List of all studies about Cannabis as medicine recognized by the US government

The Therapeutic Potential of Cannabis and Cannabinoids

Franjo Grotenhermen, Dr. med.[1] and Kirsten Müller-Vahl, Prof. Dr. med.[*,2]
ncbi.nlm.nih.gov/pmc/articles/PMC3442177

Cannabinoids as novel anti-inflammatory drugs

Prakash Nagarkatti,[†] Rupal Pandey,[*] Sadiye Amcaoglu Rieder,[*] Venkatesh L Hegde, and Mitzi Nagarkatti
ncbi.nlm.nih.gov/pmc/articles/PMC2828614

The endocannabinoid anandamide inhibits cholangiocarcinoma growth via activation of the noncanonical Wnt signaling pathway

Sharon DeMorrow,[1,2] Heather Francis,[1,2,3] Eugenio Gaudio,[4] Julie Venter,[1] Antonio Franchitto,[4] Shelley Kopriva,[6] Paolo Onori,[7] Romina Mancinelli,[1,4] Gabriel Frampton,[8] Monique Coufal,[1] Brett Mitchell,[1] Bradley Vaculin,[1] and Gianfranco Alpini[1,2,5,6]
ncbi.nlm.nih.gov/pmc/articles/PMC2604798

Opposing actions of endocannabinoids on cholangiocarcinoma growth is via the differential activation of Notch signaling

Gabriel Frampton,[2] Monique Coufal,[2] Huang Li,[2,3] Jonathan Ramirez,[1] and Sharon DeMorrow[1,2]
http://ncbi.nlm.nih.gov/pmc/articles/PMC2872061

Cannabinoids in pancreatic cancer: Correlation with survival and pain

Christoph W. Michalski,[1,2,*] Florian E. Oti,[2] Mert Erkan,[1,2] Danguole Sauliunaite,[1,2] Frank Bergmann,[3] Pal Pacher,[4] Sandor Batkai,[4] Michael W. Müller,[1,2] Nathalia A. Giese,[2] Helmut Friess,[1,2] and Jörg Kleeff[1,2]
ncbi.nlm.nih.gov/pmc/articles/PMC2225529

Cannabis use and cancer of the head and neck: Case-control study

Sarah Aldington,[a] Matire Harwood,[a] Brian Cox,[b] Mark Weatherall,[c] Lutz Beckert,[a] Anna Hansell,[d] Alison Pritchard,[a] Geoffrey Robinson, Richard Beasley,[a,e,] and Cannabis and Respiratory Disease Research Group
ncbi.nlm.nih.gov/pmc/articles/PMC2277494

Antidepressant-like effects of cannabidiol in mice: possible involvement of 5-HT_{1A} receptors

TV Zanelati, C Biojone, [...], and SRL Joca
ncbi.nlm.nih.gov/pmc/articles/PMC2823358

Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis

Susanne A Wolf, Anika Bick-Sander, [...], and Gerd Kempermann
ncbi.nlm.nih.gov/pmc/articles/PMC2898685

Cannabidiol protects retinal neurons by preserving glutamine synthetase activity in diabetes

A.B. El-Remessy, Y. Khalifa, [...], and G.I. Liou
ncbi.nlm.nih.gov/pmc/articles/PMC2925907

Cannabidiol Displays Antiepileptiform and Antiseizure Properties In Vitro and In Vivo

Nicholas A. Jones, Andrew J. Hill, [...], and Gary J. Stephens
http://ncbi.nlm.nih.gov/pmc/articles/PMC2819831

Antidepressant-like effect of Δ^9-tetrahydrocannabinol and other cannabinoids isolated from *Cannabis*

Abir T. El-Alfy, Kelly Ivey, [...], and Samir Ross

ncbi.nlm.nih.gov/pmc/articles/PMC2866040

Cannabidiol ameliorates cognitive and motor impairments in bile-duct ligated mice via 5-HT_{1A} receptor activation

I Magen, Y Avraham, [...], and EM Berry

ncbi.nlm.nih.gov/pmc/articles/PMC2829220

Disposition of Cannabichromene, Cannabidiol, and Δ^9-Tetrahydrocannabinol and its Metabolites in Mouse Brain following Marijuana Inhalation Determined by High-Performance Liquid Chromatography–Tandem Mass Spectrometry

Justin L. Poklis, Candace C. Thompson, [...], and Alphonse Poklis
ncbi.nlm.nih.gov/pmc/articles/PMC3023979

Acute administration of cannabidiol *in vivo* suppresses ischaemia-induced cardiac arrhythmias and reduces infarct size when given at reperfusion

Sarah K Walsh, Claire Y Hepburn, [...], and Cherry L Wainwright
ncbi.nlm.nih.gov/pmc/articles/PMC2936031

Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study

Lourdes Ruiz-Valdepeñas, José A Martínez-Orgado, [...], and Julián Romero
ncbi.nlm.nih.gov/pmc/articles/PMC3034694

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement

Giuseppe Esposito, Caterina Scuderi, [...], and Luca Steardo
ncbi.nlm.nih.gov/pmc/articles/PMC3230631

Cannabidiol Reduces Intestinal Inflammation through the Control of Neuroimmune Axis

Daniele De Filippis, Giuseppe Esposito, [...], and Teresa Iuvone
ncbi.nlm.nih.gov/pmc/articles/PMC3232190

Prospects for cannabinoid therapies in basal ganglia disorders

Javier Fernández-Ruiz, Miguel Moreno-Martet, [...], and José A Ramos
ncbi.nlm.nih.gov/pmc/articles/PMC3165947

Modulation of Auditory and Visual Processing by Delta-9-Tetrahydrocannabinol and Cannabidiol: an fMRI Study

Toby T Winton-Brown, Paul Allen, [...], and Philip K McGuire
ncbi.nlm.nih.gov/pmc/articles/PMC3096803

Sedative activity of cannabis in relation to its delta'-trans-tetrahydrocannabinol and cannabidiol content.

J. T. Pickens
ncbi.nlm.nih.gov/pmc/articles/PMC2071638

Neuroprotective Effect of(−)Δ^9-Tetrahydrocannabinol and Cannabidiol in *N*-Methyl-d-Aspartate-Induced Retinal Neurotoxicity

Involvement of Peroxynitrite

Azza B. El-Remessy, Ibrahim E. Khalil, [...], and Gregory I. Liou
ncbi.nlm.nih.gov/pmc/articles/PMC1892413

Cannabidiol Arrests Onset of Autoimmune Diabetes in NOD Mice

Lola Weiss, Michael Zeira, [...], and Ruth Gallily
ncbi.nlm.nih.gov/pmc/articles/PMC2270485

Neuroprotective and Blood-Retinal Barrier-Preserving Effects of Cannabidiol in Experimental Diabetes

Azza B. El-Remessy, Mohamed Al-Shabrawey, [...], and Gregory I. Liou
ncbi.nlm.nih.gov/pmc/articles/PMC1592672

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes

J Manzanares, MD Julian, and A Carrascosa
ncbi.nlm.nih.gov/pmc/articles/PMC2430692

Cannabidiol displays unexpectedly high potency as an antagonist of CB_1 and CB_2 receptor agonists *in vitro*

A Thomas, G L Baillie, [...], and R G Pertwee
ncbi.nlm.nih.gov/pmc/articles/PMC2189767

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation

Sumner H. Burstein and Robert B. Zurier
ncbi.nlm.nih.gov/pmc/articles/PMC2664885

Evaluation of Prevalent Phytocannabinoids in the Acetic Acid Model of Visceral Nociception

Lamont Booker, Pattipati S. Naidu, [...], and Aron H. Lichtman
ncbi.nlm.nih.gov/pmc/articles/PMC2765124

The putative cannabinoid receptor GPR55 affects osteoclast function in vitro and bone mass in vivo

Lauren S. Whyte, Erik Ryberg, [...], and Michael J. Rogers
ncbi.nlm.nih.gov/pmc/articles/PMC2737440

Cannabidiol As a Putative Novel Therapy for Diabetic Retinopathy: A Postulated Mechanism of Action as an Entry Point for Biomarker-Guided Clinical Development

GI Liou, AB El-Remessy, [...], and JJ Nussbaum
ncbi.nlm.nih.gov/pmc/articles/PMC2955420

Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death

Hao Pan, Partha Mukhopadhyay, [...], and Pál Pacher
ncbi.nlm.nih.gov/pmc/articles/PMC2682269

Cannabidiol, extracted from *Cannabis sativa*, selectively inhibits inflammatory hypermotility in mice

R Capasso, F Borrelli, [...], and A A Izzo
ncbi.nlm.nih.gov/pmc/articles/PMC2451037

Neuroprotective effects of cannabidiol in endotoxin-induced uveitis: critical role of p38 MAPK activation

A.B. El-Remessy, Y. Tang, [...], and G.I. Liou
ncbi.nlm.nih.gov/pmc/articles/PMC2592995

Cannabidiol enhances anandamide signaling and alleviates psychotic symptoms of schizophrenia

F M Leweke, D Piomelli, [...], and D Koethe
ncbi.nlm.nih.gov/pmc/articles/PMC3316151

A population-based case-control study of marijuana use and head and neck squamous cell carcinoma.

Liang C, McClean MD, Marsit C, Christensen B, Peters E, Nelson HH, Kelsey KT.

140 Department of Community Health, Department of Pathology and Laboratory Medicine, Division of Biology and Medicine, Brown University, Providence, RI, USA.
ncbi.nlm.nih.gov/pubmed/19638490

Cannabinoids: a new hope for breast cancer therapy?

