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VaCyT

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IFV INSTITUTO FINLAY DE VACUNAS

...vacunar es prevenir.

Análisis bibliométrico sobre pertussis, vacunas

Fuente de información utilizada:

WEB OF SCIENCE™

Estrategia de búsqueda:
"(Pertussis) AND (Vaccine)"

Periodo de estudio 1999-2020

Las variables utilizadas en el análisis fueron:

⇒ Productividad científica por año.

⇒ Autores con mayor productividad científica.

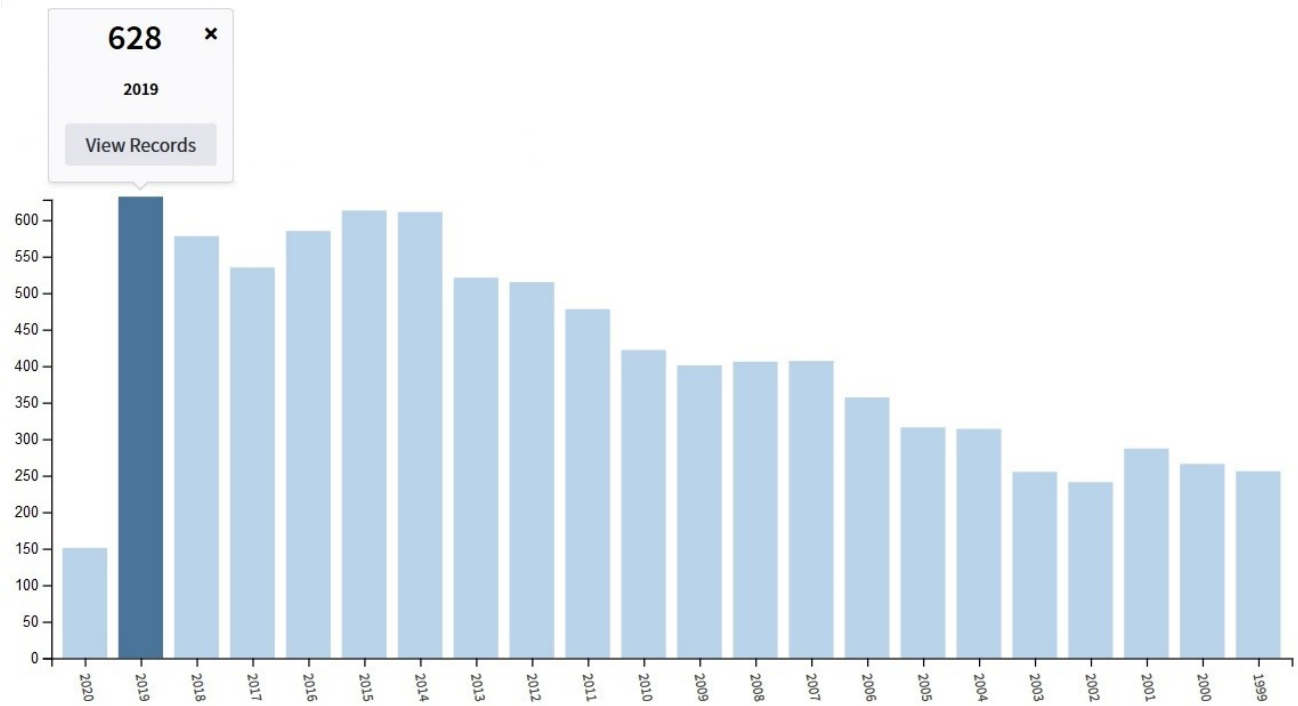
⇒ Áreas de investigación de mayor frecuencia.

⇒ Revistas con mayor número de publicaciones sobre el tema.

⇒ Países a la vanguardia sobre el tema.

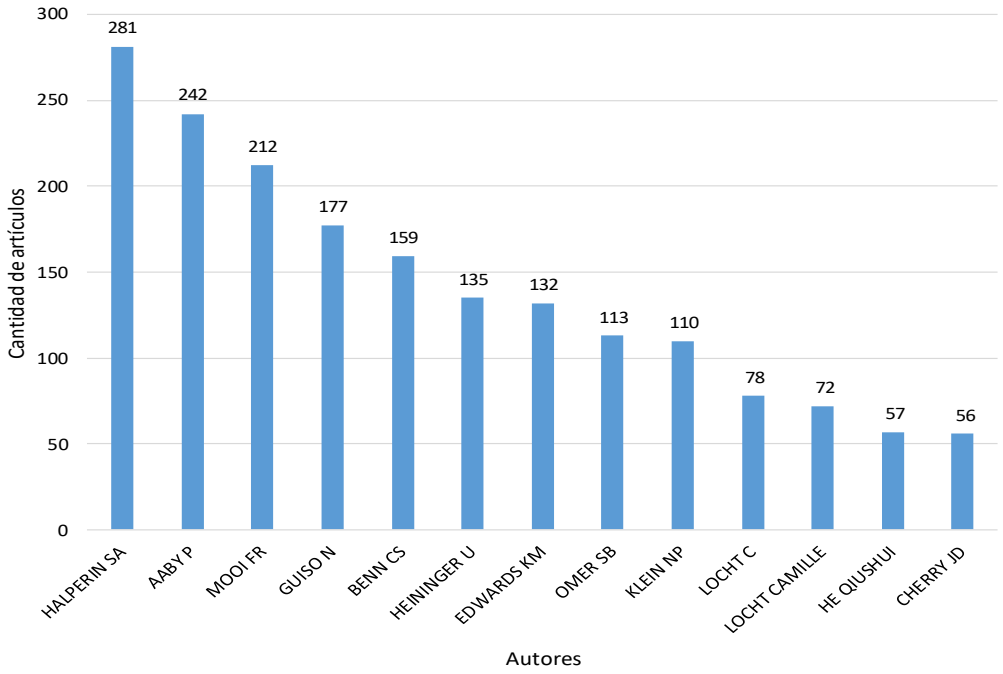
⇒ Tipo de documento.

Productividad científica por año

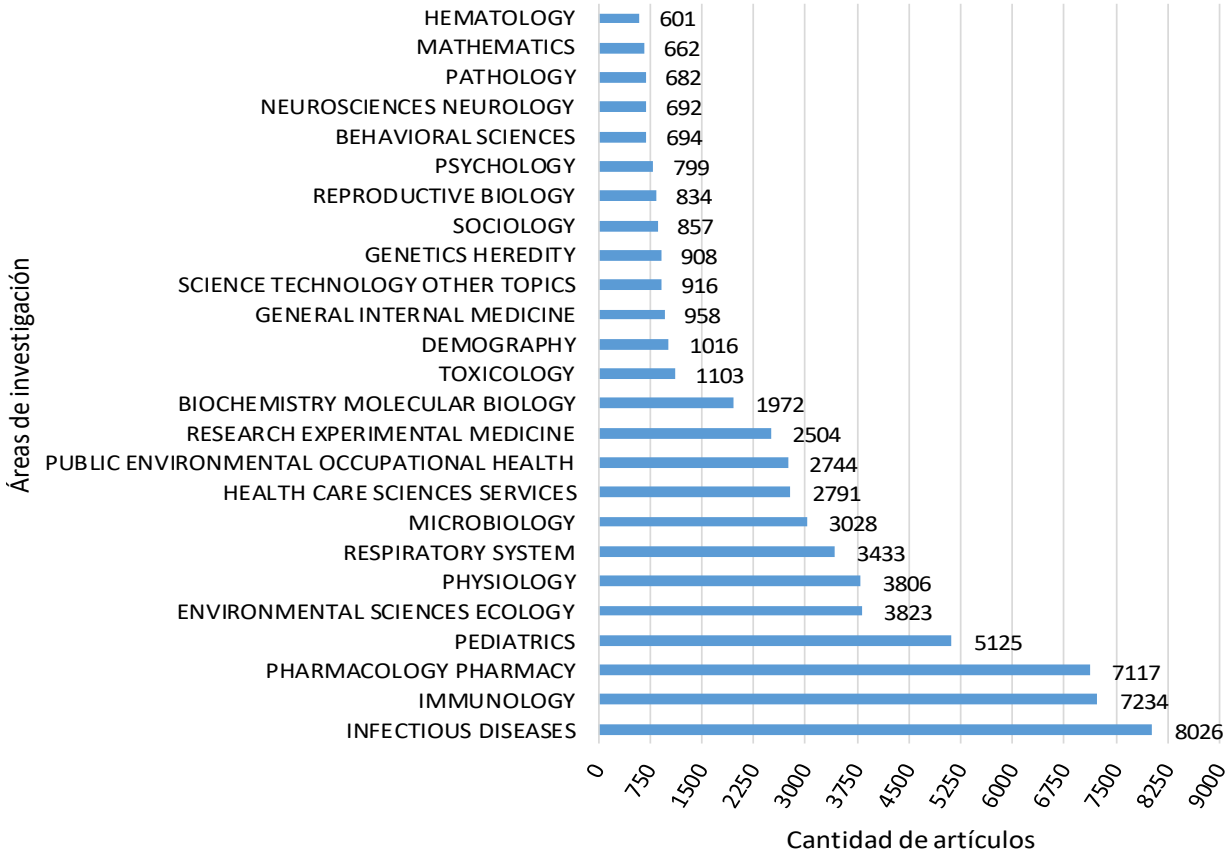


EN ESTE NÚMERO

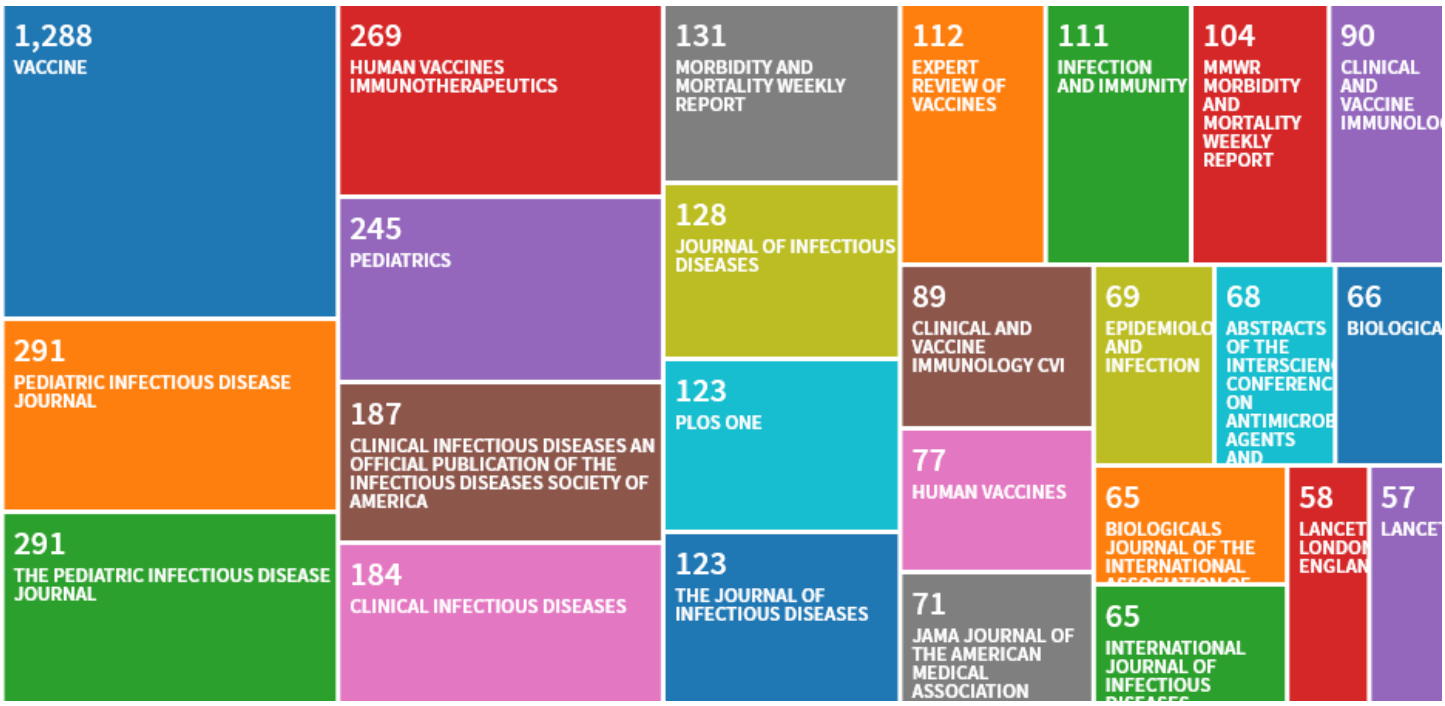
Autores con mayor productividad científica



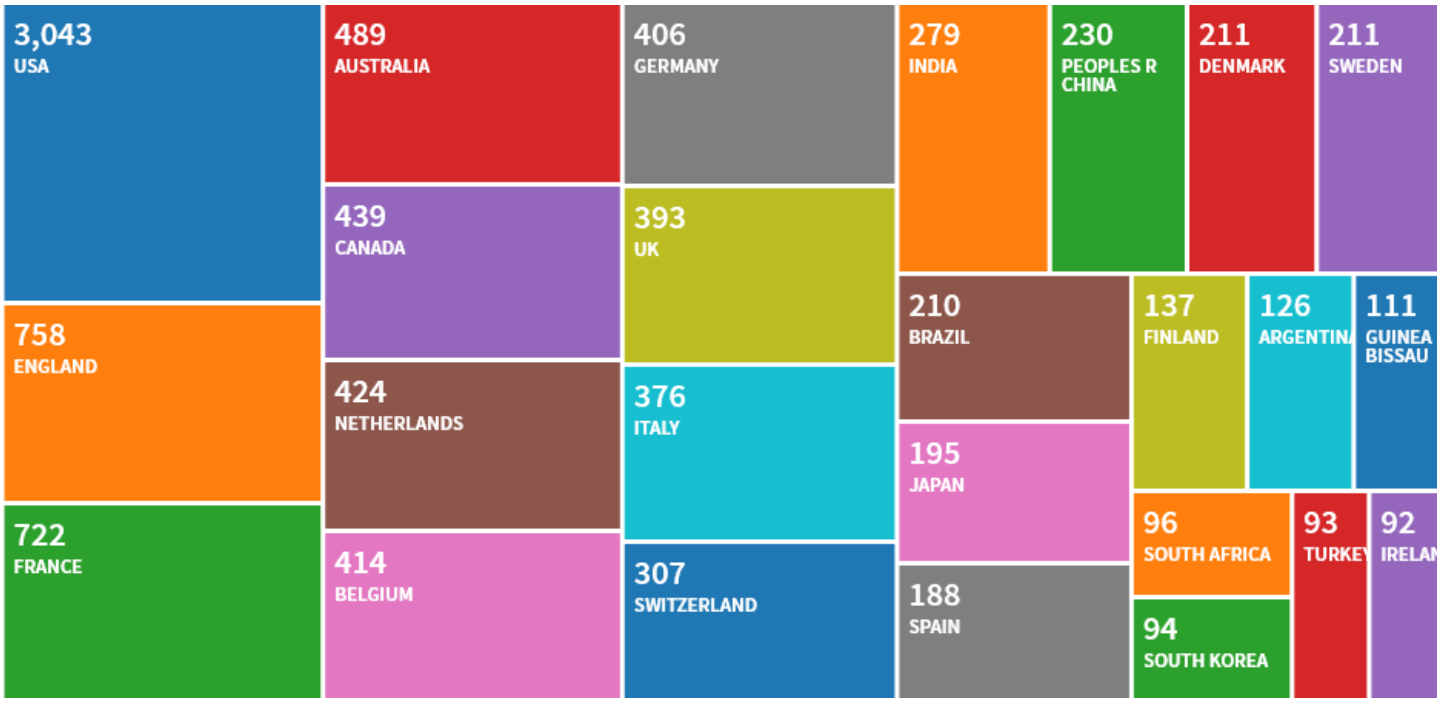
Áreas de investigación estudiadas con mayor frecuencia



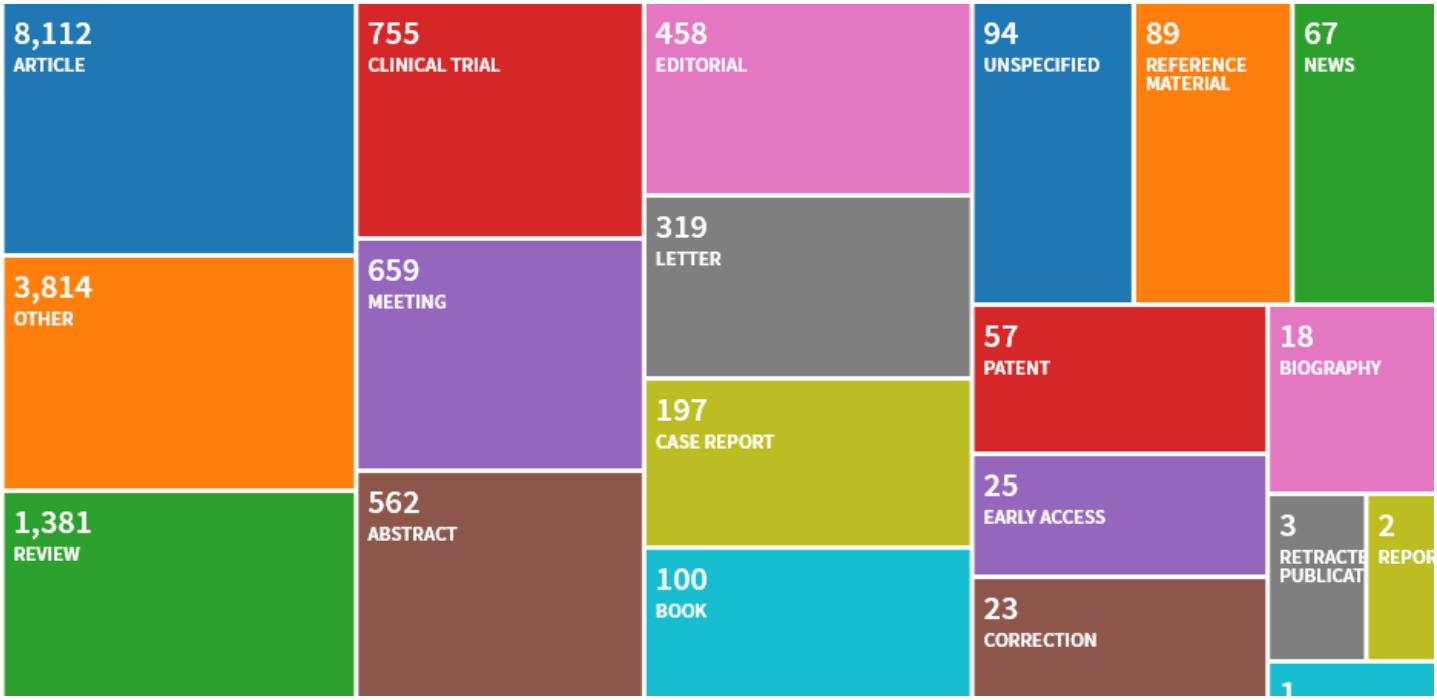
Publicaciones sobre el tema en revistas científicas registradas en Web of Science (2019-2020)



Producción científica por países registrada en Web of Science (1999-2020)



Tipos de documentos



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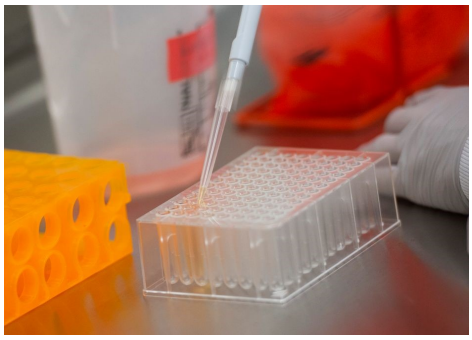
...vacunar es prevenir.

Noticias en la Web

Vacuna contra el coronavirus usando hojas de tabaco estaría lista para junio

7 abr. La vacuna, que aún no ha sido probada en seres humanos, debe ser autorizada por las autoridades sanitarias.
A partir de junio próximo, la British American Tobacco (BAT), a través de su filial biotecnológica Kentucky BioProcessing (KBP) en Estados Unidos, podría estar fabricando entre una y tres millones de dosis de una vacuna contra el coronavirus.

Cabe señalar que el desarrollo se encuentra en el proceso de pruebas preclínicas.
La vacuna, que aún no ha sido probada en seres humanos, debe ser autorizada por las autoridades sanitarias.
La vacuna utiliza la tecnología patentada de las hojas de tabaco de rápido crecimiento de BAT. Los elementos de la vacuna se acumulan más rápido en las plantas de tabaco (unas 6 semanas) en comparación con los meses que toma crear otros métodos convencionales.
"El desarrollo de la vacuna es un trabajo difícil y complejo, pero creemos que hemos logrado un avance significativo con nuestra plataforma tecnológica de la planta de tabaco, y estamos dispuestos a trabajar con los gobiernos y todas las partes interesadas para ayudar a ganar la guerra contra el Covid-19. Nos alineamos plenamente con el llamamiento de las Naciones Unidas a favor de un enfoque de toda la sociedad para combatir los problemas mundiales", detalló el director de Investigación Científica de BAT, David O'Reilly, según citado por medios internacionales.



Contrario a las vacunas convencionales, esta no requiere refrigeración, y, supuestamente, es capaz de proporcionar una respuesta efectiva inmunológica en una sola dosis.
El proyecto de la compañía es uno "sin ánimo de lucro".

Fuente: El Diario. Disponible en: https://bit.ly/2Vva2Ma

Una vacuna en ratones contra el Mers puede facilitar la del COVID-19

7 abr. Una vacuna probada en ratones les protege ante una dosis letal del Mers (síndrome respiratorio de oriente medio) y "puede ser prometedora para desarrollar vacunas" contra otros coronavirus como el que causa la COVID-19, según un estudio que publica este martes la revista científica mBio.
Fue publicado bajo el título Inmunización intranasal de dosis única con el virus de la parainfluenza recombinante 5 que expresa el síndrome respiratorio del Medio Oriente La proteína de la espina del coronavirus (MERS-CoV) protege a los ratones de la infección fatal por MERS-CoV.
El equipo de investigadores de las universidades de Iowa y Georgia (EEUU) han probado la candidata a vacuna contra el Mers en ratones manipulados genéticamente para hacerles susceptibles de infectarse.
El Síndrome Respiratorio del Oriente Medio (Mers) y la COVID-19 están causadas por sendos coronavirus, pero el primero es más letal, aunque solo se han registrados unos 2.500 casos desde 2012, frente a las 76.000 de la actual pandemia.
El ensayo comprobó que solo una dosis "relativamente baja"

de la vacuna administrada a los roedores por vía nasal "fue suficiente para proteger totalmente a los ratones de una dosis letal del Mers", indica un comunicado de la Universidad de Iowa.

La vacuna se basa en un virus inocuo de la parainfluenza (PIV5) que transporta la proteína "Spike", la cual usa el Mers para infectar a las células.

Cuando el equipo analizó la repuesta inmune generada por la candidata a vacuna, descubrieron que los animales producían tanto anticuerpos como linfocitos T del sistema inmunológico.

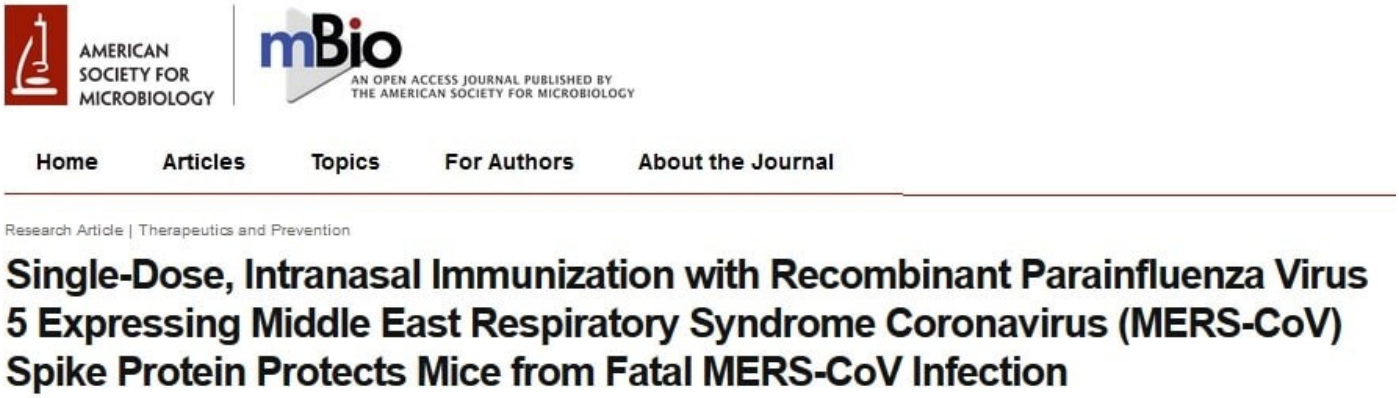
La respuesta de los anticuerpos fue "bastante débil" y para los investigadores "parece más probable que el efecto protector de la vacuna se deba a la respuesta de las células T en los pulmones de los ratones".

El equipo está planeando más estudios en animales "para probar la capacidad de vacunas basadas en PIV5 para prevenir" la COVID-19, causada por el SARS-CoV2.

El estudio indica que PIV5 "puede ser una plataforma de vacuna útil para las enfermedades de coronavirus emergentes", según Paul McCray de la escuela de medicina de la Universidad de Iowa.

El equipo destaca además varios factores que hacen que PIV5 "sea una plataforma atractiva para el desarrollo de vacunas" frente a los coronavirus, entre ellas que puede infectar a muchos mamíferos, incluidos los humanos, sin causar enfermedades.

Además, PIV5 también está siendo investigada como vacuna para otras enfermedades respiratorias, como la gripe, y el hecho de que una dosis baja sea suficiente para proteger a los ratones podría ser beneficioso para crear una vacuna suficiente para la inmunización masiva. EFE



Fuente: Acento. Disponible en https://bit.ly/3cnSsAV

Administran primera dosis de segunda vacuna estadounidense contra coronavirus

8 abr. La compañía de biotecnología Inovio comenzó la **primera fase de la prueba de la vacuna contra el coronavirus** que está desarrollando. Una persona de la universidad de Pennsylvania recibió la primera dosis este lunes.

La primera fase de la prueba está **previsto que termine a finales del verano de 2020**, según dijo a CNN un portavoz de Inovio. En ella participarán voluntariamente hasta 40 adultos sanos de Philadelphia y Kansas City, Missouri.

La mencionada fase 1 de la prueba debería **establecer que la vacuna es segura** e induce una respuesta deseada del sistema inmune de los participantes. Para ello, se deberá hacer un seguimiento que involucre a muchos más participantes y

que, por tanto, **tome muchos meses más**.

"Anticipamos la rápida inscripción de este estudio inicial", dijo en el

comunicado de prensa el doctor Pablo Tebas, especialista en enfermedades infecciosas del Hospital de la Universidad de Pennsylvania e investigador principal del estudio. Según él, hay mucha gente interesada en aportar su granito de arena frente a la crisis.

La vacuna de Inovio para COVID -19, al igual que la que está desarrollando Moderna, **deriva de material genético**.
A diferencia de la otra -que comenzó su fase 1 en marzo-, la de Inovo -que llaman INO-4800- deriva del ADN del mensajero y no de su ARN.

Fuente: La Opinión. Disponible en https://bit.ly/2ybE2F4

Coronavirus: cómo el mundo desaprovechó la oportunidad de tener una vacuna lista para hacer frente a la pandemia

9 abr. El avance hacia una nueva etapa en la cadena de pruebas para lograr una vacuna contra el nuevo coronavirus, fue anunciada por la directora de la Agencia Federal Médico Biológica de Rusia (FMBA por sus siglas en ruso) Veronika Skvortsova.

Este es el primero de tres prototipos de vacunas que desarrolla la institución, en rebasar la primera fase de pruebas.

Según Skvortsova, dos dependencias de la FMBA, el Centro Científico de Inmunología, en Moscú, y el Centro Científico de Medicamentos de Alta Pureza, en San Petersburgo, están a cargo de las investigaciones.

Esto tiene lugar paralelamente a la producción de los tests de diagnóstico y de los medicamentos requeridos para tratar la Covid19, lo cual también realiza la FMBA.

El proyecto que rebasó la primera fase de pruebas se trata de un producto recombinante, es decir, que no se produjo a partir del virus vivo directamente, sino a partir de la combinación in vitro de la secuencia genética de varias proteínas que tienen elementos en común con el nuevo coronavirus.

Dadas las regulaciones vigentes, las autoridades científicas de Rusia esperan tener lista la vacuna para su aplicación masiva en humanos dentro de unos 11 meses.

De acuerdo a cifras de la Organización Mundial de la Salud, actualmente se trabaja en el desarrollo de alrededor de 20 proyectos de vacunas para prevenir la Covid19 en todo el mundo.

En 2002, en la provincia china de Cantón, un virus desconocido provocó el brote de una letal enfermedad que los científicos llamaron SARS (las siglas en inglés de síndrome respiratorio agudo severo).

Posteriormente se descubrió que el patógeno que causaba la enfermedad era un coronavirus que se había originado en un animal y había pasado a los humanos.

En pocos meses, el coronavirus se propagó en 29 países, infectando a más de 8000 personas y matando a unas 800.

Alrededor del mundo hubo un reclamo general para saber cuándo estaría lista una vacuna para acabar con el letal virus y decenas de científicos en Asia, Estados Unidos y Europa comenzaron a trabajar frenéticamente para crear la inoculación.

Surgieron varios candidatos, algunos de los cuales estaban listos para ser usados en ensayos clínicos.

Pero entonces se logró controlar la epidemia de SARS y el estudio de las vacunas contra el coronavirus fue abandonado.

Años después, en 2012, volvió a surgir otro letal coronavirus, el MERS-Cov, que causaba una grave enfermedad respiratoria, el MERS (síndrome

respiratorio de Medio Oriente) que se originó en camellos y pasó a humanos.

Y muchos científicos volvieron a insistir en la necesidad de tener una vacuna contra estos patógenos.

Hoy casi 20 años después, cuando un nuevo coronavirus, el SARS-Cov-2, ya ha infectado a casi un millón y medio de personas, el mundo vuelve a preguntarse cuándo estará lista una vacuna.

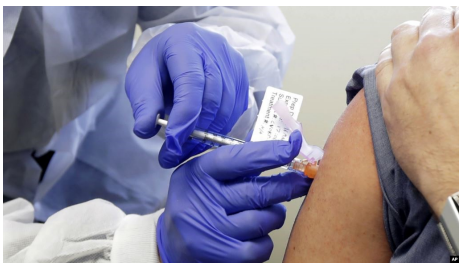
Fuente: BBC. Disponible en https://bbc.in/2RCyp9M

Cómo una vacuna contra la tuberculosis de un siglo de antigüedad podría ayudar a combatir el nuevo coronavirus

10 abr. Mientras los investigadores se esfuerzan por encontrar nuevos medicamentos y vacunas para covid19, una vacuna que tiene más de un siglo de antigüedad ha despertado el interés de algunos investigadores.

