the next 20 or 30 or 40 years, what we're going to see is a continuing process of embracing the plant, a continuing process of the plant being used as a replacement raw material for more and more products, for it really assuming a major role and in medicine. I think that we are going to see a spiritual revolution. We're already beginning to see a spiritual revolution that's connected to the use of cannabis and other visionary plants, and that process is going to continue. **So, my advice is to get ready to take your place in the sun. Think big? Don't think small.** Remember that you can make almost anything on this planet out of cannabis: paper, plastic, fuel, food, housing, clothing. There's probably no limit except for our imaginations. And so, think big and embrace this future. **Be bold. Don't be timid and know that you're part of a process of reclaiming, that has started some time ago, and we'll be going on moving into the future.** The success of that, the future of our world really depends on that process. So embrace it with all the energy that you have.

CWJ: Thank you very much.
It's been an amazing pleasure to have you.

SDA: Well, thank you so much.
It's been delightful to spend some time with you as well, and I look forward to the next occasion of meeting up in Bogota.

Note: This is an edited interview, to see the full version please check out our youtube channel Cannabis World Journals.



Cannabis in the Stock Market:

Investing in a Volatile Industry.

Cannabis stocks are extremely volatile and this volatility is not only present on a day-to-day or week-to-week basis but is also present over the long term.

The last two years have seen a dramatic change in the legal landscape of cannabis use worldwide. More states in the U.S. are legalizing the use of the plant. Uruguay and Canada legalized adult-use and in Central America, Mexico is in the process of legalization and regulation. This has caused the cannabis industry to gain attention from investors during 2021.

Investors usually choose to invest in local businesses. However, despite the popularity of this industry and its increasing legalization, there are still reasons why investors have to be very cautious about it. A clear example of this is the decline in cannabis stocks earlier this year. The North American Marijuana Index stood at 865 points at the end of October this year, a value similar to what it reached at the lows of 2019.

Cannabis stocks are extremely volatile, this volatility is not only present on a day-to-day or week-to-week basis but is also present over the long term. Cannabis is a very young industry and those starting to invest in the industry with the intention of quick investment returns may be disappointed. Many people familiar with the industry consider it a generational investment opportunity, comparing it to the alcohol industry when prohibition ended in the United States.

How do you know if a company has volatile stocks? The metric "beta" measures the volatility of a stock relative to the market over a defined period. For example, a beta of 1 means a stock with volatility similar to the S&P 500

(Standard & Poor's 500 Index), one of the most representative indexes of the real market situation. Meanwhile, betas of 0.5 and 2 imply companies with half the volatility and double the volatility, respectively, compared to the S&P 500.

Cannabis stocks are incredibly volatile; therefore, investments demand great

caution. While there are many variables to consider when investing in the cannabis industry, many investors also see tremendous opportunities in it. Whether the rewards outweigh the risks is one of the questions that will be answered in hindsight.

While there are many variables to consider when investing in the cannabis industry, many investors also see huge investment opportunities.

Cannabis for Athletes Can Move \$160 Billion a Year in Brazil.

The study initially surveyed the 24 most practiced sports in Brazil, among which are: soccer, dance, tennis, basketball, surfing, skateboarding, capoeira, judo, jiu-jitsu, rugby, among others.

Brazil undoubtedly has a lot of potential benefits to the country's economy through cannabis and its use in sports. The Brazilian company Kaya Mind, conducted a study on how the cannabis market in sports would behave in Brazil in the hypothetical case that there were advances in its legalization and more acceptance of its therapeutic benefits.

The study initially surveyed the 24 most practiced sports in Brazil, among which are: soccer, dance, tennis, basketball, surfing, skateboarding, capoeira, judo, jiu-jitsu, rugby, among others; then, it established the number of practitioners of each modality in ages between 14 and 75 years, which were divided into groups by type of activity; professional, amateur and occasional considering relevant factors to determine the number of athletes who would use cannabis, distributing them as follows:

- 61,000 professional athletes would use cannabis to treat therapeutic needs caused by the high performance required.
- 427,000 would be amateur athletes.
- 339,000 occasional athletes.

