



EN ESTE NÚMERO

VacCiencia es una publicación dirigida a investigadores y especialistas dedicados a la vacunología y temas afines, con el objetivo de serle útil. Usted puede realizar sugerencias sobre los contenidos y de esta forma crear una retroalimentación que nos permita acercarnos más a sus necesidades de información.

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Noticias en la Web

La FDA avanza con la vacuna neumocócica VAX-31 de Vaxcyte

12 nov. Vaxcyte, Inc. (NASDAQ:PCVX), una empresa de vacunas en fase clínica, anunció avances regulatorios para su candidata a vacuna neumocócica conjugada, VAX-31. La Administración de Alimentos y Medicamentos de EE. UU. (FDA) ha aprobado la solicitud de Nuevo Fármaco en Investigación (IND) para VAX-31 en bebés y ha otorgado la designación de Terapia Innovadora para su uso en adultos.



VAX-31 se está desarrollando para prevenir la enfermedad neumocócica invasiva (ENI), una infección grave que puede resultar en afecciones como meningitis y bacteriemia. Diseñada para cubrir la mayoría de las cepas de ENI en EE. UU., se espera que VAX-31 proporcione una protección más amplia en comparación con las vacunas actuales.

Para uso pediátrico, la empresa planea iniciar un estudio de Fase 2 a finales de enero de 2025. Este ensayo evaluará la seguridad, tolerabilidad e inmunogenicidad de la vacuna en una serie de dosis administradas a bebés sanos junto con las vacunas pediátricas de rutina.

La formulación para adultos de VAX-31 recibió la designación de Terapia Innovadora de la FDA, que acelera el desarrollo y la revisión de medicamentos para afecciones graves cuando la evidencia preliminar sugiere una mejora significativa sobre las terapias existentes. Vaxcyte tiene como objetivo comenzar un estudio pivotal de Fase 3 de no inferioridad para adultos a mediados de 2025.

Estos avances siguen a los resultados positivos de estudios anteriores de Fase 1/2, que respaldaron las decisiones de la FDA. El CEO de Vaxcyte, Grant Pickering, expresó optimismo sobre la exploración completa de la utilidad clínica de VAX-31 en ambas poblaciones.

VAX-31 es parte del esfuerzo más amplio de Vaxcyte para crear vacunas contra enfermedades bacterianas utilizando técnicas sintéticas modernas. La plataforma de la empresa tiene como objetivo producir vacunas con beneficios inmunológicos mejorados de manera eficiente.

El desarrollo de VAX-31 se alinea con la recomendación ampliada de vacunación neumocócica del Comité Asesor sobre Prácticas de Inmunización para adultos estadounidenses de 50 años o más. Esta decisión subraya la importancia de una protección más amplia contra la enfermedad para este grupo demográfico.

Este artículo se basa en un comunicado de prensa de Vaxcyte, Inc.

En otras noticias recientes, Vaxcyte ha logrado avances significativos en su programa de desarrollo de vacunas. VAX-31 ha mostrado resultados prometedores en ensayos de Fase 1/2, lo que ha llevado a varias firmas a aumentar sus objetivos de precio. Jefferies aumentó su objetivo a 146 dólares desde 129 dólares, Leerink Partners reiteró su calificación de Superar el rendimiento del mercado con un objetivo de 135,00 dólares, BTIG mantuvo su calificación de Compra con un objetivo de 160,00 dólares, y Mizuho aumentó su objetivo a 163 dólares desde 113 dólares.

VAX-31 está en camino de avanzar a ensayos de Fase 3 para mediados de 2025, con ensayos de Fase 2 en bebés previstos para el primer trimestre de 2025.

Los recientes desarrollos han posicionado a VAX-31 a la vanguardia de la industria.

Vaxcyte completó recientemente una oferta pública, recaudando aproximadamente 1.500 millones de dólares. La empresa reportó gastos operativos de 140 millones de dólares y un saldo de caja de 3.300 millones de dólares al 30 de septiembre.

Finalmente, Vaxcyte ha anunciado el nombramiento de John P. Furey en su Consejo de Administración, indicando cambios recientes en la estructura corporativa de la empresa.

Perspectivas de InvestingPro

El progreso regulatorio de Vaxcyte con VAX-31 se alinea con su sólido desempeño en el mercado. Según InvestingPro, la capitalización de mercado de la empresa se sitúa en 12.920 millones de dólares, reflejando la confianza de los inversores en su pipeline de desarrollo de vacunas.

Las acciones de la empresa han mostrado una notable fortaleza, con un rendimiento total del precio del 115,29% en el último año y un 58,98% en los últimos seis meses. Esta trayectoria ascendente sugiere optimismo sobre las perspectivas futuras de Vaxcyte.

Sin embargo, es importante señalar que Vaxcyte aún no es rentable, lo cual es consistente con su estatus de empresa biotecnológica en fase clínica que invierte fuertemente en investigación y desarrollo.

Un consejo relevante de InvestingPro destaca que Vaxcyte mantiene más efectivo que deuda en su balance. Esta sólida posición de liquidez es crucial para financiar los ensayos clínicos en curso y navegar el largo proceso de aprobación de medicamentos.

Para los inversores que buscan un análisis más completo, InvestingPro ofrece 9 consejos adicionales que podrían proporcionar más información sobre la salud financiera y la posición en el mercado de Vaxcyte.

Fuente: Investing.com. Disponible en <https://acortar.link/HQ2zn8>

First bivalent mRNA vaccine candidate against RSV goes under clinical trial

Nov 13. The world's first bivalent mRNA vaccine candidate against respiratory syncytial virus, or RSV, kicked off Phase I clinical trial in China on Wednesday, as an adult received a shot at a clinical research center of a major Shanghai hospital.

The developer of the vaccine candidate said that the adult participant was in stable condition and under medical observation after the vaccination.

The vaccine candidate was developed by Innorna, a Shenzhen-based biotechnology enterprise, with a technology platform whose independent intellectual property rights it holds. The clinical trial was approved by the Center for Drug Evaluation of China's National Medical Products Administration in June.

No vaccine against RSV has been approved for marketing on the Chinese mainland so far.

RSV is one of the pathogens that became familiar to Chinese residents recently, especially after it swept many parts of the country last winter and infected populations, especially young children and the elderly.

The pathogen can severely affect children's lung function, and the vulnerable group stands a higher chance of



developing into severe cases after getting infected, said medical experts.

"Official figures showed that RSV caused more than 80 percent of respiratory viral infection cases in infants and young children in the country last year," said Gu Weirong, vice-president of the Obstetrics and Gynecology Hospital of Fudan University in Shanghai.

Compared with the three RSV vaccines already approved overseas, the new vaccine candidate has its own advantages, according to Innorna.

"The vaccine is bivalent, meaning that it can cover both subtypes of RSV that cause most RSV infections at the same time. Moreover, the technical route of mRNA makes the vaccine design more flexible in case the virus mutates," said Chen Zhangjing, head of clinical development at Innorna.

"Also, as an mRNA vaccine, it is expected to help individuals realize a similar level of immune response after being vaccinated repeatedly every other year or two years - if applicable - as what they do after the initial vaccination," he said.

According to its clinical study plan, a total of 240 adult participants, including half aged 59 years and younger and the other half aged 60 years and older, will be enrolled in this phase I clinical trial, which is expected to last about two and a half years.

The vaccine candidate is developed for adults aged 60 years and older as a prioritized population, according to its developer, which also plans to promote the development of indications for adults with poor immunity, pregnant women, and infants.

Fuente: China Daily. Disponible en <https://goo.su/Ypn9>

Merck to present new data from Gardasil 9 studies reinforcing the importance of gender-neutral HPV vaccination in adults up to age 45 at IPVC 2024

13 nov. Merck, known as MSD outside of the United States and Canada, announced that new clinical and real-world data for the company's 9-valent Human Papillomavirus (HPV) vaccine, Gardasil 9 (Human Papillomavirus 9-valent Vaccine, Recombinant), evaluating the burden and incidence of certain HPV-related cancers and diseases, will be presented at the International Papillomavirus Conference (IPVC) 2024 in Edinburgh, UK, from November 12-15.



Data to be presented include results from the BROADEN and PROGRESS studies evaluating the prevalence of oral HPV infection and burden of HPV-related oropharyngeal and other head and neck cancers, as well as studies evaluating the age of disease-causal HPV infection among females and highlighting the importance of protecting both females and males from HPV-related cancers and diseases through vaccination.

"These data support the value of adult vaccination and strengthen our understanding that disease-causal HPV infection can happen later in life, reinforcing the importance of HPV vaccination for both females and males beginning at age 9," said Dr. Eliav Barr, senior vice president, head of global clinical development and chief medical officer, Merck Research Laboratories. "While historically the HPV vaccination conversation has focused on preventing certain HPV-related cervical cancers in women, we also continue to see the growing incidence of HPV-related oropharyngeal and other head and neck cancers, particularly in men. In both men

and women globally, there are approximately 666,000 new diagnoses of certain HPV-related cancers annually. The breadth of data we are presenting at the conference continues to demonstrate the link between HPV and certain HPV-related cancers in males and females and the role HPV vaccination can play in prevention.”

Gardasil 9 is a vaccine indicated in females 9 through 45 years of age for the prevention of cervical, vulvar, vaginal, anal, oropharyngeal and other head and neck cancers caused by human papillomavirus (HPV) Types 16, 18, 31, 33, 45, 52, and 58; cervical, vulvar, vaginal, and anal precancerous or dysplastic lesions caused by HPV Types 6, 11, 16, 18, 31, 33, 45, 52, and 58; and genital warts caused by HPV Types 6 and 11 .

Gardasil 9 is indicated in males 9 through 45 years of age for the prevention of anal, oropharyngeal and other head and neck cancers caused by HPV Types 16, 18, 31, 33, 45, 52, and 58; anal precancerous or dysplastic lesions caused by HPV Types 6, 11, 16, 18, 31, 33, 45, 52, and 58; and genital warts caused by HPV Types 6 and 11.

The oropharyngeal and head and neck cancer indication is approved under accelerated approval based on effectiveness in preventing HPV-related anogenital disease. Continued approval for this indication may be contingent upon verification and description of clinical benefit in a confirmatory trial.

Gardasil 9 does not eliminate the necessity for vaccine recipients to undergo screening for cervical, vulvar, vaginal, anal, oropharyngeal and other head and neck cancers as recommended by a health care provider.

Gardasil 9 has not been demonstrated to provide protection against diseases caused by: HPV types not covered by the vaccine - HPV types to which a person has previously been exposed through sexual activity. Not all vulvar, vaginal, anal, oropharyngeal and other head and neck cancers are caused by HPV, and Gardasil 9 protects only against those vulvar, vaginal, anal, oropharyngeal and other head and neck cancers caused by HPV Types 16, 18, 31, 33, 45, 52, and 58.

Gardasil 9 is not a treatment for external genital lesions; cervical, vulvar, vaginal, anal, oropharyngeal and other head and neck cancers; or cervical intraepithelial neoplasia (CIN), vulvar intraepithelial neoplasia (VIN), vaginal intraepithelial neoplasia (VaIN), or anal intraepithelial neoplasia (AIN).

Vaccination with Gardasil 9 may not result in protection in all vaccine recipients.

Merck is committed to ensuring adequate global supply and supporting broader, equitable access to our HPV vaccines to help protect against certain HPV-related cancers and diseases.

This commitment is enabled through significant capital investments, including more than \$2 billion to help increase capacity through additional manufacturing facilities that allowed for a nearly doubling of supply of our HPV vaccines from 2017-2020 and then, supply was doubled again between 2020-2024 to address increasing global demand. As a result, we expect to supply sufficient quantities of our HPV vaccines to meet anticipated demand and will continue to expand supply capacity in the future.

Global equitable access to our HPV vaccines is a key part of our efforts and key partnerships help us achieve these goals. In 2024, Merck reaffirmed its commitment to Gavi, the Vaccine Alliance, through an agreement with UNICEF, to supply low- and middle-income countries with over 115 million doses of HPV vaccine by 2025, to appropriately support local immunization programs. Merck has consistently increased our supply commitment to Gavi from 1.7 million doses in 2017 to more than 30 million doses in 2024.

