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Marcus Julius ZANON

Canntab Therapeutics Patent Portfolio (WIPO) – 16/08/2019

	Title		Ctr	PubDate
Appl.No	Applicant	Inventor	Int.Class	

1. 20180250262 **SUSTAINED RELEASE CANNABINOID FORMULATIONS** US 06.09.2018

15898216 CannTab Therapeutics Limited Jeff Renwick A61K 31/352

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD), and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

2. 20180214412 **IMMEDIATE RELEASE CANNABINOID FORMULATIONS** US 02.08.2018

15878396 CannTab Therapeutics Limited Jeff Renwick A61K 31/353

The present invention relates to immediate release pharmaceutical compositions comprising one or more natural or synthetic cannabinoids, and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to immediate release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof.

3. 3005885 **SUSTAINED RELEASE CANNABINOID PELLETS** CA 28.02.2019

3005885 CANNTAB THERAPEUTICS, LIMITED A61K 9/16

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to

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Canntab Therapeutics Patent Portfolio (WIPO) – 16/08/2019

	Title		Ctr	PubDate
Appl.No	Applicant	Inventor	Int.Class	

modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale
batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

4. 3036585 **SUSTAINED RELEASE CANNABINOID FORMULATIONS** CA 05.04.2018

3036585 CANNTAB THERAPEUTICS LIMITED A61K 47/44

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

5. 2017334283 **Sustained release cannabinoid formulations** AU 05.04.2018

2017334283 Canntab Therapeutics Limited C07D 311/80

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

6. 20180085308 **SUSTAINED RELEASE CANNABINOID FORMULATIONS** US 29.03.2018

15717026 CannTab Therapeutics Limited Jeff Renwick A61K 9/00

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Canntab Therapeutics Patent Portfolio (WIPO) – 16/08/2019

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The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

7. 20180263913 **Modified Release Multi-Layer Tablet Cannabinoid Formulations** US 20.09.2018

15921651 CannTab Therapeutics, Limited Robert Scott Lefler A61K 9/24

The present invention provides modified release pharmaceutical compositions, and methods for administering the compositions to a user, including humans. The composition may contain a combination of ingredients in proportions calculated to achieve therapeutic effect, including at least the following ingredients: one or more natural or synthetic cannabinoids, one or more release modifying agent(s), and one or more pharmaceutically acceptable excipient(s). The composition may be in a multi-layered solid dosage form to provide fast, controlled and also sustained release of specific ingredients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. More specifically, the invention may control drug release in accordance with the therapeutic purpose and pharmacological properties of active substances.

8. 20180263953 **Sustained Release Cannabinoid Formulations** US 20.09.2018

15923066 CannTab Therapeutics, Limited Jeff Scott Renwick A61K 31/352

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

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Canntab Therapeutics Patent Portfolio (WIPO) – 16/08/2019

Appl.No	Title / Applicant	Inventor	Ctr / Int.Class	PubDate
9. 3005889	**SUSTAINED RELEASE CANNABINOID FORMULATIONS**		CA	28.02.2019
3005889	CANNTAB THERAPEUTICS, LIMITED		A61K 9/00	

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to
modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale
batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

10. 2018210690	**Immediate release cannabidiol formulations**		AU	26.07.2018
2018210690	Canntab Therapeutics Limited		C07D 311/80	

The present invention relates to immediate release pharmaceutical compositions comprising one or more natural or synthetic cannabinoids, and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to immediate release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof.

11. 20180221332	**Flash-Melt Cannabinoid Formulations**		US	09.08.2018
15888407	CannTab Therapeutics Limited	Jeff Renwick	A61K 31/352	

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Canntab Therapeutics Patent Portfolio (WIPO) – 16/08/2019

	Title		Ctr	PubDate
Appl.No	Applicant	Inventor	Int.Class	

The present invention relates to dosage forms for the production of flash-melt *cannabis* resin and extract oral dosage forms

12. 20180263954 **Sustained Release Cannabinoid Formulations** US 20.09.2018

15923095 CannTab Therapeutics, Limited Jeff Scott Renwick A61K 31/352

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

13. 3050150 **IMMEDIATE RELEASE CANNABIDIOL FORMULATIONS** CA 26.07.2018

3050150 CANNTAB THERAPEUTICS LIMITED A61K 47/36

The present invention relates to immediate release pharmaceutical compositions comprising one or more natural or synthetic cannabinoids, and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to immediate release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof.

14. 2018216173 **Flash-melt cannabinoid formulations** AU 09.08.2018

2018216173 Canntab Therapeutics Limited C07D 311/80

The present invention relates to dosage forms for the production of flash-melt cannabis resin and extract oral dosage forms.

15. WO/2018/165740 **MODIFIED RELEASE MULTI-LAYER TABLET CANNABINOID FORMULATIONS** WO 20.09.2018

PCT/CA2018/000054 CANNTAB THERAPEUTICS, LIMITED LEFLER, Robert Scott A61K 36/185

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Canntab Therapeutics Patent Portfolio (WIPO) – 16/08/2019

	Title		Ctr	PubDate
Appl.No	Applicant	Inventor	Int.Class	

The present invention provides modified release pharmaceutical compositions, and methods for administering the compositions to a user, including humans. The composition may contain a combination of ingredients in proportions calculated to achieve therapeutic effect, including at least the following ingredients: one or more natural or synthetic cannabinoids, one or more release modifying agent(s), and one or more pharmaceutically acceptable excipient(s). The composition may be in a multi-layered solid dosage form to provide fast, controlled and also sustained release of specific ingredients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. More specifically, the invention may control drug release in accordance with the therapeutic purpose and pharmacological properties of active substances.

16. **WO/2018/141050** **FLASH-MELT CANNABINOID FORMULATIONS** WO 09.08.2018

PCT/CA2018/000021 CANNTAB THERAPEUTICS LIMITED RENWICK, Jeff A61K 9/00

The present invention relates to dosage forms for the production of flash-melt cannabis resin and extract oral dosage forms.

17. **WO/2018/058235** **SUSTAINED RELEASE CANNABINOID FORMULATIONS** WO 05.04.2018

PCT/CA2017/000211 CANNTAB THERAPEUTICS LIMITED RENWICK, Jeff A61K 47/44

The present invention provides modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to modified release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof. The present invention also provides large scale batches of modified release pharmaceutical composition comprising one or more natural or synthetic cannabinoids and one or more pharmaceutically acceptable excipients.

18. **WO/2018/132893** **IMMEDIATE RELEASE CANNABIDIOL FORMULATIONS** WO 26.07.2018

PCT/CA2018/000013 CANNTAB THERAPEUTICS LIMITED RENWICK, Jeff A61K 47/36

The present invention relates to immediate release pharmaceutical compositions comprising one or more natural or synthetic cannabinoids, and one or more pharmaceutically acceptable excipients. More specifically, the invention relates to immediate release pharmaceutical compositions comprising cannabinoids and a process for preparation thereof.

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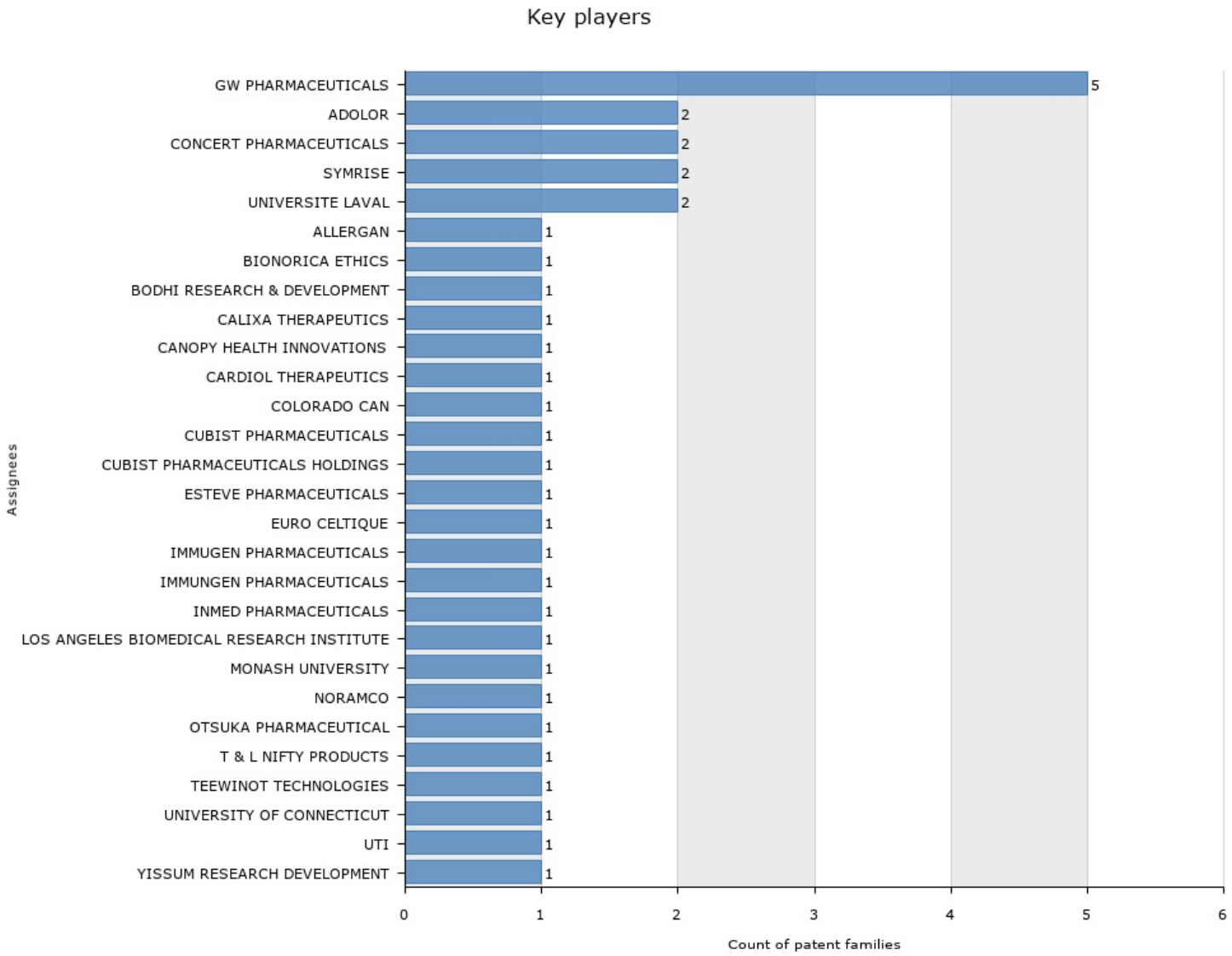
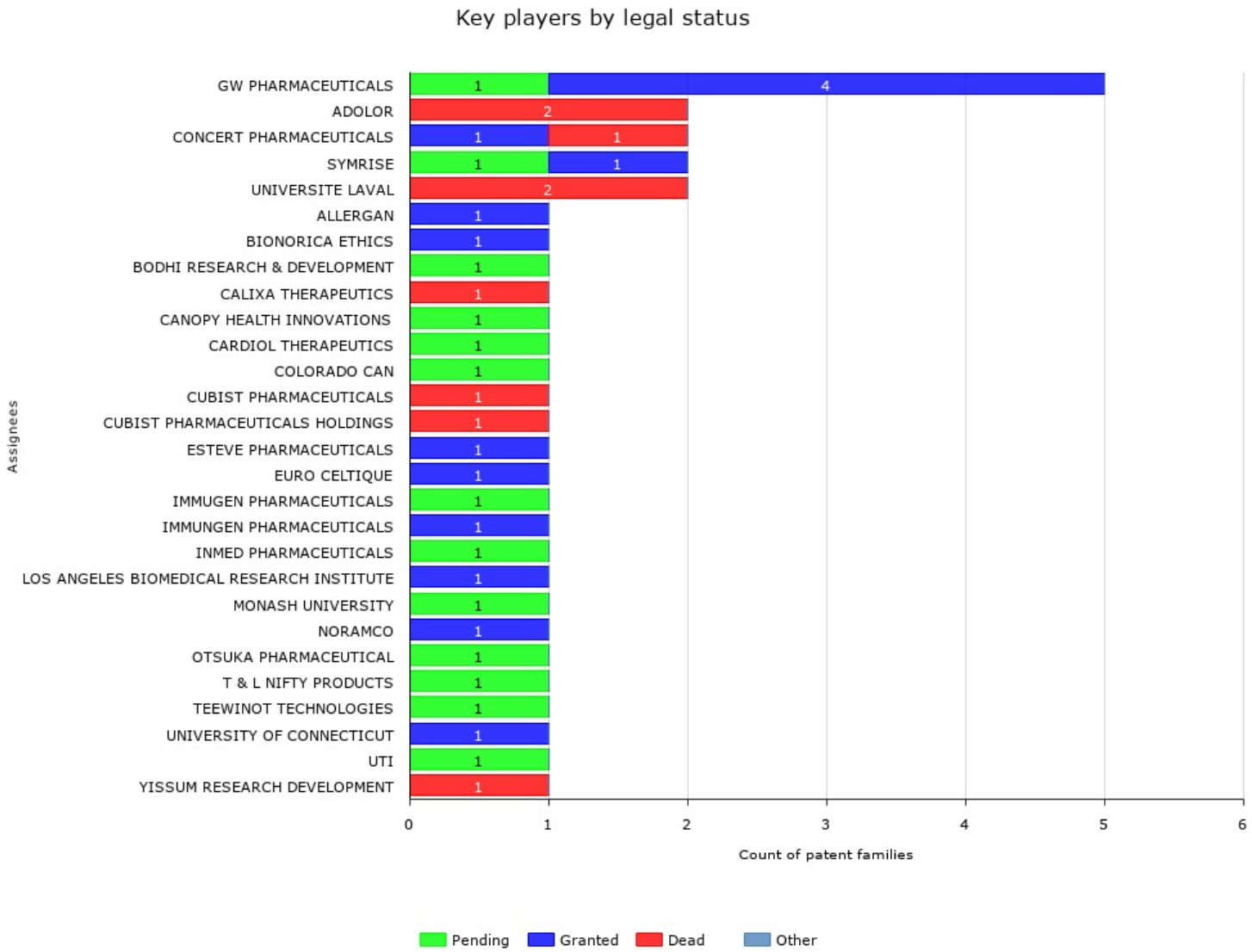


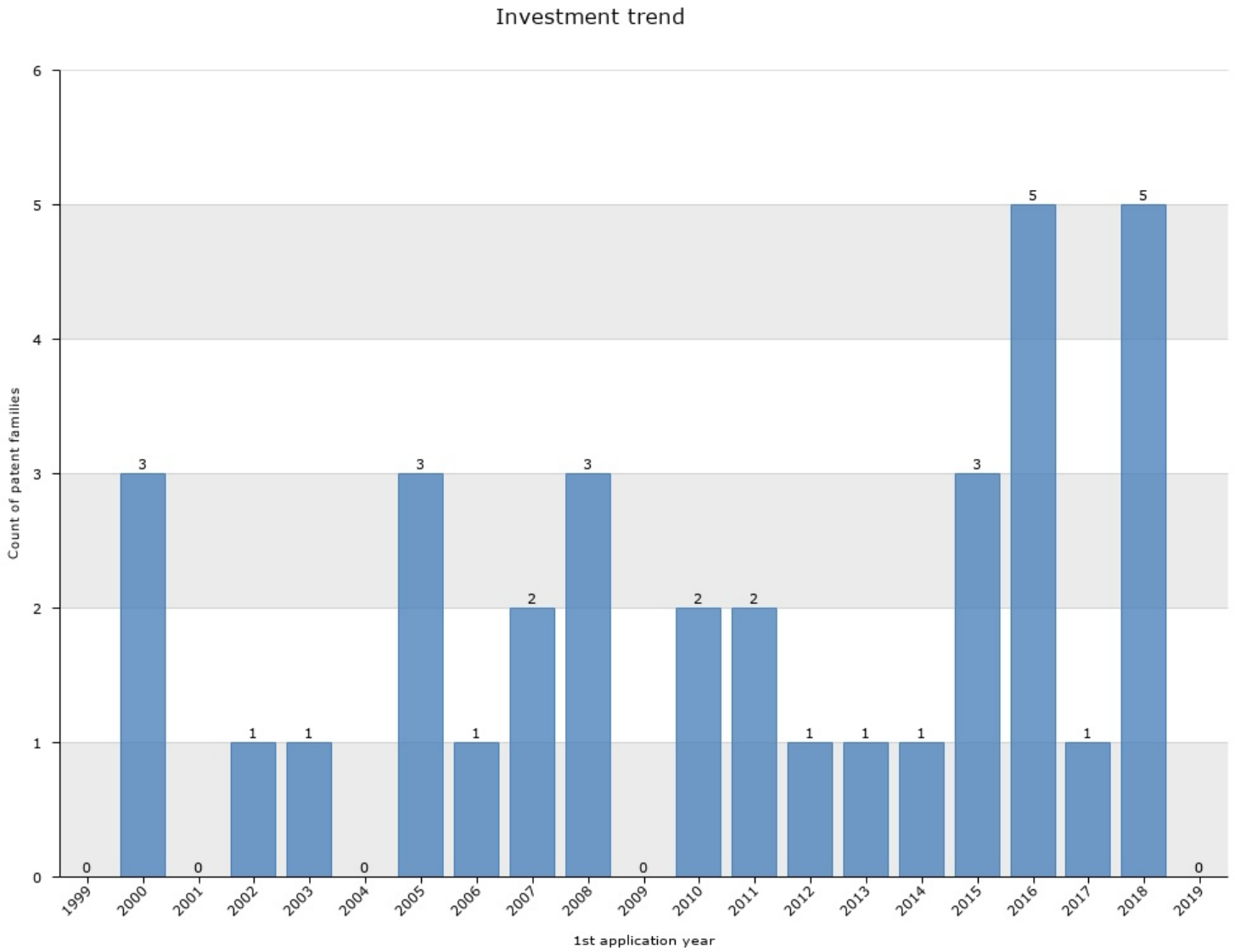
This chart shows the size of the applicants' portfolios in the patent pool analyzed. This data is a good indicator of the level of inventiveness of the active players.

Studying the portfolio of an entity:
This chart shows the portfolio of the applicant and its main co-applicants. This representation is a good indicator of the applicant's propensity to collaborate and also identifies its preferred partners.
Studying the patents of a particular topic:
This graph presents the top applicants by volume of the topic studied. This represents the applicants who have the largest number of patents in their portfolios in the subject area analyzed.
Note: In saved analysis mode, it is possible to group applicants (for example, a subsidiary grouped with the parent company) in order to improve the accuracy of this representation.



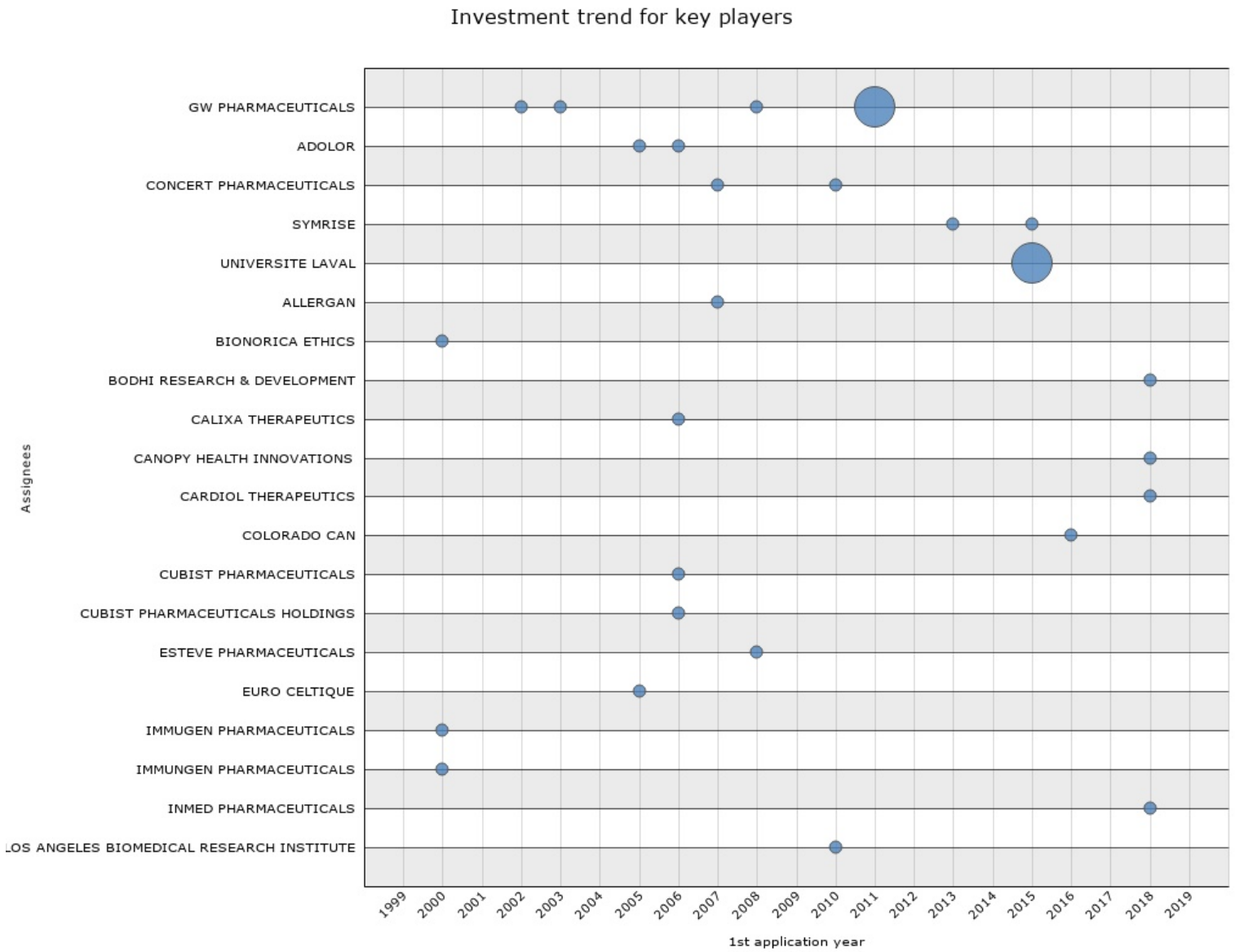
This chart illustrates the top applicants in the group of patents analyzed according to their legal status.

This information makes it possible to identify applicants who have already withdrawn from the sector (abandonment, lapse and/or expiration of their patents) and those who are still active (applications and patents granted still in force).



This graph illustrates the evolution of applications over time, indicating the dynamics of inventiveness of the portfolio studied.

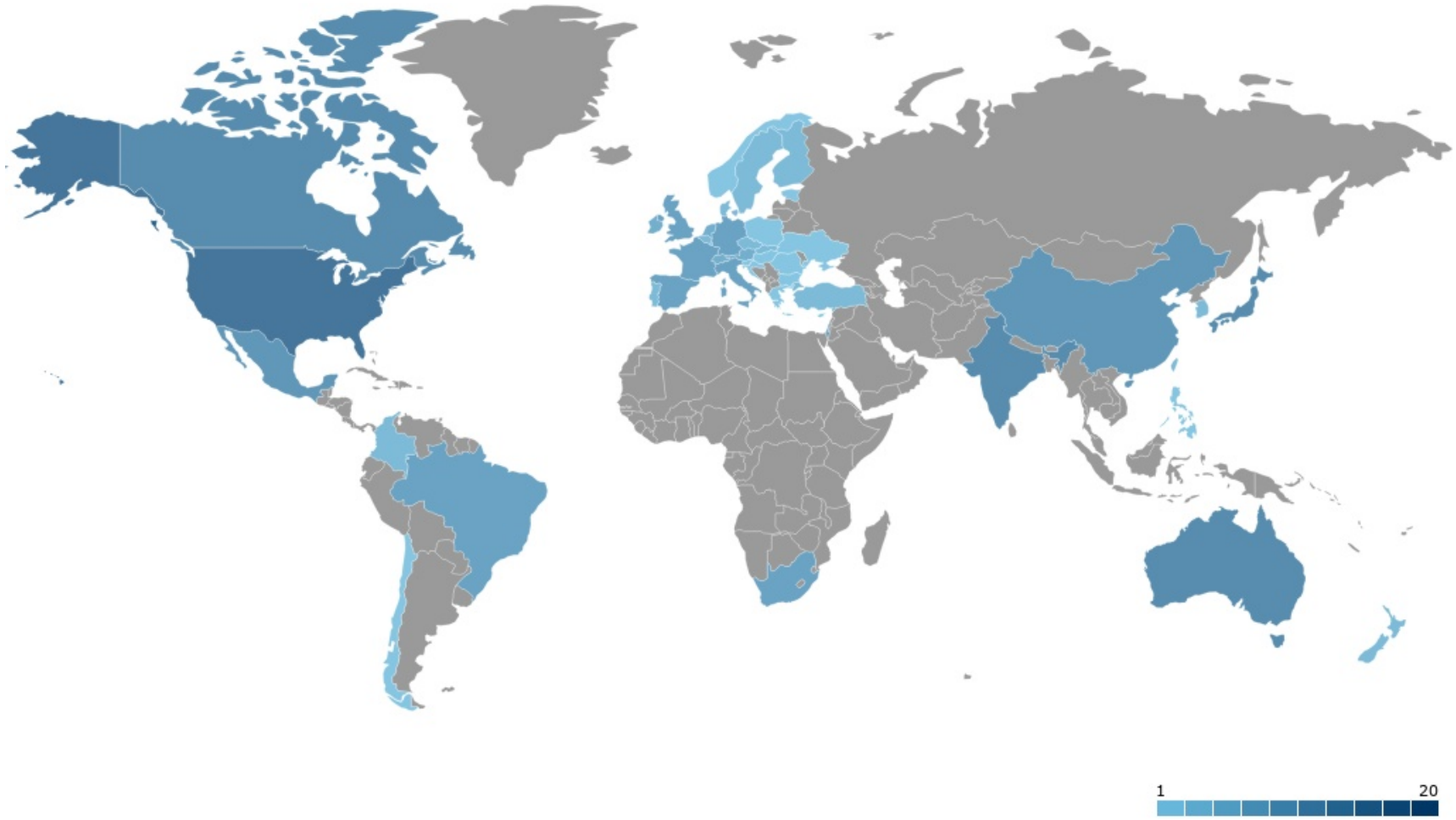
Studying the portfolio of an entity:
Different profiles can be observed, and these profiles depend on the filing strategy implemented by the applicant.
Thus, a growing portfolio (linear or exponential) indicates that the applicant is in the phase of construction of his portfolio (more or less rapidly). When a stabilization of the number of filings is observed, it can be explained by:
- a stabilization of R&D budgets, which leads to a flow of patent applications that is more or less constant without too much selectivity applying for patents.
- a desire to stabilize patent costs, which leads to a significant selectivity in the filings and their maintenance.
A decline in the number of patents filed is generally symptomatic of a substantial decline in R&D or intellectual property budgets.
Studying the patents of a topic:
Different types of profiles can be observed. Thus, a sector with linear growth shows actors' continued interest in the field without their needing to construct massive portfolios. Conversely, a sector with exponential growth is indicative of a race for a patent. When the number of applications filed decreases, it is indicative of the disengagement of the actors of the field, while a stable profile is a sign of sector maturity.
It is also possible to distinguish peaks or troughs in the number of applications filed, depending on R&D budgets or broader economic or even strategic changes.
Note: There will always be a gap in current patent information due to the 18-month delay between the filing of an application and its publication.



This graph illustrates the evolution of applications over time by applicant.

Studying the portfolio of an entity:
This graph illustrates applications over time and the evolution of co-applications made with partners. This can highlight the beginning or the end of a collaboration between two partners.
Studying the patents of a topic:
This analysis by applicant highlights the patent strategy and identifies new entrants or applicants who are no longer involved in this subject area. This information also helps explain the peaks in filing when a player files a significant number of applications over a short period of time (which could have an effect on the global evolution of filings).

Markets & competitors location

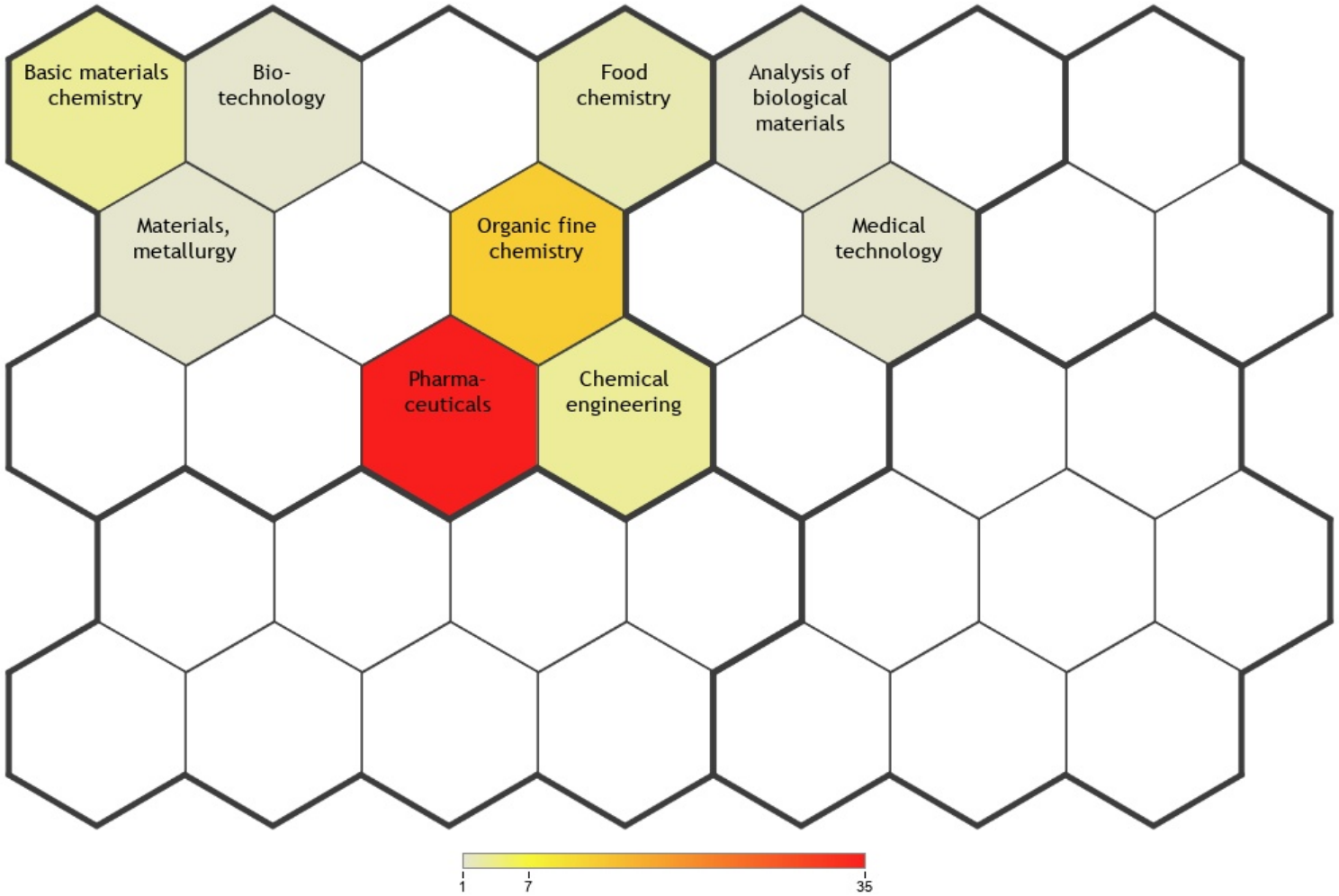


This representation illustrates the number of alive patents protected in the various national Offices. This graph includes extension countries for EP documents.

