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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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- Patentes más recientes en Patentscope sobre vacunas.

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Vicebio hauls in $100M series B to push RSV combo vaccine through phase 1

Sep 23. The respiratory syncytial virus (RSV) space may have filled up over the past year, but that isn't deterring Vicebio or its investors.

The British biotech has secured $100 million in series B funds as it continues a phase 1 trial of its bivalent vaccine targeting both RSV and human metapneumovirus (hMPV). A readout for the vaccine, dubbed VXB-241, is expected next year.

Both VXB-241 and VXB-251 have been developed with Vicebio's so-called "molecular clamp" tech. (Stock photo/Getty Images)

Further, the company will use some of the cash to push ahead with VXB-251, a trivalent vaccine targeting RSV, hMPV and parainfluenza virus 3.

Both VXB-241 and VXB-251 have been developed with Vicebio's so-called "molecular clamp" tech, which is designed to better stabilize viral proteins and thus make the biotech's vaccines easy to administer and store. It was developed by a team led by professors Paul Young, Ph.D., Daniel Watterson, Ph.D., and Keith Chappell, Ph.D., at the University of Queensland in Australia before being licensed out to Vicebio by the university's commercialization arm.

"This innovative approach enables the production of highly effective vaccines that are easy to manufacture and will be available in ready-to-use prefilled syringes," the biotech explained in a release.

The financing was led by TCGX and featured founding investor Medicxi alongside Goldman Sachs Alternatives, Avoro Ventures, venBio and UniQuest.

"The support from these high-calibre investors underscores the robust data package we have generated for VXB-241, highlighting the significant potential of our proprietary Molecular Clamp technology to develop next-generation vaccines against respiratory viruses," Vicebio CEO Emmanuel Hanon, Ph.D., said in the release.

Hanon joined Vicebio from GSK, which secured the first approval for an adult RSV vaccine last year in the form of Arexvy. Pfizer now has its rival Abrysvo on the market, which was joined in May by Moderna's mRESVIA. Merck & Co. is following close behind, while AstraZeneca—which manufactures the approved RSV antibody Beyfortus—threw its hat in the ring late last year by buying RSV vaccine developer Icosavax.

There are currently no approved vaccines targeting both RSV and hMPV, meaning Vicebio could still carve out its own niche in an increasingly crowded arena. However, Vicebio's prospect will be going up against IVX-A12, the RSV and hMPV combo vaccine that AstraZeneca acquired as part of its Icosavax buyout. AstraZeneca was touting IVX-A12 as being "phase 3 ready" as far back as December.

Fuente: FIERCE Biotech. Disponible en https://acortar.link/2ZyEiD

GSK anuncia datos positivos preliminares sobre la coadministración de su vacuna frente al virus respiratorio sincitial y la del herpes zóster

23 sep. GSK ha anunciado datos positivos preliminares del ensayo de fase III (NCT05966090) que evalúa la inmunogenicidad, reactogenicidad y seguridad de Arexvy (vacuna recombinante adyuvada frente al virus respiratorio sincitial) cuando se coadministra con Shingrix (vacuna recombinante frente al herpes zóster). Los datos se presentaron como *late-breaking abstract* en el Congreso de la Sociedad Europea de Medicina Geriátrica (EuGMS) que está teniendo lugar en Valencia (del 18 al 20 de septiembre). La vacuna de GSK frente al herpes zóster (culebrilla) está aprobada para la prevención de esta enfermedad en adultos de 50 años o más y, en España (y en algunos otros países), también para adultos a partir de los 18 años de edad que tienen un mayor riesgo de herpes zóster. La vacuna de GSK frente al VRS ha sido aprobada para la prevención de la enfermedad del tracto respiratorio inferior (ETRI) causada por el virus respiratorio sincitial (VRS) en personas a partir de los 60 años en 50 países, incluyendo Europa, Japón y EE. UU. También está aprobada en varios países para su uso en adultos de 50 a 59 años con mayor riesgo de contraer la enfermedad por VRS, incluyendo la Unión Europea/el Área Económica Europea y EE. UU.

