cannabidiol (CBD) and a synergistic terpene fraction may assist in an opioid sparing dosage regimen.

[0011a] In one aspect, the present disclosure refers to a kit comprising in separate parts: (i) a pharmaceutical composition comprising Δ^9-tetrahydrocannabinol (THC), cannabidiol (CBD) and a terpene fraction, and (ii) an opioid.

[0011b] In another aspect, the present disclosure refers to a use of the pharmaceutical composition comprising Δ9 tetrahydrocannabinol (THC), cannabidiol (CBD) and a terpene fraction from part (i) of the kit as disclosed herein in the preparation of a first medicament and use of an opioid from part (ii) of the kit as disclosed herein in the preparation of a second medicament, wherein the first and second medicaments are to be used in combination therapy for opioid sparing in a subject, wherein the combination therapy has the following dosage regimen: (1) that an effective amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i), and (2) that a sub-clinical amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i).

[0011c] In another aspect, the present disclosure refers to a use of the pharmaceutical composition comprising Δ9 tetrahydrocannabinol (THC), cannabidiol (CBD) and a terpene fraction from part (i) of the kit as disclosed herein in the preparation of a first medicament and use of an opioid from part (ii) of the kit as disclosed herein in the preparation of a second medicament, wherein the first and second medicaments are to be used in combination therapy for treating opioid dependence and/or addiction in a in a subject, wherein the combination therapy has the following dosage regimen: (1) that an effective amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i), and (2) that a sub-clinical amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i).

[0011d] In yet another aspect, the present disclosure refers to a use of one or more of (a) a Cannabis extract; (b) THC and (c) CBD in the manufacture of a medicament for opioid sparing in a subject in need thereof, wherein the medicament comprises, in separate parts: (i) THC, CBD and a terpene fraction, and (ii) an opioid.

[0011e] In yet another aspect, the present disclosure refers to a use of one or more of (a) a Cannabis extract; (b) THC and (c) CBD in the manufacture of a medicament for treating opioid dependence and/or addiction in a patient in need thereof, wherein the medicament comprises, in separate parts (i) THC, CBD and a terpene fraction, and (ii) an opioid.

[0012] In one example, there is provided a pharmaceutical composition comprising THC, CBD and a terpene fraction obtained by extraction of a *Cannabis* plant. The pharmaceutical composition may optionally comprise one or more pharmaceutically acceptable excipient(s).

[0013] In another example, there is provided a method of opioid sparing in a subject in need thereof, the method comprising administering to the subject an effective amount of a pharmaceutical composition of the disclosure according to the following dosage regimen:
(1) administering an effective amount of an opioid together with an effective amount of the pharmaceutical composition of disclosure, and
(2) administering a sub-clinical amount of the opioid together with an effective amount of the pharmaceutical composition of the disclosure, and optionally
(3) administering an effective amount of the pharmaceutical composition of the disclosure without an opioid.

[0014] In yet another example, there is provided a method of treating opioid dependence and/or addiction in a subject in need thereof, the method comprising administering to the subject an effective amount of a pharmaceutical composition of the disclosure according to the following dosage regimen:
(1) administering an effective amount of an opioid together with an effective amount of the pharmaceutical composition of disclosure, and
(2) administering a sub-clinical amount of the opioid together with an effective amount of the pharmaceutical composition of the disclosure, and optionally
(3) administering an effective amount of the pharmaceutical composition of the disclosure without an opioid.

[0015] In some examples, step (2) of the dosage regimen in the methods above comprises reducing the dose of opioid by a tapering amount per week of treatment.

[0016] In a further example, there is provided a kit of parts comprising in separate parts: (a) an effective amount of a pharmaceutical composition of the disclosure, and (b) an opioid.

[0017] In still a further example, there is provided use of of one or more of (a) a *Cannabis* extract; (b) THC and (c) CBD in the manufacture of a medicament for opioid sparing in a

subject in need thereof, wherein the medicament comprises THC, CBD and a terpene fraction.

[0018] In still a further example, there is provided use of of one or more of (a) a *Cannabis* extract; (b) THC and (c) CBD in the manufacture of a medicament for treating opioid dependence and/or addiction in a patient in need thereof, wherein the medicament comprises THC, CBD and a terpene fraction.

Definitions

[0019] The term “cannabinoid” as used herein relates to any compound that has been isolated from a *Cannabis* plant or synthetically created that has activity involving the endocannabinoid system. The term is used to describe the relevant compound itself irrespective of its source.

[0020] The term “cannabinoid fraction” is used to describe the combination of cannabinoid compounds present in the *Cannabis* extract.

[0021] The term “terpenes” or “terpenoids” as used herein refers to a class of hydrocarbon molecules, which often provide a unique smell. Terpenes are derived from units of isoprene, which has the molecular formula C_5H_8. The basic molecular formula of terpenes are multiples of the isoprene unit, i.e. $(C_5H_8)_n$, where n is the number of linked isoprene units. Terpenoids are terpene compounds that have been further metabolised in the plant, typically through an oxidative process, and therefore usually contain at least one oxygen atom.

