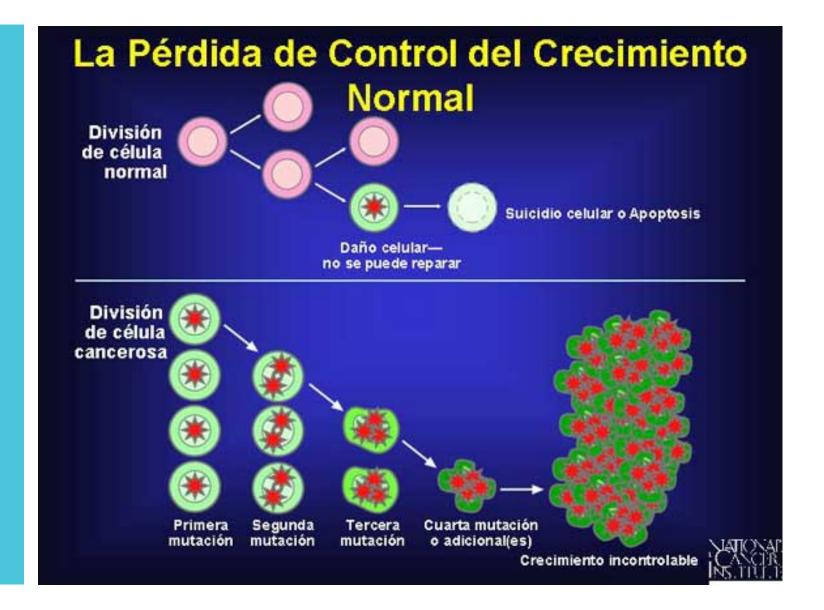
¿Puede el cannabis curar el cáncer?

Fernando Caudevilla

Médico de FamiliaSpannabis, 2014

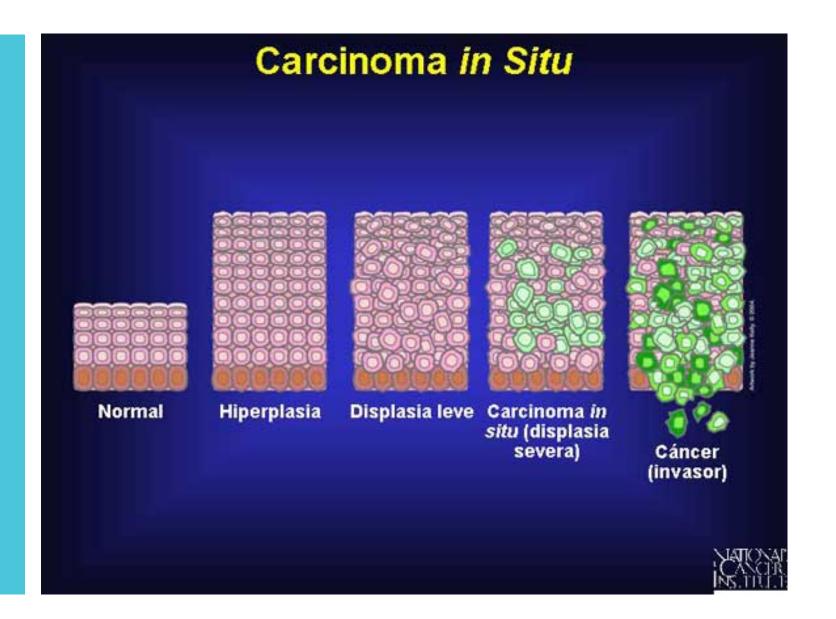
¿De qué vamos a hablar?

- · ¿Qué es el cáncer?
- Sistema Cannabinoide Endógeno, cannabis y cáncer
- El Cannabis en el manejo de los síntomas del cáncer
- El Cannabis en el tratamiento del cáncer









¿Cuáles son las causas del cáncer?