The athletes' possible dose was analyzed according to certain variables, including its therapeutic properties and frequency of use. It was possible to conclude, with this data, the cannabis extracts quantities consumed per year estimating a total of 2.4 tons, distributed as follows:

- 344.3 kg per year among professional athletes.
- 1.7 tons per year among amateur athletes.
- 423.4 kg per year among occasional athletes.

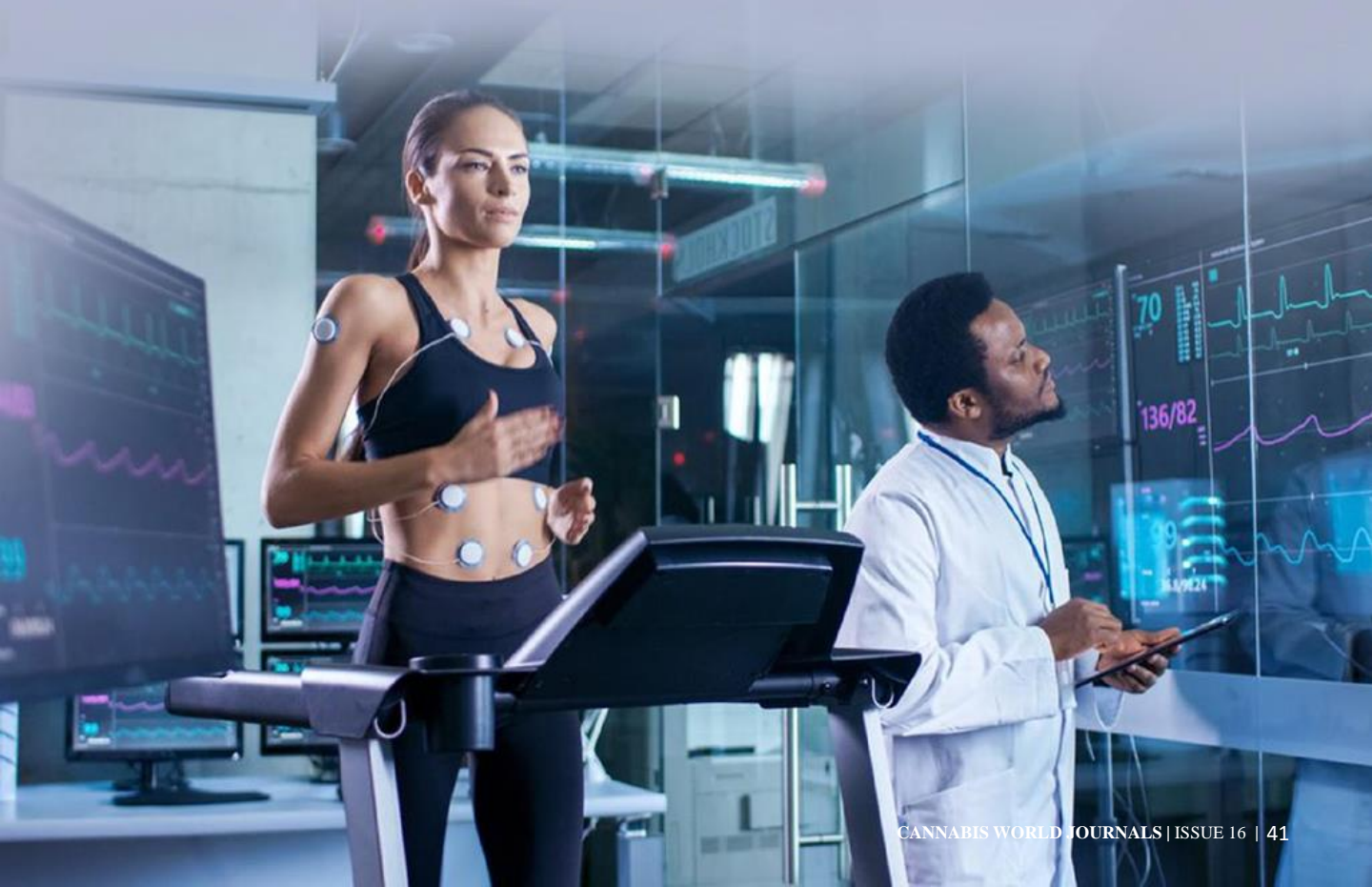
Finally, the calculated price per milligram is based on the products represented by some icons of the sports world detected by the study and based on the prices of products currently authorized by ANVISA (National

Health Surveillance Agency) for use in sports. Finally, estimating the approximate price per milligram at \$0.1.