La vacuna Bacillus Calmette-Guerin (BCG), que se desarrolló por primera vez para combatir la tuberculosis, se está estudiando en ensayos clínicos en todo el mundo como una forma de combatir el nuevo coronavirus.

La tuberculosis y la infección por covid-19 son dos enfermedades muy diferentes: para empezar, la primera es causada por un tipo de bacteria, mientras que covid-19 es causada por un virus. Pero la vacuna BCG podría ayudar a las personas a desarrollar respuestas inmunes a otras cosas además de la tuberculosis, causando "efectos fuera del objetivo", según la Dra. Denise Faustman, directora de inmunobiología en el Hospital General de Massachusetts y profesora asociada de medicina en la Facultad de Medicina de Harvard.



"En otras palabras, en formato de ensayo clínico, las personas comenzaron a obtener un beneficio positivo de recibir la vacuna que no tenía nada que ver con la tuberculosis", dijo.

Faustman ha estudiado cómo la vacuna BCG afecta a las personas con diabetes tipo 1 durante muchos años. Ella está interesada en cómo sus efectos fuera del objetivo cambian el sistema inmune de manera beneficiosa para las personas con enfermedades autoinmunes como la diabetes tipo 1.

Aunque el mecanismo exacto para estos efectos fuera del objetivo de la vacuna BCG no está claro, se cree que la vacuna puede causar un impulso no específico de la respuesta inmune.

Actualmente no hay vacunas ni tratamientos aprobados por la Administración de Drogas y Alimentos de Estados Unidos para el nuevo coronavirus. Aunque tiene la esperanza de que la vacuna BCG demostrará ser efectiva contra covid-19, como con cualquiera de los tratamientos y vacunas en desarrollo, el Dr. William Schaffner, especialista en enfermedades infecciosas de

la Facultad de Medicina de la Universidad de Vanderbilt, admite que el concepto es poco convencional.

"Creo que la vacuna BCG es algo equivalente a un pase Hail Mary", dijo Schaffner. "Es un concepto tan original que a uno le gustaría ser optimista, pero tendremos que esperar y ver".

Varios países de todo el mundo están comenzando ensayos clínicos en humanos para evaluar la eficacia de la vacuna BCG, como Australia y los Países Bajos.

Faustman y sus colegas se están preparando para los ensayos en Boston, donde actualmente se encuentran bajo un proceso de revisión de varios pasos. Una vez aprobados, ella y los miembros de su equipo esperan inscribir a unos 4.000 trabajadores de la salud en el ensayo.

La vacuna ha estado disponible por más de 100 años y ha demostrado ser relativamente segura, dijo Faustman.

"BCG es presentada por la Organización Mundial de la Salud como la vacuna más segura jamás desarrollada en el mundo", dijo. "Más de 3.000 millones de personas lo han recibido".

Si bien varios países, incluido Estados Unidos, no administran regularmente la vacuna BCG, todavía se usa ampliamente en los países en desarrollo.

Los investigadores han intentado analizar si estos países con la administración regular de la vacuna BCG tienen tasas más bajas de mortalidad relacionada con covid-19. Un estudio realizado por investigadores en Nueva York encontró una asociación entre las políticas universales de vacunación con BCG en los países y la reducción de la morbilidad y letalidad de Covid-19. El estudio no ha sido revisado por pares ni publicado en una revista médica.

Pero, ¿por qué China ha tenido una alta morbilidad y letalidad por covid-19 a pesar de una política universal de BCG desde la década de 1950? El estudio dijo que China tenía una política debilitada durante la Revolución Cultural en las décadas de 1960 y 1970, que podría haber creado "un grupo de posibles anfitriones que se verían afectados y propagarían covid-19".

Además, China no ha tenido un aumento tan pronunciado en su curva en comparación con otros países sin políticas universales, como Italia, España y Estados Unidos, dijo Faustman. También agregó que diferentes cepas de la vacuna BCG podrían tener diferentes tasas de eficacia.

Una de las principales limitaciones del estudio es que compara datos de diferentes países, que tienen diferentes cronogramas para covid19 y diferente capacidad para realizar pruebas.

"Fue una comparación de 30.000 pies de la ocurrencia de infecciones por covid-19 en países que usaban intensamente la vacuna BCG y aquellos que no", dijo Vanderbilt's Schaffner. "No deberíamos sacar ninguna conclusión de eso porque … los países son muy diferentes. Y, por lo tanto, puede haber muchas otras razones que determinan la frecuencia con la que covid ha ocurrido en esos países.

"El estudio brinda mayor estímulo para investigaciones más específicas, como los ensayos clínicos que se llevarán a cabo".

Fuente: CNN en EspañoI. Disponible en https://cnn.it/3ammnYs

...vacunar es prevenir.

Coronavirus en Argentina: «Lo que viene es un trabajo complejo hasta probar la ivermectina en humanos».

12 abr. El hallazgo de que la ivermectina, un antiparasitario muy utilizado en animales, mata el coronavirus en 48 horas, sacudió el mundo de la medicina mundial. Y se sintió bien de cerca en Argentina, sobre todo en el ámbito ganadero, por ser un producto usado hace varios años en los rodeos.

El descubrimiento fue obra del equipo del Biomedicine Discovery Institute (BDI) de la Universidad de Melbourne, Australia, junto al Peter Doherty Institute of Infection and Immunity, y al respecto opinó el médico y veterinario Jorge Errecalde, vicepresidente de la Academia Nacional de Agronomía y Veterinaria. “En el marco de una pandemia pueden acelerarse algunos protocolos, pero no hacer milagros. Hay que ser serios, no se pueden generar falsas expectativas en estos temas, normalmente el desarrollo de un fármaco lleva años”, afirmó el profesor titular de Farmacología en las Facultades de Veterinaria y de Medicina de la Universidad Nacional de La Plata.

La ivermectina es un fármaco que desde la década del 80 esta siendo usado y ha cambiado la historia de la farmacología en los animales. A lo largo de los años fueron apareciendo otras indicaciones, es un fármaco que se usó en seres humanos en África para la ceguera de los ríos, o para combatir la pediculosis, por ejemplo. Se sigue usando en medicina humana pero no ampliamente.

En los últimos años han aparecido trabajos que demuestran que la ivermectina puede ser eficaz en determinadas virosis. Pero en su momento quedaron como hallazgos de laboratorio hasta que hace menos de una semana los australianos publicaron el trabajo que movió el avispero. Y en el trabajo lo que hicieron fue poner en contacto células en una especie de tubo de ensayo, las infectaron con el virus en una concentración determinada e introdujeron ivermectina a distintas concentraciones. Luego midieron la respuesta en 24 y 48 horas y tuvieron un resultado que seguramente los sorprendió porque hubo alta eliminación del virus. Con ese hallazgo en estas circunstancias que estamos viviendo, lo publicaron inmediatamente.

En el hemisferio sur es donde se usa más por la concentración ganadera. Argentina debe ser el país que más formulaciones de ivermectina de uso animal aprobadas tiene en el mundo, y por eso generó expectativas muy grandes.

La realidad es que las concentraciones que usaron en el experimento donde demostraron que el fármaco es eficaz son muy altas y difíciles de alcanzar in vivo, porque habría que introducir el fármaco a concentraciones altísimas que serían tóxicas para el paciente. Entonces, hay que bajar dos cambios porque falta muchísimo para que puede encontrarse la medida justa, es decir, hasta dónde bajar la dosis sin que pierda su poder de acción contra el virus.

Lo que se hizo in vitro hay que empezar a replicarlo, porque lo que encontró es en una línea celular, un tipo de célula, con un aislamiento australiano que podría ser o no similar al del resto del mundo, porque el virus sabemos que es capaz de mutar. Entonces, estamos partiendo de una primera idea. Una demostración elemental de eficacia. Para el uso en humanos falta mucho. Primero habría que confirmar los resultados del experimento, determinar con una curva de distintas concentraciones cuál es la concentración más baja de fármaco que tenga efecto deseado. Por eso, el descubrimiento es una pequeña llave para abrir la puerta de un castillo. Ahora hay que seguir probando llaves para abrir el resto de las puertas. Si todo funciona en el laboratorio hay que pasar a probar en modelos animales y si esto confirma que funciona para matar el virus y no es tóxico, recién a partir de ahí podés empezar experimentos en voluntarios humanos.

Fuente: Noticias por el Mundo. Disponible en https://bit.ly/2RNyKXq

Investigadores peruanos trabajan en posible vacuna contra la Covid-19

12 abr. Mirko Zimic, jefe del laboratorio de bioinformática de la Universidad Peruana Cayetano Heredia, sostuvo que la realización de esta vacuna pasará por varias fases antes de estar lista para ser aplicada en humanos. Informó que junto a un equipo de investigación están desarrollando una posible vacuna contra el coronavirus (COVID-19).

En entrevista a RPP Noticias, Zimic detalló que esta iniciativa surgió hace un mes atrás aproximadamente, mucho antes de que el Gobierno declare la orden de inmovilización obligatoria a nivel nacional.

"Más o menos hará ya un mes atrás, antes que se declare la orden de inamovilidad, en la que una empresa peruana, ubicada en Chincha, que desarrolla y produce vacunas aviares junto con nuestro equipo de investigación de la Cayetano, decidió trabajar en un proyecto para poner en práctica toda la experiencia que se adquirió en casi ya 35 años dedicados a este rubro -vacunas de veterinarias- para emprender una idea y desarrollar una vacuna para este virus que está causando la pandemia del coronavirus", detalló.

En esa línea, explicó que la vacuna que están desarrollando se denomina "proteína recombinante", la cual no tiene ninguna oportunidad de causar enfermedad y en la que se utiliza "un pedacito del virus" que sirve para la inmunización.

"Este antígeno es el mismo en algunas otras vacunas que se están desarrollando en un poco más de 30 laboratorios en el mundo que han emprendido esta carrera para crear una vacuna para esta enfermedad", indicó.

Consultado respecto a cuánto tiempo tardaría en estar lista la vacuna, Zimic precisó que primero debe pasar por una serie de pruebas.

"Lo primero que se hizo fue el diseño a partir de la información de los genomas del virus. (...) La tercera semana de abril deberían estar llegando los insumos que han sido ordenados, en este caso son los vacunovirus, (...) los cuales van a ser cultivados en células de infecto que van a producir la proteína con su debida modificación necesaria para que sea útil para ejercer una protección. De esto, serán dos semanas más para tener el primer lote y poder comenzar los estudios de seguridad en animales, ratones y monos", manifestó.

Asimismo, precisó que finalizada la prueba en animales, que tardaría aproximadamente entre uno o dos meses, se pasa a la fase con personas.

"El reto siguiente es la fase en humanos voluntarios. Un grupo de personas sanas recibirán una dosis de la vacuna para realizar el mismo análisis. Seguirlos durante uno o dos meses y verificar que la vacuna es segura y que levanta una respuesta inmune contra el virus", sostuvo.

"...LA VACUNA QUE ESTÁN DESARROLLANDO SE DENOMINA "PROTEÍNA RECOMBINANTE", LA CUAL NO TIENE NINGUNA OPORTUNIDAD DE CAUSAR ENFERMEDAD Y EN LA QUE SE UTILIZA "UN PEDACITO DEL VIRUS" QUE SIRVE PARA LA INMUNIZACIÓN."

Fuente: Gestión. Disponible en https://bit.ly/3ezw1ul

Un consorcio de científicos argentinos investigará el coronavirus

13 abr. Diversos grupos de investigación con especializaciones complementarias, pertenecientes a diferentes instituciones públicas del sistema científico nacional, se unieron para trabajar en conjunto en el diseño y la preparación de herramientas útiles para el diagnóstico, el tratamiento y la prevención de la COVID-19.

En una primera etapa estarán abocados a la producción de una proteína que es la llave de entrada del virus en las células humanas, según informó la agencia Nex Ciencia.

Se conformó un consorcio científico que reune a una veintena de investigadoras e investigadores de diferentes instituciones, la mayoría forma parte del Instituto de Biociencias, Biotecnología y Biología Traslacional (IB3 Exactas UBA), pero también hay integrantes de la Facultad de Farmacia y Bioquímica (UBA), del Instituto de Ciencia y Tecnología César Milstein (Conicet – Fundación Cassará), de la Universidad Tecnológica Nacional (Regional Haedo) y del INTA.

Dada la intención de sus integrantes de realizar aportes concretos a partir de sus conocimientos específicos y de que el grupo de trabajo cubre un amplio rango de expertises en ingeniería de proteínas y en sistemas de expresión de proteínas recombinantes (incluyendo bacterias, levaduras, células de mamífero, plantas, y otros sistemas eucariotas), la primera decisión fue abocarse a la producción de una proteína que forma parte de la cápside del coronavirus (SARS-CoV-2), denominada spike, y de un dominio llamado RBD, que es una pequeña parte de esa proteína.

"Si una persona se infecta con el virus, el sistema inmune del hospedador responde y genera anticuerpos. Ahora, cuando uno usa solo alguna proteína del virus (spike), las chances de que se generen anticuerpos son menores; y si en lugar de una proteína se utiliza un pedacito de una proteína (dominio RBD) la posibilidad de producir buenos anticuerpos es más pequeña todavía. Pero, por otro lado, producir una proteína entera es bastante más difícil que elaborar en cantidad el RBD. Entonces, estamos intentando las dos cosas", explicó Alejandro Nadra, investigador del Conicet y profesor de la Facultad de Ciencias Exactas y Naturales de la Universidad de Buenos Aires (UBA).

La proteína spike es la herramienta que utiliza el SARS-CoV-2 para penetrar en la célula. Particularmente, esa parte denominada RBD es la que se une con un receptor celular (ACE2) y posibilita la infección del virus.

Una vez que los integrantes del consorcio hayan logrado producir y purificar en cantidades considerables las proteínas antigénicas del virus, habrán logrado la elaboración de un insumo clave que podrá ser utilizado con múltiples fines.

"La idea es que los antígenos que generemos, por un lado, puedan ser utilizados para desarrollar tests de diagnóstico serológicos; por otro, si podemos generar los anticuerpos que se llaman neutralizantes podrían servir para diseñar tratamientos eficaces contra el virus y, por último, también está abierta la posibilidad de contribuir en el desarrollo de una vacuna", detalló Nadra.

Fuente: iProfesional. Disponible en https://bit.ly/2VkYKLT

La Ciencia cubana labora para obtener vacuna específica contra el SARS-Cov-2

14 abr. Científicos de Cuba trabajan juntos en el diseño de una vacuna específica contra la Covid-19, proyecto necesario para lograr la inmunidad al coronavirus SARS-Cov-2, causante de la Covid-19.

Para ese fin se labora en cuatro candidatos vacunales que ya se prueban en diferentes hospederos (células de mamíferos, levadura y diferentes bacterias), dijo el director de Investigaciones Biomédicas del Centro de Ingeniería Genética y Biotecnología (CIGB), Gerardo Guillén.

Lograr una vacuna específica es un gran reto para los investigadores y una necesidad, porque por primera vez se logra controlar una pandemia mediante la aplicación de medidas de aislamiento, por lo cual gran parte de la población quedará susceptible al virus al no tener contacto con él.

Trabajamos en régimen acelerado de desarrollo para tener un inyectable lo antes posible, pero es delicado hacer un pronóstico porque primero hay que obtener las secuencias virales que codifican la información para la síntesis de las proteínas virales, expresar esos antígenos en los diferentes hospederos, realizar los procesos de purificación y los controles de calidad, aseguró Guillén.

Y en este propósito se suman investigadores del Instituto Finlay de Vacunas, quienes tienen tres proyectos dirigidos a la comprensión de los diferentes trucos de este nuevo coronavirus, subrayó el director general del centro, Dr. Vicente Vérez Bencomo.

Nos preparamos para conocer al virus, que entre sus mecanismos tiene uno que atrapa a las células del sistema inmune inmaduras que lo detectan, las infecta y entonces las pone a trabajar para él como en el caso del SIDA, expresó.

Si no se comprenden primero sus mecanismos será imposible el diseño de un producto final, ahora cada centro trabaja en sus propios proyectos, pero son un estadio intermedio que dará paso a la integración y resultado final: una vacuna específica, señaló.

Fuente: Radio Cadena Agramonte. Disponible en https://bit.ly/2wRL2qh

La carrera por encontrar una vacuna contra la Covid-19 se acelera

14 abr. El proyecto liderado por el ejército chino, uno de los más avanzados, comienza su segunda fase de ensayos clínicos.

La Covid-19 sigue extendiéndose por Occidente mientras su segunda oleada golpea a Asia. Con la cifra de víctimas mortales ya por encima de las 100.000 y la de infectados rozando los 2 millones, cada vez parece más evidente que solo una vacuna podrá devolver el mundo a la normalidad. La carrera por dar con la solución, sin ser ajena a su dimensión propagandística, continúa. Los proyectos de Estados Unidos y China, que comenzaron sus ensayos clínicos el mes pasado, siguen en cabeza: el inyectable del gigante asiático ya está preparado para avanzar a la segunda fase.

Así lo anunció la firma responsable, CanSino Biologics, el pasado jueves. Este proyecto ha sido desarrollado en colaboración con la Academia Militar de Ciencias Médicas del Ejército Popular de Liberación (EPL), las fuerzas armadas chinas. Los esfuerzos sobre el terreno han estado dirigidos por la bioingeniera y general de brigada Chen Wei, que se desplazó a Wuhan a finales de enero. El resultado de su trabajo es una vacuna de subunidad, una fórmula de nueva generación que solo contiene ciertos antígenos específicos sin patógenos, por lo que es considerada más segura que las técnicas tradicionales.

El comienzo de los ensayos clínicos se anunció a mediados de marzo, apenas un día después de que EE UU hiciera lo propio con su proyecto, financiado por el Instituto Nacional

de Salud y desarrollado por la biotecnológica Moderna Therapeutics. Este, a diferencia de la alternativa china, emplea una tecnología conocida como ARN mensajero (ARNm), la cual copia el código genético del virus en lugar de transmitir una versión atenuada del mismo. Hasta la fecha, ninguna vacuna que emplee la fórmula ARNm ha sido aprobada para su uso en seres humanos.

En esta primera etapa, la solución china se aplicó a 108 personas sanas elegidas de entre más de 5.200 candidatos, las cuales fueron divididas en tres grupos de acuerdo a la dosis recibida. Uno de ellos fue Xiang Yafei, un hombre de 30 y dueño de un restaurante que relató su experiencia para el diario hongkonés South China Morning Post. A él le tocó la dosis más baja. "Tuve 37,6º de fiebre durante los dos primeros días. Fue como coger un resfriado, con síntomas de cansancio y fatiga, pero al tercero mi estado mejoró y básicamente he estado sano desde entonces".

Tras cumplir dos semanas de cuarentena en unas instalaciones militares, el pasado 2 de abril Xiang Yafei recibió el alta. El equipo médico tomó una muestra de su sangre en busca de los anticuerpos generados por el coronavirus, pero todavía no ha recibido una respuesta. Él no está preocupado. "Nunca tuve miedo. (...) Antes de realizar la prueba conocí en persona a la general de brigada Chen Wei, quien me aseguró que no dañaría mi cuerpo". Una publicación del perfil oficial del EPL en redes sociales daba a entender, antes de ser eliminada, que la médico militar se había inyectado una primera versión de la vacuna ella misma, además de a otros seis miembros de su equipo.

Los datos preliminares de esta fase inicial de ensayos clínicos, en cualquier caso, han sido positivos, por lo que los investigadores han recibido permiso para continuar. En esta segunda etapa las pruebas se repetirán en una mayor muestra de sujetos, formada por varios cientos de personas, para observar su seguridad y efectividad y establecer un plan de vacuna. Esta será la última etapa antes de una tercera y definitiva ronda de ensayos.

Cinco técnicas

El de CanSino y el EPL es solo uno de los nueve proyectos chinos en marcha. Estos estudios recurren a cinco técnicas diferentes, como vacunas inactivadas, de vector viral o genéticas, las cuales se encuentran en diferentes fases de desarrollo y emplean en total hasta 1.000 científicos. El Consejo de Estado ha anunciado esta mañana que otros dos compuestos iniciarán en los próximos días sus ensayos clínicos. Uno ha sido desarrollado por el Instituto de Productos Biológicos de Wuhan, bajo la dirección del Grupo Farmacéutico Nacional, y el otro por Sinovac Research and Development, una empresa radicada en Pekín. Ambas son vacunas inactivadas.

Pero los esfuerzos no se limitan a Estados Unidos y China. Un artículo reciente publicado en la prestigiosa publicación Nature cifraba en 115 los proyectos en marcha a fecha de 8 de abril. De estos, 73 se encuentran en estado exploratorio o preclínico. Una mayoría, 56 (72%) están siendo desarrollados por entidades privadas, mientas que los 22 restantes (28%) responden a iniciativas de entidades académicas, sector público u ONG.

El texto calificaba el impulso mundial en investigación frente a la Covid-19 como "sin precedentes en tamaño y velocidad", y estimaba que una vacuna podría estar lista para usos de emergencia a principios de 2021. Esto supondría un enorme adelanto con respecto al plazo de tiempo habitual para el desarrollo de inyectables, que suele llevar de media unos 10 años. Incluso durante la crisis del ébola fueron necesarios 5 años para que la primera vacuna estuviera disponible. El virus avanza, pero la ciencia también.

Fuente: El País. Disponible en https://bit.ly/2xxZmEY

Una proteína recombinante vinculada al interferón, posible diana en patologías infecciosas

17 abr. Una investigación realizada de manera conjunta entre varios centros españoles sugiere que la proteína recombinante sIFNAR2 podría ser un tratamiento efectivo en enfermedades autoinmunes e infecciones virales, gracias a sus propiedades inmunomoduladoras.

Este estudio, en el que participan científicos del Centro Nacional de Microbiología (CNM) y de la Red Española de Esclerosis Múltiple (REEM) del Instituto de Salud Carlos III (ISCIII), se realizó sobre modelo animal y con células humanas *in vitro*, y se publicó en la revista *Journal of Clinical Medicine*.

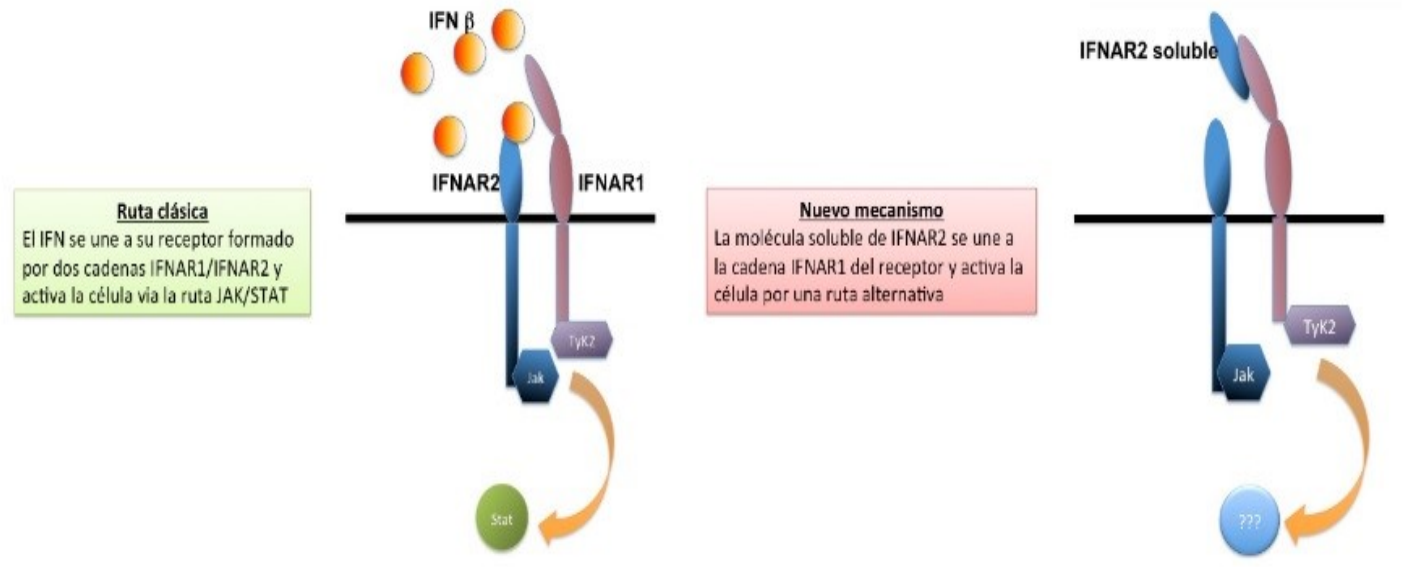
La doctora Esther Calonge, que es miembro de la Unidad de Inmunopatología del Sida del CNM y una de las firmantes de este trabajo, explica que "se ha confirmado en células humanas in vitro que la proteína recombinante sIFNAR2 -receptor soluble del interferón beta (IFNβ), que determina la actividad de éste- es capaz de producir de manera independiente un efecto antiviral similar al que produce el propio IFNβ".

Además, dicha especialista detalla que "sIFNAR2 demuestra otras ventajas extra, como la reducción de la inflamación y del daño en los tejidos, y la inhibición de la proliferación de linfocitos T, lo que evita una respuesta inmunitaria excesiva".

Nueva función de la proteína

Esther Calonge resalta que "con el hallazgo de esta nueva función de la proteína, hasta ahora desconocida, se abre la puerta al estudio de posibles nuevas dianas terapéuticas. Los hallazgos parten de estudios en modelo animal y se han realizado en modelo in vitro con células humanas, por lo que aún deben probarse en pacientes".

Este trabajo se enmarca dentro de un proyecto colaborativo entre el Instituto de Investigaciones Biomédicas de Málaga (IBIMA), el Centro de Biología Molecular Severo Ochoa del CSIC y el CNM del ISCIII. También participan investigadores del Hospital de Málaga, la Universidad de esta provincia andaluza, el Hospital de Bellvitge de Barcelona, y la danesa Universidad de Copenhague.



Representación gráfica del nuevo mecanismo hallado con la proteína recombinante sIFNAR2 (créditos: Grupo de Inmunopatología del sida del Centro Nacional de Microbiología).

Fuente: Acta Sanitaria. Disponible en https://bit.ly/3bsqrbm

CONICIT impulsa proyecto de inmunoglobulinas equinas como posible tratamiento de la COVID-19

17 abr. El Consejo Nacional para Investigaciones Científicas y Tecnológicas CONICIT (Costa Rica) acordó en su sesión del 7 de abril del año en curso darle financiamiento por 35 millones al Instituto Clodomiro Picado (ICP) para la compra de la proteína recombinante del Virus SARS-CoV-2 con el propósito de producir inmunoglobulinas neutralizantes equinas como posible tratamiento del COVID-19.

La Dra. Giselle Tamayo Castillo, Presidenta del Consejo Director del CONICIT dijo que "Dichosamente para Costa Rica, el proceso de purificación de plasma no difiere en su ciencia de lo que ha venido realizando el ICP desde hace 50 años, cuando produce suero antiofídico no solamente para nuestro país, sino para América Latina y África subsahariana. Por ello, el ICP fue identificado por la CCSS como un aliado estratégico para implementar una terapia alternativa utilizando inmunoglobulinas neutralizantes humanas y equinas".

La Dra. Tamayo comentó que la FDA emitió recientemente una excitativa para evaluar el uso de plasma y de inmunoglobulinas purificadas para el tratamiento de enfermos COVID-19 y que los reportes que llegan de China son altamente esperanzadores, aún a pesar de que la prueba clínica involucró grupos pequeños. Sin embargo, para obtener un máximo de 50 dosis de plasma se requieren 25 personas donando 1 litro de sangre, limitante que ha sido analizada por investigadores y miembros del Consejo Director del CONICIT.

"Justamente aprovechando la experiencia del ICP, se propone una tercera línea de acción para el país que permita obtener anticuerpos neutralizantes equinos, y así, no depender de donadores de plasma. Este esfuerzo tan esperanzador, de las manos del Dr. Guillermo León y del Dr. Alberto Alape y su grupo de investigadores, podría poner en un lapso de 3 meses alrededor de 600 dosis de inmunoglobulinas neutralizantes equinas", agregó la Dra. Tamayo, quien además de presidir el CONICIT es Catedrática de la Escuela de Química de la Universidad de Costa Rica.

En ese sentido el CONICIT ha decidido apoyar la producción de inmunoglobulinas equinas purificadas, con la expectativa de poder brindar al país, y por qué no, al mundo, una terapia sostenida en el tiempo, con la cual se pueda disminuir la mortalidad y la morbilidad del COVID-19. (Fuente: CONICIT)

Fuente: Noticias de la Ciencia y la Tecnología. Disponible en https://bit.ly/3anwZ9M

India prueba vacuna vs la lepra para combatir el coronavirus

18 abr. En India se realizan pruebas de una vacuna multipropósito, efectiva contra la lepra, para combatir el coronavirus o COVID-19, el objetivo es mejorar la inmunidad de las personas y sean resistentes a la enfermedad.

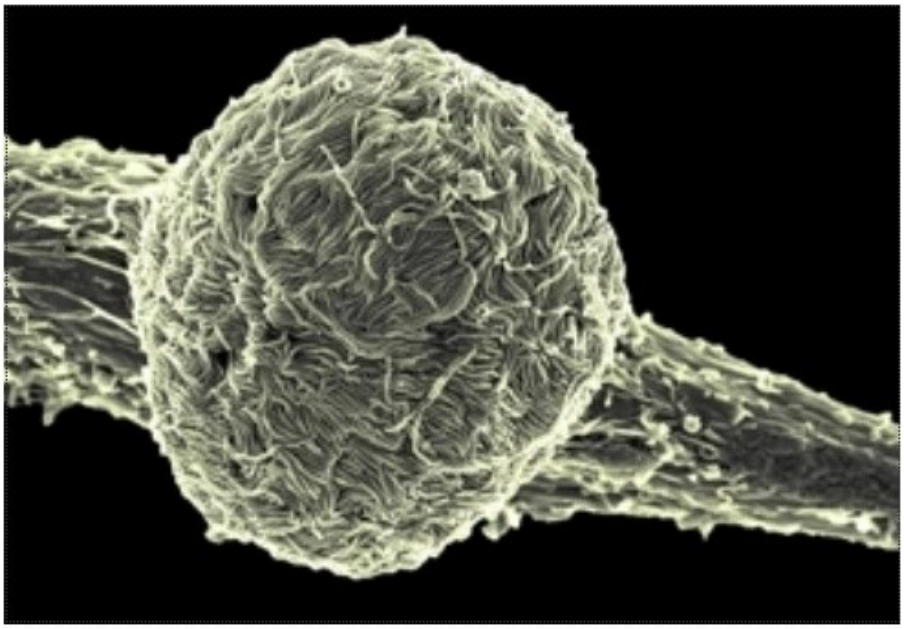
De acuerdo con Excélsior, Shekhar Mande, director general del Consejo de los Estudios Científicos e Industriales, señaló: "Hacer una vacuna es un proceso largo. El estudio está en marcha", pues el tratamiento ya cuenta con la aprobación del Centro General del Control de Fármacos de la India, aunque se requieren más pruebas para comprobar su eficacia.