Studying the portfolio of an entity:
This graph demonstrates the protection strategy of the applicant, and thus helps to identify target markets.
Studying the patents of a topic:
This graph provides information on the patent strategies of the actors in the sector studied, as the national filings are a good indicator of the markets that need to be protected.
Note: Some players protect the geographical areas where the manufacturing sites of their competitors are located.

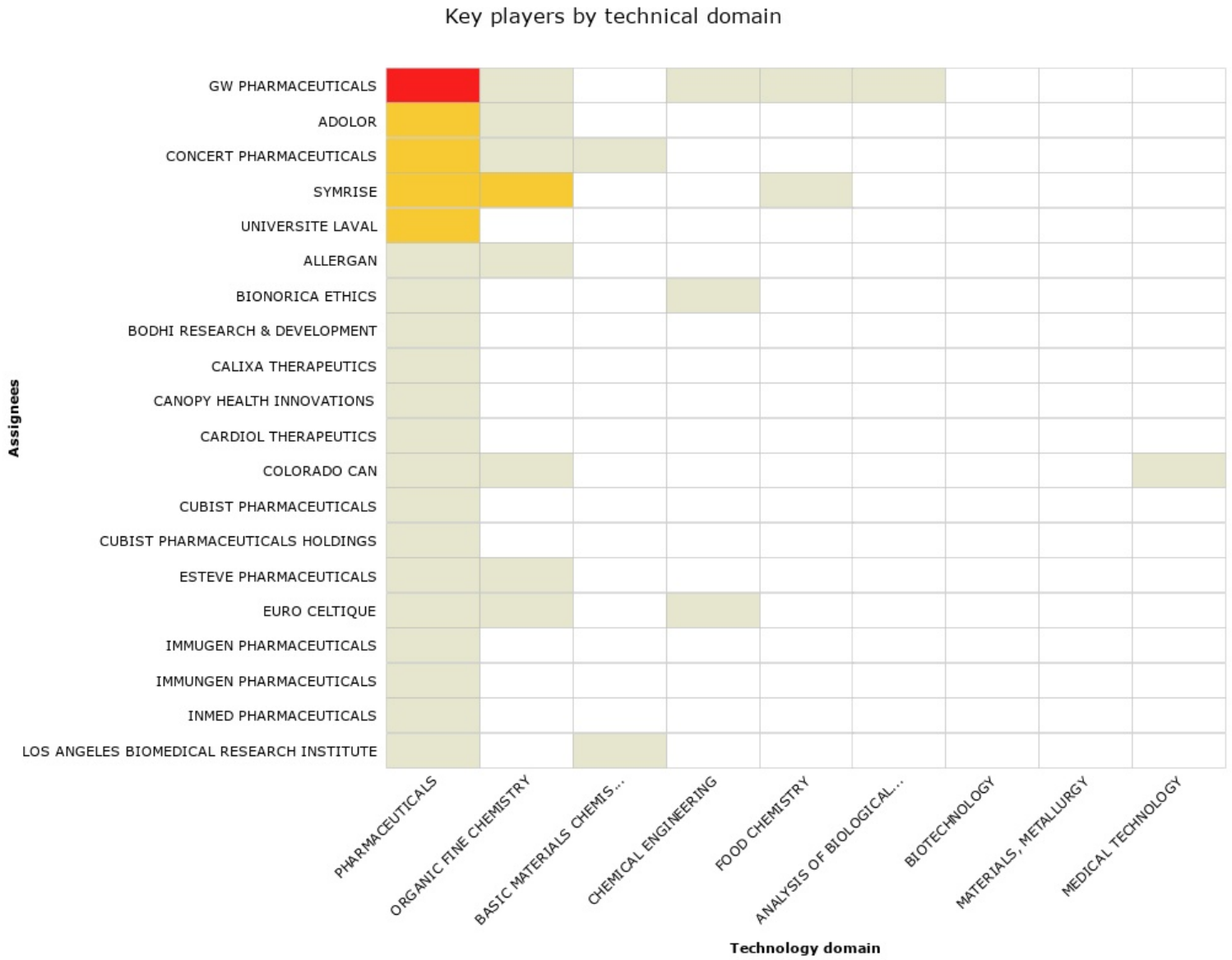
NB: The data in this graph are at the patent level. For EP patents you will see both the EP authority itself as well as all of the countries which are currently covered by the EP patents being analyzed.

Technology overview



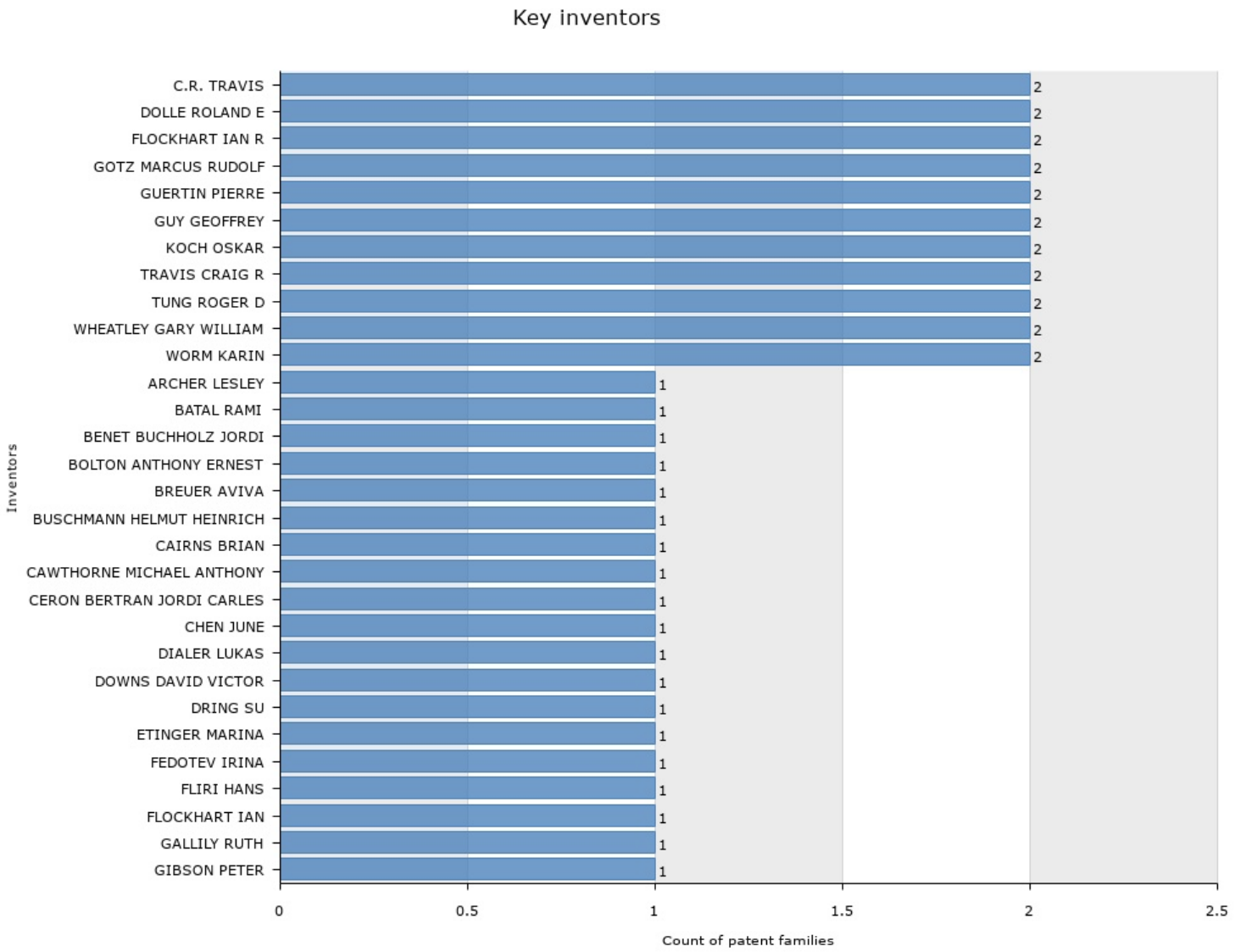
This visualization is based on the International Patent Classification (IPC) codes contained in a patent set being analyzed. The IPC codes have been grouped in 35 technology fields, which are represented here.

Studying the portfolio of an entity:
This graph helps to identify the diversity or the specificity of an applicant's patent portfolio. This illustration enables users to very quickly identify the core business of the player being studied. The least represented categories also serve as a means to identify other potential applications of this actor's patents.
Studying the patents of a topic:
This graph is useful in identifying patents in a domain and in a field that may have multiple uses. It can be a good way to identify new uses for patents already filed.
Note: Categorizations by technology domain are based on IPC code groupings, so patents can appear in several different categories.



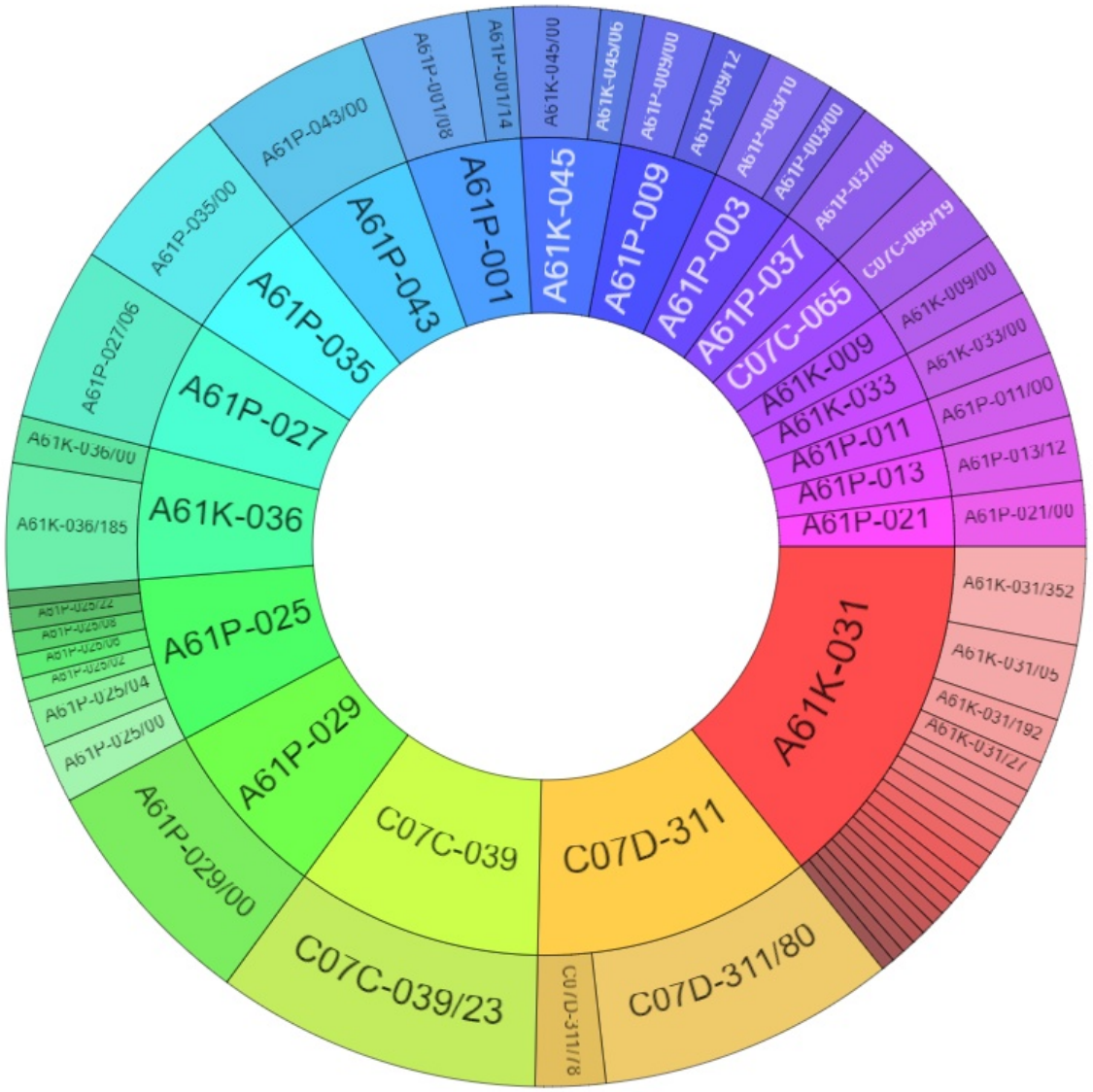
This graph shows the main technology areas protected by top applicants.
This makes it possible to study the positioning of the applicants and to identify complementarities with potential partners.

Note:
Categorizations by technology domain are based on groupings of IPC codes, so patents can appear in several different categories.



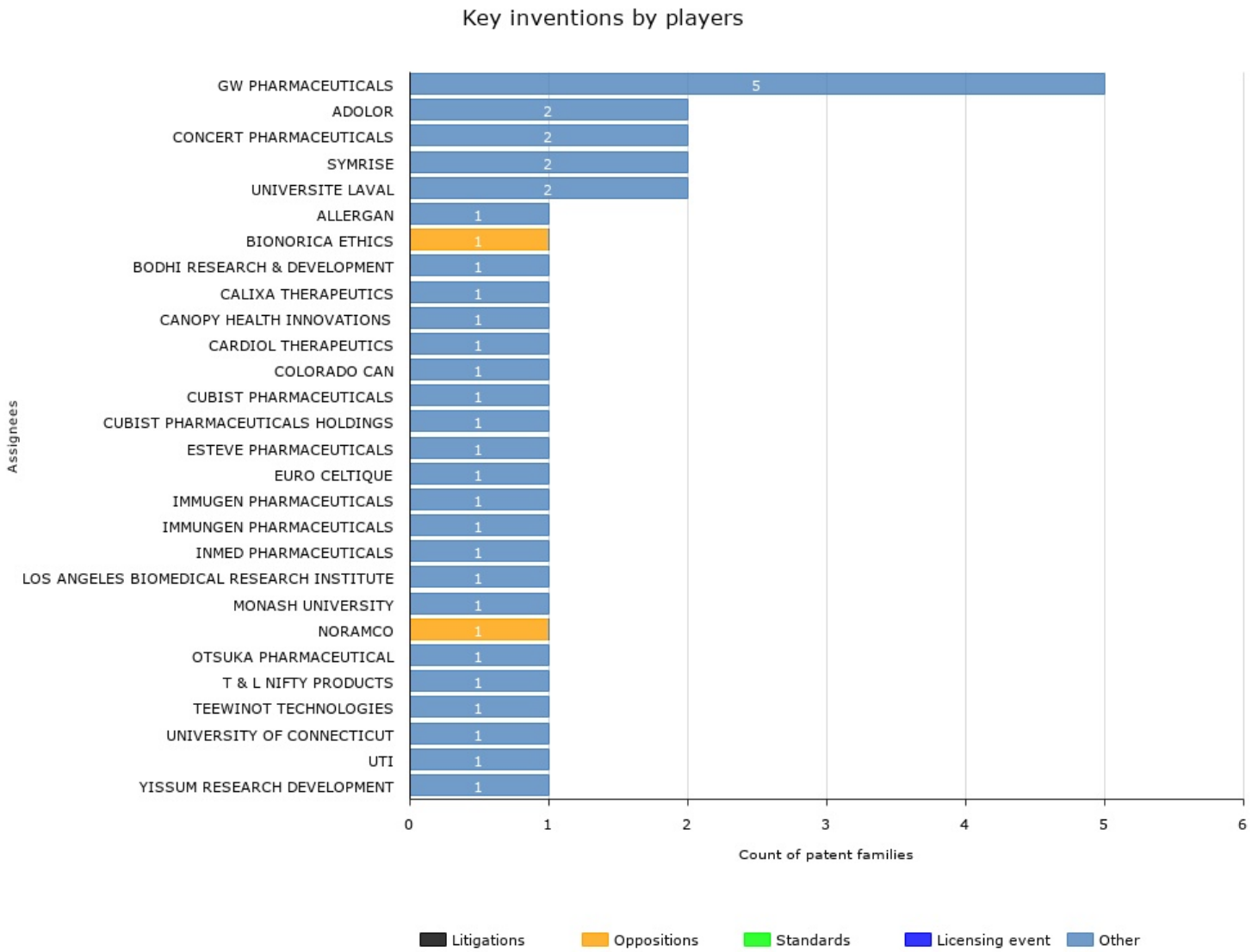
This graph identifies inventors listed in the largest number of patent in the analyzed portfolio and highlights expert inventors.

Technologies & applications



This graph shows the main IPC codes from patents being analyzed and is a good way to highlight the main protected technologies in the pool of documents.

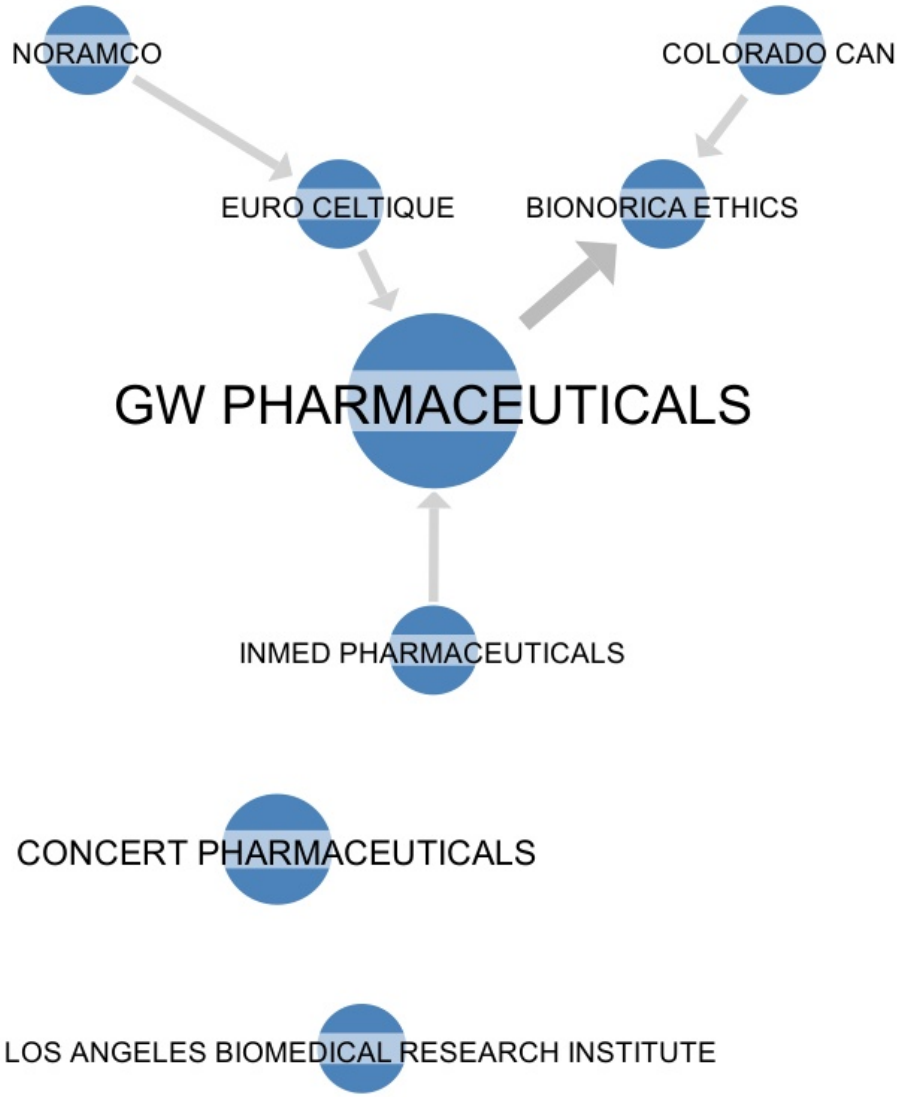
Studying the portfolio of an entity:
This graph shows the distribution of the main IPC codes contained in the patent portfolio and can help to identify the subject areas in which the applicant seeks protection.
Studying the patents of a topic:
This graph shows the categorization of a sector's patents by IPC code. For technical areas with multiple applications, this can be a good way to identify potential new applications for these patents.



This chart illustrates the top players and their key inventions.

Key inventions are patents that have been litigated, opposed, cited in a standard, or licensed. Patents that have survived litigation or opposition are considered strong patents. Presence of a licensing event is also a positive indicator, as another player was interested in this patent. Citations in standards also signal an important patent in the domain.

Players dependency by citations



This graph illustrates citations between applicants. This information identifies portfolios that have strong interactions with each other.

A portfolio that is strongly cited by most players is likely to be a pioneering or a blocking portfolio.

Search strategy

Query
(CANNABIDIOL)/TI/AB/CLMS AND (A61K AND C07C AND C07D AND A61P)/IPC

35 Documents

Publication numbers	Title	Current assignees
WO200232420 A1	Method for producing an extract from cannabis plant matter, containing a tetrahydrocannabinol and a cannabidiol and cannabis extracts	BIONORICA ETHICS
WO201711210 A1	Process for the production of cannabidiol and delta-9-tetrahydrocannabinol	NORAMCO
WO201956128 A1	Compositions comprising cannabidiol, tetrahydrocannabinol, terpenes, and flavonoids and use thereof in the treatment of insomnia	CANOPY HEALTH INNOVATIONS
WO201956123 A1	Topical formulations of cannabinoids and use thereof in the treatment of pain	INMED PHARMACEUTICALS
WO2008107879 A1	Novel cannabidiol derivatives and their use as anti-inflammatory agents	YISSUM RESEARCH DEVELOPMENT
WO2007127711 A2	Abnormal cannabidiols as agents for lowering intraocular pressure	ALLERGAN
WO2016127111 A1	Purified cbd and cbda, and methods, compositions and products employing cbd or cbda	COLORADO CAN
WO2018145213 A1	Cannabinoid-containing fatty acid formulations for treating disorders of the nervous system	BODHI RESEARCH & DEVELOPMENT
WO200644381 A2	Cannabinergic lipid ligands	UNIVERSITY OF CONNECTICUT
WO201574137 A1	Compositions and methods for treatment of ocular inflammation and pain	KELLY MELANIE, ...
WO200056303 A2	Treatment of immune diseases	T & L NIFTY PRODUCTS, ...
WO200879383 A1	Prostacyclin derivatives	CONCERT PHARMACEUTICALS
WO201532519 A1	Mixtures of cannabinoid compounds, and production and use thereof	SYMRISE
WO2012160358 A1	Cannabinoids for use in the treatment of neuropathic pain	GW PHARMACEUTICALS
WO201338157 A1	Phytocannabinoids for use in the treatment of cancer	OTSUKA PHARMACEUTICAL, ...
WO200416277 A2	Extraction of pharmaceutically active cannabinoids from plant materials	GW PHARMACEUTICALS
WO200653766 A1	Methods for purifying trans-(-)-?9-tetrahydrocannabinol and trans-(+)-?9-tetrahydrocannabinol	EURO CELTIQUE
US20130337052 A1	System and Method of Reducing Impairment of Alertness, Concentration, Motivation, and Creativity Caused by Medication	LINERT PATRICIA, ...
WO201085452 A1	Sorbic and benzoic acid and derivatives thereof enhance the	LOS ANGELES

Publication numbers	Title	Current assignees
	activity of a neuropharmaceutical	BIOMEDICAL RESEARCH INSTITUTE
WO200993018 A1	New use for cannabinoids	GW PHARMACEUTICALS
WO200641841 A1	Phenyl derivatives and methods of use	ADOLOR
ZA200107773 B	Treatment of immune diseases.	IMMUNGEN PHARMACEUTICALS
WO200758960 A1	Sulfamoyl benzamides as cannabinoid receptor modulators	CUBIST PHARMACEUTICALS HOLDINGS, ...
WO2016179581 A1	Hydrogenation of cannabis oil	Chardin, Mark Andrew SCIALDONE, Mark Andrew, ...
WO201818152 A1	Novel orally administrable formulation	ALLEN GREENSPOON, ...
WO201741139 A1	Lymph directing prodrugs	MONASH UNIVERSITY
WO2018132899 A1	Compound, composition, and methods for treating, preventing, reducing, or delaying onset of osteosarcoma lung metastasis in a subject	UTI
WO2017181118 A1	Biosynthesis of cannabinoid prodrugs	TEEWINOT TECHNOLOGIES
WO2009141144 A1	Co-crystals of duloxetine and cox-inhibitors for the treatment of pain	ESTEVE PHARMACEUTICALS
WO2019113685 A1	Amphiphilic block copolymers, micelles, and methods for treating or preventing heart failure	CARDIOL THERAPEUTICS
WO2016135308 A1	Mixtures of cannabinoid compounds, and production and use thereof	SYMRISE
WO2015127556 A1	Methods and uses for inducing or facilitating defecation in a patient in need thereof	UNIVERSITE LAVAL
WO201103058 A1	Prostacyclin derivatives	CONCERT PHARMACEUTICALS
WO2015127558 A1	Methods and uses for inducing or facilitating micturition in a patient in need thereof	UNIVERSITE LAVAL
WO200426857 A2	Methods of purifying cannabinoids from plant material	GW PHARMACEUTICALS

Method for producing an extract from cannabis plant matter, containing a tetrahydrocannabinol and a cannabidiol and cannabis extracts

WO200232420 A1

Current assignees

BIONORICA ETHICS*

DELTA 9 PHARMA

DELTA 9 PHARMA GESELLSCHAFT MITT BESHRENKTEL HUTTUNG GERMANY 9 2 3 1 8 NEUMARKT KELSCHENSTEINER STRATZE 1 1 1 5

Inventors

MUELLER ADAM

Priority data including date

2000DE-1051427 2000-10-17

2001DE-5007311 2001-10-16

2001WO-EP11967 2001-10-16

2003US-10399362 2003-10-16

2014US-14276165 2014-05-13

IPC - International classification

A61K-031/35*	A61K-031/35*2	A61K-036/00*
A61K-036/185	B01D-011/00	B01J-003/00
C07C-037/50	C07C-037/72	C07C-039/21
C07C-039/23	C07D-311/80	

CPC - Cooperative classification

A61K-031/35*	A61K-036/185	C07D-311/80*
Y02P-020/544		

PCL - US patent classification

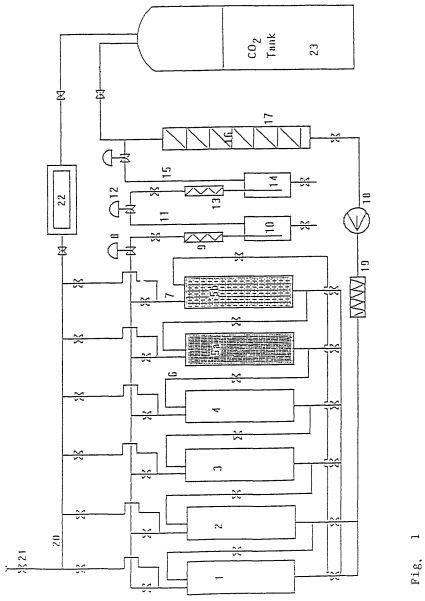
PCLO: 424725000* 424725000*

Family

US8895078	B2	2014-11-25	PL362446	A1	2004-11-02
US20140248379	A1	2014-09-04	ZA200302489	B	2004-07-05
HU227796	B1	2012-03-28	EA004520	B1	2004-06-24
SK287668	B6	2011-05-06	JP2004511517	A	2004-04-15
PL206679	B1	2010-09-30	US20040049059	A1	2004-03-11
BRPI0114717	A2	2010-02-23	CN1469741	A	2004-01-21
JP4146225	B2	2008-06-27	HU0303002	A2	2003-12-29
IL155185	B	2008-02-10	IL155185	A	2003-11-23
AU2002218242	B2	2006-04-06	EA200300485	A1	2003-10-30
ES2243580	T3	2005-12-01	BR0114717	A	2003-10-14
PT1326598	E	2005-11-30	BRPI0114717	A1	2003-10-14
DK1326598	T3	2005-11-28	SK3292003	A3	2003-09-11
DE50107311	D1	2005-10-06	CZ2003843	A3	2003-08-13
AT303142	T	2005-09-15	EP1326598	A1	2003-07-16
EP1326598	B1	2005-08-31	KR20030040522	A	2003-05-22
CN1202818	C	2005-05-25	DE10051427	C1	2002-06-13
HU0303002	A3	2005-02-28	AU1824202	A	2002-04-29
MXPA03003295	A	2004-12-13	WO02/32420	A1	2002-04-25
NZ525118	A	2004-11-26	CA2424356	A1	2002-04-25

(WO02/32420)

The invention relates to a method for producing an extract from cannabis plant matter, containing tetrahydrocannabinol, cannabidiol and optionally the carboxylic acids thereof. According to said method, the dried plant matter is ground and subjected to a CO2 extraction and the primary extract obtained is separated. The inventive method permits DELTA <8> or DELTA <9> tetrahydrocannabinol to be selectively obtained both from industrial hemp and from drug-producing hemp, optionally after dissolving the primary extract in ethanol, separating undesirable waxes and removing the solvent under reduced pressure.