Thus, concluding that the total consumption of milligrams per year and the average price calculated in the study is approximately \$160 billion, corresponding to 1.7 million cannabis-derived products consumed in 1 year in Brazil.

Based on the above, the cannabis industry in sports could benefit Brazil's economy since the current tax corresponding to any imported medicine is 33%, equivalent to more than \$52 billion.

Information taken from: Riscalca, M. E., & Cardoso, T. (Eds). (2021). *Cannabis e esportes. o uso terapêutico da cannabis no esporte e seus impacto econômicos no Brasil*. Kaya- Mind. https://kayamind.com/wp-content/uploads/2021/12/Kaya-Mind-Relatorio-Cannabis-e-Esportes-2021.pdf?utm_campaign=envio_download_-_cannabis_e_esportes&utm_medium=email&utm_source=R D+Station



A Versatile Business: Low-dose Cannabis



Cannabis microdosing is the perfect alternative for users seeking the effects of a particular cannabis strain.

Companies such as Canopy Growth, Aurora Cannabis, PLUS Products, Coda Signature, and many more have chosen to integrate micro-dosed products into their catalog.

A medical and recreational alternative for consuming cannabis is to use micro-doses or low doses of cannabis, and cannabis brands have taken advantage of this distribution method that has gradually gained acceptance and popularity in the consumer community.

What is "Microdosing"?

It is the administration of very low doses of cannabis, causing controlled and mild effects. Apart from its medicinal benefits,

cannabis microdoses are the perfect alternative for users seeking the effects of a particular cannabis strain without losing the usual rhythm of their daily activities, obtaining controllable benefits. In addition, many users prefer to use low doses, referring to a better and more controlled experience.

Opportunities in the Industry

Because cannabis is a market that day in and day out is looking for the best way to reach its audience, it has had to find ways to make cannabis-friendly every day without the need to disrupt users' routines.

Microdosing is more common than you imagine. Coincidentally, during the holidays, it can help those users who get benefits from cannabis use to not give it up during gatherings with friends and family. Also,

microdosing a product can work as a gift for different occasions because there is a broad spectrum, from cannabis drinks or edibles to vaporizers or oil.

Companies like Canopy Growth, Aurora Cannabis, PLUS Products, Coda Signature, and many more have chosen to integrate microdose products into their catalog. In 2018, BDSA (a firm that monitors the cannabis market) reported that sales of low-dose cannabis products outpaced sales of other cannabis products in the state of California.

Microdosing shows how the cannabis market has sought solutions and alternatives to respond to regulations regionally while meeting the needs of a varied public.

What Is the SAFE Banking Act, and How Does It Impact the Cannabis Industry?

At the federal level, cannabis is still considered a Schedule I controlled substance under the Drug Abuse Prevention and Control Act.

The main purpose of this law is to protect banks and financial institutions interested in servicing cannabis-related businesses.

The impact of this Bill, when passed, will change the way banks work with cannabis businesses, how they interact and do business, directly or indirectly.

Nowadays, doing business or starting a business in the cannabis industry can be very lucrative. But, it can also become quite dangerous.

Cannabis is still considered a Schedule I controlled substance under the federal Drug Abuse Prevention and Control Act, and it has serious consequences for the entire U.S. banking system. Because banks that engage in financing or open bank accounts for dispensaries, farms, etc., can face penalties from federal regulators even if these businesses comply with all legal requirements.

This is why those who decide to enter the cannabis world must learn to operate in a "cash only" model, without access to financing, investors, bank accounts, checkbooks, credit or debit cards. Turning this kind of business into a "high risk business" at a financial level.

