

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
EP3305110B1	ATOMIZER FOR ELECTRONIC CIGARETTE	An atomizer (10) for an electronic cigarette is disclosed, including a housing unit (100) defining therein a tobacco liquid chamber (101) configured for storing a tobacco liquid, a first casing body (103) defining thereon a first liquid guide hole (1031) configured for allowing the tobacco liquid to pass through, an atomization device (200), a control valve (104) configured for closing or opening the first liquid guide hole to control the tobacco liquid to enter the atomization device and a base assembly (300) detachably connected to the housing unit and supporting the atomization device and configured to be in linkage with the control valve. The base assembly can drive the control valve to close the first liquid guide hole while the base assembly is detached from the housing unit. The base assembly can drive the control valve to open the first liquid guide hole while the base assembly is assembled on the housing unit.	1. An atomizer (10) for an electronic cigarette, comprising: a housing unit (100), the housing unit defining therein a tobacco liquid chamber (101) configured for storing tobacco liquid; a first casing body (103) located in the tobacco liquid chamber, the first casing body defining thereon a first liquid guide hole (1031) configured for allowing the tobacco liquid to pass through; an atomization device (200) located inside the first casing body, the atomization device being configured for aerosolizing the tobacco liquid to generate an aerosol for a user to inhale; the atomization device defining a liquid inlet hole (202) allowing the tobacco liquid to pass through; a control valve (104), the control valve being configured for closing or opening the first liquid guide hole to control the tobacco liquid to enter the atomization device; the control valve defining a second liquid guide hole (1041) thereon; and a base assembly (300) detachably connected to the housing unit and supporting the atomization device, the base assembly being configured to be in linkage with the control valve, the base assembly being capable of driving the control valve to close the first liquid guide hole while the base assembly is detached from the housing unit, and the base assembly being capable of driving the control valve to open the first liquid guide hole while the base assembly is assembled on the housing unit, characterised in that mechanical means are provided to prevent relative rotation between the atomization device and the control valve so that the second liquid guide hole and the liquid inlet hole are always aligned and in communication.	Shenzhen First Union Technology Co. Ltd., Shenzhen, Guangdong 518104, CN, 101468081 SHENZHEN FIRST UNION TECH CO	2020-03-04	2017-01-16
EP3284483B1	HOLLOW SILICA NANOPARTICLES WITH ENCAPSULATED BIOACTIVE INGREDIENTS, PREPARATION PROCESS AND APPLICATIONS THEREOF	The present invention relates to hollow silica nanoparticles as a drug delivery system loading bioactive ingredients. Particularly, the present invention relates to silica nanoparticles comprising multi-layered silica shells with one or more bioactive ingredients encapsulated within and their applications in drug delivery; and processes of preparing the same.	1. A silica nanoparticle, comprising multi-layered silica shells, wherein each shell has meso-pores and encloses a closed hollow space, optionally the innermost hollow closed space has a solid silica core; and one or more bioactive ingredients encapsulated within the space, wherein the bioactive ingredient has a size larger than the pore size of the shell encapsulating it, and wherein the bioactive ingredient in each space may be the same or different. 14. A method for preparing a silica nanoparticle, comprising the steps of: (a) any one of steps (a-1) and (a-2): (a-1) providing an oil phase, a surfactant, an alkoxysilane and/or silicate source, an aqueous phase optionally containing one or more bioactive ingredients and optionally a co-surfactant to form a water-in-oil (W/O) microemulsion; and (a-2) providing an oil phase, a surfactant, an alkoxysilane and/or silicate source and optionally a co-surfactant to form a mixture; (b) adding a initiating reagent to the W/O	National Taiwan University, Taipei 10617, TW, 100730160 UNIV NAT TAIWAN	2020-03-11	2016-08-19

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			<p>microemulsion of (a-1), or adding an aqueous initiating reagent to the mixture of (a-2) to form a W/O microemulsion, and forming a silica nano-core which links the bioactive ingredient on the surface thereof and/or encapsulates the bioactive ingredient therein; (c) providing an aqueous phase containing a bioactive ingredient; (d) introducing an alkoxysilane and/or silicate source to form an additional silica layer enclosing the silica nano-core of (b); (e) optionally repeating the steps (c) and (d) one or more times; (f) performing a destabilizing condition to destabilize the W/O microemulsion and collecting the resulting particle thus formed from the microemulsion; and (g) dispersing the particle collected in step (f) in an aqueous washing phase to obtain the silica nanoparticle; wherein the alkoxysilane and/or silicate source in steps (d) and (e) and optionally that in step (a) comprise at least one organo-alkoxysilane, and wherein the size of the bioactive ingredients is larger than the pore size of the silica shell encapsulating the same.</p>			
EP3445429B1	AEROSOL-GENERATING DEVICE COMPRISING SEMICONDUCTOR HEATERS	<p>There is provided an aerosol-generating device (10) comprising an electrical power supply (40), a cavity (14) for receiving an aerosol-generating article (50; 60), and a plurality of semiconductor heaters (22) positioned within the cavity (14). Each semiconductor heater (22) comprises a substrate layer (32) and a heating layer (36) provided on the substrate layer (32), wherein the heating layer (36) is a continuous layer. The aerosol-generating device (10) further comprises a controller (42) configured to control a supply of electrical power from the electrical power supply (40) to each of the semiconductor heaters (22).</p>	<p>1. An aerosol-generating device (10) comprising: an electrical power supply (40); a cavity (14) for receiving an aerosol-generating article (50; 60); a plurality of semiconductor heaters (22) positioned within the cavity (14), each semiconductor heater (22) comprising a substrate layer (32) and a heating layer (36) provided on the substrate layer (32), wherein the heating layer (36) is a continuous layer; at least one semiconductor gas sensor, wherein the heating layer (36) of at least one of the semiconductor heaters (22) is operable as a semiconductor gas sensor so that the heating layer (36) is a combined heating and gas sensing layer; and a controller (42) configured to control a supply of electrical power from the electrical power supply (40) to each of the semiconductor heaters (22).</p> <p>5. An aerosol-generating device (10) comprising: an electrical power supply (40); a cavity (14) for receiving an aerosol-generating article (50; 60); a plurality of semiconductor heaters (22) positioned within the cavity (14), each semiconductor heater (22) comprising a substrate layer (32) and a heating layer (36) provided on the substrate layer (32), wherein the heating layer (36) is a continuous layer; at least one semiconductor gas sensor, wherein the at least one semiconductor gas sensor comprises a semiconductor gas sensor overlying a gas sensor heater, the gas sensor heater being one of the plurality of semiconductor heaters (22); and a controller (42) configured to control a supply of electrical power from the electrical power supply (40) to each of the semiconductor heaters (22).</p>	Philip Morris Products S.A., 2000 Neuchâtel, CH, 101137385 PHILIP MORRIS PRODUCTS SA	2020-03-25	2016-04-22

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
EP3432961B1	VAPOUR PROVISION APPARATUS	A vapour provision apparatus comprising: a vapour generation chamber containing a vaporiser for generating vapour from a vapour precursor material; and an air channel wall defining an air channel between the vapour generation chamber and a vapour outlet at a mouthpiece end of the vapour provision apparatus through which a user can inhale vapour during use; wherein an inner surface of the air channel wall is provided with at least one protrusion extending into the air channel to modify (redirect) a flow of air in the air channel during use. For example, the at least one protrusion may be arranged to define one or more portions of a helical wall extending into the air channel so as to impart a degree of rotation about an axis of extent of the air channel to air flowing in the air channel during use.	1. A vapour provision apparatus (100) comprising: a vapour generation chamber (465) containing a vaporiser (450) for generating vapour from a vapour precursor material; and an air channel wall (832) defining an air channel (833) between the vapour generation chamber and a vapour outlet at a mouthpiece end of the vapour provision apparatus through which a user can inhale vapour during use; wherein an inner surface of the air channel wall is provided with at least one protrusion (835A, 835B) extending into the air channel to modify a flow of air in the air channel by imparting a degree of rotation about an axis of extent of the air channel during use; and wherein the at least one protrusion defines at least one protrusion wall extending into the air channel and having a surface inclined at a non-zero angle of at least 10 degrees to an axis of extent of the air channel; and wherein the at least one protrusion covers between 20% and 80% of the cross-sectional area of the airflow channel in a plane perpendicular to its axis of extent (840).	Nicoventures Holdings Limited, London WC2R 3LA, GB, 101423781 NICOVENTURES HOLDINGS LTD	2020-03-11	2016-03-24
EP3320901B1	DIMETHYLAMINOMICHELIOLOIDE FOR USE IN THE TREATMENT OF PULMONARY FIBROSIS	The present invention provides an application of a dimethylamino micheliolide for preparing a pharmaceutical product for treating pulmonary fibrosis.	1. Dimethylamino micheliolide for use in a method of treating pulmonary fibrosis, wherein dimethylamino micheliolide has a molecular structural formula of:	Accendatech, Tianjin 300384, CN, 101730077 Tianjin International Joint Academy of Biotechnology & Medicine, Tianjin 300457, CN, 101730076 ACCENDATECH TIANJIN INT JOINT ACADEMY OF BIOTECHNOLOGY & MEDICINE	2020-03-04	2016-01-28
EP3405051B1	CONTROL FOR AN INDUCTION-BASED AEROSOL DELIVERY DEVICE	An aerosol delivery device is provided that includes a substrate configured to carry an aerosol precursor composition, and includes an induction transmitter, induction receiver and control component. The induction transmitter is configured to generate an oscillating magnetic field. The induction receiver is positioned in proximity to the substrate, and configured to generate heat when exposed to the oscillating magnetic field and thereby vaporize components of the aerosol precursor composition. The control component is configured to direct current to the induction transmitter to drive the induction transmitter to generate the oscillating magnetic field, with the control component being configured to direct the current according to a zero voltage switching (ZVS) inverter topology.	1. An aerosol delivery device (100) comprising: a substrate (610) configured to carry an aerosol precursor composition; an induction transmitter (302) configured to generate an oscillating magnetic field; an induction receiver (602) positioned in proximity to the substrate (610), and configured to generate heat when exposed to the oscillating magnetic field and thereby vaporize components of the aerosol precursor composition; and a control component (308) configured to direct current to the induction transmitter (302) to drive the induction transmitter (302) to generate the oscillating magnetic field, the control component (308) being configured to direct the current according to a zero voltage switching (ZVS) inverter topology, wherein the control component (308) further includes first (Q1) and second (Q2) switches that are alternately switchable to effect the ZVS inverter topology, characterized in that the control component (308) and induction transmitter (302) include respectively a capacitor (C) and coil (404) that form a tank circuit (1204), and wherein the control component (308) is configured to direct the current in cycles each of which	RAI Strategic Holdings Inc., Winston-Salem, NC 27101, US, 101588532 RAI STRATEGIC HOLDINGS INC	2020-03-04	2016-01-20

