Document	Title	Abstract	Independent Claims	Patentee	Granted	Priority
EP3442630B1	DEVICE FOR INHALATION-SYNCHRONISED DISPENSING OF A FLUID PRODUCT	A device for inhalation-synchronised dispensing of a fluid product comprises a body with an oral mouthpiece, a product reservoir containing a fluid product and a propellant gas, mounted slidably axially relative to the body, and a metering valve mounted on the reservoir for selectively dispensing the fluid product, the device comprising: - a locking element movable and/or deformable between a locking position and a metering valve actuation position; - a triggering element movable and/or deformable between a locking position in which it locks the locking element in the locking position and a release position in which it does not lock the locking element; and - an inhalation-triggered system for moving and/or deforming the triggering element into the release position, thus allowing the locking element to be moved and/or deformed into the actuation position.	1. An inhalation-synchronized fluid dispenser device comprising a body (10; 10') provided with a mouthpiece (400), a fluid reservoir (100) containing a fluid and a propellant gas being mounted to slide axially relative to said body (10; 10'), a metering valve (200) including a valve member (210) being assembled on said reservoir (100) for selectively dispensing the fluid, said device further comprising: • a blocking element (500) that is movable and/or deformable between a blocking position, in which said metering valve (200) cannot be actuated, and an actuation position, in which said metering valve (200) can be actuated, • a trigger element (600) that is movable and/or deformable between a locking position, in which it blocks said blocking element (500) in its blocking position, and a release position, in which it does not block said blocking element (500), and • an inhalation-controlled trigger system including an inhalation-sensitive member (60, 61), deformable and/or movable under the effect of inhaling, said inhalation-sensitive member (60, 61) co-operating with said trigger element (600), so that when said inhalation-sensitive member (60, 61) deforms and/or moves, it moves and/or deforms said trigger element (600) towards its release position, thereby making it possible the moving and/or the deformation of said blocking element (500) from its blocking position towards its actuation position, Said blocking element including (500) a projection (510) that, in the locking position of the trigger element (600), cooperates with a locking shoulder (610) of said trigger element (600) to define a latch preventing the moving and/or deformation of said lock element (500) out of its locking position, said latch forming, in locking position of the trigger element (600), a first contact point between said blocking element (500) and said trigger element (600), characterized in that said blocking element (500) includes a lateral projection (520) that, in the locking position of the trigger element (600), cooperates with a bearing surface (620) of said trigger element (600) to form, in the locking position of the trigger element (600), a second contact point between said blocking element (500) and said trigger element (600).	Aptar France SAS, 27110 Le Neubourg, FR, 101324091 | APTAR FRANCE SAS	2020-01-29	2016-04-15
EP3444351B1	RIBONUCLEIC ACID APTAMER HAVING INHIBITORY EFFECT ON NON-SMALL CELL LUNG CANCER, AND PHARMACEUTICAL COMPOSITION COMPRISING SAME	The present invention relates to a ribonucleic acid aptamer having an inhibitory effect on non-small cell lung cancer and a pharmaceutical composition comprising the same. The ribonucleic acid aptamer can bind to human non-small cell lung cancer in vivo or in vitro with high specificity and high affinity to achieve an effect of inhibiting non-small cell lung cancer; and	1. A pharmaceutical composition comprising a ribonucleic acid aptamer, characterized in that the pharmaceutical composition comprises a ribonucleic acid aptamer and a pharmaceutically acceptable carrier, wherein, the ribonucleic acid aptamer is selected from: (1) a ribonucleic acid aptamer having a nucleotide sequence as shown in SEQ ID NO: 1; or (2) a	Biopharmagen Corp. Fangzhou Suzhou, Suzhou, Jiangsu 215126, CN, 101698651 | BIOPHARMAGEN CORP FANGZHOU SUZHOU	2020-01-01	2016-03-23

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		the ribonucleic acid aptamer can also be linked, coupled or polymerized with other non-small cell lung cancer therapeutic drugs to achieve a more excellent effect of inhibiting non-small cell lung cancer.	ribonucleic acid aptamer capable of hybridizing with a nucleotide sequence shown in SEQ ID NO: 1 under stringent conditions and having a function of specifically binding to human non-small cell lung cancer cells; or (3) a ribonucleic acid aptamer having 80% or more identity with the nucleotide sequence shown in SEQ ID NO: 1 and having a function of specifically binding to human non-small cell lung cancer cells; or (4) a ribonucleic acid aptamer being a truncation of the nucleotide sequence shown in SEQ ID NO: 1 and having a function of specifically binding to human non-small cell lung cancer cells; or (5) a ribonucleic acid aptamer having a nucleotide sequence complementary to a nucleotide sequence of the ribonucleic acid aptamer defined by any one of (1) to (4). 10. A modified ribonucleic acid aptamer, characterized in that the modified ribonucleic acid aptamer is: a modified ribonucleic acid aptamer obtained by linking a ribonucleic acid aptamer to PEG; a ribonucleic acid aptamer embedded in a PEG-liposome mixture; a ribonucleic acid aptamer with 2'F modified U and C bases; a ribonucleic acid aptamer with 2'OMe modified bases; or a biotin modified ribonucleic acid aptamer; wherein, the ribonucleic acid aptamer is selected from: (1) a ribonucleic acid aptamer having a nucleotide sequence as shown in SEQ ID NO: 1; or (2) a ribonucleic acid aptamer capable of hybridizing with a nucleotide sequence shown in SEQ ID NO: 1 under stringent conditions and having a function of specifically binding to human non-small cell lung cancer cells; or (3) a ribonucleic acid aptamer having 80% or more identity with the nucleotide sequence shown in SEQ ID NO: 1 and having a function of specifically binding to human non-small cell lung cancer cells; or (4) a ribonucleic acid aptamer being a truncation of the nucleotide sequence shown in SEQ ID NO: 1 and having a function of specifically binding to human non-small cell lung cancer cells; or (5) a ribonucleic acid aptamer having a nucleotide sequence complementary to a nucleotide sequence of the ribonucleic acid aptamer defined by any one of (1) to (4). 11. An adduct inhibiting non-small cell lung cancer, wherein the adduct comprises a ribonucleic acid aptamer and a chemotherapeutic drug, which are coupled, attached or polymerized to each other characterized in that the chemotherapeutic drug includes epirubicin, doxorubicin, carboplatin, cisplatin, paclitaxel, docetaxel and gemcitabine; wherein, the ribonucleic acid aptamer is selected from: (1) a ribonucleic acid aptamer having a nucleotide sequence as shown in SEQ ID NO: 1; or (2) a ribonucleic acid aptamer capable of hybridizing with a nucleotide			

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			sequence shown in SEQ ID NO: 1 under stringent conditions and having a function of specifically binding to human non-small cell lung cancer cells; or (3) a ribonucleic acid aptamer having 80% or more identity with the nucleotide sequence shown in SEQ ID NO: 1 and having a function of specifically binding to human non-small cell lung cancer cells; or (4) a ribonucleic acid aptamer being a truncation of the nucleotide sequence shown in SEQ ID NO: 1 and having a function of specifically binding to human non-small cell lung cancer cells; or (5) a ribonucleic acid aptamer having a nucleotide sequence complementary to a nucleotide sequence of the ribonucleic acid aptamer defined by any one of (1) to (4).			
EP3405563B1	PROBIOTICS FOR ALTERING THE COMPOSITION OF ORAL BIOFILMS	The present invention relates to a certain microorganism for altering the composition of oral biofilms, in particular for use in the treatment and/or prevention of dental caries and/or periodontal disease. In particular, the present invention relates to a microorganism for use as a probiotic agent for altering the bacterial composition of oral biofilms derived from saliva, preferably for reducing the proportions of Gram-negative anaerobic genera and/or increasing the proportions of aerobic or facultatively anaerobic genera. Furthermore, the present invention provides oral pharmaceutical compositions, oral care products or products for nutrition or pleasure comprising the microorganism as probiotic agents as well as a method of production thereof.	1. Microorganism for use in the treatment and/or prevention of periodontal disease, wherein the microorganism is Lactobacillus paracasei LPc-G110 deposited as CCTCC M 2013691. 3. Oral pharmaceutical composition, oral care product or product for nutrition or pleasure, comprising Lactobacillus paracasei LPc-G110 deposited as CCTCC M 2013691, wherein the total amount of Lactobacillus paracasei LPc-G110 deposited as CCTCC M 2013691 is sufficient for treating and/or preventing periodontal disease, further preferably wherein the total amount of Lactobacillus paracasei LPc-G110 deposited as CCTCC M 2013691 is in the range from 0.01 to 100 %, more preferably in the range from 0.1 to 50 %, most preferably in the range from 1 to 10 %, in each case with respect to the total weight of the composition, and/or wherein the total amount of Lactobacillus paracasei LPc-G110 deposited as CCTCC M 2013691 is in the range from 1 x 10 3 to 1 x 10 11 colony forming units (CFU), more preferably in the range from 1 x 10 5 to 1 x 10 10 CFU, for use in the treatment and/or prevention of periodontal disease, preferably by altering the bacterial composition of oral biofilms derived from saliva.	Symrise AG, 37603 Holzminden, DE, 101210717 | PROBI AB, 223 70 Lund, SE, 100202684 | SYMRISE AG | PROBI AB	2020-01-01	2016-01-19
EP3374010B1	MANUALLY ACTUATABLE INHALER	The invention relates to a manually actuatable inhaler (1) for dispensing a powdered substance, in particular a pharmaceutical substance, said inhaler (1) comprising a storage chamber, a discharge duct (13) and a metering chamber (19); the discharge duct extends into the storage chamber (12), and the metering chamber (19) and the discharge duct (13) are movable relative to each other. In order to provide an inhaler for dispensing a powdered substance in which the metering chamber can be filled advantageously, according to the invention, the discharge duct (13) is rotatable about an axis of rotation (A), and the	1. Hand-operated inhaler (1) for dispensing a powdery substance, in particular a pharmaceutical substance, comprising a storage chamber, a discharge channel (13) and a dosing chamber (19), the discharge channel protruding into the storage chamber (12) and the dosing chamber (19) and the discharge channel (13) being movable relative to one another, the discharge channel (13) being rotatable about an axis of rotation (A) and it being possible to fill the dosing chamber (19) in the course of a rotation of the discharge channel (13), characterised in that the dosing chamber (19) comprises, on the side thereof opposite	Von Schuckmann Alfred, 47627 Kevelaer, DE, 101149386 | SCHUCKMANN ALFRED VON	2020-01-01	2015-11-13