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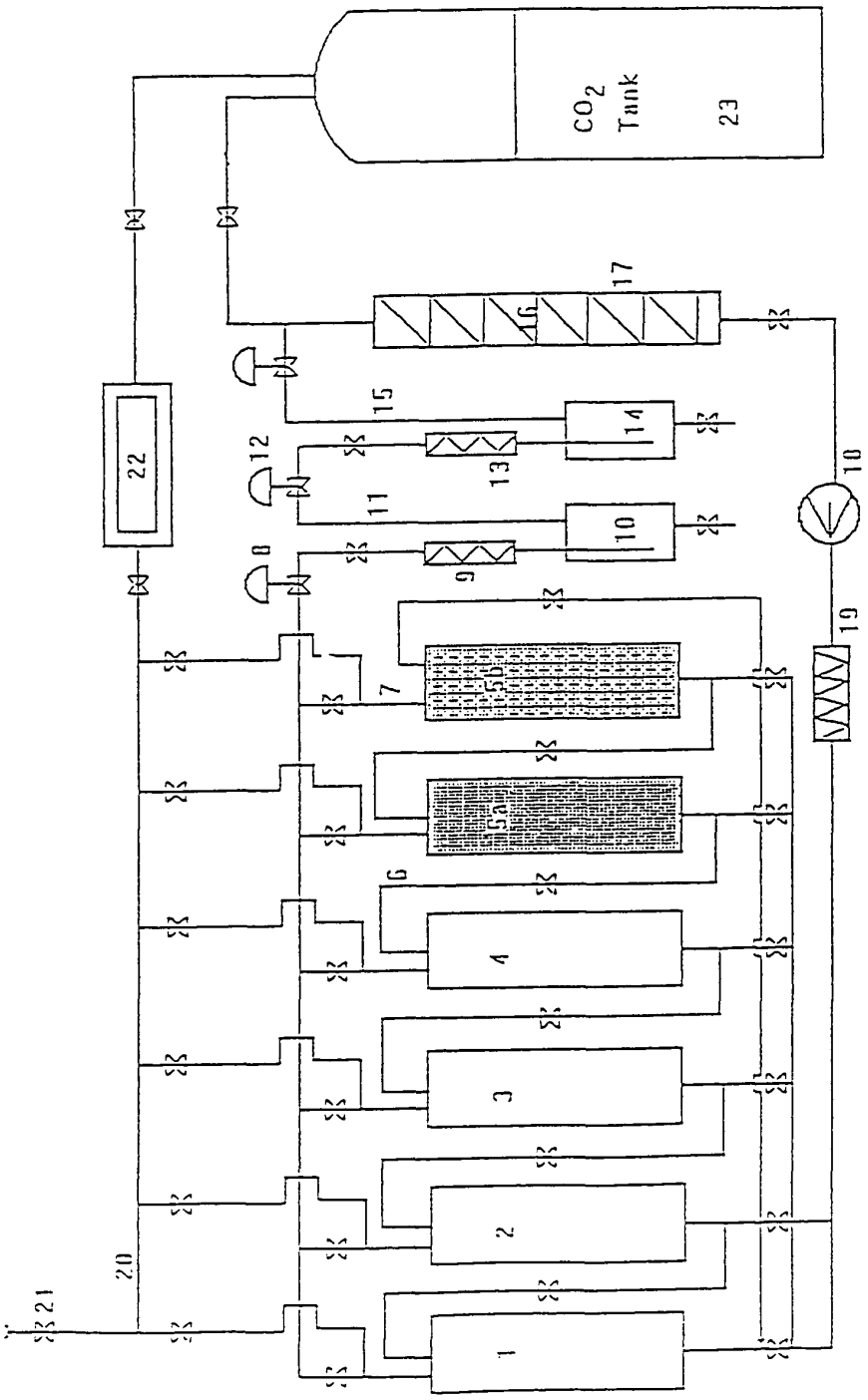

Fig. 1

Process for the production of cannabidiol and delta-9-tetrahydrocannabinol
WO201711210 A1

Current assignees

NORAMCO*

Inventors

DIALER LUKAS

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WEIGL ULRICH

Priority data including date

2015US-62191097 2015-07-10

2016US-15197929 2016-06-30

2016US-15199528 2016-06-30

2016WO-US40635 2016-07-01

2018US-16034876 2018-07-13

IPC - International classification

A61K-031/05	A61K-031/352	A61K-031/353
A61P-003/10	A61P-025/08	C07C-037/00
C07C-037/11	C07C-037/14	C07C-037/62
C07C-039/23	C07D	C07D-205/04
C07D-311/04*	C07D-311/78	C07D-311/80

CPC - Cooperative classification

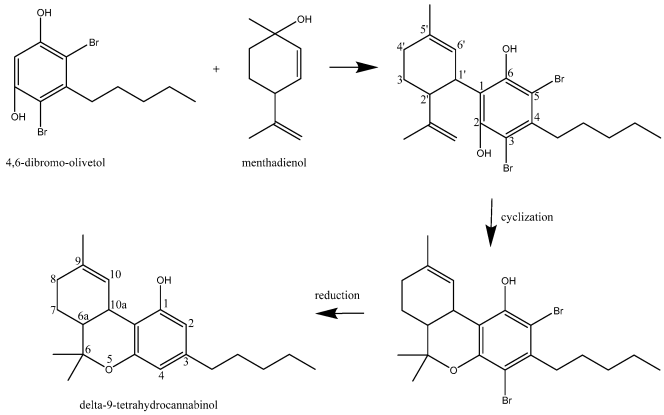
C07C-037/11	C07C-037/14	C07C-037/62
C07D-205/04	C07D-311/04	C07D-311/78*
C07D-311/80		

Family

AU2016294264	B2	2019-06-13	EP3319952	A1	2018-05-16
NZ738925	A	2019-05-31	CO2018001290	A2	2018-04-19
US20180319763	A1	2018-11-08	BR112018000497	A1	2018-04-03
BR112018000497	A2	2018-09-11	IL256750	A	2018-03-29
US10059683	B2	2018-08-28	IN201847003968	A	2018-02-09
CL2018000079	A1	2018-08-24	AU2016294264	A1	2018-02-01
JP2018522944	A	2018-08-16	WO2017/011210	A1	2017-01-19
MX2018000354	A	2018-08-15	CA2992043	A1	2017-01-19
PH12018500093	A1	2018-07-09	US20170008868	A1	2017-01-12
CR20180094	A	2018-06-14	US20170008869	A1	2017-01-12
CN108137526	A	2018-06-08			

(WO2017/011210)

The present disclosure relates to the preparation of a cannabidiol compound or a derivative thereof. The cannabidiol compound or derivatives thereof can be prepared by an acid-catalyzed reaction of a suitably selected and substituted di-halo-olivetol or derivative thereof with a suitably selected and substituted cyclic alkene to produce a dihalo-cannabidiol compound or derivative thereof. The dihalo-cannabidiol compound or derivative thereof can be produced in high yield, high stereospecificity, or both. It can then be converted under reducing conditions to a cannabidiol compound or derivatives thereof.



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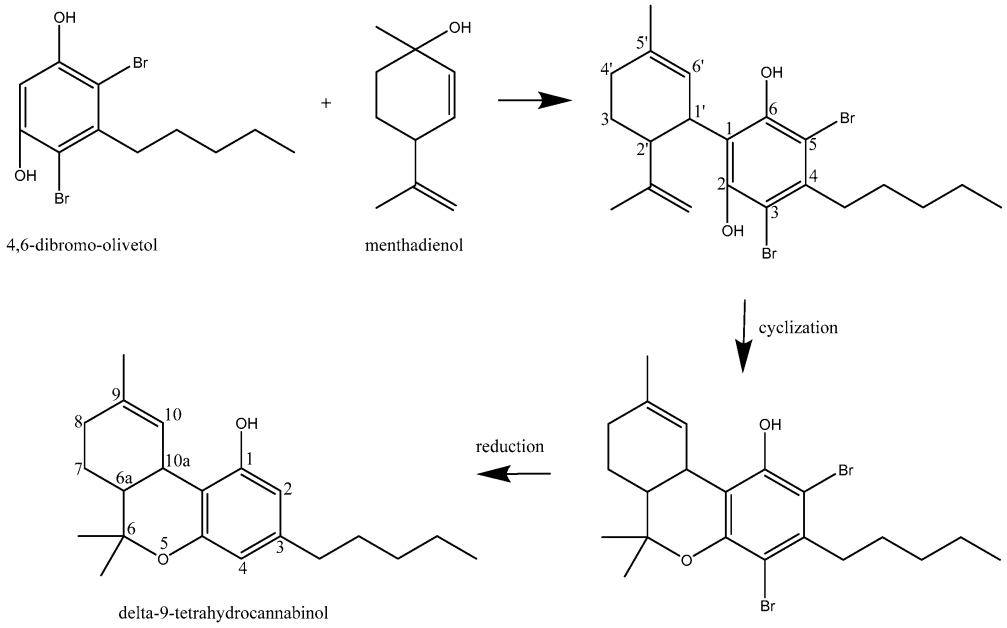

OH
Br
OH
Br
4,6-dibromo-olivetol
+
OH
menthadienol
5'
4'
6'
3
1'
2'
1
6
OH
Br
5
4
2
3
OH
Br
cyclization
reduction
9
10
8
OH
10a
1
7
6a
2
6
5
O
3
4
delta-9-tetrahydrocannabinol
OH
Br
O
Br

Compositions comprising cannabidiol, tetrahydrocannabinol, terpenes, and flavonoids and use thereof in the treatment of insomnia

WO201956128 A1

Current assignees

CANOPY HEALTH INNOVATIONS*

Inventors

MACNAIR LAURA
BATAL RAMI
HETHERINGTON MARK ANDREW
WARE MARK
SCHNARR CHRIS
KRAWCYZK STEVE

Priority data including date

2017US-62562817 2017-09-25
2017US-62562823 2017-09-25
2017US-62562826 2017-09-25
2017US-62562832 2017-09-25
2017US-62562836 2017-09-25
2017US-62562840 2017-09-25
2017US-62562845 2017-09-25
2017US-62562850 2017-09-25
2017US-62562853 2017-09-25

IPC - International classification

A61K-031/00	A61K-031/01	A61K-031/015
A61K-031/025	A61K-031/045	A61K-031/05
A61K-031/192	A61K-031/352*	A61K-036/185
A61P-025/20	C07C-011/21	C07C-013/20
C07C-013/21	C07C-013/23	C07C-013/42
C07C-035/30	C07C-039/19	C07C-039/23
C07C-065/19	C07D-311/58	C07D-311/60
C07D-311/74	C07D-311/80	

CPC - Cooperative classification

A61K-031/00	A61K-031/01	A61K-031/015
A61K-031/025	A61K-031/045	A61K-031/05
A61K-031/192	A61K-031/352	A61K-036/185
A61P-025/20*	C07D-311/60	C07D-311/80

Family

WO2019/056128	A1	2019-03-28	WO2019/056129	A2	2019-03-28

(WO2019/056128)
Compositions comprising two or more cannabinoids, a terpene, and a flavonoid suitable for use in treating insomnia are disclosed. In preferred embodiments, the cannabinoids are cannabidiol and tetrahydrocannabinol, while the terpenes and flavonoids are selected from compounds that naturally occur in Cannabis extracts. Methods of treating insomnia by administering such compositions by a variety of routes are also disclosed.

Topical formulations of cannabinoids and use thereof in the treatment of pain
WO201956123 A1

Current assignees

INMED PHARMACEUTICALS*

Inventors

WONG HAYES
HOSSAIN SAZZAD
CAIRNS BRIAN
LONG KAREN ANN
MANCINI ALEXANDRA

Priority data including date

2017US-62562166 2017-09-22

IPC - International classification

A61K-009/00	A61K-031/05	A61K-031/085
A61K-031/192	A61K-031/343	A61K-031/352*
A61K-031/397	A61K-031/415	A61K-031/4164
A61P-029/00	C07C-039/23	C07C-043/295
C07C-065/19	C07D-205/04	C07D-231/10
C07D-233/54	C07D-307/78	C07D-311/58
C07D-311/74	C07D-311/80	

CPC - Cooperative classification

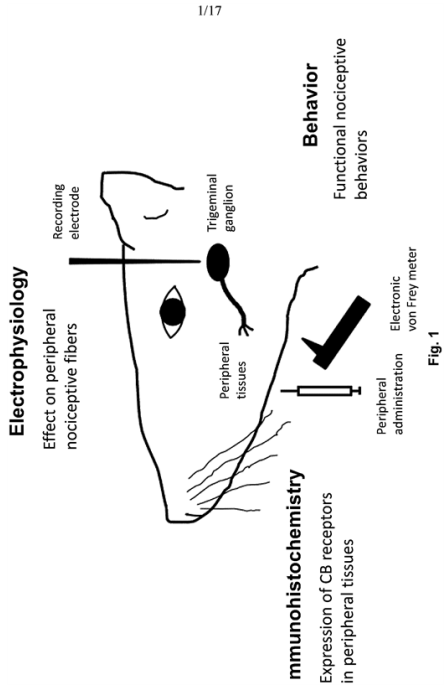
A61K-009/00/14	A61K-009/06	A61K-031/05
A61K-031/085	A61K-031/192	A61K-031/343
A61K-031/352	A61K-031/397	A61K-031/415
A61K-031/4164	A61K-047/10	A61K-047/14
A61K-047/24	A61P-029/00*	C07D-403/04
C07D-413/14	C07D-417/14	

Family

WO2019/056123 A1 2019-03-28

(WO2019/056123)

Pharmaceutical compositions comprising one or more cannabinoids and a pharmaceutically acceptable carrier are disclosed. The compositions are in a form suitable for topical administration, and are useful in the treatment of pain. The cannabinoids suitable for use include cannabidiols, cannabinols, and various other naturally occurring and synthetic cannabinoids. The compositions may also further include anti-inflammatory agents, steroids, or terpenoids. In preferred embodiments, the cannabinoids incorporated in the compositions are cannabidiol (CBD) and cannabinol (CBN) while the carriers are selected from the group consisting of Labrasol™, Transcutol™, lecithin, lysolecithin, isopropyl palmitate, and isopropyl myristate.



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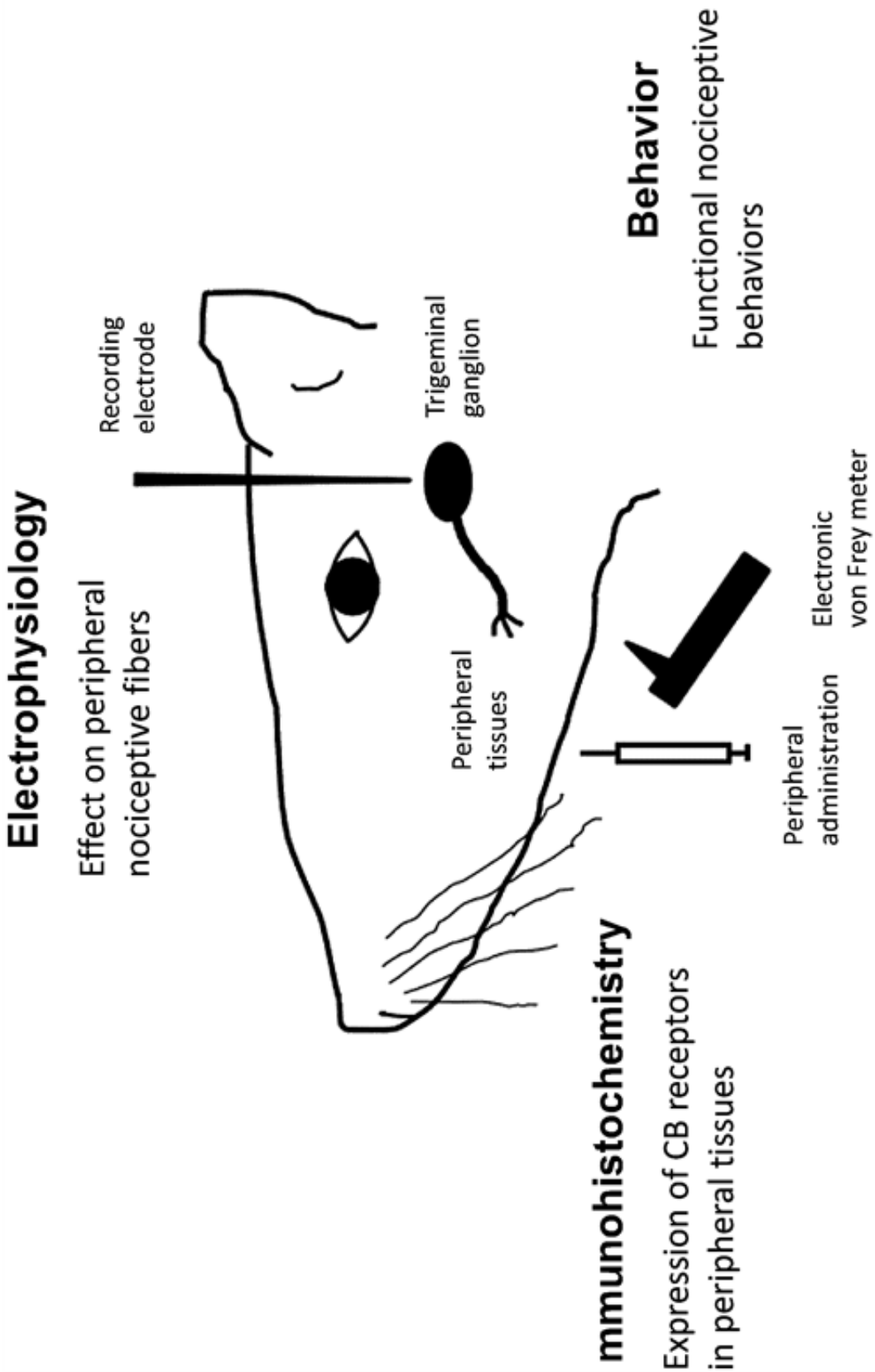

Electrophysiology
Effect on peripheral nociceptive fibers
Recording electrode
Trigeminal ganglion
Peripheral tissues
Behavior
Functional nociceptive behaviors
Electronic von Frey meter
Peripheral administration
mmunohistochemistry
Expression of CB receptors in peripheral tissues

Fig. 1

Novel cannabidiol derivatives and their use as anti-inflammatory agents
WO2008107879 A1

Current assignees
YISSUM RESEARCH DEVELOPMENT*

Inventors
MECHOULAM RAPHAEL
KOGAN NATALYA
GALLILY RUTH
BREUER AVIVA

Priority data including date
2007US-60904806 2007-03-05
2007US-60990356 2007-11-27

IPC - International classification

A61K-031/138	A61K-031/192	A61K-031/275
A61K-031/5377	A61P-029/00	C07C-043/23
C07C-059/72	C07C-217/20*	C07C-255/13
C07C-271/16	C07D-295/14	

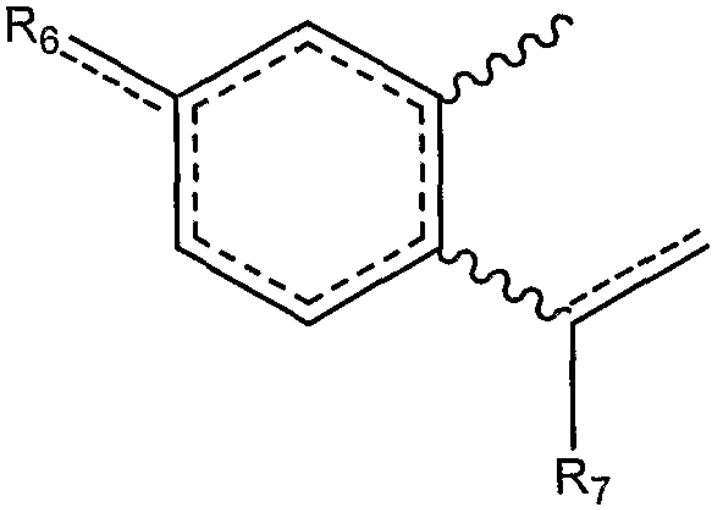
CPC - Cooperative classification

C07C-043/23	C07C-059/72	C07C-2101/16
C07C-217/20	C07C-255/13	C07C-2601/16
C07C-271/16*	C07D-295/15	

Family

WO2008/107879	A1	2008-09-12

(WO2008/107879)
Novel derivatives of cannabidiol, having one or two of the hydroxyl groups substituted, exhibiting improved production yield, solubility, stability and bioavailability, are provided. Also provided are pharmaceutical compositions comprising same and uses thereof as anti-inflammatory agents.



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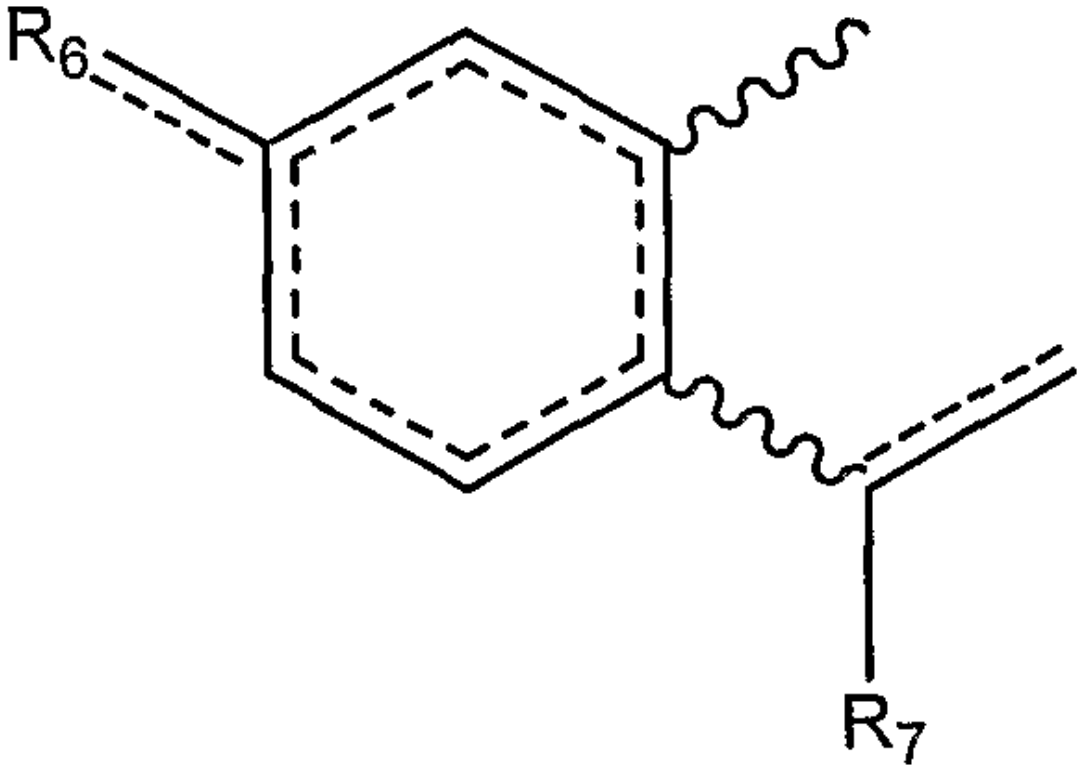

Abnormal cannabidiols as agents for lowering intraocular pressure
WO2007127711 A2

Current assignees

ALLERGAN*

Inventors

CHEN JUNE
FLIRI HANS
PETTIT SIMON

Priority data including date

2006US-11409570 2006-04-24
2006US-11409868 2006-04-24
2006US-11409871 2006-04-24
2007CA-2648884 2007-04-24
2007EP-0761166 2007-04-24
2007US-11739183 2007-04-24
2007WO-US67267 2007-04-24
2011US-13151675 2011-06-02

IPC - International classification

A61K-031/05*	A61K-031/085	A61K-031/122
A61K-031/34	A61K-031/35	A61K-031/381
A61K-031/382	A61K-031/4353	A61K-031/44
A61K-031/4412	A61K-031/4418	A61K-031/4427
A61K-031/445	A61K-031/451	A61K-031/4523
A61K-031/50	A61K-031/501	A61K-031/502
A61K-031/5377	A61K-031/542	A61K-031/57
A61K-031/661	A61K-031/675	A61K-031/69
A61K-045/00	A61P-009/12	A61P-027/02
A61P-027/06	C07C-039/08	C07C-039/23
C07C-039/42	C07C-043/215	C07D-211/00
C07D-211/70	C07D-211/86	C07D-237/00
C07D-237/02	C07D-237/16	C07D-295/02
C07D-401/00	C07D-405/00	

CPC - Cooperative classification

A61K-031/05	A61K-031/122	A61K-031/34
A61K-031/35	A61K-031/381	A61K-031/382
A61K-031/435	A61K-031/4353	A61K-031/44
A61K-031/4427	A61K-031/445	A61K-031/4523
A61K-031/50	A61K-031/501	A61K-031/502
A61K-031/5375	C07C-039/17	C07C-039/23
C07D-211/70*	C07D-211/86	C07D-237/16
C07D-237/24		

PCL - US patent classification

PCLO:	514064000*	544238000*	
PCLX:	514089000	514114000	514171000
514226500	514236200	514247000	514249000
544240000	544241000	546210000	

Family

CA2648884	C	2015-10-13	EP2010165	A2	2009-01-07
JP2014058536	A	2014-04-03	WO2007/127711	A3	2008-03-27
AU2007244978	B2	2013-05-30	WO2007/127711	A2	2007-11-08
BRPI0710732	A2	2011-11-08	AU2007244978	A1	2007-11-08
US20110269715	A1	2011-11-03	CA2648884	A1	2007-11-08
US7968711	B2	2011-06-28	CA2823724	A1	2007-11-08
EP2123264	A1	2009-11-25	CA2823767	A1	2007-11-08
JP2009536623	A	2009-10-15	US20070249596	A1	2007-10-25

(WO2007/127711)

The present invention provides a method of treating glaucoma or ocular hypertension which comprises applying to the eye of a person in need thereof an amount sufficient to treat glaucoma or ocular hypertension of a compound of formula (I), wherein Y, Q, Z, R, R1 and R2 are as defined in the specification. The present invention further comprises pharmaceutical compositions, e.g. ophthalmic compositions, including said compound.

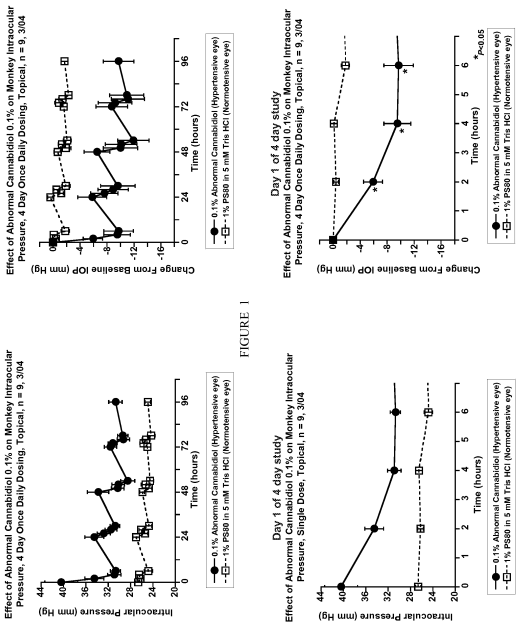

FIGURE 1

IMG

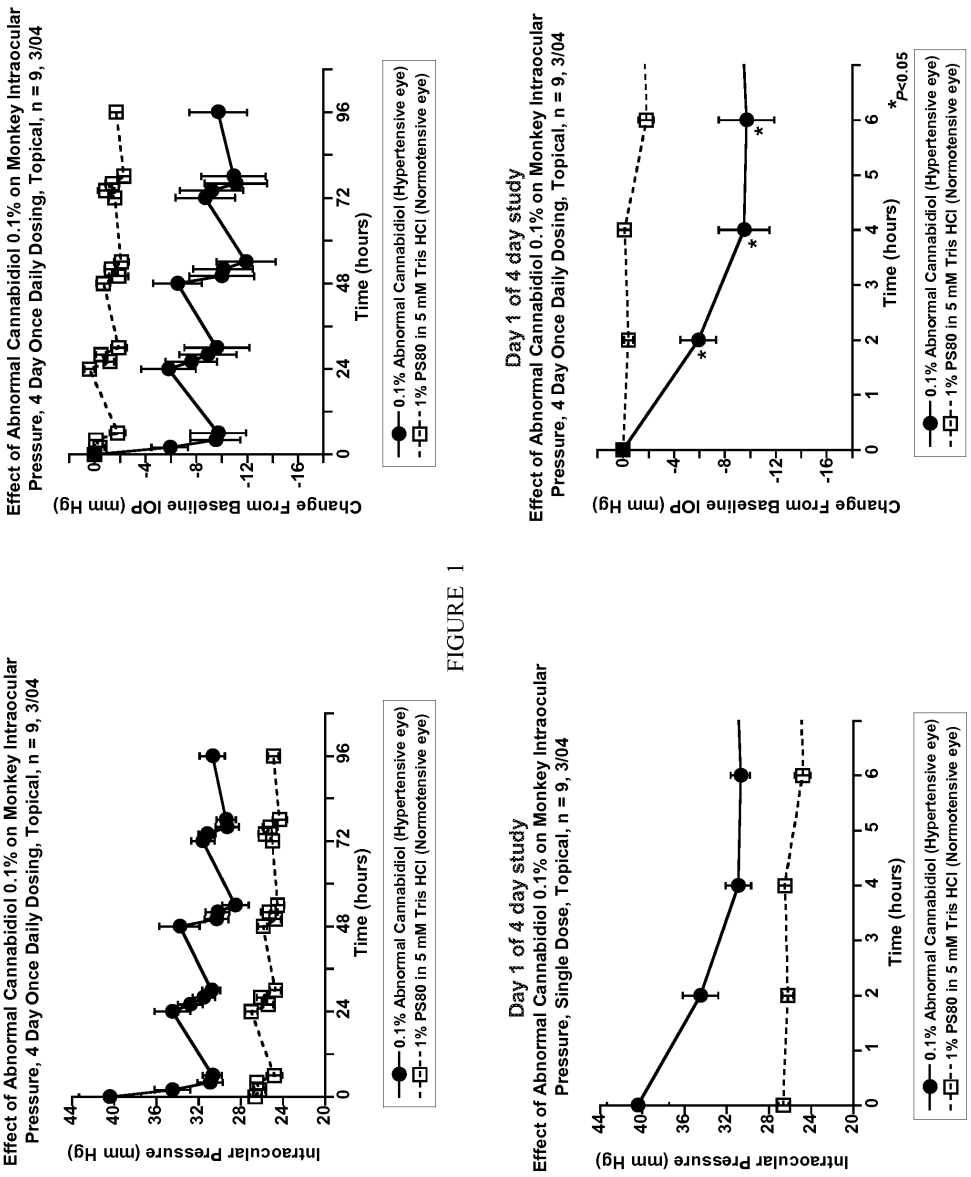
Effect of Abnormal Cannabidiol 0.1% on Monkey Intraocular Pressure, 4 Day Once Daily Dosing, Topical, n = 9, 3/04
Change From Baseline IOP (mm Hg)
Time (hours)
0.1% Abnormal Cannabidiol (Hypertensive eye)
1% PS80 in 5 mM Tris HCl (Normotensive eye)
Day 1 of 4 day study
Effect of Abnormal Cannabidiol 0.1% on Monkey Intraocular Pressure, Single Dose, Topical, n = 9, 3/04
Intraocular Pressure (mm Hg)
*P<0.05

FIGURE 1

Purified cbd and cbda, and methods, compositions and products employing cbd or cbda

WO2016127111 A1

Current assignees

COLORADO CAN*

Inventors

SIEVERS ROBERT E

REBITS LIA

Priority data including date

2015US-62112616 2015-02-05

2015US-62112695 2015-02-06

2015US-62158908 2015-05-08

2016US-15017384 2016-02-05

2016WO-US16860 2016-02-05

IPC - International classification

A61K	A61K-009/00	A61K-009/14
A61K-009/16	A61K-009/20	A61K-031/05*
A61K-031/192	A61K-031/352	A61K-033/00
A61K-036/185	A61L-002/02	A61P-025/08
A61P-025/34	A61P-025/36	A61P-035/00
C07C-037/70*	C07C-039/23	C07C-051/47
C07C-065/19	C07D-311/80	C07F-005/00

CPC - Cooperative classification

A61K-009/00/56	A61K-009/14/6	A61K-009/16/94
A61K-009/20/18	A61K-009/20/27	A61K-031/05*
A61K-031/192	A61K-033/00	A61K-036/185
A61P-025/08	A61P-025/34	A61P-025/36
A61P-035/00	C07F-005/00/3	

Family

EP3253727	A4	2018-08-08	WO2016/127111	A1	2016-08-11
EP3253727	A1	2017-12-13	US20160228385	A1	2016-08-11
IL253727	A	2017-09-28	CA2976004	A1	2016-08-11
AU2016215094	A1	2017-08-17			

(WO2016/127111)

A purified cannabidiol (CBD) extract and/or cannabidiolic acid (CBDA) extract is isolated from industrial hemp and comprises less than 0.5 wt % organic impurities as measured by HPLC and 1H NMR spectroscopy exhibits no detectable peak at 4.07 ppm as measured by 1H NMR spectroscopy. The CBD and/or CBDA extract is in crystalline form. The CBD extract exhibits a melting point as measured by differential scanning calorimetry (DSC) of 69-70 °C. Dry powder compositions comprise such extracts. Additional dry powder compositions comprise polyvinylpyrrolidone and an amorphous CBD extract. An adduct comprises CBD and/or CBDA bonded to a paramagnetic trivalent lanthanide (III) metal chelate.