Cabe señalar que aún no se ha aprobado una vacuna efectiva contra el coronavirus y en distintas partes del mundo se prueban tratamientos con medicamentos muy distintos sin que alguno haya demostrado una eficacia total.

Países como Estados Unidos, Japón o Alemania se encuentran con pruebas a través de distintos medicamentos que son usados para otras enfermedades y que para algunos pacientes con **COVID-19** ha mostrado resultados favorables.

Fuente: Político.mx. Disponible en https://bit.ly/2XKHkdb

Una vacuna contra el ébola podría combatir las cuatro especies de virus, según primeros estudios



18 abr. Científicos del Centro Médico del Hospital Infantil de Cincinnati (Estados Unidos) han informado del desarrollo de una posible vacuna universal contra el ébola que, según las pruebas preclínicas, podría neutralizar las cuatro especies de estos virus mortales que infectan a las personas en los recientes brotes, principalmente en África.

Aunque todavía se encuentran en las primeras pruebas preclínicas, los investigadores aseguran que sus datos indican que la posible vacuna tiene posibilidades de ser una protección integral contra el ébola. También podría ampliar y extender la durabilidad de la inmunidad protectora inducida por las actuales vacunas vivas que ya se están probando en ensayos clínicos contra especies individuales del virus, según explica Karnail Singh, autor principal del trabajo, que se ha publicado en la revista 'Journal of Virology'.

"Esto podría ser un avance significativo en el esfuerzo global para prevenir o manejar los brotes de ébola, especialmente si esta vacuna usada sola o en combinación con otra vacuna contra el ébola resulta en una inmunidad protectora duradera y a largo plazo contra diferentes virus del ébola", insiste Singh.

Si bien las vacunas de vectores vivos están produciendo resultados alentadores en los ensayos clínicos, hasta esta nueva investigación no se ha demostrado que ninguna de las nuevas vacunas que se están desarrollando induzca respuestas inmunitarias que reaccionen de forma cruzada contra las múltiples especies del virus que causan la enfermedad mortal en los seres humanos.

La nueva vacuna tiene un enfoque novedoso, según el estudio. Los investigadores diseñaron una partícula bivalente y esférica parecida al virus del ébola (VLP) que incorpora dos glicoproteínas genéticamente diversas (una del virus del ébola de Zaire y otra del virus del ébola de Sudán) en un núcleo esférico.

Este enfoque no causará enfermedad en el receptor ya que las VLP carecen de material genético y no se multiplican. La vacuna funciona estimulando las respuestas inmunológicas contra el ébola que generan anticuerpos que combaten el virus para atacar a las diferentes especies de virus.

Fuente: Listín Diario. Disponible en https://bit.ly/3ctOc2G

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Patentes registradas en la United States Patent and Trademark Office (USPTO)

Results of Search in US Patent Collection db for: (ABST/vaccine AND ISD/20200407->20200419), 16 resultados.

	PAT. NO.	Title
1	10,619,169	EHV insertion site ORF70
2	10,618,948	Peptides and combination of peptides for use in immunotherapy and methods for generating scaffolds for the use against pancreatic cancer and other cancers
3	10,618,945	Tumor-associated peptides binding promiscuously to human leukocyte antigen (HLA) class II molecules
4	10,617,766	Multivalent meningococcal polysaccharide-protein conjugate vaccine
5	10,617,758	Anti-cancer vaccine combination
6	10,617,751	Edible vaccines expressed in yeast for preventing and treating infectious diseases in animals and humans

7	10,617,749	Composition of matter and methods for alteration of dendritic cell metabolism to augment cancer vaccine efficacy
8	10,617,650	Process for preparing formulations for gastrointestinal-targeted therapies
9	10,614,458	Influenza vaccine administration payment device processing
10	10,611,801	Compositions and methods for preventing and treating Zika virus infection
11	10,610,596	Methods of making solid vaccine compositions having reduced foaming
12	10,610,587	Adjuvant composition containing at least one influenza virus neutralizing and binding molecule and vaccine composition containing same
13	10,610,585	Methods and compositions for treating and preventing HIV
14	10,610,583	Methods and compositions for treating glioma and medulloblastoma brain tumors using the zika virus
15	10,610,582	Compound and method for vaccination and immunisation
16	10,610,580	Attenuated Bordetella strains

Patentes registradas en Spacenet (European Patent Office (EPO))

Estrategia de búqueda: *Vaccine in the title or abstract AND 20200201:20200206 as the publication date*

299 resultados

1.HUMAN IgE ANTIBODIES BINDING TO ASPERGILLUS ALLERGENS
US2020115439A1 • 2020-04-16 •
UNIV VANDERBILT [US]
Earliest priority: 2018-10-16 • Earliest publication: 2020-04-16

The present disclosure is directed to antibodies binding to Aspergillus allergens and methods for use thereof.

2.MULTIVALENT PNEUMOCOCCAL POLYSACCHARIDE-PROTEIN CONJUGATE VACCINE
WO2020075201A1 • 2020-04-16 •
BIOLOGICAL E LTD [IN]
Earliest priority: 2018-10-12 • Earliest publication: 2020-04-16
The present invention relates to multivalent pneumococcal polysaccharide-protein conjugates vaccine composition comprising pneumococcal capsular polysaccharide of one or more...

3.COMBINATION VACCINE COMPOSITION COMPRISING REDUCED DOSE INACTIVATED POLIOVIRUS AND METHOD FOR PREPARING THE SAME
WO2020075184A1 • 2020-04-16 •
SERUM INST OF INDIA PRIVATE LTD [IN]
Earliest priority: 2018-10-12 • Earliest publication: 2020-04-16
.... A process for preparing the vaccine composition is also disclosed.

4.RECOMBINANT RSV LIVE VACCINE STRAIN AND PRODUCTION METHOD THEREFOR
WO2020076141A1 • 2020-04-16 •
SK BIOSCIENCE CO LTD [KR]
Earliest priority: 2018-10-12 • Earliest publication: 2020-04-16
... recombinant RSV of the present invention can be used as an RSV vaccine strain, and can be used as a vaccine due to having excellent stability and safety.

5.METHODS, DEVICES, AND COMPOSITIONS FOR MEASURING AND INDUCING CELL-TO-CELL COMMUNICATION, AND THERAPEUTIC USES THEREOF
US2020114164A1 • 2020-04-16 •
IMMUNOLIGHT LLC [US]
Earliest priority: 2018-10-12 • Earliest publication: 2020-04-16

Methods of treating a subject are provided, involving providing a first region of biological material coupled to the subject; initiating a change in a cellular environment of the cells in the first region; and due to a change in biological or chemical activity of the cells in the first region, inducing a biological change in a second region inside the subject, along with various biophoton collectors and biophoton bypasses useful for implementing a variety of the method embodiments.

6.DIHYDROPYRIDO[2,3-D]PYRIMIDINONE COMPOUNDS AS CDK2 INHIBITORS
US2020115378A1 • 2020-04-16 •
INCYTE CORP [US]
Earliest priority: 2018-10-11 • Earliest publication: 2020-04-16

The present application provides dihydropyrido[2,3-d]pyrimidone inhibitors of cyclin-dependent kinase 2 (CDK2), as well as pharmaceutical compositions thereof, and methods of treating cancer using the same.

7.GENOME EDITED CANCER CELL VACCINES
US2020113986A1 • 2020-04-16 •
THE RESEARCH FOUNDATION OF THE STATE UNIV OF NEW YORK [US]
Earliest priority: 2018-10-10 • Earliest publication: 2020-04-16
A cancer vaccine technology is provided which knocks out expression of cell surface immune checkpoint proteins, to facilitate their processing...

8.INACTIVATED POLIOMYELITIS VACCINE COMPOSITION
WO2020075197A1 • 2020-04-16 •
BIOLOGICAL E LTD [IN]
Earliest priority: 2018-10-10 • Earliest publication: 2020-04-16

...The present invention provides inactivated poliomyelitis vaccine compositions comprising at least one inactivated poliovirus S19 strain for prevention of poliomyelitis. The present invention provides safe, stable and effective vaccine formulations which can be manufactured at low containment level leading to large scale production of poliomyelitis vaccines. ...

9.USES OF MODIFIED RNA ENCODING RETINALDEHYDE DEHYDROGENASE
WO2020077045A1 • 2020-04-16 •
HARVARD COLLEGE [US]
Earliest priority: 2018-10-10 • Earliest publication: 2020-04-16
..., administration, use, and treatment. In some embodiments, the modRNA may be used in a vaccine to treat infections (e.g...

10.SURFACE EXPRESSION VECTOR FOR CONSTITUTIVE HIGH-EXPRESSION USING PROMOTER OF GALACTOSE MUTAROTASE GENE DERIVED FROM LACTOBACILLUS CASEI, AND USE THEREOF
WO2020076078A1 • 2020-04-16 •
BIOLEADERS CORP [KR]
Earliest priority: 2018-10-10 • Earliest publication: 2020-04-16
... a target protein on the surface of a fungus body, and thus being useful as a vaccine carrier or the...

11.VIRUS DE LA VACCINE ONCOLYTIQUE AVEC GÈNE B5R MODIFIÉ POUR LE TRAITEMENT DU CANCER
WO2020074902A1 • 2020-04-16 •
UNIV LONDON QUEEN MARY [GB]
Earliest priority: 2018-10-10 • Earliest publication: 2020-04-16
...La présente invention concerne un vecteur de virus de la vaccine comprenant une séquence d'acide nucléique codant pour un... du virus de la vaccine. L'invention concerne également des compositions comprenant le vecteur du virus de la vaccine, des... la vaccine. L'invention concerne également une séquence d'acide nucléique codant pour un gène délété B5R des domaines CR1 ...

12.Methods for Isolating Immune Binding Proteins
US2020116699A1 • 2020-04-16 •
AUGMENTA BIOWORKS INC [US]
Earliest priority: 2018-10-10 • Earliest publication: 2020-04-16

Described herein are immune binding proteins and method for obtaining immune binding proteins from genomic or other sources. Also described herein are nucleic acids encoding the immune binding proteins in which the natural multimeric association of chains is maintained in the nucleic acids and the immune binding proteins made therefrom. For example, nucleic acids encoding antibodies that are amplified from a B-cell using the methods described herein maintain the natural pairing of heavy and light chains from the B-cell. This maintenance of pairing (or multimerization) produces libraries and/or repertoires of immune binding proteins that are enriched for useful binding molecules.

13.TOBACCO MOSAIC VIRUS DELIVERY OF MITOXANTRONE FOR CANCER THERAPY
US2020108108A1 • 2020-04-09 •

UNIV CASE WESTERN RESERVE [US]
Earliest priority: 2018-10-09 • Earliest publication: 2020-04-09

A method of treating cancer in a subject that includes administering to the cancer a therapeutically effective amount of an anti-cancer virus particle, the virus particle including a rod-shaped plant virus or virus-like particle and mitoxantrone (MTO) or analogs thereof, wherein the MTO is loaded into the interior channel of the rod-shaped plant virus particle.

14.Antiviral Peptide and Use Thereof
US2020109177A1 • 2020-04-09 •
TOAGOSEI CO LTD [JP]
Earliest priority: 2018-10-09 • Earliest publication: 2020-04-09

An antiviral peptide provided according to the present invention includes (1) an amino acid sequence (TM sequence) constituting a transmembrane region of G protein of vesicular stomatitis virus (VSV) or a modified amino acid sequence formed by conservative substitutions of 1, 2, or 3 amino acid residues in the TM sequence; and (2) an amino acid sequence (CPP sequence) functioning as a cell penetrating peptide (CPP), wherein a total number of amino acid residues is 100 or less.

15.METHOD FOR TREATING PULMONARY FIBROSIS USING S100A3 PROTEIN
US2020108120A1 • 2020-04-09 •
KING FAISAL SPECIALIST HOSPITAL & RES CENTRE [SA]
Earliest priority: 2018-10-09 • Earliest publication: 2020-04-09

The invention is directed to a method for diagnosing and treating a pulmonary lung disease by detecting a mutant S100A3 protein associated with pulmonary lung disease and by treating a subject with a functional S100A3 protein.

16.COMBINATIONS OF ANTI-STAPHYLOCOCCUS AUREUS ANTIBODIES
US2020109189A1 • 2020-04-09 •
MEDIMMUNE LLC [US]
Earliest priority: 2018-10-09 • Earliest publication: 2020-04-09

The present disclosure is directed to anti-Staphylococcus aureus antibody combinations including combinations of antibodies that bind to S. aureus alpha toxin (AT) protein, clumping factor A protein (C1fA), and/or at least one leukotoxin protein. Methods of treating and preventing infections comprising administering the antibody combinations are also provided herein.

17.NEURAL STEM CELL THERAPY FOR STROKE
US2020108100A1 • 2020-04-09 •
RENEURON LTD [GB]
Earliest priority: 2018-10-08 • Earliest publication: 2020-04-09

The invention relates to the treatment of stroke using neural stem cells. In particular, the invention relates to functional improvements in stroke patients following treatment with CTX0E03 neural stem cells. In one

aspect, the invention provides neural stem cells for use in a method of treating ischemic stroke, wherein a single dose of the cells is administered into the brain of a stroke patient having a modified NIHSS Motor Arm Score of 2 or 3, wherein the treatment improves motor function and alleviates disability within six months as determined by an increase of total ARAT score and/or a reduction in mRS of at least one category.

18.ALPHAVIRUS-BASED REPLICONS FOR ADMINISTRATION OF BIOTHERAPEUTICS
US2020109178A1 • 2020-04-09 •
JANSSEN PHARMACEUTICALS INC [US]
Earliest priority: 2018-10-08 • Earliest publication: 2020-04-09

The invention provides RNA replicons useful for administering a heterologous protein or peptide into a mammal and eliciting a reduced immune response or no immune response from the mammal. The RNA replicons have RNA sequences encoding for a heterologous protein or peptide, New World alphavirus nonstructural proteins nsP1, nsP2, and nsP4; and an alphavirus nsP3 protein macro domain, central domain, and hypervariable domain. The encoded hypervariable domain can have an amino acid sequence derived from an Old World alphavirus nsP3 hypervariable domain; or can have an amino acid sequence derived from a portion of a New World alphavirus nsP3 hypervariable domain, and another portion derived from an Old World alphavirus nsP3 hypervariable domain.

19.BINDERS FOR INHIBITING FORMATION OF MULTIMERIC PROTEINS
EP3632924A1 • 2020-04-08 •
AFFILOGIC [FR]
Earliest priority: 2018-10-07 • Earliest publication: 2020-04-08

The invention relates to variants of OB-fold proteins, in particular of the Sac7d family that are able to bind a subunit of a multimeric protein and inhibit the formation of the multimer.

20.CD40 AND CD40L COMBO IN AN ADENOVIRUS VACCINE VEHICLE
WO2020073045A1 • 2020-04-09 •
NANTCELL INC [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09
A cancer vaccine is provided including a recombinant nucleic acid encoding a self-activating chimeric signaling protein, and especially chimeric TNF family ligand-receptor proteins, and a tumor-associated antigen. In a preferred embodiment, the cancer vaccine may further include a nucleic acid segment encoding an IL-15 superagonist. In addition, the cancer vaccine can be co-administered with a ...

21.COMBINATION THERAPY FOR TREATING CANCER
WO2020073044A1 • 2020-04-09 •
CZERNIECKI BRIAN J [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

A method for treating cancer, comprising, administering to a patient in need thereof a combination of: a targeted inhibitor drug (TID) against the cancer, and an anti-cancer agent either capable of inducing the

production of at least one Th1 cytokine in the patient or that comprises at least one Th1 cytokine or its functional facsimile supplied to the patient.

22.METHOD AND SYSTEM FOR BINDING AFFINITY PREDICTION AND METHOD OF GENERATING A CANDIDATE PROTEIN-BINDING PEPTIDE
EP3633681A1 • 2020-04-08 •
NEC ONCOIMMUNITY AS [NO]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-08

In a first aspect of the present disclosure, there is provided a computer-implemented method of predicting a binding affinity of a query binder molecule to a query target molecule, the query binder molecule having a first amino acid sequence and the query target molecule having a second amino acid sequence, the method comprising: computing, with the at least one processor, the binding affinity for the query binder molecule to the query target molecule as a weighted combination of reference binding values of reference binder-target subsequence pairs, wherein weights of the weighted combination are based on similarity scores.

23.COMBINATION THERAPY FOR TREATING CANCER WITH AN INTRAVENOUS ADMINISTRATION OF A RECOMBINANT MVA AND AN IMMUNE CHECKPOINT ANTAGONIST OR AGONIST
WO2020070303A1 • 2020-04-09 •
BAVARIAN NORDIC AS [DK]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

The invention relates to a pharmaceutical combination and related methods for reducing tumor volume and/or increasing the survival of a cancer patient. The combination comprises an intravenous administration of a recombinant MVA encoding CD40L and an administration of an antagonist or agonist of an immune checkpoint molecule.

24.CHIMERIC ANTIBODY WITH ENHANCED MULTI-IMMUNE FUNCTION THROUGH SPECIFIC BINDING TO TARGET CELL, AND USE THEREOF
WO2020071869A1 • 2020-04-09 •
RNAGENE INC [KR]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09
... an active ingredient; a pharmaceutical composition for the prevention or treatment of infectious diseases; an adjuvant composition; and a vaccine composition.

25.SYRINGE FOR RECONSTITUTING AND INJECTING A PHARMACEUTICAL SOLUTION
WO2020070564A1 • 2020-04-09 •
OROFINO PHARMACEUTICALS GROUP SRL [IT]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

The present invention concerns a prefilled syringe (400) with the typical tubular containment body (430), which extends along an axis between a front end element (420) and a rear end element (410), and wherein a fixed plug (470) and two sliding plugs (460, 450) are arranged. There is a bypass channel in the initial position of the syringe (400) between the first two plugs (470, 460). The two plugs (470,— 460) form,

together with a third plug (450) at the end of the syringe plunger, a first containment chamber (400L1) containing a first liquid substance and a second containment chamber (400L2) containing a second solid or liquid substance. In the prefilled syringe (400), the first plug (470): is arranged in a fixed position in contact with said front end element (420); is provided with a non-through cavity (445) offset with respect to said axis and facing towards said front end element (420).

26.COMPOSITIONS AND METHODS FOR TREATING CANCER
WO2020072761A1 • 2020-04-09 •
UNIV MICHIGAN REGENTS [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

Provided herein are compositions and methods for cancer immunotherapy. In particular, provided herein are compositions and methods for blocking CD6 binding to ligands on cancer cells.

27.METHODS FOR THE EXPANSION OF MESENCHYMAL STROMAL CELLS
WO2020073029A1 • 2020-04-09 •
UNIV TEXAS [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

Provided herein are methods for expanding populations of mesenchymal stromal cells (MSCs) comprising treating a population of MSCs derived from cord tissue with a pre-activation cytokine cocktail. Further provided herein are methods of treating immune disorders with the MSCs

28.FORMULATIONS AND METHODS FOR TRANSDERMAL ADMINISTRATION OF KETONES
WO2020073033A1 • 2020-04-09 •
AMPERSAND BIOPHARMACEUTICALS INC [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

A formulation for transdermal delivery of one or more ketone components through the skin of a subject, comprising: a ketone component in an amount between about 10-60 %w/w; a penetrant portion in an amount less than about 60 %w/w, and water in an amount less than about 50 %w/w.

29.OXINDOLE COMPOUNDS FOR USE AS MAP4K1 INHIBITORS
WO2020070332A1 • 2020-04-09 •
ICHNOS SCIENCES S A [CH]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

The invention relates to novel inhibitors of MAP4K1 (HPK1), useful for the treatment of diseases or disorders characterized by characterized dysregulation of the signal transduction pathways associated with MAPK activation, including hyperproliferative diseases, diseases of immune system dysfunction, inflammatory disorders, neurological diseases, and cardiovascular diseases. The invention further relates to pharmaceutical compositions comprising the same and methods of treatment of said diseases and disorders. (Formula I)

30.METHODS AND SYSTEMS FOR CONTROLLING THE AGONISTIC PROPERTIES OF ANTIBODY VARIABLE DOMAINS BY LIGHT
WO2020070288A1 • 2020-04-09 •
CENTRE NAT RECH SCIENT [FR]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

The inventors have developed a recombinant molecular system, named OptoFab, allowing the accurate control of the agonistic properties of an antibody-derived Fab fragment in time and in space using specific wavelengths of light. It consists in a Fab fragment derived from an agonistic antibody of interest, linked to optogenetic modules that confer a light response capacity. Indeed, antibody derived Fab fragments generally keep the specificity of the antibody for its epitope, but not its agonistic properties. However, when Fab fragments are oligomerized, they recover the agonistic properties of the whole antibody. These characteristics, are at the basis of the OptoFab concept as its objective is to manipulate the oligomerization/immobilization statue of a Fab fragment using optogenetics to control its agonistic property. The present invention relates to methods and systems for controlling the agonistic properties of antibody variable domains by light.

31.BIO-INK STRUCTURES AND METHODS OF PRODUCING THE SAME
US2020109299A1 • 2020-04-09 •
L LIVERMORE NAT SECURITY LLC [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

In various embodiments, the present disclosure provides methods of making a living structure from a bio-ink material of freeze-dried cells and methods of using the living structure for biosensing, tissue regeneration, environment sensing, drug discovery, catalysis, and/or clinical implementation.

32.METHODS OF MAKING PLATELETS COMPRISING MODIFIED RECEPTORS AND USES THEREOF
WO2020072471A1 • 2020-04-09 •
UNIV UTAH RES FOUND [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

Disclosed herein are methods of producing platelets comprising a modified receptor, therapeutic agents, peptides, and/or bioactive molecules. The cells produced by the methods disclosed herein can be used to treat, manage, prevent and diagnosis, for example, lysosomal storage diseases, diabetes and cancer. The cells produced by the methods disclosed herein can be engineered to comprise receptors capable of activating platelets to trigger the release of enzymes, biomolecules or therapeutic agents upon binding to specific drugs and/or binding to tissue specific peptides.

33.IRON FORMULATIONS FOR TOPICAL ADMINISTRATION AND METHODS OF TREATMENT OF IRON DEFICIENCY
WO2020073030A1 • 2020-04-09 •
AMPERSAND BIOPHARMACEUTICALS INC [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

Provided herein are formulations for the transdermal administration of iron or an iron containing compound. Also provided are formulations that include iron chelators and antioxidants, and methods of using the formulations provided herein for the treatment of diseases and disorders relating to iron deficiency, anemia, and conditions associated with anemia.

34.KIDNEY HEALTH MONITORING IN HYPERTENSION PATIENTS
WO2020072533A1 • 2020-04-09 •
THE U S GOVERNMENT REPRESENTED BY THE DEPT OF THE VETERANS AFFAIRS [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

The present disclosure provides methods of determining whether a subject treated for hypertension should continue hypertension treatment. In exemplary embodiments, the method comprises measuring the level of at least two of the following in a urine sample obtained from the subject: (i) Alpha- 1 microglobulin (aim); (ii) kidney injury molecule (KIM- 1); and (iii) Chitinase-3-like protein (YKL-40); wherein the subject should continue the hypertension treatment, when the levels are decreased or unchanged, relative to a control level, and wherein the subject should discontinue or decrease the hypertension treatment, when the levels are increased, relative to a control level. Related methods, kits, assay systems, systems comprising machine readable instructions, computer-readable storage media, and methods implemented by a processor in a computer are furthermore provided herein.

35.COMPOSITIONS AND METHODS FOR ENZYMATIC DISRUPTION OF BACTERIAL BIOFILMS
WO2020073004A1 • 2020-04-09 •
RES INSTITUTE AT NATIONWIDE CHILDRENS HOSPITAL [US]
Earliest priority: 2018-10-05 • Earliest publication: 2020-04-09

Provided herein are methods to inhibit or disrupt a bio film comprising contacting the bio film with an agent that cleaves the Holliday junction (HJ) structure in the bio film.

36.ANTI-MALARIA COMPOSITIONS AND METHODS
WO2020072399A1 • 2020-04-09 •
ARTIFICIAL CELL TECH INC [US]
Earliest priority: 2018-10-04 • Earliest publication: 2020-04-09

Multilayer films comprise polypeptide epitopes from Plasmodium falciparum, specifically a circumsporozoite CIS43 epitope and one or more of circumsporozoite T1, B or T* epitope. The multilayer films are capable of eliciting an immune response in a host upon administration to the host. The multilayer films can include at least one designed peptide that includes one or more polypeptide epitopes from a Plasmodium protozoan.

37.RNA-BASED METHODS TO LAUNCH HEPATITIS B VIRUS INFECTION
WO2020072207A1 • 2020-04-09 •
UNIV ROCKEFELLER [US]
Earliest priority: 2018-10-04 • Earliest publication: 2020-04-09

This disclosure describes a method to induce HBV infection in cells or animal models with an HBV pregenomic RNA (pgRNA). The method is amenable to multiple genotypes and has excellent signal-to-noise ratios. The method can be used to identify novel anti- HBV agents, measure anti- HBV drug efficiency, and predict drug resistance.

38.IMMUNOASSAY FOR DETECTION OF STREPTOCOCCUS PNEUMONIAE SEROTYPES
WO2020070461A1 • 2020-04-09 •
SEC DEP FOR HEALTH AND SOCIAL CARE [GB]
Earliest priority: 2018-10-04 • Earliest publication: 2020-04-09

The present invention is directed to a method for detecting the presence or absence of a Streptococcus pneumoniae serotype-specific capsular polysaccharide in a sample; and a kit for use in such methods.

39.COMPOSITIONS AND METHODS COMPRISING MUTANTS OF TERMINAL DEOXYNUCLEOTIDYL TRANSFERASE
WO2020072715A1 • 2020-04-09 •
HARVARD COLLEGE [US]
Earliest priority: 2018-10-04 • Earliest publication: 2020-04-09

Provided herein are modified TdT polypeptides and uses thereof.

40.CBLB ENDONUCLEASE VARIANTS, COMPOSITIONS, AND METHODS OF USE
US2020109385A1 • 2020-04-09 •
BLUEBIRD BIO INC [US]
Earliest priority: 2018-10-04 • Earliest publication: 2020-04-09

The present disclosure provides improved genome editing compositions and methods for editing a CBLB gene. The disclosure further provides genome edited cells for the prevention, treatment, or amelioration of at least one symptom of, a cancer, an infectious disease, an autoimmune disease, an inflammatory disease, or an immunodeficiency.

41.COMPOSITION AND METHODS FOR TREATING ACUTE DIARRHEA AND ENTERIC
WO2020072636A1 • 2020-04-09 •
ANUBIS BIO CORP [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

The composition may be used therapeutically or prophylactically and is directed toward a cluster of diarrhea-causing pathogens which cause illness or death in animals, including dogs and cats. It is prepared from a powdered egg preparation and powdered protein matrix, such as bovine colostrum. The eggs are collected from hens which have been immunized with the relevant pathogens or toxins. When the matrix includes colostrum, the powdered colostrum is derived from non-hyperimmune cattle. The vaccination strategy includes the use of antibody cross-reactivity between toxins or pathogens which cause diarrhea. For some diseases, including canine parvo, the clinical improvement using this therapeutic exceeds the standard of care. Instead of a pharmaceutical product, this composition is an orally administered food product with the same safety profile as eggs and milk.

42.COVALENT ADAPTOR SYNNOTCH AND CHIMERIC ANTIGEN RECEPTORS (CARS) FOR PROGRAMMABLE ANTIGEN-TARGETING
WO2020072764A1 • 2020-04-09 •
UNIV PITTSBURGH COMMONWEALTH SYS HIGHER EDUCATION [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

Disclosed are compositions and methods related to the construction and use of universal synthetic notch (synNotch) receptors and chimeric antigen receptor (CAR) T cells.

43.IMIDOZOPYRIMIDINE DERIVATIVES
WO2020072656A1 • 2020-04-09 •
GILEAD SCIENCES INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

The present disclosure provides a compound of Formula (I) or a pharmaceutically acceptable salt thereof as described herein. The present disclosure also provides pharmaceutical compositions comprising a compound of Formula (I), processes for preparing compounds of Formula (I), therapeutic methods for treating cancers.

44.VEMURAFENIB AND SALTS THEREOF FOR USE IN THE TREATMENT OF ENTEROVIRAL INFECTIONS
WO2020070390A1 • 2020-04-09 •
JYVAESKYLAEN YLIOPISTO [FI]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

The present invention provides N-(3-(5-(4-chlorophenyl)-1H-pyrrolo[2,3-b]pyridine-3- carbonyl)-2,4-difluorophenyl)propane-1-sulfonamideknown as vemurafenib, and pharmaceutical salts thereof for use in the treatment of enteroviral diseases.

45.IMMUNOABLATIVE THERAPIES
EP3632446A1 • 2020-04-08 •
AVM BIOTECHNOLOGY LLC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-08

This invention pertains to pharmaceutical compositions comprising a glucocorticoid for use in the treatment of diseases by immunoablation. The compositions of the invention may be for use in the treatment of diseases that are mediated by immune cells such as lymphocytes.

46.IMMUNOABLATIVE THERAPIES
WO2020072713A1 • 2020-04-09 •
AVM BIOTECHNOLOGY LLC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2019-05-29

This invention pertains to pharmaceutical compositions comprising a glucocorticoid for use in the treatment of diseases by immunoablation. The compositions of the invention may be for use in the treatment of diseases that are mediated by immune cells such as lymphocytes.

47.FLAVONE DERIVATIVES FOR THE TREATMENT AND PROPHYLAXIS OF HEPATITIS B VIRUS DISEASE
WO2020070088A1 • 2020-04-09 •
HOFFMANN LA ROCHE [CH]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

The present invention provides novel compounds having the general formula (Formula I) : wherein R1 to R6, G1, G2, A1 to A4 and m are as described herein, compositions including the compounds and methods of using the compounds.

48.CRYSTALLINE FORMS OF NIRAPARIB FREEBASE
WO2020072796A1 • 2020-04-09 •
TESARO INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

Crystalline niraparib freebase is provided. Also provided are pharmaceutical compositions comprising crystalline niraparib freebase, and methods and uses pertaining to the same.

49.8-AMINOISOQUINOLINE COMPOUNDS AND USES THEREOF
WO2020072695A1 • 2020-04-09 •
GENENTECH INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

3-Carbonylamino-8-aminoisoquinoline compounds of formula (I): variations thereof, and their use as inhibitors of HPK1 (hematopoietic kinase 1) are described. The compounds are useful in treating HPK1-dependent disorders and enhancing an immune response. Also described are methods of inhibiting HPK1, methods of treating HPK1-dependent disorders, methods for enhancing an immune response, and methods for preparing the 3-carbonylamino-8-aminoisoquinoline compounds.

50.8-AMINOISOQUINOLINE COMPOUNDS AND USES THEREOF
US2020108075A1 • 2020-04-09 •
GENENTECH INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

variations thereof, and their use as inhibitors of HPK1 (hematopoietic kinase 1) are described. The compounds are useful in treating HPK1-dependent disorders and enhancing an immune response. Also described are methods of inhibiting HPK1, methods of treating HPK1-dependent disorders, methods for enhancing an immune response, and methods for preparing the 3-carbonylamino-8-aminoisoquinoline compounds.