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			<p>includes a positive half in which the first (Q1) and second (Q2) switches are alternately switchable to charge the capacitor (C) and direct current in a positive direction through the coil (404), and a negative half in which the first (Q1) and second (Q2) switches are alternately switchable to cause the capacitor (C) to discharge and thereby direct current in a negative direction through the coil (404). 9. A control body (104) coupled or coupleable with a cartridge (102) that is equipped with an induction receiver (602) and contains an aerosol precursor composition, the control body (104) being coupled or coupleable with the cartridge (102) to form an aerosol delivery device (100) in which the induction receiver (602) is configured to generate heat when exposed to an oscillating magnetic field and thereby vaporize components of the aerosol precursor composition, the control body (104) comprising: an induction transmitter (302) configured to generate the oscillating magnetic field; and a control component (308) configured to direct current to the induction transmitter (302) to drive the induction transmitter (302) to generate the oscillating magnetic field, the control component (308) being configured to direct the current according to a zero voltage switching (ZVS) inverter topology, wherein the control component (308) further includes first (Q1) and second (Q2) switches that are alternately switchable to effect the ZVS inverter topology, characterized in that the control component (308) and induction transmitter (302) include respectively a capacitor (C) and coil (404) that form a tank circuit (1204), and wherein the control component (308) is configured to direct the current in cycles each of which includes a positive half in which the first and second switches are alternately switchable to charge the capacitor (C) and direct current in a positive direction through the coil (404), and a negative half in which the first and second switches are alternately switchable to cause the capacitor (C) to discharge and thereby direct current in a negative direction through the coil (404).</p>			
EP3402559B1	VISUALISATION METHOD AND DEVICE FOR ELECTRONIC VAPOUR PROVISION SYSTEMS	A method of visualisation between an electronic vapour provision system and a visualisation device comprises the steps of obtaining from the electronic vapour provision system notification that an inhalation on the electronic vapour provision system by a user has occurred, estimating a time of exhalation by the user responsive to the time of notification, and initiating a display of a computer graphic by the visualisation device responsive to the estimated time of exhalation.	1. A method of visualisation between an electronic vapour provision system (10) and a visualisation device (400), comprising the steps of: obtaining from the electronic vapour provision system notification that an inhalation on the electronic vapour provision system by a user has occurred; estimating a time of exhalation by the user responsive to the time of notification; and initiating a display (418) of a computer graphic by the visualisation device responsive to the estimated time of exhalation.	British American Tobacco (Investments) Limited, London WC2R 3LA, GB, 101843963 BRITISH AMERICAN TOBACCO INVESTMENTS LTD	2020-03-04	2016-01-12

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			<p>12. A computer program for implementing the steps of any preceding method claim.</p> <p>13. A visualisation device (400), comprising: wireless reception means (440, 442) adapted to receive from an electronic vapour provision system notification that an inhalation on the electronic vapour provision system by a user has occurred; time estimation processing means (410) adapted to estimate a time of exhalation by the user responsive to the time of notification; and display means (418) adapted to display a computer graphic responsive to the estimated time of exhalation.</p>			
EP3393560B1	NICOTINE POWDER DELIVERY SYSTEM	A nicotine powder delivery system includes an inhaler article and a nicotine powder capsule disposed within the inhaler article. The nicotine powder capsule rotates about a longitudinal axis when air flows through the inhaler article.	<p>1. A nicotine powder delivery system, comprising: an inhaler article (1) comprising; an inhaler body (2) extending between a mouthpiece portion (5) and a distal end portion (3); a nicotine powder receptacle (9) disposed within the inhaler body and between the mouthpiece portion (5) and the distal end portion (3); an air inlet port (4) extending through the inhaler body (2) and into the nicotine powder receptacle (9); a mouthpiece air channel (10) fluidly connecting the nicotine powder receptacle (9) with a proximal end of the mouthpiece portion (5); an end cap element (3) formed of a piercable material that substantially closes a hole formed by a piercing element (13) once the piercing element is removed; a nicotine powder capsule (6) containing nicotine powder disposed within the nicotine powder receptacle (9), wherein the nicotine powder capsule (6) rotates about a longitudinal axis when air flows from the air inlet port (4) to the mouthpiece air channel (10), wherein the piercing element (13) may pass through the end cap element (3) and form a single aperture through the wall of the nicotine powder capsule (6).</p>	Philip Morris Products S.A., 2000 Neuchâtel, CH, 101137385 PHILIP MORRIS PRODUCTS SA	2020-03-25	2015-12-24
EP3383367B1	PHARMACEUTICAL COMPOSITION	A pharmaceutical composition is described. The composition comprises at least one mometasone compound selected from mometasone, pharmaceutically acceptable salts of mometasone, prodrugs of mometasone, solvates of mometasone, solvates of pharmaceutically acceptable salts of mometasone and solvates of prodrugs of mometasone and a propellant component comprising 1, 1-difluoroethane (R-152a). In a preferred embodiment, the composition further comprises at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, prodrugs of formoterol, solvates of formoterol, solvates of pharmaceutically acceptable salts of formoterol and solvates of prodrugs of formoterol.	<p>1. A pharmaceutical composition comprising: (i) at least one mometasone compound selected from mometasone and mometasone furoate; and (ii) a propellant component at least 90 weight % of which is 1, 1-difluoroethane (R-152a).</p> <p>22. A method of stabilising a pharmaceutical composition comprising a propellant, at least one mometasone compound selected from mometasone and mometasone furoate and optionally at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, solvates of formoterol, and solvates of pharmaceutically acceptable salts of formoterol which is/are dissolved or suspended in the propellant, said method comprising using as the propellant a propellant component comprising 1, 1-difluoroethane (R-152a).</p>	Mexichem Fluor S.A. de C.V., 78395 San Luis Potosi S.L.P., MX, 101647087 MEXICHEM FLUOR SA DE CV	2020-03-25	2015-12-04

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			<p>27. A method of increasing the settling time of a pharmaceutical composition comprising a propellant component and a drug component comprising at least one mometasone compound selected from mometasone and mometasone furoate and optionally at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, solvates of formoterol, and solvates of pharmaceutically acceptable salts of formoterol which is/are suspended in the propellant component, said method comprising using a propellant component comprising 1, 1-difluoroethane (HFA-152a).</p> <p>35. A method of improving the aerosolization performance of a surfactant-free pharmaceutical composition comprising a propellant component and a drug component comprising at least one mometasone compound selected from mometasone and mometasone furoate and at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, solvates of formoterol, and solvates of pharmaceutically acceptable salts of formoterol, said method comprising using a propellant component comprising 1, 1-difluoroethane (HFA-152a).</p> <p>37. A method of improving the aerosolization performance after storage of a pharmaceutical composition comprising a propellant component and a drug component comprising at least one mometasone compound selected from mometasone and mometasone furoate and at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, solvates of formoterol, and solvates of pharmaceutically acceptable salts of formoterol, said method comprising using a propellant component comprising 1, 1-difluoroethane (HFA-152a).</p>			
EP3383366B1	PHARMACEUTICAL COMPOSITION	A pharmaceutical composition is described. The composition comprises: (i) at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, prodrugs of formoterol, solvates of formoterol, solvates of pharmaceutically acceptable salts of formoterol and solvates of prodrugs of formoterol; (ii) at least one corticosteroid; (iii) a surfactant component comprising at least one surfactant compound; and (iv) a propellant component comprising 1, 1 - difluoroethane (R-152a).	1. A pharmaceutical composition comprising: (i) at least one formoterol compound selected from formoterol, pharmaceutically acceptable salts of formoterol, solvates of formoterol, and solvates of pharmaceutically acceptable salts of formoterol; (ii) at least one corticosteroid; (iii) a surfactant component comprising at least one surfactant compound; and (iv) a propellant component at least 90 weight % of which is 1, 1-difluoroethane (R-152a).	Mexichem Fluor S.A. de C.V., 78395 San Luis Potosi S.L.P., MX, 101647087 MEXICHEM FLUOR SA DE CV	2020-03-25	2015-12-04
EP3377109B1	A PROCESS FOR PREPARING A DRY POWDER FORMULATION COMPRISING AN ANTICHOLINERGIC, A CORTICOSTEROID AND A BETA-ADRENERGIC	The invention relates to a dry powder formulation for inhalation comprising a combination of an anticholinergic, a long-acting beta2-adrenoceptor agonist, and, optionally, an inhaled corticosteroid, and to a process for preparation thereof.	1. A process for preparing a powder formulation for inhalation for use in a dry powder inhaler, said powder formulation comprising: (A) a carrier, comprising: (a) a fraction of coarse particles of a physiologically acceptable carrier having a mean particle size of at least	Chiesi Farmaceutici S.p.A., 43122 Parma, IT, 101595592 CHIESI FARM SPA	2020-03-04	2015-11-16