One of the strongest supporters of the SAFE Banking Act that has gained so much attention lately, Senator Merkley believes that "forcing legal businesses to operate only with cash is dangerous to our communities. Operating in cash is an invitation to theft, money laundering, and organized crime. It is a public safety issue..."

This model may create difficulties at every level, from local to Federal, impacting tax collection in an industry that currently contributes \$1 billion annually to the Treasury.

The SAFE Banking Act has a high degree of bipartisan support in the House of Representatives and Congress.

The primary goal of this bill is to protect banks and financial institutions interested in serving cannabis-related businesses.

With the bill, these institutions would not be at the mercy of regulatory agency actions like prohibiting or limiting their banking activities if they provide services to completely legal businesses such as dispensaries, farms, producers of cannabis derivatives, and cannabis products. Banks would also not be subject to penalties or legal action against them for offering financing, investment, or even asset management avenues to these types of businesses.

This bill is a bridge between the legal status of those businesses operating in cannabis-regulated states and the consumption of the plant at the federal level. In this way, safe environments are generated for this type of business to develop without fear of bank accounts being closed without valid reasons or based on reputational risk.

This bill's approval can have an immediate impact. Aaron Smith, co-founder and executive director of the National Cannabis Industry Association, points out: "it will improve the lives of the more than 300,000 people working in the legal cannabis industry in the state. It will also help level the playing field for small businesses and communities with limited access to capital."

The impact of this bill, upon passage, will create a shift in how banks work with cannabis businesses, how they interact and do business,



directly or indirectly, acting as the carriers or brokers associated with supporting cannabis markets.

The SAFE Banking Act will be the way for cannabis-related companies and financial institutions to grow their businesses with greater financial support. That is why the bill currently is backed by institutions such as The American Bankers Association, a group representing the U.S. banking industry, and banks including Wells Fargo, HSBC North America, Keybank, M&T Corporation, PayPal, Prudential, and Nationwide.

Even at the local government level, this bill has the backing of several governors who want to address what has become a

public safety issue. In one year period, Oregon dispensaries suffered 135 assaults and armed robberies. With nearly \$18 billion in legal cannabis sales per year in the United States, with projections of exponential growth, the public safety problem will also continue to grow. This bill may very well provide a solution to this serious problem.

This bill was to be discussed by Congress as part of the National Defense Authorization Act (NDAA). However, it did not get enough support in negotiations by the committee assigned by the House of Representatives and was eliminated. In 2022, the proposal will be resubmitted for a new discussion and finally be subjected to a congressional vote.

Cannabinoids or Medical Cannabis for Chronic Pain: A Clinical Practice Guideline

Article analysis of: Busse J W, Vankrunkelsven P, Zeng L, Heen A F, Merglen A, Campbell F, Granan LP, Aertgeerts B, Buchbinder R, Coen M, Juurlink D, Samer C, Siemieniuk RAC, Kumar N, Cooper L, Brown J, Lytvyn L, Zeraatkar D, Wang L, Guyatt GH, Vandvik PO, Agoritsas T. (2021). Medical cannabis or cannabinoids for chronic pain: a clinical practice guideline *British Medical Journal*, 374, n2040. <https://doi.org/10.1136/bmj.n2040>

Among the alternatives for chronic pain relief, using cannabis and its derivatives is increasing.

The expert panel on clinical guidelines has issued some recommendations for using cannabis or cannabinoids appropriately.

Currently, dosing when using cannabis or its derivatives continues to be individualized.

Chronic pain is a very common condition. It is a manifestation persisting in the patient for more than three months and affects any part of the body according to its origin. This issue is of concern and is associated with a considerable socioeconomic burden worldwide.

There are many traditional treatments to alleviate it. However, often, they are accompanied by significant adverse effects coupled with the consequences ranging from addiction to depression (and other factors that are diminishing the quality of life of the sufferer and their environment).

Among the alternatives for chronic pain relief, using cannabis and its derivatives is increasing in jurisdictions that have enacted policies to reduce opioid use; however, recommendations for cannabis use have not yet been standardized.