Caffarel MM, Andradas C, Pérez-Gómez E, Guzmán M, Sánchez C.

Source: Dept. Biochemistry and Molecular Biology I, School of Biology, Complutense University-CIBERNED-IRYCIS, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/22776349

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage.

150 Shouman B, Fontaine RH, Baud O, Schwendimann L, Keller M, Spedding M, Lelièvre V, Gressens P.

Source: Inserm, U676, Paris France.
ncbi.nlm.nih.gov/pubmed/16682966

Pharmacokinetics and pharmacodynamics of cannabinoids.

Grotenhermen F.

Source: Nova-Institut, Hürth, Germany. franjo.grotenhermen@nova-institut.de
ncbi.nlm.nih.gov/pubmed/12648025

Cannabidiol inhibits cancer cell invasion via upregulation of tissue inhibitor of matrix metalloproteinases-1.

160 Ramer R, Merkord J, Rohde H, Hinz B.

Source: Institute of Toxicology and Pharmacology, University of Rostock, Schillingallee 70, D-18057 Rostock, Germany.
ncbi.nlm.nih.gov/pubmed/19914218

Cannabinoid receptors in human astroglial tumors.

Held-Feindt J, Dörner L, Sahan G, Mehdorn HM, Mentlein R.

Source: Department of Neurosurgery, Universitätsklinikum Schleswig-Holstein Campus Kiel, Kiel, Germany.
ncbi.nlm.nih.gov/pubmed/16893424

Up-regulation of cyclooxygenase-2 expression is involved in R(+)-methanandamide-induced apoptotic death of human neuroglioma cells.

Hinz B, Ramer R, Eichele K, Weinzierl U, Brune K.

Source: Department of Experimental and Clinical Pharmacology and Toxicology, Friedrich Alexander University Erlangen-Nürnberg, Erlangen, Germany. hinz@pharmakologie.uni-erlangen.de
ncbi.nlm.nih.gov/pubmed/15361550

Antitumorigenic effects of cannabinoids beyond apoptosis.

Freimuth N, Ramer R, Hinz B.

Source: Institute of Toxicology and Pharmacology, University of Rostock, Rostock, Germany.
ncbi.nlm.nih.gov/pubmed/19889794

R(+)-methanandamide-induced apoptosis of human cervical carcinoma cells involves a cyclooxygenase-2-dependent pathway.

Eichele K, Ramer R, Hinz B.

Source: Institute for Toxicology and Pharmacology, University of Rostock, Schillingallee 70, D-18057, Rostock, Germany.
ncbi.nlm.nih.gov/pubmed/19015962

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities.

Bíró T, Tóth BI, Haskó G, Paus R, Pacher P.
Department of Physiology, University of Debrecen, Research Center for Molecular Medicine, Debrecen 4032, Hungary. biro@phys.dote.hu
ncbi.nlm.nih.gov/pubmed/19608284

HU-331, a novel cannabinoid-based anticancer topoisomerase II inhibitor.

Kogan NM, Schlesinger M, Priel E, Rabinowitz R, Berenshtein E, Chevion M, Mechoulam R.

Source: Department of Medicinal Chemistry and Natural Products, School of Pharmacy, The Hebrew University, Jerusalem 91120, Israel. natalyak@ekmd.huji.ac.il
ncbi.nlm.nih.gov/pubmed/17237277

An endogenous cannabinoid (2-AG) is neuroprotective after brain injury.

Panikashvili D, Simeonidou C, Ben-Shabat S, Hanus L, Breuer A, Mechoulam R, Shohami E.

Source: Department of Pharmacology, Medical Faculty, Hebrew University, Jerusalem 91120, Israel.
ncbi.nlm.nih.gov/pubmed/11586361

Gamma-irradiation enhances apoptosis induced by cannabidiol, a non-psychotropic cannabinoid, in cultured HL-60 myeloblastic leukemia cells.

Gallily R, Even-Chena T, Katzavian G, Lehmann D, Dagan A, Mechoulam R.

Source: The Lautenberg Center for General and Tumor Immunology, The Hebrew University Medical Faculty, Ein Kerem Campus, Jerusalem 1120, Israel. rgallily@md.huji.ac.il
ncbi.nlm.nih.gov/pubmed/14692532

A cannabinoid quinone inhibits angiogenesis by targeting vascular endothelial cells.

Kogan NM, Blázquez C, Alvarez L, Gallily R, Schlesinger M, Guzmán M, Mechoulam R.

Source: Department of Medicinal Chemistry and Natural Products, Medical Faculty, The Hebrew University, Jerusalem 91120, Israel. natalya@md.huji.ac.il
ncbi.nlm.nih.gov/pubmed/16571653

Cannabinoids in health and disease.