Fuente: PHARMABIZ. Disponible en <https://goo.su/oms2>

Shingles Vaccine Could Protect Cardiovascular Health

15 nov. Shingles vaccination has proved to be effective for the prevention of herpes zoster and related complications. However, researchers said that the vaccine could also protect cardiovascular health—emphasizing the importance of receiving a shingles vaccine.



Shingles occurs when the varicella-zoster virus (VZV), which causes chickenpox, reactivates and causes a painful rash illness. According to the CDC, an estimated 1 million individuals experience shingles each year in the US. In

most cases, individuals only develop shingles once in their lifetime; however, the illness can reoccur. The risk of developing shingles increases with age, medical conditions that impact the immune system, along with medications that do not allow the immune system to work properly.

The virus commonly presents as a rash around the side of the body, which could lead to serious complications, including postherpetic neuralgia—which is long-term nerve pain. The CDC provided that individuals that never had the chickenpox or did not receive the chickenpox vaccine can get infected with VZV if in contact with an individual that has shingles. The virus can spread through direct contact with the fluid from the shingles rash blister, or by breathing in virus particles that come from the blisters.

The CDC recommends all individuals 50 years and older to receive 2 doses of the recombinant zoster vaccine (RZV, Shingrix) to protect against shingles, and also recommends individuals 19 years and older to get vaccinated if they have a weakened immune system. Clinical trials conducted on the safety and efficacy of shingles provided that the vaccine was 97% effective in preventing shingles in adults 50 to 69 years and 91% effective in individuals 70 years and older, which could also prevent further complications.

According to the Journal of the American Heart Association, a 2022 study found that shingles was associated with higher long-term risk of major cardiovascular events. The study assessed the link of shingles with the risk of stroke or heart disease among 3 large US cohorts—the NHS (Nurses' Health Study), NHS II (Nurses' Health Study II), and HPFS (Health Professionals Follow-Up Study). The study provided data from a total of 205,030 individuals.

The results displayed that, among all 3 cohorts, individuals with shingles had a 30% increased risk of developing future cardiovascular events. The study authors noted that individuals with shingles also had a 38% higher chance of experiencing a stroke compared to individuals without shingles. Additionally, the risk of having a heart attack or needing a heart procedure was 25% higher in the shingles group.

"There is a growing body of evidence that links the varicella zoster virus to vascular disease, the only human virus demonstrated to replicate in arteries and lead to vasculopathy," Sharon G. Curhan, MD, ScM, said in the press release.

The findings suggest that shingles vaccination could reduce the risk of cardiovascular complications that could develop among individuals with the virus. Pharmacists can continue to spread awareness of the importance of receiving a shingles vaccine, especially among those at greater risk.

Fuente: Pharmacy Times. Disponible en <https://goo.su/5q49Y>

La inmunización de la bronquiolitis evita más de ocho de cada diez hospitalizaciones de bebés en la Región de Murcia

17 nov. La vacuna contra la bronquiolitis, una de las enfermedades de mayor riesgo en los bebés, está consiguiendo unos resultados espectaculares en España y aquí en la Región, una de las comunidades españolas con un calendario vacunal más ambicioso, que ya ha conseguido evitar durante el pasado año más de ocho de cada diez hospitalizaciones en bebés. En el caso de España, se han evitado más de 10.000 hospitalizaciones e ingresos en la UCI, según ha confirmado en Hora 14 Matilde Zornoza, técnico del programa de vacunación de la consejería de Salud.

El objetivo de cobertura de esta inmunización es del 90%. Zornoza considera importante que los recién nacidos no salgan del hospital sin inmunizar, porque aumenta el riesgo.

Las bronquiolitis es la principal consecuencia de este virus respiratorio sincitial (VRS), y suponen una de las primeras causas de hospitalización en menores de cinco años. Provoca problemas de respiración, deshidratación y falta de oxígeno.

Por otra parte, la consejería de Salud también tiene en marcha la vacunación escolar de la gripe para niños de cinco años o menos, que pretende alcanzar a unos 54.000 menores. Esta campaña, según Zornoza, aumenta la equidad de las familias de la Región, algunas con más dificultades de acceso a la vacuna en su centro de salud por cuestiones laborales.

En el caso de los menores de seis meses no hay vacuna de la gripe en el mercado, por lo que se hace fundamental la vacunación a través de la madre durante el embarazo, lo que protege tanto a la madre como al bebé.

Esta vacuna de la gripe supone, según Zornoza, evitar complicaciones derivadas por el virus. "Hay que concienciar de que la gripe no es algo menor, no es un catarro", y recuerda que más de la mitad de niños que ingresan en la UCI por la gripe eran niños sanos, y señala que el objetivo de cobertura de esta vacuna es del 50%, algo que ya se ha superado.

También se evitan complicaciones derivadas de la gripe a las personas mayores en residencias y personas con discapacidad, cuyo objetivo de cobertura es mucho mayor y supera el 80%. La vacuna de la gripe se abrirá a la población en general, previsiblemente a mitad de diciembre, en función de la disponibilidad.

Fuente: CADENA SER. Disponible en <https://goo.su/OYHe>

La controversia sobre la vacuna de Pfizer atemoriza la humanidad

18 nov. En los últimos años, la farmacéutica Pfizer ha estado en el centro de controversias globales. Sin embargo, lo que muchos consideran "crímenes contra la humanidad" rara vez han recibido cobertura en los grandes medios tradicionales de comunicación, que, a menudo, optan por silenciar o minimizar estas acusaciones y su impacto en los seres humanos.

Pfizer no es nueva en los titulares por razones polémicas. Desde multas por publicidad engañosa hasta acusaciones de ensayos clínicos sin consentimiento en países vulnerables, la compañía ha acumulado un historial que plantea preguntas importantes sobre ética corporativa.

Este artículo examina algunos de los casos más polémicos atribuidos a Pfizer y analiza por qué los medios de comunicación tradicionales han optado por una cobertura limitada o sesgada. Mas allá de las

implicaciones para una sola empresa, esta omisión señala una crisis más profunda en la relación entre periodismo y el poder corporativo, poniendo en riesgo el derecho del público a recibir información veraz.

Recientemente la periodista Naomi Wolf publicó una investigación titulada *The Pfizer Papers: Pfizer' Crimes Against Humanity*, donde detalla las graves lesiones relacionadas con las vacunas que Pfizer y la FDA (Administración de Alimentos y Medicamentos) conocían a principios de 2021; pero que intentaron ocultar al público.

“Pfizer conocía las deficiencias de sus ensayos de vacunas contra la COVID-19 y los muchos efectos adversos de las vacunas, al igual que la Administración de Alimentos y Medicamentos (FDA) de Estados Unidos. Pero la FDA promovió las vacunas de todo modo, y luego trató de ocultar los datos al público, según la periodista Naomi Wolf”.

En el texto citado más arriba, Wolf detalló las graves lesiones relacionadas con las vacunas que Pfizer y la FDA conocían desde el principio del 2021, basándose en los datos de los ensayos clínicos de la farmacéutica y los estudios posteriores a la comercialización. Para producir “*The Pfizer Papers*”, Wolf, periodista y directora ejecutiva de *Daily Clout*, juntamente con Amy Kelly, convocaron a miles de científicos y médicos voluntarios para analizar los datos de Pfizer y los datos complementarios de otros sistemas de informes públicos para capturar el alcance total de los efectos de las vacunas.

Otro de los casos mas preocupantes en lo que estuvo implicado Pfizer, fue el “ensayo clínico en Nigeria en 1996, en el que niños fueron sometidos a pruebas de un antibiótico experimental sin un consentimiento adecuado, resultando en muertes y secuelas permanentes. Este hecho generó demandas y fue calificado como una violación de derechos humanos”.

Wolf y Kelly obtuvieron los reportes de “*public Health and Medical Profesional for Transparency*, un grupo de más 30 profesionales médicos y científicos que demandaron a la FDA en el 2021 para obligar a la agencia a publicar los datos, después de que la FDA se negara a cumplir con una solicitud de la Ley de Libertad de Información. Un Tribunal Federal ordenó en el 2022 a la agencia que publicara 450 mil documentos internos relacionados con la licencia de la vacuna contra el COVID-19 de Pfizer-BioNTech.

“La captación de los reportes fueron fundamentales y también altamente técnicos y científicos. Ningún periodista podría desglosarlo por sí mismo”, dice Wolf en el precitado ensayo, por lo que tuvo que valerse de unos 3250 científicos altamente acreditados para descodificar los datos proporcionados por la FDA. “Los hallazgos por los grupos de científicos emitido de forma sistemática, son clave sobre lo que Wolf revela en el texto: que “resulta ser el mayor crimen contra la humanidad en la historia registrada”.

“Los documentos de Pfizer son una sorprendente revelación de la codicia y la deshonestidad corporativas, con total desprecio por la ley y la salud real de los estadounidenses y los seres humanos del mundo”, escribió Steve Bannon en su introducción al libro.

Un “crimen contra la humanidad”. Wolf destaca que debido a que sus abuelos perdieron ocho hermanos en el Holocausto, no usó el lenguaje “crimen contra la humanidad” a la ligera. Sin embargo, subraya, que los informes dejan claro, dado lo que Pfizer sabía el daño a la salud humana causada por las vacunas de ARNm contra el COVID-19, “no hay forma de evitar concluir que esto no es descuido, no es codicia, no es descuido en la planta de producción”.

“Como dicen en tecnología, no es un error, es una característica “dijo. “En otras palabras, dañar a los seres

humanos de maneras muy específicas, desde el principio, fue obviamente el resultado de estas inyecciones. Y en lugar de detenerlos, o retirarlos del mercado, Pfizer redobló la apuesta, la FDA redobló la apuesta y los CDC (Centros para el Control y la Prevención de Enfermedades) redoblaron la apuesta.

El periodista Wolf dice que Pfizer, la FDA y los CDC tomaron esas decisiones sabiendo que un millón 223 mil personas murieron a causa de las vacunas en los primeros tres meses. “Lo hicieron sabiendo que la vacuna no detenía la infección, que causaba una larga lista de efectos secundarios graves en decenas de millones de personas”.

Wolf destaca que Pfizer también manipuló los datos para que la FDA aprobara la autorización de uso de emergencia (EUA, por sus siglas en inglés). En lo que Wolf llamó “uno de los informes mas condenatorios de este caso”, el equipo del anestesiólogo australiano DR Jevanthi Kunadhashan descubrió que Pfizer retrasó el registro de las muertes para que no tuvieran que incluirse como parte de su presentación de datos de EUA.

Los investigadores concluyeron que, si Pfizer hubiera registrado e informado las muertes de manera oportuna, la FDA no habría podido otorgarles una EUA para la vacuna.

Los efectos adversos graves en los primeros tres meses suman unos 42 mil pacientes.

Los analistas de “Pfizer Papers” encontraron más de 42 mil informes de casos que detallan 158,893 eventos adversos reportados a Pfizer en los primeros tres meses posteriores a la EUA de diciembre 2020.

Para procesar el gran volumen de informes, la compañía agregó 600 empleados adicionales, según los documentos, con planes de contratar a un total de 1,800 personas para junio de 2021.

Wolf refiere que los efectos negativos de la vacuna “se trata de decenas de miles de coágulos de sangre, coágulos pulmonares, coágulos de piernas, trastornos neurológicos, epilepsias, demencia, Alzheimer, parálisis de Bell, temblores, convulsiones, daño ocular, ceguera, enfermedades respiratorias”.

El efecto secundario más común fue mialgia o dolor muscular, y el segundo efecto secundario más común fue el dolor de las articulaciones, que las personas con frecuencia no se dan cuenta de que esta relacionada con la inyección, puntualiza Wolf en la investigación. Pero expresa que el tercer efecto secundario más común fue la COVID-19 porque la vacuna no detuvo la transmisión.

A pesar de la gravedad de estas revelaciones plasmadas por Wolf en: “Pfizer Papers”: Otros crímenes contra la humanidad, así como otras acusaciones, la cobertura mediática en torno a Pfizer y otras grandes farmacéuticas ha sido en gran parte superficial, enmarcada como parte de una narrativa que prioriza la confianza en los desarrollos farmacéuticos por encima del cuestionamiento ético.