51.USE OF ANTINEOPLASTIC AGENTS TO STIMULATE THE IMMUNE SYSTEM FOR PRODUCTION OF TERTIARY LYMPHOID STRUCTURES (TLS)
WO2020072090A1 • 2020-04-09 •
CRITITECH INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

Disclosed is a method of producing tertiary lymphoid structures in a subject with a malignant solid tumor, the method comprising locally administering a composition comprising antineoplastic particles to the tumor of the subject, wherein the antineoplastic particles reside at the tumor site after administration of the composition exposing the tumor to the antineoplastic particles for a sustained amount of time sufficient to stimulate the endogenous immune system of the subject resulting in the production of tertiary lymphoid structures, and infiltration of the tertiary lymphoid structures in and/or around the tumor site. The methods include local administration methods such as topical application, pulmonary administration, intratumoral injection, intravesical instillation, direct injection into tissues surrounding a tumor, and intraperitoneal injection. The presence of tertiary lymphoid structures in and around the tumor site induces tumor destruction.

52.AROMATIC RING SUBSTITUTED AMPHIPHILIC POLYMERS AS DRUG DELIVERY SYSTEMS
WO2020072681A1 • 2020-04-09 •
AVIDEA TECH INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

An amphiphilic block copolymer having any one of the formulas S-[B]-H, S-[B]-H(D), D-[B]-H, S-B(D)-H, S-[B]-H-[B]-S, S-[B]-H(D)-[B]-S, D-[B]-H-[B]-S, D-[B]-H-[B]-D, S-B(D)-H-[B]-S or S-B(D)-H-B(D)-S; wherein S is a hydrophilic surface stabilizing group; B is a spacer group; H is a hydrophobic polymer or oligomer; D is a drug molecule; ( ) denotes that the group is bonded directly or indirectly as a side chain or as part of a side chain group to the adjacent group; [ ] denotes that the group is optional; and denotes that each of the adjacent S, B, H or D are linked directly to one another or indirectly to one another via a linker group.

53.NIRAPARIB SALTS
WO2020072797A1 • 2020-04-09 •
TESARO INC [US]
Earliest priority: 2018-10-03 • Earliest publication: 2020-04-09

Novel salts of niraparib are provided. Also provided are pharmaceutical compositions comprising those salts, as well as methods and uses pertaining to the same.

54.HLA SINGLE ALLELE LINES
WO2020072700A1 • 2020-04-09 •
BROAD INST INC [US]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

Adaptive immune responses rely on the ability of cytotoxic T cells to identify and eliminate cells displaying disease-specific antigens on human leukocyte antigen (HLA) class I molecules. Investigations into antigen processing and display have immense implications in human health, disease and therapy. To extend understanding of the rules governing antigen processing and presentation, immunopurified peptides from B cells, each expressing a single HLA class I allele, were profiled. A resource dataset containing thousands of peptides bound to distinct class I HLA- A, -B, and -C alleles was generated by implementing a novel allele-specific database search strategy. Applicants discovered new binding motifs, established the role of gene expression in peptide presentation and improved prediction of HLA-peptide binding by using these data to

train machine-learning models. These streamlined experimental and analytic workflows enable direct identification and analysis of endogenously processed and presented antigens.

55.A RESPIRATORY PASSAGE SPRAYER AND METHOD OF USE OF SAME
WO2020069559A1 • 2020-04-09 •
PALMER RAYMOND DENIS [AU]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

Mixing of substances is known to increase, in some cases, lability of one or more of the constituent molecules in the mixture. In some cases, such admixture of substances may lead, in addition to instability of one or more molecules, to decomposition of labile molecules. Such instability and/or decomposition may be due to concentration effects, enzymatic action, heat, light, a redox reaction, other components in the same solution reacting with labile molecules, physicochemical factors such as pH, and/or solvent effects. It will be appreciated that a lack of stability of a molecule represents a major cause for concern in medical chemistry. The present disclosure relates to a respiratory passage sprayer for administration of substances to a subject and a method of use of the respiratory passage sprayer.

56.NOVEL GRAS PROBIOTIC BACTERIAL STRAIN TO INHIBIT ACIDOSIS AND LIVER ABSCESSES IN CATTLE
WO2020072642A1 • 2020-04-09 •
NUTECH VENTURES [US]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

The present disclosure provides compositions and methods of using such compositions that reduce the incidence of, duration of, frequency of, or severity of clinical signs associated with or caused by pathogen infection. Representative pathogens include Streptococcus, Fusobacterium, Escherichia, and Arcanobacterium. In general, the composition includes a quantity of at least one Bacillus species.

57.COMBINATION THERAPY USING ANTI-SSEA-4 ANTIBODY IN COMBINATION WITH THERAPEUTIC ONCOLOGY AGENTS
WO2020072593A1 • 2020-04-09 •
OBI PHARMA INC
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

The present disclosure is generally directed to treatment methods and compositions comprising administering anti-SSEA-4 antibodies; alone or in additive and/or synergistic combination with other therapeutic agents in oncology to enhance therapeutic efficacy whereby the interaction alters the epitope binding of Siglec-9 protein; including human Siglec-9 or a mammalian Siglec-9; wherein the use of such anti-SSEA-4 compositions are efficacious in preventing, reducing risk, or treating an individual with cancer.

58.ISOQUINOLINE COMPOUNDS FOR THE TREATMENT OF CANCER
WO2020072627A1 • 2020-04-09 •
GENENTECH INC [US]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

3-Carbonylaminoisoquinoline compounds of formula (I): variations thereof, and their use as inhibitors of HPK1 (hematopoietic kinase 1) are described. The compounds are useful in treating HPK1-dependent disorders and enhancing an immune response. Also described are methods of inhibiting HPK1, methods of treating HPK1-dependent disorders, methods for enhancing an immune response, and methods for preparing the 3-carbonylaminoisoquinoline compounds.

59.ANALYTE DETECTION SYSTEM
WO2020069570A1 • 2020-04-09 •
WEAROPTIMO PTY LTD [AU]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

A system for detecting analytes in a biological subject, the system including at least one substrate including a plurality of microstructures configured to breach a stratum corneum of the subject, and wherein a presence, absence, level or concentration of analytes is able to be detected by contact of the microneedles with the analytes causing a change in appearance in at least one of the microstructures, the substrate or the stratum corneum of the subject.

60.COMPOSITIONS AND METHODS FOR PREVENTION AND REDUCTION OF METASTASIS
WO2020072640A1 • 2020-04-09 •
WISTAR INST [US]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

Compositions and methods for the prevention or reduction of metastasis are provided. Such compositions and methods include increasing the level or expression of HAPLN1.

61.ACTUATOR SYSTEM
WO2020069569A1 • 2020-04-09 •
WEAROPTIMO PTY LTD [AU]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

A system for performing measurements on a biological subject, the system including: at least one substrate including a plurality of microstructures configured to breach a stratum corneum of the subject; and, an actuator configured to apply a force to the substrate to cause the microstructures to at least one of pierce and penetrate the stratum corneum.

62.ELECTRODE ARRANGEMENT
WO2020069567A1 • 2020-04-09 •
WEAROPTIMO PTY LTD [AU]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

An electrode arrangement for use with a system for performing measurements on a biological subject, the electrode arrangement including: at least one substrate; and, a plurality of plate microstructures extending from the substrate, the microstructures being configured to breach the stratum corneum of the subject and wherein the microstructures include electrodes to allow signals to be applied to and/or received from the subject via the microstructures.

63.TREATMENT DELIVERY SYSTEM
WO2020069568A1 • 2020-04-09 •
WEAROPTIMO PTY LTD [AU]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

A system for delivering treatment to a biological subject, the system including: at least one substrate including a plurality of microstructures configured to breach a stratum corneum of the subject; at least one sensor operatively connected to at least one microstructure, the at least one sensor being configured to measure response signals from the at least one microstructure; at least one treatment delivery mechanism operatively coupled to at least one microstructure to deliver treatment via at least one microstructure; and, one or more electronic processing devices that are configured to control the at least one treatment delivery mechanism to thereby deliver treatment to the subject at least partially in accordance with the measured response signals.

64.MEASUREMENT SYSTEM
WO2020069565A1 • 2020-04-09 •
WEAROPTIMO PTY LTD [AU]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

A system for performing measurements on a biological subject, the system including: at least one substrate including a plurality of plate microstructures configured to breach a stratum corneum of the subject; at least one sensor operatively connected to at least one microstructure, the at least one sensor being configured to measure response signals from the at least one microstructure; and, one or more electronic processing devices configured to: determine measured response signals; and, at least one of: provide an output based on measured response signals; perform an analysis at least in part using the measured response signals; and, store data at least partially indicative of the measured response signals.

65.BI-SPECIFIC BINDING AGENTS TARGETING SYNDECAN-1 AND FIBROBLAST GROWTH FACTOR RECEPTOR
WO2020071365A1 • 2020-04-09 •
MITSUBISHI TANABE PHARMA CORP [JP]
Earliest priority: 2018-10-02 • Earliest publication: 2020-04-09

Provided is a bi-specific binding agent comprising (a) an antibody, or antigen binding portion thereof, that binds specifically to syndecan-1 (CD138); and (b) a Fynomer that binds specifically to a fibroblast growth factor receptor 3 (FGFR3), wherein the Fynomer comprises a polypeptide having an amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO: 99 or SEQ ID NO: 113. Also provided is the bi-specific binding agent which is conjugated with an anti-neoplastic agent.

66.COMBINATION CELL-BASED THERAPIES
WO2020072395A1 • 2020-04-09 •
HEAT BIOLOGICS INC [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09
The present disclosure provides methods of treatment with cells having a vaccine (e.g., gp96-lg) and cells having a T-cell co-stimulatory molecule.

67.INJECTABLE HYDROGELS FOR CONTROLLED RELEASE OF IMMUNOMODULATORY COMPOUNDS
WO2020072495A1 • 2020-04-09 •
UNIV LELAND STANFORD JUNIOR [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

An immunomodulatory delivery system includes a hydrogel, a first immunomodulatory cargo encapsulated in the cargo, and a second immunomodulatory cargo encapsulated in the hydrogel. The hydrogel includes a polymer non-covalently crossed-linked with a plurality of nanoparticles. The first immunomodulatory cargo is smaller than the second immunomodulatory cargo. A ratio of a diffusivity of the first immunomodulatory cargo through the hydrogel to a diffusivity of the second immunomodulatory cargo through the hydrogel is less than 3.

68.SSI CELLS WITH PREDICTABLE AND STABLE TRANSGENE EXPRESSION AND METHODS OF FORMATION
WO2020072480A1 • 2020-04-09 •
BABRAHAM INST [GB]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

Mammalian cells are described that includes a recombination target site integrated within high integrating locus. Recombinant protein producer cell lines incorporating the mammalian cells and methods for forming the mammalian cells are also described. The high integrating loci have been developed through understanding and mapping of the three dimensional hierarchical structure of chromatin in mammalian cells. The high integrating loci are present in transcriptionally active environments that can provide both chromatin accessibility and epigenetic stability. As such, the recombinant mammalian cells can provide predictable and stable transgene production.

69.MELANOMA CANINE VACCINE COMPOSITIONS AND METHODS OF USE THEREOF
WO2020072371A1 • 2020-04-09 •
THE WISTAR INST [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

The present invention relates to compositions and methods for generating a nucleic acid delivery system comprising a nucleic acid sequence encoding a heterologous protein comprising a canine tumor-specific antigen (canine melanoma polyepitope (K9Melapoly)) and an inhibitor of an immuno-inhibitory pathway (HSV-1 gD). Additionally, the current invention includes compositions and methods of treating of and/or preventing or immunizing a canine against melanoma, and methods of inducing an effector and memory T cell immune response in a canine administered the nucleic acid delivery system of the invention. Furthermore, the invention encompasses a pharmaceutical composition for vaccinating a canine as well as a protein expression system.

70.COMPOSITIONS COMPRISING HIV ENVELOPES TO INDUCE HIV-1 ANTIBODIES
WO2020072162A1 • 2020-04-09 •
UNIV DUKE [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

The invention is directed to modified HIV-l envelopes, compositions comprising these modified envelopes, nucleic acids encoding these modified envelopes, compositions comprising these nucleic acids, and methods of using these modified HIV-l envelopes and/or these nucleic acids to induce immune responses.

71.HIV-1 ENVELOPE STABILIZING MUTATIONS
WO2020072169A1 • 2020-04-09 •
UNIV DUKE [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

The technology is directed to HIV envelopes which comprise sequence modifications wherein these modifications prevent CD4-induced transitions of the HIV envelope. Specifically, the disclosure provides recombinant HIV-1 Env proteins comprising mutations, wherein the envelope is a protomer, and wherein three protomers form a trimer stabilized by the presence of the mutations. Provided also are compositions comprising envelopes of the technology, and methods of use.

72.EVIDENCE BASED SELECTION OF PATIENTS FOR CLINICAL TRIALS USING HISTOPATHOLOGY
WO2020072223A1 • 2020-04-09 •
NANTOMICS LLC [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

An immune gene expression signature and immune cell distribution in the tumor, in combination, can be used to infer an immune phenotype of the tumor, which further can be used to characterize the tumor, selecting an optimal immune therapy to the tumor, and predicting the treatment outcome of an immune therapy.

73.METHODS FOR TREATING CANCER WITH DOUBLE STRANDED RNA SENSOR ACTIVATORS AND ADOPTIVE CELL THERAPY
WO2020072366A1 • 2020-04-09 •
BIONCOTECH THERAPEUTICS S L [ES]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

Disclosed herein are improved methods of treating cancer in a subject by administering Adoptive Cell Therapy, in particular in those subjects affected by a cancer that presents a loss of function, mutation, or other disruption in an immune pathway. The loss of function mutation or disruption can be in IFNAR1, JAK2, or B2M. The methods include the intratumoral administration of nanoplexed poly(TC) formulations. These methods are further useful for a variety of therapeutic methods and uses relating to the administration of an immune checkpoint therapy such as anti -PD 1 or anti-PDLl for the prevention of, and/or against the occurrence of cancer, particularly solid cancer.

74.HIGH SPECIFICITY AND SENSITIVITY IMMUNOSORBENT DIAGNOSTIC ASSAYS WITH SIMULTANEOUS RESOLUTION OF MULTIPLE ANTIBODY ISOTYPES
WO2020072534A1 • 2020-04-09 •
TAL MICHAL CASPI
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

Compositions and methods are provided for diagnosis of infections. The patterns of antibody isotype, subtype and glycosylation provide for a signature pattern that can identify infective agents and patient response to infection. Patients likely to benefit from therapeutic intervention can be discriminated from patients that have a low probability of responsiveness. Therapies are also provided.

75.PEPTIDE IMMUNOGEN CONSTRUCTS DIRECTED AGAINST DIPEPTIDE REPEAT PROTEINS FROM C9ORF72
WO2020072428A1 • 2020-04-09 •
UNITED NEUROSCIENCE
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

The present disclosure is directed to dipeptide repeat (DPR) peptide immunogen constructs, compositions containing the constructs, antibodies elicited by the constructs, and methods for making and using the constructs and compositions thereof. The disclosed DPR peptide immunogen constructs contain a B cell epitope derived from a DPR protein from C9orf72, including repeats of poly-GA, poly-GP, poly-GR, poly-PR, and poly-PA, linked to a heterologous T helper cell (Th) epitope directly or through an optional heterologous spacer. The B cell epitope portion of the peptide immunogen constructs contain about 10 to about 25 repeats of the respective dipeptide sequence. The disclosed peptide immunogen constructs stimulate the generation of highly specific antibodies directed against the DPR sequences. The disclosed peptide immunogen constructs can be used as an immunotherapy for patients suffering from amyotrophic lateral sclerosis (ALS), frontotemporal dementia (FTD), and/or any other condition caused by the presence of DPRs.

76.RNA PARTICLES COMPRISING POLYSARCOSINE
WO2020069718A1 • 2020-04-09 •
BIONTECH RNA PHARMACEUTICALS GMBH [DE]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

The present disclosure relates to RNA particles for delivery of RNA to target tissues after administration, in particular after parenteral administration such as intravenous, intramuscular, subcutaneous or intratumoral administration, and compositions comprising such RNA particles. The RNA particles in one embodiment comprise single-stranded RNA such as mRNA which encodes a peptide or protein of interest, such as a pharmaceutically active peptide or protein. The RNA is taken up by cells of a target tissue and the RNA is translated into the encoded peptide or protein, which may exhibit its physiological activity.

77.RNA PARTICLES COMPRISING POLYSARCOSINE
WO2020070040A1 • 2020-04-09 •
BIONTECH RNA PHARMACEUTICALS GMBH [DE]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

The present disclosure relates to RNA particles for delivery of RNA to target tissues after administration, in particular after parenteral administration such as intravenous, intramuscular, subcutaneous or intratumoral administration, and compositions comprising such RNA particles. The RNA particles in one embodiment comprise single-stranded RNA such as mRNA which encodes a peptide or protein of interest, such as a

pharmaceutically active peptide or protein. The RNA is taken up by cells of a target tissue and the RNA is translated into the encoded peptide or protein, which may exhibit its physiological activity.

78.ENGINEERED ACTIVE SINGLE-POLYPEPTIDE CHAIN INSULIN ANALOGS
WO2020072181A1 • 2020-04-09 •
UNIV HOUSTON SYSTEM [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

Described herein are single chain polypeptides comprising both the b- and a-chains of insulin fused to each other by a linker. Also provided are nucleic acids coding for the same, host cells expressing the same, and methods of use therefor.

79.RECOMBINANT TYPE I CRISPR-CAS SYSTEM AND USES THEREOF FOR KILLING TARGET CELLS
WO2020072254A1 • 2020-04-09 •
UNIV NORTH CAROLINA STATE [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

This invention relates to recombinant Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) arrays and recombinant nucleic acid constructs encoding Type I-E CASCADE complexes, plasmids, retroviruses and bacteriophage comprising the same, and methods of use thereof for killing one or more cells in a population of bacterial and/or archaeal cells.

80.RECOMBINANT TYPE I CRISPR-CAS SYSTEM AND USES THEREOF FOR SCREENING FOR VARIANT CELLS
WO2020072253A1 • 2020-04-09 •
UNIV NORTH CAROLINA STATE [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

This invention relates to recombinant Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) arrays and recombinant nucleic acid constructs encoding Type I-E CASCADE complexes, plasmids, retroviruses and bacteriophage comprising the same, and methods of use thereof for screening for variant cells of an organism.

81.RECOMBINANT TYPE I CRISPR-CAS SYSTEM AND USES THEREOF FOR GENOME MODIFICATION AND ALTERATION OF EXPRESSION
WO2020072250A1 • 2020-04-09 •
UNIV NORTH CAROLINA STATE [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-09

This invention is directed to recombinant Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) arrays and recombinant nucleic acid constructs encoding Type 1-E CASCADE complexes, plasmids, retroviruses and bacteriophage comprising the same, and methods of use thereof for modifying genomes and expression. Further disclosed are methods of modifying (editing) the genome of target organisms using the constructs.

82.COMBINATION THERAPY FOR THE TREATMENT OF CANCER
WO2020072334A1 • 2020-04-09 •
CELGENE CORP [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-02

Provided herein are methods of treating and/or managing cancers, which comprise administering to a patient Compound A, or an enantiomer or a mixture of enantiomers thereof, or a pharmaceutically acceptable salt, solvate, hydrate, co-crystal, clathrate, or polymorph thereof in combination with daratumumab. Additionally, provided herein are methods of treating and/or managing cancers, which comprise administering to a patient Compound A, or an enantiomer or a mixture of enantiomers thereof, or a pharmaceutically acceptable salt, solvate, hydrate, co-crystal, clathrate, or polymorph thereof in combination with daratumumab and dexamethasone.

83.RECOMBINANT TYPE I CRISPR-CAS SYSTEM
WO2020072248A1 • 2020-04-09 •
UNIV NORTH CAROLINA STATE [US]
Earliest priority: 2018-10-01 • Earliest publication: 2020-04-02

This invention relates to recombinant Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) arrays and recombinant nucleic acid constructs encoding Type l-E CASCADE complexes as well as plasmids, retroviruses and bacteriophage comprising the same. Specifically, the CRISPR array comprising two or more repeat sequences and one or more spacer sequence(s). Further disclosed are repeat nucleotide sequences.

84.COMBINED IMMUNIZATION AGAINST MENINGOCOCCAL DISEASE AND HUMAN PAPILLOMAVIRUS
EP3632465A1 • 2020-04-08 •
SANOFI PASTEUR INC [US]
Earliest priority: 2018-09-28 • Earliest publication: 2020-04-02

Provided herein are compounds, compositions, formulations, kits, uses, and methods for immunization against Neisseria meningitidis serogroups A, C, Y, and W-135 and human papilloma virus.

85.A portable temperature-stable storage device
GB2577683A • 2020-04-08 •
IDEABATIC LTD [GB]
Earliest priority: 2018-09-28 • Earliest publication: 2020-04-02

The device comprises an insulating enclosure 902 with an aperture 920, a barrier 921 disposed across the aperture and configured to be moved between an open configuration and a closed configuration which prevents access from external surroundings to the inside of the insulating enclosure. A plurality of compartments 910 for storing temperature-sensitive objects move relative to the aperture and are separated from one another by second barriers 922 which to engage an interior surface of the insulating enclosure to form a seal. A closed compartment is formed when the compartment is not aligned with the aperture and an accessible compartment is formed when the compartment is aligned. Means 916 for moving the

compartments into alignment is provided and the compartments may be defined on a carousel 912 located within a cylindrical enclosure.

86.Compositions And Methods For Making And Using Virus-Like Particles (VLPs)
US2020109176A1 • 2020-04-09 •
UNIV MASSACHUSETTS [US]
Earliest priority: 2018-09-24 • Earliest publication: 2020-04-02

The present invention provides compositions and methods for using prophylactic and/or therapeutic vaccines to immunize subjects, and offspring of immunized female subjects, against respiratory syncytial virus (RSV). The invention also provides compositions and methods for producing increased yields of recombinant virus-like particles (VLPs).

87.FUSED TRICYCLIC RING DERIVATIVES AS SRC HOMOLOGY-2 PHOSPHATASE INHIBITORS
US2020115389A1 • 2020-04-16 •
NIKANG THERAPEUTICS INC [US]
Earliest priority: 2018-09-18 • Earliest publication: 2020-03-26

The present disclosure provides certain fused tricyclic ring derivatives that are Src Homology-2 phosphatase (SHP2) inhibitors and are therefore useful for the treatment of diseases treatable by inhibition of SHP2. Also provided are pharmaceutical compositions containing such compounds and processes for preparing such compounds.

88.IONIZABLE LIPIDOIDS AND THEIR USES
US2020109121A1 • 2020-04-09 •
MASSACHUSETTS INST TECHNOLOGY [US]
Earliest priority: 2018-08-31 • Earliest publication: 2020-03-05

Provided herein are lipidoid compounds of Formulae (I) and (II), and pharmaceutically acceptable salts, co-crystals, tautomers, stereoisomers, solvates, hydrates, polymorphs, isotopically labeled derivatives, prodrugs, and compositions thereof. Also provided are methods and kits involving the inventive lipidoid compounds, compositions, or formulations for treating and/or preventing diseases (e.g., genetic disease, proliferative disease, hematological disease, neurological disease, painful condition, psychiatric disorder, metabolic disorder, long-term medical condition, inflammatory disease, autoinflammatory disease, liver disease, lung disease, spleen disease, familial amyloid neuropathy, cardiovascular disease, viral infection, infectious disease, fibrotic condition, or autoimmune disease) in a subject, methods for synthesizing the compounds described herein, and compounds described herein synthesized by the synthetic methods described herein. The compounds are effective carriers for the delivery of an agent such as a polynucleotide (e.g., RNA) to a cell.

89.MODULATING PTPN2 TO INCREASE IMMUNE RESPONSES AND PERTURBING GENE EXPRESSION IN HEMATOPOIETIC STEM CELL LINEAGES
WO2020072126A2 • 2020-04-09 •
DANA FARBER CANCER INST INC [US]
Earliest priority: 2018-08-07 • Earliest publication: 2020-04-09

The present invention relates, in part, to methods of treating a subject with a condition that would benefit from an increased immune response comprising administering to the subject a therapeutically effective amount of an agent that inhibits PTPN2. The present invention also provides methods and compositions for perturbing gene expression in hematopoietic cell lineages.

90.SUBSTITUTED NAPHTHYRIDINONE COMPOUNDS USEFUL AS T CELL ACTIVATORS
US2020109140A1 • 2020-04-09 •
SQUIBB BRISTOL MYERS CO [US]
Earliest priority: 2018-06-27 • Earliest publication: 2020-01-02

or a salt thereof, wherein: R1, R2, R3, R4, R5, and m are defined herein. Also disclosed are methods of using such compounds to inhibit the activity of one or both of diacylglycerol kinase alpha (DGKα) and diacylglycerol kinase zeta (DGKζ), and pharmaceutical compositions comprising such compounds. These compounds are useful in the treatment of viral infections and proliferative disorders, such as cancer.

91.VIRUS AND ANTIGEN PURIFICATION AND CONJUGATION
US2020113999A1 • 2020-04-16 •
KENTUCKY BIOPROCESSING INC [US]
Earliest priority: 2018-06-12 • Earliest publication: 2020-04-16

Disclosed herein are methods of forming compounds and exemplary compounds in the nature of a conjugated compound demonstrating enhanced stability, which in some embodiments comprises a protein and virus particle mixed in a conjugation reaction to form a conjugate mixture, such that the conditions and steps of forming these products allow for unrefrigerated storage for longer time periods than previous approaches, thus making feasible access to such products over a global supply chain.

92.COMPOSITIONS AND METHODS FOR ENHANCING THE KILLING OF TARGET CELLS BY NK CELLS
US2020109195A1 • 2020-04-09 •
COMPASS THERAPEUTICS LLC [US]
Earliest priority: 2018-05-21 • Earliest publication: 2019-11-28

The present disclosure provides immunotherapeutic compositions and methods for enhancing an immune response and for treating cancer or inflammatory conditions mediated by autoreactive B cells in a subject. In some aspects, multispecific antigen-binding constructs are provided that recognize at least one tumor antigen or B-lineage cell antigen and NKp30 and/or another activating NK receptor. In some aspects, multispecific antigen-binding constructs are provided that recognize at least two tumor antigens or two antigens expressed by B-lineage cells, NKp30, and another activating NK receptor. The multispecific antigen-binding constructs and methods disclosed herein can be used for the treatment of cancer, even a cancer characterized by a CD16 deficient microenvironment and/or characterized by target cells (e.g., cancer cells) having a low level of expression of the tumor antigen.

93.ANTI-CD27 AND ANTI-PD-L1 ANTIBODIES AND BISPECIFIC CONSTRUCTS
US2020109207A1 • 2020-04-09 •
CELLDEX THERAPEUTICS INC [US]

Earliest priority: 2018-04-17 • Earliest publication: 2019-10-24

Provided herein are novel anti-CD27 and anti-PD-L1 antibodies, and binding domains thereof, as well as bispecific constructs and anti-CD27 binding domain linked to an anti-PD-L1 binding domain. Also provided herein are methods of stimulating T cell activity, methods of inducing or enhancing an immune response, and methods of treating a disease or condition (e.g., cancer) by administering the bispecific constructs, antibodies, or antigen binding fragments thereof, or compositions described herein to a patient in need thereof.

94.PEPTIDES AND COMBINATION OF PEPTIDES OF NON-CANONICAL ORIGIN FOR USE IN IMMUNOTHERAPY AGAINST DIFFERENT TYPES OF CANCERS
US2020108097A1 • 2020-04-09 •
IMMATICS BIOTECHNOLOGIES GMBH [DE]
Earliest priority: 2018-02-21 • Earliest publication: 2019-08-22
... or in combination with other tumor-associated peptides that can for example serve as active pharmaceutical ingredients of vaccine compositions...

95.Anti-PD-L1 antibody and uses thereof
AU2018395084A1 • 2020-04-09 •
INNOVENT BIOLOGICS SUZHOU CO LTD
Earliest priority: 2017-12-27 • Earliest publication: 2019-07-04

The invention provides an antibody and fragment thereof specifically binding to PD-L1, a composition containing the antibody or fragment thereof, a nucleic acid encoding the antibody or fragment thereof, a corresponding host cell and the uses thereof. Moreover, the invention also provides a type of therapy that uses a combination of the antibody and fragment thereof with other therapies.

96.Anti-OX40 antibodies and uses thereof
AU2017440393A1 • 2020-04-16 •
EUCURE BEIJING BIOPHARMA CO LTD [CN]
Earliest priority: 2017-11-24 • Earliest publication: 2019-05-31

This disclosure provides anti-OX40 (TNF Receptor Superfamily Member 4, or TNFRSF4) antibodies, antigen-binding fragments, and the uses thereof.

97.Synthetic hemagglutinin as universal vaccine against infection by type B influenza viruses (IBV)
AU2018371355A1 • 2020-04-09 •
HER MAJESTY THE QUEEN IN THE RIGHT OF CANADA AS REPRESENTED BY THE MINI OF HEALTH
Earliest priority: 2017-11-22 • Earliest publication: 2019-05-31

A synthetic hemagglutinin (sHA) which represents the highest degree of conservation in the HA sequences of all Influenza B viruses (IVB) based on comprehensive bioinformatics analyses was cloned into an adenoviral vector. The recombinant adenovirus carrying the sHA gene was then delivered intransallyintranasally into DAB/2 mice. The animals were challenged with 5xLD50 influenza B viruses.

We have found that the synthetic HA vaccines afford 100% protection against lethal challenge whereas 50% mice died in the control group. Furthermore, no virus was found in the lung of the vaccinated group while significant lung viruses were found in all mice of the controlled group. Consistent with the survival data and virus titre, severe pneumonia was found in all mice of the control group while no pathologic observation was made in animals receiving the vaccines.

98.Multifunctional immune cell therapies
AU2018368431A1 • 2020-04-16 •
ARCELLX INC
Earliest priority: 2017-11-14 • Earliest publication: 2019-05-23

Provided herein are multi-functional chimeric antigen receptor (CAR)-based compositions and their use in directing immune responses to target cells. The compositions have uses that include treating hyperproliferative disorders such as cancer. The provided methods generally include the use of a CAR cell in combination with an Adapter. The Adapter confers the ability to modulate, alter, and/or redirect CAR cell-mediated immune response

99.Compositions and methods for inhibiting viral vector-induced inflammatory responses
AU2018364542A1 • 2020-04-16 •
HARVARD COLLEGE
Earliest priority: 2017-11-08 • Earliest publication: 2019-05-16

Provided herein, in some embodiments, are recombinant viral genomes comprising an inhibitory oligonucleotide that reduces inflammation for use, for example, in gene therapy.

100.Vaccine
AU2018359019A1 • 2020-04-09 •
CARBIS RODNEY
Earliest priority: 2017-11-06 • Earliest publication: 2019-05-09

The present disclosure relates to vaccines, and methods of use thereof, for immunization against

101.Adenovirus and uses thereof
AU2018359492A1 • 2020-04-16 •
JANSSEN VACCINES & PREVENTION BV
Earliest priority: 2017-10-31 • Earliest publication: 2019-05-09

Provided herein are adenoviral nucleic acid sequences and adenoviral vectors comprising said nucleic acid sequences. The provided adenoviral vectors can be used to induce a protective immune response in a subject.