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			<p>175 µm; and (b) a fraction of fine particles, consisting of a mixture of 90 to 99.5 percent by weight of particles of a physiologically acceptable excipient and 0.5 to 10 percent by weight of a salt of a fatty acid, wherein at least 90% of all said fine particles have a volume diameter lower than 15 microns, wherein the weight ratio of said fine particles to said coarse particles is 5:95 to 30:70; and (B) micronized particles of an antimuscarinic drug, a long-acting β₂-agonist (LABA) and, optionally, an inhaled corticosteroid (ICS), as active ingredients, wherein said process comprises: (i) mixing said carrier, said long-acting β₂-agonist, and, optionally, said inhaled corticosteroid in a vessel of a shaker mixer at a speed of rotation not lower than 16 r.p.m. for a time of not less than 60 minutes, to obtain a first mixture; and (ii) adding said anti-muscarinic drug to said first mixture, to obtain a second mixture, and mixing said second mixture at a speed of rotation not higher than 16 r.p.m. for a time of not more than 40 minutes, wherein the long-acting β₂-agonist is selected from the group consisting of formoterol, salmeterol, indacaterol, olodaterol, and vilanterol; the anti-muscarinic drug is selected from the group consisting of glycopyrronium bromide or chloride, tiotropium bromide, umeclidinium bromide, and aclidinium bromide; the inhaled corticosteroid is selected from the group consisting of beclometasone dipropionate and its monohydrate form, budesonide, fluticasone propionate, fluticasone furoate, and mometasone furoate.</p> <p>8. A powder formulation for use in any dry powder inhaler comprising: (A) a carrier, comprising: (a) a fraction of coarse particles of a physiologically acceptable carrier having a mean particle size of at least 175 µm; and (b) a fraction of fine particles consisting of a mixture of 90 to 99.5 percent by weight of particles of a physiologically acceptable excipient and 0.5 to 10 percent by weight of magnesium stearate, wherein at least 90% of all said fine particles have a volume diameter lower than 15 microns, wherein the weight ratio of said fine particles to said coarse particles is 5:95 to 30:70; and (B) micronized particles of glycopyrronium bromide, formoterol fumarate dihydrate, and, optionally, beclometasone dipropionate, as active ingredients, wherein said formulation is obtainable by a process comprising: (i) mixing said carrier, said formoterol fumarate dihydrate, and, optionally, said beclometasone dipropionate in a vessel of a shaker mixer at a speed of rotation not lower than 16 r.p.m. for a time of not less than 60 minutes, to obtain a first mixture; and (ii) adding said glycopyrronium bromide to said first mixture, to obtain a second mixture, and mixing said second mixture at a speed of rotation not</p>			

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			higher than 16 r.p.m. for a time of not more than 40 minutes; and whereby the mid fine particle fraction of glycopyrronium bromide is higher than 25%.			
EP3374369B1	POLYETHYLENE GLYCOL-CONJUGATED GLUCOCORTICOID PRODRUGS AND COMPOSITIONS AND METHODS THEREOF	Polyethylene glycol (PEG)-conjugated glucocorticoid prodrugs, methods of preparation, and use for the treatment of diseases and disorders are disclosed. In particular, PEG-conjugated dexamethasone compounds and methods of using them for treating inflammatory and autoimmune diseases, including but not limited to lupus, are disclosed.	1. A compound of formula (XII): or a pharmaceutically acceptable salt or solvate thereof, wherein: n is an integer from 10 to 500; m is an integer from 1 to 5; w is an integer from 1 to 5; GC is a moiety of a glucocorticoid drug molecule; A is absent, C 1 -C 6 alkylene, or C 6 -C 10 arylene; B is absent, NR 4 , O, or C(O); D is absent, NR 4 , O, C(O), or CR 5 R 5 ; E is absent, C 1 -C 6 alkylene, or a linker comprising a branched structure capable of connecting to two or more R 2 groups, said linker optionally comprising one, two, or more heteroatoms independently selected from the group consisting of O, S, and N; G is absent, NR 4 , or O; P is absent or C(O); Q is absent, C 6 -C 10 arylene, or C 1 -C 6 alkylene; T is absent, C 1 -C 6 alkylene, C 6 -C 10 arylene, or C(O); X is absent, O, S, or NR 4 ; Y is absent, C(O), C 6 -C 10 arylene, or C 1 -C 6 alkylene; Z is absent, NR 4 , O, C 1 -C 6 alkylene, or a linker comprising a branched structure capable of connecting to one or more dexamethasone moieties, said linker optionally comprising one or more heteroatoms independently selected from the group consisting of O, S, and N; R 1 is H, C 1 -C 6 alkyl, C 2 -C 6 alkenyl, C 2 -C 6 alkynyl, C 6 -C 10 aryl, 5-10 membered heteroaryl, or 5-10 membered heterocyclyl, each group except H optionally substituted by one to five substituents independently selected from the group consisting of C 1 -C 4 alkyl, C 1 -C 4 haloalkyl, halogen, oxo (=O), -NR a R b , -NO 2 , -CN, -OR 3 , and -SR 3 ; or alternatively, R 1 is -CH 2 -A-B-D-E-(R 2) m ; R 3 at each occurrence is independently H, C 1 -C 4 alkyl, or C 1 -C 4 haloalkyl; R 4 at each occurrence is independently H or C 1 -C 4 alkyl; R 5 at each occurrence is independently H, C 1 -C 4 alkyl, or C 1 -C 4 haloalkyl; R a and R b are each independently H or C 1 -C 4 alkyl; and wherein when any of groups A, B, D, E, G, P, Q, T, X, Y, and Z is absent, its two available adjacent groups are single-bonded to each other directly.	Board of Regents of the University of Nebraska, Lincoln, Nebraska 68583-0745, US, 101088316 UNIV NEBRASKA	2020-03-18	2015-11-12
EP3355869B1	RINSE-OFF SELF-FOAMING CLEANSING COMPOSITION CONTAINING IVERMECTIN	The invention relates to a self-foaming composition containing ivermectin, for a no-rinse topical application and for application to the skin, comprising: at least one intermediate composition B comprising a gas-generating agent; at least one intermediate composition A comprising an agent for activating the gas-generating agent; and ivermectin contained in at least one of said intermediate compositions A and B. The invention also relates to a kit or a single	1. A self-foaming composition containing ivermectin, intended for rinse-off topical application, comprising: - at least one intermediate composition B comprising a gas-generating agent and at least one gelling agent and/or suspending agent chosen from acrylic acid polymers, polysaccharides, the family of magnesium aluminum silicates, the family of modified starches and the family of carrageenans, - at least one intermediate composition A comprising an agent for activating the gas-generating agent and at least one gelling agent	Galderma Research & Development, 06410 Biot, FR, 100829737 GALDERMA RES & DEV	2020-03-18	2015-09-29

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
		container comprising a plurality of compartments containing such a composition.	and/or suspending agent chosen from polysaccharides, the family of magnesium aluminum silicates, the family of modified starches, the family of carrageenans and PVA, and - ivermectin contained in at least one of said intermediate compositions A and B.			
EP3355867B1	NO-RINSE CHEMICAL FOAM COMPRISING IVERMECTIN	The invention relates to a self-foaming composition containing ivermectin, for a no-rinse topical application and for application to the skin, comprising: at least one intermediate composition B comprising a gas-generating agent; at least one intermediate composition A comprising an agent for activating the gas-generating agent; and ivermectin contained in the composition A, in the composition B, or simultaneously in the two compositions A and B. The invention also relates to a kit or a single container comprising a plurality of compartments containing such a composition.	1. A self-foaming composition containing ivermectin, intended for leave-on topical application, comprising: - at least one intermediate composition B comprising a gas-generating agent and at least one gelling agent and/or suspending agent chosen from acrylic acid polymers, polysaccharides, the family of magnesium aluminum silicates, the family of modified starches and the family of carrageenans, - at least one intermediate composition A comprising an agent for activating the gas-generating agent and at least one gelling agent and/or suspending agent chosen from polysaccharides, the family of magnesium aluminum silicates, the family of modified starches, the family of carrageenans and PVA, and - ivermectin contained in composition A, in composition B or simultaneously in the two compositions A and B.	Galderma Research & Development, 06410 Biot, FR, 100829737 GALDERMA RES & DEV	2020-03-18	2015-09-29
EP3355866B1	SELF-FOAMING CLEANSING COMPOSITION CONTAINING CLOBETASOL PROPIONATE, AND USE THEREOF IN THE TREATMENT OF PSORIASIS	The invention relates to a self-foaming composition for topical application, comprising a medium which is cosmetically or pharmaceutically compatible with a topical application, and clobetasol propionate. Said composition can comprise a small quantity of foaming surfactants. Said composition comprises: at least one intermediate composition B comprising a gas-generating agent; at least one intermediate composition A comprising an agent for activating the gas-generating agent; and clobetasol propionate contained in at least one of said intermediate compositions A and B. The invention also relates to a kit or a single container comprising a plurality of compartments containing such a composition.	1. A self-foaming composition containing clobetasol propionate, intended for rinse-off topical application, comprising: - at least one intermediate composition B comprising a gas-generating agent and at least one gelling agent and/or suspending agent chosen from acrylic acid polymers, polysaccharides, the family of magnesium aluminum silicates, the family of modified starches and the family of carrageenans, - at least one intermediate composition A comprising an agent for activating the gas-generating agent and at least one gelling agent and/or suspending agent chosen from polysaccharides, the family of magnesium aluminum silicates, the family of modified starches, the family of carrageenans and PVA, and - clobetasol propionate contained in at least one of said intermediate compositions A and B.	Galderma Research & Development, 06410 Biot, FR, 100829737 GALDERMA RES & DEV	2020-03-18	2015-09-29
EP3355858B1	NO-RINSE CHEMICAL FOAM CONTAINING BRIMONIDINE, AND USE THEREOF IN THE TREATMENT OF ROSACEA	The invention relates to a self-foaming composition containing brimonidine, for a no-rinse topical application, comprising: at least one intermediate composition B comprising a gas-generating agent; at least one intermediate composition A comprising an agent for activating the gas-generating agent; and brimonidine or one of the pharmaceutically acceptable salts thereof contained in at least one of said intermediate compositions A and B. The invention also relates to a kit or a single container comprising a plurality of compartments containing such a composition.	1. A self-foaming composition containing brimonidine, intended for leave-on topical application, comprising: - at least one intermediate composition B comprising a gas-generating agent and at least one gelling agent and/or suspending agent chosen from acrylic acid polymers, polysaccharides, the family of magnesium aluminum silicates, the family of modified starches and the family of carrageenans, - at least one intermediate composition A comprising an agent for activating the gas-generating agent and at least one gelling agent and/or suspending agent chosen from polysaccharides, the family of magnesium aluminum silicates, the family of modified starches, the family of carrageenans	Galderma Research & Development, 06410 Biot, FR, 100829737 GALDERMA RES & DEV	2020-03-18	2015-09-29