Los datos muestran una respuesta inmunitaria no inferior cuando las vacunas se coadministraron en comparación con su administración en visitas separadas. La coadministración también fue bien tolerada, con perfiles de reactogenicidad y seguridad aceptables. En ambos grupos, los eventos adversos más frecuentemente reportados fueron dolor en el lugar de la inyección, fatiga y mialgia. La duración de los eventos adversos fue corta y comparable entre los dos grupos.

El riesgo de desarrollar ambas enfermedades aumenta con la edad, ya que el sistema inmunitario se debilita, y comorbilidades médicas subyacentes como la enfermedad pulmonar obstructiva crónica (EPOC), la diabetes y el asma, o la inmunosupresión, también pueden incrementar el riesgo. El VRS es un virus común y contagioso que puede provocar enfermedades respiratorias potencialmente graves. El herpes zóster generalmente se manifiesta como un sarpullido con ampollas dolorosas en el pecho, el abdomen o la cara. A nivel mundial, el herpes zóster afectará a hasta 1 de cada 3 personas a lo largo de su vida.

Dra. Gloria Mirada, vicepresidenta primera de la Asociación Española de Vacunología (AEV), enfermera y doctora en Salud y responsable del Servicio de Gestión Integral de Vacunas de las regiones sanitarias de Lleida y de Alt Pirineo-Arán, integrado en la Agencia de Salud Pública de Cataluña , ha comentado que: “La coadministración de vacunas es una valiosa herramienta para los profesionales sanitarios y las autoridades de Salud Pública, ya que puede ayudar a mejorar las coberturas de vacunación en adultos, algo muy relevante si pensamos la salud de aquellos con mayor riesgo, como los adultos mayores de 50 años con comorbilidades médicas subyacentes como la diabetes o la EPOC. Estos datos, que demuestran que la coadministración de las dos vacunas fue bien tolerada, representan un paso positivo para mejorar la cobertura de vacunación frente a estas enfermedades una vez tengamos las recomendaciones en España de vacunación frente al VRS para este colectivo.”

Para Iñaki Hernáez, director médico del área de vacunas de GSK España: “Estamos entusiasmados de compartir datos sobre la coadministración de nuestras vacunas frente al herpes zóster y el VRS. La inmunización en adultos ofrece enormes beneficios tanto individuales como sociales y, sin embargo, las tasas de vacunación en adultos suelen ser insuficientes.

Con nuestros estudios de coadministración, GSK está utilizando su ciencia y tecnología para ayudar a eliminar algunas barreras en la inmunización de los adultos al reducir el número de visitas a los centros de salud y mejorar así la prevención en el herpes zóster y el VRS."

Los resultados de este estudio serán enviados para su publicación en una revista científica revisada por pares y se utilizarán para respaldar las solicitudes de autorización regulatoria ante la FDA de los EE. UU., la EMA y otras agencias regulatorias. Estos datos siguen a los resultados positivos del año pasado sobre la coadministración de la vacuna frente al VRS de GSK junto con las vacunas frente a la gripe estacional. Se están llevando a cabo estudios clínicos adicionales para evaluar la coadministración de la vacuna frente al VRS de GSK con las vacunas neumocócicas y las vacunas de ARNm frente a la COVID-19.

Sobre el ensayo NCT05966090

El ensayo clínico de coadministración es un estudio de fase III, multinacional, abierto y controlado, diseñado para evaluar la no inferioridad de las respuestas inmunitarias en la coadministración de las vacunas recombinantes de GSK frente al VRS y frente al herpes zóster (RZV) en comparación con la administración por separado en adultos de 50 años y mayores.

530 participantes fueron asignados aleatoriamente en una proporción de 1:1 para recibir la primera dosis de la vacuna RZV de forma concomitante con la vacuna frente al VRS de GSK (grupo CoAd) o la primera dosis de RZV en la primera visita y el día 31 recibir la vacuna frente al VRS (grupo control). La segunda dosis de RZV se administró el día 61 para ambos grupos. El criterio de valoración principal fue la no inferioridad de las respuestas inmunitarias humorales a la vacuna frente al VRS de GSK y RZV cuando se coadministraron en comparación con la administración en visitas separadas. Los criterios de valoración secundarios principales incluyeron la reactogenicidad y la seguridad tras la coadministración frente a la administración secuencial de las vacunas frente al VRS de GSK y la RZV.