Kogan NM, Mechoulam R.

Source: Medicinal Chemistry and Natural Products Dept, Pharmacy School, Ein-Kerem Medical Campus, the Hebrew University of Jerusalem, Israel.
ncbi.nlm.nih.gov/pubmed/18286801

Cannabinoids and cancer.

Kogan NM.

Source: Hebrew University, Pharmacy School, Department of Medicinal Chemistry and Natural Products, Israel. natalya@md.huji.ac.il
ncbi.nlm.nih.gov/pubmed/16250836

Delta 9-tetrahydrocannabinol inhibits cell cycle progression by downregulation of E2F1 in human glioblastoma multiforme cells.

Galanti G, Fisher T, Kventsel I, Shoham J, Gallily R, Mechoulam R, Lavie G, Amariglio N, Rechavi G, Toren A.

Source: The Mina and Everard Goodman Faculty of Life Science, Bar-Ilan University, Ramat-Gan, Israel.
ncbi.nlm.nih.gov/pubmed/17934890

Endocannabinoids in the immune system and cancer.

Parolaro D, Massi P, Rubino T, Monti E.

Source: Department of Structural and Functional Biology, Pharmacology Unit, University of Insubria, Via A. Da Giussano 10, 21052 Busto Arsizio (Varese), Italy.
daniela.parolaro@uninsubria.it
ncbi.nlm.nih.gov/pubmed/12052046

A metabolically stable analogue of anandamide, Met-F-AEA, inhibits human thyroid carcinoma cell lines by activation of apoptosis.

Cozzolino R, Calì G, Bifulco M, Laccetti P.

Source: Department of Structural and Functional Biology, University of Naples Federico II, 80126 Naples, Italy. cozzolino1@interfree.it
ncbi.nlm.nih.gov/pubmed/19189054

Plant-derived cannabinoids modulate the activity of transient receptor potential channels of ankyrin type-1 and melastatin type-8.

De Petrocellis L, Vellani V, Schiano-Moriello A, Marini P, Magherini PC, Orlando P, Di Marzo V.

Source: Endocannabinoid Research Group, Institute of Biomolecular Chemistry, Consiglio

Nazionale delle Ricerche, Via Campi Flegrei 34, Comprensorio Olivetti 80078, Pozzuoli (NA), Italy.
ncbi.nlm.nih.gov/pubmed/18354058

Cannabinoid receptor activation induces apoptosis through tumor necrosis factor alpha-mediated ceramide de novo synthesis in colon cancer cells.

Cianchi F, Papucci L, Schiavone N, Lulli M, Magnelli L, Vinci MC, Messerini L, Manera C, Ronconi E, Romagnani P, Donnini M, Perigli G, Trallori G, Tanganelli E, Capaccioli S, Masini E.

Source: Department of Medical and Surgical Critical Care, University of Florence, Florence, Italy.
ncbi.nlm.nih.gov/pubmed/19047095

Anandamide induces apoptosis in human cells via vanilloid receptors. Evidence for a protective role of cannabinoid receptors.

Maccarrone M, Lorenzon T, Bari M, Melino G, Finazzi-Agro A.

Source: Department of Experimental Medicine and Biochemical Sciences, University of Rome Tor Vergata, Via di Tor Vergata 135, I-00133 Rome, Italy.
ncbi.nlm.nih.gov/pubmed/10913156

The endogenous cannabinoid anandamide inhibits human breast cancer cell proliferation.

De Petrocellis L, Melck D, Palmisano A, Bisogno T, Laezza C, Bifulco M, Di Marzo V.

Source: Istituto di Cibernetica, Consiglio Nazionale delle Ricerche), Consiglio Nazionale delle Ricerche, Via Toiano 6, 80072 Arco Felice, Naples, Italy.
ncbi.nlm.nih.gov/pubmed/9653194

Cannabinoids as potential new therapy for the treatment of gliomas.

Parolaro D, Massi P.

Source: Department of Structural & Functional Biology, Pharmacology Section, Center of Neuroscience, University of Insubria, Via A da Giussano 10, Busto Arsizio (VA), Italy. daniela.parolaro@uninsubria.it
ncbi.nlm.nih.gov/pubmed/18088200

The non-psychoactive cannabidiol triggers caspase activation and oxidative stress in human glioma cells.

Massi P, Vaccani A, Bianchessi S, Costa B, Macchi P, Parolaro D.

Source: Department of Pharmacology, Chemotherapy and Medical Toxicology, University of Milan, via Vanvitelli 32, 20129 Milan, Italy.
ncbi.nlm.nih.gov/pubmed/16909207

Endocannabinoids as emerging suppressors of angiogenesis and tumor invasion (review).

Bifulco M, Laezza C, Gazzerro P, Pentimalli F.