102.Novel T-cell receptor
AU2018356944A1 • 2020-04-16 •
UNIV COLLEGE CARDIFF CONSULTANTS LTD [GB]
Earliest priority: 2017-10-26 • Earliest publication: 2019-05-02

... of said TCR; a pharmaceutical composition or immunogenic agent or bispecific or vaccine comprising said TCR, said cell, said clone... or immunogenic agent or bispecific or vaccine to treat cancer; and a method of treating cancer using said TCR, said cell, said clone, said vector, said pharmaceutical composition, immunogenic agent, bispecific or vaccine comprising said TCR. ...

103.Dosage and administration of anti-C5 antibodies for treatment of Paroxysmal Nocturnal Hemoglobinuria (PNH) and Atypical Hemolytic Uremic Syndrome (aHUS)
AU2018354404A1 • 2020-04-16 •
ALEXION PHARMA INC [US]
Earliest priority: 2017-10-26 • Earliest publication: 2019-05-02

Provided are methods for clinical treatment of Paroxysmal Nocturnal Hemoglobinuria (PNH) and Atypical Hemolytic Uremic Syndrome (aHUS) using an anti-C5 antibody, or antigen binding fragment thereof.

104.Prodrugs of substituted triazole derivatives and uses thereof
AU2018356352A1 • 2020-04-16 •
BAYER AG [DE]
Earliest priority: 2017-10-24 • Earliest publication: 2019-05-02

The present invention relates to prodrugs of 3-({3-(4-chlorophenyl)-5-oxo-4-[(2S)-3,3,3-trifluoro- 2-hydroxypropyl] -4,5-dihydro- 1H-1,2,4-triazol-1-yl Jmethyl)-1- [3-(trifluoromethyl)-pyridin-2-yl] - 1H-1,2,4-triazole-5-carboxamide, 3-({3-(4-chlorophenyl)-5-oxo-4-[(2S)-3,3,3-trifluoro-2- hydroxypropyl] -4,5-dihydro- 1H-1,2,4-triazol-1-yl} methyl)-1- [2-(trifluoromethyl)-phenyl] -1H- 1,2,4-triazole-5-carboxamide and 3-({3-(4-chlorophenyl)-5-oxo-4-[(2S)-3,3,3-trifluoro-2- hydroxypropyl] -4,5-dihydro-1H-1,2,4-triazol-1-yl} methyl)-1-(3-chloropyridin-2-yl)-1H-1,2,4- triazole-5-carboxamide, to processes for the preparation of such compounds, to pharmaceutical compositions containing such compounds, and to the use of such compounds or compositions for the treatment and/or prevention of diseases, in particular for the treatment and/or prevention of renal and cardiovascular diseases.

105.Bordetella strains expressing serotype 3 Fimbriae
AU2018353409A1 • 2020-04-16 •
INST NAT SANTE RECH MED [FR]
Earliest priority: 2017-10-18 • Earliest publication: 2019-04-25

A Fim3-producing BPZE1 derivative with sufficiently stable

106.1-benzyl-2-imino-4-phenyl-5-oxoimidazolidine derivatives as HIV protease inhibitors
AU2018347541A1 • 2020-04-16 •
GILEAD SCIENCES INC [US]
Earliest priority: 2017-10-13 • Earliest publication: 2019-04-18

The invention provides a compound of Formula I: or a pharmaceutically acceptable salt thereof as described herin. The invention also provides pharmaceutical compositions comprising a compound of Formula I, processes for preparing compounds of Formula I, therapeutic methods for treating the proliferation of the

HIV virus, treating AIDS or delaying the onset of AIDS symptoms in a mammal using compounds of Formula I.

107.Combination of a PARP inhibitor and a PD-1 axis binding antagonist
AU2018347331A1 • 2020-04-09 •
MERCK PATENT GMBH [DE]
Earliest priority: 2017-10-13 • Earliest publication: 2019-04-18

This invention relates to a method of treating cancer by administering a PARP inhibitor in combination with a PD-1 axis binding antagonist to a patient in need thereof.

108.Compositions and methods for treating diffuse large B cell lymphoma
AU2018347457A1 • 2020-04-09 •
AMGEN INC [US]
Earliest priority: 2017-10-13 • Earliest publication: 2019-04-18

Methods and compositions for treating diffuse large B cell lymphoma (DLBCL) using a combination of blinatumomab and/or a blinatumomab variant and pembrolizumab, a pembrolizumab variant and/or an antigen-binding fragment thereof, are provided.

109.Screening of T lymphocytes for cancer-specific antigens
AU2018346765A1 • 2020-04-16 •
ONCOTHERAPY SCIENCE INC [JP]
Earliest priority: 2017-10-06 • Earliest publication: 2019-04-11

Provided herein are methods to identify TCR-recognizing cancer-specific antigens, and TCR-engineered T cells having antigen-specific cytotoxic activity. Provided herein are engineered T lymphocytes produced by the methods described herein. Provided herein are methods of treating cancer in a subject comprising administering the engineered T lymphocytes described herein. Provided herein are antibodies, or fragments thereof, produced by the methods described herein. Provided herein are methods of treating cancer in a subject comprising administering the antibodies described herein to a subject. In some embodiments, the therapeutic compositions (e.g., engineered lymphocytes, antibodies, etc.) and methods herein are provided as part of a kit or system.

110.Regulatory T cell epitopes
AU2018346681A1 • 2020-04-16 •
EPIVAX INC [US]
Earliest priority: 2017-10-05 • Earliest publication: 2019-04-11

The present is directed to compositions comprising regulatory T cell epitopes, wherein said epitopes comprise a polypeptide comprising at least a portion of SEQ NOS: 1-14, fragments and/or variants thereof, as well as methods of producing and using the same.

111.Dosage and administration of anti-C5 antibodies for treatment of patients with Membranoproliferative glomerulonephritis

AU2018345625A1 • 2020-04-16 •
ALEXION PHARMA INC [US]
Earliest priority: 2017-10-04 • Earliest publication: 2019-04-11

Provided are methods for clinical treatment of Membranoproliferative glomerulonephritis (MPGN) by administering an anti-C5 antibody, or antigen binding fragment thereof.

112.Cutaneous papilloma virus vaccine
AU2018342997A1 • 2020-04-16 •
DEUTSCHES KREBSFORSCH [DE]
Earliest priority: 2017-09-29 • Earliest publication: 2019-04-04

The present invention relates to an immunogenic polypeptide comprising a multitude of papillomavirus (PV) L2 N-terminal peptides corresponding to amino acids 20 to 50 of the L2 polypeptide of HPV16, wherein said HPV L2 N-terminal peptides are L2 N-terminal peptides from at least four different cutaneous HPV genotypes; and to the aforesaid immunogenic polypeptide for use in medicine and for use in vaccination of a subject against cutaneous HPV infection and/or mucosal HPV infection. The present invention further relates to a polynucleotide encoding the aforesaid immunogenic polypeptide and to vectors, host cells, methods for producing an antibody, as well as antibodies relatedthereto.

113.Immunogenic composition for the treatment of cancer
AU2018344001A1 • 2020-04-16 •
KIESSLING ROLF VALTER RIKARD [SE]
Earliest priority: 2017-09-29 • Earliest publication: 2019-04-04

The invention relates to the field of immunotherapy, more in particular to a composition for use in the treatment of cancer. The invention also relates to a composition obtainable by such a method, such as a pharmaceutical composition. More in particular, the invention relates to an ex vivo method for obtaining a composition suitable for the treatment of cancer in a subject, comprising the steps of providing primary tumor cells derived from the subject, and ex vivo contacting the tumor cells with an inhibitor of a bromodomain and extra-terminal domain family member (BET inhibitor).

114.ErbB peptide pharmaceutical and vaccine compositions and therapeutics uses thereof for cancer
AU2018341578A1 • 2020-04-16 •
L2 DIAGNOSTICS LLC [US]
Earliest priority: 2017-09-27 • Earliest publication: 2019-04-04
Disclosed herein are peptide-adjuvant pharmaceutical compositions and vaccine compositions that trigger long lasting natural anti-tumor antibodies. Such compositions...

115.Tissue factor-targeting CAR-NK and CAR-T cell therapy
AU2018341227A1 • 2020-04-09 •
OHIO STATE INNOVATION FOUNDATION [US]
Earliest priority: 2017-09-27 • Earliest publication: 2019-04-04

Disclosed are methods and compositions related to chimeric antigen receptors (CARs) that recognize Tissue Factor (TF). Specifically, disclosed are CARs that comprise fVII or a functional fragment thereof. Also disclosed are immune effector cells comprising the CARs disclosed herein.

116.Methods, compositions, and implantable elements comprising active cells
AU2018338608A1 • 2020-04-09 •
SIGILON THERAPEUTICS INC [US]
Earliest priority: 2017-09-27 • Earliest publication: 2019-04-04

Described herein are cell compositions comprising an active cell (e.g., an engineered active cell, e.g., an engineered RPE cell) or derivatives thereof, as well as compositions, pharmaceutical products, and implantable elements comprising an active cell, and methods of making and using the same. The cells and compositions may express a therapeutic agent useful for the treatment of a disease, disorder, or condition described herein.

117.Niraparib formulations
AU2018341479A1 • 2020-04-16 •
TESARO INC [US]
Earliest priority: 2017-09-26 • Earliest publication: 2019-04-04

The present invention relates to pharmaceutical tablet compositions comprising the compound niraparib as an active pharmaceutical ingredient, suitable for oral administration as well as to methods for their preparation. Also described herein are tablet compositions containing niraparib formed by the disclosed methods, and therapeutic uses of such tablet compositions for treating various disorders and conditions.

118.A33 antibody compositions and methods of using the same in radioimmunotherapy
AU2018338322A1 • 2020-04-09 •
MEMORIAL SLOAN KETTERING CANCER CENTER [US]
Earliest priority: 2017-09-23 • Earliest publication: 2019-03-28

The present disclosure relates generally to immunoglobulin-related compositions (e.g., antibodies or antigen binding fragments thereof) that can bind to and neutralize the activity of A33 protein. The antibodies of the present technology are useful in methods for detecting and treating an A33 -positive cancer in a subject in need thereof.

119.Chimeric polypeptides and uses thereof
AU2018338192A1 • 2020-04-16 •
KITE PHARMA INC [US]
Earliest priority: 2017-09-22 • Earliest publication: 2019-03-28

The invention provides novel peptides

120.Novel bispecific polypeptide complexes
AU2018334886A1 • 2020-04-09 •
WUXI BIOLOGICS IRELAND LTD [IE]

Earliest priority: 2017-09-22 • Earliest publication: 2019-03-28

A polypeptide complex comprises antibody variable regions of the heavy chain and light chain respectively fused to TCR constant regions. A bispecific antigen binding polypeptide complex contains a first antigen-binding moiety of the polypeptide complex and a second antigen-binding moiety. A method comprises producing the polypeptide complex or the bispecific antigen binding polypeptide complex. A method of treating disease or disorder comprises using the polypeptide complex or the bispecific antigen binding polypeptide complex. A polynucleotide encodes the polypeptide complex and/or the bispecific antigen binding polypeptide complex. A vector or a host cell contains the polynucleotide. A composition and a pharmaceutical composition comprise the polypeptide complex and/or the bispecific antigen binding polypeptide complex.

121.Compositions and methods for predicting response to NaPi2b-targeted therapy
AU2018337947A1 • 2020-04-09 •
MERSANA THERAPEUTICS INC [US]
Earliest priority: 2017-09-20 • Earliest publication: 2019-03-28

This disclosure provides reagents and methods of predicting the responsiveness of a patient to NaPi2b-targeted antibody-drug conjugates (e.g., NaPi2b-targeted antibody-polymer-drug conjugates).

122.Compositions and methods for lyophilization of bacteria or Listeria strains
AU2018336988A1 • 2020-04-16 •
ADVAXIS INC [US]
Earliest priority: 2017-09-19 • Earliest publication: 2019-03-28

Methods and compositions are provided for lyophilization of bacteria or

123.AXL-specific antibodies and uses thereof
AU2018333290A1 • 2020-04-16 •
NAT RES COUNCIL CANADA [CA]
Earliest priority: 2017-09-13 • Earliest publication: 2019-03-21

AXL-specific antibodies and uses therefor are described, including monoclonal and single domain antibodies. Such antibodies bind to cell surface expressed human AXL at an epitope in an immunoglobulin-like (IgL) domain of the AXL ectodomain. The antibody may be used in an antibody-drug conjugate (ADC), for example in the treatment, detection or staging of cancer. The antibody may be biparatopic.

124.Single stranded oligonucleotides inhibiting endocytosis
AU2018330372A1 • 2020-04-16 •
TIRMED PHARMA AB [SE]
Earliest priority: 2017-09-06 • Earliest publication: 2019-03-14

The invention provides a single-stranded oligonucleotide (ssON) for use in preventing or treating an influenza virus infection in a subject, wherein the single-stranded oligonucleotide is one that inhibits endocytosis. The invention also provides a single-stranded oligonucleotide (ssON) that comprises or

consists of a polynucleotide having a sequence sharing at least 60% sequence identity with a sequence of any one of SEQ ID NOs: 13-21 listed in Table 1, or a complementary sequence thereof.

125.Method for producing influenza HA split vaccine
AU2018325899A1 • 2020-04-09 •
JAPAN HEALTH SCIENCES FOUND [JP]
Earliest priority: 2017-09-04 • Earliest publication: 2019-03-07
Provided is a method for producing an influenza HA split vaccine that produces antibodies that bind to the HA stem region of influenza, which is less likely to undergo antigenic mutation. Acid treatment of the influenza HA split vaccine is performed. An influenza HA split vaccine that produces antibodies that bind to LAH of the HA stem region is obtained ...

126.Allogeneic CAR-T platform using HLA-matched bank of iPSCs, and related compositions, systems, and methods
AU2018324300A1 • 2020-04-16 •
ORIG3N INC [US]
Earliest priority: 2017-09-01 • Earliest publication: 2019-03-07

Presented herein are systems and methods of producing "universal" and/or "off-the-shelf" CAR-T compositions suitable for cancer therapy to be administered to one or more individuals. A CAR-T composition is a composition comprising one or more types of chimeric antigen receptor T cells (CAR-T). The iPSCs and/or cell lines, and any iPSC-derived CAR-T compositions derived therefrom, are identified as compatible with one or more individuals using an identification of a cell type indicative of compatibility (e.g., HLA match and/or ABO blood match and/or RHD blood match). The compatible cells are then retrieved from a managed HLA-indexed (and/or otherwise indexed) repository or are derived from a biological sample of a donor. The retrieved compatible cells are then used to derive iPSC-derived CAR-T compositions, wherein the derived compositions are suitable for therapy of one or more individuals.

127.I-PSC derived secretome compositions, and related systems and methods
AU2018324301A1 • 2020-04-16 •
ORIG3N INC [US]
Earliest priority: 2017-09-01 • Earliest publication: 2019-03-07

Presented herein are methods of producing "personalized" secretome compositions suitable for secretome based therapy to be administered to a specific individual and/or specific group of individuals. The iPSCs and/or iPSC-derived cells, and any iPSC-derived compositions derived therefrom, are identified as compatible with a specific individual or specific group of individuals using an identification of a cell type indicative of compatibility such as an HLA match and/or ABO blood match and/or RHD blood group match. The identified compatible cells are then retrieved from a managed HLA-indexed (and/or otherwise indexed) repository or are derived from a biological sample of a suitable donor. The retrieved compatible cells are then used to derive the "personalized" iPSC-derived secretome compositions, that comprise the complete secretome or a subset of the secretome suitable for treatment of a specific individual and/or specific group of individuals.

128.Streptococcus suis vaccines to protect against reproductive, nursery-age, and growing pig diseases and methods of making and use thereof
AU2018325528A1 • 2020-04-16 •
BOEHRINGER INGELHEIM ANIMAL HEALTH USA INC [US]
Earliest priority: 2017-08-31 • Earliest publication: 2019-03-07

The present invention provides

129.Modified HSV gB protein and HSV vaccine including same
AU2018323504A1 • 2020-04-09 •
KM BIOLOGICS CO LTD [JP]
Earliest priority: 2017-08-30 • Earliest publication: 2019-03-07

Provided is a modified protein of a herpes simplex virus (HSV) envelope glycoprotein B (gB), wherein, at least one epitope is deactivated (epitope deletion) among epitopes which induce non-neutralizing antibodies (non-neutralizing epitopes) and are present in domain IV and domain I of wild HSV gB.

130.Modified HSV gD protein and vaccine containing same
AU2018323502A1 • 2020-04-16 •
KM BIOLOGICS CO LTD [JP]
Earliest priority: 2017-08-30 • Earliest publication: 2019-03-07

This modified HSV gD protein is a modified protein of a herpes simplex virus (HSV) envelope glycoprotein D (gD) wherein the modified HSV gD protein is modified so that at least one of the B cell epitopes (decotopes) having low or no neutralizing antibody-inducing activity does not function as an epitope as compared to B cell epitopes present in the receptor-binding domain (RBD) in the ectodomain of wild type HSV gD.

131.Lymphatic system-directing lipid prodrugs
AU2018324037A1 • 2020-04-16 •
PURETECH LYT INC [US]
Earliest priority: 2017-08-29 • Earliest publication: 2019-03-07

The present invention provides lymphatic system-directing lipid prodrugs, pharmaceutical compositions thereof, methods of producing such prodrugs and compositions, as well as methods of improving the bioavailability or other properties of a therapeutic agent that comprises part of the lipid prodrug. The present invention also provides methods of treating a disease, disorder, or condition such as those disclosed herein, comprising administering to a patient in need thereof a provided lipid prodrug or a pharmaceutical composition thereof.

132.Polypeptide and antibody bound to polypeptide
AU2018325842A1 • 2020-04-16 •
SHANGHAI YILE BIOTECHNOLOGY CO LTD [CN]
Earliest priority: 2017-08-28 • Earliest publication: 2019-03-05

An antibody for being specifically bound to a pro brain-derived neurotrophic factor (pro-BDNF) and a bound epitope. The antibody and the protein are used for treating autoimmune diseases. By inhibiting the activity induced by the pro-BDNF, rheumatoid arthritis, psoriasis, systemic lupus erythematosus, lupus nephriti, chronic obstructive pulmonary diseases, asthma or cystic fibrosis, multiple sclerosis and other autoimmune diseases are treated.

133.Hepatitis B antiviral agents
AU2018326474A1 • 2020-04-16 •
ENANTA PHARM INC [US]
Earliest priority: 2017-08-28 • Earliest publication: 2019-02-28

The present invention discloses compounds of Formula (I), or pharmaceutically acceptable salts, esters, or prodrugs thereof: which inhibit the protein(s) encoded by hepatitis B virus (HBV) or interfere with the function of the HBV life cycle of the hepatitis B virus and are also useful as antiviral agents. The present invention further relates to pharmaceutical compositions comprising the aforementioned compounds for administration to a subject suffering from HBV infection. The invention also relates to methods of treating an HBV infection in a subject by administering a pharmaceutical composition comprising the compounds of the present invention.

134.Amantadine compositions, preparations thereof, and methods of use
AU2018320946A1 • 2020-04-16 •
ADAMAS PHARMA LLC [US]
Earliest priority: 2017-08-24 • Earliest publication: 2019-02-28

Provided herein are oral pharmaceutical compositions comprising amantadine, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient, and which have a low level of organic solvent. Provided are also methods of orally administrating a composition comprising amantadine, or a pharmaceutically acceptable salt thereof, to a subject, which has reduced gastrointestinal side effects or sleep disturbances. Further provided are extended release oral compositions comprising amantadine, or a pharmaceutically acceptable salt thereof, that are suitable for once daily administration.

135.Antigen-binding proteins tatrgeting shared antigens
AU2018318303A1 • 2020-04-09 •
GRITSTONE ONCOLOGY INC [US]
Earliest priority: 2017-08-18 • Earliest publication: 2019-02-21

Provided herein are HLA-PEPTIDE targets and antigen binding proteins that bind HLA-PEPTIDE targets. Also disclosed are methods for identifying the HLA-PEPTIDE targets as well as identifying one or more antigen binding proteins that bind a give n HLA-PEPTIDE target.

136.RECEPTOR SUBTYPE AND FUNCTION SELECTIVE RETINOID AND REXINOID COMPOUNDS IN COMBINATION WITH IMMUNE MODULATORS FOR CANCER IMMUNOTHERAPY
US2020113857A1 • 2020-04-16 •
IO THERAPEUTICS INC [US]

Earliest priority: 2017-07-13 • Earliest publication: 2018-11-29

Disclosed herein are methods for culturing CAR-modified immune cells with at least one Retinoic Acid Receptor and/or Retinoid X Receptor active agent.

137.METHOD FOR PREDICTING EFFECT OF TUMOR IMMUNOTHERAPY USING TUMOR CYTOTOXIC ACTIVITY OF PERIPHERAL BLOOD T CELLS AS INDEX
US2020116700A1 • 2020-04-16 •
UNIV OSAKA [JP]
Earliest priority: 2017-06-30 • Earliest publication: 2019-01-03

An object of the present invention is to provide a companion diagnostic for predicting the effect of a tumor immunotherapy. The effect of a tumor immunotherapy is predicted by a method including step 1: contacting directly or indirectly peripheral blood mononuclear cells collected from a patient who is a target for treatment of a malignant tumor with tumor cells in vitro; step 2: determining whether the tumor cells that contacted with the peripheral blood mononuclear cells in step 1 are damaged; and step 3: determining that the tumor immunotherapy is effective against the malignant tumor in the patient when the tumor cells are determined to have been damaged in step 2.

138.AMORPHOUS AND CRYSTALLINE FORMS OF IDO INHIBITORS
US2020115342A1 • 2020-04-16 •
SQUIBB BRISTOL MYERS CO
Earliest priority: 2017-06-30 • Earliest publication: 2019-01-03

The present disclosure relates to amorphous and crystalline forms of (R)—N-(4-chlorophenyl)-2-((1S,4S)-4-(6-fluoro-quinolin-4-yl) cyclohexyl) propanamide and its salts and hydrates, processes for their production, pharmaceutical compositions comprising them, and methods of treatment using them.

139.COMBINATION AND USES AND TREATMENTS THEREOF
US2020113838A1 • 2020-04-16 •
JANSSEN SCIENCES IRELAND UNLIMITED CO [IE]
Earliest priority: 2017-06-30 • Earliest publication: 2019-01-03

Methods are provided for treating or preventing human immunodeficiency virus-1 (HIV-1) or human immunodeficiency virus-2 (HIV-2) in a virologically suppressed patient in need thereof comprising switching the patient from an antiretroviral treatment regimen comprising at least three antiretroviral agents to a treatment regimen comprising only two antiretroviral agents. In one aspect the two treatment regimen consists of dolutegravir, rilpivirine and at least one pharmaceutically acceptable excipient, diluent or carrier. In another aspect of the invention, there is provided a multilayer tablet comprising dolutegravir or a pharmaceutically acceptable salt thereof and rilpivirine or a pharmaceutically acceptable salt thereof.

140.INJECTOR
US2020114083A1 • 2020-04-16 •
DAICEL CORP [JP]
Earliest priority: 2017-06-27 • Earliest publication: 2019-01-03

An injector includes an encapsulating portion configured to encapsulate a substance intended for injection, a first application portion configured to combust ignition charge and discharge a combustion product thereby applying a primary ejection energy to the substance intended for injection that is encapsulated in the encapsulating portion, an energy accumulation portion configured to accumulate an energy to be further applied to the substance intended for injection, the energy being different from the primary ejection energy applied by the first application portion. The injector also includes a second application portion configured to release the energy accumulated in the energy accumulation portion by using the discharged combustion product thereby applying, as a secondary ejection energy, the released energy to the substance intended for injection. With this configuration, the substance intended for injection can be caused to suitably reach the target region without affecting the substance intended for injection to be ejected.

141.CHIMERIC VIRUS-LIKE PARTICLES AND USES THEREOF AS ANTIGEN-SPECIFIC REDIRECTORS OF IMMUNE RESPONSES
US2020113996A1 • 2020-04-16 •
PATHOVAX LLC [US]
Earliest priority: 2017-06-23 • Earliest publication: 2018-12-27

This invention relates to chimeric virus-like particles (VLPs) assembled from a polypeptide comprising a papilloma p virus (PV) L1 protein or L1/L2 protein and a target peptide comprising a CD8+ T cell epitope derived from a human pathogen. This invention also relates to methods using the chimeric VLPs as antigen-specific redirectors of immune responses.

142.NANOEMULSION AND METHODS OF USE THEREOF
US2020113990A1 • 2020-04-16 •
UNIV WASHINGTON [US]
Earliest priority: 2017-06-19 • Earliest publication: 2018-12-27

The present disclosure relates to compositions and methods for inducing an immune response to a composition of the invention in a subject. Additionally, the present disclosure generally relates to methods for screening for immune response to a composition of the invention.

143.DIAZABICYCLIC SUBSTITUTED IMIDAZOPYRIMIDINES AND THEIR USE FOR THE TREATMENT OF BREATHING DISORDERS
US2020109155A1 • 2020-04-09 •
BAYER AG [DE]
Earliest priority: 2017-06-14 • Earliest publication: 2018-12-20

The present invention relates to novel diazabicyclically substituted imidazo[1,2-a]pyrimidine derivatives, to methods for producing the same, to the use thereof either alone or in combinations for the treatment and/or prevention of diseases, as well as to their use for preparing medicaments for the treatment and/or prevention of diseases, especially for treatment and/or prevention of breathing disorders, including sleep-related breathing disorders such as obstructive and central sleep apnoea and snoring.

144.HLA-A2 SUBTYPE-SPECIFIC PLK1-DERIVED EPITOPE INDUCING ANTIGEN-SPECIFIC T CELL IMMUNE RESPONSE TO PLK1 PROTEIN

US2020115684A1 • 2020-04-16 •
CATHOLIC UNIV KOREA IND ACADEMIC COOPERATION FOUNDATION [KR]
Earliest priority: 2017-06-13 • Earliest publication: 2018-12-20

The present invention relates to a HLA-A2 subtype-specific PLK1-derived epitope inducing an antigen-specific T cell immune response to a PLK1 protein. More specifically, a HLA-A2 subtype-specific PLK-1-derived epitope inducing an antigen-specific T cell immune response to a PLK1 protein according to the present invention can provide a CD8+ T cell immune response specific for tumor cells.

145.Systems and methods for identifying cancer treatments from normalized biomarker scores
GB2577828A • 2020-04-08 •
BOSTONGENE CORP [US]
Earliest priority: 2017-06-13 • Earliest publication: 2018-12-13

Techniques for determining predicted response of a subject to multiple therapies using the subject's sequencing data. The techniques include accessing biomarker information indicating a distribution of values for each biomarker in at least a reference subset of a plurality of biomarkers across a respective group of people, each of the plurality of biomarkers being associated with at least one therapy in a plurality of therapies; determining, using the sequencing data and the biomarker information, a normalized score for each biomarker in at least a subject subset of the plurality of biomarkers to obtain a set of normalized biomarker scores for the subject; and determining, using the set of normalized biomarker scores for the subject, therapy scores for the plurality of therapies, each of the therapy scores indicative of predicted response of the subject to administration of a respective therapy in the plurality of therapies.

146.BIOCOMPATIBLE MATERIALS
US2020115490A1 • 2020-04-16 •
UNIV WARWICK [GB]
Earliest priority: 2017-06-12 • Earliest publication: 2018-12-20

A resin composition, the resin composition comprising a prepolymer (209) and optionally one or more diluent(s) (FIG. 3A), the prepolymer (209) comprising repeating units having at least one carbonate linkage and at least one unsaturated side-chain, the at least one optional diluent(s) comprising at least one unsaturated side-chain, wherein either or both of the prepolymer (209) and the at least one optional diluent(s) comprises at least one O═C—N linkage, preferably a urethane linkage.

147.COMPOSITIONS, SYSTEMS, AND METHODS FOR THE PRODUCTION OF BIOMOLECULES
US2020109393A1 • 2020-04-09 •
UNIV DUKE [US]
Earliest priority: 2017-06-12 • Earliest publication: 2018-12-20

The present disclosure relates to compositions, systems, and methods for the production of biomolecules using microorganisms. In particular, the present disclosure provides biomolecule production platforms that include genetically engineered microorganisms with genetic circuits functionally coupled to microcapsules formed from materials that are responsive to culture conditions. The biomolecule production platforms

disclosed herein facilitate the efficient and robust production, purification, and/or analysis of any biomolecule-of-interest.

148.METHODS AND COMPOSITIONS FOR SUBSTANCE USE DISORDER VACCINE FORMULATIONS AND USES THEREOF
US2020115324A1 • 2020-04-16 •
MOLECULAR EXPRESS INC [US]
Earliest priority: 2017-06-11 • Earliest publication: 2018-12-20
The present invention relates to vaccine compositions for treatment of substance use disorders, methods for the manufacture thereof, and methods...

149.VACCINE COMPRISING CLOSTRIDIUM TOXOIDS
EP3634480A1 • 2020-04-15 •
HIPRA SCIENT S L U [ES]
Earliest priority: 2017-06-09 • Earliest publication: 2018-12-13
No abstract available

150.SIMULTANEOUS IN VITRO ANALYSIS OF VACCINE POTENCY AND TOXIN CONCENTRATION
EP3634996A1 • 2020-04-15 •
INDEVR INC [US]
Earliest priority: 2017-06-06 • Earliest publication: 2018-12-13
No abstract available

151.A HIGH-THROUGHPUT (HTP) GENOMIC ENGINEERING PLATFORM FOR IMPROVING SACCHAROPOLYSPORA SPINOSA
US2020115705A1 • 2020-04-16 •
ZYMERGEN INC [US]
Earliest priority: 2017-06-06 • Earliest publication: 2018-12-13

The present disclosure provides a HTP microbial genomic engineering platform for Saccharopolyspora spp. that is computationally driven and integrates molecular biology, automation, and advanced machine learning protocols. This integrative platform utilizes a suite of HTP molecular tool sets to create HTP genetic design libraries, which are derived from, inter alia, scientific insight and iterative pattern recognition.

152.ANTIGEN-BINDING PROTEIN RECOGNIZING MAGE-A4-DERIVED PEPTIDE
EP3636761A1 • 2020-04-15 •
UNIV MIE [JP]
Earliest priority: 2017-06-05 • Earliest publication: 2018-12-13

[Problem] To provide CAR-T cells that can be used in CAR infusion therapy wherein a cancer-specific intracellular antigen is used.

[Solution] The problem is solved by CAR-T cells for cancer therapy provided with an antibody that recognizes the MAGE-A4-derived-peptide/HLA-A2 complex, wherein the antibody has VH amino acid

sequence of SEQ ID NO: 36 and VL amino acid sequence of SEQ ID NO: 38. In the case, the antibody preferably is provided with the amino acid sequence of SEQ ID NO: 32.