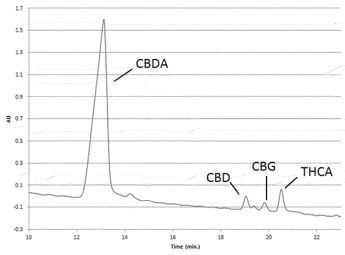

Fig. 1

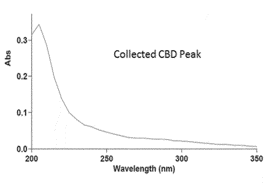

Fig. 2A

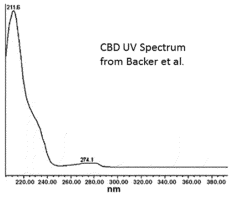

Fig. 2B

IMG

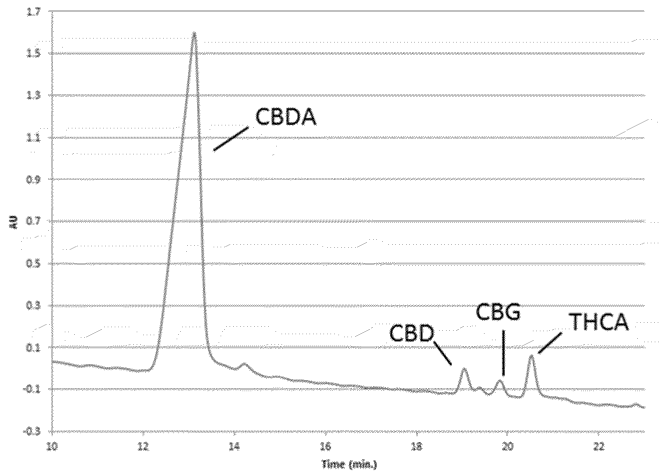

Fig. 1

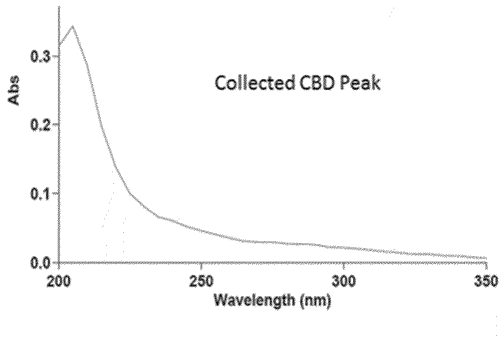

Fig. 2A

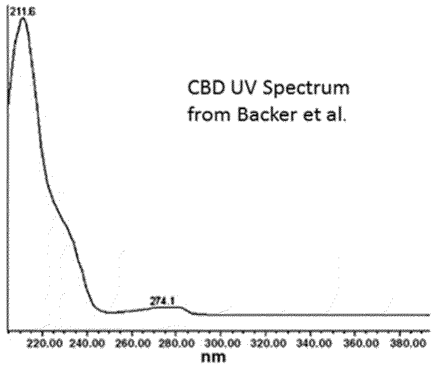

Fig. 2B

Cannabinoid-containing fatty acid formulations for treating disorders of the nervous system

WO2018145213 A1

Current assignees

BODHI RESEARCH & DEVELOPMENT*

Inventors

JHA NEILANK K

Priority data including date

2017US-62457059 2017-02-09

IPC - International classification

A61K-031/05	A61K-031/202	A61K-031/352*
A61K-036/185	A61P-025/00	C07C-039/23
C07C-057/03	C07D-311/80	

CPC - Cooperative classification

A61K-031/05	A61K-031/202	A61K-031/352
A61K-036/185	A61P-025/00*	

Family

WO2018/145213	A1	2018-08-16

(WO2018/145213)
Pharmaceutical compositions comprising cannabidiol (CBD), tetrahydrocannabinol (THC), and select omega-3 fatty acids are provided. The CBD and THC are present in a weight ratio of CBD:THC of 10:1 to 20:1. The omega-3 fatty acids comprise eicosapentaenoic acid and/or docosahexaenoic acid. Such compositions are useful in the treatment and prevention of traumatic brain injuries, concussions, post-concussive brain injury (PCS), and complications arising from such injuries.

Figure 1

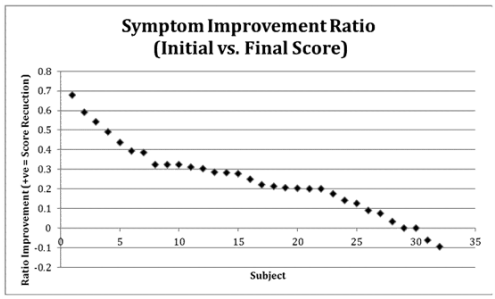

Figure 2

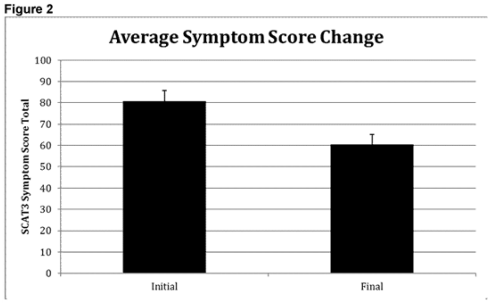

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Figure 1

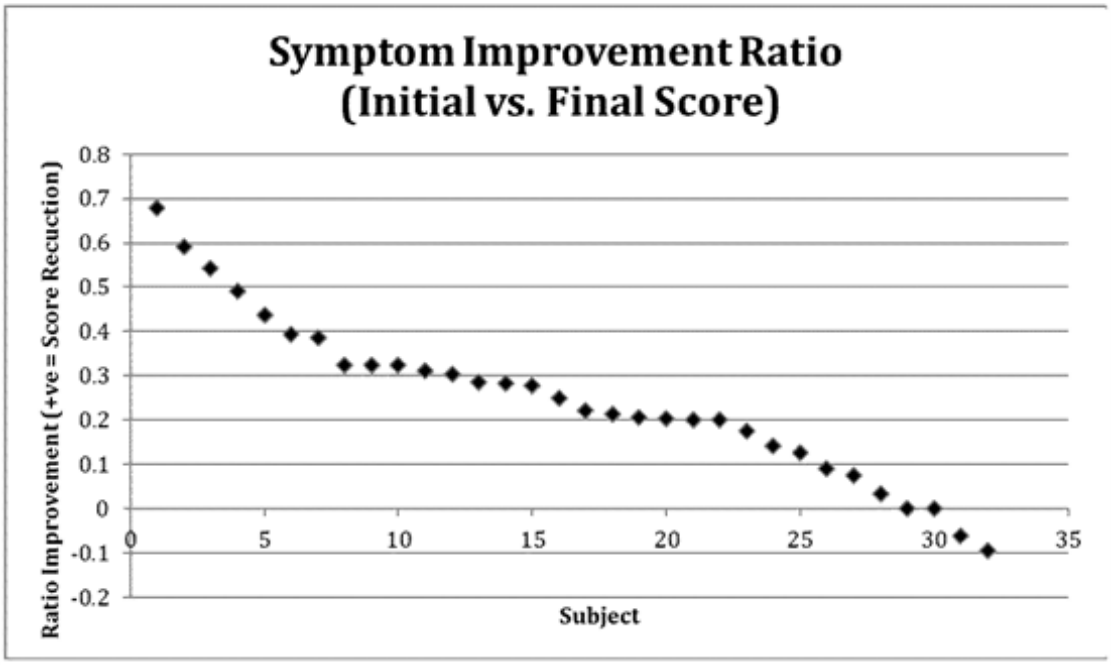
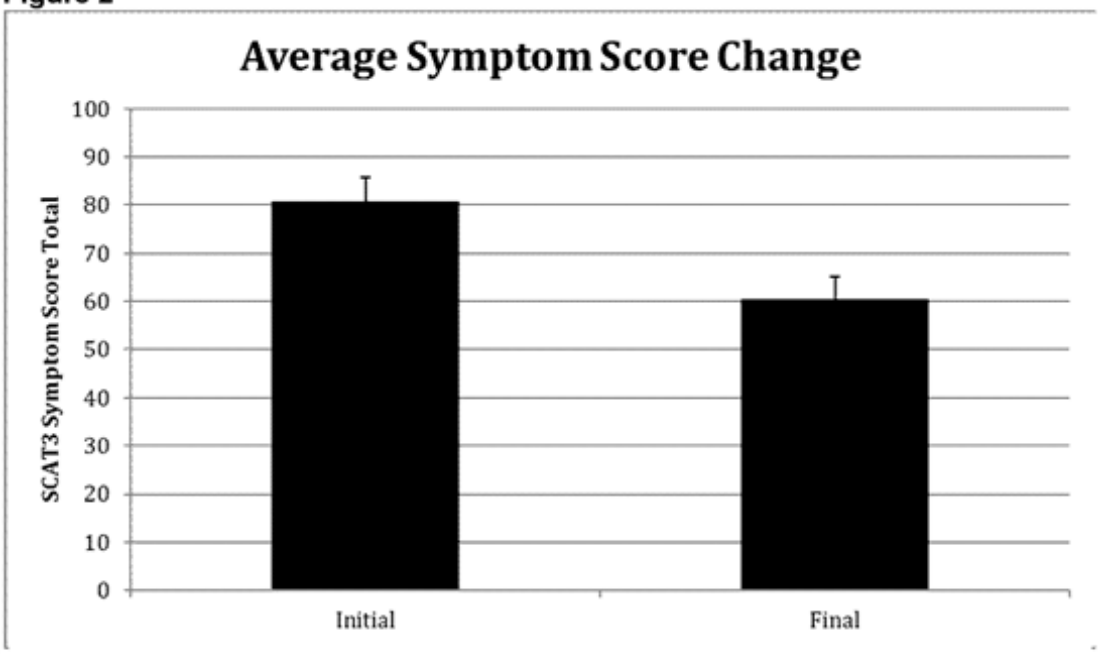


Figure 2



Cannabinergic lipid ligands
WO200644381 A2

Current assignees

UNIVERSITY OF CONNECTICUT*

Inventors

MAKRIYANNIS ALEXANDROS
LI CHEN
LU DAI

Priority data including date

2004US-60618625 2004-10-13
2005US-11577156 2005-10-12
2005WO-US36524 2005-10-12

IPC - International classification

A61K-031/16	A61K-031/167	A61K-031/26
A61K-031/27	A61K-031/277	A61K-031/426
A61K-031/44*	A61K-031/44*06	A61P-001/08
A61P-003/04	A61P-009/00	A61P-025/02
A61P-025/14	A61P-025/22	A61P-027/06
A61P-035/00	A61P-043/00	C07C-059/00
C07C-231/00*	C07C-233/11	C07C-233/25
C07C-235/28	C07C-235/48	C07C-235/50
C07C-237/16	C07C-247/12	C07C-255/07
C07C-271/16	C07C-331/22	C07D-213/75
C07D-277/20	C07D-277/46	C07D-277/48

CPC - Cooperative classification

C07C-2101/02	C07C-2101/04	C07C-2101/14
C07C-2102/42	C07C-2103/74	C07C-233/09
C07C-233/11	C07C-233/21*	C07C-233/29
C07C-233/36	C07C-235/08	C07C-235/28
C07C-235/50	C07C-237/16	C07C-247/08
C07C-255/23	C07C-2601/02	C07C-2601/04
C07C-2601/14	C07C-2602/42	C07C-2603/74
C07C-271/12	C07C-271/16	C07C-271/24
C07C-271/28	C07C-331/22	C07D-277/18
C07D-277/46		

PCL - US patent classification

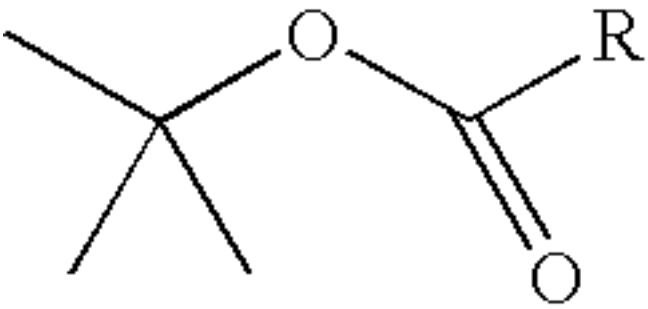
PCLO:	514352000*			
PCLX:	514371000	514546000	514560000	
514626000	514627000	554224000	554230000	

Family

US8202893	B2	2012-06-19	WO2006/044381	A3	2007-01-18
US20090163557	A1	2009-06-25	WO2006/044381	A2	2006-04-27
JP2008515978	A	2008-05-15	AU2005295878	A1	2006-04-27
EP1812378	A2	2007-08-01	CA2583606	A1	2006-04-27
MX2007004536	A	2007-07-17			

(WO2006/044381)

One aspect of this disclosure relates generally to lipid compounds that exert diverse effects in the endocannabinoid system, such as regulating CB1 and CB2 receptor or moderating other bio-macromolecules within the endocannabinoid system. Some of the compounds showed improved receptor binding affinity, and/or improved receptor subtype selectivity, and improved bio-stability. Some of the compounds exhibit activities to regulate the enzymes that moderate the bio-disposal of endogenous cannabinoids, such as the fatty acid amide hydrolase (FAAH). Some of the compounds exhibit activities to inhibit the anandamide transporter. Other aspects of the invention are pharmaceutical preparations employing these ligands and methods of administering therapeutically effective amounts of the preparations to provide a physiological effect.



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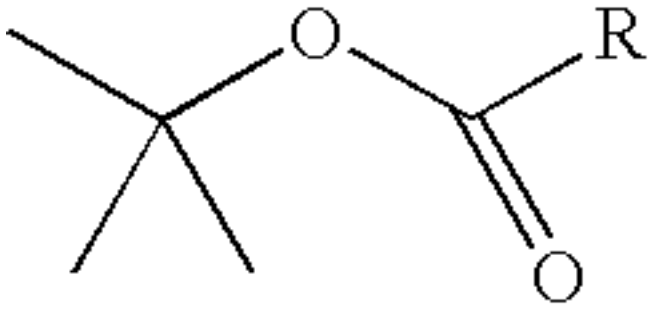

Compositions and methods for treatment of ocular inflammation and pain
WO201574137 A1

Current assignees
KELLY MELANIE
LYNCH MARY

Inventors
LYNCH MARY
KELLY MELANIE

Priority data including date
2013US-61906694 2013-11-20
2014WO-CA00841 2014-11-20
2015US-14722991 2015-05-27
2016WO-CA50603 2016-05-27

IPC - International classification

A61K-031/015	A61K-031/05*	A61K-031/09
A61K-031/352*	A61K-045/06	A61P-025/02
A61P-027/02	A61P-029/00	C07C-013/32
C07C-039/23	C07C-043/23	C07D-311/80

CPC - Cooperative classification

A61K-031/01	A61K-031/015	A61K-031/05*
A61K-031/09	A61K-031/352	A61K-045/06
A61P-025/02	A61P-029/00	

Family

EP3302464	A4	2019-01-23	CA2986588	A1	2016-12-01
EP3302464	A1	2018-04-11	EP3071193	A1	2016-09-28
AU2016268872	A1	2018-01-18	WO2015/074137	A1	2015-05-28
EP3071193	A4	2017-05-24	CA2931039	A1	2015-05-28
WO2016/187722	A1	2016-12-01			

(WO2015/074137)

The disclosure provides methods of treatment of ocular inflammation or neuropathic pain in a subject in need thereof, comprising administering to the subject in need thereof a CB2 target agent, a cannabimimetic agent (such as a non-psychotropic cannabimimetic agent) or a combination thereof. The agent is optionally a cannabinoid, such as a non-psychotropic cannabinoid or a synthetic cannabinoid. In certain embodiments, the non-psychotropic phytocannabinoid is β-caryophyllene or cannabidiol [CBD] and the synthetic cannabinoid is HU-433, HU-308, or a modified CBD such as CBD-DMH. The disclosure also provides ocular pharmaceutical compositions containing the CB2 target agents or cannabimimetic agents such as non-psychotropic cannabimimetic agents described herein.

1/15

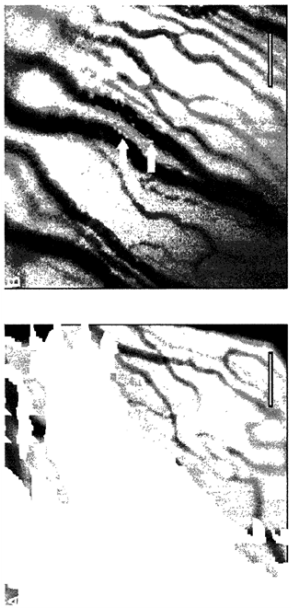

FIG. 1

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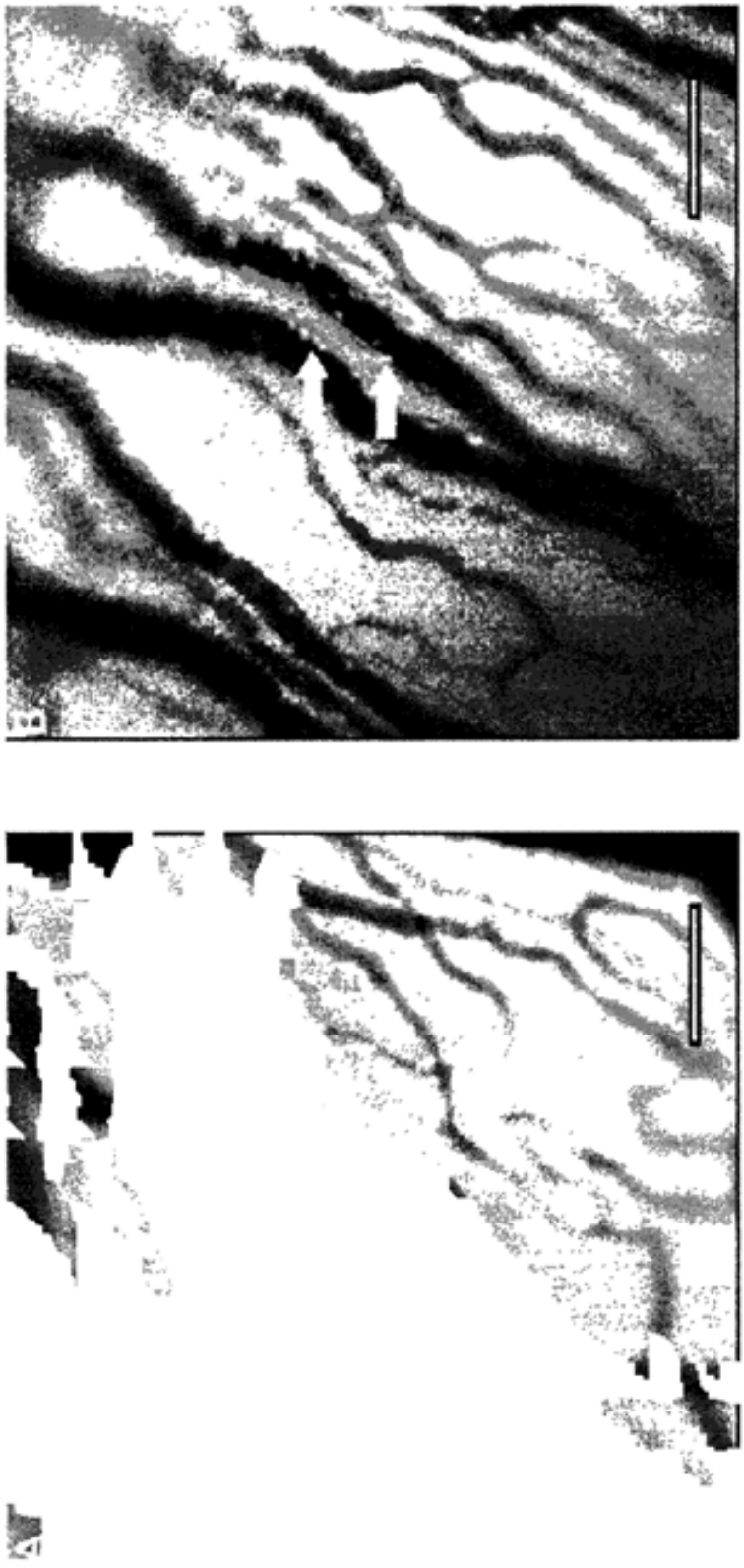


FIG. 1

Treatment of immune diseases
WO200056303 A2

Current assignees

IMMUGEN PHARMACEUTICALS
IMMUNGEN PHARMACEUTICALS
T & L NIFTY PRODUCTS

Inventors

TRAVIS CRAIG R

Priority data including date

1999US-60125674 1999-03-22
1999US-60151595 1999-08-30
2000US-09533386 2000-03-22
2000WO-US07629 2000-03-22
2001US-09928683 2001-08-13
2002US-10328242 2002-12-22
2007US-11978344 2007-10-29
2012US-13555195 2012-07-23

IPC - International classification

A61K-031/00	A61K-031/05	A61K-031/085
A61K-031/09	A61K-031/35	A61K-031/352*
A61K-031/661*	A61P-031/12	A61P-031/14
A61P-031/18	A61P-035/00	A61P-037/04
C07C-039/08	C07C-039/10	C07C-039/19
C07C-039/24	C07C-043/23	C07D-311/04
C07D-311/78	C07D-311/80	C07F-009/12

CPC - Cooperative classification

A61K-031/05	A61K-031/09	A61K-031/352*
A61K-031/353	C07C-039/08	C07C-039/10
C07C-039/19	C07C-039/24/5	C07C-043/23*
C07F-009/12		

PCL - US patent classification

PCLO:	514454000*	514718000*	568715000*
549390000*			
PCLX:	514453000	514454000*	514456000
514720000	514730000	514731000	549200000
549356000	549381000	549385000	549388000
549389000	549391000	560008000	560103000
560104000	560105000	568626000	568630000
568648000	568650000	568651000	568652000
568658000	568662000	568716000	

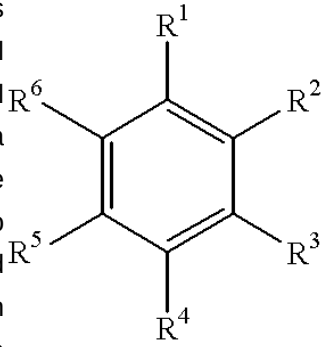
Family

US20120289589	A1	2012-11-15	IL145470	A	2002-06-30
IL145470	B	2007-06-03	US20020037923	A1	2002-03-28
US7105685	B2	2006-09-12	EP1189603	A2	2002-03-27
IN0887/DELNP/2001	A	2005-03-11	WO00/56303	A3	2002-01-24
CN1561990	A	2005-01-12	BR0009200	A	2001-12-26
US20030158191	A1	2003-08-21	BRPI0009200	A1	2001-12-26
HU0203437	A3	2003-07-28	US6274635	B1	2001-08-14
HU0203437	A2	2003-05-28	AU3910700	A	2000-10-09
US6566560	B2	2003-05-20	WO00/56303	A2	2000-09-28
JP2002539246	A	2002-11-19	CA2367262	A1	2000-09-28
CN1377261	A	2002-10-30			

(WO00/56303)

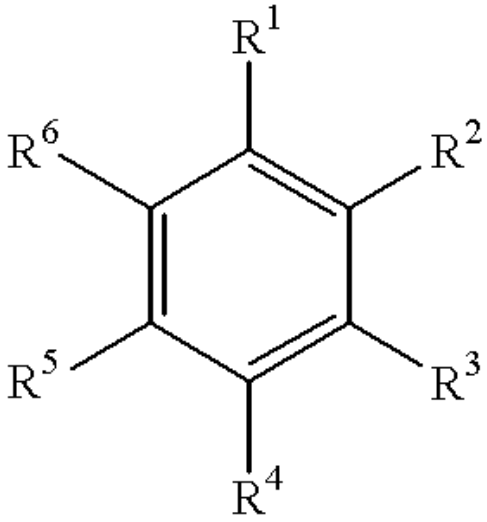
The present invention provides a method, compounds, and compositions for treating a disease associated with immune dysfunction. In accordance with the method, a pharmacologically-acceptable composition including at least one compound selected from the group of compounds consisting of 5-alkyl-resorcinol derivatives, cannabinol derivatives, cannabidiol derivatives, cannabigerol derivatives, and combinations thereof is administered to a patient under conditions sufficient to attenuate the dysfunction within the immune system. The invention also provides an antiviral cannabinol derivative that can be used in the inventive method. The invention also provides an alkylated resorcinol derivative and a method of using the alkylated resorcinol derivative to attenuate the growth of a neoplasm. The method and compound are useful for treating diseases of the immune system, such as HIV disease and neoplastic disorders.

Formula I



IMG

Formula I



Prostacyclin derivatives
WO200879383 A1

Current assignees

CONCERT PHARMACEUTICALS*

Inventors

TUNG ROGER

Priority data including date

2006US-60876595 2006-12-21
2007BR-0019463 2007-12-21
2007US-11963761 2007-12-21
2007US-12520493 2007-12-21
2007WO-US26264 2007-12-21
2009US-12489425 2009-06-22

IPC - International classification

A01N	A01N-033/08*	A01N-053/00
A61K	A61K-031/19	A61K-031/191
A61K-031/192	A61K-031/205	A61K-031/352
A61K-031/454	A61K-031/496	A61K-031/506
A61K-031/519	A61K-031/5578	A61K-045/00
A61P-001/04	A61P-001/16	A61P-003/00
A61P-003/10	A61P-003/14	A61P-007/02
A61P-009/00	A61P-009/04	A61P-009/10
A61P-009/12	A61P-011/00	A61P-011/02
A61P-011/06	A61P-013/12	A61P-015/10
A61P-015/12	A61P-017/14	A61P-025/00
A61P-027/06	A61P-029/00	A61P-031/04
A61P-035/00	A61P-037/08	A61P-043/00
C07C-053/136	C07C-059/11	C07C-059/115
C07C-059/46	C07C-061/28	C07C-405/00
C12N-005/00		

CPC - Cooperative classification

A61K-009/00/73	A61K-031/19	A61K-031/496
A61K-031/506	A61K-045/06	C07B-2200/05
C07C-2102/22	C07C-2602/22	C07C-405/00*
C07C-405/00*/83		

PCL - US patent classification

PCLO:	514252160*	514573000*	514573000*
PCLX:	435375000	435377000	514269000
514557000	562501000		

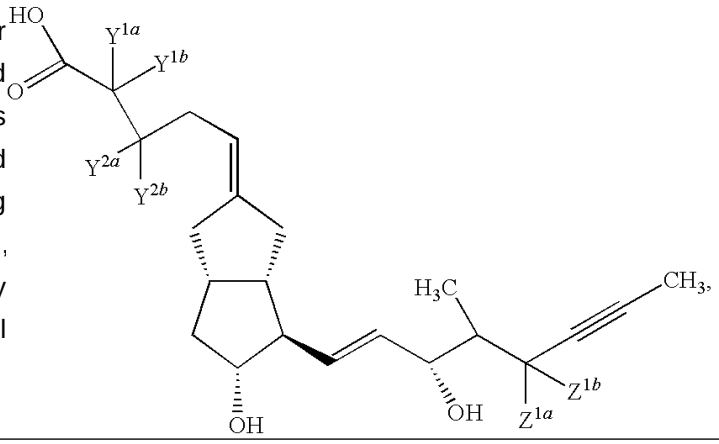
Family

BRPI0719463	A1	2014-02-04	CN101616584	A	2009-12-30
IN4730/DELNP/2009	A	2012-04-27	EA200900862	A1	2009-12-30
EP2120554	A4	2012-04-11	EP2120554	A1	2009-11-25
US20100256240	A1	2010-10-07	KR20090101276	A	2009-09-24
US20100184862	A1	2010-07-22	MX2009006692	A	2009-06-30
JP2010513533	A	2010-04-30	WO2008/079383	A1	2008-07-03
ZA200904722	B	2010-04-28	AU2007338701	A1	2008-07-03
US20090325976	A1	2009-12-31	CA2672904	A1	2008-07-03

(I)

(WO2008/079383)

This invention relates to novel prostacyclin derivatives, their acceptable acid addition salts, solvates, hydrates and polymorphs thereof. The invention also provides compositions comprising a compound of this invention and the use of such compositions in methods of treating diseases and conditions beneficially treated by prostacyclin, and in particular those diseases and conditions beneficially treated by dilators of systemic and pulmonary arterial vascular beds or by platelet aggregation inhibitors.