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		metering chamber (19) can be filled as the discharge duct (13) rotates. The invention further relates to a manually actuated inhaler (1) for dispensing a powdered substance, in particular a pharmaceutical substance, said inhaler (1) comprising a storage chamber (12), a mouthpiece (4), a discharge duct (13) and a metering chamber (19); the metering chamber (19) can be moved from a closed into an open state, and vice versa. The invention also relates to a manually actuated inhaler (1) for dispensing a powdered substance, in particular a pharmaceutical substance, said inhaler (1) comprising a discharge duct (13) in which a vortexing means (14) is arranged; the vortexing means has a spiraling wall and has to be penetrated when air containing the substance is dispensed.	the discharge channel (13), an opening which can be closed by a stopper (28), and in that the dosing chamber (19) can be lifted up from the stopper (28).			
EP3240530B1	UNIT FOR THE MICRONIZATION AND DOSAGE OF SOLID ACTIVE AGENTS	The invention relates to a unit for the micronization of a solid active agent, such as a salt, preferably table salt (NaCI), for inhalation, comprising a micronizer driven by a motor. The unit according to the invention is characterised in that micronization is performed by a unit constituted by a closed rotary drum (2) receiving a solid active agent having the same grain size, preferably 0.1-4 mm, as table salt (NaCI), where the wall surfaces of the micronizer unit are made at least in part of a material having a filtering capacity of 0.1-1000 µm, the material preferably being a mesh-like or microperforated material. A further unit according to the invention is characterised in that the micronizer consists of a rotary block (23) made of the active agent, a friction block (24) adapted to be in frictioning relation with the rotary block, and a clamping mechanism (25) adapted for holding the friction block (24) in position and for clamping the friction block (24) to the rotary block (23), the micronizer being disposed in a closed housing (11), and the wall surfaces of the housing (11) being at least in part made of a material having a filtering capacity of 0.1-1000 µm.	1. Unit (1) for the micronization of a solid active agent to be micronized for inhalation purposes, such as a salt, preferably table salt (NaCI), comprising a micronizer driven by a motor (3), wherein micronization is performed by a unit constituted by a closed rotary drum (2) containing a solid active agent having the same grain size, preferably 0.1-4 mm, as table salt (NaCI), where the wall surfaces of the micronizer unit are made at least in part_of a material having a filtering capacity of 0.1-1000 µm, the material preferably being a mesh-like or microperforated material.	Kókai Tamás, 1126 Budapest, HU, 101390295 | KOKAI TAMAS	2020-01-29	2014-12-30
EP3229621B1	AEROSOL PROVISION SYSTEMS	An apparatus for an electronic aerosol provision system (10). The apparatus may comprise a replaceable cartridge (30) for the electronic aerosol provision system or may comprise a fixed component of a re-fillable or disposable electronic aerosol provision system. The apparatus comprises a reservoir (38) for a source liquid and a carrier module (160) supported within the reservoir. The carrier module defines an airflow path within the reservoir and comprises a heating element (103) supported in the airflow path for generating an aerosol from the source liquid and first and second mounting parts (101, 102) which cooperatively engage to support the heating element. The first and	1. An apparatus (30) for an electronic aerosol provision system (10), the apparatus comprising: a reservoir (38) for a source liquid; and a carrier module (160) that defines an airflow path (120) within the reservoir and comprises a heating element (103) supported in the airflow path within the reservoir for generating an aerosol from the source liquid, wherein the carrier module comprises a first part (101) and a second part (102) which cooperatively engage to support the heating element, wherein the first part and the second part of the carrier module cooperatively engage at an interface which extends in a direction that is substantially parallel to a direction along which	Nicoventures Holdings Limited, London WC2R 3LA, GB, 101423781 | NICOVENTURES HOLDINGS LTD	2020-01-01	2014-12-11

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		second mounting parts of the carrier module cooperatively engage at an interface which extends in a direction that is substantially parallel to a direction along which air flows in the airflow path when the apparatus is in normal use. A gap (120) between the first and second mounting parts may provide a capillary channel (200) for drawing source liquid to the heating element from the reservoir heating during use.	air flows in the airflow path when the apparatus is in normal use, characterised in that : the heating element comprises a sheet material extending in a plane which is substantially parallel to the interface between the first part and the second part.			
EP3369327B1	ATOMIZER, ATOMIZING ASSEMBLY AND INHALER	An atomizer (100) configured to be located inside a sleeve (300) of an inhaler (1), the atomizer (100) comprising:a housing (110) defining an air flow passage (113) therein and having a liquid reservoir (115) for storing liquid;a negative electrode connecting element (170) comprising a negative electrode connecting element body (172) and a boss (174), wherein an end of the housing (110) or the negative electrode connecting element (170) defines a cavity (117), the cavity (117) is in communication with the air flow passage (113); the negative electrode connecting element body (172) defines an air inlet (173) in communication with the cavity (117), wherein the boss (174) is located at an outer periphery of the negative electrode connecting element body (172); the negative electrode connecting element body (172) is electrically connected to the boss (174); and an atomizing element located in the cavity (117).	1. An atomizing assembly (10) for an inhaler (1), comprising: a sleeve (300); a mouthpiece (200) located at an end of the sleeve (300); and an atomizer (100) located in the sleeve (300); characterized in that the atomizer (100) comprises: a housing (110) defining an air flow passage (113) therein and having a liquid reservoir (115) for storing liquid; a negative electrode connecting element (170) comprising a negative electrode connecting element body (172) and a boss (174), wherein an end of the housing (110) or the negative electrode connecting element (170) defines a cavity (117), or the negative electrode connecting element (170) and the housing (110) cooperatively forms a cavity (117), the cavity (117) is in communication with the air flow passage (113); the negative electrode connecting element body (172) defines an air inlet (173) in communication with the cavity (117) and an outside of the negative electrode connecting element body (172); wherein the boss (174) is located at an outer periphery of the negative electrode connecting element body (172); the negative electrode connecting element body (172) and the boss (174) are conductors; the negative electrode connecting element body (172) is electrically connected to the boss (174); and an atomizing element located in the cavity (117), the liquid in the liquid reservoir (115) being capable of flowing into the atomizing element; the sleeve (300) comprises: an abutting portion (320), which is a conductor, the abutting portion (320) is in contact with the boss (174), thus implementing an electrical connection between the abutting portion (320) and the boss (174); and a first sleeve (340), a second sleeve (360), and a third sleeve (380), which are coaxially arranged, wherein an end of the first sleeve (340) is in contact with an end of the second sleeve (360), the third sleeve (380) sleeves on an outside of the first sleeve (340) and the second sleeve (360), such that the first sleeve (340) and the second sleeve (360) are fixed together, the second sleeve (360) is a conductor, and the abutting portion (320) is located in an inner wall of the second sleeve (360), such that the abutting portion (320) is electrically connected to the second sleeve (360), the second	Shenzhen Smoore Technology Limited, Shenzhen, Guangdong 518102, CN, 101707028 | SHENZHEN SMOORE TECHNOLOGY LTD	2020-01-22	2014-10-29