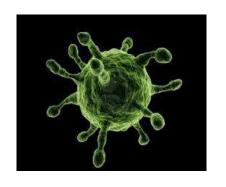








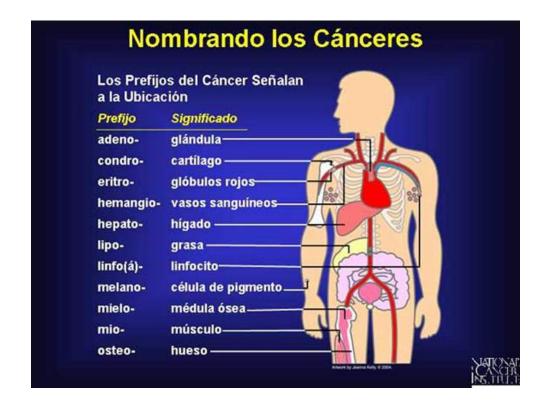






Tipos de cáncer

• Existen más de 150 tipos de tumores diferentes



Pronóstico y tratamiento

- El pronóstico depende del:
 - Estadio del tumor (TNM)
 - Tipo de tumor concreto
 - Características del paciente
- El tratamiento puede ser:
 - Cirugía
 - Quimioterapia
 - Radioterapia
 - Hormonoterapia
 - Vacunación

Pronóstico y tratamiento

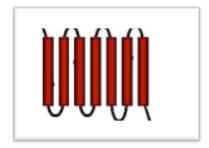
Supervivencia media a los 5 años				
<u>Cáncer de colon y recto</u>	53%			
<u>Cáncer de pulmón</u>	10%			
<u>Melanoma</u>	85%			
<u>Cáncer de mama</u>	79%			
<u>Cáncer de ovario</u>	34%			
<u>Cáncer de próstata</u>	74%			
Cáncer de testículo	96%			
Enfermedad de Hodgkin	80%			
<u>Cáncer de páncreas</u>	5%			



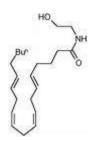
Cannabis y cáncer : Sistema Cannabinoide Endógeno

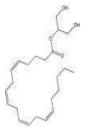
Receptores:

- CB1: Sistema nervioso central, corazón, testículo y retina
- CB2: Sistema inmune

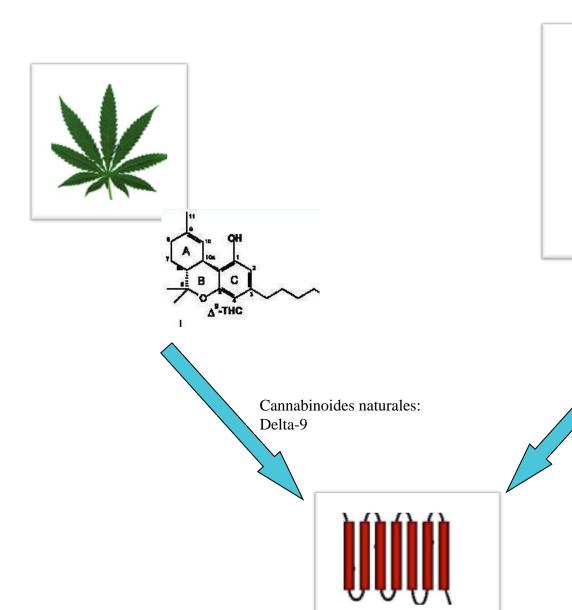


- Cannabinoides endógenos:
 - Anandamida (1992)
 - 2-araquidonil glicerol (1994)



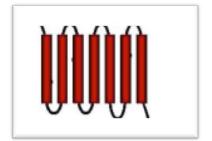


Cannabis y cáncer : Sistema Cannabinoide Endógeno



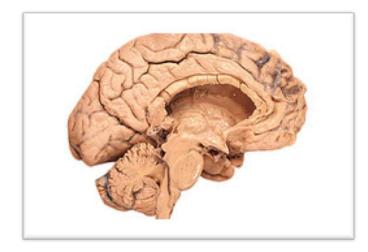
Cannabinoides endógenos: Anandamida 2-araquidonil

glicerol



Cannabis y cáncer : Sistema Cannabinoide Endógeno

CB1: Sistema nervioso central



Control del movimiento
Control de TA y FC
Percepción del dolor
Efectos psicoactivos
Efectos sobre centro del
vómito