Source: Dipartimento di Scienze Farmaceutiche, Università degli Studi di Salerno, 84084 Fisciano (SA), Italy. maubiful@unina.it
ncbi.nlm.nih.gov/pubmed/17342320

Apoptosis induced in HepG2 cells by the synthetic cannabinoid WIN: involvement of the transcription factor PPARgamma.

Giuliano M, Pellerito O, Portanova P, Calvaruso G, Santulli A, De Blasio A, Vento R, Tesoriere G.

Source: Dipartimento di Scienze Biochimiche, Università di Palermo, Via del Vespro 129, 90127 Palermo, Italy.
ncbi.nlm.nih.gov/pubmed/19059457

The endocannabinoid system as a target for the development of new drugs for cancer therapy. [Article in Italian]

Bifulco M, Di Marzo V.

Source: Dipartimento di Scienze Farmaceutiche, Università di Salerno, Istituto di Endocrinologia ed Oncologia Sperimentale del CNR, Dipartimento di Biologia e Patologia Cellulare e Molecolare, Università Federico II, Napoli. maubiful@unina.it
ncbi.nlm.nih.gov/pubmed/12723496

Cannabinoids in intestinal inflammation and cancer.

Izzo AA, Camilleri M.

Source: Department of Experimental Pharmacology, University of Naples Federico II and Endocannabinoid Research Group, Naples, Italy. aaizzo@unina.it
ncbi.nlm.nih.gov/pubmed/19442536

Antitumor activity of plant cannabinoids with emphasis on the effect of cannabidiol on human breast carcinoma.

Ligresti A, Moriello AS, Starowicz K, Matias I, Pisanti S, De Petrocellis L, Laezza C, Portella G, Bifulco M, Di Marzo V.

Source: Istituto di Chimica Biomolecolare, Consiglio Nazionale delle Ricerche Pozzuoli, Italy.
ncbi.nlm.nih.gov/pubmed/16728591

The CB1/CB2 receptor agonist WIN-55,212-2 reduces viability of human Kaposi's sarcoma cells in vitro.

Luca T, Di Benedetto G, Scuderi MR, Palumbo M, Clementi S, Bernardini R, Cantarella G.

Source: Department of Experimental and Clinical Pharmacology, University of Catania School of Medicine, 95125 Catania, Italy.
ncbi.nlm.nih.gov/pubmed/19539619

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism.

Fogli S, Nieri P, Chicca A, Adinolfi B, Mariotti V, Iacopetti P, Breschi MC, Pellegrini S.

Source: Department of Psychiatry, University of Pisa, Via Bonanno, 6, 56126 Pisa, PI, Italy. s.fogli@med.unipi.it
ncbi.nlm.nih.gov/pubmed/16500647

The endocannabinoid anandamide neither impairs in vitro T-cell function nor induces regulatory T-cell generation.

Lissoni P, Tintori A, Fumagalli L, Brivio F, Messina G, Parolini D, Biondi A, Balestra A, D'Amico G.

Source: Division of Radiation Oncology, Clinica Pediatrica Università Milano-Bicocca, Ospedale San Gerardo, Monza, Italy.
ncbi.nlm.nih.gov/pubmed/19189659

Antitumor effects of cannabidiol, a nonpsychoactive cannabinoid, on human glioma cell lines.

Massi P, Vaccani A, Ceruti S, Colombo A, Abbracchio MP, Parolaro D.

Source: Department of Pharmacology, University of Milan, Milan, Italy.
ncbi.nlm.nih.gov/pubmed/14617682

Estrogenic induction of cannabinoid CB1 receptor in human colon cancer cell lines.

Notarnicola M, Messa C, Orlando A, Bifulco M, Laezza C, Gazzerro P, Caruso MG.

Source: Laboratory of Biochemistry, National Institute for Digestive Diseases S. de Bellis, Castellana Grotte, Bari, Italy.
ncbi.nlm.nih.gov/pubmed/18938775

Endocannabinoids and fatty acid amides in cancer, inflammation and related disorders.

De Petrocellis L, Melck D, Bisogno T, Di Marzo V.

Source: Istituto di Cibernetica, Consiglio Nazionale delle Ricerche, Via Toiano 6, 80072 Arco Felice, Napoli, Italy.
ncbi.nlm.nih.gov/pubmed/11106791

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines.

Miyato H, Kitayama J, Yamashita H, Souma D, Asakage M, Yamada J, Nagawa H.

Source: Department of Surgery, Division of Surgical Oncology, University of Tokyo, Tokyo, Japan. hmiya-tky@umin.ac.jp
ncbi.nlm.nih.gov/pubmed/19394652

Effect of a synthetic cannabinoid agonist on the proliferation and invasion of gastric cancer cells.

Xian XS, Park H, Cho YK, Lee IS, Kim SW, Choi MG, Chung IS, Han KH, Park JM.