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			sleeve (360) is provided with an internal thread, such that the second sleeve (360) is capable of being threadedly engaged with a power assembly (40) provided with an external thread.			
EP3157518B1	6-HYDROXY-2, 5, 7, 8-TETRAMETHYLCHROMAN-COMPOUNDS FOR THE TREATMENT OF CHRONIC OBSTRUCTIVE AIRWAY DISEASES	The present invention relates to compounds for the treatment of chronic obstructive airway diseases such as chronic obstructive pulmonary disease (COPD) or asthma or bronchiectasis. The present invention further relates to drug delivery devices suitable to be used in the treatment of chronic obstructive airway diseases such as a nebulizer comprising the present compounds. Specifically, the present invention relates to (6-hydroxy-2, 5, 7, 8-tetramethylchroman-2-yl)(piperazin-1-yl)methanone or N, 6-dihydroxy-2, 5, 7, 8-tetramethylchroman-2-carboxamide or a pharmaceutically acceptable salt or base thereof for use in the treatment of chronic obstructive airway diseases, preferably chronic obstructive pulmonary disease (COPD) or asthma or bronchiectasis, more preferably chronic obstructive pulmonary disease (COPD).	1. Compound according to the formula (6-hydroxy-2, 5, 7, 8-tetramethylchroman-2-yl)(piperazin-1-yl)methanone or N, 6-dihydroxy-2, 5, 7, 8-tetramethylchroman-2-carboxamide or a pharmaceutically acceptable salt or base thereof for use in the treatment of chronic obstructive airway diseases, preferably chronic obstructive pulmonary disease (COPD) or asthma or bronchiectasis. | 6. Compound according to formula (I) or a pharmaceutically salt thereof for use in the treatment of chronic obstructive airway diseases, - wherein R1 and R2 are the same, and represent a methyl or isopropyl; - wherein R3 represents a hydrogen; - n is 1; - wherein R4 is CO-N-R5, wherein the C=O is bound to the trolox moiety, and wherein R5 is an alkyl group, optionally substituted with nitrogen and/or oxygen, wherein the alkyl group comprises 1-12 carbon atoms, and wherein nitrogen is selected from the group consisting of amine, quaternary amine, guanidine or imine, and oxygen is selected from the group consisting of hydroxyl or carbonyl, and wherein oxygen and nitrogen together may form amide, urea or carbamate groups; - wherein the alkyl group in R5 comprises one cyclic structure - wherein the molecular weight of R4 is less than 300 Da; wherein the compound is in a formulation suitable for inhalation.	Sulfateq B.V., 9726 GN Groningen, NL, 101568228 | SULFATEQ B V	2020-01-15	2014-06-17
EP2957552B1	VILANTEROL FORMULATIONS	The present invention relates to a pharmaceutical formulation for inhalation comprising vilanterol as an active agent, a carrier and magnesium stearate in the treatment and prophylaxis of respiratory diseases such as asthma, chronic obstructive pulmonary disease (COPD) as well as to a process for producing this formulation.	1. A dry powder formulation for inhalation comprising: - vilanterol or a pharmaceutically acceptable salt thereof, - coarse carrier, - fine carrier, and - magnesium stearate, characterized in that the ratio of the volume median diameter of the fine carrier to the volume median diameter of the magnesium stearate is 1:1 and the volume median diameter of the magnesium stearate is between 1µm and 120 µm.	Arven Ilac Sanayi Ve Ticaret A.S., 34460 Istanbul, TR, 101834291 | ARVEN ILAC SANAYI VE TICARET AS	2020-01-22	2014-06-16
EP2957551B1	DRY POWDER FORMULATIONS COMPRISING VILANTEROL	The present invention relates to a pharmaceutical formulation for inhalation comprising vilanterol as an active agent, a carrier and magnesium stearate in the treatment and prophylaxis of respiratory diseases such as asthma, chronic obstructive pulmonary disease (COPD) as well as to a process for producing this formulation.	1. A dry powder formulation for inhalation comprising: - vilanterol or a pharmaceutically acceptable salt thereof, - a pharmaceutically acceptable carrier, and - magnesium stearat, wherein; the ratio of the volume median diameter of the magnesium stearate to the volume median diameter of the pharmaceutically acceptable carrier is between 1:1 and 1:100, and the amount of magnesium stearate is less than 1.5% by weight based on the total amount of the dry powder formulation.	Arven Ilac Sanayi Ve Ticaret A.S., Istanbul 34460, TR, 101833857 | ARVEN ILAC SANAYI VE TICARET AS	2020-01-15	2014-06-16

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EP3151891B1	LIQUID DRUG CARTRIDGES AND ASSOCIATED DISPENSER	Liquid drug cartridges and an associated inhaler are used to deliver one more separate doses of an aerosolized liquid drug. A cartridge includes a container for storing the liquid drug, an end cap having an ejection opening, a filter element, and a piston that is repositionable relative to the container to selectively eject a volume of liquid drug from the ejection opening. The filter element filters the liquid drug prior to ejection from the ejection opening. The liquid drug cartridge can be coupled with an inhaler that includes an aerosol generator. The aerosol generator includes a vibratable membrane onto which the liquid drug is ejected. The liquid drug is aerosolized by the vibration of the membrane for inhalation by a user.	1. An aerosolization system, comprising: an aerosol generator including a vibratable membrane (64) having a front face and a rear face, and a vibratable element used to vibrate the membrane (64); a housing defining a mouthpiece, the housing including a receptacle (48, 330, 444) configured to at least partially receive a liquid drug cartridge (10, 110, 210, 310, 430) and interface with the liquid drug cartridge (10, 110, 210, 310, 430) to position an ejection opening (22) of the liquid drug cartridge (10, 110, 210, 310, 430) to dispense liquid drug directly onto the rear face of the vibratable membrane (64) to be aerosolized by controlled vibration of the vibratable element; an actuator configured to reposition a piston (20) of the liquid drug cartridge (10, 110, 210, 310, 430) to dispense a dosage of the drug via the ejection opening (22) to the rear face of the vibratable membrane (64), a mixing chamber (56, 72) in fluid communication with the front face of the vibratable membrane (64) and the mouthpiece; characterised in that the system further comprises one or more air inlets (68) in fluid communication with the mixing chamber (56, 72) and configured to inlet air into the mixing chamber (56, 72) in response to a user inhaling via the mouthpiece; and an air flow restrictor array having greater resistance to air flow than the one or more air inlets (68) and placing the mixing chamber (56, 72) in fluid communication with the one or more air inlets (68).	Aerami Therapeutics Inc., Durham, NC 27713, US, 101854639 | DANCE BIOPHARM INC	2020-01-15	2014-06-09
EP3148366B1	DEVICE FOR DELIVERY OF SKIN CARE COMPOSITION	A novel device and method for delivering a liquid containing an active ingredient to a treatment site on the skin is disclosed. The device is useful for treating lesions or abnormal skin features such as corns, warts, calluses, bunions, actinic keratoses and hard hyperkeratotic skin as is often found on the face, arms, legs or feet.	1. A layered delivery system (10, 110) for a skin care composition, the system comprising: a. Flexible cover layer (12, 112) forming an upper surface of the delivery system removably attached to a coupling layer (14, 114), the coupling layer having an upper surface (16, 116) in facing relation to the flexible cover layer, an opposite lower surface (18, 118), an outer perimeter, and defining an interior void volume (24, 124) substantially closed by the flexible cover layer; b. A first adhesive layer (20) disposed on a lower surface of the delivery system and protected by a removable release liner (22, 122); and c. A reservoir (26, 126) associated with the flexible cover layer, disposed in fluid communication with the interior void volume, and carrying the skin care composition, wherein the reservoir is attached to a lower surface of the flexible cover layer and extends therefrom into the interior void volume. 9. A method of delivering multiple doses of one or more compositions to a skin care area, comprising the steps of: a. Applying to the skin a layered delivery system comprising: i. A first flexible cover layer forming an upper surface of the delivery system removably	JOHNSON & JOHNSON CONSUMER INC., Skillman, NJ 08558, US, 101547414 | JOHNSON & JOHNSON CONSUMER INC	2020-01-15	2014-05-30

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			attached to a coupling layer, the coupling layer having an upper surface in facing relation to the flexible cover layer, an opposite lower surface, an outer perimeter, and defining an interior void volume substantially closed by the flexible cover layer; ii. A first adhesive layer disposed on a lower surface of the delivery system; and iii. A first reservoir associated with the flexible cover layer, disposed in fluid communication with the interior void volume, and carrying a first composition, wherein the reservoir is attached to a lower surface of the flexible cover layer and extends therefrom into the interior void volume; Whereby the outer perimeter of the coupling layer surrounds a desired skin care area, the skin care area is in facing relation to the interior void volume, and the first adhesive layer attaches the layered delivery system to the skin; b. Releasing the first composition from the first reservoir to the interior void volume whereby the composition is in fluid communication with the skin care area; c. Removing the first flexible cover layer and first reservoir from the layered delivery system while the first adhesive maintains the coupling layer to the skin and applying a second flexible cover layer and second reservoir associated therewith substantially the same as the first flexible cover layer and first reservoir to the upper surface of the coupling layer; and d. Releasing a second composition from the second reservoir into the interior void volume.			
EP3138423B1	NON-BURNING-TYPE FLAVOR INHALER	A non-burning type flavor inhaler, comprises: a housing having an airflow path that continues from an inlet to an outlet; an atomizer configured to atomize an aerosol source without burning; a sensor including a capacitor, the sensor outputting a value indicating electric capacitance of the capacitor, the electric capacitance changed depending on a puff action of a user; and a controller configured to detect a start or an end of a puff duration on the basis of an output value that is output from the sensor. The controller detects the start or the end of the puff duration when an inclination formed by two or more of the output values has a predetermined sign and when an absolute value of the inclination having the predetermined sign is larger than a predetermined value.	1. A non-burning type flavor inhaler (100), comprising: a housing (124) having an airflow path (122) that continues from an inlet (125) to an outlet (141); an atomizer (80) configured to atomize an aerosol source without burning; a sensor (20) including a capacitor, the sensor (20) outputting a value indicating electric capacitance of the capacitor, the electric capacitance changes depending on a puff action of a user; and a controller (50) configured to detect a start or an end of a puff duration on the basis of an output value that is output from the sensor (20), characterized in that the controller (50) is configured to detect the start or the end of the puff duration when an inclination formed by two or more of the output values has a predetermined sign and when an absolute value of the inclination having the predetermined sign is larger than a predetermined value.	Japan Tobacco Inc., Tokyo 105-8422, JP, 101041048 | JAPAN TOBACCO INC	2020-01-01	2014-05-02
EP3113816B1	DEVICE FOR PROVIDING A CONSTANT AMOUNT OF AEROSOL AND CONTROL SYSTEM	The invention relates to a device (10) for providing an aerosol from an aerosolizable material, the device comprising an aerosolization unit (300) through which pressure pulses of a carrier gas (60) are passed; a reservoir (100) comprising the	1. A device (10) for providing an aerosol from an aerosolizable material, the device comprising: - an aerosolization unit (300) through which pressure pulses of a carrier gas (60) are passed, - a reservoir (100) comprising the aerosolizable material and which	Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., 80686 München, DE, 100125356 | TA-KEDA GMBH	2020-01-08	2014-03-05