El financiamiento de anuncios por parte de las farmacéuticas y los vínculos corporativos con conglomerados de medios podrían ser razones por las que ciertos temas se reportan de forma sesgada o se pasan por completo por alto.

En los últimos años, la industria farmacéutica ha estado bajo la lupa debido a su papel central en la salud global. Entre las corporaciones más destacadas, Pfizer ha sido protagonista de éxitos en el desarrollo de medicamentos y vacunas; pero también ha enfrentado controversias que suscitan dudas sobre su ética corporativa.

Desde acusaciones de ensayos clínicos sin el consentimiento adecuado hasta sanciones por prácticas engañosas, las alegaciones en contra han sido graves y persistentes. Sin embargo, un factor inquietante

acompaña estas acusaciones: el aparente silencio de los grandes medios de comunicación tradicionales.

A medida que la sociedad enfrenta la necesidad de informarse con precisión sobre la salud y las grandes corporaciones, surge una pregunta: ¿por qué los grandes medios, que actúan como guardianes de la verdad, han fallado en su misión de investigar y reportar de manera imparcial sobre estas denuncias? ¿Qué rol juegan los intereses económicos y las conexiones entre la industria farmacéutica y las plataformas mediáticas en esta falta de cobertura?

La falta de transparencia y cobertura rigurosa sobre temas tan serios como “los crímenes contra la humanidad” no solo mina la confianza pública en los grandes medios y las instituciones, sino que también permite que grandes corporaciones operen sin el escrutinio adecuado. Es hora de exigir una cobertura mediática más imparcial y responsable.

Fuente: Acento. Disponible en <http://surl.li/ventqb>

Situación epidemiológica actual de la enfermedad neumocócica invasora en España

18 nov. Recientemente, han aparecido dos artículos, el primero del Centro Nacional de Epidemiología (CNE) y el segundo del Laboratorio Nacional de Referencia de Neumococo, que actualizan la situación de la epidemiología de la enfermedad neumocócica invasora (ENI) en nuestro país. Aunque la metodología es distinta, ambos estudios arrojan, con alguna diferencia, resultados similares.

Un hallazgo, ya anticipado, es que tras el paréntesis de la pandemia de la COVID-19, en la que las infecciones neumocócicas (y otras infecciones bacterianas de transmisión respiratoria) disminuyeron -en gran parte por la ausencia de circulación de los virus respiratorios debido a las medidas de confinamiento- se han alcanzado e incluso superado la incidencia y el número de casos de la prepandemia, sobre todo en los niños menores de 4 años, como ha sucedido en otros países.

También, y como era de esperar, en ambos estudios se demuestra que hasta el 60-70 % de los casos de ENI están producidos en la actualidad por serotipos no contenidos en la vacuna neumocócica conjugada 13-valente (serotipos no vacunales o SNV), fenómeno común con la mayoría de los países en los que se ha utilizado esta vacuna. Sin embargo, un hallazgo relevante es que una proporción sustancial de ENI está causada por serotipos vacunales (SV) incluidos en la VNC13: el 3, el 19A, el 19F, el 14 y el 4. Esa persistencia de SV se ha constatado en muchos países europeos con coberturas de vacunación altas.

Serotipos más prevalentes causantes de ENI en España

Se identificaron los 10 serotipos más frecuentes causantes de ENI en ambos estudios y en todas las edades con resultados similares: los tres primeros son el 8, el 3 y el 22F. El llamativo aumento del serotipo 3 después de la pandemia ha ocurrido también en otros países, hasta llegar a ser la primera causa de ENI.

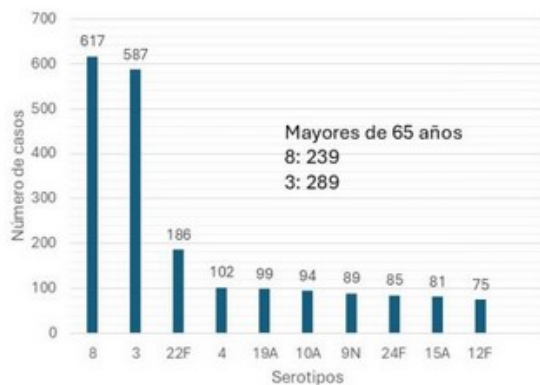
En los niños menores de 5 años, la distribución de los serotipos causantes de ENI es diferente. En los dos estudios, el serotipo más frecuente es el 3, seguido de los serotipos 24F y 22F. El serotipo 8 es mucho menos prevalente en niños que en adultos, y además afecta, sobre todo, a los niños de mayor edad.

El serotipo 24F, esencialmente pediátrico, se ha mantenido constante durante los últimos 3 años y afecta, con preferencia, a los menores de 4 años. Propende a causar meningitis y con frecuencia asocia resistencias a antibióticos (4,6). En Francia, experimentó un rápido aumento tras la introducción de la VNC13 que contrarrestó la disminución de los casos de meningitis por otros serotipos.

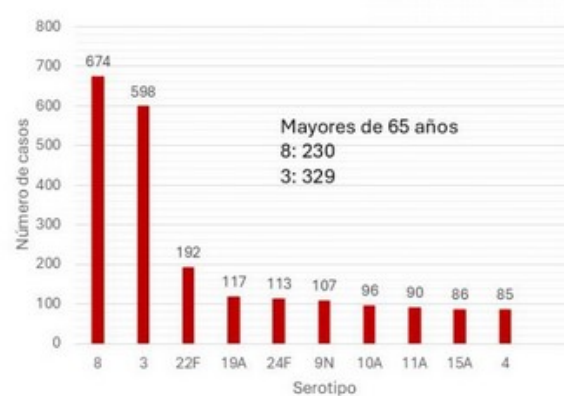
Los 10 serotipos más frecuentes causantes de ENI en España



Centro Nacional de Epidemiología



Laboratorio Nacional de Neumococo



Adaptado de: Soler-Soneira M, Del-Águila-Mejía J, Acosta-Gutiérrez M, Sastre-García M, Amílategui-Dos-Santos R, Cano Portero R. Enfermedad Neumocócica Invasiva en España en 2023. Boletín Epidemiológico Semanal. 2024;32(2):74-93. doi: 10.4321/s2173-92772024000200003

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En las personas mayores de 65 años, el serotipo 3 es el más frecuente. Dada la elevada letalidad de las infecciones neumocócicas en este grupo de edad no es de extrañar que, en 2023, el 75 % de las defunciones por ENI se hayan debido a este serotipo en nuestro país. En Portugal, después de la pandemia, el serotipo 3 ha sido también el más frecuente como causa de ENI seguido de los serotipos 8, 10A y 24 F (4).

Razones de la persistencia de los serotipos vacunales

Las razones de la persistencia de los SV no son del todo conocidas. La VNC13 es efectiva frente a la ENI por el serotipo 3, aunque la efectividad sea menor que frente a otros serotipos. Esta puede ser la razón de que el serotipo 3, junto con el 19A y el 19F sean los más frecuentes en los fallos vacunales. Es un hecho demostrado que la protección frente a ENI por estos tres serotipos requiere mayores niveles de anticuerpos antipolisacáridos, lo que probablemente se relaciona con una pérdida más rápida de efectividad de la VNC13 frente a los serotipos 3 y 19A.

Quizás, el hecho que mejor explica el pobre impacto de la VNC13 en la ENI producida por el serotipo 3, es su escaso o nulo efecto en la colonización nasofaríngea por este serotipo. En Inglaterra, después de 10 años de vacunación con la VNC13, los únicos SV que persisten en la nasofaringe, son el 3 y el 19A. Lo mismo sucede en un país tan próximo al nuestro como Portugal, donde los serotipos vacunales más frecuentes son el 19F, 3 y 19A. En este mismo país, los SNV más frecuentes en la nasofaringe son: 15B/C, 11A, 23A, y 23B.

Serotipos no vacunales más destacados causantes de ENI

Entre los serotipos no vacunales (SNV) merecen algún comentario los serotipos 4, 10A y 11A.

El serotipo 4 afecta casi exclusivamente a adultos y su aumento ha sido constatado en otros países, como por ejemplo Inglaterra. El serotipo 10A, cuya presencia parece estar aumentando, afecta, sobre todo, a niños menores de 4 años, tiene una capacidad invasiva alta y tiende a producir meningitis. El serotipo 11A se asocia a resistencia a penicilina y amoxicilina y es, de todos los serotipos neumocócicos, el de mayor letalidad.

Los datos de ambos estudios proporcionan estimaciones detalladas sobre la potencial cobertura de las vacunas VNC15 y la VNC20 en diferentes franjas de edad. Así, mientras que en los adultos el porcentaje de

cobertura para la VNC15 y VNC20 oscila alrededor del 40 % y 75 %, respectivamente, en los niños menores de 5 años esta diferencia es menor (alrededor del 45-50 % para la VNC15 y del 60-70 % para la VNC20).

El 50 % de los serotipos causantes de ENI no están cubiertos ni por la VNC15 ni por la VNC20, por lo que un seguimiento de la ENI será fundamental para evaluar el posible impacto de las VNC de valencia ampliada que irán llegando los próximos años.

Fuente: Comité Asesor de Vacunas e Inmunizaciones. Disponible en <http://surl.li/mpkqcu>

Evalúan inmunogenicidad de vacuna cubana anti-covid-19 luego de transferencia tecnológica

18 nov. El producto, que se denominó PastoCovac Plus, fue transferido en la etapa de formulación y se evaluaron tanto el ingrediente farmacéutico activo como sus atributos de calidad clínica.

Sin cambios significativos en la seguridad y eficacia, tampoco hubo diferencias en los niveles de anticuerpos anti-espiga ni en los neutralizantes, tanto frente a la cepa original de Wuhan como ante Ómicron.

Los resultados de la transferencia tecnológica de la vacuna cubana anti-covid-19 Soberana Plus al Instituto Pasteur de Irán, son comentados en el artículo *Comparative assessment of a COVID-19 vaccine after technology transfer to Iran from critical quality attributes to clinical and immunogenicity aspects*, publicado en la revista *Scientific Reports*.

Los autores concluyeron que, para lograr una transferencia de tecnología exitosa de empresa a empresa, se adquiere un equipo capacitado clínicamente, así como un proceso de fabricación bien definido y documentado y procedimientos de control de calidad validados. Estos elementos contribuyen a minimizar el riesgo de cambios en la calidad de la vacuna después de la transferencia de tecnología. En conjunto, los resultados de la evaluación clínica y de calidad de la investigación mostraron los atributos de calidad aceptables y los límites aceptables en términos de seguridad y eficacia de las vacunas antes y después de la transferencia de tecnología. Los resultados confirmaron que PastoCovac Plus, como la tecnología de vacuna transferida, se encuentra en el límite de producto aceptable en comparación con la vacuna Soberana Plus. Además, la evaluación clínica de PastoCovac Plus/ Soberana Plus mostró que la vacuna basada en proteínas recombinantes contra COVID-19 es una opción de refuerzo adecuada después de una vacuna basada en adenovirus.

Fuente: Infomed Temas de Salud. Disponible en <https://goo.su/M83Ly0K>

Pfizer Korea's Prevenar 20 becomes pneumococcal vaccine with the broadest serotype coverage in Korea

Nov 20. "Prevenar 20 could address roughly half of pneumococcal infection cases in Korea." Prevenar 20 is Pfizer Korea's first new pneumococcal conjugate vaccine since the approval of Prevenar 13 in 2010.

At a press conference on Tuesday marking the domestic approval of the vaccine, Professor Park Su-eun of pediatrics at Pusan National University School of Medicine said the vaccine is expected to be "particularly



effective against serotype 10A, which is highly prevalent in Korea.”

Prevenar 20 is a 20-valent vaccine that expands on the 13 serotypes covered by Prevenar 13 by adding seven more—serotypes 8, 10A, 11A, 12F, 15B, 22F, and 33F—providing the broadest serotype coverage among pneumococcal conjugate vaccines approved in Korea.

The Ministry of Food and Drug Safety approved Prevenar 20 on Oct. 31, allowing its use for preventing invasive pneumococcal diseases and pneumonia in infants, children, adolescents (six weeks to under 18 years), and adults (18 years and older). The release date and potential joint sales agreements for Prevenar 20 have not yet been determined.