153.DNA-GLYCAN CONJUGATES AND METHODS OF USE
US2020109435A1 • 2020-04-09 •
GEORGIA STATE UNIV RESEARCH FOUNDATION INC [US]
Earliest priority: 2017-06-02 • Earliest publication: 2018-12-06

Provided herein are DNA-glycan conjugates that include a glycan and a covalently attached polynucleotide. The polynucleotide includes a plurality of modules. Each module includes a nucleotide string, and the plurality of modules includes a monomer module that corresponds to each carbohydrate monomer present in the DNA-glycan conjugate, and a linkage module that corresponds to each glycosidic linkage present between each carbohydrate monomer in the DNA-glycan conjugate. The nucleotide sequence of the plurality of modules corresponds to the glycan structure. Also provided herein are methods for making and using the DNA-glycan conjugates. Further provided is a computer-implemented method for translating data from a nucleotide sequence to a glycan structure, a system for converting data from a glycan structure to a nucleotide sequence, and a system for translating data from a nucleotide sequence to a glycan structure.

154.NOVEL ANTI-CD40 ANTIBODIES AND USE THEREOF
EP3632933A1 • 2020-04-08 •
SEOUL NATIONAL UNIV R & DB FOUNDATION [KR]
Earliest priority: 2017-06-01 • Earliest publication: 2018-12-06

The present invention relates to novel anti-CD40 antibodies and a use thereof and, more specifically, provided are a pharmaceutical composition for treating or preventing autoimmune diseases and a composition for inhibiting immune rejection during organ transplantation, both compositions containing, as an active ingredient, novel anti-CD40 antibodies that specifically bind to a novel epitope of CD40. Novel anti-CD40 antibodies of the present invention directly target CD40, but not CD40 ligands, and block the signaling of CD40-CD154 without stimulating platelets so as to exhibit excellent antagonistic effects, thereby being expected to be usable as a preparation effective in the treatment of autoimmune diseases and the inhibition of organ transplantation rejection.

155.VACCINE AGAINST NECROTIC ENTERITIS IN POULTRY
EP3630800A1 • 2020-04-08 •
HER MAJESTY THE QUEEN IN RIGHT OF CANADA AS REPRESENTED BY THE MINI OF AGRICULTURE AND AGRI FOOD [CA]
Earliest priority: 2017-05-31 • Earliest publication: 2018-12-06
No abstract available

156.Packaging with Three-Dimensional Loop Material
US2020115135A1 • 2020-04-16 •
DOW GLOBAL TECHNOLOGIES LLC [US]
Earliest priority: 2017-05-31 • Earliest publication: 2018-12-06

A packaging article (10, 110, 210) is disclosed. In an embodiment, the packaging article (10, 110, 210) includes (A) an insulation container (12, 112, 212) having side walls (14, 114, 214) and a bottom wall (16, 116, 216), the walls defining a compartment (20, 120, 220), (B) a cold source (22, 122, 222) in the compartment (20, 120, 220), and (C) a sheet of 3-dimensional random loop material (3DRLM) (30,130, 230) in the compartment (20, 120, 220).

157.BIOMARKER FOR ALZHEIMER'S DISEASE
EP3633372A1 • 2020-04-08 •
PUBLIC UNIV CORPORATION NAGOYA CITY UNIV [JP]
Earliest priority: 2017-05-31 • Earliest publication: 2018-12-06

An object of the present invention is to provide a marker useful for early diagnosis and differentiation of Alzheimer's disease, and use thereof. An Alzheimer's disease biomarker composed of blood flotillin is provided.

158.5,6-FUSED-BICYCLIC COMPOUNDS AND COMPOSITIONS FOR THE TREATMENT OF PARASITIC DISEASES
US2020109142A1 • 2020-04-09 •
NOVARTIS AG [CH]
Earliest priority: 2017-05-31 • Earliest publication: 2018-12-06

The present invention provides a compound of Formula (I) or a pharmaceutically acceptable salt thereof; (I) a method for manufacturing the compounds of the invention, and its therapeutic uses. The present invention further provides a combination of pharmacologically active agents and a pharmaceutical composition.

159.ANTI-IGF-I RECEPTOR ANTIBODY
EP3636670A1 • 2020-04-15 •
TEIJIN PHARMA LTD [JP]
Earliest priority: 2017-05-30 • Earliest publication: 2018-12-06

The present invention provides an anti-IGF-I receptor antibody that binds specifically to an IGF-I receptor of a vertebrate and has the proliferation-inducing activity of a vertebrate-derived cell, or a fragment thereof, or derivatives of these.

160.Neue Verfahren zur Herstellung eines Adjuvans
DE112018002827T5 • 2020-04-09 •
GLAXOSMITHKLINE BIOLOGICALS SA [BE]
Earliest priority: 2017-05-30 • Earliest publication: 2018-12-06

Die vorliegende Erfindung bezieht sich auf Zusammensetzungen und Verfahren zur Herstellung eines Adjuvans, das ein Saponin umfasst, unter Verwendung einer mikrofluidischen Vorrichtung und auf Aspekte davon.

161.PLASMODIUM FALCIPARUM AND PLASMODIUM VIVAX VACCINE
US2020113988A1 • 2020-04-16 •

WERNER EKKEHARD [DE]
Earliest priority: 2017-05-24 • Earliest publication: 2020-04-16
The present invention relates to a vaccine V comprising (A) at least one isolated polypeptide strand P comprising or consisting...

162.PLASMODIUM FALCIPARUM AND PLASMODIUM VIVAX VACCINE
EP3630170A1 • 2020-04-08 •
WERNER EKKEHARD [DE]
Earliest priority: 2017-05-24 • Earliest publication: 2018-11-29
No abstract available

163.COMPOSITIONS AND METHODS FOR CANCER IMMUNOTHERAPY
US2020115712A1 • 2020-04-16 •
SILENSEED LTD [IL]
Earliest priority: 2017-05-24 • Earliest publication: 2018-11-29

Provided herein are treatments for improving cancer immunotherapy, and particularly in solid tumors. The described treatments include sustained release oligonucleotide agents, optionally together with immunotherapy agents. Methods of treating cancer with the described treatments are also disclosed.

164.BIOMARKERS OF DISEASE
US2020116722A1 • 2020-04-16 •
EDITH COWAN UNIV [AU]
Earliest priority: 2017-05-22 • Earliest publication: 2018-11-29

The present invention relates to methods for the diagnosis and treatment of melanoma. In particular, the invention relates to methods for the diagnosis and treatment of early stage melanoma by measuring the expression of one or more autoantibodies selected from the group consisting of anti-ZBTB7B, anti-PRKCH, anti-TP53, anti-PCTK1, anti-PQBP1, anti-UBE2V1, anti-IRF4, anti-MAPK8_tv2, anti-MSN and anti-TPM1. Further, the present invention relates to kits comprising one or more reagents and/or devices when used in performing the methods for the diagnosis and treatment of melanoma.

165.PYRIMIDINE DERIVATIVES
US2020108068A1 • 2020-04-09 •
IDORSIA PHARMACEUTICALS LTD [CH]
Earliest priority: 2017-05-18 • Earliest publication: 2018-11-22

wherein (R1)n, R3, R4a, R4b, R5a, R5b and Ar1 are as described in the description and their use in the treatment of cancer by modulating an immune response comprising a reactivation of the immune system in the tumor. The invention further relates to novel benzofurane and benzothiophene derivatives of formula (III) and their use as pharmaceuticals, to their preparation, to pharmaceutically acceptable salts thereof, and to their use as pharmaceuticals, to pharmaceutical compositions containing one or more compounds of formula (I), and especially to their use as modulators of the prostaglandin 2 receptors EP2 and/or EP4.

166.USE OF A VACCINE TARGETING A CRYPTIC TERT EPITOPE, FOR TREATING LUNG CANCER IN A HLA-A*0201-POSITIVE NEVER-SMOKER OR LIGHT-FORMER SMOKER PATIENT
EP3634461A1 • 2020-04-15 •
VAXON BIOTECH [FR]
Earliest priority: 2017-05-09 • Earliest publication: 2018-11-14
No abstract available

167.METHODS FOR DIAGNOSING HIGH-RISK CANCER USING POLYSIALIC ACID AND ONE OR MORE TISSUE-SPECIFIC BIOMARKERS
US2020116728A1 • 2020-04-16 •
GLYCA INC [CA]
Earliest priority: 2017-05-08 • Earliest publication: 2018-11-15

Described herein are methods for diagnosing high-risk cancer in a subject by detecting PolySialic Acid (polySia) in a biological sample obtained from the subject, or by detecting polySia and one or more tissue-specific markers in a biological sample obtained from the subject.

168.PROPULSION AND CONTROL OF A MICRO-DEVICE
US2020108227A1 • 2020-04-09 •
BIONAUT LABS LTD [IL]
Earliest priority: 2017-05-04 • Earliest publication: 2018-11-08

A device configured to move in a viscoelastic media, the device comprising: a main-body comprising a first material, configured to respond to a first threshold of a stimulus field; and one or more memory shaped elements comprising a second material, configured to respond to a second threshold of a stimuli field; wherein the first material is selected to enable manipulation of the main-body's direction in the viscoelastic media; and wherein second material is selected to enable manipulation of the configuration of the memory shaped element.

169.COMPOSITIONS AND METHODS FOR ADOPTIVE CELL THERAPIES
US2020115461A1 • 2020-04-16 •
HARPOON THERAPEUTICS INC [US]
Earliest priority: 2017-05-03 • Earliest publication: 2018-11-08

Provided herein are immune cells engineered to express one or more cell surface receptor polypeptides containing activatable antigen receptor polypeptides, and methods of use thereof for the treatment of diseases, including cancer.

170.CHIMERIC ANTIGEN RECEPTOR T CELLS TARGETING THE TUMOR MICROENVIRONMENT
US2020113940A1 • 2020-04-16 •
MASSACHUSETTS GEN HOSPITAL [US]
Earliest priority: 2017-04-14 • Earliest publication: 2018-10-18

The invention provides methods and compositions for use in treating cancer, which advantageously may be achieved by targeting of the tumor microenvironment.

171.HBV VACCINE
US2020113998A1 • 2020-04-16 •
UNIV OXFORD INNOVATION LTD [GB]
Earliest priority: 2017-04-10 • Earliest publication: 2018-10-18
The invention relates to a multi-HBV immunogen viral vector vaccine comprising: a viral vector comprising an immunogen expression cassette...

172.PEPTIDE LIGASE AND USE THEREOF
US2020115422A1 • 2020-04-16 •
UNIV OXFORD INNOVATION LTD [GB]
Earliest priority: 2017-04-10 • Earliest publication: 2018-10-18

The present invention relates to a polypeptide that is capable of promoting the covalent conjugation of two peptide tags or linkers and in particular to a polypeptide comprising: a) an amino acid sequence as set forth in SEQ ID NO: 1; or b) an amino acid sequence with at least 80% sequence identity to a sequence as set forth in SEQ ID NO: 1, wherein said amino acid sequence comprises a glutamic acid at position 61 and one or more of the following: 1) proline at position 66; 2) proline at position 95; 3) glycine at position 96; and 4) valine at position 97, wherein the specified amino acid residues are at positions equivalent to the positions in SEQ ID NO: 1 and wherein said polypeptide is capable of promoting the formation of an isopeptide bond between the lysine residue at position 9 of SEQ ID NO: 2 and the asparagine residue at position 17 of SEQ ID NO: 3.

173.ARENAVIRUS PARTICLES TO TREAT SOLID TUMORS
US2020113995A1 • 2020-04-16 •
HOOKIPA BIOTECH GMBH [AT]
Earliest priority: 2017-04-07 • Earliest publication: 2018-10-11

The present application relates generally to genetically modified arenaviruses that are suitable for treating solid tumors, for example, via intratumoral administration. The arenaviruses described herein may be suitable for vaccines and/or treatment of solid tumors and/or for the use in immunotherapies. In particular, provided herein are methods and compositions for treating a solid tumor by administering a first arenavirus alone or in combination with another agent, including a second arenavirus, wherein the first and/or second arenavirus has been engineered to include a nucleotide sequence encoding a tumor antigen, tumor associated antigen or antigenic fragment thereof.

174.REDUCTION OR ELIMINATION OF IMMUNE RESPONSES TO NON-INTRAVENOUS, E.G., SUBCUTANEOUSLY ADMINISTERED THERAPEUTIC PROTEINS
US2020109420A1 • 2020-04-09 •
MODERNATX INC [US]
Earliest priority: 2017-04-05 • Earliest publication: 2018-10-11

This disclosure provides improved lipid-based compositions, including lipid nanoparticle compositions, and methods of use thereof for delivering nucleic acids in vivo. These compositions have reduced immune activation resulting in accelerated blood clearance and/or anti-drug antibodies and they have an improved toxicity profile and therapeutic index in vivo.

175.TRICYCLIC COMPOUNDS AS GLYCOGEN SYNTHASE KINASE 3 (GSK3) INHIBITORS AND USES THEREOF
US2020109154A1 • 2020-04-09 •
BIOGEN MA INC [US]
Earliest priority: 2017-04-05 • Earliest publication: 2018-10-11

The present disclosure provides compounds of Formula (I), and salts, solvates, hydrates, polymorphs, co-crystals, tautomers, stereoisomers, isotopically labeled derivatives, and prodrugs thereof. The provided compounds may be useful for inhibiting kinases, e.g., glycogen synthase kinase 3 (GSK3). The provided compounds may be able to selectively inhibit GSK3a, as compared to GSK3P and/or other kinases. The present disclosure further provides pharmaceutical compositions, kits, and methods of use, each of which involve the compounds. The compounds, pharmaceutical compositions, and kits may be useful for treating diseases associated with aberrant activity of GSK3a (e.g., Fragile X syndrome, attention deficit hyperactivity disorder (ADHD), childhood seizure, intellectual disability, diabetes, acute myeloid leukemia (AML), autism, and psychiatric disorder).

176.COMPOSITIONS AND METHODS FOR DIFFERENTIAL INDUCTION OF CELL DEATH AND INTERFERON EXPRESSION
US2020109404A1 • 2020-04-09 •
UNIV DUKE [US]
Earliest priority: 2017-04-03 • Earliest publication: 2018-10-11

Disclosed herein are compositions and methods for inhibiting the growth of cells or inducing cell death. The composition capable of inhibiting the growth of cells or inducing cell death comprises a 5′-triphosphate non-linear RNA. The RNA comprises a first stem-loop formed from the complete or partial hybridization of at least 8 nucleotide pairings and may optionally comprise a second stem-loop formed from the complete or partial hybridization of at least 8 nucleotide pairings and a spacer between the first stem-loop and the second stem loop. Methods for inhibiting the growth of cells or inducing cell death comprise contacting cells with the composition or administering the composition to a subject in an amount effective to inhibit the growth of the cells or induce death of the cells.

177.METHODS FOR MODULATING REGULATORY T CELLS AND IMMUNE RESPONSES USING CDK4/6 INHIBITORS
US2020108066A1 • 2020-04-09 •
BRIGHAM & WOMENS HOSPITAL INC [US]
Earliest priority: 2017-03-30 • Earliest publication: 2018-10-04

The present invention is based, in part, on methods for modulating regulatory T cells and immune responses using CDK4/6 inhibitors.

178.Isoxazole Hydroxamic Acids As Histone Deacetylase 6 Inhibitors
US2020115350A1 • 2020-04-16 •
UNIV GEORGE WASHINGTON [US]
Earliest priority: 2017-03-29 • Earliest publication: 2018-10-04

The present disclosure provides compounds represented by Formula (I): and pharmaceutically acceptable salts, solvates, e.g., hydrates, and prodrugs thereof wherein X and n are as defined as set forth in the specification. The present disclosure also provides compounds of Formula (I) for use to treat diseases and conditions, e.g., cancer, wherein inhibition of HDAC provides a benefit.

179.DEVICES AND METHODS FOR DELIVERING DRY POWDER MEDICAMENTS
US2020108212A1 • 2020-04-09 •
CONCENTRX PHARMACEUTICALS INC [US]
Earliest priority: 2017-03-28 • Earliest publication: 2018-10-04

An apparatus includes a first member coupled to a second member. The first member defines a chamber containing a dry powder and includes a chamber wall that forms an outer boundary of the chamber. The second member includes a surface covering the chamber and defines an intake channel and an exit channel. The exit channel is fluidically coupled to the chamber via an exit opening. The intake channel is fluidically coupled to the chamber via an intake port. A center line of the intake channel is tangential to a portion of the chamber wall such that a portion of an inlet airflow conveyed into the chamber via the intake channel has a rotational motion. The intake port is defined at least in part by an intake ramp. The intake ramp includes a transition surface that forms an exit angle with respect to the surface of less than 105 degrees.

180.COMPOSITIONS AND METHOD OF TREATING CANCER
US2020108073A1 • 2020-04-09 •
UNIV CALIFORNIA [US]
Earliest priority: 2017-03-27 • Earliest publication: 2018-10-04

The disclosure provides for methods and compositions useful for treating infections, cancer and neoplastic diseases and disorders.

181.METHODS AND COMPOSITIONS RELATING TO ADJUVANTS
US2020108139A1 • 2020-04-09 •
CHILDRENS MEDICAL CT CORP [US]
Earliest priority: 2017-03-23 • Earliest publication: 2018-09-27

The methods and compositions described herein relate to methods of immunization or stimulating an immune response, e.g., using agonists of TLR7 and/or TLR8 as antigens. The methods and compositions described herein have particular relevance to use in infants.

182.ANTI-TMEFF1 ANTIBODIES AND ANTIBODY DRUG CONJUGATES
US2020109194A1 • 2020-04-09 •
BLUEFIN BIOMEDICINE INC [US]
Earliest priority: 2017-03-22 • Earliest publication: 2018-09-27

Disclosed herein are transmembrane protein with EGF-like and two-follistatin-like domains 1 (TMEFF1) antibodies and antibody drug conjugates (ADCs), including compositions and methods of using said antibodies and ADCs.

183.Gemcitabine Derivatives for Cancer Therapy
US2020108089A1 • 2020-04-09 •
SIRNAOMICS INC [US]
Earliest priority: 2017-03-19 • Earliest publication: 2018-09-27

The present invention provides pharmaceutical compositions comprising the chemotherapy drug gemcitabine (GEM) and certain derivatives, a taurocholic acid (TCA) formulation, and a Histidine-Lysine Polymer (HKP) conjugate, for enhancement of RNAi cancer therapeutics.

184.METHODS FOR IDENTIFYING AND MODULATING CO-OCCURANT CELLULAR PHENOTYPES
US2020115753A1 • 2020-04-16 •
MASSACHUSETTS INST TECHNOLOGY [US]
Earliest priority: 2017-03-17 • Earliest publication: 2018-09-20

The present invention provides tools and methods for the systematic analysis of genetic interactions between cells. The present invention provides tools and methods for modulating cell phenotypes and compositions, combinatorial probing of cellular circuits, for dissecting cellular circuitry, for delineating molecular pathways, and/or for identifying relevant targets for therapeutics development.

185.RATIONAL POLYPLOID ADENO-ASSOCIATED VIRUS VECTORS AND METHODS OF MAKING AND USING THE SAME
US2020109418A1 • 2020-04-09 •
UNIV NORTH CAROLINA CHAPEL HILL [US]
Earliest priority: 2017-03-15 • Earliest publication: 2018-12-27

The present invention provides a polyploid adeno-associated virus (AAV) capsid, wherein the capsid comprises capsid protein VP1, wherein said capsid protein VP1 is from one or more than one first AAV serotype, wherein said capsid protein VP2 is from one or more than one first AAV serotype and capsid protein VP3, wherein said capsid protein VP3 is from one or more than one second AAV serotype and wherein at least one of said first AAV serotype is different from at least one of said second AAV serotype and is different from at least one of said third AAV serotype, in any combination.

186.Medical delivery devices having low lubricant syringe barrels
AU2020202193A1 • 2020-04-16 •
GORE & ASS [US]
Earliest priority: 2017-02-27 • Earliest publication: 2018-08-30

The present disclosure relates to a medical delivery device comprising: a barrel having a first end, a second end, and an inner surface; a stopper contacting at least a portion of the inner surface of the barrel, the stopper having a compressibility of greater than about 7.9% measured against the barrel; and an injection

member coupled to the barrel, wherein the inner surface of the barrel has a water contact angle between about 1 and about 58°, and wherein the stopper has a glide force variation less than about 1.3 N when calculated according to the Glide Force Variation test method. -58 12162076_1 (GHMatters) P111797.AU.1 1 0 - -- --- --- - - --- ----.--.- - .-- - .----- .---- --- - .---- --- ---- --- --- --- -- .--- --- ----- u- 0 5 10 15 20 25 30 Distance, mm Untreated Plasma Treated

187.POLYPEPTIDE EPITOPES OF S. AUREUS AND RESPECTIVE MONOCLONAL ANTIBODIES FOR THE TREATMENT OF INFECTIONS AND IMMUNE-DIAGNOSIS
US2020113992A1 • 2020-04-16 •
KLIMKA ALEXANDER [DE]
Earliest priority: 2017-02-17 • Earliest publication: 2018-08-22
.... The polypeptide epitopes according to the present invention can preferably be used for the preparation of a vaccine against a...

188.STRUCTURED ORODISPERSIBLE FILMS
US2020108011A1 • 2020-04-09 •
LTS LOHMANN THERAPIE SYSTEME AG [DE]
Earliest priority: 2017-02-17 • Earliest publication: 2018-08-23

Disclosed is a method for producing a porous orodispersible film, having the following steps: i) forming a suspension of a pharmaceutically acceptable solvent, a pharmaceutically acceptable matrix material, and a pharmaceutically acceptable binder, said solvent being selected such that the pharmaceutically acceptable matrix material substantially does not dissolve in it, whereas the pharmaceutically acceptable binder is dissolved in the solvent, ii) casting the suspension onto a neutral support, thereby forming a wet film, and iii) drying the wet film and obtaining a dry film. The films produced in this manner have a closed surface on the lower face whereas the upper face is porous, thereby allowing the application of a pharmaceutically active ingredient in the form of a suspension or a solution for example. This allows the active ingredient quantity to be adjusted individually to the particular application and produces a film base material which is suitable for the application of different active ingredients.

189.ANTI-PD-1 ANTIBODIES AND USES THEREOF
US2020115454A1 • 2020-04-16 •
TAYU HUAXIA BIOTECH MEDICAL GROUP CO LTD [CN]
Earliest priority: 2017-01-20 • Earliest publication: 2018-07-26

Provided are anti-PD-1 antibodies or fragments thereof. In various example, the antibodies or fragments thereof includes a heavy chain variable region comprising heavy chain complementarity determining regions HCDR1, HCDR2, and HCDR3, and a light chain variable region comprising light chain complementarity determining regions LCDR1, LCDR2, and LCDR3. Methods of using the antibodies or fragments thereof for treating and diagnosing diseases such as cancer, infection or immune disorders are also provided.

190.MONOCLONAL AND HUMANIZED ANTIBODIES TO A CANCER GLYCOPEPTIDE
US2020115466A1 • 2020-04-16 •
NANOCRUISE PHARMACEUTICAL [CN]

Earliest priority: 2017-01-18 • Earliest publication: 2018-07-26

The present invention discloses a mouse-human chimeric antibody preferably recognizes the MUC1 glycopeptide epitope RPAPGS(GalNAc)TAPPAHG on the surface of cancer cells, and the encoding sequences, wherein the monoclonal antibody having a light chain and a heavy chain. Moreover, the present invention provides humanized light and heavy chains, and the encoding sequences. The results of paired expression show that humanized antibodies also recognize the MUC1 glycopeptide epitope RPAPGS(GalNAc)TAPPAHG on the surface of cancer cells, and show the same specificity as the parental antibody.

191.CYCLIC DINUCLEOTIDE STING AGONISTS FOR CANCER TREATMENT
US2020113924A1 • 2020-04-16 •
MERCK SHARP & DOHME [US]
Earliest priority: 2016-12-20 • Earliest publication: 2018-06-28

Therapies comprising administering at least one cyclic dinucleotide compound that activates the Stimulator of Interferon Genes (STING) pathway, and the use of such therapies in the treatment of cell-proliferation disorders such as cancer, are disclosed herein.

192.MODULATORS OF INDOLEAMINE 2,3-DIOXYGENASE
US2020115374A1 • 2020-04-16 •
GLAXOSMITHKLINE IP DEV LTD [GB]
Earliest priority: 2016-12-20 • Earliest publication: 2018-06-28

Provided are IDO inhibitor compounds of Formula I and pharmaceutically acceptable salts thereof, their pharmaceutical compositions, their methods of preparation, and methods for their use in the prevention and/or treatment of diseases such as chronic viral infection, chronic bacterial infections, cancer, sepsis or a neurological disorder.

193.POLYPEPTIDE AND USE THEREOF
US2020109169A1 • 2020-04-09 •
BGI SHENZHEN [CN]
Earliest priority: 2016-11-22 • Earliest publication: 2018-05-31
... immune effector cell thereof, a pharmaceutical composition containing the polypeptide, a vaccine containing the nucleic acid, the nucleic acid construct... polypeptide. Also provided is a therapeutic method using the polypeptide, the nucleic acid, the pharmaceutical composition, the vaccine, and the... of the polypeptide in preparing a vaccine, a tumor diagnosis kit, or a pharmaceutical composition, and an application of the ...

194.ANTI-HIV PEPTIDES
US2020115418A1 • 2020-04-16 •
UNIV COLORADO STATE RES FOUND [US]
Earliest priority: 2016-11-07 • Earliest publication: 2018-05-10

Simple β-hairpin peptides in linear and cyclic form that specifically bind to HIV-1 Trans-Activation Response element (HIV-1 TAR), as well as compositions and use thereof are described.

195.AN ENGINEERED TWO-PART CELLULAR DEVICE FOR DISCOVERY AND CHARACTERISATION OF T-CELL RECEPTOR INTERACTION WITH COGNATE ANTIGEN
US2020115432A1 • 2020-04-16 •
GENOVIE AB [SE]
Earliest priority: 2016-11-07 • Earliest publication: 2018-05-11

The present invention relates to a two-part device, wherein a first part is an engineered antigen-presenting cell system (eAPCS), and a second part is an engineered TCR-presenting cell system (eTPCS).

196.Immunogenic Compounds For Cancer Therapy
US2020113983A1 • 2020-04-16 •
ENTEROME S A [FR]
Earliest priority: 2016-10-07 • Earliest publication: 2018-04-12

The invention relates to an immunogenic compound comprising an antigenic peptide having amino acid similarity with a tumor antigen, which antigenic peptide is selected in the group consisting of sequences described in the specification.

197.NUCLEIC ACID MOLECULES ENCODING CHIMERIC ANTIGEN RECEPTORS COMPRISING A CD20 BINDING DOMAIN
US2020113941A1 • 2020-04-16 •
NOVARTIS AG [CH]
Earliest priority: 2016-10-07 • Earliest publication: 2018-04-12

The invention provides compositions and methods for treating diseases associated with expression of CD20 or CD22. The invention also relates to chimeric antigen receptor (CAR) specific to CD20 or CD22, vectors encoding the same, and recombinant T or natural killer (NK) cells comprising the CD20 CAR or CD22 CAR. The invention also includes methods of administering a genetically modified T cell or NK cell expressing a CAR that comprises a CD20 or CD22 binding domain.

198.BIOMIMETIC, MOLDABLE, SELF-ASSEMBLED CELLULOSE SILICA-BASED TRIMERIC HYDROGELS AND THEIR USE AS VISCOSITY MODIFYING CARRIERS IN INDUSTRIAL APPLICATIONS
US2020109253A1 • 2020-04-09 •
UNIV LELAND STANFORD JUNIOR [US]
Earliest priority: 2016-09-26 • Earliest publication: 2018-03-29

The present invention provides moldable, fully scalable cellulose silica-based hydrogels for use as low-cost and safe carriers and aqueous viscosity modifiers in various industrial and medical applications.

199.ANTIBODIES, BINDING FRAGMENTS, AND METHODS OF USE
US2020115465A1 • 2020-04-16 •

CHO PHARMA INC [TW]
Earliest priority: 2016-08-22 • Earliest publication: 2018-03-01

The present disclosure relates to anti-SSEA4 antibodies and bindings fragments thereof comprising specific complementarity determining regions capable of high affinity binding to SSEA4 molecules and SSEA4-associated expressing tumor cells, such as breast cancer, pancreatic cancer, and renal cancer cells. The anti-SSEA4 antibodies and binding fragments induce ADCC or CDC effects in the targeted tumor cells and inhibit and/or reduce the cancer/tumor proliferation. The present disclosure also provides anti-SSEA4 antibodies and binding fragments thereof as a pharmaceutical composition for treating cancer. In addition, the anti-SSEA4 antibodies and binding fragments are useful in the diagnosis of cancers.

200.METHODS AND COMPOSITIONS FOR INDUCING PROTECTIVE IMMUNITY AGAINST A MARBURG VIRUS INFECTION
US2020113994A1 • 2020-04-16 •
JANSSEN VACCINES & PREVENTION BV [NL]
Earliest priority: 2016-07-15 • Earliest publication: 2018-01-18

Compositions, vaccines and methods using adenovirus vectors for priming and boosting vaccinations for inducing protective immunity against a Marburg virus infection are described.

201.REGULATORY B CELLS AND USES THEREOF
US2020113939A1 • 2020-04-16 •
UNIV TEXAS [US]
Earliest priority: 2016-07-15 • Earliest publication: 2018-01-18

Provided herein are methods for producing stimulated populations of regulatory B cells comprising treating an isolated population of B cells with stimulatory agents, such as CpG oligonucleotides, BCR ligation, and CD40 ligand. Also provided herein are methods of treating immune disorders, such as chronic graft versus host disease, with the stimulated population of regulatory B cells.

202.ANTIBODIES SPECIFIC FOR HYPERPHOSPHORYLATED TAU AND METHODS OF USE THEREOF
US2020109192A1 • 2020-04-09 •
H LUNDBECK AS [DK]
Earliest priority: 2016-07-12 • Earliest publication: 2018-01-18

The present invention relates to a class of monoclonal antibody that specifically binds the phosphorylated serine 396 residue on pathological hyperphosphorylated (PH F) tau (pS396) with improved affinity, as well as to methods of using these molecules and their tau binding fragments in the treatment of Alzheimer's disease and other tauopathies.

203.HIV PRE-IMMUNIZATION AND IMMUNOTHERAPY
US2020109417A1 • 2020-04-09 •
AMERICAN GENE TECH INTERNATIONAL INC [US]
Earliest priority: 2016-07-08 • Earliest publication: 2018-01-11

The present invention relates generally to immunization and immunotherapy for the treatment or prevention of HIV. In particular, the methods include in vivo and/or ex vivo enrichment of HIV-specific CD4+ T cells.