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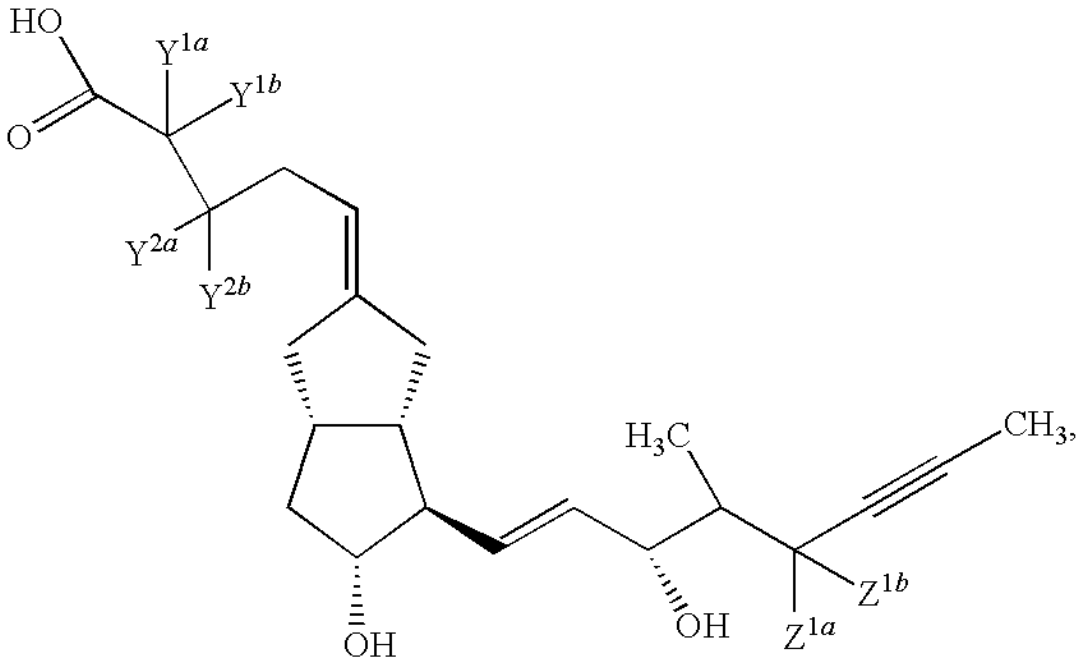


Mixtures of cannabinoid compounds, and production and use thereof
WO201532519 A1

Current assignees

SYMRISE*

Inventors

KOCH OSKAR
GÖTZ MARCUS RUDOLF
LOOFT JAN
VÖSSING TOBIAS

Priority data including date

2013EP-0182788 2013-09-03
2014EP-0739086 2014-06-30
2014WO-EP63872 2014-06-30

IPC - International classification

A23L-033/10	A61K-008/37	A61K-031/05
A61K-031/235	A61K-031/25	A61K-031/352
A61K-031/353	A61P-001/08	A61P-001/14
A61P-021/02	A61P-025/00	A61P-025/04
A61P-025/06	A61P-025/24	A61P-027/06
A61P-029/00	A61P-037/04	A61P-043/00
A61Q-019/00	C07C-037/50	C07C-067/03*
C07C-067/29	C07C-069/94*	C07C-311/04
C07D-311/80		

CPC - Cooperative classification

A61K-031/05	A61K-031/235	A61K-031/352
C07C-037/50	C07C-067/29	C07C-069/94*
C07C-2101/16	C07C-2601/16	

PCL - US patent classification

PCLO: 514544000*

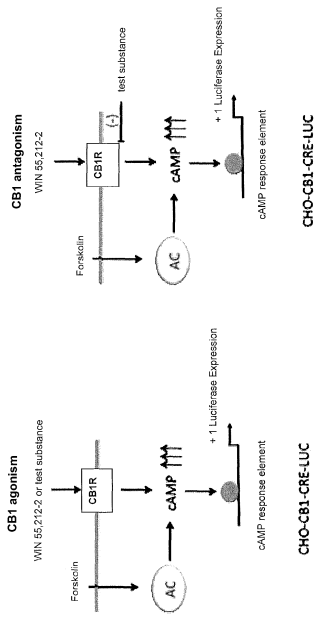
PCLX: 560059000 568766000

Family

EP3041815	B1	2019-04-03	BR112016004675	A1	2016-05-17
JP6470289	B2	2019-02-13	CN105517989	A	2016-04-20
CN105517989	B	2018-06-01	US20150336874	A1	2015-11-26
BR112016004675	A2	2017-08-01	ES2547354	T3	2015-10-05
US9670133	B2	2017-06-06	EP2842933	B1	2015-07-29
JP2016531919	A	2016-10-13	WO2015/032519	A1	2015-03-12
EP3041815	A1	2016-07-13	EP2842933	A1	2015-03-04
IN201637005395	A	2016-06-10			

(WO2015/032519)

Specific mixtures comprising one or more (cannabinoid) compounds of the formula (A) and/or one or more of the salts thereof are described, as are processes for preparation thereof. Also described are a compound of the formula (A), a salt of the formula (A) and a corresponding mixture for use as a medicament or for use in a method for therapeutic treatment of the human or animal body. Additionally described are corresponding pharmaceutical formulations, cosmetic formulations and formulations which are suitable for consumption and serve the purposes of pleasure and/or nutrition, and a process for preparation of delta-9-tetrahydrocannabinol.



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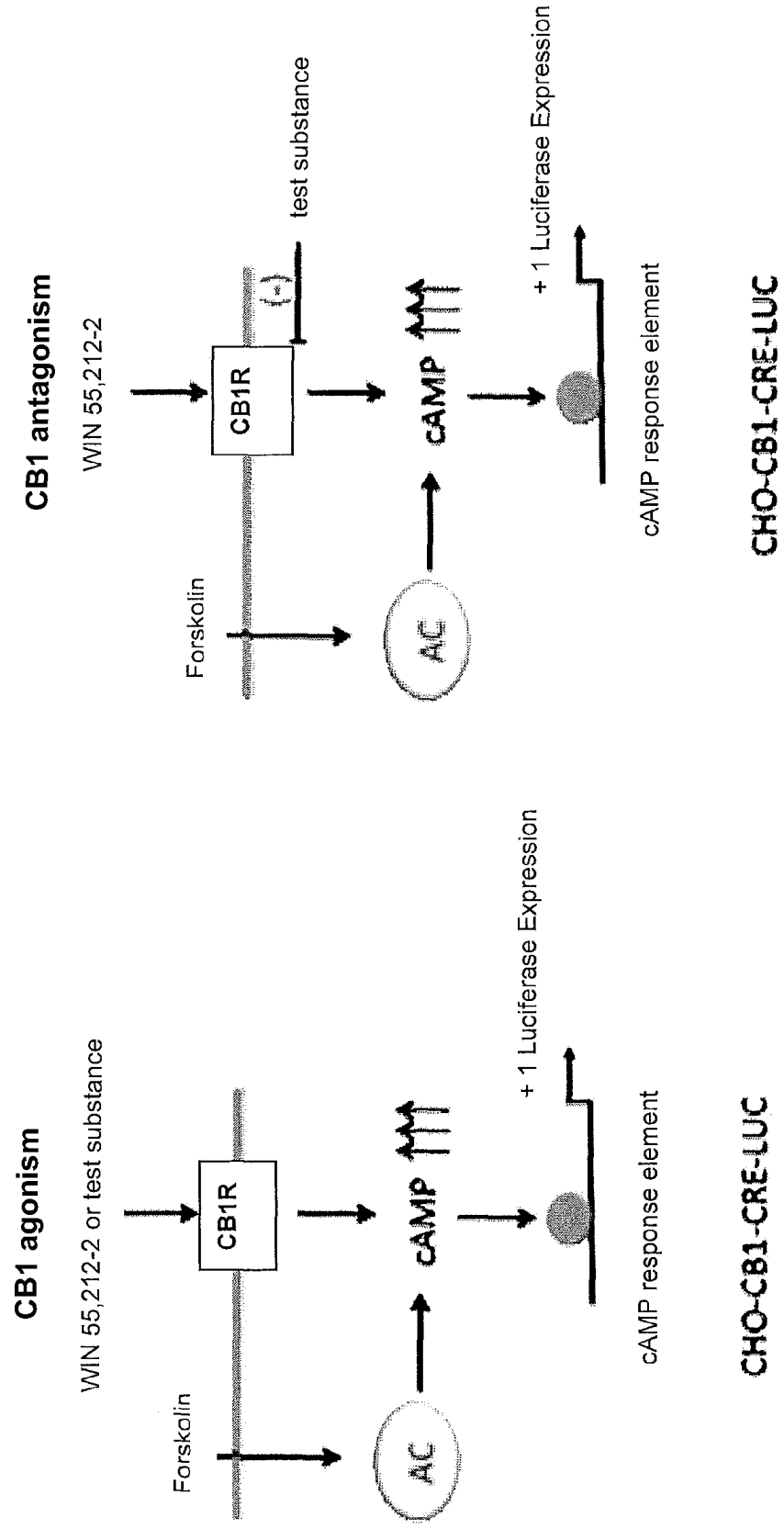
CB1 antagonism
WIN 55,212-2
test substance
(-)
CB1R
Forskolin
AC
cAMP
+ 1 Luciferase Expression
cAMP response element
CHO-CB1-CRE-LUC
CB1 agonism
WIN 55,212-2 or test substance
CB1R
Forskolin
AC
cAMP
+ 1 Luciferase Expression
cAMP response element
CHO-CB1-CRE-LUC

Cannabinoids for use in the treatment of neuropathic pain
WO2012160358 A1

Current assignees

GW PHARMACEUTICALS*
GW VERMA
OTSUKA PHARMACEUTICAL

Inventors

MAIONE SABATINO
ROSSI FRANCESCO
GUY GEOFFREY
STOTT COLIN
KIKUCHI TETSURO

Priority data including date

2011GB-0008506 2011-05-20
2012WO-GB51129 2012-05-18
2015GB-0012357 2011-05-20

IPC - International classification

A61K*	A61K*-031/05*	A61K*-031/185
A61K*-031/352	A61P	A61P-025/02
A61P-025/04	A61P-029/02	C07C-035/21
C07C-039/19	C07C-039/23	C07D-311/04

CPC - Cooperative classification

A61K-031/05	A61K-031/185	A61K-031/352*

Family

IL229474	B	2018-11-29	JP2014513715	A	2014-06-05
US9895342	B2	2018-02-20	BR112013029773	A1	2014-05-13
ES2624308	T3	2017-07-13	EA201391733	A1	2014-04-30
AU2012260611	B2	2017-06-15	US20140107192	A1	2014-04-17
JP6147249	B2	2017-06-14	EP2709604	A1	2014-03-26
PT2709604	T	2017-05-17	KR20140037124	A	2014-03-26
DK2709604	T3	2017-05-15	MX2013013141	A	2014-02-17
EP2709604	B1	2017-02-01	IL229474	A	2014-01-30
BR112013029773	A2	2017-01-17	CN103533930	A	2014-01-22
IN10098/CHENP/2013	A	2016-06-24	SG194839	A1	2013-12-30
NZ618246	A	2016-01-29	CO6811867	A2	2013-12-16
GB2524689	B	2016-01-27	AU2012260611	A1	2013-12-12
GB2491118	B	2015-12-30	AR086398	A1	2013-12-11
GB2524689	A	2015-09-30	TW201249425	A	2012-12-16
GB201512357	D0	2015-08-19	WO2012/160358	A1	2012-11-29
ZA201309364	B	2015-04-29	CA2833099	A1	2012-11-29
VN40952	A	2015-02-25	GB2491118	A	2012-11-28
US20140378539	A9	2014-12-25	GB201108506	D0	2011-07-06

(WO2012/160358)

The present invention relates to cannabinoids for use in the treatment of neuropathic pain. Preferably the cannabinoids are one or more phytocannabinoids of: cannabigerol (CBG), cannabichromene (CBC), cannabidivarin (CBDV) or tetrahydrocannabivarin (THCV). More preferably the phytocannabinoids are isolated and / or purified from cannabis plant extracts.

Figure 1.

Different types of pain

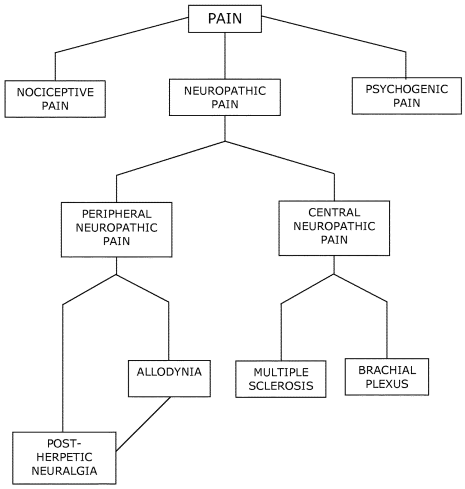

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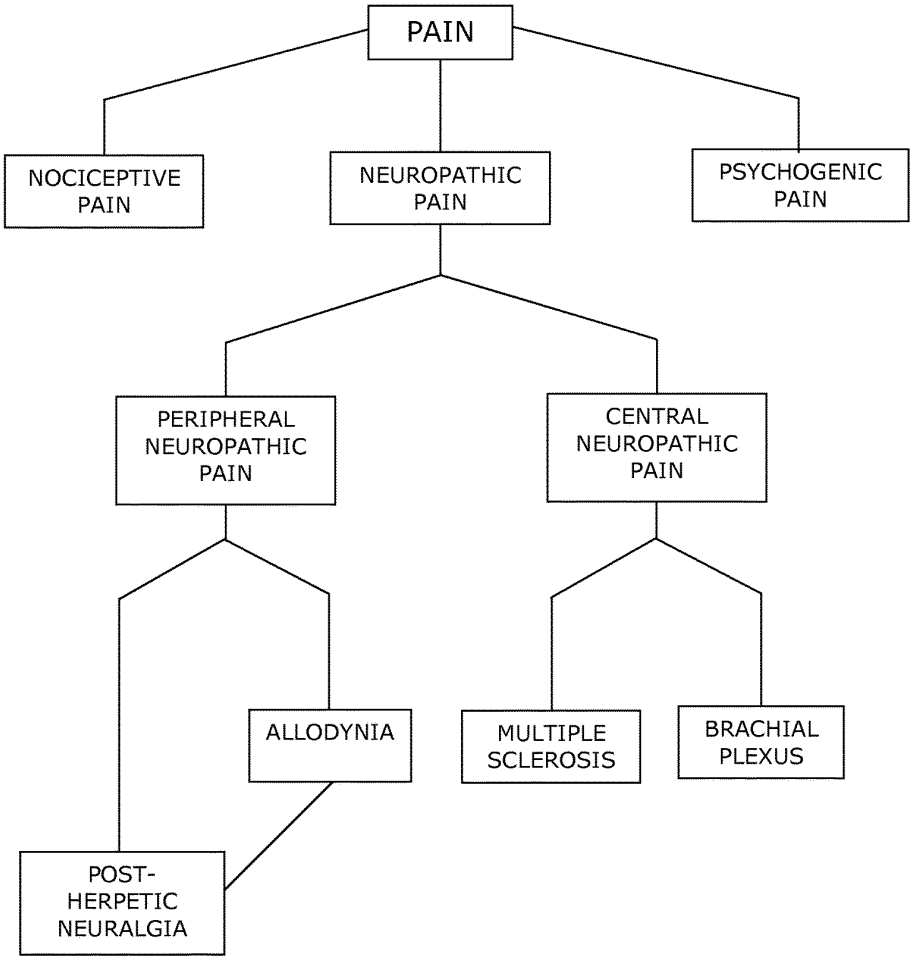
Figure 1.

Different types of pain



Phytocannabinoids for use in the treatment of cancer
WO201338157 A1

Current assignees

GW PHARMACEUTICALS
GW VERMA
OTSUKA PHARMACEUTICAL

Inventors

ROSS RUTH ALEXANDRA
PAROLARO DANIELA

Priority data including date

2011GB-0015711 2011-09-12
2012WO-GB52224 2012-09-10

IPC - International classification

A61K-031/05	A61K-031/192*	A61K-031/235
A61K-031/352*	A61K-031/353	A61K-036/185
A61P-035/00	A61P-035/04	C07C-065/05
C07D-311/02		

CPC - Cooperative classification

A61K-031/05	A61K-031/192	A61K-031/235
A61K-031/352*	A61K-031/353	A61K-036/185

PCL - US patent classification

PCLO: 514454000*

PCLX: 514544000 514733000 549390000 562469000 568743000

Family

US20140221469	A1	2014-08-07	WO2013/038157	A1	2013-03-21
MX2014002873	A	2014-05-27	GB2494461	A	2013-03-13
AR087842	A1	2014-04-23	GB201115711	D0	2011-10-26
TW201316985	A	2013-05-01			

(WO2013/038157)

The present invention relates to the use of phytocannabinoids in the treatment of cancer. More particularly it relates to the use of phytocannabinoids in the treatment of tumour cell invasion and cell migration or metastases. Cancers, where invasion and cell migration plays a key role in prognosis include brain tumours, more particularly gliomas, and most particularly Glioblastoma multiforme (GBM) and breast cancers. The phytocannabinoids tetrahydrocannabivarin (THCV) and cannabidivarin (CBDV) alone or in combination with each other and/ or other phytocannabinoids, particularly cannabidiol (CBD), tetrahydrocannabinol (THC) and cannabigerol (CBG) or their respective acids are of particular use.

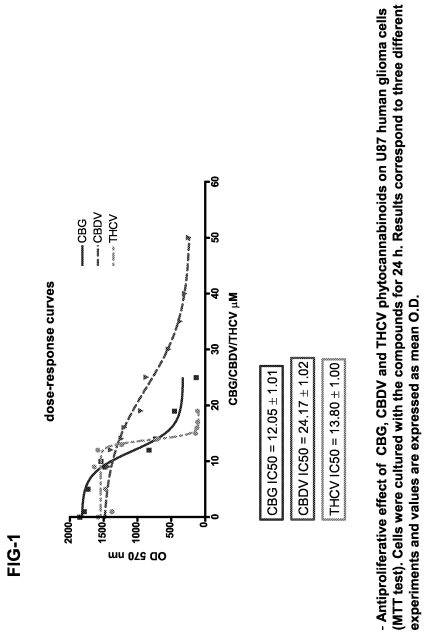
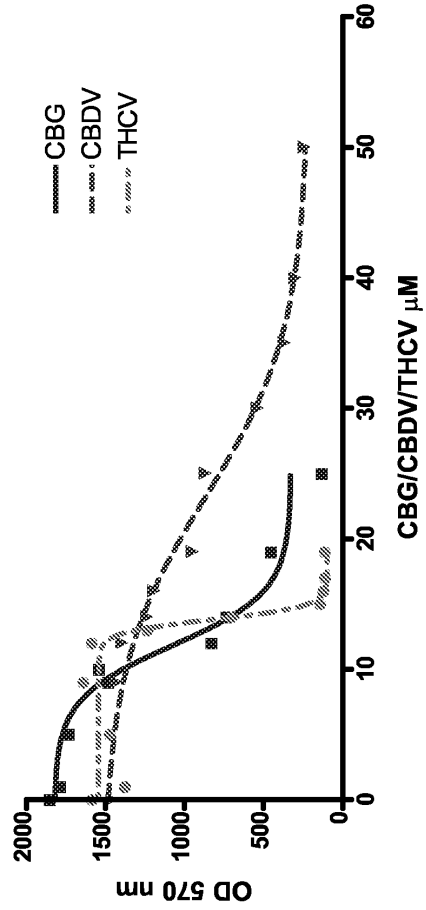


FIG-1

IMG

FIG-1



CBG IC50 = 12.05 ± 1.01

CBDV IC50 = 24.17 ± 1.02

THCV IC50 = 13.80 ± 1.00

- Antiproliferative effect of CBG, CBDV and THCV phytocannabinoids on U87 human glioma cells (MTT test). Cells were cultured with the compounds for 24 h. Results correspond to three different experiments and values are expressed as mean O.D.

Extraction of pharmaceutically active cannabinoids from plant materials
WO200416277 A2

Current assignees

GW PHARMACEUTICALS*

Inventors

WHITTLE BRIAN ANTHONY
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FLOCKHART IAN R
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GIBSON PETER
WHEATLEY GARY WILLIAM

Priority data including date

2002GB-0018901 2002-08-14
2002GB-0189017 2002-08-14
2002US-10218972 2002-08-14
2003CA-2455129 2003-08-14
2003EP-0787897 2003-08-14
2003WO-GB03566 2003-08-14

IPC - International classification

A61K	A61K-009/12	A61K-031/00
A61K-031/047	A61K-031/05	A61K-031/352*
A61K-035/78	A61K-036/00	A61K-036/18
A61K-036/185*	A61K-036/60	A61K-127/00
A61P-025/00	B01D	B01D-011/00
B01D-011/02	C07C-037/68	C07C-037/72
C07C-039/23	C07D-311/80	

CPC - Cooperative classification

A61K-031/352*	A61K-036/185	B01D-011/02/03
B01D-011/02/88	Y02A-050/473	Y02A-050/481

Family

PL226646	B1	2017-08-31	JP2010248227	A	2010-11-04
ES2592531	T3	2016-11-30	DE10337458	B4	2010-10-14
PT2311475	T	2016-09-22	IN242112	B	2010-08-13
DK2311475	T3	2016-09-19	PL205945	B1	2010-06-30
EP2311475	B1	2016-08-31	AU2003253002	B2	2009-11-26
CY1113375	T1	2016-06-22	IN0562/DELNP/2005	A	2009-01-16
CA2455129	C	2013-10-22	IN3362/DELNP/2007	A	2007-08-31
HK1076249	A1	2013-04-26	JP2006511456	A	2006-04-06
JP5235206	B2	2013-04-05	PL375357	A1	2005-11-28
SI1536810	T1	2013-02-28	CN1691954	A	2005-11-02
ES2392510	T3	2012-12-11	MXPA05001621	A	2005-08-19
DK1536810	T3	2012-11-19	EP1536810	A2	2005-06-08
PT1536810	E	2012-11-13	KR20050032115	A	2005-04-06
EP1536810	B1	2012-08-01	WO2004/016277	A3	2004-04-29
KR101113162	B1	2012-06-20	DE10337458	A1	2004-03-04
IN251922	B	2012-04-20	AU2003253002	A1	2004-03-03
EP2311475	A3	2012-03-28	WO2004/016277	A2	2004-02-26
EP2311475	A2	2011-04-20	CA2455129	A1	2004-02-14
JP4657716	B2	2011-01-07	CA2823474	A1	2004-02-14
CN1691954	B	2010-12-08	CA2994322	A1	2004-02-14

(WO2004/016277)

The invention relates to the extraction of pharmaceutically active components from plant materials, and more particularly to the preparation of a botanical drug substance (BDS) for incorporation in to a medicament. It also relates to a BDS of given purity, for use in pharmaceutical formulations. In particular it relates to BDS comprising cannabinoids obtained by extraction from cannabis.

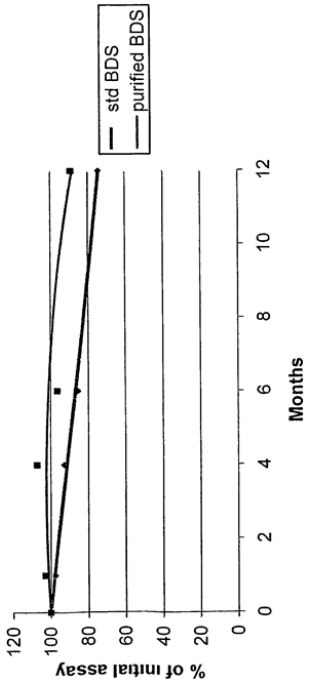

Figure 1: Loss of THC at 40C for Standard BDS (THC) and Purified BDS (THC).

IMG

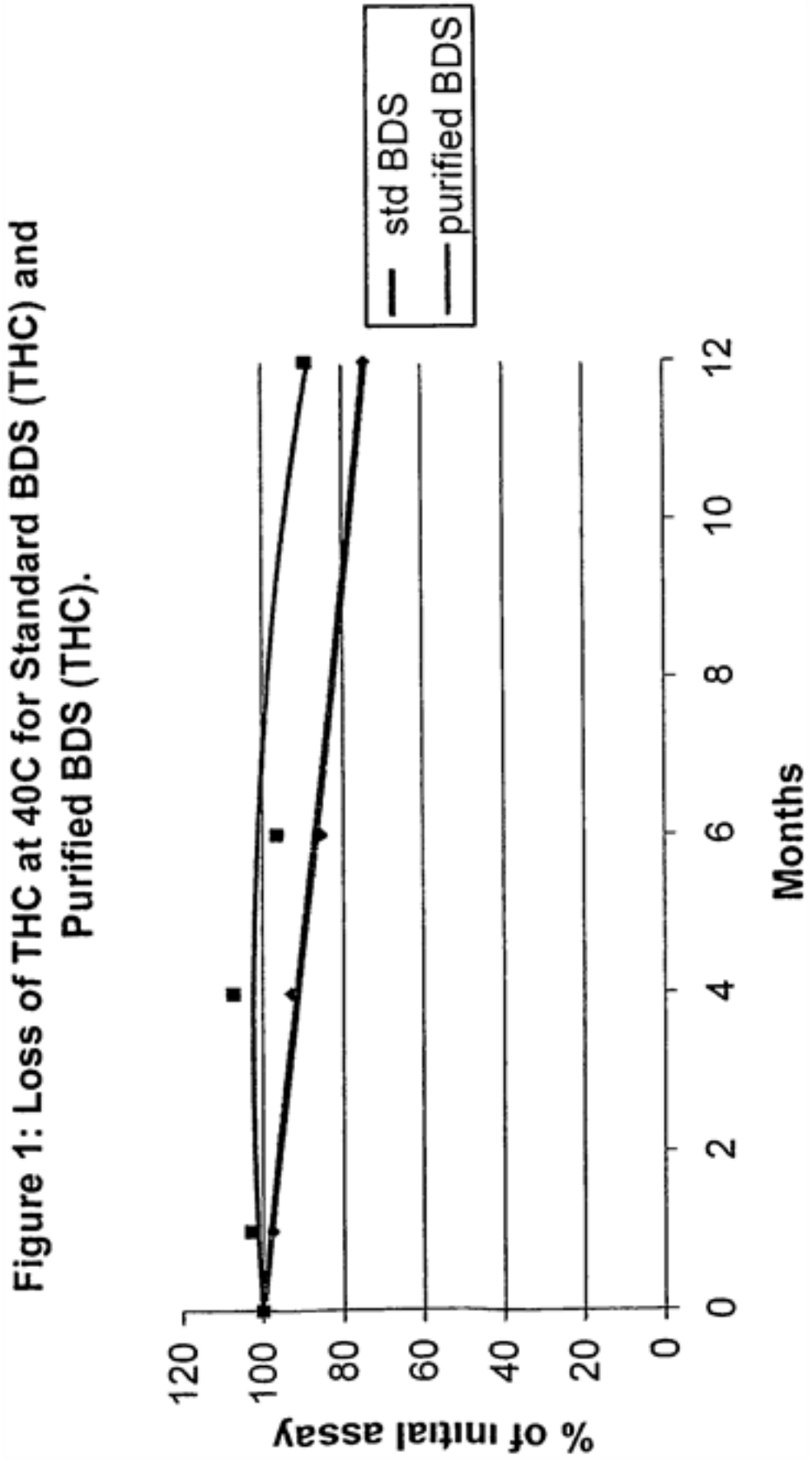

Figure 1: Loss of THC at 40C for Standard BDS (THC) and Purified BDS (THC).

Methods for purifying trans-(-)-?9-tetrahydrocannabinol and trans-(+)-?9-tetrahydrocannabinol

WO200653766 A1

Current assignees

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Inventors

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PERTSIKOV BORIS

KHANOLKAR RAM

Priority data including date

2004US-10630556 2004-11-22

2004US-60630556 2004-11-22

2005AU-0305944 2005-11-18

2005CA-2587957 2005-11-18

2005EP-0807597 2005-11-18

2005US-11791415 2005-11-18

2005WO-EP12378 2005-11-18

2009US-12791415 2009-08-12

2010AU-0200227 2010-01-21

2010EP-0179360 2005-11-18

2010EP-0179374 2005-11-18

2013US-13774955 2013-02-22

2015US-14596034 2015-01-13

2016US-15061780 2016-03-04

2016US-15061859 2016-03-04

2016US-15061891 2016-03-04

IPC - International classification

A61K	A61K-009/48	A61K-031/00
A61K-031/352*	A61K-031/353*	A61P
A61P-001/00	A61P-001/08	A61P-001/14
A61P-003/00	A61P-025/04	A61P-029/00
B01D-009/02	B01D-011/04	B01D-015/08
B01D-015/38	C07B-057/00	C07B-063/00
C07C-039/23	C07D	C07D-311/00
C07D-311/78	C07D-311/80	

CPC - Cooperative classification

A61K-009/48/75	A61K-031/352*	C07D-311/80

PCL - US patent classification

PCLO:	514454000*	424451000*	514454000*
549390000*			
PCLX:	514451000	514454000*	549356000
549381000	549385000		

Family

US9744151	B2	2017-08-29
US9675581	B2	2017-06-13
CY1117343	T1	2017-04-26
CY1117112	T1	2017-04-05
HUE027197	T2	2016-10-28
PL2356987	T3	2016-09-30
ME02403	B	2016-09-20
US20160199344	A1	2016-07-14
US20160184260	A1	2016-06-30
US20160184261	A1	2016-06-30
RS54537	B1	2016-06-30
ME02306	B	2016-06-20
HK1159500	A1	2016-06-10
HUE025904	T2	2016-05-30
CA2587957	C	2016-05-03
SI2356987	T1	2016-04-29
HRP20160300	T1	2016-04-22
ES2566480	T3	2016-04-13
DK2356987	T3	2016-03-21
US9278083	B2	2016-03-08
RS54338	B1	2016-02-29
HK1154796	A1	2016-02-26
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ES2556802	T3	2016-01-20
EP2356987	B1	2016-01-06
HRP20151301	T1	2016-01-01
PT2289509	E	2015-12-23
DK2289509	T3	2015-11-23
EP2289509	B1	2015-10-14
CY1111471	T1	2015-08-05
US20150126596	A1	2015-05-07
US8937097	B2	2015-01-20
TWI436991	B	2014-05-11
US20130171259	A1	2013-07-04
US8383842	B2	2013-02-26
TW201302722	A	2013-01-16
JP2012180350	A	2012-09-20
IN253746	B	2012-08-24
TWI369203	B	2012-08-01
JP5048448	B2	2012-07-27
IL183306	B	2012-06-28
JP4995728	B2	2012-05-18
NO331831	B1	2012-04-16
RS51706	B	2011-10-31
EP2356987	A1	2011-08-17
CN102151259	A	2011-08-17
EP2289509	A3	2011-08-10
CN101076329	B	2011-08-10
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HRP20110385	T1	2011-06-30
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ES2362288	T3	2011-06-30
DK1824475	T3	2011-06-06
PT1824475	E	2011-06-01
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EP2289509	A2	2011-03-02
AU2005305944	B2	2010-03-04
AU2010200227	A1	2010-02-11
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US20090298930	A1	2009-12-03
UA88491	C2	2009-10-26
KR100919719	B1	2009-10-06
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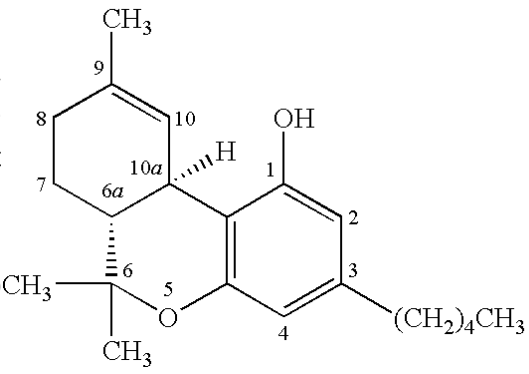
BRPI0519803	A2	2009-03-17
JP2008520608	A	2008-06-19
JP2008101000	A	2008-05-01
ZA200706837	B	2008-04-30
EA200701123	A1	2007-12-28
CN101076329	A	2007-11-21
IL183306	A	2007-09-20
IN4488/DELNP/2007	A	2007-08-31
EP1824475	A1	2007-08-29
KR20070086529	A	2007-08-27
AR054989	A1	2007-08-01
MX2007006104	A	2007-07-11
WO2006/053766	A8	2006-12-14
TW200633695	A	2006-10-01
WO2006/053766	A1	2006-05-26
AU2005305944	A1	2006-05-26
CA2587957	A1	2006-05-26
CA2921590	A1	2006-05-26

(WO2006/053766)

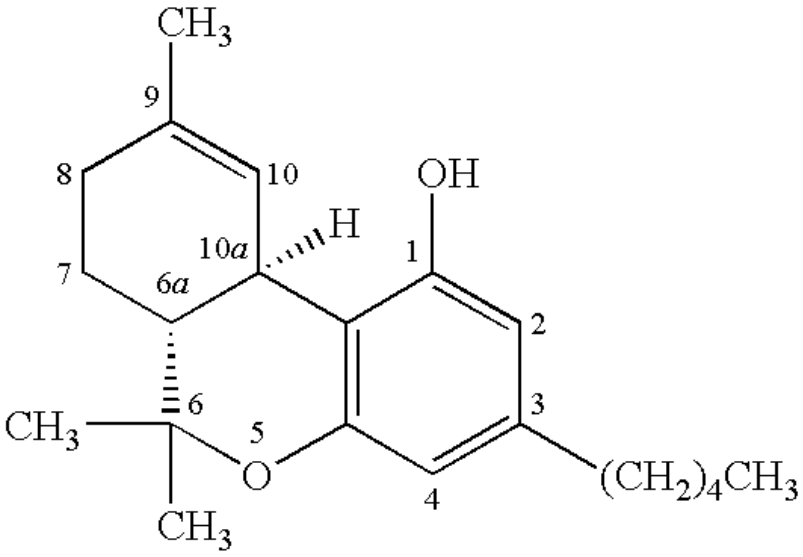
Methods for making trans-(-)-?9-tetrahydrocannabinol and trans-(+)-?9-tetrahydrocannabinol are disclosed herein. In one embodiment, a trans-(-)-?9-tetrahydrocannabinol composition is prepared by allowing a composition comprising (±)-?9-tetrahydrocannabinol to separate on a chiral stationary phase to provide a trans-(-)-?9-tetrahydrocannabinol composition comprising at least about 99% by weight of trans-(-)-?9-tetrahydrocannabinol based on the total amount of trans-(-)-?9-tetrahydrocannabinol and trans-(+)-?9-tetrahydrocannabinol. The invention also relates to methods for treating or preventing a condition such as pain comprising administering to a patient in need thereof an effective amount of a trans-(-)-?9-tetrahydrocannabinol having a purity of at least about 98% based on the total weight of cannabinoids.