CB2: Sistema inmunológico



Efectos inmunomoduladores

Uso del cannabis y cannabinoides en el tratamiento de los síntomas del cáncer

Uso del cannabis y cannabinoides en el tratamiento del cáncer como enfermedad

Uso del cannabis y cannabinoides en el tratamiento de los síntomas del cáncer

Dolor

Pérdida de apetito

Náuseas y vómitos provocados por la enfermedad

Náuseas y vómitos provocados por la quimioterapia

Cansancio

Pérdida de peso

Síntomas psicológicos

Uso del cannabis y cannabinoides en el tratamiento de los síntomas del cáncer

Dolor

Pérdida de apetito

Náuseas y vómitos provocados por la enfermedad

Náuseas y vómitos provocados por la quimioterapia

Cansancio

Pérdida de peso

Síntomas psicológicos

Existen SUFICIENTES PRUEBAS CIENTÍFICAS sobre la eficacia de los cannabinoides en el control de estos síntomas

- · El control de nauseas y vómitos asociados a quimioterapia está avalado por dos metaanálisis (Tramer et al, 2001; Machado Rocha et al, 2008) y ensayos clínicos comparando con nuevos fármacos.(Meiri et al, 2007)
- Potencia el efecto analgésico de los opiáceos.(Narang et al, 2007)
- Incremento de apetito y ganancia de peso(Gorter, 1999)
- Efectos positivos sobre el insomnio y el humor (Walsh, 2003)

Tramer MR, Carroll D, Campbell FA, Reynolds DJ, Moore RA et al Cannabinoids for control of chemotherapy induced nausea and vomiting: quantitative systematic review. BMJ. 2001 Jul 7;323(7303):16-21.

Machado Rocha FC, Stéfano SC, De Cássia Haiek R, Rosa Oliveira LM, Da Silveira DXTherapeutic use of Cannabis sativa on chemotherapy-induced nausea and vomiting among cancer

patients: systematic review and meta-analysis. Eur J Cancer Care (Engl). 2008;17:431-43.

Meiri E, Jhangiani H, Vredenburgh JJ, Barbato LM, Carter FJ, Yang HM et al. Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting. Curr Med Res Opin 2007;23(3):533-43.

Gorter RW. Cancer cachexia and cannabinoids. Forsch Komplementarmed. 1999 Oct;6 Suppl 3:21-2.

Walsh D, Nelson KA, Mahmoud FA. Established and potential therapeutic applications of cannabinoids in oncology. Support Care Cancer. 2003 Mar;11(3):137-43. E 2002

Uso del cannabis y cannabinoides en el tratamiento del cáncer como enfermedad



Sistema inmunológico



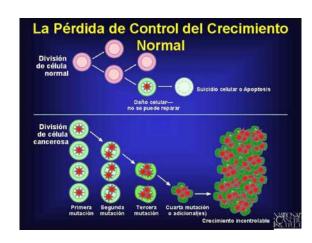


Table I A selection of cannabinoid receptor ligands and their specificities

Ligand	Source	Action	Specificity	Κ CB ₁ (nM)	K, CB ₂ (nM)
Δ'-THC	Plant-derived	Nonspecific agonist	CB, > CB,	5-80	3–75
Cannabidiol	Plant-derived	Low-to-no receptor affinity			
Anandamide (AEA)	Endogenous	Nonspecific agonist	CB _, »CB _a	61-543	279-1,940
2-arachidonoylglycerol (2-AG)	Endogenous	Nonspecific agonist	$CB_{i} > CB_{e}$	58-472	145-1,400
R-(+)-Met-anandamide	Synthetic	Nonspecific agonist	CB _, »CB _,	18-28	815-868
WIN-55,212-2	Synthetic	Nonspecific agonist	$CB_{i} = CB_{i}$	2-123	0.3-16
HU-210	Synthetic	Nonspecific agonist	$CB_{i} = CB_{i}$	0.06-0.7	0.2-0.52
JWH-133	Synthetic	Selective agonist	CB.	677	3.4
SR141716	Synthetic	Selective antagonist	CB,	1.8	514
SR144528	Synthetic	Selective antagonist	CB,	50-10,000	0.3-6

Notes: K, values are reported based on reported values for the in vitro displacement of [*H]CP 55,940 (CB,)- or [*H]HU 243 (CB,)-binding sites.