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			and PVA, and - brimonidine or one of its pharmaceutically acceptable salts contained in at least one of the said intermediate compositions A and B.			
EP3346990B1	JET MILLING METHOD	Systems and methods are disclosed for simultaneously jet milling and conditioning particulate material comprising a grinding chamber and an aerosol generator arranged to supply liquid aerosol into the grinding chamber. A composition made by this method is also disclosed.	<p>1. A jet mill comprising a grinding chamber and an aerosol generator arranged to supply liquid aerosol into the grinding chamber, wherein the aerosol generator is external to the grinding chamber and the external aerosol generator is configured with a port to supply liquid aerosol into the grinding chamber, wherein the port is arranged to simultaneously supply a grinding material and liquid aerosol as a feed stock into the grinding chamber.</p> <p>4. A method of producing micronized material, the method comprising jet milling a feed stock comprising a particulate grinding material and a liquid aerosol, wherein the particulate grinding material comprises at least one of a pharmaceutically active material, a pharmaceutical additive and a pharmaceutical excipient. </p> <p>10. A method for reducing the presence of amorphous material on the surface of a micronized pharmaceutically active material comprising combining the pharmaceutically active material and a liquid aerosol as a feed stock in a grinding chamber and jet milling the feed stock.</p>	Vectura Limited, Chippenham, Wiltshire SN14 6FH, GB, 100248565 VECTURA LTD	2020-03-18	2015-09-09
EP3285791B1	COMPOSITION FOR THE TREATMENT OF THE THROAT/PHARYNGEAL CAVITY	The invention relates to a composition, in particular a pharmaceutical preparation, preferably in the form of a liquid dose, which is suitable for the prophylactic or therapeutic treatment of in particular inflammatory diseases of the mouth and throat/pharyngeal cavity, wherein the composition contains, in combination and in respectively effective, in particular pharmaceutically active, quantities (a) marshmallow (<i>althaea officinalis</i> L.) and (b) polidocanol.	1. A composition in the form of a liquid dose for use in the prophylactic or therapeutic treatment of inflammatory diseases of the mouth and/or the throat/pharyngeal cavity, wherein the composition contains, in combination and in respectively effective quantities of (a) marshmallow (<i>althaea officinalis</i> L.) in the form of a liquid extract and/or fluid extract with a drug/extract ratio in the range from 0.9:1 to 3:1, and (b) polidocanol in a quantity in the range from 0.1% to 0.5% by weight in relation to the composition, and wherein the composition is free from a surface disinfectant and/or wherein the composition contains no surface disinfectant.	Maria Clementine Martin Klosterfrau Vertriebsgesellschaft mbH, 50670 Köln, DE, 100172293 MARIA CLEMENTINE MARTIN KLOSTERFRAU VERTRIEBSGES MBH	2020-03-25	2015-08-17
EP3322430B1	ANTI-INFLAMMATORY PEPTIDES, AND USES THEREOF	An anti-inflammatory peptide comprises an anti-inflammatory fragment of a protein selected from SEQUENCE ID NO's: 1 to 16, the anti-inflammatory fragment being 7 to 37 amino acids in length and having a charge of between -9 and +3; wherein the c-terminal amino acid is not cysteine (C) or methionine (M), and the n-terminal amino acid is not cysteine (C), histidine (H), proline (P) or threonine (T). The anti-inflammatory fragment does not contain cysteine (C). The anti-inflammatory fragment is from a region of the proteins of SEQUENCE ID NO's: 1 to 16, which region is characterised by being 17 to 109 amino acids in length and having a charge of	1. A peptide selected from SEQUENCE ID NO: 343 or 344.	Nuritas Limited, D2 Dublin, IE, 101637198 NURITAS LTD	2020-03-25	2015-07-16

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
		between -6 and +4, wherein the c-terminal amino acid of the region is not aspartic acid (D), phenylalanine (F), methionine (M) or tryptophan (W), and the n-terminal amino acid of the region is not aspartic acid (D), histidine (H), methionine (M), proline (P) or tryptophan (W). Examples of peptides are provided in SEQUENCE ID NO's: 71 to 221.				
EP3294393B1	NICOTINE DELIVERY DEVICE	The present invention concerns a nicotine delivering device (1) in the form of a smokeless cigarette. The smokeless cigarette device incorporates at least one capsule (3). The at least one capsule comprises at least one chamber (4) having an opening at both of its ends, each of which is closed by a lid (5) that both open simultaneously upon pressure being applied to the outside of the capsule.	1. Smokeless cigarette device (1) comprising one or more capsules (3), each capsule (3) comprising at least one chamber (4) having an opening at each of its ends with the openings at opposite ends of the chamber, wherein each of the two openings is closed by a lid (5), wherein the lids (5) at opposite ends of the chamber (4) open upon pressure being applied to the outside of the capsule (3).	Smpl Innovations Ltd., Brighton, BN1 1UT, GB, 101814067 SMPL INNOVATIONS LTD	2020-03-25	2015-05-13
EP3288619B1	DEVICE FOR FACILITATING THE ADMINISTRATION OF A MEDICAMENT TO THE LUNG BY A CATHETER	A device (100) for facilitating the positioning of a catheter for the delivery of liquid medicament to spontaneously breathing patient, including: - an elongated main body (101) shaped to follow the internal shape of the patient's upper airways, the elongated main body (101) being provided with guiding means (107) adapted to house a catheter; - a substantially ring-shaped terminal element (103) adapted to engage the internal wall of the patient's retro-pharynx, the substantially ring-shaped terminal element (103) being connected to the elongated main body (101) by means of at least one spoke (105), the substantially ring-shaped element (103) and the at least one spoke (105) creating a chamber where the medicament can be delivered through the catheter.	1. A device (100) for facilitating the positioning of a catheter for the delivery of liquid medicament to spontaneously breathing patient, including: - an elongated main body (101) shaped to follow the internal shape of the patient's upper airways, the elongated main body (101) being provided with guiding means (109) adapted to house a catheter; - characterized in that it comprises: - a substantially ring-shaped terminal element (103) adapted to engage the internal wall of the patient's retro-pharynx, the substantially ring-shaped terminal element (103) being made of a material softer than the elongated main body (101) and including a toroidal element spaced apart from and connected to the elongated main body (101) by means of a plurality of spokes (105), the substantially ring-shaped element (103) and the plurality of spokes (105) creating a chamber, which allows the airflow through the natural airways and where the medicament can be delivered through the catheter. 12. A kit comprising: a) a pharmaceutical composition comprising a medicament; b) a flexible catheter for delivering the medicament; d) container means for containing the medicament, the system and the positioning means; characterized in that it comprises: c) the device of any claim 1-11 for facilitating the introduction and positioning of the catheter into the retro-pharyngeal region.	Chiesi Farmaceutici S.p.A., 43122 Parma, IT, 101595592 CHIESI FARM SPA	2020-03-18	2015-04-28
EP3280475B1	MEDICAMENT COMPLIANCE SYSTEM	A medicament compliance system, comprising a tonal device (130) associated with an inhaler (120), the tonal device being arranged to emit a predetermined tone responsive to successful use from the respiratory device. The system also comprises a device (200) comprising a microphone (270) for outputting audio data, a processor (210), a memory (220), and a display (250). The processor is	1. A medicament compliance system, comprising: a means for generating a predetermined tone (130) associated with a respiratory device (120), the means for generating a predetermined tone being arranged to emit the predetermined tone responsive to successful inhalations from the respiratory device; a device (200) comprising: a microphone (270) for outputting audio data; a processor (210); a memory (220, 230); and a	CLIN-E-CAL LIMITED, Wilmslow, Cheshire SK9 1RA, GB, 101850531 CLIN E CAL LTD	2020-03-11	2015-04-09

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
		arranged to receive the audio data and to determine whether the audio data corresponds to the predetermined tone, and to display an incentive graphic in response to detection of the predetermined tone.	display (250); wherein the processor (210) is arranged to receive the audio data and to determine whether the audio data corresponds to the predetermined tone, and to display an incentive graphic in response to detection of the predetermined tone; characterised in that determining whether the audio data corresponds to the predetermined tone comprises the processor (210): detecting a sound in the audio data with a peak amplitude outside and significantly lower than a predetermined frequency range emitted by the means for generating the predetermined tone (130); and determining whether, in an expected peak range of a base frequency of the means for generating the predetermined tone (130), a sound amplitude in the audio data reaches a certain expected peak amplitude. 10. A medicament compliance system according to any previous claim wherein the indication of successful inhalations comprises having at least a predetermined pressure at the means for generating the predetermined tone (130). 11. A medicament compliance system according to any previous claim wherein said processor (210) is further configured to receive patient data and to configure the incentive graphic in response to the patient data. 15. A computer implemented method for improving compliance with a medicament dosage regime, said regime requiring the inhalation of a predetermined dosage of a medicament using a respiratory device (120), the method comprising: receiving audio data from a microphone (270); determining whether the received audio data is indicative of a predetermined tone emitted by a means for generating the predetermined tone (130), associated with the respiratory device (120), upon successful inhalation of the medicament from the respiratory device (120); and displaying and updating at least one incentive graphic on a display device (250) in response to the predetermined tone; characterised in that determining whether the received audio data is indicative of the predetermined tone comprises: detecting a sound in the audio data with a peak amplitude outside and significantly lower than a predetermined frequency range emitted by the means for generating the predetermined tone (130); and determining whether, in an expected peak range of a base frequency of the means for generating the predetermined tone (130), a sound amplitude in the received audio data reaches a certain expected peak amplitude.			
EP3233857B1	SOLID STATE FORMS OF FUSED HETEROAROMATIC PYRROLIDINONES	Disclosed are chemical entities which are inhibitors of spleen tyrosine kinase (SYK), namely, chemical entities comprising 6-((1R, 2S)-2-aminocyclohexylamino)-7-fluoro-4-(1-methyl-1H-pyrazol-4-yl)-1H-	1. A compound which is 6-((1R, 2S)-2-aminocyclohexylamino)-7-fluoro-4-(1-methyl-1H-pyrazol-4-yl)-1H-pyrrolo[3, 4-c]pyridine-3(2H)-one citrate, which is crystalline, is characterized by an X-ray powder	Takeda Pharmaceutical Company Limited, Osaka-shi, Osaka 541-0045, JP, 101150715	2020-03-11	2014-12-18