Despite a decline in pneumococcal disease incidence due to national vaccination programs, Professor Park emphasized that it remains a significant cause of infections, particularly because serotypes not covered by the 13-valent vaccine continue to contribute to the disease burden.

“Approximately 90 percent of invasive pneumococcal disease cases in Korean children from January 2018 to December 2020 involved serotypes not covered by the 13-valent vaccine,” she said, referencing a study that found 51 out of 57 cases were caused by these serotypes. Another study from 2014 to 2019 showed that 24 percent of 168 pneumococcal infections in Korean children were caused by serotype 10A.

Further analysis of 67 pneumococcal strains isolated from infected pediatric patients in Korea between January 2018 and July 2021 revealed that the 20 serotypes covered by Prevenar 20—including the most frequently identified serotypes 10A (20 cases) and 15B (6 cases)—accounted for approximately 54 percent of all cases.

Similarly, an analysis of 116 strains from adult patients showed that 53 percent of cases were caused by serotypes covered by Prevenar 20. According to Professor Park, this suggests that Prevenar 20 could address roughly half of pneumococcal infection cases in Korea.

While Prevenar 20 offers broader coverage, its side effect profile is similar to that of Prevenar 13. Phase 3 clinical trials demonstrated its immunogenicity and safety for both the 13 shared serotypes and the additional seven serotypes in children, as well as in adults, compared to Merck's 23-valent pneumococcal polysaccharide vaccine, Pneumovax 23.

Kim Sun-ju, primary care medical lead of medical affairs at Pfizer Korea, noted that Prevenar 20 showed strong immunogenicity and good tolerability across all 20 serotypes when administered as a four-dose series to healthy infants.

“For adults, Prevenar 20 showed tolerability similar to Prevenar 13 for the shared serotypes, with confirmed immunogenicity data for both the shared serotypes and the additional seven serotypes compared to Pneumovax 23,” she explained.

Professor Park added that Prevenar 20 caused similar adverse reactions to Prevenar 13, with no serious adverse events reported. “Based on these results, the vaccine has been approved in many countries, including the U.S., Europe, and Japan,” she said.

Kim Eun-ji, marketing lead at Pfizer Korea, noted that Prevenar 13 will not be withdrawn from the market despite the introduction of Prevenar 20. Currently, Prevenar 13 is co-marketed, but it is still undecided whether Prevenar 20 will follow the same path or which company will manage its sales.

Fuente: Korea Biomedical Review. Disponible en <https://goo.su/nncv>

WHO Grants Permission For Second Mpox Vaccine For Emergency Use

21 nov. The World Health Organization has granted permission for emergency use in the treatment of mpox.

WHO granted Emergency Use Listing for the LC16m8 mpox vaccine, making it the second mpox vaccine to be supported by the UN health agency after the disease was declared a public health emergency of international concern in August.

This decision is expected to facilitate increased and timely access to vaccines in communities where mpox outbreaks are surging. In 2024, mpox cases have been reported across 80 countries, including 19 in Africa. The Democratic Republic of the Congo is the hardest-hit country, where a large majority of suspected cases - more than 39 000 - as well as more than 1000 deaths were recorded.

WHO decision comes in the wake of the Government of Japan announcing that it will donate 3.05 million doses of the LC16m8 vaccine, along with specialized inoculation needles, to the Democratic Republic of the Congo. This is the largest donation package announced to date in response to the current mpox emergency.

LC16m8 is a vaccine developed and manufactured by KM Biologics in Japan. The Technical Advisory Group (TAG) for EUL of vaccines recommended the vaccine for use in individuals over one year of age as a single dose vaccine.

"WHO emergency use listing of the LC16m8 vaccine against mpox marks a significant step in our response to the current emergency, providing a new option to protect all populations, including children," said Dr Yukiko Nakatani, WHO Assistant Director-General for Access to Medicines and Health Products.

Fuente: RTT News. Disponible en <https://goo.su/hPJU4Ca>

Respiratory Vaccines Update

Nov 22. Thus far into the respiratory virus season, COVID-19, influenza, and RSV vaccine uptakes have been low across all 3 immunizations, with the flu shot having the highest utilization. A Centers for Disease Control and Prevention's (CDC) MMWR report published yesterday offered insights on the statistics so far into the respiratory virus season (Table).

"As of November 9, 2024, cumulative estimated coverage with 2024–2025 influenza and COVID-19 vaccines among adults aged ≥ 18 years was 34.7% and 17.9%, respectively. Estimated RSV vaccination coverage was 39.7% among adults aged ≥ 75 years and 31.6% among those aged 60–74 years at increased risk," the authors wrote.

And in addition to the low uptake for respiratory virus vaccines, federal public health guidance and FDA approvals have been evolving. This year, federal public health officials have made changes and updated recommendations on a number of these vaccines, including RSV, COVID-19, and pneumococcal disease. Updates have been reflected in the CDC Advisory Committee on Immunization Practices (ACIP) meeting in October as well as recent FDA approval decisions. Here is some more information about a few of the changes regarding respiratory virus vaccines.

RSV Vaccines

Last month, the FDA approved Pfizer's RSV vaccine for adults aged 18 to 59 years who are at increased risk.

This is a departure from previous approvals and guidance.

“RSV vaccines, manufactured by Pfizer, GlaxoSmithKline and Moderna are all now FDA approved for use in older adults,” said Robert H. Hopkins, Jr, MD, medical director, National Foundation for Infectious Diseases (NFID) and ACIP liason. “Pfizer sought expanded approval from FDA based on a clinical trial which looked at immunogenicity, and looked at safety and tolerability of this vaccine in persons 18 to 49 with chronic medical conditions...It's important to note that ACIP also approved the GlaxoSmithKline RSV vaccine for use in adults 50 to 59 in June based on somewhat similar data in a trial.”

COVID-19 Vaccines

During the CDC’s ACIP meeting in October, the committee recommended a second COVID-19 vaccine dose for individuals aged 65 and older and younger individuals with moderate to severe immunocompromised conditions, spaced 6 months apart.

Although ACIP offered a recommendation looking at seniors and the immunocompromised, Hopkins believes vaccine coverage should extend beyond those populations.

“I would strongly recommend that everyone 6 months of age and older—who's not already done so since September—to get the 2024-2025 COVID-19 vaccine,” Hopkins said.

As part of his reasoning, he points to racial and ethnic disparities in terms of groups being more susceptible to severe forms of COVID-19. “It's much less well known that we continue to have significant racial and ethnic disparities in the rate of COVID-19 hospitalizations,” Hopkins said. “The rate for Native American, Alaskan natives, and Black Americans are significantly higher than for white, Hispanic, and Asian Americans.

Lastly, he points to the pediatric population and hospitalization.

“The highest rate of hospitalization for COVID in children is less than 4 years and particularly in children from 6 months to 40 or 6 months and younger. Kids 6 months and younger are too young to be vaccinated on their own, obviously, and they're best protected by maternal vaccination during pregnancy, only half of the kids admitted to the hospital with COVID 19 had underlying medical conditions. Eighteen percent of those kids ended up in the ICU. Of children 6 months to 17 years admitted to the hospital, less than 5% had received the current vaccine prior to admission,” Hopkins said.

“So, this all comes down to the fact we're missing far too many opportunities to save lives, hospitalizations, and morbidity with the COVID vaccine.”

Vaccine	Age Group	Immunization Rate (%)
Influenza	Adults (≥18 years)	34.7%
COVID-19	Adults (≥18 years)	17.9%
RSV	Adults (≥75 years)	39.7%
	Adults (60–74 years at increased risk)	31.6%

Pneumococcal Vaccines

During that same round of ACIP meetings, the committee recommended the pneumococcal conjugate vaccine for PCV-naive adults aged 50 and older. Again this recommendation is a departure from previous guidance.

Hopkins says this change is from 2 newer pieces of information that includes risk-based criterio.

“A significant portion of persons 50 and older who have chronic medical conditions, which would put them into a risk-based recommendation that we previously had in place, either are unvaccinated and know they have those risk factors, or don't know they have those risk factors,” Hopkins said. “Second, there's a significant risk disparity based on race and ethnicity. For example, Black men are at increased risk for invasive pneumococcal disease in that 50 plus age group, and that's not been a risk-based group. And so, it's the hope that moving to an age-based recommendation will allow us to close some of these gaps, protect more of these people from hospitalization and other adverse outcomes, including death.”

The Continued Need for Vaccination

The beginning of the holiday season is starting next week with Thanksgiving, and typically incidence rates for seasonal viruses increase during this time of year as people travel and gather together with family and friends. This is another good reason for people to protect themselves as well as loved ones, especially those who are in vulnerable populations including seniors, people with existing health conditions, and those who are immunocompromised.

Fuente: Contagion Live. Disponible en <https://goo.su/hhC5>



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Estrategia de búsqueda: (Vaccine) AND DP:([11.11.2024 TO 22.11.2024]) as the publication date 59 records.

1. [WO/2024/237773](#) METHOD FOR PRODUCING A CONDITIONED BLOOD COMPOSITION FOR TREATING DISEASES

WO - 21.11.2024

Clasificación Internacional [A61K 35/00](#)Nº de solicitud PCT/KZ2023/000026 Solicitante YUCHT, Roman Inventor/a YUCHT, Roman

The invention relates to medicine, and more particularly to blood-based medicinal preparations containing induced cytokines for the treatment of human diseases. A method for producing a conditioned blood composition for treating diseases includes taking a sample of blood from a patient, incubating the blood sample in a vessel, and centrifuging, wherein the patient's blood sample is mixed with a [vaccine](#) containing fragments of viruses, and/or with a [vaccine](#) containing bacterial toxins, and/or with a [vaccine](#) containing attenuated bacterial DNA, before being incubated and centrifuged, thereby producing a cytokine-enriched conditioned blood composition. In the method for producing a conditioned blood composition, the patient's blood sample is mixed with the Vaxigrip influenza [vaccine](#) or the Influvac Tetra [vaccine](#), and/or with a hepatitis B [vaccine](#), and/or with a tetanus [vaccine](#), and/or with a rubella [vaccine](#). The proposed method for producing a conditioned blood composition for treating diseases provides for an increased activation rate, as well as a high content of interleukin B in the conditioned blood composition.

2. [20240374709](#) [VACCINE](#) COMPOSITIONS

US - 14.11.2024

Clasificación Internacional [A61K 39/145](#)Nº de solicitud 18690650 Solicitante EMERGENT PRODUCT DEVELOPMENT GAITHERSBURG INC. Inventor/a James Paul LATA

The present invention relates to a **vaccine** composition comprising an influenza Type A hemagglutinin stabilized stem nanoparticle (HA-ss-np); an aluminum hydroxide; a synthetic oligodeoxynucleotide adjuvant containing at least one CpG motif (CpG ODN); and a phosphate salt, wherein the HA-ss-np is not substantially adsorbed to the aluminum hydroxide, and wherein at least a portion of the CpG ODN is adsorbed to the aluminum hydroxide in the composition. The present disclosure also provides a method of inducing an immunological response against an influenza virus in a subject in need thereof, comprising administering an immunologically effective amount of the **vaccine** composition described herein. The present disclosure further provides a method of inducing an immunological response against an influenza virus in a subject in need thereof, comprising administering a dose of about 20 µg to about 300 µg of an HA-ss-np in a **vaccine** composition, wherein the **vaccine** composition further comprises an aluminum hydroxide; CpG ODN; and a phosphate salt, and wherein the HA-ss-np is not substantially adsorbed to the aluminum hydroxide. Also provided herein is a method of producing a **vaccine** composition, comprising combining HA-ss-np with an adjuvant mixture, wherein the adjuvant mixture comprises a diluent solution comprising a phosphate salt; aluminum hydroxide; and CpG ODN, wherein the adjuvant mixture comprises CpG ODN-adsorbed aluminum hydroxide, and wherein the HA-ss-np is not substantially adsorbed to the aluminum hydroxide.