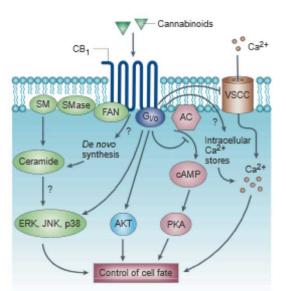


Figure 1 | Signalling pathways involved in the control of cell fate by cannabinoids. Cannabinoids exert their effects by binding to specific G-protein-coupled receptors. The cannabinoid receptor CB, signals several different cellular pathways. These include inhibition of the adenylyl cyclase (AC)-cyclic AMP-protein kinase A (PKA) pathway; modulation of

	Table 2	Tumours that are	sensitive	to cannabinoid-	induced	growth inhibition
--	---------	------------------	-----------	-----------------	---------	-------------------

Tumour type	Experimental system	Effect	Receptor	References
Lung carcinoma	In vivo (mouse); in vitro	Decreased tumour size; cell-growth inhibition	N.D.	29
Glioma	In vivo (mouse, rat); in vitro	Decreased tumour size; apoptosis	CB ₁ , CB ₂	50,51,53,85
Thyroid epithelioma	In vivo (mouse); in vitro	Decreased tumour size; cell-cycle arrest	CB,	60
Lymphoma/leukaemia	In vivo (mouse); in vitro	Decreased tumour size; apoptosis	CB ₂	96
Skin carcinoma	In vivo (mouse); in vitro	Decreased tumour size; apoptosis	CB ₁ , CB ₂	61
Uterus carcinoma	In vitro	Cell-growth inhibition	N.D.	97,98
Breast carcinoma	In vitro	Cell-cycle arrest	CB,	57-59
Prostate carcinoma	In vitro	Apoptosis	CB,?	54,59,99
Neuroblastoma	In vitro	Apoptosis	VR.	51,73



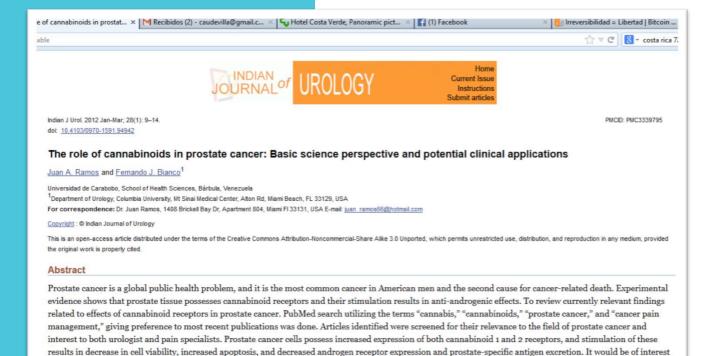


Figure 2: Effect of cannabinoids on apoptosis in hormone-insensitive prostate cancer cell line (DU-145) and hormone-sensitive prostate cancer cell line (LNCaP) **DU-145** 14000 12000 10000 SSSSS CBDVBDS 10 CBDVBDS 25 8000 CBDBDS 10 MININE CRORDS 25 6000 IIIIIII THOVABDS 10 THCVBDS 10 4000 MINIST THCVBDS 25 THCV 10 333333 THCV 25 2000 IIIIIIII THCVA 10 LNCaP 1,46+5 1,26+5 1,0e+5 CBDVBDS 10 SSSSSS CBDVBDS 25 CBDBDS 10 MININ CBDBDS 25 THCVABDS 10 THCVABDS 25 THCVBDS 10 THCVBDS 26 THCV 10 988888 THCV 25 2,0e+ SSSSS THCVA 10



<u>Display Settings:</u> ♥ Abstract

Br J Cancer. 2006 Jul 17;95(2):197-203. Epub 2006 Jun 27.