(1a)



IMG

(1a)



System and Method of Reducing Impairment of Alertness, Concentration, Motivation, and Creativity Caused by Medication

US20130337052 A1

Current assignees

LINERT PATRICIA

OUIMET KENNETH J

Inventors

LINERT PATRICIA

OUIMET KENNETH J

Priority data including date

2012US-13625783 2012-09-24

2012US-61661724 2012-06-19

IPC - International classification

A61K-009/48	A61K-031/194	A61K-031/198
A61K-031/232	A61K-031/352	A61K-031/513
A61K-033/00*	A61K-033/14	A61P-025/20
A61P-025/26	C01D-015/04	C01D-015/08
C07C-059/265	C07C-229/24	C07D-239/557

CPC - Cooperative classification

A61K-009/48	A61K-031/05	A61K-031/08
A61K-031/164	A61K-031/232	A61K-031/352
A61K-033/00	A61K-033/14	C01D-015/04
C01D-015/08*	C07C-059/265	C07C-229/24
C07D-239/557		

PCL - US patent classification

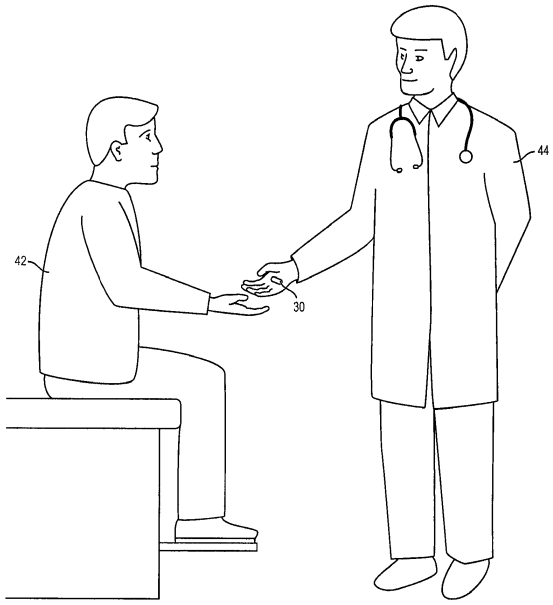
PCLO:	424451000*		
PCLX:	423421000	423499300	424677000
424715000	514274000	514454000	514549000
514561000	514574000	544314000	562571000
562584000			

Family

US20130337052	A1	2013-12-19

(US20130337052)

Administering a therapeutically effective dose of lithium ions mitigates the side effects of a psychoactive substance such as a cannabinoid. The therapeutically effective dose of lithium ions includes greater than 4 milligrams of lithium and less than 170 milligrams of lithium, or includes between 8 and 32 milligrams of lithium ions per milligram of the psychoactive substance. The therapeutically effective dose of lithium ions is administered using lithium carbonate, lithium citrate, lithium chloride, lithium orotate, lithium aspartate, or analogs thereof using a delivery vehicle selected from pills, tablets, capsules, gelcaps, liquids, syrups, injectable liquids, powders, or foods and administered prior to, with, or after administration of the psychoactive substance. The psychoactive substance includes one or more of anandamide, 2-arachidonoyl glycerol, 2-arachidonoyl glycerol ether, tetrahydrocannabinol, cannabinol, cannabidiol, or analogs thereof and may be administered using the delivery vehicle.



IMG

Sorbic and benzoic acid and derivatives thereof enhance the activity of a neuropharmaceutical

WO201085452 A1

Current assignees

LOS ANGELES BIOMEDICAL RESEARCH INSTITUTE*
NO 310 NO 55 CHUNG HSIAO EAST ROAD XINYI DISTRICT TAIPEI CITY

Inventors

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Priority data including date

2009US-61145931 2009-01-20
2010CA-2750028 2010-01-19
2010EP-0733788 2010-01-19
2010US-12689957 2010-01-19
2010WO-US21420 2010-01-19
2014US-14552298 2014-11-24
2015EP-0192644 2010-01-19
2017US-15409655 2017-01-19
2017US-15409775 2017-01-19
2018US-16197674 2018-11-21

IPC - International classification

A01N-043/00	A01N-059/00	A61K-031/11
A61K-031/12	A61K-031/13	A61K-031/16
A61K-031/167	A61K-031/19	A61K-031/192*
A61K-031/196	A61K-031/22	A61K-031/235
A61K-031/245	A61K-031/27	A61K-031/35
A61K-031/382	A61K-031/438	A61K-031/44
A61K-031/445	A61K-031/47	A61K-031/519
A61K-031/55	A61K-031/551	A61K-031/5513
A61K-033/00	A61K-036/16	A61K-036/54*
A61K-045/00	A61K-045/06	A61P-025/00
A61P-025/18	A61P-025/22	A61P-025/24
A61P-025/26	A61P-025/28	A61P-043/00
C07C-057/10	C07D-213/28	

CPC - Cooperative classification

A61K-031/11	A61K-031/12	A61K-031/13
A61K-031/16	A61K-031/167	A61K-031/19
A61K-031/192	A61K-031/196	A61K-031/22
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A61K-031/445	A61K-031/47*	A61K-031/5513
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PCL - US patent classification

PCLO:	424722000*	424722000*	
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514252130	514252180	514253070	514254050
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514305000	514311000	514312000	514315000
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Family

HRP20190933	T1	2019-07-26	BRPI1007173	A2	2016-02-23
EP3006023	B1	2019-06-26	US20150099015	A1	2015-04-09
DK3006024	T3	2019-06-03	JP5675650	B2	2015-01-09
US20190151301	A1	2019-05-23	TWI455712	B	2014-10-11
CA2750028	C	2019-05-07	EP2389187	A4	2013-12-04
EP3006024	B1	2019-03-20	CN102292094	B	2013-08-14
US10149845	B2	2018-12-11	BRPI1007173	A1	2012-11-20
US10039730	B2	2018-08-07	JP2012515720	A	2012-07-12
MX353752	B	2018-01-26	IN6293/DELNP/2011	A	2012-02-10
US20170189358	A1	2017-07-06	CN102292094	A	2011-12-21
US20170181989	A1	2017-06-29	MX2011007712	A	2011-12-14
US9675604	B2	2017-06-13	EP2389187	A1	2011-11-30
ES2615884	T3	2017-06-08	AU2010206886	A1	2011-09-08
US9649304	B2	2017-05-16	TW201129355	A	2011-09-01
HRP20170089	T1	2017-03-24	WO2010/085452	A9	2011-01-06
DK2389187	T3	2017-02-20	WO2010/085452	A1	2010-07-29
EP2389187	B1	2016-11-16	US20100189818	A1	2010-07-29
AU2010206886	B2	2016-05-05	CA2750028	A1	2010-07-29
EP3006023	A1	2016-04-13	CA3037010	A1	2010-07-29
EP3006024	A1	2016-04-13			

(WO2010/085452)

Methods and compositions are provided for treating neuropsychiatric disorders such as schizophrenia, depression, attention deficit disorder, mild cognitive impairment, dementia, and bipolar disorder. The methods entail administering to a patient diagnosed as having a neuropsychiatric disorder (e.g., schizophrenia, depression, attention deficit disorder, mild cognitive impairment, dementia bipolar disorder, etc.) or as at risk for a neuropsychiatric disorder a benzoic acid, benzoic acid salt, and/or benzoic acid derivative, and/or a sorbic acid, sorbic acid salt, and/or sorbic acid derivative, in combination with a neuropharmacological agent (e.g., an antipsychotic, an antidepressant, medications for attention deficit and hyperactivity disorder, cognitive impairment, or dementia, etc.) where the benzoic acid, benzoic acid salt, or benzoic acid derivative, and/or a sorbic acid, sorbic acid salt, and/or sorbic acid derivative, is in an amount sufficient to increase the efficacy of the neuropharmacological agent.

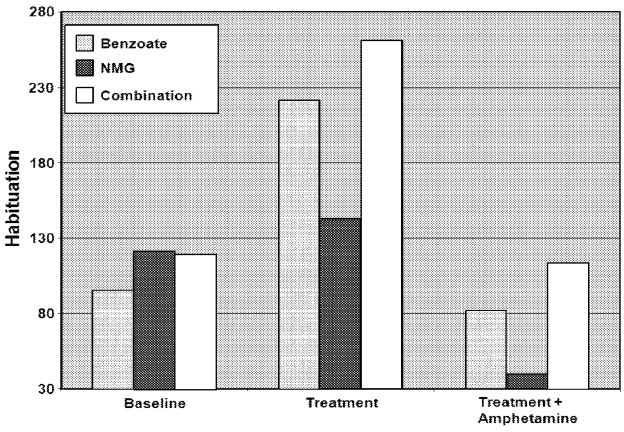

Fig. 1

IMG

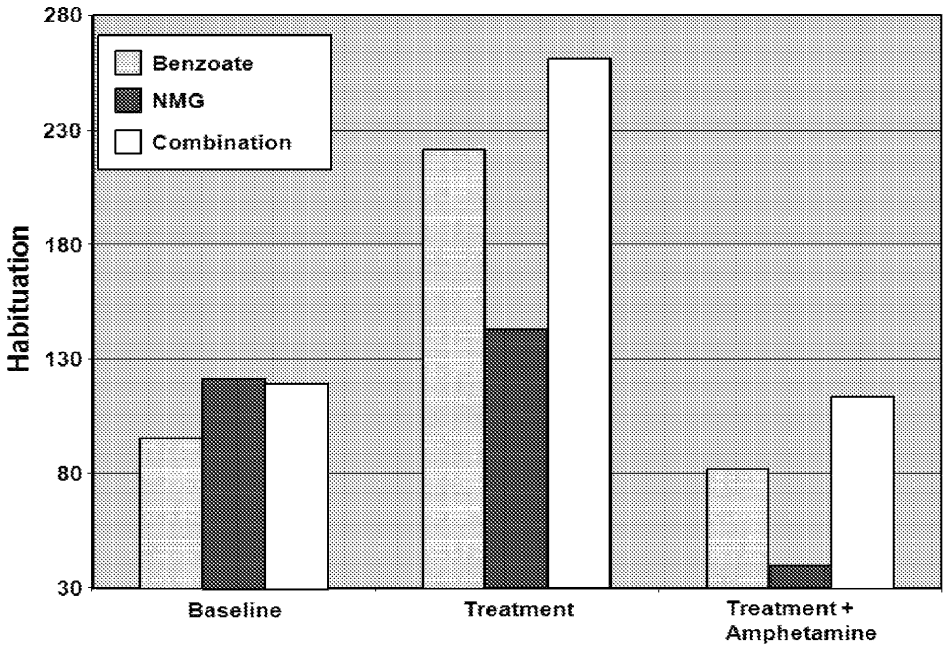
280
230
180
130
80
30
Habituation
Benzoate
NMG
Combination
Baseline
Treatment
Treatment + Amphetamine

Fig. 1

New use for cannabinoids
WO200993018 A1

Current assignees
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CAWTHORNE MICHAEL ANTHONY
O'SULLIVAN SAOIRSE

Priority data including date
2008GB-0001051 2008-01-21
2008GB-0010514 2008-01-21
2008GB-0010514 2008-06-09
2009WO-GB00159 2009-01-21

IPC - International classification

A23L-001/30	A61K-031/045	A61K-031/05*
A61K-031/352	A61K-036/18	A61K-036/185
A61K-045/00	A61P-003/00	A61P-003/04
A61P-003/06	A61P-003/10	A61P-009/00
A61P-043/00	C07C-039/23	C07D-311/80

CPC - Cooperative classification

A61K-031/05	A61K-031/352*	A61K-036/185
C07C-039/23	C07D-311/80	

PCL - US patent classification

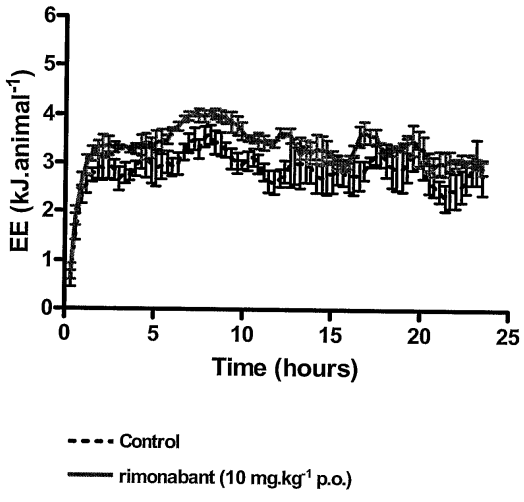
PCLO: 514454000*
PCLX: 514729000

Family

BRPI0906936	A2	2015-07-28	EP2254565	A1	2010-12-01
JP2015120739	A	2015-07-02	GB2459637	A	2009-11-04
GB2459637	B	2012-06-06	WO2009/093018	A1	2009-07-30
US20110082195	A1	2011-04-07	CA2711873	A1	2009-07-30
JP2011509989	A	2011-03-31	GB0810514	D0	2008-07-09
IN5884/DELNP/2010	A	2011-03-25	GB0801051	D0	2008-02-27
CN101977596	A	2011-02-16			

(WO2009/093018)
The present invention relates to the use of CBD alone or in combination with another cannabinoid, in the manufacture of a pharmaceutical or neutraceutical formulation for use in controlling cholesterol levels in a subject. It also relates to the use of THCV alone or in combination with another cannabinoid, in the manufacture of a pharmaceutical or neutraceutical formulation for use in increasing energy expenditure in a subject. Furthermore the CBD alone or in combination with another cannabinoid or the THCV alone or in combination with another cannabinoid are used as part of a regime to manage or treat type I or II diabetes, obesity, dyslipidaemia, related metabolic disorders and cardiovascular disease.

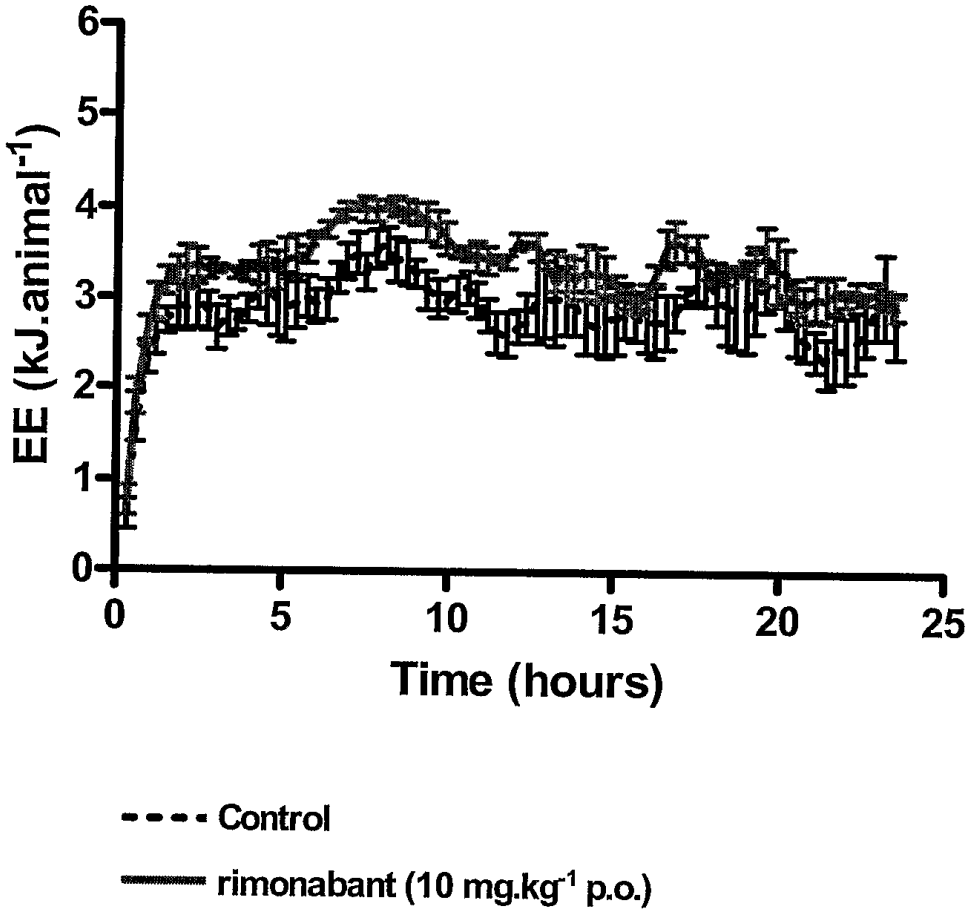
Figure 1. 24 hour energy expenditure
a) Rimonabant versus control



IMG

Figure 1. 24 hour energy expenditure

a) Rimonabant versus control



Phenyl derivatives and methods of use
WO200641841 A1

Current assignees

ADLER
ADOLOR*
CALIXA THERAPEUTICS
CUBIST PHARMACEUTICALS
CUBIST PHARMACEUTICALS HOLDINGS

Inventors

DOLLE ROLAND E
WORM KARIN
ZHOU Q JEAN

Priority data including date

2004US-60616024 2004-10-05
2005US-11242318 2005-10-03
2005WO-US35677 2005-10-04
2010US-12689078 2010-01-18

IPC - International classification

A61K-031/17	A61K-031/18	A61K-031/192
A61K-031/195	A61K-031/216	A61K-031/27
A61K-031/445	A61K-031/485	A61K-031/535
A61K-031/5375	A61K-031/5377	A61P-001/02
A61P-001/04	A61P-001/08	A61P-001/12
A61P-001/14	A61P-003/10	A61P-009/06
A61P-009/10	A61P-009/12	A61P-011/00
A61P-011/06	A61P-013/00	A61P-013/10
A61P-013/12	A61P-015/00	A61P-017/06
A61P-019/02	A61P-019/10	A61P-021/00
A61P-021/04	A61P-025/00	A61P-025/04
A61P-025/14	A61P-025/16	A61P-025/28
A61P-027/06	A61P-029/00	A61P-037/02
A61P-037/06	A61P-037/08	A61P-043/00
C07C-275/00	C07C-275/10	C07C-275/28
C07C-275/32*	C07C-275/40	C07C-275/42
C07C-303/02	C07C-311/17	C07C-311/19
C07D-207/28	C07D-207/34	C07D-211/78
C07D-213/82	C07D-213/89	C07D-231/14
C07D-241/24	C07D-261/18	C07D-265/30
C07D-285/06	C07D-295/18	C07D-307/24
C07D-307/68	C07D-333/38	C07D-413/12
C07D-417/12	C12N-005/071	

CPC - Cooperative classification

C07C-275/24	C07C-275/32	C07C-311/04
C07C-311/08	C07D-207/28	C07D-207/34
C07D-213/82*	C07D-213/89	C07D-231/14
C07D-241/24	C07D-261/18	C07D-285/06
C07D-295/096	C07D-295/185	C07D-307/24
C07D-307/68	C07D-333/38	

PCL - US patent classification

PCLO:	514236200*	514237500*	
PCLX:	435375000	514231500	514235500
514235800	514237500*	514282000	514329000
514567000	514570000	514595000	514598000
514605000	544120000	544131000	544134000
544146000	544168000	544176000	546316000
564052000	564056000	564099000	

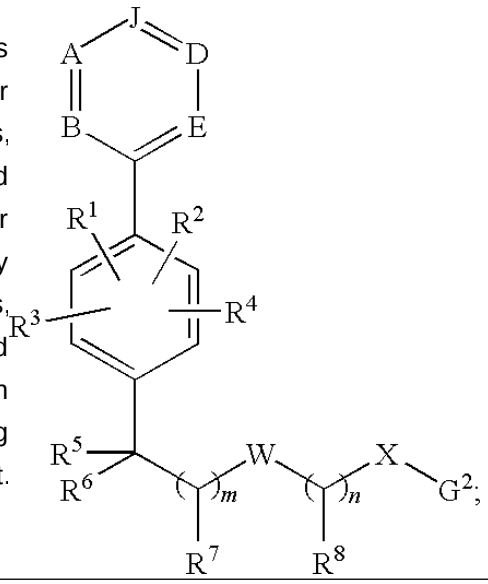
Family

BRPI0516544	A2	2013-05-28	CN101035758	A	2007-09-12
CN101035758	B	2010-12-01	EP1817277	A1	2007-08-15
US20100168108	A1	2010-07-01	MX2007003826	A	2007-04-23
EP1817277	A4	2010-03-10	WO2006/041841	A1	2006-04-20
US7671052	B2	2010-03-02	AU2005294459	A1	2006-04-20
BRPI0516544	A	2008-09-09	CA2583297	A1	2006-04-20
BRPI0516544	A1	2008-09-09	US20060074086	A1	2006-04-06
JP2008515897	A	2008-05-15			

(WO2006/041841)

Novel phenyl compounds, pharmaceutical compositions containing these compounds, and methods for their pharmaceutical use are disclosed. In certain embodiments, the compounds are agonists and/or ligands of cannabinoid receptors and may be useful, inter alia, for treating and/or preventing pain, gastrointestinal disorders, genitourinary disorders, inflammation, glaucoma, auto-immune diseases, ischemic conditions, immune-related disorders, and neurodegenerative diseases, for providing cardioprotection against ischemic and reperfusion effects, for inducing apoptosis in malignant cells, and as an appetite stimulant.

I



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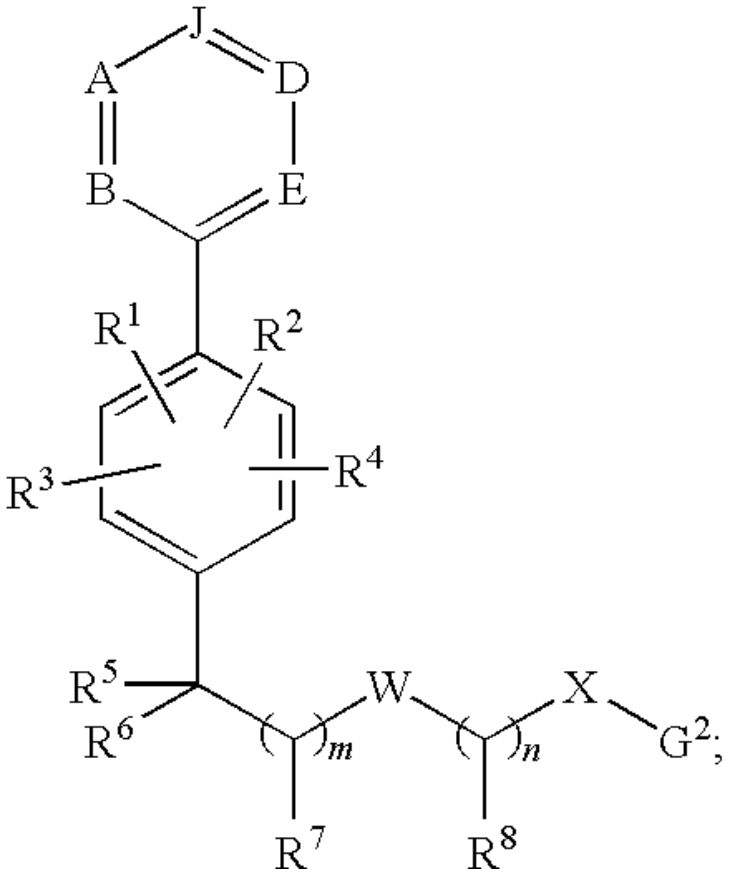


Treatment of immune diseases.
ZA200107773 B

Current assignees

IMMUGEN PHARMACEUTICALS

IMMUNGEN PHARMACEUTICALS*

Inventors

TRAVIS CRAIG R

Priority data including date

1999US-60125674 1999-03-22

IPC - International classification

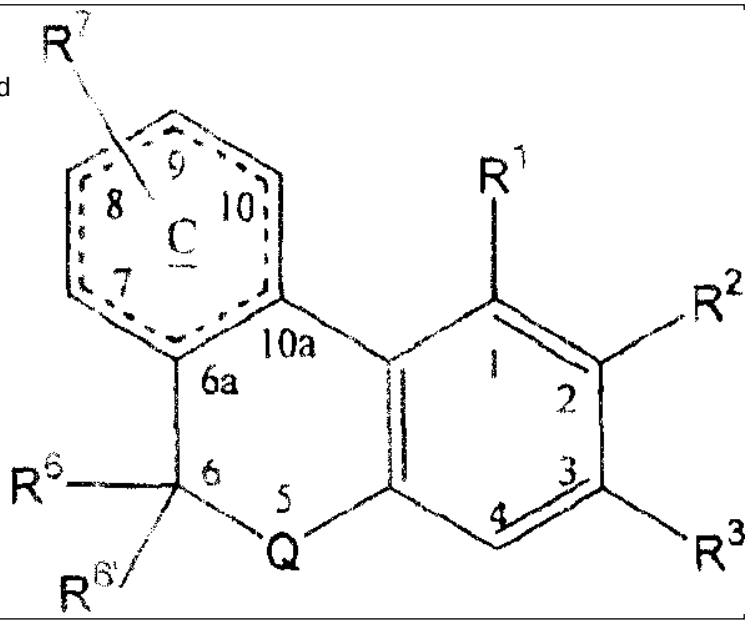
A61K*	A61K*-031/05	A61K*-031/135
A61K*-031/19	A61K*-031/352	A61K*-031/535
C07C-039/12	C07D-407/06	C07D-409/06
C07D-413/06*		

Family

CN1939917	A	2007-04-04	ZA200107773	B	2003-04-22

(CN1939917)

The invention provides cannabinol derivatives and pharmaceutical preparations thereof.