3. WO/2024/232415 COMBINATION **VACCINE** FOR PREVENTION OF INFLUENZA AND CORONAVIRUS INFECTIONS

WO - 14.11.2024

Clasificación Internacional A61K 39/145Nº de solicitud PCT/JP2024/017278 Solicitante NATIONAL UNIVERSITY CORPORATION HOKKAIDO UNIVERSITY Inventor/a SHINGAI Masashi

Disclosed is a combination **vaccine** for the prevention of influenza and new coronavirus infections. As a combination **vaccine** for vaccination against influenza and new coronaviruses, an inactivated whole virus particle **vaccine**, in which viral particles of an influenza virus and viral particles of a new coronavirus are inactivated respectively, is prepared. This **vaccine** induces neutralizing antibodies against the respective viruses without affecting **vaccine** effects so that protective effects against the attacks of the respective viruses are obtained. Further, the combination **vaccine** having this combination well induces neutralizing antibodies and exhibits protective effects against the attacks of the viruses even without adding an adjuvant.

4. 4464658 ALUMINIUMNANOKRISTALLABGABESYSTEM UND SELBSTANGEORDNETER PARTIKELADJUVANZIMPFFSTOFF AUF BASIS DER BINDUNG DES ALUMINIUMNANOKRISTALLABGABESYSTEMS UND IMPFFSTOFFANTIGENMOLEKÜLS

EP - 20.11.2024

Clasificación Internacional B82Y 5/00Nº de solicitud 23740123 Solicitante GUANGZHOU REALBENEFITSPOT PHARMACEUTICAL CO LTD Inventor/a WANG YALING

The present invention relates to the technical field of biomedicine technology and vaccines, and particularly relates to an aluminum nanocrystal delivery system with a surface covered with an Fc affinity protein and a preparation method for a self-assembled particle adjuvant **vaccine**. An aluminum nanocrystal is used as a carrier, the surface of the aluminum nanocrystal is covered with an Fc affinity protein molecular layer and an antigen molecule, and the antigen of a recombinant Fc Tag specifically binds to an Fc affinity protein, so that

antigen self-assembly is realized, a virus-like particle **vaccine** is formed, and the antigen density is improved. The present **vaccine** can generate a high-titer specific antibody by inducing a body fluid and cell immunity.

5. WO/2024/235705A COMBINATION **VACCINE** AGAINST ERYSIPELOTHRIX RHUSIOPATHIAE, PORCINE PARVO VIRUS AND LEPTOSPIRA BACTERIUM

WO - 21.11.2024

Clasificación Internacional A61K 39/02Nº de solicitud PCT/EP2024/062431 Solicitante INTERVET INTERNATIONAL B.V. Inventor/a JACOBS, Antonius, Arnoldus, Christiaan

The invention pertains to a combination of a first **vaccine** comprising a non-replicating immunogen of *Erysipelothrix rhusiopathiae* and a non-replicating immunogen of porcine parvo virus, and a second **vaccine** comprising a non-replicating immunogen of a Leptospira bacterium, for use in prophylactically treating a pig against an infection with *Erysipelothrix rhusiopathiae*, an infection with porcine parvo virus and an infection with Leptospira bacterium, by associated separate injection of the first **vaccine** and the second **vaccine** into the dermis of the pig at a first and a second injection site of that pig respectively.

6. 4460325 GEFLÜGEL-ADENOVIRUS-UNTEREINHEITS-IMPfstoff UND HERSTELLUNGSVERFAHREN DAFÜR

EP - 13.11.2024

Clasificación Internacional A61K 39/12Nº de solicitud 23701235 Solicitante VETERINÄRMEDIZINISCHE UNIV WIEN Inventor/a HESS MICHAEL

The present invention provides a fowl adenovirus (FAdV) subunit **vaccine**, comprising at least a chimeric FAdV fiber protein and an adjuvant. This **vaccine** may be used to ameliorate or prevent adenoviral gizzard erosion (AGE), inclusion body hepatitis (IBH) or hepatitis-hydropericardium syndrome (HHS) in birds. The invention further relates to a method of producing an FAdV subunit **vaccine**, comprising the steps of expressing a chimeric FAdV fiber protein in an expression system, purifying the fiber protein, and combining the fiber protein with an adjuvant to obtain the FAdV subunit **vaccine**.

7. 20240386992 NEW CORONAVIRUS **VACCINE** AND METHOD FOR DESIGNING AND OBTAINING A VIRUS **VACCINE**

US - 21.11.2024

Clasificación Internacional G16B 15/30Nº de solicitud 18687263 Solicitante Max-Delbrück-Centrum für Molekulare Medizin in der Helmholtz-Gemeinschaft Inventor/a KATHRIN DE LA ROSA

The present invention relates to a mutant receptor-binding domain (mRBD) of a coronavirus (mRBD-CORONA) or a fragment thereof and mutant spike protein of the coronavirus (CORONA-mSpike) or a fragment thereof comprising the CORONA-mRBD or the fragment thereof. Furthermore, the present invention relates to a polypeptide or protein comprising the mRBD-CORONA or the fragment thereof or CORONA-mSpike or the fragment thereof and a nucleic acid comprising a nucleotide sequence encoding for the mRBD-CORONA or the fragment thereof or the CORONA-mSpike or the fragment thereof. Furthermore, the present invention relates to a **vaccine** composition comprising one or more CORONA-mRBDs or fragments thereof, one or more CORONA-mSpikes, one or more polypeptides or proteins and/or one or more nucleic acids according to the present invention. Furthermore, the present invention relates to the one or more

CORONA-mRBDs or fragments thereof, the one or more CORONA-mSpikes, the one or more polypeptides or proteins, the one or more nucleic acids and/or the **vaccine** composition according to the present invention for use in the prevention and/or treatment of diseases caused by coronaviruses in a subject. Furthermore, the present invention relates to a method for designing and/or obtaining an active ingredient for a **vaccine** composition and to a VIRUS-mRBD or a fragment thereof designed and/or obtained by the method for obtaining the VIRUS-mRBD according to the present invention.

8. 20240374700 SYNTHETIC GLYCOCONJUGATE **VACCINE** PROTOTYPE AGAINST STREPTOCOCCUS SUIS

US - 14.11.2024

Clasificación Internacional A61K 39/09N° de solicitud 18704158 Solicitante UNIVERSITÉ DE MONTRÉAL Inventor/a Mariela SEGURA

The invention provides for a **vaccine** against *S. suis* serotype 2. The **vaccine** comprises chemically synthesized fragments and thus may be made widely commercially available. The **vaccine** is used in the livestock production and may be adapted for use against other serotypes of *S. suis* such as serotypes 1, 1/2, 3, 9, and 14. Also, the **vaccine** may be adapted for use in humans.

9. WO/2024/237672 **VACCINE** COMPOSITION FOR PREVENTING INFECTION WITH CHICKEN INFECTIOUS ANEMIA VIRUS

WO - 21.11.2024

Clasificación Internacional C12N 7/00N° de solicitud PCT/KR2024/006589 Solicitante REPUBLIC OF KOREA (ANIMAL AND PLANT QUARANTINE AGENCY) Inventor/a SONG, Hye Soon

The present invention relates to an attenuated strain of chicken infectious anemia virus (CIAV), a **vaccine** composition for preventing chicken infectious anemia by using same, and a vaccination method. According to the present invention, the attenuated strain of CIAV obtained through 100 consecutive subcultures of a parent virus has significantly lower pathogenicity than the parent virus and a virus obtained by 45 consecutive subcultures of the parent virus, and exhibits a higher antibody titer and a longer maintenance period than commercial vaccines, and thus can be effectively utilized as a **vaccine** composition for preventing CIAV.

10. WO/2024/233425 POLYNUCLEOTIDES ENCODING NOROVIRUS VP1 ANTIGENS AND USES THEREOF

WO - 14.11.2024

Clasificación Internacional A61K 39/12N° de solicitud PCT/US2024/027914 Solicitante MERCK SHARP & DOHME LLC Inventor/a AUSTIN, Lauren A.

The present invention is directed to nucleic acids and related immunogenic polypeptides for the prevention or treatment of infectious diseases. In particular, the nucleic acids and immunogenic polypeptides provide utility for the prophylactic prevention of norovirus infections in a mammal. The invention is further directed to nucleic acid-based **vaccine** compositions and a kit of parts comprising the **vaccine** compositions, as well as methods of treatment and medical uses relating to the nucleic acids, **vaccine** compositions, and kit of parts.

11. [WO/2024/235713A](#) **VACCINE** AGAINST ERYSIPELOTHRIX RHUSIOPATHIAE AND PORCINE PARVO VIRUS

WO - 21.11.2024

Clasificación Internacional [A61K 39/02N](#)° de solicitud PCT/EP2024/062452 Solicitante INTERVET INTERNATIONAL B.V. Inventor/a JACOBS, Antonius, Arnoldus, Christiaan

The invention pertains to the use of a **vaccine** comprising a non-replicating immunogen of *Erysipelothrix rhusiopathiae* and a non-replicating immunogen of porcine parvo virus, in prophylactically treating a pig against an infection with *Erysipelothrix rhusiopathiae* and an infection with porcine parvo virus, by injection of the first **vaccine** into the dermis of the pig.

12. [20240376157](#) POLYNUCLEOTIDES ENCODING NOROVIRUS VP1 ANTIGENS AND USES THEREOF

US - 14.11.2024

Clasificación Internacional [C07K 14/005N](#)° de solicitud 18655408 Solicitante Merck Sharp & Dohme LLC Inventor/a Lauren A. Austin

The present invention is directed to nucleic acids and related immunogenic polypeptides for the prevention or treatment of infectious diseases. In particular, the nucleic acids and immunogenic polypeptides provide utility for the prophylactic prevention of norovirus infections in a mammal. The invention is further directed to nucleic acid-based **vaccine** compositions and a kit of parts comprising the **vaccine** compositions, as well as methods of treatment and medical uses relating to the nucleic acids, **vaccine** compositions, and kit of parts.

13. [WO/2024/238940](#) **VACCINE** COMPOSITIONS AND METHODS OF USE THEREOF

WO - 21.11.2024

Clasificación Internacional [C07C 211/03N](#)° de solicitud PCT/US2024/029982 Solicitante REGENTS OF THE UNIVERSITY OF MINNESOTA Inventor/a PRAVETONI, Marco

The present disclosure provides methamphetamine conjugate, and/or opioid conjugate(s) **vaccine** compositions and methods thereof. The present disclosure also provides multivalent **vaccine** compositions.

14. [WO/2024/235714A](#) **VACCINE** AGAINST LEPTOSPIRA BACTERIUM

WO - 21.11.2024

Clasificación Internacional [A61K 39/02N](#)° de solicitud PCT/EP2024/062453 Solicitante INTERVET INTERNATIONAL B.V. Inventor/a JACOBS, Antonius, Arnoldus, Christiaan

The invention pertains to a **vaccine** comprising a non-replicating Leptospira immunogen, for use in prophylactically treating a pig against an infection with a Leptospira bacterium, by injection of the first **vaccine** into the dermis of the pig.

15. [20240383963](#) METHOD OF COMPACT PEPTIDE VACCINES USING RESIDUE OPTIMIZATION

US - 21.11.2024

Clasificación Internacional C07K 14/74N° de solicitud 18793638Solicitante Think Therapeutics, Inc.Inventor/a David Kenneth GIFFORD

A system for selecting an immunogenic peptide composition comprising a processor and a memory storing processor-executable instructions that, when executed by the processor, cause the processor to create a first peptide set by selecting a plurality of base peptides, wherein at least one peptide of the plurality of base peptides is associated with a disease, create a second peptide set by adding to the first peptide set a modified peptide, wherein the modified peptide comprises a substitution of at least one residue of a base peptide selected from the plurality of base peptides, and create a third peptide set by selecting a subset of the second peptide set, wherein the selected subset of the second peptide set has a predicted vaccine performance, wherein the predicted vaccine performance has a population coverage above a predetermined threshold, and wherein the subset comprises at least one peptide of the second peptide set.

16.WO/2024/238735COMPOUNDS AND FORMULATIONS USEFUL AS VACCINE ADJUVANTS

WO - 21.11.2024

Clasificación Internacional A61K 31/395N° de solicitud PCT/US2024/029596Solicitante MERCK SHARP & DOHME LLCInventor/a AHL, Patrick L.

The invention relates to novel compounds having a structure as set forth in any one of Formulas I, Ia, II, IIa, III, IIIa, IV or IVa, as described herein, and formulations comprising such novel compounds. The novel compounds and formulations of the invention may be useful in vaccine compositions. In some embodiments, the invention relates to compositions comprising at least one antigen and compounds having a structure as set forth in any one of Formulas I, Ia, II, IIa, III, IIIa, IV or IVa, as described herein, or pharmaceutically acceptable salt(s) thereof, wherein the compositions are prepared as stable nanoemulsions (herein referred to as "SNE adjuvant compositions" or "SNEs").