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		aerosolizable material and which provides the aerosolizable material to the aerosolization unit (300) where the aerosolizable material is entrained by the carrier gas (60); a material providing valve (210) located between the reservoir (100) and the aerosolization unit (300) which opens in direction of the aerosolization unit (300) and which is opened and closed by a pressure difference between the reservoir (100) and the aerosolization unit (300) and which provides, in an open state, the aerosolizable material to the aerosolization unit (300).	provides the aerosolizable material to the aerosolization unit (300) where the aerosolizable material is entrained by the carrier gas (60), - a duckbill valve (210) located between the reservoir (100) and the aerosolization unit (300) which opens towards the aerosolization unit (300) and wherein the duckbill valve (210) is configured in such a way that it is closed when no pressure difference between the reservoir (100) and the aerosolization unit (300) exists and is open when the pressure difference between the reservoir (100) and the aerosolization unit (300) is larger than a predefined positive value, and which provides, in an open state, the aerosolizable material to the aerosolization unit (300), and - a control module (200) for controlling the duckbill valve (210) configured to control the amount of aerosolizable material provided to the aerosolization unit (300), wherein the control module (200) comprises a force applying element (250) providing a mechanical force applied to the duckbill valve (210), the force applying element (250) via the applied mechanical force influencing the amount of aerosolizable material provided to the aerosolization unit (300) by controlling an opening degree of the duckbill valve (210), wherein the force applying element (250) is fixedly connected to the duckbill valve (210) in such a way that it is configured to apply a pulling force to the duckbill valve (210) to actively open the duckbill valve (210), and to apply a compression force in a direction opposite to the pulling force by which a preload is applied to the duckbill valve (210) which controls the opening degree of the duckbill valve (210) when the duckbill valve (210) is opened by a pressure pulse. | 11. A control system comprising: - a duckbill valve (210) configured to supply a fluid in a flow direction and configured to prevent flow of the fluid in a direction opposite to the flow direction, - a control module (200) configured to control the amount of fluid supplied by the duckbill valve (210) in the flow direction in an open state of the duckbill valve (210), wherein the control module (200) comprises a force applying element (250) configured to apply a mechanical force onto the duckbill valve (210), the force applying element (250), with the applied mechanical force, being configured to influence the amount of fluid provided by the duckbill valve (210) in the open state , characterized in that the force applying element (250) is fixedly connected to the duckbill valve (210) in such a way that it is configured to apply a pulling force to the duckbill valve (210) to actively open the duckbill valve (210), and to apply a compression force in a direction opposite to the pulling force by which a preload is applied to the			

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			duckbill valve (210) which controls the opening degree of the duckbill valve (210) when the duckbill valve (210) is opened by a pressure pulse.			
EP3083614B1	NRF2 REGULATORS	The present invention relates to bis aryl analogs, pharmaceutical compositions containing them and their use as Nrf2 regulators.	1. A compound of formula (Ia) wherein: R 1 is hydrogen, CH 2 C(O)N(R 7) 2 , CH 2 -(4- methyl-1, 3 dioxol-2-one), C 1-3 alkyl-OH, C 1-3 alkyl, C 1-5 alkyl-N(R 7) 2 , (CH 2) n -morpholinyl, (CH 2) n -furyl, CH 2 -O-C(O)-C 1-5 alkyl, (CH 2) n -imidazolyl, (CH 2) n -pyrrolidinyl, (CH 2) n -piperidyl or 2-oxotetrahydrofura-3-nyl; Wherein the morpholinyl, and piperidyl is unsubstituted or substituted by one or two C 1-3 alkyl groups; and the pyrrolidinyl, imidazolyl and furyl is unsubstituted or substituted by one or two groups independently selected from C 1-3 alkyl, halo,] and O-C 1-3 alkyl; R 2 is Phenyl, which is unsubstituted or substituted by one, two, or three groups independently selected from CN, F, C(O)NH 2 , C(O)CH 3), O-C 1-3 alkyl, C 1-3 alkyl, CF 3 , [] and O-CF 3 ; or Benzotriazolyl, which is unsubstituted or substituted by one, two or three groups independently selected from -O-C 1-3 alkyl, F, Cl, CF 3 , OCF 3 [] and C 1-3 alkyl; or (CH 2) n -Triazolyl which is unsubstituted or substituted by one or two groups independently selected from C 1-3 alkyl and -CH 2 -phenyl; or Pyridyl which is unsubstituted or substituted by one, two, or three groups independently selected from C 1-3 alkyl, F, OCH 3 , and =O; or triazolo pyridyl which is unsubstituted or substituted by one or two groups independently selected from -O-C 1-3 alkyl, F, and C 1-3 alkyl; R 3 is R 4 -SO 2 -N(R 6)-; R 4 is Phenyl, C 5-6 cycloalkyl, Thienyl, Imidazolyl, Pyridyl, Piperidyl, Tetrahydro-2H-pyranyl, C 1-3 alkyl or Each of which is unsubstituted or substituted by one or two groups independently selected from C 1-3 alkyl, NH-C (O)-CH 3 , O-C 1-3 alkyl, C(O)-CH 3 , =O, and OH; or R 3 is X is CH 2 , NR 6 or O; Y is independently N or CH; provided one Y is CH; Z is independently O, CH 2 , or NR 10 ; R 5 is hydrogen, C 1-3 alkyl, Cl, F, or CF 3 R 6 is independently hydrogen or C 1-3 alkyl; R 7 is independently hydrogen or C 1-3 alkyl; R 8 is hydrogen or C 1-3 alkyl; R 9 is hydrogen or C 1-3 alkyl; R 10 is C(O)-CH 3 ; R 11 is hydrogen or F; n is independently 0, 1, 2, or 3; and m is 1 or 2; or a pharmaceutically acceptable salt thereof. 6. A compound which is (S)-3-(3-(((R)-4-ethyl-1, 1-dioxido-3, 4-dihydro-2H-pyrido[2, 3-b][1, 4, 5]oxathiazepin-2-yl)methyl)-4-methylphenyl)-3-(1-ethyl-4-methyl-1H-benzo[d][1, 2, 3]triazol-5-yl)propanoic acid or a pharmaceutically acceptable salt thereof. | 7. A compound which is 3-(3-(((R)-4-ethyl-1, 1-dioxido-3, 4-dihydro-2H-pyrido[2, 3-b][1, 4, 5]oxathiazepin-2-	GlaxoSmithKline Intellectual Property Development Limited, Brentford, Middlesex TW8 9GS, GB, 101363041 | Astex Therapeutics Limited, Cambridge Cambridgeshire CB4 0QA, GB, 101532777 | GLAXOSMITHKLINE IP DEV LTD | ASTEX THERAPEUTICS LTD	2020-01-15	2013-12-18