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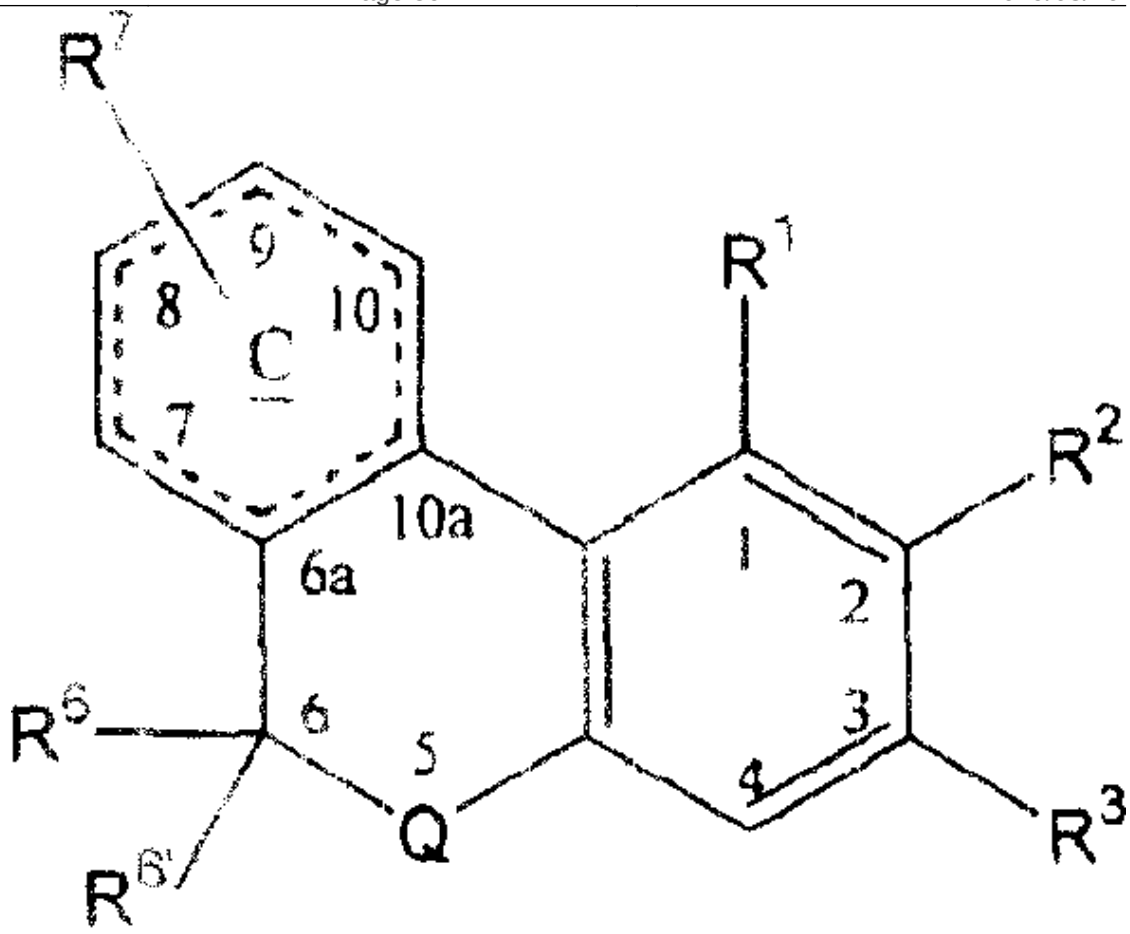


Sulfamoyl benzamides as cannabinoid receptor modulators
WO200758960 A1

Current assignees

ADOLOR
CALIXA THERAPEUTICS
CUBIST PHARMACEUTICALS
CUBIST PHARMACEUTICALS HOLDINGS

Inventors

DOLLE ROLAND E
WORM KARIN

Priority data including date

2005US-60735571 2005-11-10
2006US-11558332 2006-11-09

IPC - International classification

A61K-031/195*	A61K-031/34	A61K-031/397
A61K-031/40	A61K-031/4035*	A61K-031/445
A61K-031/535	A61K-031/5375	A61P-025/00
A61P-037/00	C07C-307/02	C07C-311/16
C07C-311/17	C07C-311/19	C07D-207/12
C07D-209/44	C07D-211/42	C07D-211/44
C07D-265/30		

CPC - Cooperative classification

C07C-2101/08	C07C-2101/14	C07C-2102/42
C07C-2103/74	C07C-2601/08	C07C-2601/14
C07C-2602/42	C07C-2603/74	C07C-311/38
C07C-311/40	C07C-311/42	C07D-207/12
C07D-209/44	C07D-211/42	C07D-211/44
C07D-295/26*		

PCL - US patent classification

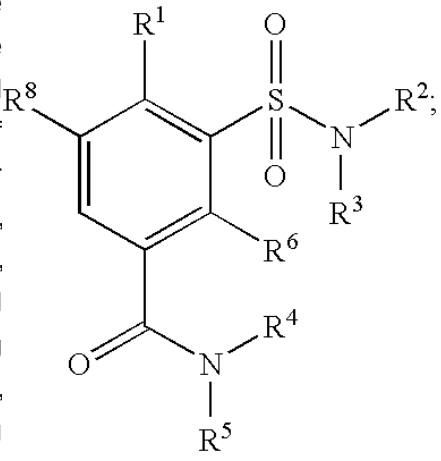
PCLO:	514210010*		
PCLX:	514237800	514238800	514323000
514424000	514470000	514563000	544144000
544158000	546201000	548484000	548542000
548950000			

Family

US7544676	B2	2009-06-09	WO2007/058960	A1	2007-05-24
US20080058302	A1	2008-03-06			

(WO2007/058960)

Novel sulfamoyl benzamide compounds, pharmaceutical compositions containing the sulfamoyl benzamide compounds, and methods of their pharmaceutical use are disclosed. In certain embodiments, the sulfamoyl benzamide compounds are agonists and/or ligands of cannabinoid receptors and may be useful, inter alia, for treating and/or preventing pain, gastrointestinal disorders, inflammation, auto-immune diseases, ischemic conditions, immune-related disorders, hypertension, neurological disorders, and neurodegenerative diseases, for providing cardioprotection against ischemic and reperfusion effects, for inducing apoptosis in malignant cells, for inhibiting mechanical hyperalgesia associated with nerve injury, and as an appetite stimulant.



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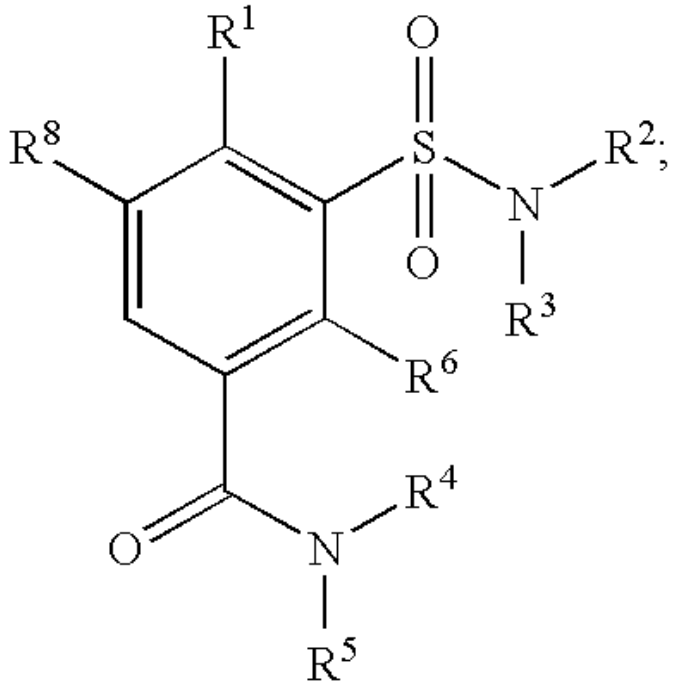


I

Hydrogenation of cannabis oil
WO2016179581 A1

Current assignees

Chardin, Mark Andrew SCIALDONE, Mark Andrew
Mark Andrew Shardonne
SCIALDONE MARK

Inventors

SCIALDONE MARK ANDREW

Priority data including date

2015US-62158025 2015-05-07
2016US-15149721 2016-05-09
2016WO-US31441 2016-05-09
2017US-15613633 2017-06-05
2018US-16117482 2018-08-30

IPC - International classification

A01N-065/00	A61K	A61K-031/05
A61K-031/192	A61K-031/352*	A61K-036/00
A61K-036/185	A61P-035/00	C07D-311/78
C07D-311/80	C11C-003/12	

CPC - Cooperative classification

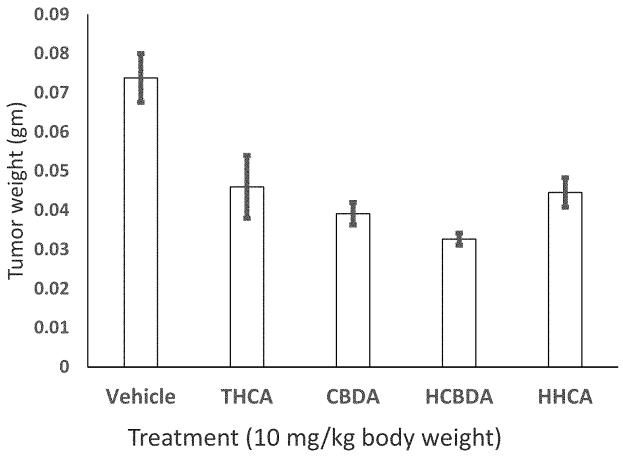
A61K-031/05	A61K-031/192	A61K-031/352
A61K-036/185*	A61K-2236/31	A61K-2300/00
A61P-035/00*	C07D-311/80	

Family

RU2017142561	A	2019-06-10	IL255478	A	2018-01-31
US20190030102	A1	2019-01-31	KR20180002839	A	2018-01-08
ZA201707529	B	2018-11-28	IN201737039585	A	2017-12-08
US10071127	B2	2018-09-11	AU2016258208	A1	2017-11-30
MX2017014195	A	2018-08-15	US20170266245	A1	2017-09-21
JP2018515608	A	2018-06-14	US9694040	B2	2017-07-04
EP3291807	A4	2018-05-16	WO2016/179581	A1	2016-11-10
EP3291807	A1	2018-03-14	US20160324909	A1	2016-11-10
CN107735086	A	2018-02-23	CA2985065	A1	2016-11-10

(WO2016/179581)

The present invention relates to the extraction and hydrogenation of essential oil of a cannabis plant. The invention includes hydrogenated cannabis compounds and compositions, as well as methods of preparation and therapeutic uses for regressing tumors in a cancer patient. The extract can include 9-tetrahydrocannabinoic acid and 9-cannabidiolic acid, and the hydrogenated cannabis oil can include hydrogenated 9-tetrahydrocannabinoic acid, hydrogenated 9-cannabidioc acid and, mixtures and blends thereof.



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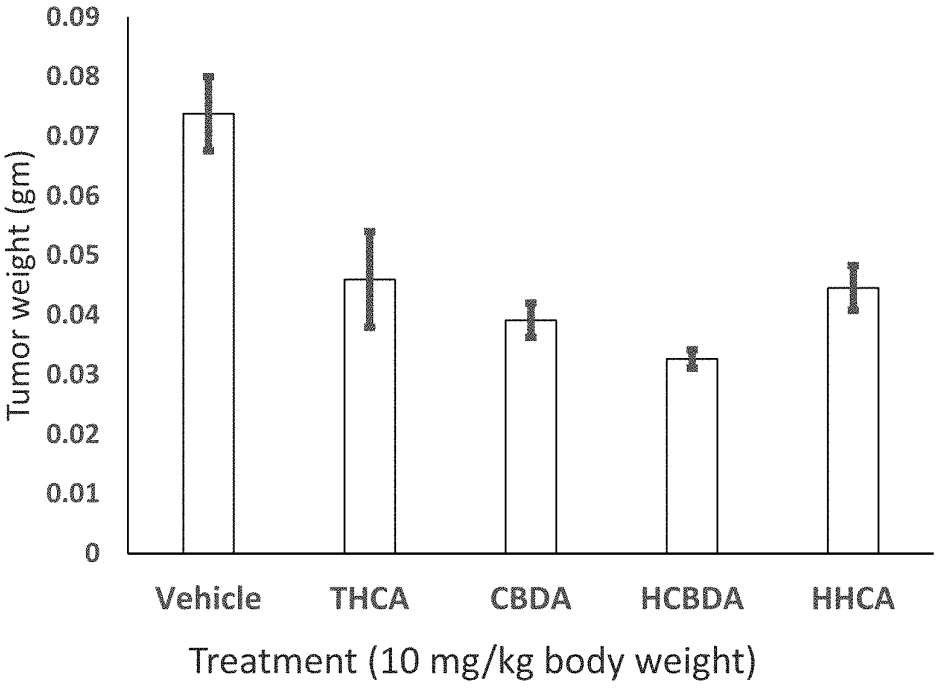

0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Tumor weight (gm)
Vehicle
THCA
CBDA
HCBDA
HHCA
Treatment (10 mg/kg body weight)

Novel orally administrable formulation
WO201818152 A1

Current assignees

ALLEN GREENSPOON

GREENSPOON ALLEN

Inventors

GREENSPOON ALLEN

Priority data including date

2016US-15222019 2016-07-28

2017US-15806928 2017-11-08

2017WO-CA50904 2017-07-28

IPC - International classification

A61K	A61K-009/68*	A61K-031/05
A61K-031/352	A61P-025/04	C07C-039/23
C07D-311/80		

CPC - Cooperative classification

A61K-009/0058*	A61K-031/05	A61K-031/352
A61K-031/4468	A61K-031/485	A61K-036/185

Family

EP3490539	A1	2019-06-05	IL264484	A	2019-02-28
CO2019001895	A2	2019-05-31	BR112019001572	A1	2019-02-05
PE20190738	A1	2019-05-23	US20180064645	A1	2018-03-08
BR112019001572	A2	2019-05-07	WO2018/018152	A1	2018-02-01
AU2017301239	A1	2019-03-14	US9833408	B1	2017-12-05

(WO2018/018152)
An orally administrable chewing gum formulation is provided comprising a pharmaceutically acceptable gum base and particles of a pharmaceutical agent ranging in size from about 50 to about 2000 µm, wherein the formulation comprises about 0.5-30% by wt of the pharmaceutical agent particles. A liquid formulation comprising particles of a pharmaceutical agent is also provided.

Lymph directing prodrugs
WO201741139 A1

Current assignees

MONASH UNIVERSITY*

Inventors

PORTER CHRIS
SIMPSON JAMIE
TREVASKIS NATALIE
QUACH TIM
HAN SIFEI
HU LUOJUAN

Priority data including date

2015AU-0903661 2015-09-08
2016WO-AU50845 2016-09-08

IPC - International classification

A61K-009/00	A61K-031/138	A61K-031/165
A61K-031/167	A61K-031/222	A61K-031/27
A61K-031/365	A61K-031/485	A61K-031/568
A61K-045/00	A61K-045/06	A61K-047/54
A61P-007/06	A61P-007/10	A61P-009/00
A61P-011/00	A61P-015/00	A61P-017/04
A61P-031/18	A61P-035/00	A61P-037/06
A61P-037/08	A61P-043/00	C07C-219/06
C07C-219/08*	C07C-233/14	C07C-235/36
C07C-271/14*	C07C-271/24	C07D-307/88
C07D-489/02	C07D-489/12	C07J-001/00

CPC - Cooperative classification

A61K-009/00/53	A61K-031/138	A61K-031/165
A61K-031/167	A61K-031/222	A61K-031/27
A61K-031/365	A61K-031/485	A61K-031/568
A61K-045/06	A61K-047/542*	C07C-219/06
C07C-235/36	C07C-2602/26	C07C-271/24
C07D-307/88	C07D-489/12	C07J-001/00/25
C07J-001/00/29		

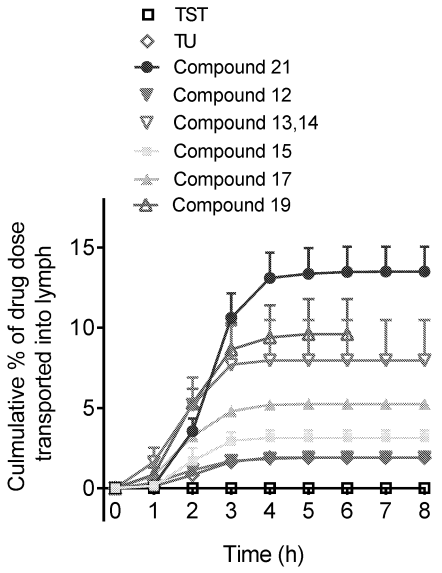
Family

EP3347340	A4	2019-01-23	CN108137482	A	2018-06-08
JP2018534342	A	2018-11-22	AU2016318229	A1	2018-03-29
US20180243425	A1	2018-08-30	WO2017/041139	A1	2017-03-16
EP3347340	A1	2018-07-18	CA2997106	A1	2017-03-16

(WO2017/041139)

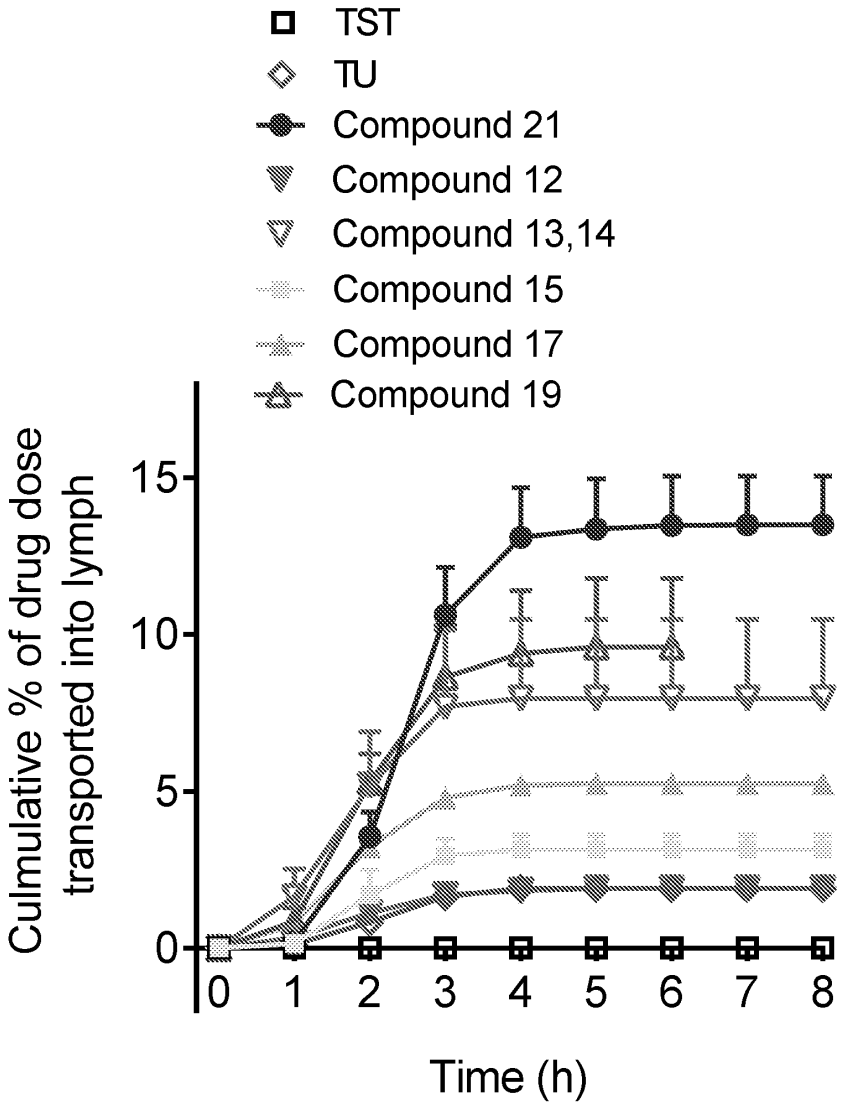
The present invention relates to compounds and their uses, in particular, compounds in the form of prodrugs that promote transport of a pharmaceutical agent to the lymphatic system and subsequently enhance release of the parent drug.

Figure 1:



IMG

Figure 1:


TST
TU
Compound 21
Compound 12
Compound 13,14
Compound 15
Compound 17
Compound 19
Culmulative % of drug dose transported into lymph
0
5
10
15
0 1 2 3 4 5 6 7 8
Time (h)

Compound, composition, and methods for treating, preventing, reducing, or delaying onset of osteosarcoma lung metastasis in a subject

WO2018132899 A1

Current assignees

UTI*

Inventors

SENGER DONNA L

ROBBINS STEPHEN M

WIERENGA LAUREN A

Priority data including date

2017US-62447770 2017-01-18

IPC - International classification

A61K-031/167	A61K-031/4439	A61K-038/10
A61K-039/395*	A61P-035/04	C07C-233/65
C07D-417/12	C07K-007/08	C07K-016/28

CPC - Cooperative classification

A61K-031/167	A61K-031/4439	A61K-039/395
A61K-045/06	A61K-2039/505	A61P-029/00
A61P-035/04*	C07C-233/65	C07K-016/28

Family

WO2018/132899 A1 2018-07-26

(WO2018/132899)

Described herein is a method for treating, preventing, reducing, or delaying onset of, osteosarcoma lung metastasis in a subject, comprising: administering a therapeutically or prophylactically effective amount of a PPARγ agonist, an anti- inflammatory agent, or a neutrophil depleting agent, to a subject having or suspected of having osteosarcoma.

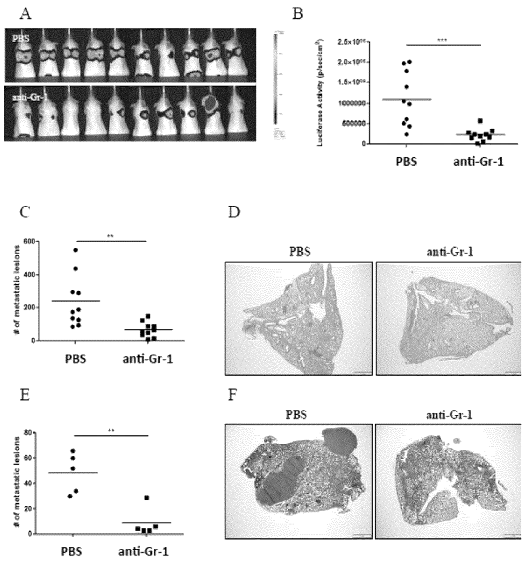


FIGURE 1

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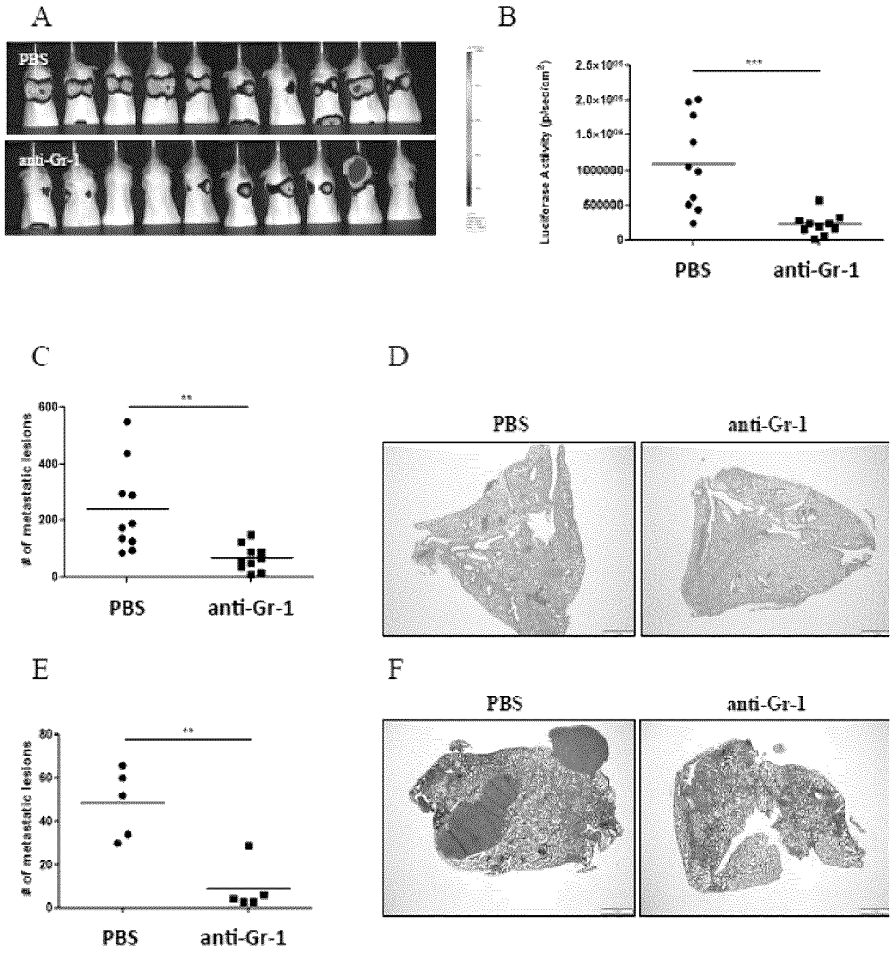

A
PBS
anti-Gr-1
B
***
Luciferase Activity (p/sec/cm²)
PBS
anti-Gr-1
C
**
# of metastatic lesions
PBS
anti-Gr-1
D
PBS
anti-Gr-1
E
**
# of metastatic lesions
PBS
anti-Gr-1
F
PBS
anti-Gr-1

FIGURE 1

Biosynthesis of cannabinoid prodrugs
WO2017181118 A1

Current assignees

FULL SPECTRUM LABORATORIES
TEEWINOT TECHNOLOGIES*
TEEWINOT TECHNOLOGY
TIWINNOT TECHNOLOGY

Inventors

PEET RICARD C
KAVARANA MALCOLM J

Priority data including date

2016US-62323296 2016-04-15
2016US-62327212 2016-04-25
2017US-15488273 2017-04-14
2017WO-US27776 2017-04-14

IPC - International classification

A61K-031/22	A61K-031/265	A61K-031/27
A61K-031/352	A61P-001/08	A61P-017/18
A61P-021/00	A61P-025/00	A61P-025/04
A61P-025/06	A61P-025/08	A61P-025/22
A61P-025/24	A61P-025/30	A61P-027/06
A61P-029/00	A61P-031/00	A61P-031/18
A61P-037/08	A61P-039/06	C07C-069/017
C07C-069/675	C07C-069/708	C07C-219/04
C07C-227/16	C07C-229/10	C07C-229/12
C07C-271/44	C07C-271/52	C07D-311/74*
C07D-311/80	C12M-001/00	C12M-001/34
C12M-001/40	C12P	C12P-001/00
C12P-007/26*	C12P-013/00	C12P-013/02
C12P-013/04	C12P-017/06	

CPC - Cooperative classification

C07C-069/16	C07C-069/708	C07C-213/08
C07C-219/04	C07C-227/16	C07C-229/12
C07C-2601/16	C07C-271/44	C07C-271/52
C07D-311/74	C07D-311/80	C12M-021/18
C12M-041/26	C12M-041/48	C12P-013/04
C12P-017/06*	C12Y-121/03007	C12Y-121/03008

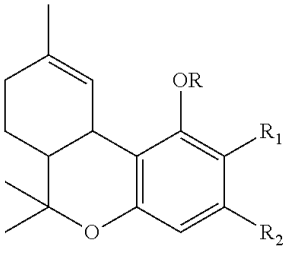
Family

JP2019513422	A	2019-05-30	AU2017250303	A1	2018-11-15
EP3442953	A1	2019-02-20	WO2017/181118	A1	2017-10-19
CN109311838	A	2019-02-05	US20170298399	A1	2017-10-19
IL262398	A	2018-11-29	CA3021139	A1	2017-10-19

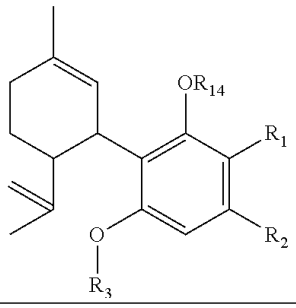
(WO2017/181118)

The present invention provides methods for producing cannabinoid prodrugs. Also described are pharmaceutically acceptable compositions of the prodrugs and a system for the large-scale production of the prodrugs.

Formula II

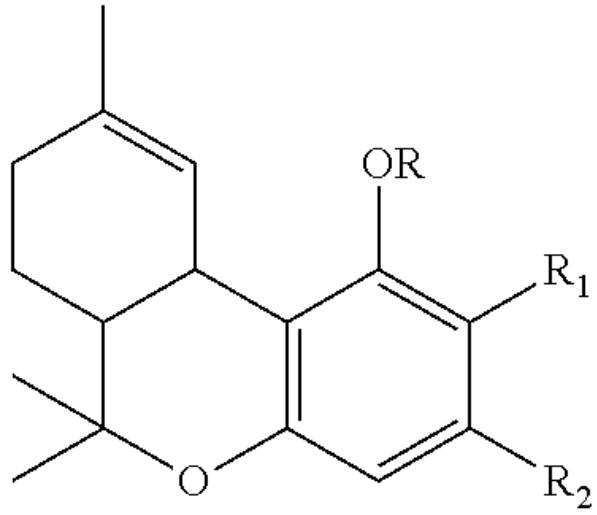


Formula III

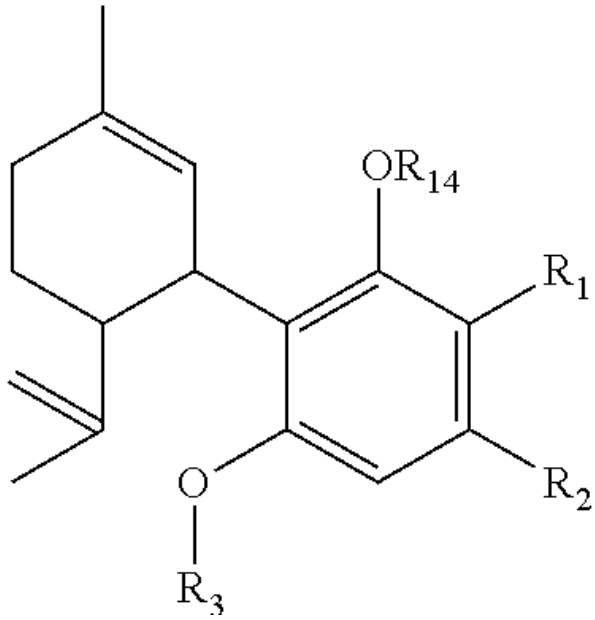


IMG

Formula II



Formula III



Co-crystals of duloxetine and cox-inhibitors for the treatment of pain
WO2009141144 A1

Current assignees

ESTEVE DEL RABORATORIOSU ESZE A DEERE
ESTEVE LABORATORIOS
ESTEVE PHARMACEUTICALS*

Inventors

BUSCHMANN HELMUT HEINRICH
SOLA CARANDELL LLUIS
BENET BUCHHOLZ JORDI
CERON BERTRAN JORDI CARLES
RAMIREZ ARTERO JESUS

Priority data including date

2008EP-0384009 2008-05-21
2009EP-0749634 2009-05-20
2009WO-EP03617 2009-05-20
2011US-12991420 2011-03-18
2013US-13942488 2013-07-15

IPC - International classification

A61K-031/192	A61K-031/381*	A61K-031/40
A61K-045/00	A61P-003/10	A61P-019/02
A61P-021/00	A61P-025/02	A61P-025/04
A61P-029/00	A61P-043/00	C07C-059/64*
C07D-333/16	C07D-333/20	

CPC - Cooperative classification

A61K-031/192	A61K-031/381*	C07D-333/20

PCL - US patent classification

PCLO: 514447000*
PCLX: 549075000

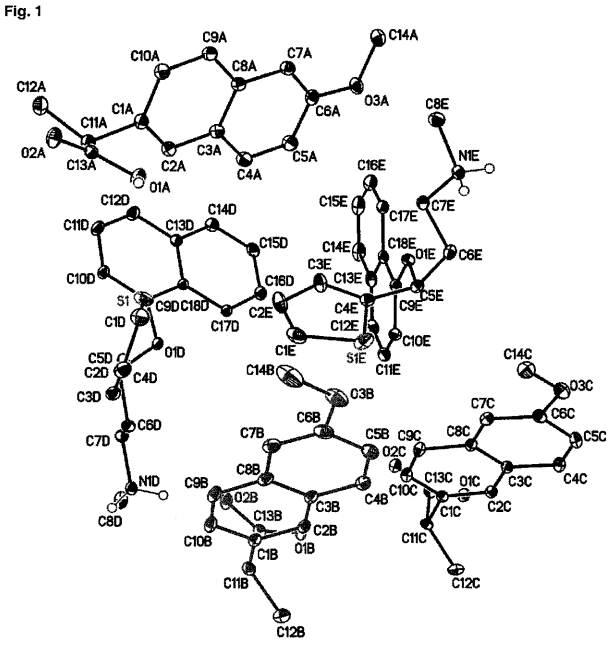
Family

US9084774	B2	2015-07-21	CN102036946	A	2011-04-27
US20140024697	A1	2014-01-23	EP2291345	A1	2011-03-09
US8501802	B2	2013-08-06	MX2010012712	A	2011-02-15
ES2408699	T3	2013-06-21	WO2009/141144	A1	2009-11-26
EP2291345	B1	2013-03-13	CA2724812	A1	2009-11-26
JP2011520933	A	2011-07-21	EP2123626	A1	2009-11-25
US20110160273	A1	2011-06-30			

(WO2009/141144)

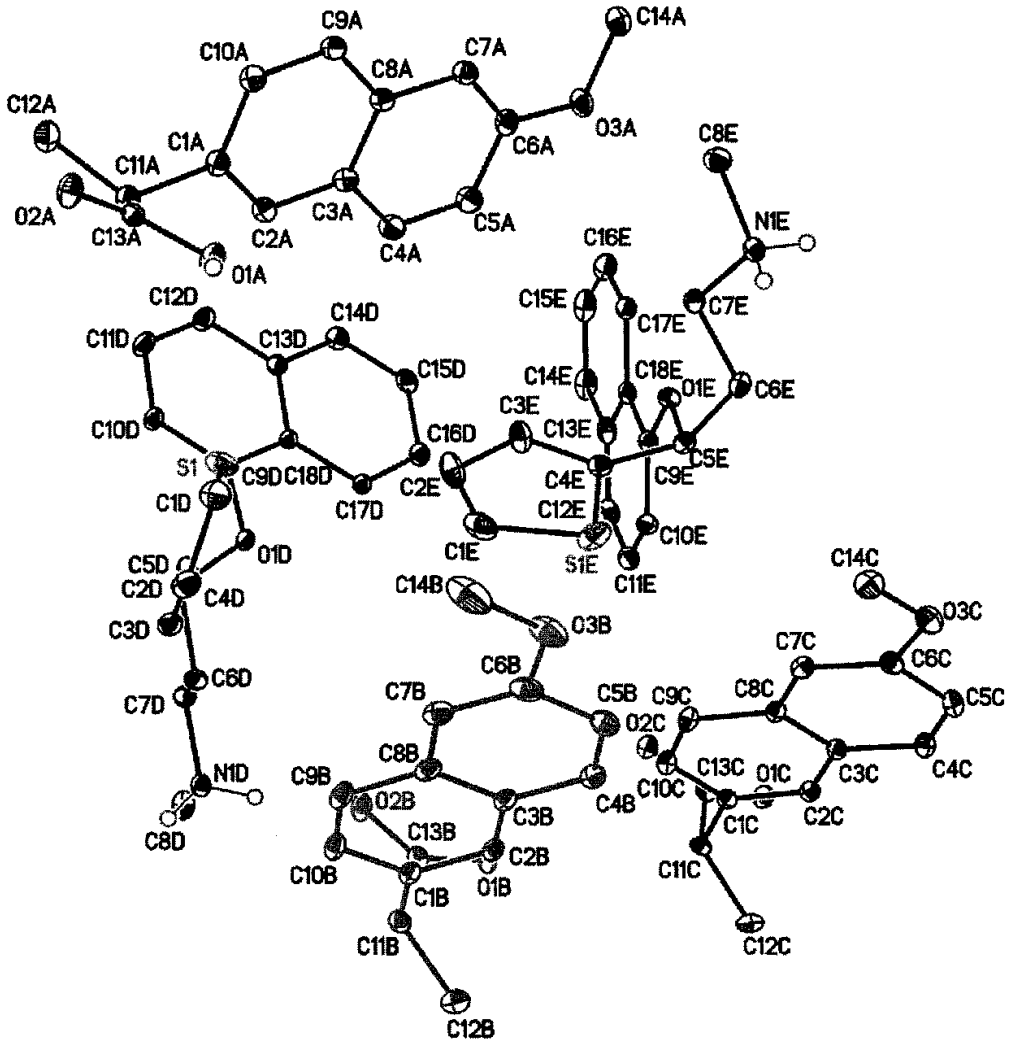
The present invention relates to co-crystals of duloxetine and co-crystal formers selected from COX-INHIBITORs, processes for preparation of the same and their uses as medicaments or in pharmaceutical formulations, more particularly for the treatment of pain. Specific COX-INHIBITORS are naproxen and tolmetin.