The expert panel on clinical guidelines has issued some recommendations for appropriate use of cannabis or cannabinoids (through methods of administration that do not include combustion of the flower) and standard care and management for people living with cancer or chronic pain unrelated to this disease.





This group of experts included patients, physicians, and methodologists who elaborate the recommendations based on reliable guidelines using the GRADE (Grading of Recommendations Assessment, Development, and Evaluation) approach with the methodological support of the MAGIC Evidence Ecosystem Foundation and the perspective of the application of personalized methods.

The recommendations are based on four systematic reviews summarizing the evidence on the benefits and effects of cannabis and its derivatives, as well as patient concentrations and preferences. There is a high value on the small improvements reported in pain intensity, physical functioning, and sleep quality. It required shared decision-making to ensure that patients decide what reflects their values and experience.

In this research, the panel identified eight relevant factors to consider: (1) pain relief, (2) physical functioning, (3) emotional functioning, (4) role functioning, (5) social functioning, (6) sleep quality, (7) opioid substitution, and (8) adverse events.

When considering adverse events across trials, symptoms like cognitive impairment, vomiting, attention problems, drowsiness, dizziness, nausea, and diarrhea were the priority.

One of the conclusions is the need to customize dosing through titration methods by starting treatment with the lowest therapeutic dose as it has been done until now. For example, daily oral doses of commercially available cannabinoid-based drugs vary from: 2.5 mg to 40 mg in the case of dronabinol; from 0.2 mg to 6 mg/day if it is nabilone; from 1 to 16 oral sprays in the case of nabiximols (dronabinol/cannabidiol); and from 5 to 20 mg/kg/day for Epidiolex (oil-based cannabis extract containing 98% CBD). The maximum dosage limits may vary according to the country where it is distributed.

The bioavailability of oral cannabis or cannabinoid preparations ranges from 13% to 19% and can take up to four hours to reach peak concentrations in the body. Dronabinol, THC, and CBD are metabolized in the liver via cytochrome P450 (CYP) 2C9 and CYP3A, and urine eliminates approximately one-third of the molecules and metabolites. The elimination half-life of dronabinol ranges from 25-36 hours, and its major metabolite (11-hydroxy-delta-9-tetrahydrocannabinol) is 44-59 hours; the half-life of CBD is 56-61 hours. The effects of medical cannabis or cannabinoids may increase in patients with renal or hepatic insufficiency.

To get as close to certainty in this research as possible, key questions and guidelines regarding the appropriate use of medical cannabis include:

- Are there systematic differences in the treatment effects of cannabis or cannabinoids when treating chronic cancer pain versus chronic noncancer pain? For nociceptive versus neuropathic versus nondissociative pain?
- Are there systematic differences in treatment effects for different formulations and types of medical cannabis or cannabinoids, including CBD, CBD: THC, THC?
- Do medical cannabis or cannabinoids reduce opioid use for chronic pain?
- Are the effects of medical cannabis or cannabinoids consistent among adolescents and young adults with chronic pain?

- What are the optimal dose, formulation, and method of administration of cannabis or cannabinoids for chronic pain relief?
- What are the benefits and adverse effects of cannabis administered via inhalation?
- What are the benefits and adverse effects of long-term use of medical cannabis or cannabinoids?

Currently, dosing when using cannabis or its derivatives continues to be individualized; however, the panel focused on making recommendations from people living with chronic pain's perspective rather than other individuals in society. The legal availability and costs of cannabis medicine will likely influence decision-making for appropriate use in treating chronic pain generated by cancer or noncancer causes.



Advances in the Use of Cannabidiol in the Treatment of Canine Atopic Dermatitis.

Several human and animal studies have demonstrated the low toxicity and high efficiency of nutraceuticals in the prevention and treatment of atopic dermatitis.



In the development of atopic dermatitis, the results indicate an important advance for the *in vitro* titration of plant compounds and active principles.

Canine Atopic Dermatitis (CAD) is classified as a multifactorial allergic disease that affects about 27% of dogs and is associated with a dysfunction of the immune and an abnormal skin barrier, which is considered one of the causes of itching in these animals. Currently, new therapies are being developed with substances of natural origin, due to the high costs of drugs available in the market and the adverse effects of pharmacological treatments.