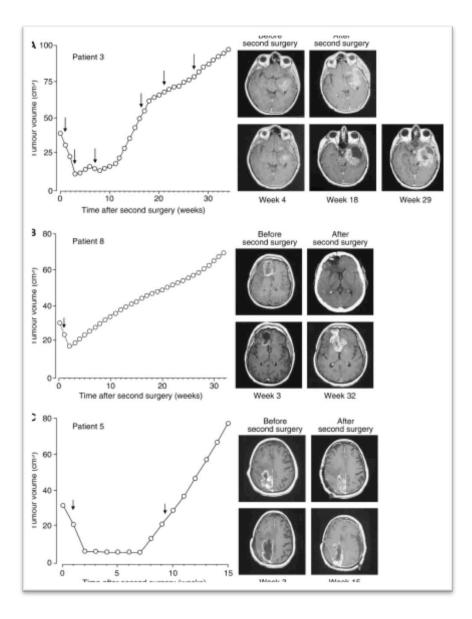
A pilot clinical study of Delta9-tetrahydrocannabinol in patients with recurrent glioblastoma multiforme.

Guzmán M, Duarte MJ, Blázquez C, Ravina J, Rosa MC, Galve-Roperh I, Sánchez C, Velasco G, González-Feria L.

Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Madrid 28040, Spain. mgp@bbm1.ucm.es

Abstract

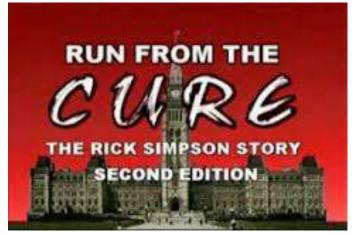
Delta(9)-Tetrahydrocannabinol (THC) and other cannabinoids inhibit tumour growth and angiogenesis in animal models, so their potential application as antitumoral drugs has been suggested. However, the antitumoral effect of cannabinoids has never been tested in humans. Here we report the first clinical study aimed at assessing cannabinoid antitumoral action, specifically a pilot phase I trial in which nine patients with recurrent glioblastoma multiforme were administered THC intratumoraly. The patients had previously failed standard therapy (surgery and radiotherapy) and had clear evidence of tumour progression. The primary end point of the study was to determine the safety of intracranial THC administration. We also evaluated THC action on the length of survival and various tumour-cell parameters. A dose escalation regimen for THC administration was assessed. Cannabinoid delivery was safe and could be achieved without overt psychoactive effects. Median survival of the cohort from the beginning of cannabinoid administration was 24 weeks (95% confidence interval: 15-33). Delta(9)-Tetrahydrocannabinol inhibited tumour-cell proliferation in vitro an decreased tumour-cell Ki67 immunostaining when administered to two patients. The fair safety profile of THC, together with its possible antiproliferative action on tumour cells reported here and in other studies, may set the basis for future trials aimed at evaluating the potential antitumoral activity of cannabinoids.



El timo de Rick Simpson











- Supuestamente cura el cáncer pero también todas las demás enfermedes
- Se oculta información sobre supuestos procedimientos
- Dosificación
- Inconcreciones y falsedades históricas
- Manipulación de datos de investigación de otros autores
- Recurso a la teoría de la conspiración
- Argumento histórico

Algunas historias falsas que circulan por Internet



Grade 3 Anaplastic Astrocytoma Brain Cancer

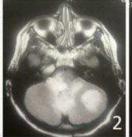
My name is Alysa Erwin I am 16, I was diagnosed with Brain cancer when I was 14, July 15th of 2011. The Cannabis Oil worked just like in the film, "What if Cannabis Cures Cancer." 16 Months of Cannabis Oil and I'm happy.

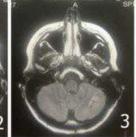
Photo 1 shows my diffused cancer. Back in September 2011.

Photo 2 shows my cancer capsulating, August 2012.

Photo 3 shows me in remission, January 2013.