[0022] The term “terpene fraction” is used to describe the combination of terpene and terpenoid compounds present in the *Cannabis* extract.

[0023] As used herein, the terms “treating”, “treatment”, “treat” and the like mean affecting a subject, patient, tissue or cell to obtain a desired pharmacological and/or physiological effect. The effect may be prophylactic in terms of completely or partially preventing, or reducing the severity of, a disease or associated symptom, and/or may be therapeutic in terms of a partial or complete cure of a disease.

[0024] The term “administering” refers to providing the pharmaceutical composition to a patient suffering from or at risk of the disease(s) or condition(s) to be treated or prevented.

(5aS,6S,9R,9aR)-C3-Cannabielsoic acid B CBEA-C3 B, Cannabiglendol-C3 OH-iso-HHCV-C3, Dehydrocannabifuran DCBF-C5, Cannabifuran CBF-C5), (-)-Δ^7-trans-(1R,3R,6R)-Isotetrahydrocannabinol, (±)-Δ^7-1,2-cis-(1R,3R,6S/1S,3S,6R)-Isotetrahydrocannabivarin, (-)-Δ^7-trans-(1R,3R,6R)-Isotetrahydrocannabivarin; (±)-(laS,3aR,8bR,8cR)-Cannabicyclol CBL-C5, (±)-(1aS,3aR,8bR,8cR)-Cannabicyclolic acid A CBLA-C5 A, (±)-(laS,3aR,8bR,8cR)-Cannabicyclovarin CBLV-C3; Cannabicitran CBTC5; Cannabichromanone CBCN-C5, CannabichromanoneC3 CBCN-C3, and Cannabicoumaronone CBCON-C5.

[0064] In some embodiments, the *Cannabis* extract further comprises one or more of Δ^9-Tetrahydrocannabinolic acid (THCA), Δ^9-Tetrahydrocannabivarin (THCV), (-)-Cannabidivarin (CBDV), Cannabinol (CBN), Cannabichromene (CBC) and Cannabigerol (CBG). Each of these cannabinoids may be present in an amount from about 0.001% to about 40% by weight of the *Cannabis* extract. Typically, the other cannabinoids are present in amounts lower than the primary cannabinoid or, if present, the secondary cannabinoid(s).

[0065] In some embodiments, certain cannabinoids may be absent, or present in non-detectable amounts (e.g. less than about 0.001% by weight of the analyte). In some embodiments, the *Cannabis* extract may exclude one or more of the following cannabinoids: Δ^9-Tetrahydrocannabinolic acid (THCA), Δ^9-Tetrahydrocannabivarin (THCV), Cannabidiolic acid (CBDA), Cannabinol (CBN), (-)-Cannabidivarin (CBDV), Cannabigerol (CBG) and Cannabichromene (CBC).

[0066] *Cannabis* extracts may further comprise a non-cannabinoid fraction. The non-cannabinoid fraction may include a terpene fraction. In some embodiments, the *Cannabis* extract comprises a terpene fraction in an amount of less than about 50% by weight, for example, less than about 45%, about 40%, about 35%, about 30%, about 25%, about 20%, about 15%, about 10%, about 9%, about 8%, about 7%, about 6%, about 5%, about 4%, about 3%, about 2% or about 1% by weight of the extract. In some embodiments, the Cannabis extract may comprise terpene and terpenoid compounds in an amount of at least about 0.001% by weight of the extract, for example, at least about 0.005%, about 0.01%, about 0.05%, about 0.1%, about 0.2%, about 0.25%, about 0.3%, about 0.35%, about 0.4%, about 0.45%, about 0.5%, about 1%, about 2%, about 3%, about 4%, about 5%, about 6%, about 10%, about 15% or more of the total weight of the extract. In some embodiments, the pharmaceutical composition comprises about 0.001% to about 50% by weight of terpene and

Claims

1. A kit comprising in separate parts: (i) a pharmaceutical composition comprising Δ^9-tetrahydrocannabinol (THC), cannabidiol (CBD) and a terpene fraction, and (ii) an opioid.

2. The kit according to claim 1, wherein the pharmaceutical composition comprises a *Cannabis* extract.

3. The kit according to claim 1 or claim 2, wherein for part (i):
    a) the ratio of THC:CBD is about 10:1 to about 1:10; or
    b) the ratio of THC:CBD is about 0.8:1 to about 1:2.1; or
    c) the ratio of THC:CBD is about 1:1.

4. The kit according to any one of claims 1 to 3, wherein for part (i) the THC is present in an amount of about 15 wt% to about 85 wt% of the composition, or wherein for part (i) the THC is present in an amount of about 15 wt% to about 40 wt% of the composition.