Several human and animal studies have demonstrated the low toxicity and high

efficiency of nutraceuticals in the prevention and treatment of atopic dermatitis. Epigenetic modulations are important in the progression of the disease, dietary supplements help to delay and ameliorate the disease by reducing the excessive inflammatory response.

In a study by Massimini, and co-workers, DAC was evaluated *in vitro* using nutraceutical mixtures of cannabidiol (10 μ M); Piceatannol and Luteolin (10, 25, 50, and 100 μ M) at 4 and 8 hours; in order to establish its effect on the expression of Th1/Th2 genes that regulate the inflammatory process According to the role of



the Th1/Th2 inflammatory response in the development of atopic dermatitis, the results indicate an important advance for the in vitro evaluation of compounds and active principles; the CCL2 and CCL17 markers (proteins that act in the immunoregulatory and inflammatory processes) were shown to be highly overexpressed, generating a reduction in the inflammation caused by this pathology.

Other markers analyzed, such as TSLP, IL-4, and IL-31 showed that there was an improvement in symptoms by reducing itching. It has been reported in the literature that both in humans and animals functional nutrition helps to regulate the inflammatory process

Finally, epigenetic modulation is involved in the maintenance, induction, heterogeneity, and memory T-cell response in Th1- and Th2-linked immunity, which allows the regulation of inflammation with the use of nutraceuticals such as cannabidiol, suggesting that this compound is quite promising for the treatment of this disease.

References and Bibliography: Massimini, M., Dalle Vedove, E., Bachetti, B., Di Piero, F., Ribecco, C., D'Addario, C., & Pucci, M. (2021). **Polyphenols and Cannabidiol Modulate Transcriptional Regulation of Th1/Th2 Inflammatory Genes Related to Canine Atopic Dermatitis.** *Frontiers in Veterinary Science*, 8, 606197. <https://doi.org/10.3389/fvets.2021.606197>



Cannabis “Up Close”

Myrcene

Cannabis among its many components has a group of molecules of great medicinal interest that is not exclusive to the species but provides unique organoleptic characteristics to the plant: terpenes. One of the most abundant terpenes in the market is myrcene, this molecule provides the aroma and other properties to various types of plants such as basil, mango, cardamom, hops, thyme, cannabis and more.

Myrcene is a primary component of multiple essential oils that are used for various purposes ranging from therapeutic use as a relaxant, analgesic, anxiolytic, anti-inflammatory and sedative, to its use in the manufacture of perfumery and culinary products. The aroma of myrcene is fruity, citric, earthy and in high concentrations can

become pungent, in some cases similar to that of cloves used for culinary purposes.

In the case of cannabis, this terpene, when present, helps to synergize activities with other molecules and to modulate their effects, carrying out together the so-called "entourage" effect. It is known that this happens through different pathways, and one of the most interesting is the permeabilization of cell membranes causing an increase in the transport of cannabinoids within the organism when they are metabolized. Myrcene with its multiple properties is a molecule that provides great benefits that should be taken into account when choosing the strain of medical cannabis for the desired purpose.

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Featured Article

An Overview of Cannabis in 2021

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2021 was a landmark year for the medical cannabis industry worldwide. Numerous nations and transnational entities have taken the task of advancing their legislative agendas in order to legalize and develop the promising cannabis industry's economic, scientific, and agronomic aspects in all its modalities: medicinal, recreational, and hemp (as a multifunctional material).

Within the legal processes, the most common, at a global level, is the legalization of CBD extracts used as an uncontrolled medicine. However, there have also been bills on the recreational use of cannabis, controlled medicinal use, and the industrial development of hemp. After decades of prohibitionism and persecution of the plant, and its different uses, by governments and transnational entities, the institutional attitude that, in the long run, encouraged the consolidation of an informal and international criminal economy of drug trafficking that seriously affected humanity.

It generated border problems, exacerbated violence, addiction crisis due to the massive and informal sale of narcotics, capital flight, corruption, weakening of states, and human rights violations. Problems that will not find

an end with the legalization of cannabis in its different instances, but that, as we have seen, can be decimated through it.