204.ANTIGEN OF ALLERGY AND EPITOPE THEREOF
EP3632926A1 • 2020-04-08 •
HOYU KK [JP]
Earliest priority: 2016-06-02 • Earliest publication: 2017-12-07

The present invention provides novel antigens of an allergy to egg, methods and kits for diagnosing an allergy to egg, pharmaceutical compositions comprising such an antigen, eggs or processed products of egg in which such an antigen is eliminated or reduced, birds that deliver such eggs or are born from such eggs, a method for producing processed products of egg in which such an antigen is eliminated or reduced, and a tester for determining the presence or absence of an egg antigen in an object of interest. The present invention also relates to polypeptides comprising an epitope of an antigen, kits, compositions and methods for diagnosing an allergy, comprising such a polypeptide, pharmaceutical compositions comprising such a polypeptide, and raw materials or processed products in which an antigen comprising such a polypeptide is eliminated or reduced. The present invention further relates to a tester for determining the presence or absence of an antigen in an object of interest.

205.METHOD AND SYSTEM FOR THE NON-DESTRUCTIVE IN OVO DETERMINATION OF FOWL GENDER
US2020116730A1 • 2020-04-16 •
IN OVO B V [NL]
Earliest priority: 2016-05-24 • Earliest publication: 2017-11-30

The present invention relates to a method for non-destructively identifying a characteristic of a Gallus Gallus domesticus embryo in ovo, the method comprising: (a) obtaining a sample of material associated with an egg comprising the embryo, and (b) measuring a score value for the presence of, and concentration of at least a first biomarker in the sample indicative of the characteristic of the embryo, and (c) applying a threshold to the score value and concentration obtained in (b) to identify the characteristic for the embryo associated with the presence and concentration of the biomarker, wherein an at least first biomarker comprises an amino compound having a molecular weight in the range of from 140 to 190 g/mole, wherein step (c) further comprises: (i) correlating each relevant biomarker signal with a reference biomarker by matching the spectrum of each correlating signal with the expected spectrum of the correlating reference biomarker using a similarity measure, to define at least one positively correlating signal; (ii) measuring the intensity of each positively correlating signal and scoring its absolute and/or relative signal intensity; and (iii) applying a threshold to the score value obtained from a similarity function to determine the correlated embryo characteristic.

206.INACTIVATING PATHOGENS AND PRODUCING HIGHLY IMMUNOGENIC INACTIVATED VACCINES USING A DUAL OXIDATION PROCESS
US2020108094A1 • 2020-04-09 •
NAJIT TECH INC [US]
Earliest priority: 2016-05-10 • Earliest publication: 2017-11-16

...Provided are surprisingly effective methods for inactivating pathogens, and for producing highly immunogenic vaccine compositions containing an inactivated pathogen rendered..., including viruses and bacteria. Also provided are highly immunogenic inactivated vaccine compositions prepared by using any of the disclosed methods, and methods for eliciting an immune response in a subject by administering such vaccine compositions. ...

207.CHIMERIC ANTIGEN AND T CELL RECEPTORS AND METHODS OF USE
US2020108142A1 • 2020-04-09 •
KITE PHARMA INC [US]
Earliest priority: 2016-04-01 • Earliest publication: 2017-10-05

The invention provides a chimeric antigen receptor (CAR) or a T cell receptor (TCR) comprising extracellular domain disclosed herein. Some aspects of the invention relate to a polynucleotide encoding a chimeric antigen receptor (CAR) or a T cell receptor (TCR) comprising the extracellular domain disclosed herein. Other aspects of the invention relate to cells comprising the CAR or the TCR and their use in a T cell therapy.

208.BCMA BINDING MOLECULES AND METHODS OF USE THEREOF
US2020109209A1 • 2020-04-09 •
KITE PHARMA INC [US]
Earliest priority: 2016-04-01 • Earliest publication: 2017-10-05

The invention provides antibodies, antigen binding fragments thereof, chimeric antigen receptors (CARs), and engineered T cell receptors, polynucleotides encoding the same, and in vitro cells comprising the same. The polynucleotides, polypeptides, and in vitro cells described herein can be used in an engineered CAR T cell therapy for the treatment of a patient suffering from a cancer. In one embodiment, the polynucleotides, polypeptides, and in vitro cells described herein can be used for the treatment of multiple myeloma.

209.SACCHARIDE-POLYPEPTIDE CONJUGATE COMPOSITIONS AND METHODS OF USE THEREOF
US2020113993A1 • 2020-04-16 •
POGONA LLC [US]
Earliest priority: 2016-03-31 • Earliest publication: 2017-10-05

Saccharide-polypeptide conjugates, compositions containing these, methods of making and using the conjugates and compositions, and kits containing these, are disclosed.

210.COMPOSITIONS AND METHODS FOR INDUCING HIV-1 ANTIBODIES
US2020113997A1 • 2020-04-16 •
UNIV DUKE [US]
Earliest priority: 2016-03-03 • Earliest publication: 2020-04-16

In certain aspects the invention provides HV-1 immunogens, including envelopes (CH0848) and selections therefrom, and methods for swarm immunizations using combinations of HIV-1 envelopes.

211.Composition of matter and methods for alteration of dendritic cell metabolism to augment cancer vaccine efficacy
US10617749B1 • 2020-04-14 •
UNIV DUKE [US]
Earliest priority: 2016-02-24 • Earliest publication: 2020-04-14
This disclosure provides compositions of matter and methods for alteration of dendritic cell metabolism to augment cancer vaccine efficacy. The...

212.SUBSTITUTED PIPERIDINE COMPOUND AND USE THEREOF
US2020115399A1 • 2020-04-16 •
TAKEDA PHARMACEUTICALS CO [JP]
Earliest priority: 2016-02-04 • Earliest publication: 2017-08-10

Provided is a substituted piperidine compound having an orexin type 2 receptor agonist activity. A compound represented by the formula (I): wherein each symbol is as described in the DESCRIPTION, or a salt thereof has an orexin type 2 receptor agonist activity, and is useful as a prophylactic or therapeutic agent for narcolepsy.

213.Improvements in and Relating to Data Centres
US2020113081A1 • 2020-04-09 •
CHANG TIMOTHY [US]
Earliest priority: 2016-01-29 • Earliest publication: 2020-04-09
... not limited to, the target vaccine immunogen. Since, however, the availability of specific IgMs is limited and less than the... an IgM, it is possible to attach the hapten-specific IgM to a wide-variety of vaccine antigens. ...

214.METHODS FOR CHARACTERIZING COMPOSITIONS COMPRISING PEANUT ANTIGENS
US2020116732A1 • 2020-04-16 •
SANOFI SA [FR]
Earliest priority: 2015-12-29 • Earliest publication: 2017-07-06

Methods for determining an in vitro release profile of peanut allergens in a sample are provided. Methods for determining one or more signatures of peanut allergens in a sample are provided.

215.RECOMBINANT NK CELLS EXPRESSING CO-STIMULATORY MOLECULES
US2020109366A1 • 2020-04-09 •
NANT HOLDINGS IP LLC [US]
Earliest priority: 2015-12-03 • Earliest publication: 2020-01-14

Cancer immunotherapy using genetically engineered NK cells is enhanced by expression of recombinant co-stimulatory molecules to deliver co-stimulatory signals to a recipient host's immune cells to enhance an immune response.

216.PD1 and/or LAG3 binders
AU2020202177A1 • 2020-04-16 •

MERCK SHARP & DOHME [US]
Earliest priority: 2015-11-18 • Earliest publication: 2017-05-18

PD1 AND/OR LAG3 BINDERS The present invention provides molecules, such as ISVDs and Nanobodies, that bind to PD1 and LAG3 and, optionally to human serum albumin. These molecules have been engineered so as to reduce the incidence of binding by pre-existing antibodies in the bodies of a subject administered such a molecule. Methods for increasing immune response, treating cancer and/or treating an infectious disease with such molecules are provided.

217.P-ETHOXY NUCLEIC ACIDS FOR LIPOSOMAL FORMULATION
US2020113928A1 • 2020-04-16 •
BIO PATH HOLDINGS INC [US]
Earliest priority: 2015-10-14 • Earliest publication: 2017-04-20

Provided herein are therapeutic oligonucleotides that comprise at least one p-ethoxy backbone linkage but no more than 80% p-ethoxy backbone linkages. Provided herein are improved delivery systems for therapeutic oligonucleotides comprising a liposome that comprises neutral phospholipids and a p-ethoxy oligonucleotide that is entrapped in the liposome.

218.ITERATIVE DISCOVERY OF NEOEPITOPES AND ADAPTIVE IMMUNOTHERAPY AND METHODS THEREFOR
US2020113985A1 • 2020-04-16 •
NANTOMICS LLC [US]
Earliest priority: 2015-10-12 • Earliest publication: 2017-02-02

Contemplated cancer treatments comprise recursive analysis of patient-, cancer-, and location-specific neoepitopes from various biopsy sites of a patient after treatment or between successive rounds of immunotherapy and/or chemotherapy to inform further immunotherapy. Recursive analysis preferably includes various neoepitope attributes to so identify treatment relevant neoepitopes.

219.3' UTR SEQUENCES FOR STABILIZATION OF RNA
EP3636764A1 • 2020-04-15 •
BIONTECH RNA PHARMACEUTICALS GMBH [DE]
Earliest priority: 2015-10-07 • Earliest publication: 2017-04-13

The present invention relates to stabilization of RNA, in particular mRNA, and an increase in mRNA translation. The present invention particularly relates to a modification of RNA, in particular in vitro-transcribed RNA, resulting in increased transcript stability and/or translation efficiency. According to the invention, it was demonstrated that certain sequences in the 3'-untranslated region (UTR) of an RNA molecule improve stability and translation efficiency.

220.INSULIN IMMUNOGLOBULIN FUSION PROTEINS
US2020115458A1 • 2020-04-16 •
SCRIPPS RESEARCH INST [US]
Earliest priority: 2015-09-04 • Earliest publication: 2017-03-09

Disclosed herein are immunoglobulin fusion proteins comprising an insulin therapeutic peptide and an immunoglobulin region that targets the insulin therapeutic peptide to the liver of an individual in need thereof. Further disclosed herein are compositions comprising the immunoglobulin fusion proteins and methods for using the immunoglobulin fusion proteins for the treatment or prevention of a disease or condition in a subject, for example, diabetes and diabetes related conditions.

221.STABILIZED VIRAL CLASS I FUSION PROTEINS
US2020115421A1 • 2020-04-16 •
JANSSEN VACCINES & PREVENTION BV [NL]
Earliest priority: 2015-09-02 • Earliest publication: 2017-03-09

Stable pre-fusion class I fusion proteins in the pre-fusion conformation, including one or more mutations in the hinge-loop that is present between the base helix and the RR1, are described.

222.SYSTEMS AND METHODS OF MICROBIAL STERILIZATION USING POLYCHROMATIC LIGHT
US2020113211A1 • 2020-04-16 •
LUMAGENICS LLC [US]
Earliest priority: 2015-07-31 • Earliest publication: 2020-04-16

The present invention is a device for sterilizing microorganisms on a liquid or solid substrate. The device includes a light source for producing a continuous light and an optical device positioned proximate the light source. The optical device is configured to focus the light generated by the light source to provide a continuous high intensity light output. The optical device also includes a dichroic reflector. The dichroic reflector is configured to pass thermal energy generated by the light source and reflect the light produced by the light source. The device also includes a power supply, where the power supply is coupled to the light source and the optical device. The device thereby killing microbial organisms presented within the range of the continuous high intensity light output.

223.Microdroplet Based Bioassay Platform
US2020116709A1 • 2020-04-16 •
UNIV NORTHEASTERN [US]
Earliest priority: 2015-07-15 • Earliest publication: 2017-01-19

Platform technology involving aqueous microdroplet reaction vessels created, arrayed, and characterized by imaging microscopy in a microfluidic device are applied to a wide variety of bioassays involving the detection and phenotypic characterization of single cells. The bioassays include the rapid and automated detection of microbial pathogens and their antibiotic sensitivity from patient samples as well as the characterization of immune responses using a patient's own cells, including the killing of tumor cells.

224.INTEGRATED MOBILE DEVICE MANAGEMENT SYSTEM
US2020118164A1 • 2020-04-16 •
DEFRANK ANTONIO [US]
Earliest priority: 2015-07-15 • Earliest publication: 2020-04-16

The embodiments disclose an integrated mobile device management method including using an integrated mobile device management service provider digital programmable server and database server for coordinating processing with device issuer locked devices with functionalities specifically targeted users to limit users access to specific functions, coordinating locked devices functionalities for recording and analyzing user information, user device usage and sorting user profiles into layered categories, analyzing data and controlling function processes using at least one customized processor with an embedded algorithm within the integrated mobile device management service provider digital programmable server, downloading locked device functions to at least one locked electronic device for device issuer distribution to targeted users, using the integrated mobile device management service provider digital programmable server for operating an advertiser ad placement auction website, selecting targeted advertisements based on user device usage analysis results, and displaying targeted advertisements on at least one locked electronic devices.

225.COMPOSITIONS COMPRISING BACTERIAL STRAINS
EP3636272A1 • 2020-04-15 •
4D PHARMA RES LTD [GB]
Earliest priority: 2015-06-15 • Earliest publication: 2016-12-22

The invention provides compositions comprising bacterial strains for treating and preventing inflammatory and autoimmune diseases.

226.T CELL RECEPTOR-LIKE ANTIBODY AGENTS SPECIFIC FOR EBV LATENT MEMBRANE PROTEIN 2A PEPTIDE PRESENTED BY HUMAN HLA
US2020115470A1 • 2020-04-16 •
EUREKA THERAPEUTICS INC [US]
Earliest priority: 2015-06-09 • Earliest publication: 2016-12-15

Described herein are antibodies, fragments thereof and multi-specific binding agents that bind an Epstein-Barr virus (EBV) latent membrane protein 2 (LMP2) peptide presented by HLA class I molecules, in particular, HLA-A02. Also provided herein are methods of using the same or compositions thereof for the detection, prevention and/or therapeutic treatment of diseases characterized by expression of an EBV-LMP2 peptide presented by HLA-A02, in particular, Burkit's lymphoma, Hodgkin's lymphoma and nasopharyngeal carcinoma.

227.NEUTRALIZING ANTI-INFLUENZA BINDING MOLECULES AND USES THEREOF
US2020109187A1 • 2020-04-09 •
MEDIMMUNE LLC [US]
Earliest priority: 2015-06-01 • Earliest publication: 2016-12-08

Binding molecules, including bispecific antibodies that include at least two anti-influenza binding domains are disclosed, including binding molecules having a first binding domain that specifically binds influenza A virus and a second binding domain that specifically binds influenza B virus.

228.DE-IMMUNIZED, SHIGA TOXIN A SUBUNIT SCAFFOLDS AND CELL-TARGETING MOLECULES COMPRISING THE SAME

EP3636660A1 • 2020-04-15 •
MOLECULAR TEMPLATES INC [US]
Earliest priority: 2015-05-30 • Earliest publication: 2016-12-08

The invention provides Shiga toxin A Subunit derived polypeptides and cell-targeting molecules comprising amino acid substitutions which equip the polypeptides with 1) de-immunization; 2) reduced, protease-cleavage sensitivity; and/or 3) a heterologous epitope cargo(s) while retaining Shiga toxin function(s), such as, e.g., potent cytotoxicity. Certain polypeptides of the invention exhibit reduced immunogenic potential in mammals and/or are capable of delivering an epitope to an MHC class molecule of a cell in which the polypeptide is present. Certain molecules comprising a polypeptide of the invention are well-tolerated by mammals while retaining one or more of the features mentioned above. The Shiga toxin polypeptides of the invention have uses as components of cell-targeting molecules for selectively killing specific cells; for selectively delivering cargos to specific cells, and as therapeutic and/or diagnostic molecules for treating and diagnosing a variety of conditions, including cancers, immune disorders, and microbial infections.

229.Treatment with anti-VEGF antibodies
AU2020202054A1 • 2020-04-09 •
GENENTECH INC [US]
Earliest priority: 2015-05-06 • Earliest publication: 2017-01-05

This invention concerns in general treatment of diseases and pathological conditions with anti VEGF antibodies. More specifically, the invention concerns the treatment of human patients susceptible to or diagnosed with cancer using an anti-VEGF antibody, preferably in combination 5 with one or more additional anti-tumor therapeutic agents.

230.VIRUS-LIKE PARTICLE WITH EFFICIENT EPITOPE DISPLAY
US2020115420A1 • 2020-04-16 •
UNIV COPENHAGEN [DK]
Earliest priority: 2015-01-15 • Earliest publication: 2016-07-21
...The invention relates to a virus-like particle (VLP) based vaccine. The virus-like particle constitutes a non-naturally occurring.... The VLP-based vaccine may be used for the prophylaxis and/or treatment of a disease including, but is not ...

231.LIPID A MIMICS, METHODS OF PREPARATION, AND USES THEREOF
US2020109160A1 • 2020-04-09 •
IMMUNOVACCINE TECH INC [CA]
Earliest priority: 2015-01-06 • Earliest publication: 2016-07-14

The invention provides lipid A mimics in which one or both of the sugar residues of a natural lipid A disaccharide backbone has been replaced with an aromatic group. These lipid A mimics may further differ from a natural lipid A molecule with respect to other structural characteristics, such as, a different number of phosphate groups present, changes in the number, structure and location of lipid chains and/or changes in the spacing and linkage of the sugar residues (or their aromatic replacements). The lipid A mimics may be lipid A agonists and as such may be useful as immunostimulatory agents in inducing or patenting an antibody and/or cell-mediated immune response, or may be lipid A antagonists and as such may be useful in

treating or preventing a lipopolysaccharide (LPS)/lipid A-mediated disease or disorder. Also provided are methods for preparing the lipid A mimics.

232.Nucleophile-Triggered Degradable Materials and Methods of Making and Using the Same
US2020108146A1 • 2020-04-09 •
GEORGIA TECH RES INST [US]
Earliest priority: 2014-12-02 • Earliest publication: 2016-06-09

Degradable materials including the reaction product of an oxanorbornadiene crosslinker or derivative thereof and a multivalent nucleophile-terminated compound, wherein the reaction product is a degradable elastic solid capable of entraining cargo. Degradable materials include a polymeric and hyperbranched crosslinked material made with oxanorbornadiene linkage that can be activated for cleavage at a predetermined rate by addition of a nucleophile. Methods of making and using degradable materials are included.

233.4,5,6,7-TETRAHYDRO-1 H-PYRAZOLO[4,3-C]PYRIDIN-3-AMINE COMPOUNDS AS CBP AND/OR EP300 INHIBITORS
EP3632915A1 • 2020-04-08 •
CONSTELLATION PHARMACEUTICALS INC [US]
Earliest priority: 2014-11-27 • Earliest publication: 2016-06-02

The present invention relates to compounds of formula (I) or formula (II):

and to salts thereof, wherein R1-R4 of formula (I) and R1-R3 of formula (II) have any of the values defined herein, and compositions and uses thereof. The compounds are useful as inhibitors of CBP and/or EP300. Also included are pharmaceutical compositions comprising a compound of formula (I) of formula (II) or a pharmaceutically acceptable salt thereof, and methods of using such compounds and salts in the treatment of various CBP and/or EP300-mediated disorders.

234.NOVEL IMMUNOGENIC PEPTIDES
EP3636666A1 • 2020-04-15 •
IMCYSE SA [BE]
Earliest priority: 2014-10-17 • Earliest publication: 2016-04-21

The invention relates to isolated immunogenic peptides comprising a MHC class II T cell epitope, and immediately adjacent or separated from said epitope a H-X(0,2)-C-X(2)-[CST] or [CST]-X(2)-C-X(0,2)-H redox motif.

235.PD-L1 ANTIBODIES BINDING CANINE PD-L1
US2020109212A1 • 2020-04-09 •
INTERVET INC [US]
Earliest priority: 2014-09-30 • Earliest publication: 2016-04-07

The present disclosure describes antibodies including caninized antibodies against canine PD-L1 with specific properties. The document relates to epitopes of canine PD-L that bind to these antibodies, as well as

to anti-canine PD-L1 antibodies that bind these epitopes, and to the use of the caninized anti-canine PD-L1 antibodies in the treatment of cancer in dogs.

236.Storage Bag For Containing Therapeutic Compounds
US2020113780A1 • 2020-04-16 •
GORE & ASS [US]
Earliest priority: 2014-07-31 • Earliest publication: 2020-04-16

A storage bag configured to contain or that contains at least one therapeutic compound such as a viral vector and non-viral vector is provided. In one embodiment, the storage bag contains a viral vector and/or a non-viral vector containing genetic material. The storage bag has two edges and two ends including a first face and a second face integrally joined at the two edges of the bag and defining an inner surface and an outer surface forming the bag; the inner surface including a higher melting polymer, and the outer surface including a lower melting polymer; a joint at one of the ends; a discrete composite sheet having a first side including a higher melting polymer and a second side including a lower melting polymer folded over the joint with the first side including a lower melting polymer engaging the joint to form a lap seam over the joint.

237.FACTOR H BINDING PROTEIN VARIANTS AND METHODS OF USE THEREOF
US2020109179A1 • 2020-04-09 •
CHILDRENS HOSPITAL & RES CENTER AT OAKLAND [US]
Earliest priority: 2014-07-23 • Earliest publication: 2016-01-28

Variant factor H binding proteins that can elicit antibodies that are bactericidal for at least one strain of Neisseria meningitidis, compositions comprising such proteins, and methods of use of such proteins, are provided.

238.Treatment of cancer using a CLL-1 chimeric antigen receptor
AU2020201939A1 • 2020-04-09 •
NOVARTIS AG [CH]
Earliest priority: 2014-07-21 • Earliest publication: 2016-01-28

Abstract The invention provides compositions and methods for treating diseases associated with expression of CLL-1. The invention also relates to chimeric antigen receptor (CAR) specific to CLL-1, vectors encoding the same, and recombinant cells comprising the CLL-1 CAR. The invention also includes methods of administering a genetically modified cell expressing a CAR that comprises a CLL-1 binding domain.

239.HELICOBACTER THERAPEUTIC
US2020108135A1 • 2020-04-09 •
MURDOCH CHILDRENS RES INSTITUTE [AU]
Earliest priority: 2014-06-30 • Earliest publication: 2016-01-07
... therapeutic and/or prophylactic vaccine for treating or preventing disease.

Select result

240.CLOSTRIDIUM DIFFICILE IMMUNOGENIC COMPOSITION
EP3636278A2 • 2020-04-15 •
GLAXOSMITHKLINE BIOLOGICALS SA [BE]
Earliest priority: 2014-06-25 • Earliest publication: 2015-12-30

The present invention relates to immunogenic compositions comprising isolated Clostridium difficile CDTb. In particular the isolated Clostridium difficile CDTb protein has been mutated to modify pore forming ability, to modify heptamerisation ability, or is a truncated CDTb protein with the signal peptide and the prodomain removed and also the receptor binding domain removed and/or the CDTa binding domain removed. The invention also relates to fusion proteins comprising a CDTa protein and a CDTb protein. Vaccines comprising such immunogenic compositions and therapeutic uses of the same also form part of the invention.

241.ANTIBODIES AGAINST GLUCOCORTICOID-INDUCED TUMOR NECROSIS FACTOR RECEPTOR (GITR) AND USES THEREOF
US2020115463A1 • 2020-04-16 •
SQUIBB BRISTOL MYERS CO [US]
Earliest priority: 2014-06-06 • Earliest publication: 2015-12-10

Provided herein are antibodies, or antigen binding portions thereof, that bind to glucocorticoid-inducible TNF receptor (GITR). Also provided are uses of these proteins in therapeutic applications, such as in the treatment of cancer. Further provided are cells that produce the antibodies, polynucleotides encoding the heavy and/or light chain variable region of the antibodies, and vectors comprising the polynucleotides encoding the heavy and/or light chain variable region of the antibodies.

242.INFECTIOUS PLASMODIUM SPOROZOITES GROWN IN VITRO
US2020113987A1 • 2020-04-16 •
SANARIA INC [US]
Earliest priority: 2014-05-02 • Earliest publication: 2015-11-05

The application is directed to in vitro-reared Plasmodium sporozoites of human host range wherein sporogony from gametocyte stage to sporozoite stage is external to mosquitoes, and methods of producing the same. Provided herein are in vitro-reared infectious Plasmodium sporozoites (SPZ) of human host range, particularly P. falciparum, P. vivax, P. ovale, P. malariae, and P. knowlesi, wherein sporogony from gametocyte stage to sporozoite stage is external to mosquitoes, and methods of producing the same.

243.VACUUM-ASSISTED DRUG DELIVERY DEVICE AND METHOD
US2020113732A1 • 2020-04-16 •
VACU SITE MEDICAL INC [US]
Earliest priority: 2014-04-23 • Earliest publication: 2015-10-29

This invention relates to a device and method for the vacuum-assisted delivery of drugs through an intact surface membrane of an organ.

244.ANTI-OX40 ANTIBODIES AND METHODS OF USE

EP3632934A1 • 2020-04-08 •
HOFFMANN LA ROCHE [CH]
Earliest priority: 2014-03-31 • Earliest publication: 2015-10-08

The disclosure provides anti-OX40 antibodies and methods of using the same.

245.DISCRIMINATING BRAF MUTATIONS
US2020115760A1 • 2020-04-16 •
QUEST DIAGNOSTICS INVEST LLC [US]
Earliest priority: 2014-02-24 • Earliest publication: 2015-08-27

Provided herein are methods for detecting and discriminating BRAF V600 mutations. Also provided herein are methods for diagnosis, prognosis, management, and treatment decisions of BRAF V600 mutation-related diseases or conditions.

246.PEPTIDES, DEVICES, AND METHODS FOR THE DETECTION OF ANAPLASMA ANTIBODIES
EP3636277A1 • 2020-04-15 •
ABAY SA [US]
Earliest priority: 2014-01-21 • Earliest publication: 2015-07-23

The invention provides populations of isolated peptides useful for the detection of antibodies that bind to Anaplasma antigens. The peptide populations comprise peptides derived from immunogenic fragments of the Anaplasma Outer Membrane Protein proteins. The invention also provides devices, methods, and kits comprising the populations of isolated peptides useful for the detection of antibodies that bind to Anaplasma antigens and the diagnosis of anaplasmosis. Methods of identifying the particular Anaplasma species infecting a subject using the peptide populations of the invention are also disclosed.

247.Vectors for expression of prostate-associated antigens
AU2020202114A1 • 2020-04-16 •
PFIZER [US]
Earliest priority: 2013-11-01 • Earliest publication: 2015-05-07

The present disclosure provides (a) vectors comprising a multi-antigen construct encoding two, three, or more immunogenic PAA polypeptides; (b) compositions comprising the vectors, (c) methods relating to uses of the vectors and compositions for eliciting an immune response or for treating prostate cancers.

248.PROTEIN AQUEOUS SUSPENSION PREPARATION
US2020115442A1 • 2020-04-16 •
TERUMO CORP [JP]
Earliest priority: 2013-10-28 • Earliest publication: 2015-05-07

Disclosed is a protein aqueous suspension preparation containing a protein and a polyamino acid, the protein and the polyamino acid having a surface charge in a buffer and forming a complex suspended in the buffer, wherein the absolute value of the difference between pH of the buffer and isoelectric point pI of the protein is in the range of from 0.5 to 4.0. Also disclosed are a method of preparing a protein aqueous suspension

preparation and a prefilled syringe containing a concentrated protein aqueous suspension preparation. The protein can exhibit at least one of shaking stress resistance, fluidity enhancement, oxidation resistance, thermal stability, and aggregation inhibitory properties.

249.HLA-A24 AGONIST EPITOPES OF MUC1-C ONCOPROTEIN AND COMPOSITIONS AND METHODS OF USE
US2020109181A1 • 2020-04-09 •
THE USA AS REPRESENTED BY THE SECRETARY DEPT OF HEALTH AND HUMAN SERVICES [US]
Earliest priority: 2013-10-23 • Earliest publication: 2015-04-30
...-C), which can be used as a peptide, polypeptide (protein), and/or in vaccine or other composition for the prevention...

250.NEUTRALIZING ANTI-INFLUENZA A ANTIBODIES AND USES THEREOF
US2020109188A1 • 2020-04-09 •
HUMABS BIOMED SA [CH]
Earliest priority: 2013-10-02 • Earliest publication: 2015-04-09

The invention relates to antibodies and binding fragments thereof that are capable of binding to influenza A virus hemagglutinin and neutralizing at least one group 1 subtype and at least 1 group 2 subtype of influenza A virus. In one embodiment, an antibody or binding fragment according to the invention is capable of binding to and/or neutralizing one or more influenza A virus group 1 subtypes selected from H1, H2, H5, H6, H8, H9, H11, H12, H13, H16 and H17 and variants thereof and one or more influenza A virus group 2 subtype selected from H3, H4, H7, H1, 0, H14 and H15 and variants thereof.

251.Mycobacteria Detection Using Bacteriophages
US2020109441A1 • 2020-04-09 •
UNIV NOTTINGHAM [GB]
Earliest priority: 2013-10-01 • Earliest publication: 2015-04-09

A method for testing for target Mycobacteria in a reaction mixture comprising the steps of: providing a reaction mixture; admixing a bacteriophage with the reaction mixture under conditions suitable to allow the bacteriophage to infect any target Mycobacteria present in the reaction mixture; allowing time for the bacteriophage to lyse infected live target Mycobacteria; and analysing in said reaction mixture DNA from the lysed Mycobacteria to identify a signature DNA sequence that occurs in the target Mycobacteriumspedes.

252.SYNTHETIC COMBINATORIAL AAV CAPSID LIBRARY FOR TARGETED GENE THERAPY
EP3633041A2 • 2020-04-08 •
UNIV FLORIDA [US]
Earliest priority: 2013-09-26 • Earliest publication: 2015-04-02

Disclosed are compositions and methods for producing modified adeno-associated virus (AAV) cap genes and combinatorial libraries of chimeric AAV vectors and virions; selecting for virions displaying cell-specific tropisms; and, in certain embodiments, producing helper vectors containing one or more modified

AAV cap genes. The synthetic combinatorial AAV capsid libraries of the invention are useful in introducing into selected target host cells one or more nucleic acid molecules. The viral vectors and genetic constructs disclosed herein are also useful in a variety of diagnostic and/or therapeutic gene-therapy regimens.

253.Oil-based adjuvants
AU2020202147A1 • 2020-04-16 •
ZOETIS SERVICES LLC [US]
Earliest priority: 2013-09-19 • Earliest publication: 2015-03-26

The instant invention provides various formulations comprising combinations of immunostimulating oligonucleotides, polycationic carriers, sterols, saponins, quaternary amines, TLR-3 agonists, glycolipids, and MPL-A or analogs thereof in oil emulsions, use thereof in preparations of immunogenic compositions and vaccines, and use thereof in the treatment of animals.

254.AN ANTI SERUM ALBUMIN FAB-EFFECTOR MOIETY FUSION CONSTRUCT
EP3632930A1 • 2020-04-08 •
APRILBIO CO LTD [KR]
Earliest priority: 2013-08-30 • Earliest publication: 2015-03-05

The present invention relates to antigen-binding fragment(Fab) and a Fab-effector fusion protein or (poly)peptide comprising thereof. The Fab of the present invention specifically binds to serum albumin and thereby has extended in vivo half-life. The Fab of the present invention is characterized by not having cysteine residues that are responsible for the interchain disulfide bond in CH1 domain and CkL domain as well. The Fab-effector fusion protein or (poly)peptide of the present invention can be produced in periplasm of E. coli with high yield, and has increased in vivo half-life. Further, the present invention provides E. coli strain which produces various kinds of Fab-effector fusion proteins or (poly)peptides, and a pharmaceutical composition comprising the fab-effector fusion proteins or (poly)peptides.