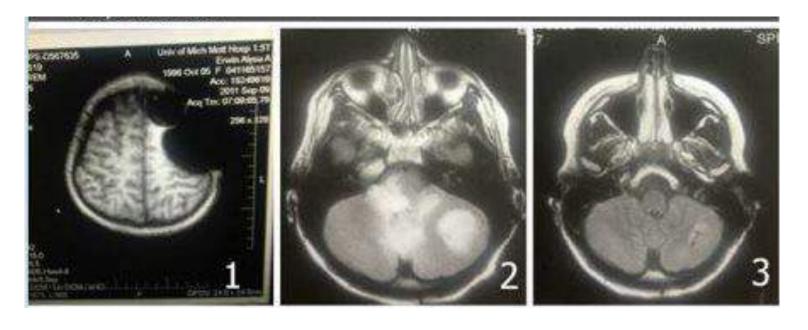


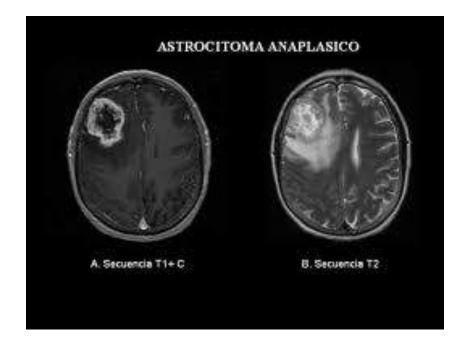




TO LEARN MORE ABOUT CANNABIS OIL VISIT:

WWW.PHOENIXTEARS.CA
PLEASE DONATE AT GOFUNDME.COM TO HELP ALYSA SHARE HER STORY AT THE
41ST ANNUAL CANCER CONVENTION IN HOLLYWOOD CA. SEPT. 2013.









000

After I came out with the news last June that a cancer doctor told me I had prostrate cancer and suggested a high frequency treatment that is not approved in America and could only be done in Mexico at the cost of \$25,000, I immediately looked at alternatives. I contacted my nephew in Vancouver, who was about to become a doctor, and he suggested I meet with a Dr. McKinnon in Victoria, BC. That doctor changed my diet and put me on supplements, and within a year I brought my PSA numbers down drastically and eliminated the cancer threat. I also treated the condition with hemp oil (hash oil). With the diet, the supplements and the hash oil, plus a session with a world-renowned healer, Adam Dreamhealer, I'm cancer-free. That's right, I kicked cancer's ass! So the magic plant does cure cancer with the right diet and supplements. I'm due for another blood test, MRI, etc., but I feel the best I've felt in years. And now for a celebration joint of the finest Kush...



Dr. William Courtney Calls Child "A Miracle Baby"