Las concentraciones de anticuerpos anti-gE y los títulos de neutralización para VRS-A y VRS-B aumentaron tras la vacunación y cumplieron con los criterios de no inferioridad en los objetivos primarios de las respuestas inmunitarias humorales a las vacunas frente al VRS y el herpes zóster de GSK. La coadministración también fue bien tolerada, con perfiles de reactogenicidad y seguridad aceptables. En ambos grupos, los eventos adversos más frecuentemente reportados fueron dolor en el lugar de la inyección, fatiga y mialgia. La duración de los eventos adversos solicitados fue corta y comparable entre los dos grupos.

Sobre la vacuna adyuvada frente al VRS de GSK

La vacuna frente al VRS, adyuvada recombinante, contiene, como antígeno, la glicoproteína F recombinante, estabilizada en su conformación de pre-fusión (VRSPreF3). Este antígeno está combinado con el adyuvante patentado de GSK, el AS01E.

La vacuna fue aprobada por la CE en junio de 2023 para la inmunización activa para la prevención de la ETRI causada por el VRS a partir de los 60 años y en septiembre de 2024 la CE aprobó la ampliación de la indicación en adultos de 50 a 59 años con mayor riesgo de contraer la enfermedad por VRS. El uso de esta vacuna debe estar alineado con las recomendaciones oficiales. Como con cualquier vacuna, es posible que no se genere una respuesta inmune protectora en todos los vacunados.

La ficha técnica en España, que incluye una lista completa de eventos adversos e información de seguridad importante, puede encontrarla en el siguiente enlace. La información sobre la ampliación de la indicación se

actualizará en el futuro:.:: CIMA ::. FICHA TECNICA AREXVY POLVO Y SUSPENSION PARA SUSPENSION INYECTABLE (aemps.es)

La vacuna también ha sido aprobada para la prevención de la ETRI-VRS en personas de 60 años o más en 50 países, incluidos Japón y EE. UU. Y además de en la Unión Europea/Área Económica Europea, también está aprobada en varios países para su uso en adultos de 50-59 años con factores de riesgo, como EE. UU. Y hay en curso otras revisiones regulatorias en múltiples países. El nombre comercial propuesto sigue sujeto a la aprobación regulatoria en otros mercados.

El sistema de adyuvante AS01, propiedad de GSK, contiene el adyuvante QS-21 STIMULON con licencia de Antigenics Inc., una subsidiaria de propiedad total de Agenus Inc.

Fuente: PHARMA MARKET. Disponible en https://acortar.link/Y88hmp

PAHO Director calls for urgent action to eliminate cervical cancer in the Americas

Sep 24. The Pan American Health Organization (PAHO) Director, Dr. Jarbas Barbosa, today called on partners and donors to support countries of the Americas to address the “unacceptable” number of cervical cancer cases and deaths. Almost 80,000 women in the Region are affected each year, highlighting the need for widespread implementation of HPV vaccines, HPV testing and treatment.

Speaking at the “A Global First: A Blueprint for Eliminating Cervical Cancer in the Americas” panel at the Concordia Annual Summit in New York, Dr. Barbosa highlighted that “unlike most types of cancer, the causes of cervical cancer are well-known: persistent infection with human papillomavirus (HPV).”

“Women are suffering and dying from a disease that we have the tools to prevent, treat and ultimately eliminate as a public health problem,” he added. "PAHO is committed to working with the countries of the Americas and our partners to eliminate cervical cancer from the Region for good, and in doing so become the first to eliminate a cancer of any kind".