Source: Division of Gastroenterology, Department of Internal Medicine, College of Medicine, The Catholic University of Korea, Seoul, Korea.
ncbi.nlm.nih.gov/pubmed/20336665

Cannabinoids in the treatment of cancer.

Alexander A, Smith PF, Rosengren RJ.

Source: Department of Pharmacology and Toxicology, University of Otago, Dunedin, New Zealand.
ncbi.nlm.nih.gov/pubmed/19442435

Cannabinoids down-regulate PI3K/Akt and Erk signalling pathways and activate proapoptotic function of Bad protein.

Ellert-Miklaszewska A, Kaminska B, Konarska L.

Source: Department of Biochemistry and Clinical Chemistry, Medical Academy of Warsaw, Poland.
ncbi.nlm.nih.gov/pubmed/15451022

Cannabinoid 2 receptor induction by IL-12 and its potential as a therapeutic target for the treatment of anaplastic thyroid carcinoma.

Shi Y, Zou M, Baitei EY, Alzahrani AS, Parhar RS, Al-Makhalafi Z, Al-Mohanna FA.

Source: Department of Genetics, King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia. yufei@kfshrc.edu.sa
ncbi.nlm.nih.gov/pubmed/18197164

[Different views on the association between cannabinoids and cancer].[Article in Slovak]

Vidinský B, Gál P, Mojzis J.

Source: Ustav farmakológie LF Univerzity Pavla Jozefa Safárika, Kosice.
borisvidinsky@yahoo.com
ncbi.nlm.nih.gov/pubmed/16835997

De novo-synthesized ceramide is involved in cannabinoid-induced apoptosis.

Gómez del Pulgar T, Velasco G, Sánchez C, Haro A, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/11903061

Down-regulation of tissue inhibitor of metalloproteinases-1 in gliomas: a new marker of cannabinoid antitumoral activity?

Blázquez C, Carracedo A, Salazar M, Lorente M, Egia A, González-Feria L, Haro A, Velasco G, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/17675107

Cannabinoids induce glioma stem-like cell differentiation and inhibit gliomagenesis.

Aguado T, Carracedo A, Julien B, Velasco G, Milman G, Mechoulam R, Alvarez L, Guzmán M, Galve-Roperh I.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/17202146

Cannabinoid action induces autophagy-mediated cell death through stimulation of ER stress in human glioma cells.

Salazar M, Carracedo A, Salanueva IJ, Hernández-Tiedra S, Lorente M, Egia A, Vázquez P, Blázquez C, Torres S, García S, Nowak J, Fimia GM, Piacentini M, Cecconi F, Pandolfi PP, González-Feria L, Iovanna JL, Guzmán M, Boya P, Velasco G.

Source: Department of Biochemistry and Molecular Biology, Complutense University, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/19425170

JunD is involved in the antiproliferative effect of Delta9-tetrahydrocannabinol on human breast cancer cells.

Caffarel MM, Moreno-Bueno G, Cerutti C, Palacios J, Guzman M, Mechta-Grigoriou F, Sanchez C.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/18454173

Cannabinoid receptors as novel targets for the treatment of melanoma.

Blázquez C, Carracedo A, Barrado L, Real PJ, Fernández-Luna JL, Velasco G, Malumbres M, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/17065222

Anti-tumoral action of cannabinoids: involvement of sustained ceramide accumulation and extracellular signal-regulated kinase activation.

Galve-Roperh I, Sánchez C, Cortés ML, Gómez del Pulgar T, Izquierdo M, Guzmán M.

Source. Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040-Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/10700234

Endocannabinoids: a new family of lipid mediators involved in the regulation of neural cell development.

Galve-Roperh I, Aguado T, Rueda D, Velasco G, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain. igr@quim.ucm.es
ncbi.nlm.nih.gov/pubmed/16787257

p38 MAPK is involved in CB2 receptor-induced apoptosis of human leukaemia cells.

Herrera B, Carracedo A, Diez-Zaera M, Guzmán M, Velasco G.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, c/José Antonio Novais s/n, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/16139274

The CB2 cannabinoid receptor signals apoptosis via ceramide-dependent activation of the mitochondrial intrinsic pathway.

Herrera B, Carracedo A, Diez-Zaera M, Gómez del Pulgar T, Guzmán M, Velasco G.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense
440 University, c/José Antonio Novais s/n, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/16624285

The stress-regulated protein p8 mediates cannabinoid-induced apoptosis of tumor cells.

Carracedo A, Lorente M, Egia A, Blázquez C, García S, Giroux V, Malicet C, Villuendas R, Gironella M, González-Feria L, Piris MA, Iovanna JL, Guzmán M, Velasco G.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/16616335

Control of the cell survival/death decision by cannabinoids.