255.Aerosol tyrosine kinase inhibitor compounds and uses thereof
AU2020201933A1 • 2020-04-09 •
AVALYN PHARMA INC [US]
Earliest priority: 2013-07-31 • Earliest publication: 2015-02-05

Disclosed herein are formulations of imatinib or a phenylaminopyrimidine derivative compound for aerosolization and use of such formulations for inhaled aerosol administration of imatinib or a phenylaminopyrimidine derivative compound for the prevention or treatment of various fibrotic, carcinogenic, vascular and viral infectious diseases, including diseases associated with the lung, heart, kidney, liver, eye, central nervous system and surgical sites. In some embodiments, formulations and delivery options described herein allow for efficacious local delivery of imatinib or a phenylaminopyrimidine derivative compound or salt thereof. Compositions include all formulations, kits, and device combinations described herein. Methods include inhalation procedures, indications and manufacturing processes for production and use of the compositions described. Also included are methods for identifying compounds and indications that may benefit by reformulation and inhalation administration. -'144 - WO 2015/017728 PCT/US2014/049294 Figure 1 Lung tissue pharmacokinetics following intratracheal aerosol delivery Imatiniblevels followingdirectlung delivery (1mg/kg) to rats 1----------

---------- -- +--Pasmra matnp.b (ug/mi) -- Lungianib ug/g.rm) 100---------- ---------- 0.0- --- flmelhrs),

256.METHODS AND PHARMACEUTICAL COMPOSITIONS FOR THE TREATMENT OF BACTERIAL INFECTIONS
EP3632458A1 • 2020-04-08 •
CENTRE NAT RECH SCIENT [FR]
Earliest priority: 2013-07-26 • Earliest publication: 2015-01-29

The present invention relates to methods and pharmaceutical compositions for the treatment of bacterial infections. In particular, the present invention relates to a Toll-like receptor (TLR) agonist for use in a method for the treatment of a bacterial infection in a subject in need thereof wherein the TLR agonist is administered to the subject in combination with at least one antibiotic.

257.Compositions and Methods for Immunizing Against C. Difficile
US2020113991A1 • 2020-04-16 •
SANOFI PASTEUR INC [US]
Earliest priority: 2013-06-14 • Earliest publication: 2014-12-18

This disclosure relates to methods for eliciting an immune response against C. difficile toxin A and toxin Bin an adult human subject. The subject may be at risk for a primary symptomatic C. difficile infection. In some embodiments, a method is for eliciting an immune response against C. difficile toxin A and toxin B in an adult human subject at risk for a primary symptomatic C. difficile infection, and comprises administering to the subject a composition comprising C. difficile toxoid A and toxoid B at least three times, each administration being about seven days apart.

258.SOLID NANOPARTICLE WITH INORGANIC COATING
US2020108023A1 • 2020-04-09 •
NANEXA AB [SE]
Earliest priority: 2013-05-24 • Earliest publication: 2014-11-27

A nanoparticle having a solid core comprising a biologically active substance, said core being enclosed by an inorganic coating, a method for preparing the nanoparticle, and the use of the nanoparticle in therapy. A kit comprising the nanoparticle and a pharmaceutical composition comprising the nanoparticle.

259.BIOMARKERS AND METHODS OF TREATING PD-1 AND PD-L1 RELATED CONDITIONS
EP3633377A1 • 2020-04-08 •
HOFFMANN LA ROCHE [CH]
Earliest priority: 2013-03-15 • Earliest publication: 2014-09-25

Provided herein are biomarkers for the treatment of pathological conditions, such as cancer, and method of using PD-1/PD-L1 pathway antagonists. In particular, provided are biomarkers for patient selection and prognosis in cancer, as well as methods of therapeutic treatment, articles of manufacture and methods for making them, diagnostic kits, methods of detection and methods of advertising related thereto.

260.DIAGNOSIS AND TREATMENT OF VIRAL DISEASES
US2020110088A1 • 2020-04-09 •
ENZO BIOCHEM INC [US]
Earliest priority: 2013-01-08 • Earliest publication: 2014-07-17

Provided are methods of diagnosing a viral disease such as idiopathic pulmonary fibrosis, Castleman's disease, a lymphoma, a thymoma or a sarcoma in a patient by identifying one or more virus-specific elements such as a nucleic acid or a viral protein or a patient antibody to a virus-specific element, as well as to kits for diagnosing the viral disease in a patient. Further provided are methods of monitoring disease progression and/or the efficacy of therapy by measuring the levels of a virus-specific element in a sample from a patient, and methods of identifying therapeutic agents that show efficacy in reducing levels of virus-specific agents in vitro. Still further provided are methods of treating idiopathic pulmonary fibrosis, a lymphoproliferative disease and cancer, as well as to methods of preventing viral infection, including Herpesvirus saimiri infection.

261.VACCINE PREPARED UTILIZING HUMAN PARAINFLUENZA VIRUS TYPE 2 VECTOR
EP3636755A1 • 2020-04-15 •
BIOCOMO INC [JP]
Earliest priority: 2012-12-26 • Earliest publication: 2014-07-03

Disclosed are: a virus vector in which a gene encoding an antigenic polypeptide is integrated in human parainfluenza virus type 2 gene, wherein the antigenic polypeptide is expressed in the form of a fusion protein with a viral structural protein; and a method for producing the same. The virus vector of the present invention contains a quantitatively large amount of the antigenic peptide on the virus particle and can efficiently deliver the antigenic polypeptide to a target cell.

262.METHODS OF TREATING S. AUREUS-ASSOCIATED DISEASES
US2020109191A1 • 2020-04-09 •
MEDIMMUNE LLC [US]
Earliest priority: 2012-11-06 • Earliest publication: 2014-05-15

The present invention provides for methods of preventing and/or treating S. aureus-associated bacteremia and sepsis, and methods for preventing and/or treating S. aureus-associated pneumonia in immunocompromised patients using anti-S. aureus alpha-toxin (anti-AT) antibodies. Also provided are methods of reducing S. aureus bacterial load in the bloodstream or heart of a mammalian subject comprising administering to the subject an effective amount of an isolated anti-S. aureus alpha toxin (anti-AT) antibody or antigen-binding fragment thereof. Methods of reducing S. aureus bacterial agglutination and/or thromboembolic lesion formation in a mammalian subject comprising administering to the subject an effective amount of an isolated anti-S. aureus alpha toxin (anti-AT) antibody or antigen-binding fragment thereof, are also provided. Also provided are methods of preventing or reducing the severity of S. aureus associated pneumonia in an immunocompromised mammalian subject.

263.Target peptides for colorectal cancer therapy and diagnostics
AU2020202110A1 • 2020-04-16 •
THE UNIV OF BIRMINGHAM [GB]

Earliest priority: 2012-09-05 • Earliest publication: 2014-03-13
....g., colorectal cancer, to 5 function as immunotherapeutics in adoptive T cell therapy or as a vaccine, facilitate antibody recognition...

264.ENGINEERING T-CELL RECEPTORS
EP3636664A1 • 2020-04-15 •
UNIV ILLINOIS [US]
Earliest priority: 2012-07-27 • Earliest publication: 2014-01-30

The use of model T cell receptors (TCRs) as scaffolds for in vitro engineering of novel specificities is provided. TCRs with de novo binding to a specific peptide-major histocompatibility complex (MHC) product can be isolated by: 1) mutagenizing a T cell receptor protein coding sequence to generate a variegated population of mutants (a library), 2) selection of the library of TCR mutants with the specific peptide-MHC, using a process of directed evolution and a "display" methodology (e.g., yeast, phage, mammalian cell) and the peptide-MHC ligand. The process can be repeated to identify TCR variants with improved affinity for the selecting peptide-MHC ligand.

265.CATIONIC LIPID VACCINE COMPOSITIONS AND METHODS OF USE
EP3632464A1 • 2020-04-08 •
KHLEIF SAMIR N [US]
Earliest priority: 2012-06-15 • Earliest publication: 2013-12-19

The present disclosure provides compositions comprising an adjuvant and a therapeutic factor for use in a method of reducing an immune suppressor cell population in a mammal and a method of augmenting an immune response in a mammal.

266.Methods of treating cancer using PD-L1 axis binding antagonists and VEGF antagonists
AU2020202203A1 • 2020-04-16 •
GENENTECH INC [US]
Earliest priority: 2012-05-31 • Earliest publication: 2013-12-05

The present invention describes combination treatment comprising a PD-1 axis binding antagonist, chemotherapy and optionally a VEGF antagonist and methods for use thereof, including methods of treating conditions where enhanced immunogenicity is desired such as increasing tumor immunogenicity for the treatment of cancer.

267.URACYL SPIROOXETANE NUCLEOSIDES
US2020109161A1 • 2020-04-09 •
JANSSEN SCIENCES IRELAND UNLIMITED CO [IE]
Earliest priority: 2012-05-25 • Earliest publication: 2013-11-28

The present invention also relates to processes for preparing said compounds, pharmaceutical compositions containing them and their use, alone or in combination with other HCV inhibitors, in HCV therapy.

268.MULTIVALENT RECOMBINANT AVIAN HERPES VIRUSES AND VACCINES FOR IMMUNIZING AVIAN SPECIES
US2020108137A1 • 2020-04-09 •
CEVA SANTE ANIMALE [FR]
Earliest priority: 2012-03-30 • Earliest publication: 2013-10-02

The present invention relates to a recombinant avian herpes virus, which comprises at least two recombinant nucleotide sequences, each recombinant nucleotide sequence encoding a distinct antigenic peptide, wherein the at least two recombinant nucleotide sequences are inserted into distinct non-coding regions of the viral genome chosen among the region located between UL44 and UL45, the region located between UL45 and UL46, the region located between US10 and SORF3, and the region located between SORF3 and US2.

269.RNA formulation for immunotherapy
AU2020202152A1 • 2020-04-16 •
BIONTECH RNA PHARMACEUTICALS GMBH [DE]
Earliest priority: 2012-03-26 • Earliest publication: 2013-10-03

The present invention is in the field of immunotherapy, in particular tumor immunotherapy. The present invention provides pharmaceutical formulations for delivering RNA to antigen presenting cells such as dendrite cells (DCs) in the spleen after systemic administration. In particular, the formulations described herein enable to induce an immune response after systemic administration of antigen-coding RNA.

270.HEATING DEVICE FOR ROTARY DRUM FREEZE-DRYER
US2020116428A1 • 2020-04-16 •
SANOFI PASTEUR SA [FR]
Earliest priority: 2011-10-06 • Earliest publication: 2013-04-11

A heating device (124) for heating particles to be freeze-dried in a rotary drum (102) of a freeze-dryer (100) is provided, the device comprising at least one radiation emitter (202) for applying radiation heat to the particles, and a tube-shaped separator (204) for separating the particles from the at least one emitter (202), The separator (202) being integrally closed at one end and separating an emitter volume (206) encompassing the at least one emitter (202) from a drum process volume (126) inside the drum (102), wherein the heating device (124) protrudes into the drum process volume (126) such that said integrally closed end of the separator (204) is arranged inside the drum (102) as a free end.

271.PROCESS LINE FOR THE PRODUCTION OF FREEZE-DRIED PARTICLES
US2020109896A1 • 2020-04-09 •
SANOFI PASTEUR SA [FR]
Earliest priority: 2011-10-05 • Earliest publication: 2013-04-10

A process line for the production of freeze-dried particles under closed conditions is provided, the process line comprising a freeze-dryer for the bulkware production of freeze-dried particles under closed conditions, the freeze-dryer comprising a rotary drum for receiving the frozen particles, and a stationary vacuum chamber housing the rotary drum, wherein for the production of the particles under closed conditions the vacuum chamber is adapted for closed operation during processing of the particles; the drum is in open

communication with the vacuum chamber; and at least one transfer section is provided for a product transfer between a separate device of the process line and the freeze-dryer, the freeze-dryer and the transfer section being separately adapted for closed operation, wherein the transfer section comprises a temperature-controllable inner wall surface.

272.Oncolytic Herpes Simplex Virus and Therapeutic Uses Thereof
US2020113956A1 • 2020-04-16 •
BENEVIR BIOPHARM INC [US]
Earliest priority: 2011-09-08 • Earliest publication: 2013-03-14

The present invention relates to variants of herpes simplex virus (HSV) that selectively infect and replicate in cancer cells, including HSV strains that selectively infect and replicate in bladder cancer cells. Preferred HSV of the invention have intact endogenous Us11 and Us12 genes and have genes encoding ICP34.5 replaced with a gene encoding Us11 fused to an HSV immediate early (IE) promoter. The variant HSV of the invention also comprise one or more additional heterologous genes encoding immunomodulatory polypeptides. Methods and compositions using these variant HSV, for example, for treating cancer in a subject, are also provided.

273.PEGYLATED LIPOSOMES FOR DELIVERY OF IMMUNOGEN-ENCODING RNA
US2020113830A1 • 2020-04-16 •
GLAXOSMITHKLINE BIOLOGICALS SA [BE]
Earliest priority: 2011-08-31 • Earliest publication: 2013-03-07

Nucleic acid immunisation is achieved by delivering RNA encapsulated within a PEGylated liposome. The RNA encodes an immunogen of interest. The PEG has an average molecular mass above 3 kDa but less than 11 kDa. Thus the invention provides a liposome having a lipid bilayer encapsulating an aqueous core, wherein: (i) the lipid bilayer comprises at least one lipid which includes a polyethylene glycol moiety, such that polyethylene glycol is present on the liposome's exterior, wherein the average molecular mass of the polyethylene glycol is above 3 kDa but less than 11 kDa; and (ii) the aqueous core includes a RNA which encodes an immunogen. These liposomes are suitable for in vivo delivery of the RNA to a vertebrate cell and so they are useful as components in pharmaceutical compositions for immunising subjects against various diseases,

274.LIPOSOMES HAVING USEFUL N:P RATIO FOR DELIVERY OF RNA MOLECULES
US2020113831A1 • 2020-04-16 •
GLAXOSMITHKLINE BIOLOGICALS SA [BE]
Earliest priority: 2011-07-06 • Earliest publication: 2013-01-10

Nucleic acid immunisation is achieved by delivering a RNA encapsulated within a liposome comprising a cationic lipid, wherein the liposome and the RNA have a N:P ratio of between 1:1 and 20:1.

275.FC RECEPTOR BINDING PROTEINS
US2020109199A1 • 2020-04-09 •
DYAX CORP [US]
Earliest priority: 2011-06-02 • Earliest publication: 2012-12-06

The disclosure relates to antibodies that bind FcRn and methods of using these antibodies.

276.HUMAN IMMUNODEFICIENCY VIRUS NEUTRALISING ANTIBODIES AND METHODS OF USE THEREOF
AU2020201993A1 • 2020-04-09 •
CALIFORNIA INST OF TECHN [US]
Earliest priority: 2011-05-17 • Earliest publication: 2012-11-22

An isolated anti-HIV antibody or an antigen-binding fragment thereof comprises the heavy chain CDR1, CDR2 and CDR3 regions and light chain CDR1, CDR2 and CDR3 regions of an anti-HIV antibody selected from the group consisting of: NIH45-46, 8ANC195, 3BNC60, 12A12, 12A21, 8ANC131, 8ANC134, 1B2530, INC9 and 8ANC196.

277.Dynamic Silk Coatings for Implantable Devices
US2020108183A1 • 2020-04-09 •
TUFTS COLLEGE [US]
Earliest priority: 2011-04-20 • Earliest publication: 2012-10-26

Provided herein relates to implantable devices and systems with dynamic silk coatings. In some embodiments, the dynamic silk coatings can be formed in situ or in vivo.

278.IMMUNOGENIC COMPOSITIONS AND METHODS OF USING THE COMPOSITIONS FOR INDUCING HUMORAL AND CELLULAR IMMUNE RESPONSES
EP3632463A1 • 2020-04-08 •
IMMUNE DESIGN CORP [US]
Earliest priority: 2011-04-08 • Earliest publication: 2012-10-18

Compositions and methods are provided herein for improved dual immunization strategies that induce in a subject an immune response that includes a humoral immune response and cellular immune response, both CD4 and CD8 T lymphocyte immune responses, thereby providing a complete adaptive immune response to one or more antigens. The methods described are therefore useful for treating and/or preventing (i.e., reducing the likelihood or risk of occurrence) different diseases, disorders, and conditions such as cancers and infectious diseases for which induction of both a humoral immune response and cellular immune response is desired and beneficial.

279.COMPOSITIONS AND METHODS FOR MODULATING GAMMA-C-CYTOKINE ACTIVITY
EP3636274A1 • 2020-04-15 •
BIONIZ LLC [US]
Earliest priority: 2011-01-18 • Earliest publication: 2012-07-26

The various embodiments relate to peptide antagonists of γc-family cytokines, Interleukin-2 (IL-2), Interleukin-4 (IL-4), Interleukin-7 (IL-7), Interleukin-9 (IL-9), Interleukin-15 (IL-15), and Interleukin-21 (IL-21). The γc-cytokines are associated with important human diseases, such as leukemia, autoimmune diseases, collagen diseases, diabetes mellitus, skin diseases, degenerative neuronal diseases and graft-versus-host disease (GvHD). Thus, inhibitors of γc-cytokine activity are valuable therapeutic and cosmetic

agents as well as research tools. Traditional approaches to inhibiting γc-cytokine activity involve raising neutralizing antibodies against each individual γc-cytokine family member/ receptor subunit. However, success has been limited and often multiple γc-cytokine family members co-operate to cause the disease state. Combinatorial use of neutralizing antibodies raised against each factor is impractical and poses an increased risk of adverse immune reactions. The present embodiments overcome these shortcomings by utilizing peptide antagonists based on the consensus γc-subunit binding site to inhibit γc-cytokine activity. Such approach allows for flexibility in antagonist design. In several embodiments, peptides exhibit Simul-Block activity, inhibiting the activity of multiple γc-cytokine family members.

280.Personalized Site-Specific Immunomodulation
US2020113989A1 • 2020-04-16 •
QU BIOLOGICS INC [CA]
Earliest priority: 2010-07-26 • Earliest publication: 2013-07-11

The invention provides methods of treating inflammation in a specific organ or tissue of an individual. The method involves determining whether the individual has previously been infected with at least one pathogen that is pathogenic in the specific organ or tissue; and administering to the individual an anti-inflammatory composition comprising antigenic determinants, the antigenic determinants selected or formulated so that together they are specific for the at least one pathogen. The pathogen may be an endogenous or exogenous pathogen, and may further be a bacterial pathogen, a viral pathogen, a fungal pathogen, a protozoan pathogen, or a helminth pathogen.

281.COMPOSITIONS AND METHODS FOR TARGETED IMMUNOMODULATORY ANTIBODIES AND FUSION PROTEINS
US2020115455A1 • 2020-04-16 •
UNIV JOHNS HOPKINS [US]
Earliest priority: 2010-03-05 • Earliest publication: 2011-09-09

The present invention is based on the seminal discovery that targeted immunomodulatory antibodies and fusion proteins can counter act or reverse immune tolerance of cancer cells. Cancer cells are able to escape elimination by chemotherapeutic agents or tumor-targeted antibodies via specific immunosuppressive mechanisms in the tumor microenvironment and such ability of cancer cells is recognized as immune tolerance. Such immunosuppressive mechanisms include immunosuppressive cytokines (for example, Transforming growth factor beta (TGF-β)) and regulatory T cells and/or immunosuppressive myeloid dendritic cells (DCs). By counteracting tumor-induced immune tolerance, the present invention provides effective compositions and methods for cancer treatment, optional in combination with another existing cancer treatment. The present invention provides strategies to counteract tumor-induced immune tolerance and enhance the antitumor efficacy of chemotherapy by activating and leveraging T cell-mediated adaptive antitumor immunity against resistant or disseminated cancer cells.

282.EMULSION CHEMISTRY AND ASSAYS FOR ENCAPSULATED DROPLETS
EP3636741A1 • 2020-04-15 •
BIO RAD LABORATORIES [US]
Earliest priority: 2010-03-02 • Earliest publication: 2011-09-08

System, including methods, apparatus, compositions, and kits, for making and using stabilized emulsions and for assays with an emulsion including capsules. In an exemplary method, an aqueous phase may be provided. The aqueous phase may include a sample and an effective concentration of one or more skin-forming proteins. An emulsion may be formed. The emulsion may include droplets of the aqueous phase disposed in a nonaqueous continuous phase. The emulsion may be heated to create an interfacial skin between each droplet and the continuous phase, to transform the droplets into capsules. Assay data related to the sample may be collected from the capsules.

283.PLASMA KALLIKREIN BINDING PROTEINS
US2020109213A1 • 2020-04-09 •
DYAX CORP [US]
Earliest priority: 2010-01-06 • Earliest publication: 2011-07-14

Plasma kallikrein binding proteins and methods of using such proteins are described.

284.COMPLETE GENOME SEQUENCE OF THE METHANOGEN METHANOBREVIBACTER RUMINANTIUM
US2020108131A1 • 2020-04-09 •
PASTORAL GREENHOUSE GAS RES LTD [NZ]
Earliest priority: 2009-08-27 • Earliest publication: 2011-03-03

The present invention includes the complete genome sequence for the methanogen, Methanobrevibacter ruminan-tium, including polynucleotides which encode M. ruminantium polypeptides or peptides, as well as polynucleotides from non-coding regions. Also included are the encoded M. ruminantium polypeptides and peptides, and antibodies directed to these peptides or polypeptides, in addition to expression vectors and host cells for producing these peptides, polypeptides, polynucleotides, and antibodies. The invention further includes methods and compositions for detecting, targeting, and inhibiting microbial cells, especially methanogen cells such as M. ruminantium cells, using one or more of the disclosed peptides, polypeptides, polynu-cleotides, antibodies, expression vectors, and host cells.

285.ANTIBODIES TO IL-6 AND USE THEREOF
US2020108140A1 • 2020-04-09 •
ALDERBIO HOLDINGS LLC [US]
Earliest priority: 2009-07-28 • Earliest publication: 2011-06-03

The present invention is directed to therapeutic methods using IL-6 antagonists such as an Ab1 antibody or anti-body fragment having binding specificity for IL-6 to prevent or treat disease or to improve survivability or quality of lift of a patient in need thereof. In preferred embodiments these patients will comprise those exhibiting (oral risk of developing) an elevated serum C-reactive protein level reduced serum albumin level, elevated D-dimer or other coagulation cascade related protein(s), cachexia, fever, weakness and/or fatigue prior to treatment. The subject therapies also may include the administration of other actives such as chemotherapeutics, anti-coagulants, statins, and others. Additional preferred embodiments of the subject invention relate to therapeutic compositions and methods treating or preventing rheumatoid arthritis, especially subcutaneous and intro-venous formulations and dosage regimens using IL-6 antagonists according to the invention, as well as methods for preventing or treating GVHD or leukemia relapse in

subjects receiving transplanted cells, tissue or organs, use thereof fat the treatment or prevention of mucositis, and use thereof to potentiate the cytotoxic, apoptotic, and anti-metastatic or anti-invasive effects of chemotherapeutics and radiation on canoers, especially cancers that have developed a resistance to radiation or chemotherapy, such as an EGFR inhibitor.

286.INTRAVESICAL DRUG DELIVERY DEVICE WITH RETENTION FRAME AND DRUG TABLETS
US2020113817A1 • 2020-04-16 •
TARIS BIOMEDICAL LLC [US]
Earliest priority: 2009-06-26 • Earliest publication: 2010-12-29

Intravesical drug delivery devices that include a device body, a number of solid drug tablets, and a retention frame. The device body includes a drug reservoir lumen and a retention frame lumen. The drug tablets is positioned in the drug reservoir lumen, and the retention frame is positioned in the retention frame lumen.

287.FLUID DISTRIBUTOR UNIT
US2020116678A1 • 2020-04-16 •
GE HEALTHCARE BIO SCIENCES AB [SE]
Earliest priority: 2009-05-29 • Earliest publication: 2010-12-02

A fluid distributor unit comprising a channel system where one or more inlet channels (2) starting on an inlet side (3) of the distributor unit branch out successively into several channels (6) ending on the other side of the distributor unit, called the outlet side (4), characterised in that said distributor unit is provided in one single body (1) by free form fabrication.

288.Alphavirus Replicon Particles Expressing TRP2
US2020113984A1 • 2020-04-16 •
ALPHAVAX INC [US]
Earliest priority: 2009-04-08 • Earliest publication: 2010-10-14

The immune response to melanoma cells and tumors can be induced or significantly increased by administering to a subject a pharmaceutical composition comprising alphavirus particles, especially Venezuelan equine encephalitis virus replicon particles, which express the melanoma antigen dopachrome tautomerase (DCT, TRP2) in cells of the subject, with the result of tumor regression and/or inhibition of metastasis of a melanoma subject, or a decreased risk of the occurrence or recurrence of melanoma and/or decreased severity of melanoma in a subject not suffering from melanoma at the time of administration. The pharmaceutical composition described herein can be used in conjunction with other therapeutic agents, it can be administered on more than one occasion and it can be combined with administrations of other compositions such as protein or other immunogenic compositions, and/or adjuvants, with beneficial effects to the human or animal subject to which it has been administered.

289.ANTIVIRAL SUPPLEMENT FORMULATIONS
US2020108086A1 • 2020-04-09 •
VYMEDIC LLC [US]
Earliest priority: 2008-11-04 • Earliest publication: 2010-05-06

The disclosure provides an oral antiviral supplement composition comprising a lysine, an ascorbic compound, a flavonoid glycoside, a threonine, and a pyridoxine. The disclosure also provides a method of reducing viral replication in a cell comprising treating a virus-infected cell with a composition of the disclosure. The disclosure further provides a method for the treatment and prophylaxis of a viral infection in a patient comprising administering a composition of the disclosure.

290.Aloe Preparation For Skin Enhancement
US2020113963A1 • 2020-04-16 •
UNIV MISSISSIPPI [US]
Earliest priority: 2007-05-11 • Earliest publication: 2008-11-20

Methods for providing skin enhancement and pain relief to an individual in need of treatment by administering to such an individual an effective amount of an immunostimulatory Aloe vera derived composition. Oral and topical methods and compositions are provided. Aloe vera derived immunostimulatory compositions and methods of producing such compositions are provided.

291.IMMUNOGLOBULINS DIRECTED TO BACTERIAL VIRAL AND ENDOGENOUS POLYPEPTIDES
EP3636668A2 • 2020-04-15 •
BROWN ERIC L [US]
Earliest priority: 2007-04-23 • Earliest publication: 2009-02-19

Disclosed are antibodies (immunoglobulins) and fragments thereof that hydrolyze or bind polypeptide antigens belonging to Alzheimer's disease, Staphyloccus aureus, hepatitis C virus, and human immunodeficiency virus. Also disclosed are novel methods to improve the antigen reactivity of the immunoglobulins.

292.METHODS AND COMPOSITIONS FOR LIVE ATTENUATED VIRUSES
US2020108136A1 • 2020-04-09 •
TAKEDA VACCINES INC [US]
Earliest priority: 2007-04-06 • Earliest publication: 2008-10-09
... the live, attenuated virus. In other embodiments, the live, attenuated virus composition may be a vaccine composition. In yet other...

293.RNA-CODED ANTIBODY
EP3636669A1 • 2020-04-15 •
CUREVAC AG [DE]
Earliest priority: 2007-01-09 • Earliest publication: 2008-07-10
... antibody, for the preparation of a pharmaceutical composition, in particular a passive vaccine, for treatment of tumours and cancer diseases...

294.COMBINATION TREATMENT OF CD38-EXPRESSING TUMORS
US2020114000A1 • 2020-04-16 •
GENMAB AS [DK]
Earliest priority: 2006-09-26 • Earliest publication: 2008-04-03

The invention relates to novel method for the treatment of cancer using a combination therapy comprising an antibody that binds CD38, a corticosteroid and a non-corticosteroid chemotherapeutic agent.

295.IL-15RALPHA SUSHI DOMAIN - IL-15 FUSION PROTEINS
US2020109184A1 • 2020-04-09 •
INST NAT SANTE RECH MED [FR]
Earliest priority: 2005-10-20 • Earliest publication: 2007-04-25

The present invention relates to the stimulation of the IL-15Rbeta/gamma signalling pathway, to thereby induce and/or stimulate the activation and/or proliferation of IL-15Rbeta/gamma-positive cells, such as NK and/or T cells. Appropriate compounds include compounds comprising at least one IL-15Rbeta/gamma binding entity, directly or indirectly linked by covalence to at least one polypeptide which contains the sushi domain of the extracellular region of an IL-15Ralpha.

296.Methods of Suppressing Rheumatoid Arthritis Using an Anti-IL-6 Antibody
US2020115445A1 • 2020-04-16 •
APPLIED MOLECULAR EVOLUTION INC [US]
Earliest priority: 2005-04-29 • Earliest publication: 2006-11-09

Anti-IL-6 antibodies and antirheumatics are useful to treat and suppress IL-6 related conditions, such as rheumatoid arthritis.

297.Ungulates with Genetically Modified Immune Systems
US2020109415A1 • 2020-04-09 •
REVIVICOR INC [US]
Earliest priority: 2004-10-22 • Earliest publication: 2008-01-31

The present invention provides ungulate animals, tissue and organs as well as cells and cell lines derived from such animals, tissue and organs, which lack expression of functional endogenous immunoglobulin loci. The present invention also provides ungulate animals, tissue and organs as well as cells and cell lines derived from such animals, tissue and organs, which express xenogenous, such as human, immunoglobulin loci. The present invention further provides ungulate, such as porcine genomic DNA sequence of porcine heavy and light chain immunogobulins. Such animals, tissues, organs and cells can be used in research and medical therapy. In addition, methods are provided to prepare such animals, organs, tissues, and cells.

298.PYRIMIDINE COMPOUND AND MEDICAL USE THEREOF
US2020109139A1 • 2020-04-09 •
JAPAN TOBACCO INC [JP]
Earliest priority: 2004-06-11 • Earliest publication: 2006-01-19

wherein each symbol is as defined in the specification and a method of therapeutically or prophylactically treating an undesirable cell proliferation, comprising administering such a compound. The compound of the present invention has superior activity in suppressing undesirable cell proliferation, particularly, an antitumor activity, and is useful as an antitumor agent for the prophylaxis or treatment of cancer, rheumatism, and the like. In addition, the compound of the present invention can be a more effective

antitumor agent when used in combination with other antitumor agents such as an alkylating agent or metabolism antagonist.

299.PANCREATIC CANCER TARGETS AND USES THEREOF
US2020116726A1 • 2020-04-16 •
CELERA CORP [US]
Earliest priority: 2003-08-08 • Earliest publication: 2009-01-06

The present invention provides a method for diagnosing and detecting diseases associated with pancreas. The present invention provides one or more proteins or fragments thereof, peptides or nucleic acid molecules differentially expressed in pancreatic diseases (PCAT) an

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