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			yl)methyl)-4-methylphenyl)-3-(1-ethyl-4-methyl-1H-benzo[d][1, 2, 3]triazol-5-yl)propanoic acid or a pharmaceutically acceptable salt thereof. 8. A compound which is (R)-3-(3-(((R)-4-ethyl-1, 1-dioxido-3, 4-dihydro-2H-pyrido[2, 3-b][1, 4, 5]oxathiazepin-2-yl)methyl)-4-methylphenyl)-3-(1-ethyl-4-methyl-1H-benzo[d][1, 2, 3]triazol-5-yl)propanoic acid or pharmaceutically acceptable salt thereof.			
EP3311845B1	THERAPEUTIC POLYMERIC NANOPARTICLES AND METHODS OF MAKING AND USING SAME	Described herein are polymeric nanoparticles that include a therapeutic agent which is 2-(3-((7-(3-(ethyl(2-hydroxyethyl)amino)propoxy)quinazolin-4-yl)amino)-1H-pyrazol-5-yl)-N-(3-fluorophenyl)acetamide (also known as AZD1152 hqpa) or a pharmaceutically acceptable salt thereof, and methods of making and using such therapeutic nanoparticles.	1. A therapeutic nanoparticle comprising 2-(3-((7-(3-(ethyl(2-hydroxyethyl)amino)propoxy)quinazolin-4-yl)amino)-1H-pyrazol-5-yl)-N-(3-fluorophenyl)acetamide (AZD1152 hqpa), comprising 50 to 99.75 weight percent of a diblock poly(lactic) acid-poly(ethylene)glycol copolymer, wherein the therapeutic nanoparticle comprises 10 to 30 weight percent poly(ethylene)glycol, and wherein the therapeutic nanoparticle comprises a substantially hydrophobic acid.	Astrazeneca AB, 151 85 Södertälje, SE, 101362842 | ASTRAZENECA AB	2020-01-15	2013-09-16
EP3033346B1	DERIVATIVES OF UNCIALAMYCIN, METHODS OF SYNTHESIS AND THEIR USE AS ANTITUMOR AGENTS	In one aspect, the present disclosure provides new analogs of uncialamycin of formulae (I) and (II). The present disclosure also provides novel synthetic pathways to obtaining uncialamycin and analogs thereof. Additionally, the present disclosure also describes methods of use of uncialamycin and analogs thereof. In another aspect, the present disclosure provides antibody-drug conjugates comprising the compounds of formulae (I) and (ll).	1. A compound of the formula: wherein: R 1 and R 2 are each independently selected from hydrogen, hydroxy, alkyl (C1-12) , substituted aikyl (C1-12) , alkenyl (C2-12) , substituted alkenyl (C2 - 12), alkynyl (C2-12) , substituted alkynyl (C2-12) , aryl (C6-12) , substituted aryl (C6-12) , aralkyl (C7-12) , substituted aralkyl (C7-12) , heteroaryl (C1-12) , substituted heteroaryl (C1-12) , heterocycloalkyl (C2-12) , substituted heterocycloalkyl (C2-12) , acyl (C1-12) , substituted acyl (C1-12) , acyloxy (C1-12) , substituted acyloxy (C1-12) , alkylamino (C1-12) , substituted alkylamino (C1-12) ; a monovalent amine protecting group, -C(O)O(CH 2) n S-A 1 , -C(O)O(CH 2) n S(O)-A 1 , or -C(O)O(CH 2) n S(O) 2 -A 1 , wherein: A 1 is aryl (C6-12) or substituted aryl (C6-12) ; and n is 1, 2, 3, 4, or 5; or R 1 and R 2 are taken together and form a divalent amine protecting group, R 3 is hydrogen, hydroxy, halo, or alkoxy (C1-12) or substituted alkoxy (C1-12) ; o is 1, 2, or 3; R 4 is hydrogen, a monovalent amine protecting group, alkyl (C1-12) , or substituted alkyl (C1-12) ; R 5 , R 6 , and R 7 are each independently hydrogen, hydroxy, amino, mercapto, -OX 1 , -NX 2 X 3 , or -SX 4 ; or alkyl (C1-12) or substituted alkyl (C1-12) ; wherein: X 1 is a hydroxy protecting group; X 2 and X 3 are independently selected from hydrogen, a monovalent amine protecting group, or when X 2 and X 3 are taken together form a divalent amine protecting group; and X 4 is a thiol protecting group; and R 8 is hydroxy, amino, or mercapto; wherein: each amine protecting group is independently selected from the list consisting of formyl, acetyl, propionyl, pivaloyl, t-butylacetyl, 2-	William Marsh Rice University, Houston, TX 77005, US, 101755184 | Bristol-Myers Squibb Company, Princeton, NJ 08543-4000, US, 101495202 | The Scripps Research Institute, La Jolla, CA 92037, US, 101046342 | UNIV RICE WILLIAM M | SQUIBB BRISTOL MYERS CO | SCRIPPS RESEARCH INST	2020-01-08	2013-08-14

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			chloroacetyl, 2-bromoacetyl, trifluoroacetyl, trichloroacetyl, o-nitrophenoxyacetyl, α-chlorobutyryl, benzoyl, 4-chlorobenzoyl, 4-bromobenzoyl, 4-nitrobenzoyl, a sulfonyl group, an aralkyl group, and a silyl group; the hydroxyl protecting group is selected from the list consisting of as formyl, acetyl, propionyl, pivaloyl, t-butylacetyl, 2-chloroacetyl, 2-bromoacetyl, trifluoroacetyl, trichloroacetyl, o-nitrophenoxyacetyl, α-chlorobutyryl, benzoyl, 4-chlorobenzoyl, 4-bromobenzoyl, 4-nitrobenzoyl, a sulfonyl group, an acyloxy group, an aralkyl group, and a silyl group; and the thiol protecting group is selected from the list consisting of formyl, acetyl, propionyl, pivaloyl, t-butylacetyl, 2-chloroacetyl, 2-bromoacetyl, trifluoroacetyl, trichloroacetyl, o-nitrophenoxyacetyl, α-chlorobutyryl, benzoyl, 4-chlorobenzoyl, 4-bromobenzoyl, 4-nitrobenzoyl, a sulfonyl group, an acyloxy group, an aralkyl group, and a silyl group; or a pharmaceutically acceptable salt thereof.			
EP2970410B1	MITOCHONDRIAL-DERIVED PEPTIDE MOTS3 REGULATES METABOLISM AND CELL SURVIVAL	MOTS3 is a novel polypeptide. Methods of treating diseases such as diabetes, obesity, fatty liver, and cancer using MOTS3 and pharmaceutical compositions thereof are disclosed herein.	1. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 1. 2. An isolated antibody that specifically binds to the polypeptide of SEQ ID NO:1. 10. An isolated nucleic acid that comprises a nucleic acid sequence that encodes a polypeptide that comprises the amino acid sequence of SEQ ID NO: 1. 15. A method of making a peptide that comprises the amino acid sequence of SEQ ID NO: 1, the method comprising: synthesizing the peptide on an automated peptide synthesizer, optionally purifying the peptide by reversed phase HPLC, and optionally lyophilizing the purified peptide.	The Regents of the University of California, Oakland, CA 94607, US, 100236880 | UNIV CALIFORNIA	2020-01-22	2013-03-15
EP2726090B1	ARGININE - FREE TNFR : FC- FUSION POLYPEPTIDE COMPOSITIONS	Aspects of the invention are directed to arginine-free polypeptide-containing compositions and methods for treating disorders associated with inflammation or the autoimmune response. In particular, the polypeptide is etanercept.	1. A composition, comprising: an isolated polypeptide that is an extracellular ligand-binding portion of a human p75 tumor necrosis factor receptor fused to the Fc region of a human IgG1; salt at a concentration of greater than 50 mM to prevent aggregation of the isolated polypeptide, thereby stabilizing the composition; an aqueous buffer at a concentration of less than 100 mM, wherein the aqueous buffer is sodium phosphate, potassium phosphate, sodium or potassium citrate, maleic acid, ammonium acetate, tris-(hydroxymethyl)-aminomethane (tris), acetate, diethanolamine or a combination thereof; and a polyol or sugar, wherein the composition does not contain free amino acids. 9. A stable composition, comprising: an isolated polypeptide that is an extracellular ligand-binding portion of a human p75 tumor necrosis factor receptor fused to the Fc region of a human IgG1; aqueous buffer at a	Biogen MA Inc., Cambridge, MA 02142, US, 101654068 | BIOGEN MA INC	2020-01-01	2011-07-01

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			concentration of less than 25 mM, wherein the aqueous buffer is sodium phosphate, potassium phosphate, sodium or potassium citrate, maleic acid, ammonium acetate, tris-(hydroxymethyl)-aminomethane (tris), acetate, diethanolamine or a combination thereof; salt at a concentration of greater than 100 mM; and a polyol or sugar, wherein the composition is free of L-arginine or comprises L-arginine at a concentration of less than 1 mM. 11. A stable composition, consisting essentially of: an isolated polypeptide that is an extracellular ligand-binding portion of a human p75 tumor necrosis factor receptor fused to the Fc region of a human IgG1; aqueous buffer at a concentration of 10 mM; salt at a concentration of 140 mM; and sucrose.			
EP2714162B1	INHALER AND CAPSULE FOR AN INHALER	The invention relates to a capsule for receiving a preferably powdery pharmaceutical preparation and to an inhalator in which, for inhalation, the preparation exits the capsule through at least one hole. A capsule according to the invention has as capsule element, a capsule cap, and a capsule body, of which at least one has a prefabricated hole. Systems according to the invention comprise an inhalator and a capsule, wherein the prefabricated hole in the capsule is sealed in the transport state of the system, and open in the usage state. By activating a push or pull mechanism, the hole is opened. Prior to this, the hole is closed by a portion of the capsule itself or by a capsule receptacle that is part of the inhalator. In one embodiment, the capsule can be in two different states, for example, in different inserted positions of the capsule elements. In the first state, the prefabricated hole is closed, and in the second state it is open. A further system according to the invention consists of a capsule body that is open at the top and an inhalator, wherein the capsule which is open at the top in such a way is filled inside the inhalator.	1. System comprising an inhaler and a capsule (11, 71) which comprises a preferably powdered pharmaceutical preparation, wherein the capsule comprises two capsule elements open at one end, namely a capsule body (2) and a capsule cap (1), which can be fitted into one another telescopically through their openings, so as to form a cavity, and wherein the inhaler comprises a capsule chamber (13, 74) for receiving a capsule (11, 71), wherein the capsule chamber (13, 74) comprises an air inlet and an air outlet leading towards a mouthpiece (78) and the capsule (11, 71) can be inserted in the capsule chamber (13, 74) from a capsule receptacle, characterised in that at least one of the two capsule elements comprises at least one prefabricated hole (7, 6) in addition to the opening at one end and the inhaler comprises a pusher (14, 77), which when actuated causes the capsule (11, 71) and the capsule receptacle, from which the capsule is inserted into the capsule chamber (13, 74), to be moved relative to each other, such that at least one prefabricated hole (6, 7, 72a, 72b) is exposed on the capsule (11, 71). 6. System from an inhaler and a capsule (11, 71) which comprises a preferably powdered pharmaceutical preparation, wherein the capsule comprises two capsule elements open at one end, namely a capsule body (2) and a capsule cap (1), which can be fitted into one another telescopically through their openings, so as to form a cavity, and wherein the inhaler comprises a capsule chamber (13, 74) for receiving a capsule (11, 71), wherein the capsule chamber (13, 74) comprises an air inlet and an air outlet leading towards a mouthpiece (78) and the capsule (11, 71) is inserted in the capsule chamber (13, 74), characterised in that at least one of the two capsule elements comprises at least one prefabricated hole (7, 6) in	Boehringer Ingelheim International GmbH, 55216 Ingelheim am Rhein, DE, 100089526 | BOEHRINGER INGELHEIM INT	2020-01-01	2011-05-27