5. The kit according to any one of claims 1 to 4, wherein for part (i):
    a) the CBD is present in an amount of about 15 wt% to about 60 wt% of the composition; or
    b) the THC is present in an amount of about 15 wt% to about 40 wt% of the composition; or
    c) the CBD is present in an amount of about 15 wt% to about 60 wt% of the composition and the THC is present in an amount of about 15 wt% to about 40 wt% of the composition.

6. The kit according to any one of claims 1 to 5, wherein for part (i) the total amount of THC and CBD is in the range of about 30 wt% to about 99 wt%.

7. The kit according to any one of claims 2 to 6, wherein the *Cannabis* extract is enriched in one and/or the other of THC and CBD.

8. The kit according to any one of claims 1 to 7, wherein in part (i) the composition further comprises one or both of Cannabichromene (CBC) and Cannabigerol (CBG).

9. The kit according to any one of claims 1 to 8, wherein for part (i) the terpene fraction is present in an amount of about 0.01 wt% to about 10 wt% of the pharmaceutical

composition.

10. The kit according to claim 9, wherein the terpene fraction comprises one or more terpenes selected from the group consisting of ß-myrcene, α-terpinene, linalool, α-phellandrene, camphene, terpinolene, p-cymene, 1,8-cineole, ß-caryophyllene, d-limonene, γ-terpinene, α-pinene, guaiol, gurjunene, ß-ocimene, ß-pinene, γ-cadinene, caryophyllene oxide, nerolidol and ß-farnesene, or wherein the terpene fraction comprises one or more terpenes selected from the group consisting of ß-myrcene, α-terpinene, linalool, α-phellandrene, camphene, terpinolene, p-cymene, 1,8-cineole and ß-caryophyllene, or wherein the terpene fraction comprises one or more terpenes selected from the group consisting of ß-myrcene, α-terpinene, linalool and α-phellandrene.

11. The kit according to any one of claims 1 to 10, wherein for part (ii) the opioid is selected from the group consisting of oxycodone, hydrocodone, oxymorphone, morphine, codeine, fentanyl, buprenorphine, tramadol, and pethidine.

12. Use of the pharmaceutical composition comprising Δ^9-tetrahydrocannabinol (THC), cannabidiol (CBD) and a terpene fraction from part (i) of the kit of any one of claims 1 to 11 in the preparation of a first medicament and use of an opioid from part (ii) of the kit according to any one of claims 1 to 11 in the preparation of a second medicament, wherein the first and second medicaments are to be used in combination therapy for opioid sparing in a subject, wherein the combination therapy has the following dosage regimen:
    (1) that an effective amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i), and
    (2) that a sub-clinical amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i).

13. Use of the pharmaceutical composition comprising Δ^9-tetrahydrocannabinol (THC), cannabidiol (CBD) and a terpene fraction from part (i) of the kit of any one of claims 1 to 11 in the preparation of a first medicament and use of an opioid from part (ii) of the kit according to any one of claims 1 to 11 in the preparation of a second medicament, wherein the first and second medicaments are to be used in combination therapy for treating opioid dependence and/or addiction in a in a subject, wherein the combination therapy has the following dosage regimen:
    (1) that an effective amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i), and

(2) that a sub-clinical amount of the opioid from part (ii) is to be administered together with an effective amount of the pharmaceutical composition from part (i).

14. The use of claim 12 or claim 13, wherein step (2) of the dosage regimen comprises reducing the dose of opioid from part (ii) by a tapering amount per week of treatment.

15. The use of any one of claims 12 to 14, wherein step (1) of the dosage regimen is maintained for a period of 1 to 10 weeks.

16. The use of any one of claims 12 to 15, wherein step (2) of the dosage regimen is maintained for a period of 1 to 20 weeks.

17. The use according to any one of claims 12 to 16, further comprising step (3): that an effective amount of the pharmaceutical composition as described in any one of claims 1 to 11 is to be administered without the opioid.

18. The use according to claim 17, wherein step (3) is maintained for a period of 1 to 52 weeks.

19. The use according to any one of claims 12 to 18, wherein the dosage of the first medicament is kept constant throughout the dosage regimen.

20. The use according to any one of claims 12 to 18, wherein the dosage of the first medicament is varied throughout the dosage regimen.

21. The use according to any one of claims 12 to 20, wherein the first medicament is to be administered 1 to 4 times a day.

22. The use according to any one of claims 12 to 21, wherein the subject or patient has chronic non-cancer pain.

23. Use of one or more of (a) a *Cannabis* extract; (b) THC and (c) CBD in the manufacture of a medicament for opioid sparing in a subject in need thereof, wherein the medicament comprises, in separate parts: (i) THC, CBD and a terpene fraction, and (ii) an opioid.

24. Use of one or more of (a) a *Cannabis* extract; (b) THC and (c) CBD in the manufacture of a medicament for treating opioid dependence and/or addiction in a patient in need thereof, wherein the medicament comprises, in separate parts (i) THC, CBD and a terpene fraction, and (ii) an opioid.