Throughout the year 2021, it was noticeable that increasingly more nations made concessions around the legalization of cannabis and its derivatives. Promoting an interesting global agenda in favor of the formalization of the diversified cannabis industry. Throughout the year, large companies that were skeptical are getting stronger, and new ventures appeared, generating an attractive economic sector that revolves around developing cannabis' different potentialities. A growth motivated by the common good and the emergence of new economic actors with much to offer nationally and globally. An economic niche characterized by emerging economies, the cannabis industry has become a considerable subject of projections, investments, and potential GDP growth.

research development to explore and enhance the curative, palliative, and restorative properties of medical cannabis. Likewise, there has been a fascinating development in sustainability in the cosmetics and aesthetics

industry, which, taking advantage of the properties and potential of cannabis, have developed products free of animal cruelty, widely sustainable, and of excellent quality. The food industry has also made exciting contributions in designing sustainable food based on sprouts, oils, and hemp and cannabis seeds. On the other hand, cannabis has been presented as an urgent pharmacological alternative in the face of a global epidemic of opium derivatives consumption and addiction, casting a shadow over the social reality of many cities. And in these pandemic times, reigned by uncertainty, human and material losses, and isolation, the regulation, formalization, and controlled supply of CBD and THC have been a healthy incentive for the adult population. In that sense, the diversified cannabis industry has been an example of growth with social understanding, humanism, and environmental commitment throughout 2021.

The still-controversial issue of medical cannabis has been, little by little, winning the hearts of the most conservative civil population. That's because the ambassadors of this fight are remarkable beings, with moving stories of personal overcoming, who raise awareness to the world, from their personal experience, about the use of cannabis for therapeutic and medicinal purposes. They do it from a perspective focused on achieving a fuller and more balanced life and environment.

Among these notables, we can find world-class athletes who have compromised their careers by defending the therapeutic use of cannabis as a palliative treatment in competitions and high-impact training. Also, there are patients with diseases, such as fibromyalgia, previously made invisible by health systems, charismatic children diagnosed with epilepsy who have achieved wellness in their lives and their families by

using formulated medical cannabis. Even precious sick furries found relief from illness through the innovative use of medical cannabis in different presentations in veterinary medicine. Among others, people with eating disorders, cancer survivors and with sequelae of accidents, as well as people living with mental or chronic diseases to whom, in general, the use of medical cannabis, in different modalities and healing strategies, has improved their life quality in a sustained and transcendental way.

It has been primarily through social networks and alternative media that we have seen the unfolding of these stories of personal triumph by the different ambassadors of cannabis worldwide since the official media are still reluctant to talk about the subject and approach it with reservations. Artists, housewives, politicians, and the scientific community have also joined this movement to raise awareness of the multiple properties of cannabis in the pursuit of a more fulfilling lifestyle.

It has impacted the considerable increase of scientific and academic material on the subject, which is of great importance in consolidating the political, economic, educational, and communication agendas around cannabis. A considerable number of academic papers have been published over the last year, referring to research results concerning the various uses of cannabis, not only in the area of health but also in construction, nutrition, beauty, textiles, innovation, ecology, nutrition, sexuality, consumption, and economics. Within this wealth of scientific information, we find free documents on the web and others that have a price. However, this information, specific and complex, is accessible to a privileged and small population sector. This is the reason why there must be a collective effort to

socialize all these important discoveries, in a pedagogical and diffusive way so that they are available to all audiences of interest.

We consider that the medical cannabis industry is setting a new market standard. The private sector, in alliance with the governments, promoting a healthy formal economy with social justice is particularly relevant in 2021 for Latin America and the United States.

This year-end edition is dedicated to great

personalities who have contributed, from different fronts to the promotion and defense of cannabis as pioneers and promoters of the little awarded and recognized success that this sector has had. It also seeks to disseminate the latest advances in different issues related to cannabis and inform our readers of the latest geopolitical movements in the field.

We sincerely hope that this issue will be to your liking and personal enrichment.



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