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			addition to the opening at one end and the inhaler comprises a pusher (14, 77), which when actuated causes the capsule (11, 71) and an annular component to be moved relative to each other, such that at least one prefabricated hole (6, 7, 72a, 72b) is exposed on the capsule (11, 71).			
EP2701708B1	SMALL MOLECULE TRAIL GENE INDUCTION BY NORMAL AND TUMOR CELLS AS AN ANTI-CANCER THERAPY	Methods and compositions relating to TIC10 are described according to aspects of the present invention. The compositions and methods have utility in treating disease, particularly cancer in a subject in need thereof, including a human subject as well as subjects of other species. The compositions have utility in treating brain cancer in a subject in need thereof.	1. A pharmaceutical composition for use in a method of treatment of cancer, comprising the compound NSC350625, or a pharmaceutically acceptable salt thereof; and a pharmaceutically acceptable carrier.	The Penn State Research Foundation, University Park, PA 16802, US, 101007366 | PENN STATE RES FOUND	2020-01-22	2011-04-29
EP2675454B1	METHODS FOR CONTROLLING PAIN IN EQUINES USING A TRANSDERMAL SOLUTION OF FENTANYL	This invention provides methods of controlling pain in an equine for an effective period of time comprising transdermally administering a composition comprising fentanyl, a penetration enhancer, and a volatile liquid, wherein the composition is a solution. The invention also provides a single unit dose of the composition.	1. A transdermal solution composition comprising fentanyl, octyl salicylate, and a volatile liquid, in a therapeutically effective amount, for use in controlling pain in an equine in need thereof for an effective period of time by transdermal administration, wherein the fentanyl is administered at a dose of 0.01 to 0.1 mg/kg of weight of the equine.	Audevard, 92110 Clichy, FR, 101836455 | AUDEVARD	2020-01-22	2011-02-15
EP2635121B1	ISOFLAVONOID COMPOUNDS AND METHODS FOR THE TREATMENT OF CANCER	Provided herein is a pharmaceutical composition comprising at least one isoflavonoid. Also provided herein are methods of treating cancer, sensitizing cancer cells, and inducing apoptosis in cancer cells by administering such compositions.	1. A pharmaceutical composition comprising 3-(4-hydroxyphenyl)-4-(4-hydroxyphenyl)-8-methylchroman-7-ol: wherein the aryl substituents on the heterocyclic ring are cis relative to each other; or a pharmaceutically acceptable salt thereof. 4. A kit comprising a composition comprising 3-(4-hydroxyphenyl)-4-(4-hydroxyphenyl)-8-methylchroman-7-ol: wherein the aryl substituents on the heterocyclic ring are cis relative to each other; or a pharmaceutically acceptable salt thereof; and a sealable, plastic infusion bag. 6. A pharmaceutical composition for use in the treatment of cancer in an individual in need of cancer therapy, the composition comprising 3-(4-hydroxyphenyl)-4-(4-hydroxyphenyl)-8-methylchroman-7-ol: wherein the aryl substituents on the heterocyclic ring are cis relative to each other; or a pharmaceutically acceptable salt thereof. 12. A compound that is 3-(4-hydroxyphenyl)-4-(4-hydroxyphenyl)-8-methylchroman-7-ol: wherein the aryl substituents on the heterocyclic ring are cis relative to each other; or a pharmaceutically acceptable salt thereof.	MEI Pharma Inc., San Diego, CA 92130, US, 101711078 | MEI PHARMA INC	2020-01-08	2010-11-01
EP2635273B1	ISOFLAVONOID COMPOSITIONS AND METHODS FOR THE TREATMENT OF CANCER	Provided herein is a pharmaceutical composition comprising an isoflavonoid derivative and a cyclodextrin. Also provided herein are methods of treating cancer, sensitizing cancer cells, and inducing apoptosis in cancer cells by administering such compositions.	1. A pharmaceutical composition comprising: i) a compound of formula (II) or a pharmaceutically acceptable salt thereof: wherein: R 1 is methyl; R 2 is hydrogen; and R 3 is hydrogen; wherein the aryl substituents on the heterocyclic ring are cis relative to each other; and ii) a cyclodextrin.	MEI Pharma Inc., San Diego, CA 92130, US, 101711078 | MEI PHARMA INC	2020-01-08	2010-11-01

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		In specific instances, provided herein are intravenous compositions and therapies.				
EP3127540B1	CERTAIN AMINO-PYRIMIDINES, COMPOSITIONS THEREOF, AND METHODS FOR THEIR USE	Provided are compounds of Formula I: or a pharmaceutically acceptable salt thereof, wherein R1, R2, R3, R4, R5, R6, R7, R8, R9, X and m are as defined herein. Also provided is a pharmaceutically acceptable composition comprising a compound of Formula I, or a pharmaceutically acceptable salt thereof. Also provided are methods of using a compound of Formula I, or a pharmaceutically acceptable salt thereof.	1. A compound of Formula I: or a pharmaceutically acceptable salt thereof, wherein: R 1 is selected from hydrogen, halogen, CN, CF 3 and methyl; R 2 is selected from C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, 5-10 membered heteroaryl and NR b R c , wherein each of the C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 substituents selected from halogen, CN, oxo, (CH 2) n OR a , (CH 2) n OC(O)R a , (CH 2) n OC(O)OR a , (CH 2) n OC(O)NR b R c , (CH 2) n NR b R c , (CH 2) n NR d C(O)R a , (CH 2) n NR d C(O)OR a , (CH 2) n NR d C(O)NR b R c , (CH 2) n NR d C(O)C(O)NR b R c , (CH 2) n NR d C(S)R a , (CH 2) n NR d C(S)OR a , (CH 2) n NR d C(S)NR b R c , (CH 2) n NR d C(NR e)NR b R c , (CH 2) n NR d S(O)R a , (CH 2) n NR d SO 2 R a , (CH 2) n NR d SO 2 NR b R c , (CH 2) n C(O)R a , (CH 2) n C(O)OR a , (CH 2) n C(O)NR b R c , (CH 2) n C(S)R a , (CH 2) n C(S)OR a , (CH 2) n C(S)NR b R c , (CH 2) n C(NR e)NR b R c , (CH 2) n SR a , (CH 2) n S(O)R a , (CH 2) n SO 2 R a , (CH 2) n SO 2 NR b R c , C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, (CH 2) n C 3-8 cycloalkyl, (CH 2) n 3-8 membered heterocycloalkyl, (CH 2) n C 6-10 aryl and (CH 2) n 5-10 membered heteroaryl, wherein each of the C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, (CH 2) n C 3-8 cycloalkyl, (CH 2) n 3-8 membered heterocycloalkyl, (CH 2) n C 6-10 aryl and (CH 2) n 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 R f substituents; R 3 is selected from hydrogen, halogen, CN, CF 3 and methyl; R 4 is selected from hydrogen, C 1-6 alkyl, C 1-6 haloalkyl, C(O)R a , C(O)OR a , C(O)NR b R c and SO 2 R a ; R 5 and R 6 together with the carbon atom to which they are bound form a group selected from C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl and 3-8 membered heterocycloalkenyl, each optionally substituted with 1, 2, 3, 4 or 5 substituents selected from halogen, CN, oxo, OR a , OC(O)R a , OC(O)OR a , NR b R c , C(O)R a , C(O)OR a , C(O)NR b R c , S(O)R a , SO 2 R a , SO 2 NR b R c , C 1-6 alkyl and C 1-6 haloalkyl; R 7 is selected from C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl and 5-10 membered heteroaryl, each optionally substituted with 1, 2, 3, 4 or 5 substituents selected from halogen, CN, oxo, OR a , OC(O)R a , OC(O)OR a , OC(O)NR b R c , NR	Cytokinetics Inc., South San Francisco, CA 94080, US, 100106084 | CYTOKINETICS INC	2020-01-29	2010-04-23

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			b R c , NR d C(O)R a , NR d C(O)OR a , NR d C(O)NR b R c , NR d C(O)C(O)NR b R c , NR d C(S)R a , NR d C(S)OR a , NR d C(S)NR b R c , NR d C(NR e)NR b R c , NR d S(O)R a , NR d SO 2 R a , NR d SO 2 NR b R c , C(O)R a , C(O)OR a , C(O)NR b R c , C(S)R a , C(S)OR a , C(S)NR b R c , C(NR e)NR b R c , SR a , S(O)R a , SO 2 R a , SO 2 NR b R c , C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl, and 5-10 membered heteroaryl, wherein each of the C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 R f substituents; R 8 and R 9 , at each occurrence, are each independently selected from hydrogen, halogen and C 1-6 alkyl; X is a bond; or alternatively, X, R 2 and R 3 , together with the carbon atoms to which they are bound, form a 5-6 membered ring optionally containing one or more heteroatoms selected from oxygen nitrogen and sulfur, and optionally containing one or more double bonds, and optionally substituted with 1, 2, 3, 4 or 5 R f substituents; R a , at each occurrence, is independently selected from hydrogen, C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl, wherein each of the C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 R f substituents; R b and R c , at each occurrence, are each independently selected from hydrogen, C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl, 5-10 membered heteroaryl, C(O)R g , C(O)OR g , C(O)NR i R j and SO 2 R g , wherein each of the C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 R f substituents; R d , at each occurrence, is independently selected from hydrogen and C 1-6 alkyl; R e , at each occurrence, is independently selected from hydrogen, CN, OH, C 1-6 alkoxy, C 1-6 alkyl and C 1-6 haloalkyl; R f , at each			