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
		pyrrolo[3, 4-c]pyridine-3(2H)-one and certain solid state forms thereof. Also disclosed are methods of using the chemical entities to treat disorders such as a cancer.	diffraction (XRPD) pattern using Cu K α radiation comprising peaks at 2 θ angles of 9.4, 16.6, 17.4, 18.9, and 19.2° \pm 0.2 degrees, and wherein the compound is not hygroscopic.	TAKEDA PHARMACEUTICALS CO		
EP3232841B1	SPLIT AIRFLOW SYSTEM FOR AN ELECTRICALLY HEATED SMOKING SYSTEM AND METHOD FOR GUIDING AN AIRFLOW INSIDE AN ELECTRICALLY HEATED SMOKING SYSTEM	The split airflow system for an electrically heated smoking system for generating aerosol, the split airflow system having a downstream end comprises a first channel defining a first flow route and a second channel defining a second flow route. The first flow route directs ambient air from outside the system to the downstream end of the system. The second flow route directs ambient air from outside the system towards a preferably substantially flat, fluid permeable, heating element before conveying the ambient air to the downstream end. The first channel and the second channel define a total volume of ambient air passing through the system and the first channel provides at least 50 percent of the total volume of ambient air passing through the system. The invention also refers to a method for guiding an airflow in an electrically heated smoking system for generating aerosol and an electrically heated smoking system comprising the split airflow system.	1. A split airflow system for an electrically heated smoking system for generating aerosol, the split airflow system having a downstream end, the airflow system comprising: a first channel (11) defining a first flow route; a second channel (10) defining a second flow route; wherein the first flow route directs ambient air (21) from outside the system to the downstream end of the system; wherein the first channel (11) and the second channel (10) define a total volume of ambient air (20, 21) passing through the system and the first channel provides at least 50 percent of the total volume of ambient air passing through the system, characterized in that the second flow route directs ambient air (20) from outside the system towards a substantially flat, fluid permeable heating element (30) before conveying the ambient air to the downstream end of the system, and wherein at least a portion of the second channel (101, 103, 104, 105) and the heating element (30) are arranged perpendicular to each other such that the at least a portion of the second channel directs ambient air to impinge perpendicular onto the heating element, and wherein at least a portion of the second channel (104, 105) arranged downstream of the substantially flat fluid permeable heating element, is arranged in the circumference of the substantially flat fluid permeable heating element, such as to guide aerosol containing ambient air from a center of the substantially flat fluid permeable heating element (30) radially outwardly to the circumference of the substantially flat fluid permeable heating element to the at least a portion of the second channel (104, 105) arranged in the circumference of the substantially flat fluid permeable heating element. 6. Method for guiding an airflow in an electrically heated smoking system for generating aerosol, the method comprising the steps of: - directing ambient air (21) from outside the system to a downstream end of the system along a first flow route, characterized by - directing ambient air (20) from outside the system towards a substantially flat, fluid permeable heating element (30) before conveying the ambient air to the downstream end of the system along a second flow route; therein passing a total volume of ambient air (20, 21) through the system along the first flow route and along the second flow route, and passing at least 50 percent of the total volume of ambient air through the system along the first flow route, by - directing the	Philip Morris Products S.A., 2000 Neuchâtel, CH, 101137385 PHILIP MORRIS PRODUCTS SA	2020-03-11	2014-12-15

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			ambient air (20) in the second flow route such that the ambient air in the second flow route impinges substantially perpendicularly onto the substantially flat, fluid permeable heating element (30), and by - guiding aerosol containing ambient air from a center of the heating element, radially outwardly to the circumference of the heating element and circumferentially downstream into the direction of an outlet opening (12).			
EP3191081B1	FORMULATION COMPRISING GLYCOPYRROLATE, METHOD AND APPARATUS	A method is disclosed for making a pharmaceutical composition for pulmonary administration comprising co-jet milling glycopyrrolate and magnesium stearate, wherein the co-jet milled glycopyrrolate and magnesium stearate is then subjected to a conditioning step which includes exposure of the co-jet milled glycopyrrolate and magnesium stearate to humidity. A composition made by this method is also disclosed.	1. A method of making a dry powder formulation, the method comprising co-jet milling unmiconised glycopyrrolate and magnesium stearate with milling gas having a humidity below 20% Relative Humidity to produce micronized composite particles, wherein the micronized composite particles are then subjected to a conditioning step which includes exposure of the micronized composite particles to humidity in the range of 10%-95% Relative Humidity at temperatures between 5°C to 88°C for at least 60 minutes. 10. A method of making a dry powder formulation, the method comprising co-jet milling unmiconised glycopyrrolate and magnesium stearate with milling gas having a humidity below 20% Relative Humidity to produce micronized composite particles, wherein the micronized composite particles are then subjected to a conditioning step which includes exposure of the micronized composite particles to humidity in the range of 10%-95% RH at temperatures between 5°C to 88°C for at least 10 minutes.	Vectura Limited, Chippenham, Wiltshire SN14 6FH, GB, 100248565 VECTURA LTD	2020-03-25	2014-09-09
EP3403518B1	AEROSOL DELIVERY DEVICE INCLUDING A MOVEABLE CARTRIDGE AND RELATED ASSEMBLY METHOD	The present disclosure relates to an aerosol delivery device (100), comprising: a housing (102); a power source (104); and a connector (106) moveable with respect to at least a portion of the housing (102), wherein the connector (106) is configured to engage a cartridge (200) comprising an outer body with a mouthpiece (220) configured for passage of an aerosol therethrough so as to be moveable relative to at least the portion of the housing (102), wherein the cartridge (200) is configured to pivot with respect to the housing (102).	1. An aerosol delivery device, comprising: a housing (902); a power source (104); and a connector (906) moveably attached to the housing (902) and characterised by being moveable with respect to at least a portion of the housing (902), a cartridge (200) configured to engage with the connector (906) and having one or more components configured to form an electrical connection with the connector (906), the cartridge (200) comprising an outer body with a mouthpiece (220) configured for passage of an aerosol therethrough, wherein the cartridge (200) is configured to pivot with respect to the housing (902) so as to be movable relative to at least a portion of the housing (902). 9. A method for assembling an aerosol delivery device, the method comprising: providing a housing (902), a power source (104), and a connector (906); characterised by positioning the power source (104) within the housing (902); moveably attaching the connector (906) to the housing (902) such that the connector (906) is configured to pivotably move a cartridge (200) relative to at least a portion of the	RAI Strategic Holdings Inc., Winston-Salem, NC 27101, US, 101588532 RAI STRATEGIC HOLDINGS INC	2020-03-18	2014-08-21

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			housing (902); and engaging the cartridge (200) with the connector (906) to form an electrical connection between one or more components of the cartridge (200) and the connector (906), the cartridge (200) comprising an outer body with a mouthpiece (220) configured for passage of an aerosol therethrough.			
EP3086829B1	A DRY POWDER INHALER	The present invention relates to a breath-actuated dry powder inhaler, wherein a breath actuated mechanism comprises a flap (11) movable from a substantially closed position to a substantially open position and a bistable biasing spring (10) holding the flap in the substantially closed position. The breath actuated mechanism is primed by rotation of a mouthpiece cover (17) from a substantially closed to a substantially open position such that on inhalation breath induced low pressure overcomes the bistable biasing spring to allow opening of the flap wherein the bistable spring acts to move the flap to the open. During the flap travel from the closed to the open position, the movement of the flap forces a latch (21) retaining an energized dose opening mechanism to be disengaged, thereby triggering dose opening by the piercer blade (3), wherein the dose opening mechanism is energized by the opening of the mouthpiece cover and is held in a latched position until disengaged by movement of the flap. The piercer blade which cuts a slit in the sealed foil packet moves through a lower foil, the dose pocket and an upper foil.	1. A breath-actuated dry powder inhaler, comprising: (a) a body; (b) a dose-ring subassembly comprising a dose ring (13) and an airway including a swirl chamber (56) and a mouthpiece (26), wherein the airway has airway inlets (14) and an airway outlet (15), said airway forming a conduit for bypass air and drug laden air to mix and enter the swirl chamber, and wherein the dose ring is fully enclosed in the body of the dry powder inhaler during use and is capable of rotating through a segment of the airway, said dose ring comprising a plurality of sealed foil pockets (43), with each pocket containing dry powder comprising a dose of a drug, (c) a mouthpiece cover (17) rotatable between a substantially closed and a substantially open position (d) a breath actuated mechanism (BAM) comprising a BAM flap (11) movable from a substantially closed position to a substantially open position and a bistable biasing spring (10) holding the BAM flap in the substantially closed position, the BAM being primed by rotation of the mouthpiece cover from the substantially closed to the substantially open position such that breath induced low pressure can overcome the bistable biasing spring to allow opening of the BAM flap wherein the bistable spring acts to move the BAM flap to the open position, and (e) a piercer blade (28); and (f) a dose opening mechanism configured to be energized by the opening of the mouthpiece cover and being held in a latched position until disengaged by movement of the BAM flap; wherein during the BAM flap travel from the closed to the open position, the movement of the BAM flap forces a latch retaining the energized dose opening mechanism to be disengaged, thereby triggering dose opening by the piercer blade, characterised in that the piercer blade is a blade with tangs (25) and is configured to cut a slit in the sealed foil pocket located on the dose ring such that the piercer blade moves through a lower foil, the dose pocket and an upper foil and the tangs fold the foil into flaps which are pushed upwards and towards a long side of the dose pocket as the piercer moves upwards.	Glenmark Pharmaceuticals Limited, Mumbai 400 099, IN, 101443193 GLENMARK PHARMACEUTICALS LTD	2020-03-25	2013-12-23
EP2993983B1	TARGETING CORROLES FOR TUMOR TOXICITY AND MRI	Disclosed herein are compositions comprising a targeted corrole nanoparticle; and an acceptable excipient. Also disclosed are compositions comprising a	1. A pharmaceutical composition for use in the treatment of cancer, comprising a targeted nanoparticle comprising a targeting protein and a metallated	Cedars-Sinai Medical Center, Los Angeles, CA 90048, US,	2020-03-25	2013-05-08