17.WO/2024/238822HEROIN VACCINE COMPOSITIONS AND METHODS THEREOF

WO - 21.11.2024

Clasificación Internacional A61K 31/395N° de solicitud PCT/US2024/029740Solicitante REGENTS OF THE UNIVERSITY OF MINNESOTAInventor/a PRAVETONI, Marco

The present disclosure provides vaccine compositions that induce opioid specific antibodies.

18.20240374695VACCINE COMPOSITIONS DEPLETING HEMATOPOIETIC GROWTH FACTORS FOR THE TREATMENT OF INFLAMMATORY DISEASES

US - 14.11.2024

Clasificación Internacional A61K 39/00N° de solicitud 18285011Solicitante CENTRO DE INMUNOLOGIA MOLECULARInventor/a Agustín Bienvenido Lage Dávila

The present invention is related to the fields of Biotechnology and Medicine. Particularly, it describes therapeutic vaccine compositions able to produce an autoimmune reaction against haemopoietic growth factors such as G-SCF and/or GM-CSF bounded to other molecules or a fragment thereof by chemical conjugation or fusion. Such vaccines compositions are useful for the treatment of inflammatory diseases, especially wherein a pathological increasing of the circulating neutrophils occurs.

19. [WO/2024/231810](#) **VACCINE** COMPOSITIONS

WO - 14.11.2024

Clasificación Internacional [C07K 14/52N](#)° de solicitud PCT/IB2024/054366 Solicitante SEQIRUS INC. Inventor/a WIDMAN, Douglas

The present disclosure relates to RNAs and other polynucleotides encoding an antigen, which can be used in **vaccine** compositions. In some examples, the RNA also encodes a chemoattractant, such as chemerin, C-X-C motif chemokine ligand 9 (CXCL9), C-X-C motif chemokine ligand 10 (CXCL10) or C-X-C motif chemokine ligand 11 (CXCL11). The present disclosure also relates to use of the RNAs and compositions in methods of inducing an immune response in a subject.

20. [WO/2024/234567](#) BROAD-SPECTRUM ANTI-BOVINE VIRAL DIARRHEA VIRUS MRNA **VACCINE** AND USE THEREOF

WO - 21.11.2024

Clasificación Internacional [C07K 14/18N](#)° de solicitud PCT/CN2023/127676 Solicitante NANJING CHENGSHI BIOMEDICAL TECHNOLOGY CO., LTD. Inventor/a HAN, Tiyun

Provided are a broad-spectrum anti-bovine viral diarrhea virus (BVDV) mRNA **vaccine**, a preparation method, a use thereof, etc. Specifically, provided is a trivalent BVDV mRNA against multiple genotype BVDV strains, which sequentially comprises, from the N-terminus to the C-terminus, a bovine IgG1 secretion signal peptide, a bovine IgG1 Fc fragment, a BVDV1a E2 protein domain I-II, a BVDV1b E2 protein domain I-II, and a BVDV2 E2 protein domain I-II. By using an mRNA to simultaneously express antigens of different genotype BVDVs, the present invention has strong immunogenicity and can realize effective and high-level secretion in animal bodies, so as to induce the generation of higher-level specific neutralizing antibodies against BVDV1a, BVDV1b, and BVDV2, and can realize an ideal immune effect against multiple BVDV genotype strains.

21. [WO/2024/234498](#) BROAD-SPECTRUM MRN **VACCINE** AGAINST BOVINE VIRAL DIARRHEA VIRUS AND USE THEREOF

WO - 21.11.2024

Clasificación Internacional [C07K 14/18N](#)° de solicitud PCT/CN2023/115458 Solicitante NANJING CHENGSHI BIOMEDICAL TECHNOLOGY CO., LTD. Inventor/a HAN, Tiyun

The present invention relates to a broad-spectrum mRNA **vaccine** against bovine viral diarrhea virus (BVDV), a preparation method therefor and the use thereof. Specifically provided is a trivalent BVDV mRNA for multiple genotypes of a BVDV strain. The trivalent BVDV mRNA sequentially comprises, from the N-terminal to the C-terminal, a bovine IgG1 secretion signal peptide, a bovine IgG1 Fc fragment, a BVDV1a E2 protein domain I-II, a BVDV1b E2 protein domain I-II and a BVDV2 E2 protein domain I-II. The present invention enables the simultaneous expression of antigens from different genotypes of BVDV using a single mRNA. The antigens exhibit strong immunogenicity and are effectively secreted at a high level in an animal, thereby inducing the production of a higher level of a specific neutralizing antibody against BVDV1a, BVDV 1b, and BVDV 2, which enables an ideal immunization effect against multiple genotypes of a BVDV strain to be achieved.

22. [WO/2024/231886](#) COMBINATION **VACCINE**

WO - 14.11.2024

Clasificación Internacional [A61K 39/295N](#)° de solicitud PCT/IB2024/054549 Solicitante SEQIRUS INC. Inventor/a CHANG, Cheng

The present disclosure relates to compositions comprising multiple antigens of interest for use in **vaccine** formulations. The compositions comprise (a) a polynucleotide (such as an RNA) comprising a nucleotide sequence encoding an antigen and (b) an antigen polypeptide. The compositions can be used in inducing an immune response in a subject and/or in the treatment or prevention of a disease, such as a respiratory viral infection.

23. [20240374710](#) **VACCINE** COMPOSITIONS FOR PREVENTING CORONAVIRUS DISEASE

US - 14.11.2024

Clasificación Internacional [A61K 39/215N](#)° de solicitud 18396370 Solicitante International AIDS **Vaccine** Initiative Inc. Inventor/a Christopher Lee Parks

The present disclosure provides Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2) vaccines, recombinant vesicular stomatitis virus (VSV) vectors encoding the SARS-CoV-2 spike(S) protein or an immunogenic variant thereof, recombinant replicable VSV particles having a SARS-CoV-2 S protein or an immunogenic variant thereof on the surface of the particles, and immunogenic recombinant proteins comprising a SARS-CoV-2 S protein or a variant thereof. Immunogenic compositions comprising the SARS-CoV-2 vaccines, the recombinant VSV vectors, the recombinant replicable VSV particles and/or the immunogenic recombinant proteins may be used for inducing an immune response to the SARS-CoV-2, preventing infection by the SARS-CoV-2, vaccinating against the SARS-CoV-2 and/or producing adaptive mutants of the recombinant replicable VSV particles.

24. [WO/2024/234756](#) METHOD FOR CONSTRUCTING MRNA AND **VACCINE** TARGETING M AND N ANTIGENS OF FELINE FIPV

WO - 21.11.2024

Clasificación Internacional [A61K 39/215N](#)° de solicitud PCT/CN2024/077002 Solicitante BEIJING SYNGENTECH CO., LTD. Inventor/a LIU, Qiang

Provided is a method for constructing mRNA and a **vaccine** targeting M and N antigens of feline FIPV. The method involves an isolated nucleic acid molecule, and the nucleic acid molecule comprises: a first nucleic acid fragment, the first nucleic acid fragment encoding the M protein of the feline infectious peritonitis virus; and a second nucleic acid fragment, the second nucleic acid fragment encoding the N protein of the feline infectious peritonitis virus. The first nucleic acid fragment is connected or not connected to the second nucleic acid fragment. The nucleic acid molecule is mRNA.

25. [20240382579](#) METHOD OF PRODUCING A FOOT AND MOUTH DISEASE VIRUS VIRUS-LIKE PARTICLE

US - 21.11.2024

Clasificación Internacional [A61K 39/135](#)N° de solicitud 18683835 Solicitante Intervet Inc. Inventor/a Erwin Van Den Born

The invention concerns a method of producing a foot and mouth disease virus (FMDV) virus-like particle (VLP) in a baculovirus expression system, the method comprising the steps of (i) infecting an insect cell with a baculovirus expression vector, (ii) culturing the insect cell in cell culture medium for 4 days or more post infection, (iii) separating the insect cells from the cell culture to obtain cell-free cell culture medium, and (iv) harvesting the FMDV VLP from the cell-free cell culture medium. The invention further relates to a [vaccine](#) for use in the protection of a subject against an infection with FMDV, the [vaccine](#) being obtainable by the method of the invention.

26. [WO/2024/236458](#) [VACCINE](#) ADJUVANTS

WO - 21.11.2024

Clasificación Internacional [A61K 31/7105](#)N° de solicitud PCT/IB2024/054623 Solicitante SEQIRUS INC. Inventor/a WIDMAN, Douglas G.

The present disclosure relates to RNAs and other polynucleotides encoding an antigen, which can be used in [vaccine](#) compositions. In some examples, the RNA or polynucleotide also encodes an adjuvant, such as cathelicidin or a fragment thereof. The present disclosure also relates to use of the RNAs, polynucleotides or compositions in methods of inducing an immune response in a subject.

27. [4461365](#) IMPFSTOFF GEGEN DAS RESPIRATORISCHE SYNZYTIALVIRUS

EP - 13.11.2024

Clasificación Internacional [A61P 31/14](#)N° de solicitud 24200911 Solicitante CUREVAC SE Inventor/a KRAMPS THOMAS

The present invention relates to an mRNA sequence, comprising a coding region, encoding at least one antigenic peptide or protein of RSV infections Respiratory syncytial virus (RSV) or a fragment, variant or derivative thereof. Additionally the present invention relates to a composition comprising a plurality of mRNA sequences comprising a coding region, encoding at least one antigenic peptide or protein of RSV infections Respiratory syncytial virus (RSV) or a fragment, variant or derivative thereof. Furthermore it also discloses the use of the mRNA sequence or the composition comprising a plurality of mRNA sequences for the preparation of a pharmaceutical composition, especially a [vaccine](#), e.g. for use in the prophylaxis or treatment of RSV infections Respiratory syncytial virus (RSV) infections. The present invention further describes a method of treatment or prophylaxis of RSV infections using the mRNA sequence.

28. [20240374717](#) NANOFIBER COMPOSITIONS FOR A [VACCINE](#) ADJUVANT, POROUS SCAFFOLD OR POROUS MEMBRANE

US - 14.11.2024

Clasificación Internacional [A61K 39/39](#)N° de solicitud 18783076 Solicitante Sila Nanotechnologies, Inc. Inventor/a Gleb YUSHIN

An aspect is directed to a [vaccine](#) adjuvant including a nanofiber that comprises an oxide or a salt of one, two, three or more metals selected from the group of Al, Ca, Mg, Li, Na, K, La, Y, Si, Fe and Zn. Another

aspect is directed to a porous scaffold or a porous membrane that comprises nanofibers comprising an oxide or a salt of one, two, three or more metals selected from the group of Al, Ca, Mg, Li, Na, K, La, Y, Si, Fe and Zn, where the porous scaffold or the porous membrane is configured for use in an environment where the nanofibers are exposed to a direct contact with extracellular body fluids.

29. [20240382584](#) HBV **VACCINE** INDUCING PRES-SPECIFIC NEUTRALIZING ANTIBODIES

US - 21.11.2024

Clasificación Internacional [A61K 39/29](#)Nº de solicitud 18693176 Solicitante Viravaxx AG Inventor/a Inna TULAEVA

A Hepatitis B virus (HBV) **vaccine** comprising a fusion protein of a preS polypeptide fused to at least one grass pollen allergen peptide, for use in the treatment of a subject to induce HBV neutralizing antibodies, wherein the subject is an immune tolerant human subject and said treatment comprises repeated vaccination to break immune tolerance against HBV.

30. [WO/2024/234754](#) METHOD FOR CONSTRUCTING CIRCULAR RNA AND **VACCINE** AGAINST FIPV

WO - 21.11.2024

Clasificación Internacional [A61K 39/215](#)Nº de solicitud PCT/CN2024/077000 Solicitante BEIJING SYNGENTECH CO., LTD. Inventor/a LIU, Qiang

Provided is a method for constructing a circular RNA and a **vaccine** against a feline infectious peritonitis virus (FIPV). The present method relates to a pharmaceutical preparation. The pharmaceutical preparation comprises a nucleic acid fragment, wherein the nucleic acid fragment is a circular RNA, and comprises a first nucleic acid fragment and a second nucleic acid fragment; the first nucleic acid fragment encodes an M protein of the FIPV; the second nucleic acid fragment encodes an N protein of the FIPV; and the first nucleic acid fragment is connected or not connected to the second nucleic acid fragment.