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			occurrence, is independently selected from halogen, CN, OR h , OC(O)R h , OC(O)OR h , OC(O)NR i R j , NR i R j , NR d C(O)R h , NR d C(O)OR h , NR d C(O)NR i R j , NR d C(O)C(O)NR i R j , NR d C(S)R h , NR d C(S)OR h , NR d C(S)NR i R j , NR d C(NR e)NR i R j , NR d S(O)R h , NR d SO 2 R h , NR d SO 2 NR i R j , C(O)R h , C(O)OR h , C(O)NR i R j , C(S)R h , C(S)OR h , C(S)NR i R j , C(NR e)NR i R j , SR h , S(O)R h , SO 2 R h , SO 2 NR i R j , C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl, wherein each of the C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 R k substituents; or two R f substituents bound to a single carbon atom, together with the carbon atom to which they are both bound, form a group selected from carbonyl, C 3-8 cycloalkyl and 3-8 membered heterocycloalkyl; R g , at each occurrence, is independently selected from C 1-6 alkyl, C 1-6 haloalkyl, phenyl, naphthyl, and C 7-11 aralkyl, each optionally substituted with 1, 2, 3, 4 or 5 substituents selected from halogen, CN, OH, C 1-6 alkoxy, C 1-6 alkyl and C 1-6 haloalkyl; R h , at each occurrence, is independently selected from hydrogen, C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl, wherein each of the C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 R k substituents; R i and R j , at each occurrence, are each independently selected from hydrogen, C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl, 5-10 membered heteroaryl, C(O)R g , and C(O)OR g , wherein each of the C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, C 2-6 alkynyl, C 3-8 cycloalkyl, C 3-8 cycloalkenyl, 3-8 membered heterocycloalkyl, 3-8 membered heterocycloalkenyl, C 6-10 aryl, C 7-11 aralkyl and 5-10 membered heteroaryl groups is optionally substituted with 1, 2, 3, 4 or 5 substituents selected from halogen, CN, OH, C 1-6 alkoxy, C 1-6 alkyl and C 1-6 haloalkyl; R k , at each occurrence, is independently			

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			selected from halogen, CN, OH, C 1-6 alkoxy, NH 2 , NH(C 1-6 alkyl), N(C 1-6 alkyl) 2 , NHC(O)C 1-6 alkyl, NHC(O)C 7-11 aralkyl, NHC(O)OC 1-6 alkyl, NHC(O)OC 7-1 , aralkyl, OC(O)C 1-6 alkyl, OC(O)C 7-11 aralkyl, OC(O)OC 1-6 alkyl, OC(O)OC 7-11 aralkyl, C(O)C 1-6 alkyl, C(O)C 7-11 aralkyl, C(O)OC 1-6 alkyl, C(O)OC 7-11 aralkyl, C 1-6 alkyl, C 1-6 haloalkyl, C 2-6 alkenyl, and C2-6 alkynyl, wherein each C 1-6 alkyl, C 2-6 alkenyl, C 2-6 alkynyl, and C 7-11 aralkyl substituent is optionally substituted with 1, 2 or 3 substituents selected from OH, C 1-6 alkoxy, NH 2 , NH(C 1-6 alkyl), N(C 1-6 alkyl) 2 , NHC(O)C 1-6 alkyl, NHC(O)C 7-11 aralkyl, NHC(O)OC 1-6 alkyl, and NHC(O)OC 7-11 aralkyl; or two R k substituents bound to a single carbon atom, together with the carbon atom to which they are both bound, form a carbonyl group; m is 0, 1 or 2; n, at each occurrence, independently is 0, 1 or 2; p is 0, 1 or 2; and q is 0, 1 or 2. 23. A pharmaceutical composition comprising or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or a pharmaceutically acceptable excipient, wherein the pharmaceutically acceptable carrier or pharmaceutically acceptable excipient is chosen from the group consisting of mannitol, lactose, starch, magnesium stearate, sodium saccharine, talcum, cellulose, sodium crosscarmellose, glucose, gelatin, sucrose and magnesium carbonate.			
EP2377517B1	PHARMACEUTICAL COMPOSITION CONTAINING AN ANIONIC DRUG, AND A PRODUCTION METHOD THEREFOR	Disclosed are an anionic drug-containing pharmaceutical composition comprising: an anionic drug as an active ingredient; a cationic lipid; and an amphiphilic block copolymer, wherein the anionic drug forms a complex with the cationic lipid, and the complex is entrapped in the micelle structure of the amphiphilic block copolymer, and a method for preparing the same. The pharmaceutical composition may increase stability of the anionic drug in blood or in a body fluid, and it may enable intracellular delivery to improve efficacy of anionic drugs.	1. A composition for delivery of an anionic drug consisting of an anionic drug as an active ingredient; a cationic lipid; and an amphiphilic block copolymer, optionally at least one fusogenic lipid, and an aqueous solution or an assistant agent for freeze drying, wherein the anionic drug forms a complex with the cationic lipid, and the complex is entrapped in the core-shell type polymeric micelle structure of the amphiphilic block copolymer of an A-B type di-block copolymer comprising of a hydrophilic A block forming a shell and having a number average molecular weight of 200 to 50, 000 Dalton and a hydrophobic B block forming a core and having a number average molecular weight of 50 to 50, 000 Dalton in an aqueous solution, and wherein the content of the amphiphilic block copolymer is 40-99.98 wt% based on the total dry weight of the composition; and tocopherol, cholesterol, or C10-C24 fatty acid is optionally chemically conjugated to a hydroxyl group of the hydrophobic block end , wherein the hydrophilic A block is polyalkyleneglycol, and the hydrophobic B block is one or more selected from the group consisting of polyester,	Samyang Biopharmaceuticals Corporation, Seoul 110-725, KR, 101283535 | SAMYANG BIOPHARMACEUTICALS	2020-01-22	2008-12-26

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			polyanhydride, polyamino acid, polyorthoester, and polyphosphazine. 11. A method of preparing a composition for delivery of an anionic drug consisting of an anionic drug, a cationic lipid, an amphiphilic block copolymer, optionally at least one fusogenic lipid, and an aqueous solution or an assistant agent for freeze drying, which method comprises: (a) dissolving the anionic drug and the cationic lipid in a water-miscible organic solvent or a mixed solvent of an aqueous solution and an organic solvent, to separate the phases; (b) separating the organic solvent layer of (a); (c) mixing the organic solvent layer of (b) with the amphiphilic block copolymer and removing the organic solvent; and (d) adding an aqueous solution to the mixture from which the organic solvent is removed, to form a micelle, (e) optionally adding an assistant agent for freeze drying to freeze dry, to perform freeze drying, wherein the anionic drug forms a complex with the cationic lipid, and the complex is entrapped in the core-shell type polymeric micelle structure of the amphiphilic block copolymer of an A-B type di-block copolymer comprising of a hydrophilic A block forming a shell and having a number average molecular weight of 200 to 50, 000 Dalton and a hydrophobic B block forming a core and having a number average molecular weight of 50 to 50, 000 Dalton in an aqueous solution, and wherein the content of the amphiphilic block copolymer is 40-99.98 wt% based on the total dry weight of the composition, and tocopherol, cholesterol, or C10-C24 fatty acid is optionally chemically conjugated to a hydroxyl group of the hydrophobic block end, wherein the hydrophilic A block is polyalkyleneglycol, and the hydrophobic B block is one or more selected from the group consisting of polyester, polyanhydride, polyamino acid, polyorthoester, and polyphosphazine. 12. A method of preparing a composition for delivery of an anionic drug consisting of an anionic drug, a cationic lipid, an amphiphilic block copolymer, and optionally at least one fusogenic lipid, and an aqueous solution or an assistant agent for freeze drying, which method comprises: (a') dissolving the anionic drug, the cationic lipid and the amphiphilic block copolymer in a water-miscible organic solvent or a mixed solvent of an aqueous solution and an organic solvent; (b') removing the organic solvent layer of (a'); and (c') adding an aqueous solution to the mixture of (b') from which the organic solvent is removed so as to form a micelle, (d') optionally adding an assistant agent for freeze drying to freeze dry, to perform preeze drying, wherein the anionic drug forms a complex with the cationic lipid, and the complex is entrapped in the			