Fig. 1



IMG

Fig. 1


C9A
C14A
C10A
C7A
C8A
C12A
C1A
O3A
C6A
C8E
C11A
N1E
O2A
C13A
C2A
C3A
C5A
C4A
C16E
O1A
C12D
C15E
C14D
C7E
C11D
C13D
C17E
C15D
C14E
C18E
O1E
C6E
C3E
C10D
C16D
C13E
C5E
S1
C9D
C18D
C2E
C4E
C9E
C1D
C17D
C12E
C10E
C1E
S1E
O1D
C11E
C5D
C14B
C14C
C2D
C4D
O3B
O3C
C3D
C7C
C6B
C6C
C6D
C7B
C5B
C9C
C8C
C5C
C7D
O2C
C8B
C13C
O1C
C9B
N1D
C10C
C3C
C4C
O2B
C4B
C3B
C1C
C2C
C13B
C8D
C2B
C10B
O1B
C11C
C1B
C11B
C12C
C12B

Amphiphilic block copolymers, micelles, and methods for treating or preventing heart failure

WO2019113685 A1

Current assignees

CARDIOL THERAPEUTICS*

Inventors

LAVASANIFAR AFSANEH

BOLTON ANTHONY ERNEST

Priority data including date

2017US-62597740 2017-12-12

IPC - International classification

A61K-009/107*	A61K-031/05	A61K-031/519
A61K-038/13	A61K-047/10	A61K-047/34
A61P-009/00	A61P-009/04	C07C-039/23
C07D-475/08	C07K-007/64	

CPC - Cooperative classification

A61K-009/107*	A61K-031/05	A61K-031/519
A61K-038/13	A61K-047/10	A61K-047/34
A61P-009/00	A61P-009/04	C07C-039/23
C07D-475/08	C07K-007/64	

Family

WO2019/113685 A1 2019-06-20

(WO2019/113685)

Micelle-forming amphiphilic block copolymers for use in targeting cardiac cells (e.g. fibrotic cells) of a subject suffering from heart failure, micelles containing the micelle-forming amphiphilic block copolymers together with a cardioactive agent, and related compositions and methods for treating or preventing heart failure, e.g. heart failure with preserved ejection fraction (HFpEF) also known as diastolic heart failure.

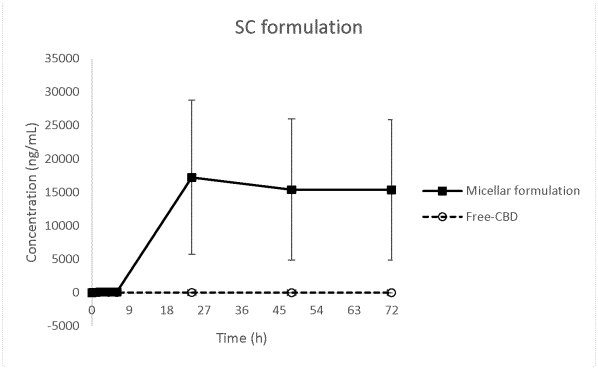


Fig. 8

IMG

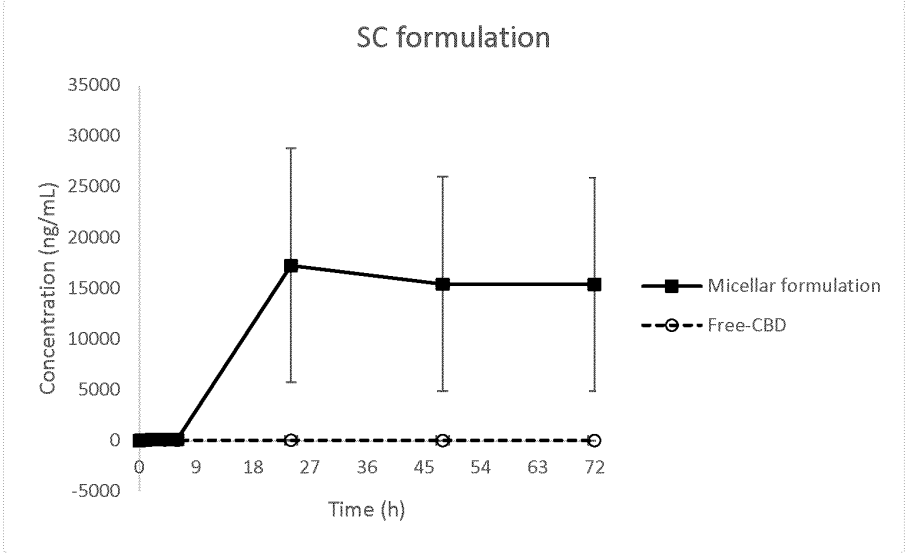

SC formulation
35000
30000
25000
20000
15000
10000
5000
0
-5000
Concentration (ng/mL)
0
9
18
27
36
45
54
63
72
Time (h)
Micellar formulation
Free-CBD

Fig. 8

Mixtures of cannabinoid compounds, and production and use thereof
WO2016135308 A1

Current assignees

SYMRISE*

Inventors

KOCH OSKAR

GÖTZ MARCUS RUDOLF

Priority data including date

2015EP-0156750 2015-02-26

2016WO-EP54124 2016-02-26

2017US-15553638 2017-08-25

2018US-16181503 2018-11-06

IPC - International classification

A61K-031/235*	A61K-031/352	A61P-001/08
A61P-009/12	A61P-021/02	A61P-023/00
A61P-025/06	A61P-025/08	A61P-025/18
A61P-027/06	A61P-029/00	A61P-037/02
C07C-037/50	C07C-039/23	C07C-067/03
C07C-067/343	C07C-069/94	C07D-311/80*

CPC - Cooperative classification

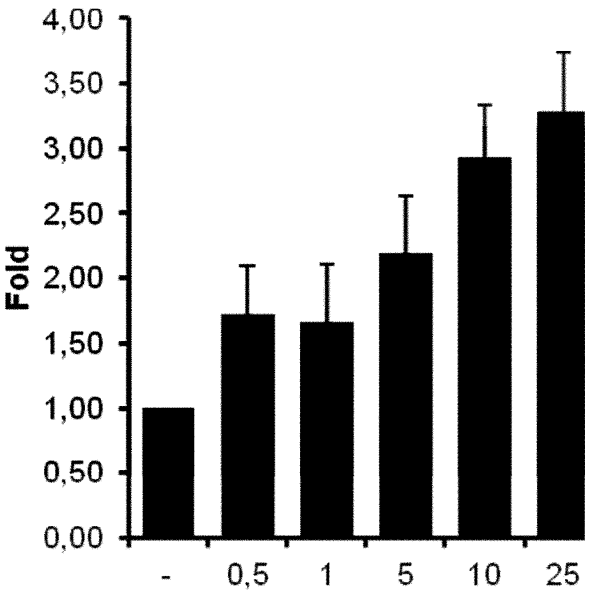
A61K-031/235	A61K-031/352	A61K-2300/00
C07C-037/50	C07C-039/23	C07C-067/03
C07C-067/343	C07C-069/94	C07C-2601/14
C07C-2601/16	C07D-311/80*	

Family

US20190077783	A1	2019-03-14	IN201737030087	A	2017-10-13
US20180244642	A1	2018-08-30	WO2016/135308	A1	2016-09-01
EP3261634	A1	2018-01-03	EP3061450	A1	2016-08-31
CN107405327	A	2017-11-28			

(WO2016/135308)

Specific mixtures comprising one or more (cannabinoid) compounds of the formula (A) and/or one or more of the salts thereof are described, as are processes for the preparation thereof. Also described are a compound of the formula (A), a salt of the formula (A) and a corresponding mixture for use as a medicament or for use in a method for therapeutic treatment of the human or animal body. Additionally described are corresponding pharmaceutical formulations, cosmetic preparations and preparations which are suitable for consumption and serve the purposes of pleasure and/or nutrition, and processes for the preparation of CBDV and THCV.



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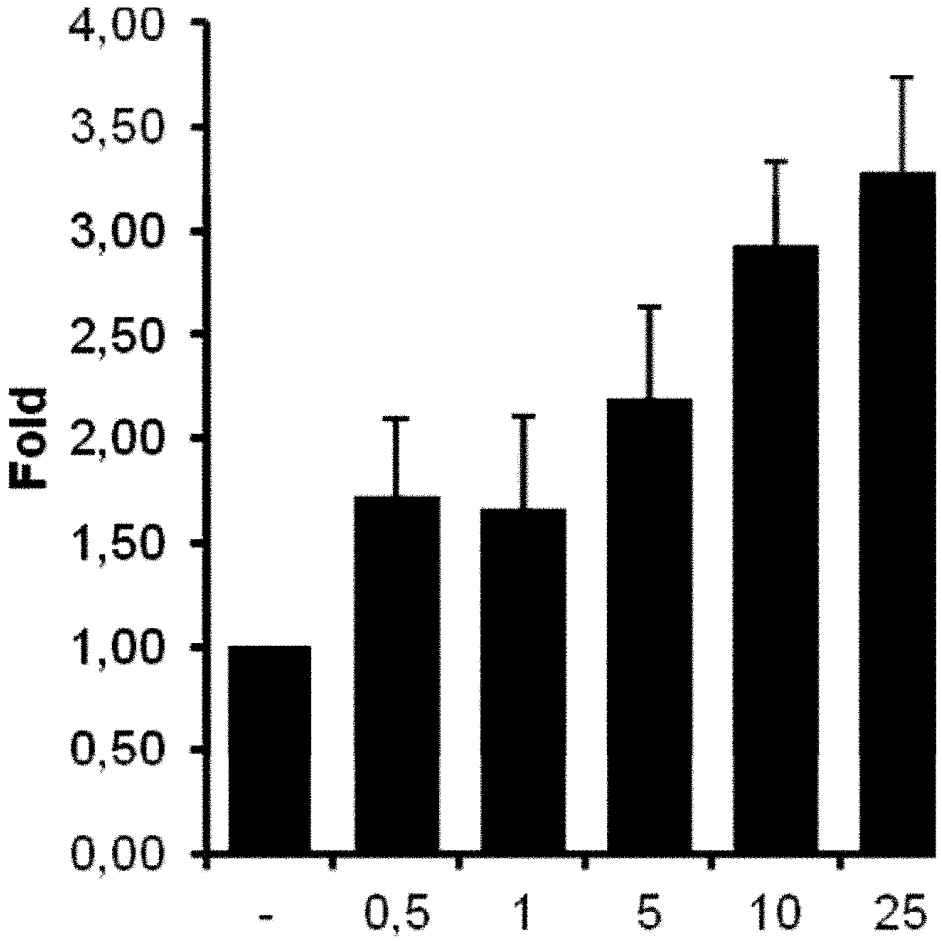


Methods and uses for inducing or facilitating defecation in a patient in need thereof
WO2015127556 A1

Current assignees
UNIVERSITE LAVAL*

Inventors
GUERTIN PIERRE

Priority data including date
2014US-61946113 2014-02-28

IPC - International classification

A61K-031/135	A61K-031/137	A61K-031/27
A61K-031/47	A61K-031/506*	A61P-001/10
A61P-025/00	C07C-215/30	C07C-215/64
C07C-271/44	C07D-215/38	C07D-401/12

CPC - Cooperative classification

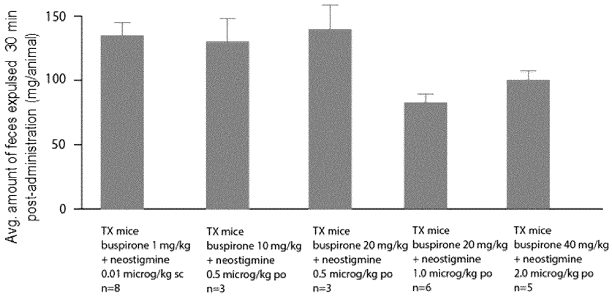
A61K-031/137*	A61K-031/27	A61K-031/352
A61K-031/404	A61K-031/407	A61K-031/475
A61K-031/495	A61K-031/496	A61K-031/506
A61K-031/554	A61K-045/06	

Family

WO2015/127556	A1	2015-09-03

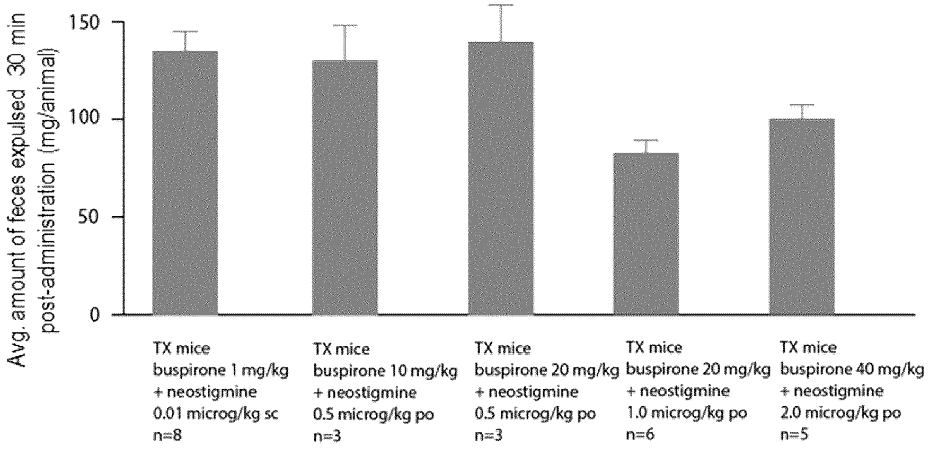
(WO2015/127556)
Compositions for eliciting acute defecation in subjects having a spinal cord injury (SCI subject) are described herein. The compositions may generally comprise one or more of a 5-HT (5-hydroxytryptamine, serotonin) receptor agonist, a beta-2 adrenergic receptor agonist, and a parasympathomimetic agent. More specifically, the compositions may comprise one or more of: a cholinesterase inhibitor; a 5-HT1A receptor agonist; a 5 HT1A/7 receptor agonist; a 5- HT2/3 receptor agonist; and a beta-2 adrenergic receptor agonist. Uses and methods relating to eliciting acute defecation in subjects in need thereof are also described.

Figure 8



IMG

Figure 8


Avg. amount of feces expulsed 30 min post-administration (mg/animal)
150
100
50
0
TX mice buspirone 1 mg/kg + neostigmine 0.01 microg/kg sc n=8
TX mice buspirone 10 mg/kg + neostigmine 0.5 microg/kg po n=3
TX mice buspirone 20 mg/kg + neostigmine 0.5 microg/kg po n=3
TX mice buspirone 20 mg/kg + neostigmine 1.0 microg/kg po n=6
TX mice buspirone 40 mg/kg + neostigmine 2.0 microg/kg po n=5

Prostacyclin derivatives
WO201103058 A1

Current assignees

CONCERT PHARMACEUTICALS*

Inventors

MASSE CRAIG E
HARBESON SCOTT L
TUNG ROGER D

Priority data including date

2009US-61222955 2009-07-03
2010US-13381419 2010-07-02
2010WO-US40891 2010-07-02

IPC - International classification

A61K-031/5578*	A61K-031/5585	A61P-009/00
A61P-009/12	A61P-013/12	A61P-035/00
C07C-045/00*	C07C-069/73	C07C-069/732
C07C-311/51	C07D-317/40	

CPC - Cooperative classification

C07B-2200/05	C07B-2200/07	C07C-059/46
C07C-069/732	C07C-069/734*	C07C-2101/14
C07C-2102/22	C07C-2601/14	C07C-2602/22
C07C-311/51	C07D-317/34	C07D-319/06

PCL - US patent classification

PCLO:	514467000*		
PCLX:	514510000	514601000	549229000
560008000	560119000	564098000	

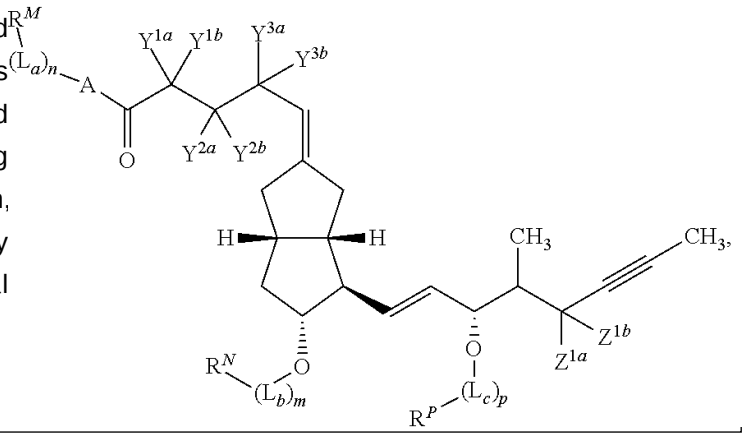
Family

US20120270934	A1	2012-10-25	WO2011/003058	A1	2011-01-06

(WO2011/003058)

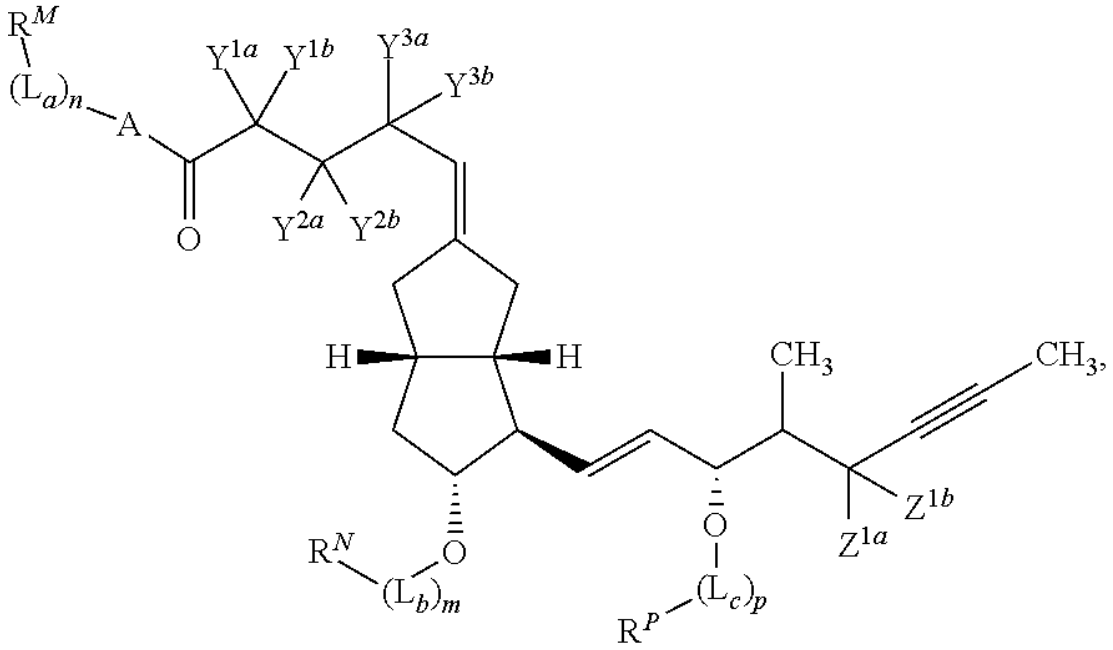
This invention relates to novel prostacyclin derivatives and acceptable salts thereof. The invention also provides compositions comprising a compound of this invention and the use of such compositions in methods of treating diseases and conditions beneficially treated by prostacyclin, and in particular those diseases and conditions beneficially treated by dilators of systemic and pulmonary arterial vascular beds or by platelet aggregation inhibitors.

(A)



IMG

(A)



Methods and uses for inducing or facilitating micturition in a patient in need thereof
WO2015127558 A1

Current assignees
UNIVERSITE LAVAL*

Inventors
GUERTIN PIERRE

Priority data including date
2014US-61946097 2014-02-28

IPC - International classification

A61K-031/135	A61K-031/198	A61K-031/27
A61K-031/47	A61K-031/506*	A61P-025/00
C07C-215/64	C07C-229/36	C07C-271/44
C07D-215/38	C07D-401/12	

CPC - Cooperative classification

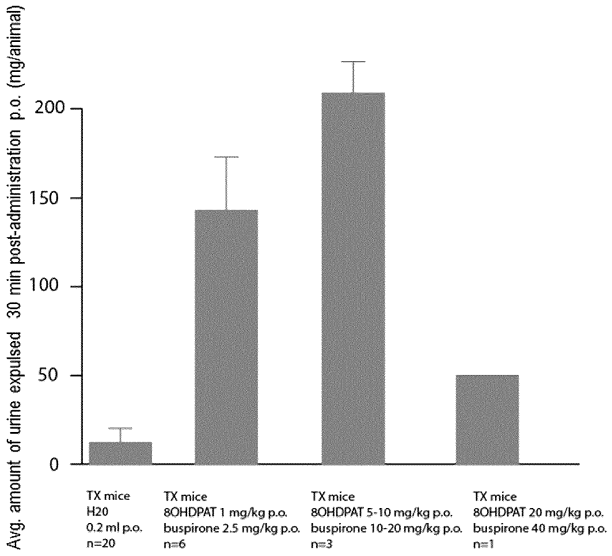
A61K-031/135*	A61K-031/198	A61K-031/27
A61K-031/496	A61K-031/506	A61K-045/06

Family

WO2015/127558	A1	2015-09-03

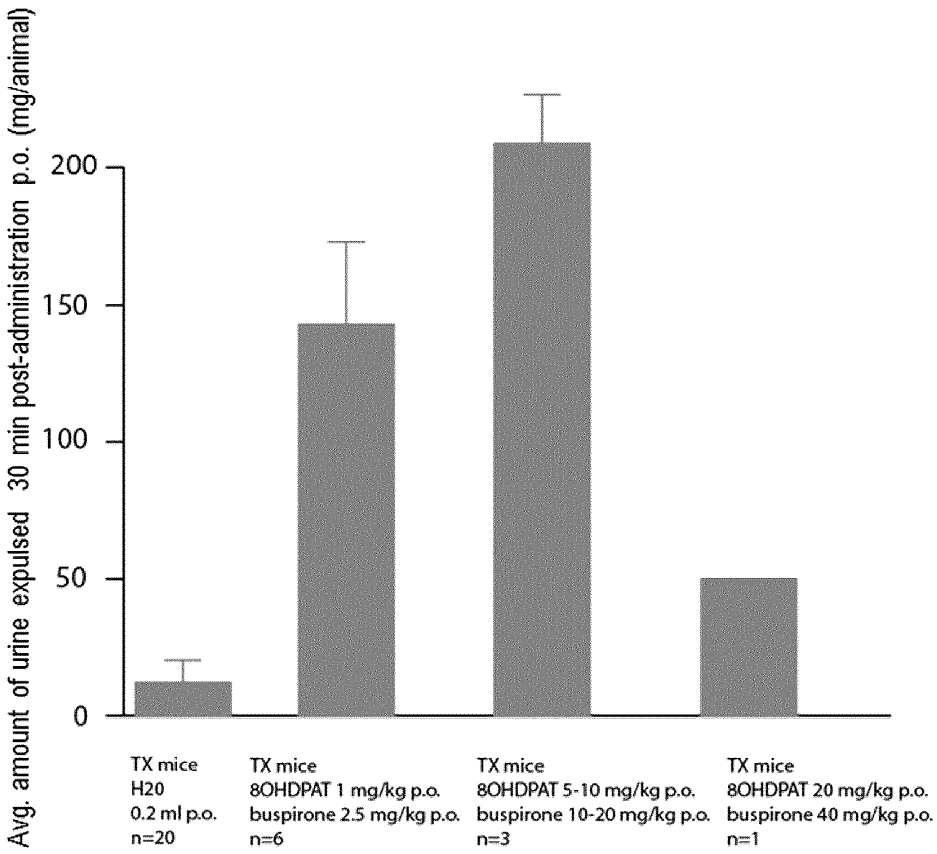
(WO2015/127558)
Compositions for eliciting acute micturition (voiding activity) in subjects having a spinal cord injury (SCI subject) are described herein. The compositions may generally comprise one or more of a 5-HT (5-hydroxytryptamine, serotonin) receptor agonist, a parasympathomimetic agent, a glutamate receptor agonist, and a noradrenaline/dopamine precursor. More specifically, the compositions may comprise one or more of: a 5-HT1A receptor agonist; a 5 HT1A/7 receptor agonist; a 5-HT2/3 receptor agonist; a cholinesterase inhibitor; an NMDA receptor agonist; and a noradrenaline/dopamine precursor. Uses and methods relating to eliciting acute micturition in subjects in need thereof are also described.

Figure 10



IMG

Figure 10



Methods of purifying cannabinoids from plant material
WO200426857 A2

Current assignees

GW PHARMACEUTICALS*

Inventors

FLOCKHART IAN
WHEATLEY GARY WILLIAM
DRING SU
ARCHER LESLEY

Priority data including date

2002GB-0022077 2002-09-23
2003EP-0750947 2003-09-23
2003WO-GB04078 2003-09-23
2005US-10528951 2005-03-22
2010US-12714907 2010-03-01
2014US-14471113 2014-08-28

IPC - International classification

A61K-031/352	A61P-001/08*	A61P-025/04
A61P-025/06	A61P-025/22	A61P-027/06
A61P-029/00	C07C-065/19*	C07D-311/80
G01N-033/00		

CPC - Cooperative classification

C07C-065/19*	C07C-2101/16	C07C-2601/16
C07D-311/80	Y10T-436/25375	

PCL - US patent classification

PCLO:	436177000*	562469000*	436177000*
PCLX:	436172000		

Family

US20150203434	A1	2015-07-23	GB2393721	B	2005-10-19
US8846409	B2	2014-09-30	EP1542984	A2	2005-06-22
CA2499492	C	2011-07-12	WO2004/026857	A3	2004-08-12
US20100168448	A1	2010-07-01	AU2003269167	A1	2004-04-08
ES2337460	T3	2010-04-26	AU2003269167	A8	2004-04-08
US7700368	B2	2010-04-20	GB2393721	A	2004-04-07
EP2161262	A1	2010-03-10	WO2004/026857	A2	2004-04-01
DE60330363	D1	2010-01-14	CA2499492	A1	2004-04-01
AT450521	T	2009-12-15	GB0322263	D0	2003-10-22
EP1542984	B1	2009-12-02	GB0222077	D0	2002-10-30
US20050266108	A1	2005-12-01			

(WO2004/026857)

The invention relates to methods of preparing cannabinoids in substantially pure form starting from plant material. Also described are substantially pure preparations of various cannabinoids and cannabinoid acids, and also extracts enriched in cannabinoids and cannabinoid acids.

TLC profile of G1 chemovar starting material and purified THCA

IMG

TLC profile of G1 chemovar starting material and purified THCA