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
		targeted corrole nanoparticle; and an acceptable carrier. Further, disclosed herein are methods of imaging a condition in a subject, comprising providing a composition comprising a targeted corrole nanoparticle; administering an effective amount of the targeted corrole nanoparticle to the subject; and imaging the condition in the subject. In addition, disclosed herein are methods of treating cancer in a subject, comprising providing a composition comprising a targeted corrole nanoparticle; and administering a therapeutically effective dosage of the targeted corrole nanoparticle to the subject.	corrole comprising manganese; and a pharmaceutically acceptable excipient; wherein the targeted nanoparticle targets a tumor. 9. Use of a composition for imaging a tumor by MRI, characterized by the composition comprising a targeted nanoparticle comprising a targeting protein and a metallated corrole comprising manganese; and a pharmaceutically acceptable excipient; wherein the targeted nanoparticle targets a tumor, and wherein the targeting protein is a HerPBK10 molecule. 14. Use of a composition for imaging a tumor by MRI, characterized by the composition comprising a targeted nanoparticle comprising a targeting protein and a metallated corrole comprising manganese; and a pharmaceutically acceptable excipient; wherein the targeted nanoparticle targets a tumor, wherein the targeting protein is a recombinant tumor-targeted cell penetration protein, and wherein the nanoparticle is formed by a noncovalent assembly of the recombinant tumor-targeted cell penetration protein with a water-soluble sulfonated corrole forming a round virus-like particle of 10-20 nm in diameter.	100096531 CEDARS SINAI MEDICAL CENTER		
EP2948003B1	SKIN ENHANCING BEVERAGE COMPOSITION	The invention provides a beverage composition comprising hydrolysed collagen and vitamin C, or a derivative thereof, which is particularly suitable for improving skin hydration and skin condition. Additional active ingredients may include methyl sulphanyl methane, a vitamin selected from the vitamin B complex, L-lysine, omega-3 and omega-6 fatty acids. The beverage composition is such that it promotes higher absorption and bioavailability of skin-nourishing ingredients. The beverage composition can improve the moisture content of the skin and can prevent fine lines and wrinkles.	1. A beverage composition comprising collagen and vitamin C, or a derivative thereof and methyl sulphanyl methane, wherein said collagen is present in an amount between about 2 and about 10 g/100 ml and said vitamin C, or derivative thereof, is present in an amount between about 50 and about 400 mg/100 ml, and the weight ratio of collagen to vitamin C is between about 10:1 and about 50:1, and said methyl sulphanyl methane is present in an amount between about 300 and about 800 mg/100 mL.	Bottled Science Limited, London W1H 4HN, GB, 101471019 BOTTLED SCIENCE LTD	2020-03-18	2013-01-23
EP2838563B1	COMPOSITIONS AND METHODS COMPRISING ENERGY ABSORBING MATERIALS FOR FOLLICULAR DELIVERY	The present invention provides compositions comprising energy (e.g., light) absorbing submicron particles (e.g., nanoparticles comprising a silica core and a gold shell) and methods for delivering such particles via topical application. This delivery is facilitated by application of mechanical agitation (e.g. massage), acoustic vibration in the range of 10 Hz - 20 kHz, ultrasound, alternating suction and pressure, and microjets.	1. A composition comprising plasmonic gold nanoshells, said nanoshells composed of an 120 nm diameter silica core and 15 nm thick gold shell, present in amount effective to induce thermomodulation in a target tissue region with which the composition is topically contacted, the nanoshells dispersed in a cosmetically acceptable carrier, for use in treating or ameliorating a follicular skin disease or permanently removing hair in a subject, wherein: the composition is topically applied to a surface of the skin; the plasmonic gold nanoshells are delivered into a hair follicle, a sebaceous gland, a sebaceous gland duct, or an infundibulum through a technique selected from the group consisting of: mechanical agitation, acoustic vibration, ultrasound, alternating suction and pressure, and generation of microjets; and the plasmonic gold	The General Hospital Corporation, Boston, MA 02114, US, 101224177 MASSACHUSETTS GEN HOSPITAL	2020-03-11	2012-04-20

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			nanoshells are exposed to externally applied near-infrared light to generate surface plasmons.			
EP2827837B1	EXOPOLYSACCHARIDE FOR THE TREATMENT AND/OR CARE OF THE SKIN, MUCOUS MEMBRANES AND/OR NAILS	Exopolysaccharide of a bacterial strain for its use in treatment and/or care of the skin, mucous membranes, hair and/or nails, as well as its cosmetic and/or dermopharmaceutical compositions. In particular, for the aging of skin and in particular for the treatment and/or prevention of wrinkles.	<p>1. Use of exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277 to improve the hydration of the skin, mucous membranes, hair and/or nails, wherein said use is cosmetic and non-therapeutic.</p> <p>2. A non-therapeutic method of treatment and/or care of the skin, mucous membranes, hair and/or nails which comprises the administration of a cosmetically effective quantity of the exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277, wherein said treatment and/or care is the treatment and/or prevention of aging.</p> <p>4. A method of treatment and/or care of the skin, mucous membranes, hair and/or nails which comprises the administration of a cosmetically effective quantity of the exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277, wherein said treatment and/or care is treatment stimulating hair growth and/or prevention of hair loss.</p> <p>5. Exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277 for use in the treatment and/or care of the skin, mucous membranes, hair and/or nails, wherein said treatment and/or care is of xerosis, corns and calluses, atopic dermatitis, acne, ichthyosis, chapped lips, vaginal dryness and/or ocular dryness.</p> <p>6. Exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277 for use in the treatment and/or care of the skin, mucous membranes, hair and/or nails, wherein said treatment and/or care is a reepithelization and/or healing treatment of the skin and/or mucous membranes.</p> <p>7. Exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277 for use in the treatment and/or care of the skin, mucous membranes, hair and/or nails, wherein said treatment and/or care is the treatment and/or prevention of pain or itching of the skin, mucous membranes and/or nails.</p> <p>9. Exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277 for its use in the treatment and/or care of the skin, mucous membranes, hair and/or nails, wherein said treatment and/or care is the treatment and/or prevention of hyperhidrosis of the skin, mucous membranes and/or nails. 10. Use of exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277 for the non-therapeutic treatment and/or care of dry skin and/or dry hair.</p>	Lubrizon Advanced Materials Inc., Cleveland, OH 44141-3247, US, 100972116 Polymaris Biotechnology, 29600 Morlaix, FR, 101319247 LUBRIZOL ADVANCED MAT INC POLYMARIS BIOTECHNOLOGY	2020-03-11	2012-03-22

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			15. Cosmetic or dermatopharmaceutical composition comprising an effective cosmetic or dermatopharmaceutical quantity of the exopolysaccharide of the strain of the species <i>Vibrio</i> sp. with deposit number CNCM I-4277, and at least one cosmetically or dermatopharmaceutically acceptable excipient, adjuvant and/or ingredient.			
EP2814467B1	ALKALIZED ACACIA GUM ADHESIVE FOR ORAL ADHERING DISCS	This invention is directed to a superior adhesive for oral adhering discs or troches. The adhesive is at least 80% acacia gum mixed with an alkalizer so that, as the acacia gum is combined with water, it does not yield a pH lower than 5.5. The preferred alkalizer is calcium carbonate in a ratio within the range 15 : 1 to 50 : 1.	1. An adhering troche having two sides that, when held in a human mouth, adheres and remains in the mouth as a single item that does not smear or break apart, made by a process comprising: (a) forming a first layer, roughly disc-shaped and having a roughly flat side at least 5 mm in two dimensions, comprising an ingredient to be released into saliva; (b) forming a second, adhesive layer, roughly disc-shaped and having a roughly flat side at least 5 mm in two dimensions, comprising at least 80% acacia gum mixed with up to 20% alkalizer selected to be calcium carbonate and yielding a pH of the mixture of 5.5 or higher when dissolved in 10 parts water; and (c) adhering the layers to each other, side to side, such that a first entire side of the resulting troche is adhesive and a second entire side of the resulting troche is not adhesive.	Quest Products LLC, Pleasant Prairie, WI 53158, US, 101846068 QUEST PRODUCTS LLC	2020-03-11	2012-02-19
EP2809183B1	ELECTRONIC CIGARETTE	An electronic smoking article includes a liquid supply including liquid material, a heater operable to heat the liquid material to a temperature sufficient to vaporize the liquid material and form an aerosol, a wick in communication with the liquid material and in communication with the heater such that the wick delivers the liquid material to the heater, and at least one air inlet operable to establish a predetermined resistance to draw under a prescribed test of said smoking article.	1. An electronic smoking article (60) comprising: a casing (6) extending in a longitudinal direction; a mouth insert (8) at an end of the casing (6); characterized by at least one hole formed in the casing (6), the at least one hole in communication with said mouth-end insert (8); and a metallic plate insert (43) on an inner surface of the casing (6), the metallic plate insert (43) defining at least one air inlet (44) therein, the at least one air inlet (44) superposed with the at least one hole formed in the casing (6), the at least one air inlet (44) being configured to establish a predetermined resistance-to-draw.	Altria Client Services LLC, Richmond, Virginia 23230, US, 101545372 ALTRIA CLIENT SERVICES LLC	2020-03-04	2012-01-31
EP2793912B1	ORGANOIDS COMPRISING DECELLULARIZED AND REPOPULATED PLACENTAL VASCULAR SCAFFOLD	Provided herein are organoids comprising decellularized placental vascular scaffold comprising, or consisting of, a decellularized placental vascular scaffold, and methods of making and using the same.	1. An organoid, comprising one or more types of cells, and comprising decellularized placental vascular scaffold, wherein said organoid performs at least one function of an organ, or a tissue from an organ; wherein said at least one function of an organ or tissue from an organ is production of a protein, growth factor, cytokine, interleukin, or small molecule characteristic of at least one cell type from said organ or tissue; wherein said decellularized placental vascular scaffold comprises substantially intact placental vasculature matrix; wherein said cells have been genetically engineered to produce a protein or polypeptide not naturally produced by the cell, or have been genetically engineered to produce a protein or polypeptide in an amount greater than that naturally produced by the	Celularity Inc., Warren, NJ 07059, US, 101751546 CELULARITY INC	2020-03-18	2011-12-23