31. [20240374708](#) UNIVERSAL INFLUENZA **VACCINE** AND METHODS OF USE

US - 14.11.2024

Clasificación Internacional [A61K 39/145](#)Nº de solicitud 18689656 Solicitante The Trustees of the University of Pennsylvania Inventor/a Scott Hensley

Provided is a twenty-hemagglutinin antigen (HA) universal influenza **vaccine** comprising HA antigens from each known influenza A and influenza B lineage and methods of use thereof to treat or prevent influenza.

32. [20240376492](#) FULLY SYNTHETIC, LONG-CHAIN NUCLEIC ACID FOR **VACCINE** PRODUCTION TO PROTECT AGAINST CORONAVIRUSES

US - 14.11.2024

Clasificación Internacional [C12N 15/86](#)Nº de solicitud 17909145 Solicitante ROCKETVAX AG Inventor/a Matthias CHRISTEN

This invention describes a fully synthetic, long-chain nucleic acid that can be used in biotechnological manufacturing processes to produce envelope proteins, virus envelopes and fragments of virus envelopes of SARS-CoV-2 and related coronaviruses in highly purified form, which, as a **vaccine** protect against COVID-19 and other viral diseases

33. [4461309](#) VERWENDUNG VON TRIMANGANTETRAOXIDPARTIKELN BEI DER HERSTELLUNG EINES IMPFSTOFFADJUVANS

EP - 13.11.2024

Clasificación Internacional [A61K 39/39](#)N° de solicitud 23737218 Solicitante GUANGZHOU REALBENEFITSPOT PHARMACEUTICAL CO LTD Inventor/a WANG YALING

Disclosed is a use of trimanganese tetraoxide particles in preparation of a **vaccine** adjuvant. The adjuvant is a particle adjuvant, the particle adjuvant is trimanganese tetraoxide particles externally wrapped with or without an excipient, and the particle size of the particle adjuvant is 5nm to 3000 nm. The trimanganese tetraoxide particle adjuvant provided in the present invention can be effectively combined with a single-stranded nucleotide adjuvant and can effectively carry an immune antigen, and a more excellent immunotherapy effects can be achieved when a fewer antigen dose and a relatively low injection amount are used; immune cells are efficiently activated, and body fluid balance and cellular immunity are achieved.

34. [20240374707](#) EXPRESSION SYSTEM AND NUCLEIC ACID-BASED PHARMACEUTICAL COMPOSITION COMPRISING SAME

US - 14.11.2024

Clasificación Internacional [A61K 39/145](#)N° de solicitud 18291589 Solicitante SML BIOPHARM CO, LTD. Inventor/a Jae Hwan NAM

A nucleic acid molecule including a translation control element having a translation initiation activity and a coding region operably linked to the translation control element and encoding an immunogen of an influenza virus or a severe fever with thrombocytopenia syndrome virus (SFTSV) or fragments thereof is disclosed. The nucleic acid molecule or an expression system where the nucleic acid molecule is inserted can be used in a pharmaceutical composition for treating or preventing influenza or SFTS, for example, that an mRNA **vaccine** or a gene therapy platform.

35. [WO/2024/233388](#) SARCOMA CANCER VACCINES AND USES THEREOF

WO - 14.11.2024

Clasificación Internacional [A61K 39/00](#)N° de solicitud PCT/US2024/027836 Solicitante MEMORIAL SLOAN-KETTERING CANCER CENTER Inventor/a KLEBANOFF, Christopher A.

The present disclosure provides **vaccine** compositions comprising recombinant SS 18 : : SSX fusion peptide epitopes and at least one cancer-testis antigen (CTA) epitope, or nucleic acids (e.g., mRNA, cDNA) encoding the same, and methods for using the same to treat sarcoma (e.g., synovial sarcoma) in a subject in need thereof.

36. [20240374713](#) SARS-COV-2 IMMUNIZING COMPOSITIONS AND METHODS

US - 14.11.2024

Clasificación Internacional [A61K 39/215](#)N° de solicitud 18660537 Solicitante UNM RAINFOREST INNOVATIONS Inventor/a David S. Peabody

In one aspect, an immunogen includes an immunogenic carrier comprising an RNA bacteriophage virus-like particle (VLP) and an antigenic SARS-CoV-2 stem-helix peptide linked to the immunogenic carrier. In another aspect, an immunogen includes an immunogenic carrier comprising an RNA bacteriophage virus-like particle (VLP) and an antigenic SARS-CoV-2 nucleocapsid (N) protein peptide linked to the immunogenic carrier. In one or more embodiments of either aspect, the immunogen may be a component of a pharmaceutical composition. In one or more embodiments of either aspect, the immunogen may be a component of a [vaccine](#).

37. [WO/2024/235367](#) PROTEÍNA QUIMÉRICA MULTIBLANCO PARA LA INMUNOTERAPIA DE LA ENFERMEDAD DE ALZHEIMER

WO - 21.11.2024

Clasificación Internacional [A61K 39/00](#)Nº de solicitud PCT/CU2024/050004 Solicitante CENTRO DE NEUROCIENCIAS DE CUBA Inventor/a LEÓN ARCIA, Karen

La presente invención se relaciona con los sectores biomédicos y biofarmacéutico. Específicamente se refiere a un antígeno quimérico que comprende la combinación de las regiones amino y carboxilo terminales del péptido beta amiloide (A β), las regiones amino y carboxilo terminales de la proteína tau y un epítipo de células T. La composición farmacéutica que comprende este antígeno quimérico y al menos un adyuvante vacunal farmacéuticamente aceptable incrementa la eficacia de la inmunoterapia para la prevención y el tratamiento de la Enfermedad de Alzheimer (EA). El antígeno quimérico ejerce su acción mediante la estimulación de una respuesta humoral multiblanco con altos títulos de anticuerpos anti-A β y anti-tau simultáneamente. Con ello, se favorece la eliminación combinada de las especies tóxicas tanto de A β como de tau del cerebro lo que previene o mejora significativamente los síntomas clínicos y neuropatología de la EA.

38. [WO/2024/236192](#) HETERODIMER OF POXVIRUS A16 AND G9 PROTEINS AS AN IMMUNOGEN

WO - 21.11.2024

Clasificación Internacional [A61K 39/285](#)Nº de solicitud PCT/EP2024/063801 Solicitante INSTITUT PASTEUR Inventor/a MEOLA, Annalisa

The invention relates to an isolated heterodimer of poxvirus A16 and G9 proteins as an immunogen in a subunit or nucleic acid [vaccine](#) against poxvirus. The invention provides an engineered heterodimer, nucleic acid encoding the heterodimer, neutralizing antibodies directed against said heterodimer and their use for the prevention, treatment and diagnostics of poxvirus infections and related diseases.

39. [WO/2024/236527](#) A NOVEL NON-STOICHIOMETRIC MULTI-ELEMENT ADJUVANT (NSMA) AND COMPOSITION THEREOF

WO - 21.11.2024

Clasificación Internacional [A61K 39/39](#)Nº de solicitud PCT/IB2024/054766 Solicitante MAGVITAE INNOVATIONS INC Inventor/a KOYAKUTTY, Manzoor

The present invention broadly relates to the field of immunology. Particularly, the present invention relates to a non-stoichiometric multi element adjuvant (NSMA) as immunomodulatory material, a method for preparing the same, a composition comprising the non-stoichiometric adjuvant. Also, the present invention relates to

non-stoichiometric multi-element adjuvant (NSMA) doped with various ions and application of non-stoichiometric adjuvant in various forms of [vaccine](#), immunotherapy and theranostics (diagnosis and therapy).

40.[20240376161](#)RECOMBINANT CHIMERIC PROTEIN, USE THEREOF, AND COMPOSITION

US - 14.11.2024

Clasificación Internacional [C07K 14/44](#)Nº de solicitud 18564843Solicitante FUNDAÇÃO OSWALDO CRUZInventor/a Ricardo Tostes Gazzinelli

The present invention relates to a recombinant chimeric protein containing immunogenic regions from the trans-sialidase (TS) protein and amastigote surface protein-2 (ASP-2) from *Trypanosoma cruzi* and a composition containing said protein that displayed [vaccine](#) potential in a murine model. The invention also comprises the use of the chimeric protein for manufacturing vaccines.

41.[20240374702](#)RECOMBINANT HERPESVIRUS OF TURKEY VECTORS EXPRESSING ANTIGENS OF AVIAN PATHOGENS AND USES THEREOF

US - 14.11.2024

Clasificación Internacional [A61K 39/12](#)Nº de solicitud 18542330Solicitante Zoetis Services LLCInventor/a Sing RONG

The invention relates to recombinant viral vectors for the insertion and expression of foreign genes for use in safe immunizations to protect against a variety of pathogens. The invention also relates to multivalent compositions or [vaccine](#) comprising one or more recombinant viral vectors for protection against a variety of pathogens. The present invention relates to methods of making an using said recombinant viral vectors.

42.[20240374712](#)SARS-COV-2 [VACCINE](#) COMPOSITIONS

US - 14.11.2024

Clasificación Internacional [A61K 39/215](#)Nº de solicitud 18645259Solicitante Novavax, Inc.Inventor/a Gale SMITH

Disclosed herein are coronavirus (CoV) Spike(S) polypeptides, including naturally and non-naturally occurring polypeptides, and nanoparticles and immunogenic compositions comprising the same, which are useful for stimulating immune responses against various SARS-COV-2 strains. The nanoparticles present antigens from pathogens surrounded to and associated with a detergent core resulting in enhanced stability and good immunogenicity. Dosages, formulations, and methods for preparing the vaccines and nanoparticles are also disclosed.

43.[WO/2024/233416](#)MODELS FOR DETERMINING RETROTRANSPOSON (RT) INSERTION BURDEN AND IMPLICATIONS IN CANCER THERAPY

WO - 14.11.2024

Clasificación Internacional [C12Q 1/6886](#)Nº de solicitud PCT/US2024/027900Solicitante MEMORIAL SLOAN-KETTERING CANCER CENTERInventor/a GREENBAUM, Benjamin

The present disclosure provides methods, devices, and systems for determining the retrotransposon (RT) burden, RT expression and fitness of mutant p53 in a subject. The RT burden, RT RNA expression and fitness of mutant p53 may be used to determine whether a subject is at risk for cancer and will benefit from a particular

anti -cancer therapy such as immune checkpoint inhibitor therapy, adoptive cell therapy, or prophylactic cancer **vaccine** therapy.

44.4461737POLYPEPTID ZUR ABGABE VON ANTIGEN AN IMMUNZELLEN

EP - 13.11.2024

Clasificación Internacional C07K 7/06Nº de solicitud 22916735Solicitante JW SHINYAK
CORPInventor/a JEON YOON JAE

The present invention relates to a polypeptide for delivering an antigen to immune cells and, specifically, to: a novel polypeptide comprising a cell membrane penetrating peptide and a peptide binding to a surface molecule on immune cells; a fusion polypeptide in which an antigen is coupled to the polypeptide; a nucleic acid coding for the polypeptide or the fusion polypeptide; an immune cell sensitized with the fusion polypeptide or the nucleic acid coding therefor; and an immunotherapeutic agent, antitumor or anticancer **vaccine**, and a composition for treating a tumor or cancer, each comprising the immune cell.

45.4464380HIV-IMPfstoff-Immunogene

EP - 20.11.2024

Clasificación Internacional A61P 31/18Nº de solicitud 24191310Solicitante UNIV
ROCKEFELLERInventor/a NUSSENZWEIG MICHEL

This disclosure provides HIV immunogens and use thereof for generating an immune response in a subject. Also disclosed is a method of isolating anti-HIV antibodies and use thereof. This disclosure further provides a method for treating or preventing a human immunodeficiency type 1 (HIV-1) infection in a subject using the disclosed HIV immunogens and/or antibodies.