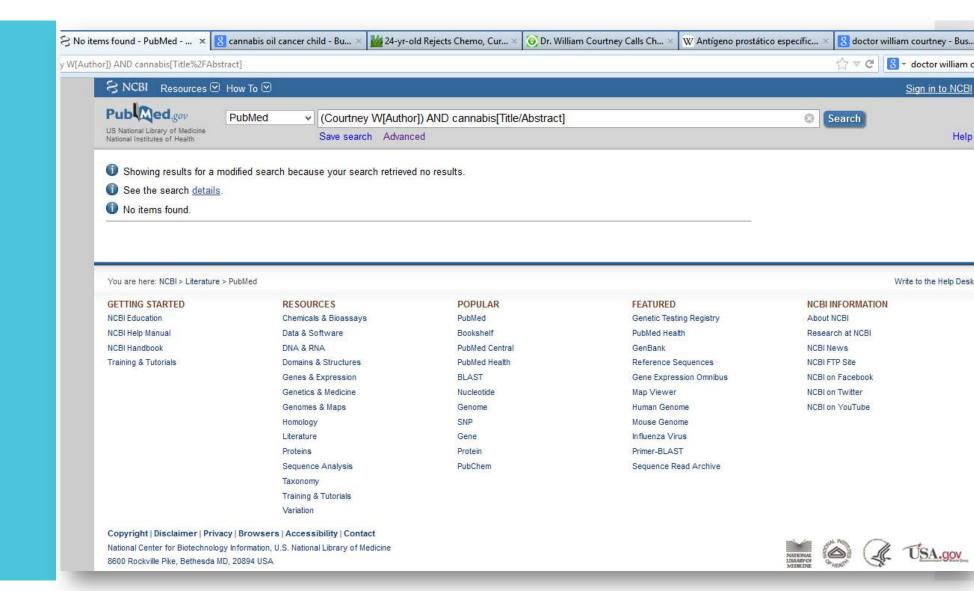


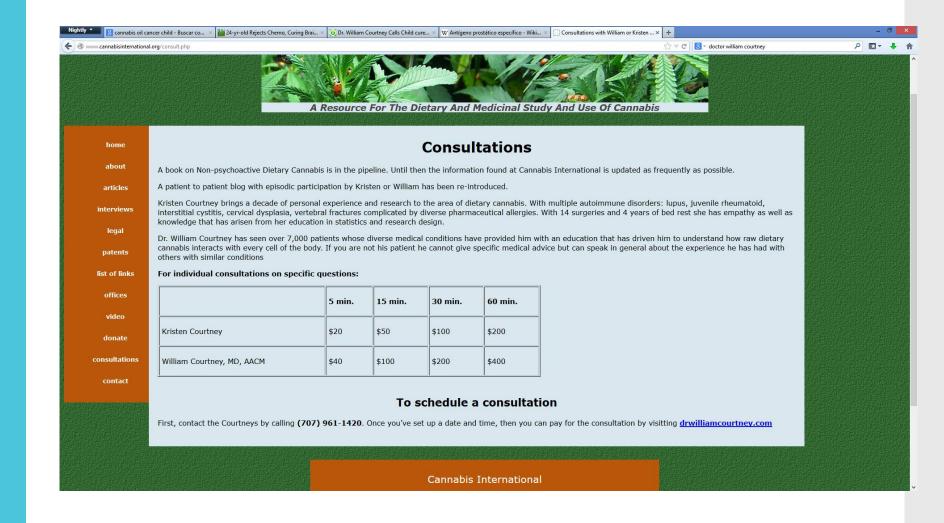
Dr. William Courtney

Medical marijuana is gaining acceptance, but could it even help kids? Dr. William Courtney has seen it happen, and on Friday, told HuffPost Live host Alyona Minkovski about it. Saying he was "quite a skeptic 5 or 6 years ago", Dr. Courtney continued that "my youngest patient is 8 months old, and had a very massive centrally

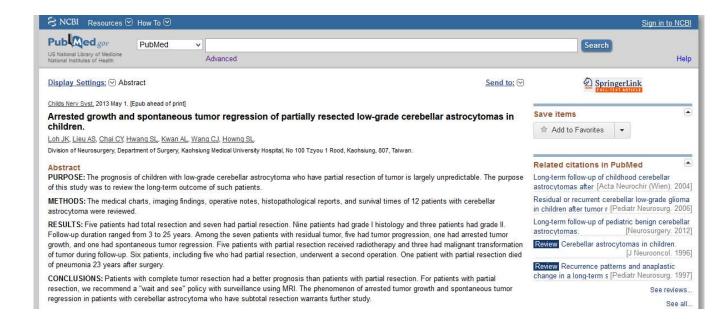


located inoperable brain tumor." The child's father pushed for non-traditional treatment utilizing cannabis. "They were putting cannabinoid oil on the baby's pacifier twice a day, increasing the dose... And within two months there was a dramatic reduction, enough that the pediatric oncologist allowed them to go ahead with not pursuing traditional therapy."The tumor was remarkably reduced after eight months of treatment. Dr. Courtney pointed out that the success of the cannabis approach means that "this child, because of that, is not going to have the long-term side effects that would come from a very high dose of chemotherapy or radiation... currently the child's being called a miracle baby, and I would have to agree that this is the perfect response that we should be insisting is front line therapy for all children before they launch off on all medications that have horrific long term side effects."









• En resumen:

- Existen suficientes evidencias para recomendar el uso de cannabinoides en pacientes seleccionados para el manejo de algunos síntomas del cáncer
- Existen datos de investigación pre-clínicos que sugieren que los cannabinoides tendrán algún papel en el tratamiento del cáncer en un futuro próximo
- Internet contribuye a difundir mensajes erróneos sobre el Cannabis y el cáncer que pueden tener impacto sobre la salud de las personas.