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			cell; and wherein said cellular composition comprises differentiated cells.			
EP2726463B1	DIHYDROPYRAZOLES, PHARMACEUTICAL COMPOSITIONS THEREOF AND THEIR USE FOR THE TREATMENT OF FERTILITY DISORDERS	Novel dihydropyrazole derivatives of formula (I) wherein L, R, R 3, R4, R5, R6, R7, X1, X2, X3, X4, Y, m and n have the meaning according to the claims, are positive allosteric modulators of the FSH receptor, and can be employed, inter alia, for the treatment of fertility disorders.	1. A compound of formula (I-B) wherein R 1 denotes Hal, A, CN, -E-phenyl or Het 3 ; R 2 denotes Hal, A, OA, NH 2 , CN, SA, SO 2 A, SO 2 NH 2 , O-phenyl or Het 1 ; R 3 , R 4 denote H, and R 5 , R 6 denote A; E denotes O or a single bond; A denotes unbranched or branched alkyl having 1-5 C atoms; Het 1 denotes pyrrolyl, furyl, thiophenyl, imidazolyl, pyrazyl, isoxazolyl, thiazyl or pyridyl, which can be mono- or disubstituted by at least one substituent selected from the group of Hal, A and OA; Het 3 denotes pyrrolidinyl, tetrahydrofuryl, oxazolidinyl, dioxalanyl, piperazinyl, morpholinyl or dioxanyl, which can be mono- or disubstituted by at least one substituent selected from the group of Hal, COA and =O; Hal denotes F, Cl or Br; and m denotes 0; and/or a physiologically acceptable salt thereof.	Merck Patent GmbH, 64293 Darmstadt, DE, 100763574 MERCK PATENT GMBH	2020-03-11	2011-07-01
EP2695607B1	METHOD FOR PRODUCING ENDOPLASMIC RETICULUM	Provided is a method for producing vesicles which comprise a lipid as a main component and which encapsulate a functional substance therein. The method includes the steps of (a) putting the functional substance, lipid and water in a cylindrical container; and (b) producing the vesicles encapsulating the functional substance in lipid vesicles which comprise the lipid as a major component and which encapsulate the functional substance therein, by kneading the contents of the container with simultaneous rotational movement of the container around its center axis together with revolutionary movement of the container about a predetermined axis of revolution.	1. A method for producing vesicles encapsulating a functional substance, comprising the steps of: (a) putting the functional substance, lipid and water in a cylindrical container; and (b) producing lipid vesicles which comprise the lipid as a main component and which encapsulate the functional substance therein, by kneading the contents of the cylindrical container with simultaneous rotational movement of the cylindrical container around its center axis together with revolutionary movement of the cylindrical container about a predetermined axis of revolution; wherein the axis of rotation is not on parallel with the axis of revolution; wherein the functional substance is hemoglobin; and wherein the lipid is comprised of a phosphatidylcholine-type phospholipid, cholesterol, a negatively-charged lipid, and a lipid bound with polyethylene glycol.	Waseda University, Tokyo 169-8050, JP, 101040658 UNIV WASEDA	2020-03-04	2011-04-04
EP2435504B1	FLAVONOID HYDROGEL	There is provided methods for producing a hydrogel comprising conjugates of a hydrogel forming agent and a flavonoid including a method for producing a hydrogel that is capable of adhesion of cells and which comprises enzymatically cross-linked conjugates of a hydrogel forming agent and a flavonoid. There is also provided a method for producing a hydrogel comprising conjugates of a hydrogel forming agent and a flavonoid without the addition of an exogenous peroxide or peroxidase or without the addition of an exogenous peroxide. Hydrogels produced by such methods and methods of using the hydrogels are also described herein.	1. A method for producing a hydrogel having cell adhesive properties and which comprises enzymatically cross-linked conjugates of hyaluronic acid and a flavonoid, the method comprising combining: (i) from 1 mg/ml to 100 mg/ml of conjugates of the hyaluronic acid and the flavonoid; (ii) from 0.01 mM to 5 mM peroxide; and (iii) from 0.01 units/ml to 10 units/ml peroxidase; thereby producing the hydrogel.	Agency for Science Technology and Research, Singapore 138632, SG, 101176269 AGENCY SCIENCE TECH & RES	2020-03-11	2009-05-29

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
EP2421656B1	ATOMISING BODY, ATOMISING DEVICE, INHALER, MANUFACTURING METHOD OF MANUFACTURING AN ATOMISING BODY AND ASSEMBLY METHOD FOR ASSEMBLING AN ATOMISING DEVICE	A method of manufacturing an atomising body for an atomising device is described. The method comprises the steps of - providing a support element having a first layer on a first surface of the support element and a second layer on a second surface of the support element, the first layer comprising a first perforated membrane and the second layer comprising a process orifice, - etching a cavity through the support element, the cavity forming a fluid connection from the process orifice to the perforated membrane, by providing etching substance to the process orifice. The atomising body as obtained may advantageously be applied in an atomising device or an inhaler.	<p>1. Method of manufacturing an atomising body for an atomising device, the method comprising the steps of:</p> <ul style="list-style-type: none"> - providing a support element (310) having a first layer (320) on a first surface (330) of the support element (310) and a second layer (340) on a second surface (350) of the support element (310), the first layer (320) comprising a first perforated membrane (360) and the second layer (340) comprising a process orifice (375) and a second perforated membrane (370) arranged adjacent the process orifice (375, 580, 600), - etching a cavity (420) through the support element (310), the cavity (420) forming a fluid connection from the process orifice (375) to the first perforated membrane (360) and from the first perforated membrane (360) to the second perforated membrane (370), by providing an etching substance to the process orifice (375); and - sealing the process orifice by a cover (710). <p>7. An atomising body comprising:</p> <ul style="list-style-type: none"> - a support element (310) having a first layer (320) on a first surface (330) of the support element (310) and a second layer (340) on a second surface (350) of the support element (310), the first layer (320) comprising a first perforated membrane (360) and the second layer (340) comprising a process orifice (375, 580, 600) and a second perforated membrane (370) arranged adjacent the process orifice (375, 580, 600), - a cavity (420) through the support element (310), the cavity (420) forming a fluid connection from the process orifice (375, 580, 600) to the first perforated membrane (360) and from the first perforated membrane (360) to the second perforated membrane (370) and - a cover (710, 930) covering the process orifice (375, 580, 600). <p>12. An atomising device comprising an atomising body and a supporting structure, the atomising body comprising:</p> <ul style="list-style-type: none"> - a support element (310) having a first layer (320) on a first surface (330) of the support element (310) and a second layer (340) on a second surface (350) of the support element (310), the first layer (320) comprising a first perforated membrane (360) and the second layer (340) comprising a process orifice (375, 580, 600) and a second perforated membrane (370) arranged adjacent the process orifice (375, 580, 600), and - a cavity (420) through the support element (310), the cavity (420) forming a fluid connection from the process orifice (375, 580, 600) to the first perforated membrane (360) and from the first perforated membrane (360) to the second perforated membrane (370), wherein the atomising body is attached to a surface (820) of the supporting structure (800) and wherein the surface (820) of the supporting 	Medspray B.V., 7521 PV Enschede, NL, 101630808 MED-SPRAY XMEMS BV	2020-03-11	2009-04-23

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			<p>structure (800) is arranged to substantially cover the process orifice (375, 580, 600, 920).</p> <p>17. Manufacturing method for an atomising device, the method comprising the steps of: - providing an atomising body, the atomising body comprising: - a support element (310) having a first layer (320) on a first surface (330) of the support element and a second layer (340) on a second surface (350) of the support element, the first layer comprising a first perforated membrane (360) and the second layer comprising a process orifice (375) and a second perforated membrane (370) arranged adjacent the process orifice (375, 580, 600), and - a cavity (420) through the support element (310), the cavity forming a fluid connection from the process orifice to the first perforated membrane and from the first perforated membrane to the second perforated membrane, - mounting the atomising body to a surface (820) of a supporting structure (800), thereby substantially covering the process orifice (375, 580, 600) of the atomising body, and - attaching the atomising body to the supporting structure (800).</p>			
EP2326374B1	INHALER	<p>An inhaler (1) is proposed for the propellant-free nebulisation of a medicament preparation. The inhaler produces an aerosol at low speed. The inhaler is combined with an add-on device (23) for intermediate storage of the aerosol produced, so as to allow easier inhalation, particularly for children.</p>	<p>1. Portable inhaler (1) for the propellant-free nebulisation of a medicament preparation (2), having a pressure generator (5) for conveying and nebulising the medicament preparation (2), wherein the pressure generator is constructed as a pump and/or operating mechanically, the inhaler (1) further comprising a mouthpiece (13) having at least one supply air opening (15), and a delivery nozzle (12) for delivering the nebulised medicament preparation (2) as an aerosol (14) into the mouthpiece (13), characterised in that the inhaler (1) has an add-on device (23) with a chamber (24) for intermediate storage of the aerosol (14), wherein the chamber (24) is arranged or adapted to be arranged downstream of the delivery nozzle (12), wherein the chamber (24) is at least substantially cylindrical, elongate or conical in construction, wherein the add-on device (23) or an housing (25) thereof has a connecting member (26) for connecting to the mouthpiece (13), and wherein the at least one supply air opening (15) remains open when the add-on device (23) is attached to the mouthpiece (13).</p>	Boehringer Ingelheim International GmbH, 55216 Ingelheim, DE, 100987657 BOEHRINGER INGELHEIM INT	2020-03-04	2008-06-20
EP2134395B1	DEVICE FOR DELIVERY OF A MEDICAMENT	<p>The disclosure relates to a method of enhancing nicotine or other medicament concentrations in a gaseous carrier. The methods are adaptable to the delivery of nicotine or other medicaments for therapeutic effect in various diseases, in particular nicotine for tobacco product use cessation, substitution and/or harm reduction. The disclosure further relates</p>	<p>1. A device (10, 600, 800, 900) for delivering nicotine to a subject, the device comprising a housing (12, 100), the housing comprising: an inlet (14, 140, 940, 1410) and an outlet (16, 180, 1040) in communication with each other and adapted so that a gaseous carrier may pass into the housing through the inlet, through the housing and out of the housing through the outlet, the</p>	Philip Morris Products S.A., 2000 Neuchâtel, CH, 101326964 PHILIP MORRIS PRODUCTS SA	2020-03-18	2007-03-30