450 Guzmán M, Sánchez C, Galve-Roperh I.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Madrid, Spain. mgp@bbml.ucm.es
ncbi.nlm.nih.gov/pubmed/11269508

Inhibition of human tumour prostate PC-3 cell growth by cannabinoids R(+)-Methanandamide and JWH-015: involvement of CB2.

Olea-Herrero N, Vara D, Malagarie-Cazenave S, Díaz-Laviada I.

Source: Department of Biochemistry and Molecular Biology, School of Medicine, University of Alcalá, Alcalá de Henares, 28871 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/19690545

460 Inhibition of skin tumor growth and angiogenesis in vivo by activation of cannabinoid receptors.

Casanova ML, Blázquez C, Martínez-Palacio J, Villanueva C, Fernández-Aceñero MJ, Huffman JW, Jorcano JL, Guzmán M.

Source: Project on Cellular and Molecular Biology and Gene Therapy, Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/12511587

Opposite changes in cannabinoid CB1 and CB2 receptor expression in human gliomas.

De Jesús ML, Hostalot C, Garibi JM, Sallés J, Meana JJ, Callado LF.

Source: Department of Pharmacology, University of the Basque Country, Leioa, Bizkaia, Spain.
ncbi.nlm.nih.gov/pubmed/20307616

Delta9-tetrahydrocannabinol inhibits cell cycle progression in human breast cancer cells through Cdc2 regulation.

Caffarel MM, Sarrió D, Palacios J, Guzmán M, Sánchez C.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/16818634

Cannabinoids and gliomas.

Velasco G, Carracedo A, Blázquez C, Lorente M, Aguado T, Haro A, Sánchez C, Galve-Roperh I, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/17952650

Cannabinoids induce apoptosis of pancreatic tumor cells via endoplasmic reticulum stress-related genes.

Carracedo A, Gironella M, Lorente M, Garcia S, Guzmán M, Velasco G, Iovanna JL.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, c/José Antonio Novais s/n, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/16818650

Effects on cell viability.

Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain. mgp@bbm1.ucm.es
ncbi.nlm.nih.gov/pubmed/16596790

Involvement of cannabinoids in cellular proliferation.

López-Rodríguez ML, Viso A, Ortega-Gutiérrez S, Díaz-Laviada I.

Source: Departamento de Química Orgánica I, Facultad de Ciencias Químicas, Universidad Complutense, 28040 Madrid, Spain. mluzlr@quim.ucm.es
ncbi.nlm.nih.gov/pubmed/15638794

Hypothesis: cannabinoid therapy for the treatment of gliomas?

Velasco G, Galve-Roperh I, Sánchez C, Blázquez C, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Avenida Complutense, sn, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/15275820

Cannabinoids protect astrocytes from ceramide-induced apoptosis through the phosphatidylinositol 3-kinase/protein kinase B pathway.

Gómez Del Pulgar T, De Ceballos ML, Guzmán M, Velasco G.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/12133838

Cannabinoids inhibit glioma cell invasion by down-regulating matrix metalloproteinase-2 expression.

Blázquez C, Salazar M, Carracedo A, Lorente M, Egia A, González-Feria L, Haro A, Velasco G, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/18339876

Delta9-tetrahydrocannabinol induces apoptosis in C6 glioma cells.

Sánchez C, Galve-Roperh I, Canova C, Brachet P, Guzmán M.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/9771884

Delta9-tetrahydrocannabinol induces apoptosis in human prostate PC-3 cells via a receptor-independent mechanism.

Ruiz L, Miguel A, Díaz-Laviada I.

Source: Department of Biochemistry and Molecular Biology, Faculty of Medicine, University of Alcalá, Alcalá de Henares, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/10570948

Cannabinoids and cell fate.

Guzmán M, Sánchez C, Galve-Roperh I.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, 28040 Madrid, Spain. mgp@bbm1.ucm.es
ncbi.nlm.nih.gov/pubmed/12182964

Amphiregulin is a factor for resistance of glioma cells to cannabinoid-induced apoptosis.

Lorente M, Carracedo A, Torres S, Natali F, Egia A, Hernández-Tiedra S, Salazar M, Blázquez C, Guzmán M, Velasco G.

Source: Department of Biochemistry and Molecular Biology I, School of Biology, Complutense University, Madrid, Spain.
ncbi.nlm.nih.gov/pubmed/19229996

TRPV2 activation induces apoptotic cell death in human T24 bladder cancer cells: a potential therapeutic target for bladder cancer.

Yamada T, Ueda T, Shibata Y, Ikegami Y, Saito M, Ishida Y, Ugawa S, Kohri K, Shimada S.

Source: Department of Neurobiology and Anatomy, Graduate School of Medical Sciences, Nagoya City University, Nagoya, Japan.
ncbi.nlm.nih.gov/pubmed/20546877

The dual effects of delta(9)-tetrahydrocannabinol on cholangiocarcinoma cells: anti-invasion activity at low concentration and apoptosis induction at high concentration.