46.20240382585GLYCONJUGATE VACCINES

US - 21.11.2024

Clasificación Internacional A61K 39/385Nº de solicitud 18742842Solicitante London School of Hygiene & Tropical MedicineInventor/a Brendan WREN

This invention relates to the use of *S. pneumoniae* protein antigens, such as NanA, PluA and Sp0148, as carriers for immunogenic *S. pneumoniae* capsular polysaccharide. This may be useful for example in glycoconjugate vaccines able to generate a protective immune response against multiple capsular serotypes. Glycoconjugates, **vaccine** compositions and methods of manufacture and use are provided.

47.WO/2024/235368COMPOSICION VACUNAL CONTRA EL VIRUS DE LA PESTE PORCINA AFRICANA

WO - 21.11.2024

Clasificación Internacional A61K 39/12Nº de solicitud PCT/CU2024/050005Solicitante CENTRO DE INGENIERÍA GENÉTICA Y BIOTECNOLOGÍAInventor/a ESTRADA GARCIA, Mario Pablo

Antígenos quiméricos que comprenden un fragmento de los amino ácidos del 1 al 324 o del 1 al 430 de la proteína p72 del virus de la Peste Porcina Africana (VPPA) fusionado al segmento extracelular de la proteína CD154 de cerdos y antígenos quiméricos que comprenden un fragmento de los amino ácidos del 1 al 430 de

la proteína p72 del VPPA fusionado a un fragmento de la proteína B602L del VPPA comprendido entre los aminoácidos del 384 al 538 o del 398 al 465 fusionados al segmento extracelular del CD154 de cerdos. Composición farmacéutica para la prevención de la enfermedad conocida como Peste Porcina Africana.

48. [WO/2024/230722](#) PICHIA PASTORIS ENGINEERED STRAIN FOR PRODUCING RECOMBINANT ANTIGEN OF SARS-COV-2, PREPARATION METHOD THEREFOR, AND USE THEREOF

WO - 14.11.2024

Clasificación Internacional [C07K 14/165](#)Nº de solicitud PCT/CN2024/091667 Solicitante INSTITUTE OF MICROBIOLOGY, CHINESE ACADEMY OF SCIENCES Inventor/a GAO, Fu

Provided are a modified *Pichia pastoris* strain and a preparation method therefor, a recombinant *Pichia pastoris* engineered strain, based on the modified *Pichia pastoris* strain, expressing a SARS-CoV-2 antigen, a preparation method therefor, and a use thereof, and a method for preparing a SARS-CoV-2 recombinant protein **vaccine**. A modified *Pichia pastoris* expression vector can not only express and secrete recombinant proteins at a high level, but also enable the expressed recombinant proteins to retain a core glycosylation modification. Glycoproteins secreted thereby have good uniformity. The recombinant *Pichia pastoris* engineered strain, based on the *Pichia pastoris* expression vector, expressing the SARS-CoV-2 antigen can produce, in a highly efficient manner, high-quality RBD dimer antigens having uniform glycosylation. The produced RBD dimer antigens can be used as immunogens to induce the production of high-level neutralizing antibodies against a SARS-CoV-2 prototype strain and variants thereof.

49. [20240376158](#) PREFUSION-STABILIZED HMPV F PROTEINS

US - 14.11.2024

Clasificación Internacional [C07K 14/08](#)Nº de solicitud 18779961 Solicitante BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM Inventor/a Jason McLELLAN

Provided herein are engineered hMPV F proteins. In some aspects, the engineered F proteins exhibit enhanced conformational stability and/or antigenicity. Methods are also provided for use of the engineered F proteins as diagnostics, in screening platforms, and/or in **vaccine** compositions.

50. [20240382379](#) SYSTEMS AND METHODS FOR FLUID DELIVERY

US - 21.11.2024

Clasificación Internacional [A61J 1/20](#)Nº de solicitud 18786555 Solicitante Koska Family Limited Inventor/a Marc Andrew Koska

The invention provides for a delivery system including a delivery assembly configured to allow delivery of a single dose of a therapeutic agent (e.g., **vaccine**, drug, medicament, etc.) from a Blow-Fill-Seal (BFS) vial to a patient.

51. [4464724](#) VERFAHREN ZUR HERSTELLUNG VON CHIMÄREM PROTEIN, CHIMÄRES PROTEIN, GEN, IMMUNOGENE ZUSAMMENSETZUNG UND VERWENDUNGEN

EP - 20.11.2024

Clasificación Internacional C07K 19/00Nº de solicitud 22919311 Solicitante UNIV MINAS GERAIS Inventor/a TOSTES GAZZINELI RICARDO

The present technology discloses the process of producing a chimeric protein of SEQ ID No. 1, using the nucleotide sequence of SEQ ID No. 2. It also discloses the chimeric protein defined by SEQ ID No. 1, the gene of SEQ ID No. 2 used to its production, immunogenic compositions containing such protein and its use to prepare vaccines for the prophylaxis and prevention of infection with and moderate and severe forms of COVID-19. The present technology is included in the field of human health, specifically in the field of prevention measures against infection with SARS-CoV2. It addresses to the production of a **vaccine** composition comprising a chimeric protein that prevents high viral loads and moderate and severe clinical forms of the disease by stimulating the immune system.

52. WO/2024/234755 DEVELOPMENT OF MULTI-ANTIGEN MRNA **VACCINE** AGAINST FELINE FIPV

WO - 21.11.2024

Clasificación Internacional A61K 39/215Nº de solicitud PCT/CN2024/077001 Solicitante BEIJING SYNGENTECH CO., LTD. Inventor/a LIU, Qiang

Provided is a pharmaceutical preparation. The pharmaceutical preparation comprises a nucleic acid fragment, wherein the nucleic acid fragment is mRNA, and the nucleic acid fragment comprises at least one of a first nucleic acid fragment, a second nucleic acid fragment and a third nucleic acid fragment; the first nucleic acid fragment encodes an M protein of a feline infectious peritonitis virus; the second nucleic acid fragment encodes an N protein of the feline infectious peritonitis virus; the third nucleic acid fragment encodes an S, S-ec or SII protein of the feline infectious peritonitis virus; and the first nucleic acid fragment, the second nucleic acid fragment and the third nucleic acid fragment are connected or not connected.

53. 20240374701 **VACCINE** COMPOSITIONS COMPRISING BRUCELLA STRAINS AND METHODS THEREOF

US - 14.11.2024

Clasificación Internacional A61K 39/02Nº de solicitud 18292542 Solicitante THE TEXAS A&M UNIVERSITY SYSTEM Inventor/a Paul DE FIGEIREDO

The present disclosure provides pharmaceutical compositions comprising a live attenuated bacterial strain of *Brucella melitensis*, in particular a live attenuated bacterial strain of *Brucella melitensis* is *Brucella melitensis* 16M Δ vjbR (Bm Δ vjbR). Methods of utilizing the live attenuated bacterial strain of *Brucella melitensis* for treatment of a patient are also provided, including wherein the patient is in need of treatment for cancer, an autoimmune disorder, and/or an inflammatory disorder.

54. 20240374706 FMDV VIRUS-LIKE PARTICLE WITH DOUBLE STABILIZING MUTATION

US - 14.11.2024

Clasificación Internacional A61K 39/135Nº de solicitud 18684496 Solicitante THE PIRBRIGHT INSTITUTE Inventor/a Claudine Porta

The invention concerns a modified recombinant foot and mouth disease virus (FMDV) VP2 protein and further concerns an FMDV capsid precursor protein P1 comprising the modified VP2 protein. In a specific aspect,

the present invention concerns a VP2 protein or a capsid precursor protein P1 comprising the VP2 protein, wherein the amino acid sequence of the VP2 protein is modified to improve the stability of FMDV capsids. The invention further relates to an isolated nucleic acid molecule and an expression vector comprising the nucleic acid molecule for recombinant expression of the modified VP2 protein or a capsid precursor protein P1 comprising the VP2 protein. In further aspects, the invention relates to a virus-like particle (VLP) obtained from the modified capsid precursor protein P1 and a **vaccine** for use in the protection of a subject against an infection with FMDV produced from the VLP.

55. 20240383947 VIRUS **VACCINE**

US - 21.11.2024

Clasificación Internacional C07K 14/005Nº de solicitud 18287608 Solicitante BioNTech SE Inventor/a Ugur Sahin

This disclosure relates to the field of preventing or treating virus infection, in particular, the disclosure relates to agents for vaccination against virus infection and inducing effective virus antigen-specific immune responses such as antibody and/or T cell responses and methods for generating and using such agents. Administration of agents such as RNA disclosed herein to a subject can protect the subject against virus infection. Specifically, the present disclosure relates to amino acid sequences comprising at least a portion of a virus protein having amino acid modifications found in other variants of the virus protein. Administration of RNA encoding one or more of the amino acid sequences may provide protection against diverse virus variants. Methods and agents described herein are, in particular, useful for the prevention or treatment of coronavirus infection such as SARS-CoV-2 infection.

56. 20240374731 IMMUNOGENIC TRIMERS

US - 14.11.2024

Clasificación Internacional A61K 45/06Nº de solicitud 18733214 Solicitante International AIDS **Vaccine** Initiative, Inc. Inventor/a Jon Steichen

The invention relates to PGT121-germline-targeting designs, trimer stabilization designs, combinations of those two, trimers designed with modified surfaces helpful for immunization regimens, other trimer modifications and on development of trimer nanoparticles and methods of making and using the same.

57. WO/2024/233873 RESPIRATORY SYNCYTIAL VIRUS **VACCINE** AND METHODS OF USE

WO - 14.11.2024

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2024/028751 Solicitante SANOFI PASTEUR INC. Inventor/a CARAYOL, Sebastien

Disclosed herein are respiratory syncytial virus vaccines and methods of immunization to deliver respiratory syncytial virus vaccines in subjects.

58. WO/2024/234991 IMIDAZOQUINOLINE COMPOUND, PREPARATION METHOD THEREFOR, AND USE AND COMPOSITION THEREOF

WO - 21.11.2024

Clasificación Internacional C07D 471/04N° de solicitud PCT/CN2024/090446 Solicitante SHENZHEN **VACCINE** BIOPHARMACEUTICALS LIMITED Inventor/a LIU, Huitao

An imidazoquinoline compound, a preparation method therefor, and a use and composition thereof. The imidazoquinoline compound is a compound represented by formula I or a pharmaceutically acceptable salt thereof. X comprises any one of n-propyl, n-butyl, n-butylamine, n-pentyl, and 2-methoxyethyl. R₁ comprises any one of a C₁-C₃₆ alkyl and a C₁-C₃₆ alkoxy. R₂ comprises any one of hydrogen, a substituted or unsubstituted aryl, a condensed-ring aryl, a heteropolycyclic group, and -S-R₃, wherein R₃ comprises any one of a substituted or unsubstituted aryl, a condensed-ring aryl, and a heteropolycyclic group. The imidazoquinoline compound selectively releases molecules having TLR7/8 receptor stimulating activity in a tumor and acts on immune cells in the tumor, while reducing the activity of immune cells outside the tumor, so that the imidazoquinoline compound has the characteristic of low systemic immunotoxicity while having anti-tumor activity.

59. 20240382576 COMPOSITIONS COMPRISING STREPTOCOCCUS PNEUMONIAE POLYSACCHARIDE-PROTEIN CONJUGATES AND METHODS OF USE THEREOF

US - 21.11.2024

Clasificación Internacional A61K 39/09N° de solicitud 18792658 Solicitante Merck Sharp & Dohme LLC Inventor/a Chitrananda Abeygunawardana

The invention is related to multivalent immunogenic compositions comprising more than one *S. pneumoniae* polysaccharide protein conjugates, wherein each of the conjugates comprises a polysaccharide from an *S. pneumoniae* serotype conjugated to a carrier protein, wherein the serotypes of *S. pneumoniae* are as defined herein. Also provided are methods for inducing a protective immune response in a human patient comprising administering the multivalent immunogenic compositions of the invention to the patient. The multivalent immunogenic compositions are useful for providing protection against *S. pneumoniae* infection and/or pneumococcal diseases caused by *S. pneumoniae*. The compositions of the invention are also useful as part of treatment regimes that provide complementary protection for patients that have been vaccinated with a multivalent **vaccine** indicated for the prevention of pneumococcal disease.

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