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
		various devices and device design principles for practicing these methods.	device comprising in series from inlet to outlet: a first internal area (18) in communication with the inlet, the first internal area comprising a delivery enhancing compound source (30, 445, 750, 870, 960, 1500) comprising a carboxylic acid, wherein the carboxylic acid is capable of interacting with nicotine to form nicotine salt particles; a second internal area (20) in communication with the first internal area, the second internal area comprising a nicotine source (40, 435, 740, 880, 970, 1490), wherein the nicotine source comprises an adsorption element with a volume of nicotine in liquid form adsorbed thereon; and optionally, a third internal area (22, 75) in communication with the second internal area.			
EP2099515B1	BREATH ACTUATED INHALER ACTUATOR	The present invention relates to an Breath actuated inhaler (BAI) actuator, comprising: a loading element capable of being loaded with an actuation force, a breath actuated trigger mechanism arranged to counteract the actuation force of the loading element, and to fire the actuator by releasing the actuation force of the loading element in response to an inhalation breath, and actuation locking means moveable between a locked position wherein it relieves the actuation force from the trigger mechanism setting the trigger mechanism in a neutral position, and an armed position wherein the trigger mechanism is set in an armed position.	1. Actuator (100) for a breath actuated inhaler, comprising: a loading element (6) capable of being loaded with an actuation force, a breath actuated trigger mechanism (3) arranged to counteract the actuation force of the loading element (6), and to fire the actuator (100) by releasing the actuation force of the loading element (6) in response to an inhalation breath, and actuation locking means (2) moveable between a locked position wherein it relieves the actuation force from the trigger mechanism (3) setting the trigger mechanism (3) in a neutral position, and an armed position wherein the trigger mechanism (3) is set in an armed position, characterized in that the actuation locking means (2) is formed as a pivotal lever with a helical cam member (110) arranged about a pivotal point (120), upon movement of the locking means (2), after the actuator (100) is fired, from its armed position to its locked position, the helical cam member (110) acts on a loading yoke (4), initially to load the loading element (6) with actuation force and to arm the trigger mechanism (3), and subsequently to overload the loading element (6) to relieve the actuation force from the trigger mechanism (3) upon subsequent movement of the locking means (2) from its locked position to its armed position, the helical cam member (110) initially acts on the loading yoke (4) to unload the overloading force on the loading element (6) to arm the trigger mechanism (3), where after it is moved to its armed position wherein the helical cam member (110) is in a position that allows firing of the actuator (100), and wherein the trigger mechanism (3) comprises: a yoke lever (50) arranged to transform the movement of the yoke (4) to a pivotal movement of a lock end (52) thereof, a lock member (53) pivotally moveable between an armed position wherein it is arranged to prevent further pivotal movement of the yoke lever lock end (52) in the	AstraZeneca AB, 151 85 Södertälje, SE, 100826879 ASTRA-ZENECA AB	2020-03-18	2007-01-02

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
			actuation direction, and an open position wherein the yoke lever (50) is free to move beyond the armed position in the actuation direction, in the armed position the lock member (53) is biased towards the open position by the yoke lever (50) which in turn is biased in the actuation direction by the loading element (6) via the yoke (4), a trigger element (57) arranged for movement in response to an inhalation breath, and a release member (55) arranged between the lock member (53) and the trigger element (57) to hold the lock member (53) in the armed position, and to release the lock member (53) in response to movement of the trigger element (57).			
EP3067046B1	LIPID-BASED COMPOSITIONS OF ANTIINFECTIVES FOR TREATING PULMONARY INFECTIONS	A system for treating or providing prophylaxis against a pulmonary infection is disclosed comprising: a) a pharmaceutical formulation comprising a mixture of free antiinfective and antiinfective encapsulated in a lipid-based composition, and b) an inhalation delivery device. A method for providing prophylaxis against a pulmonary infection in a patient and a method of reducing the loss of antiinfective encapsulated in a lipid-based composition upon nebulization comprising administering an aerosolized pharmaceutical formulation comprising a mixture of free antiinfective and antiinfective encapsulated in a lipid-based composition is also disclosed.	1. A system for use in providing immediate bactericidal activity and sustained bactericidal activity when treating or providing prophylaxis against a pulmonary infection, wherein the system comprises (a) a pharmaceutical formulation comprising a mixture of free aminoglycoside and aminoglycoside encapsulated in liposomes, wherein the lipid component of the liposomes consists of dipalmitoylphosphatidylcholine (DPPC) and cholesterol and the free aminoglycoside is generated by nebulization of aminoglycoside encapsulated in liposomes, and the amount of free aminoglycoside is sufficient to provide for immediate bactericidal activity, and the amount of encapsulated aminoglycoside is sufficient to provide sustained bactericidal activity, and (b) a nebulizer. 9. An aerosolized pharmaceutical formulation for use in providing immediate bactericidal activity and sustained bactericidal activity when treating or providing prophylaxis against a pulmonary infection in a patient, wherein the pharmaceutical formulation comprises an aerosolized mixture of free aminoglycoside and aminoglycoside encapsulated in liposomes, wherein the lipid component of the liposomes consists of dipalmitoylphosphatidylcholine (DPPC) and cholesterol and the free aminoglycoside is generated by aerosolization of aminoglycoside encapsulated in liposomes, and the amount of free aminoglycoside is sufficient to provide for bactericidal activity.	Insmed Incorporated, Bridgewater, NJ 08807-1704, US, 101845980 INSMED INC	2020-03-25	2005-12-08
EP3488716B1	METHOD AND SYSTEM FOR VAPORIZATION OF SUBSTANCE	A portable hand-held smoking device comprises a vaporization chamber accessible by operating a sliding door built into the device.	1. A portable hand-held smoking device comprising a mouthpiece permanently attached to a body of the device, the device further comprising a vaporization chamber accessible by operating a sliding or hinged door built into the device.	JT International SA, 1202 Geneva, CH, 101788205 JT INT SA	2020-03-11	2005-07-19
EP3199164B1	PROCESSES FOR MAKING LACTOSE UTILIZING PRE-CLASSIFICATION TECHNIQUES AND	A process for forming lactose suitable for use in a pharmaceutical formulation comprises providing a plurality of lactose particles containing no more than 10% w/w of lactose particles having a volume	1. A process for forming lactose suitable for use in a pharmaceutical formulation, said process comprising: providing a plurality of lactose particles containing no more than 10% w/w of lactose particles having a	Glaxo Group Limited, Brentford, Middlesex TW8 9GS, GB, 101370614 DMV-Fonterra Excipients Technology GmbH,	2020-03-18	2005-02-10

Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
	PHARMACEUTICAL FORMULATIONS FORMED THEREFROM	average particle size of about 70 microns or less; milling the plurality of lactose particles to yield a plurality of milled lactose particles with an average particle size, (D50), ranging from about 50 microns to about 100 microns; and classifying the plurality of milled lactose particles into at least two fractions comprising a fine fraction and a coarse fraction wherein the fine fraction has an average particle size, (D50), ranging from about 3 microns to about 50 microns, and the coarse fraction has an average particle size, (D50), ranging from about 40 microns to about 250 microns.	volume average particle size of 70 microns or less wherein said step of providing a plurality of lactose particles containing no more than 10% w/w of lactose particles having a volume average particle size of about 70 microns or less comprises obtaining said plurality of lactose particles by classifying a source of lactose into two fractions comprising a fine fraction and said plurality of lactose particles containing no more than 10% w/w of lactose particles having a volume average particle size of 70 microns or less; milling the plurality of lactose particles to yield a plurality of milled lactose particles with an average particle size, (D50), ranging from 50 microns to 100 microns; classifying said plurality of milled lactose particles into at least two fractions comprising a fine fraction and a coarse fraction wherein the fine fraction has an average particle size, (D50), ranging from 3 microns to 50 microns, and the coarse fraction has an average particle size, (D50), ranging from 40 microns to 250 microns; and combining at least a portion of the coarse fraction with at least a portion of the fine fraction to form a lactose composition.	47574 Goch, DE, 101468680 GLAXO GROUP LTD DMV FONTEIRA EXCIPIENTS TECH GMBH		
EP2878297B1	Medicaments for the treatment or prevention of fibrotic diseases	The present invention relates to the use of indolinones of general formula substituted in the 6 position, wherein R 1 to R5 and X are defined as in claim 1, the isomers and the salts thereof, particularly the physiologically acceptable salts thereof, as a medicament for the prevention or treatment of specific fibrotic diseases.	3-Z-[1-(4-(N-((4-methyl-piperazin-1-yl)-methylcarbonyl)-N-methyl-amino)-anilino)-1-phenyl-methylene]-6-methoxycarbonyl-2-indolinone, the tautomers, the diastereomers, the enantiomers, the mixtures thereof and the salts thereof, for use in the prevention or treatment of fibrosis in rheumatoid arthritis.	Boehringer Ingelheim International GmbH, 55216 Ingelheim am Rhein, DE, 100089526 Boehringer Ingelheim Pharma GmbH & Co. KG, 55216 Ingelheim am Rhein, DE, 100089539	2020-03-25	2004-12-24
EP2272508B1	Pharmaceutical formulations for dry powder inhalers	A powder for use in a dry powder inhaler comprises: i) a fraction of fine particle size constituted by a mixture of physiologically acceptable excipient and an additive; ii) a fraction of coarse particles; and iii) at least one active ingredient. The powder is suitable for efficacious delivery of active ingredients into the low respiratory tract of patients suffering from pulmonary diseases such as asthma. In particular, the invention provides a formulation to be administered as dry powder for inhalation which is freely flowable, can be produced in a simple way, is physically and chemically stable and capable of delivering accurate doses and/or high fine particle fraction of low strength active ingredients by using a high- or medium resistance device.	1. A powder for use in a dry powder inhaler, the powder comprising: (i) a fraction of fine particle size constituted of a mixture of a physiologically acceptable excipient and an additive, the mixture having a mean particle size of less than 35 µm; (ii) a fraction of coarse particles constituted of a physiologically acceptable carrier having a diameter of at least 100 µm; and (iii) at least one active ingredient having a particle size of less than 10µm; said mixture (i) being composed of up to 99% by weight of particles of the excipient and at least 1 % by weight of additive and the ratio between the fine excipient particles and the coarse carrier particles being between 1:99 and 40:60% by weight, and wherein the additive partially coats the surfaces of both the excipient and the coarse particles, wherein the additive is magnesium stearate and the active ingredient(s) is (are) not selected from budesonide and its epimers, formoterol, TA2005 and its stereoisomers, salts thereof, and combinations thereof.	Vectura Limited, Chippenham, Wiltshire SN14 6FH, GB, 100248565 VECTURA LTD	2020-03-25	2000-04-17