Leelawat S, Leelawat K, Narong S, Matangkasombut O.

Source: Faculty of Pharmacy, Rangsit University, Patumthani, Thailand. surangleelawat@gmail.com
ncbi.nlm.nih.gov/pubmed/19916793

Anandamide exerts its antiproliferative actions on cholangiocarcinoma by activation of the GPR55 receptor.

Huang L, Ramirez JC, Frampton GA, Golden LE, Quinn MA, Pae HY, Horvat D, Liang LJ, DeMorrow S.

Source: Department of Internal Medicine, Scott & White Hospital, Texas A&M Health Science Center College of Medicine, Temple, USA.
ncbi.nlm.nih.gov/pubmed/21464819

Intractable nausea and vomiting due to gastrointestinal mucosal metastases relieved by tetrahydrocannabinol (dronabinol).

Gonzalez-Rosales F, Walsh D.

Source: Department of Hematology/Oncology, Cleveland Clinic Cancer Center, Cleveland Clinic Foundation, Ohio 44195, USA.
ncbi.nlm.nih.gov/pubmed/9392925

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines.

Miyato H, Kitayama J, Yamashita H, Souma D, Asakage M, Yamada J, Nagawa H.

Source: Department of Surgery, Division of Surgical Oncology, University of Tokyo, Tokyo, Japan. hmiya-tky@umin.ac.jp
ncbi.nlm.nih.gov/pubmed/19394652

Effect of a synthetic cannabinoid agonist on the proliferation and invasion of gastric cancer cells.

Xian XS, Park H, Cho YK, Lee IS, Kim SW, Choi MG, Chung IS, Han KH, Park JM.

Source: Division of Gastroenterology, Department of Internal Medicine, College of Medicine, The Catholic University of Korea, Seoul, Korea.
ncbi.nlm.nih.gov/pubmed/20336665

Antiproliferative mechanism of a cannabinoid agonist by cell cycle arrest in human gastric cancer cells.

Park JM, Xian XS, Choi MG, Park H, Cho YK, Lee IS, Kim SW, Chung IS.

Source: Division of Gastroenterology, Department of Internal Medicine, College of Medicine, The Catholic University of Korea, Seoul, Korea.
ncbi.nlm.nih.gov/pubmed/21312237

Cannabinoid CB1 receptor is expressed in chromophobe renal cell carcinoma and renal oncocytoma.

Larrinaga G, Sanz B, Blanco L, Perez I, Candenas ML, Pinto FM, Irazusta A, Gil J, López JI.

Source: Department of Physiology, Faculty of Medicine and Dentistry, University of the Basque Country UPV/EHU, Leioa, Bizkaia, Spain. gorka.larrinaga@ehu.es
ncbi.nlm.nih.gov/pubmed/23318578

The antimitogenic effect of the cannabinoid receptor agonist WIN55212-2 on human melanoma cells is mediated by the membrane lipid raft.

Scuderi MR, Cantarella G, Scollo M, Lempereur L, Palumbo M, Saccani-Jotti G, Bernardini R.

Source: Department of Clinical and Molecular Biomedicine, University of Catania School of Medicine, Catania, Italy.
ncbi.nlm.nih.gov/pubmed/21807457

Inhibition of basal and ultraviolet B-induced melanogenesis by cannabinoid CB(1) receptors: a keratinocyte-dependent effect.

Magina S, Esteves-Pinto C, Moura E, Serrão MP, Moura D, Petrosino S, Di Marzo V, Vieira-Coelho MA.

Source: Institute of Pharmacology and Therapeutics, Faculty of Medicine, University of Porto, Portugal. smagina@med.up.pt
ncbi.nlm.nih.gov/pubmed/21298280

Revisiting CB1 receptor as drug target in human melanoma.

Kenessey I, Bánki B, Márk A, Varga N, Tóvári J, Ladányi A, Rásó E, Tímár J.

Source: 2nd Department of Pathology, Semmelweis University, Üllői út 93., Budapest, 1091, Hungary. steveken12@yahoo.com
ncbi.nlm.nih.gov/pubmed/22447182

Cannabinoid receptor 2 is upregulated in melanoma.

Zhao Z, Yang J, Zhao H, Fang X, Li H.

Source: Department of Dermatology, Chinese People's Liberation Army General Hospital, Beijing, China.
ncbi.nlm.nih.gov/pubmed/23361273

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism.

Fogli S, Nieri P, Chicca A, Adinolfi B, Mariotti V, Iacopetti P, Breschi MC, Pellegrini S.

Source: Department of Psychiatry, University of Pisa, Via Bonanno, 6, 56126 Pisa, PI, Italy.
s.fogli@med.unipi.it
ncbi.nlm.nih.gov/pubmed/16500647