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			core-shell type polymeric micelle structure of the amphiphilic block copolymer of an A-B type di-block copolymer comprising of a hydrophilic A block forming a shell and having a number average molecular weight of 200 to 50, 000 Dalton and a hydrophobic B block forming a core and having a number average molecular weight of 50 to 50, 000 Dalton in an aqueous solution, and wherein the content of the amphiphilic block copolymer is 40-99.98 wt% based on the total dry weight of the composition, and tocopherol, cholesterol, or C10-C24 fatty acid is optionally chemically conjugated to a hydroxyl group of the hydrophobic block end, wherein the hydrophilic A block is polyalkyleneglycol, and the hydrophobic B block is one or more selected from the group consisting of polyester, polyanhydride, polyamino acid, polyorthoester, and polyphosphazine.			
EP2349282B1	METHODS OF TREATING PULMONARY DISORDERS WITH LIPOSOMAL AMIKACIN FORMULATIONS	Disclosed herein are methods of treating pulmonary disorders comprising administering to the patient an effective dose of a nebulized liposomal amikacin formulation for at least one treatment cycle, wherein: the treatment cycle comprises an administration period of 15 to 75 days, followed by an off period of 15 to 75 days; and the effective dose comprises 100 to 2500 mg of amikacin daily during the administration period.	1. A liposomal amikacin formulation for use in the treatment of a Pseudomonas aeruginosa pulmonary infection in a cystic fibrosis patient for at least two treatment cycles, wherein the liposomal amikacin formulation is nebulized and comprises amikacin encapsulated in a liposome having a lipid component consisting of dipalmitoylphosphatidylcholine (DPPC) and cholesterol, and the liposome lipid component to amikacin ratio is 0.6-0.7:1 (weight/weight), and wherein the treatment cycle comprises an administration period of a therapeutically effective dose of the nebulized liposomal amikacin of 20 to 35 days, followed by an off-period of 15 to 75 days, and is followed at least twice and wherein the effective dose consists of 100 to 2500 mg of amikacin daily during the administration period.	Insmed Incorporated, Bridgewater, NJ 08807-1704, US, 101845980 | INSMED INC	2020-01-15	2008-10-13
EP2998314B1	AGONISTS OF GUANYLATE CYCLASE USEFUL FOR THE TREATMENT OF GASTROINTESTINAL DISORDERS, INFLAMMATION, CANCER AND OTHER DISORDERS	The invention provides novel guanylate cyclase-C agonist peptides and their use in the treatment of human diseases including gastrointestinal disorders, inflammation or cancer (e.g., a gastrointestinal cancer). The peptides can be administered either alone or in combination with an inhibitor of cGMP-dependent phosphodiesterase. The gastrointestinal disorder may be classified as either irritable bowel syndrome, constipation, or excessive acidity etc. The gastrointestinal disease may be classified as either inflammatory bowel disease or other GI condition, including Crohn's disease and ulcerative colitis, and cancer.	1. A peptide consisting of the amino acid sequence of SEQ ID NO: 31, wherein said peptide is a [4, 12;7, 15] bicyclic peptide. | 2. A pharmaceutical composition in unit dose comprising a guanylate cyclase receptor agonist peptide having the amino acid sequence of SEQ ID NO: 31, wherein said peptide is a [4, 12;7, 15] bicyclic peptide, wherein said peptide is present in a therapeutically effective amount and a pharmaceutical carrier, excipient or diluent.	Bausch Health Ireland Limited, Dublin 24, IE, 101826708 | BAUSCH HEALTH IRELAND LTD	2020-01-22	2007-06-04
EP3372266B1	CONTINUOUS HIGH PRESSURE DELIVERY SYSTEM	A drug delivery system, which includes an aerosol generator unit, a pumping unit, a flow tube, at least one condensate collector and an aerosol transition adapter. The aerosol generator forms an aerosol from a liquid formulation, which is partially vaporized. The	1. A method of dispensing a liquid or aerosol to maintain a clog free capillary system (10), comprising: supplying a liquid formulation from a pumping unit (260) to a capillary (158) of an aerosol generator unit (50) at a flow rate; vaporizing at least a portion of the	Philip Morris Products S.A., 2000 Neuchâtel, CH, 101137385 | PHILIP MORRIS PRODUCTS SA	2020-01-01	2006-10-02

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		pumping unit supplies the liquid formulation to the aerosol generator unit and a flow tube having an inlet in fluid communication with an outlet of the aerosol generator unit and an outlet adapted for connection to a patient interface, which supplies ventilation to a patient's lungs. The system also includes at least one condensate collector adapted to collect condensed liquid or liquid produced by the aerosol generator unit, and a transition adapter arranged to mix aerosol produced by the aerosol generator unit with heated air and directs the mixed aerosol into the inlet end of the flow passage.	liquid formulation within the capillary (158) of the aerosol generator unit (50); and periodically increasing the flow rate from a first flow rate to a second flow rate. | 12. A system (10) for maintaining a clog free capillary comprising: an aerosol generator unit (50) having a capillary passage; a liquid formulation; a pumping unit (260), which supplies the liquid formulation to the aerosol generator unit (50) at a flow rate, wherein at least a portion of the liquid formulation is vaporized within the capillary (158) of the aerosol generator unit; and a controller (36), which operates the pumping unit (260) to provide for periodic increases in the flow rate for clog prevention.			
EP2540696B1	Trans carotenoids, formulation and uses	The invention relates to trans carotenoid compounds and salts thereof as well as compositions thereof, methods for making them, and uses thereof. These compounds are useful in improving diffusivity of oxygen between red blood cells and body tissues in mammals including humans.	1. A pharmaceutical composition comprising (i) a bipolar trans carotenoid salt having the formula: YZ-TCRO-ZY where: Y = a cation which can be the same or different, Z = a polar group which can be the same or different and which is associated with the cation, and TCRO = a linear trans carotenoid skeleton with conjugated carbon-carbon double bonds and single bonds, and having pendant groups X, wherein the pendant groups X, which can be the same or different, are a linear or branched hydrocarbon group having 10 or less carbon atoms, or a halogen, and (ii) a cyclodextrin; and wherein the bipolar trans carotenoid salt is trans sodium crocetinate (TSC), and wherein absorbency of the bipolar trans carotenoid salt in aqueous solution at a highest peak which occurs in the visible wavelength spectrum divided by absorbency of the peak which occurs in the ultra-violet is greater than 7, for use in therapy, optionally for use in the treatment of a tumor in a mammal in combination with radiation or chemotherapy.	Diffusion Pharmaceuticals LLC, Charlottesville, VA 22902, US, 100110397 | DIFFUSION PHARMACEUTICALS LLC	2020-01-01	2005-02-24
EP1720591B1	ATOMISER	The invention relates to an atomiser (1) for a fluid (2), comprising a pressure generator (5) which is used to convey and atomise the fluid, in particular, in the form of an inhaler. In order to improve user guidance, the atomiser comprises a signal device (24) which is used to produce at least one acoustic and/or vibratory signal, in particular, during an atomising step.	1. Nebulizer (1) for a fluid (2), having a pressure generator (5) for conveying and/or nebulizing the fluid (2), wherein the nebulizer (1) has a signal device (24) for generating at least one acoustic and/or vibratory signal for user guidance, wherein the signal device (24) operates exclusively mechanically, and wherein the signal device (24) has a spring store (25) which is independent of the pressure generator (5), characterised in that the spring store (25) can be (manually) tensioned together with the pressure generator (5) and is designed as a drive for the signal device (24).	Boehringer Ingelheim International GmbH, 55216 Ingelheim, DE, 100987657 | BOEHRINGER INGELHEIM INT	2020-01-08	2004-02-24
EP1539284B1	AEROSOL GENERATING DEVICE AND METHOD FOR GENERATING AEROSOLS	Liquid aerosol formulations for generating aerosols include at least one high volatility carrier and a second component. In some embodiments, the liquid aerosol formulation is propellant free. An aerosol generating device generates an aerosol by passing liquid aerosol formulation through a flow passage heated to	1. An aerosol generating device (100), comprising: a liquid source (106) of a liquid aerosol formulation comprising a high volatility carrier and a second component; a flow passage (150) in fluid communication with the liquid source (106); a heater (130) disposed to heat liquid aerosol formulation in a heated portion	Philip Morris Products S.A., 2000 Neuchâtel, CH, 101137385 | PHILIP MORRIS PRODUCTS SA	2020-01-29	2002-09-06

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		convert the liquid into a vapor, which is mixed with air to form an aerosol. In some embodiments, particles of the aerosol consist essentially of the second component. The aerosol generator can be incorporated in a hand held inhaler. The aerosol can be delivered to a targeted portion of the lung using the inhaler.	(160) of the flow passage (150) to produce a vapor which admixes with air to produce an aerosol; a mouthpiece (134) through which the aerosol is inhaled by a user of the aerosol generating device (100); a power supply; a controller operable to deliver power from the power supply to the heater (130) so as to maintain the heater at a temperature range effective to vaporize the liquid aerosol formulation in the flow passage (150); a pressure sensor (122); an air passage (132) through which air is supplied into the mouthpiece (134); and a valve which opens and closes the air passage (132); wherein the controller is operable to actuate the valve within a predetermined time period after the pressure sensor (122) detects a pressure drop in the mouthpiece (134) as the user inhales on the mouthpiece to allow air to be supplied into the mouthpiece. 13. A method of generating an aerosol not being a method for treatment of the human or animal body by surgery or therapy or a diagnostic method practised on the human or animal body, the method comprising: (a) supplying a liquid aerosol formulation comprising a high volatility carrier and a second component from a liquid source (106) to a flow passage (150); (b) heating liquid aerosol formulation in a heated portion (150) of the flow passage (160) to produce a vapor; and (c) admixing the vapor with air to produce an aerosol, wherein (a) to (c) are performed using an aerosol generating device (100) comprising a mouthpiece (134), the method further comprising: detecting a pressure drop in the mouthpiece (134) of the aerosol generating device (100) caused by a user inhaling on the mouthpiece; actuating a valve in an air passage (132) connected to the mouthpiece (134) within a predetermined time period after a pressure sensor (122) detects a pressure drop in the mouthpiece as the user inhales on the mouthpiece to allow air to be supplied into the mouthpiece.			