During the panel, which included Monica Garcia Gomez, Minister of Health of Spain, Violaine Mitchell, Director of Immunization of the Bill & Melinda Gates Foundation, and Dr. Katherine Bliss, Director of Immunizations and Health Systems Resilience at the Center for Strategic and International Studies (CSIS), participants discussed the progress being made towards cervical cancer elimination and discussed ways to improve the availability of vaccines, screening and treatment technologies in the Americas.

Cervical cancer disproportionately impacts women in low-and middle-income countries: Latin America and the Caribbean have the second highest cervical cancer incidence and mortality rates globally, after Africa.

In 2020, member states of the World Health Organization (WHO) adopted the Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem. The strategy outlines three objectives for 2030: 90% HPV vaccination coverage in girls by the age of 15, 70% screening coverage, 90% treatment of precancerous lesions and management of 90% of invasive cancer cases (known as the 90-70-90 targets).

PAHO Pan American Health Organization World Health Organization Americas Region

During his intervention, Dr. Barbosa said that while countries of the Americas have "the tools and commitment needed to end cervical cancer," it is crucial that governments, private companies and philanthropic organizations work together to make cervical cancer elimination a reality.

Of the 51 countries and territories of the Americas, 48 have already introduced the HPV vaccine, yet coverage varies widely, from less than 10% in some countries to over 80% in others.

The PAHO Director also highlighted that while HPV testing is more accurate, cost-effective and modern compared to cervical cytology programs, fewer than ten countries have adopted it.

This is why it is crucial that "we are all engaged," Dr. Barbosa said. "There is a role for everybody in scaling access to life-saving HPV vaccines, screening and treatment for women and girls. I invite you to be part of making history by eliminating cervical cancer in the Americas".

PAHO continues to work with countries of the Americas towards the elimination of cervical cancer. This includes through the strengthening of national elimination plans based on HPV vaccination, HPV testing and the treatment of premalignant lesions and cancer at the primary care level. PAHO also provides countries with technical support to improve information systems to monitor and evaluate actions and progress towards cervical cancer elimination. In addition, the Organization's pooled procurement mechanism, the PAHO Revolving Funds offers Member States safe and quality HPV vaccines, HPV tests, and ablative treatment devices at affordable prices.

Cervical cancer is one of the diseases addressed in PAHO's Elimination Initiative, which aims to eliminate more than 30 communicable diseases and related conditions by 2030. This effort to improve the quality of life for people and communities builds on PAHO's decades-long legacy in disease elimination, from smallpox and polio to rubella and, in many countries, malaria, HIV and more.

Fuente: Pan American Health Organization PAHO. Disponible en https://acortar.link/cuPsIV

First Dengue Vaccine Approved in Việt Nam: Fulfilling a Nearly Century-Old Dream

Sep 25. Việt Nam's Ministry of Health has approved Takeda's dengue vaccine, making it the first to be approved in the country, adding a new and innovative prevention method as part of an integrated prevention strategy in Việt Nam to combat the rising public health threat of dengue.

During his visit to Asia with a stop at Việt Nam in September, Dr. Derek Wallace, President of Global Vaccine Business Unit at Takeda and one of the key leaders of the vaccine's development, shared insights into the research and production journey of this dengue vaccine designed to protect against all four dengue virus serotypes.

Takeda has recently made headlines for its innovative efforts in dengue prevention globally, including in Việt Nam.

As an instrumental figure in this development process, could you share the inspiration behind what prompted you to join and commit to this mission?

I believe that vaccines are a cornerstone of public health, with the ability to make an incredible impact on people's and families' lives over generations. After witnessing first-hand the severe impacts of the dengue outbreak in Thailand in 2009, my commitment to this cause deepened. That experience became the driving force behind my passion to lead Takeda's team on the development of this dengue vaccine, aimed at providing a proactive measure against this infectious disease.

Takeda's dengue vaccine is approved for protecting against dengue fever. Could you share the journey of developing this vaccine?

As you know, dengue is a complex disease caused by four different virus serotypes (DENV-1, 2, 3 and 4), making vaccine development particularly challenging. The development of Takeda's dengue vaccine has a long and intricate history, dating back nearly 60 years.

While efforts to find a dengue vaccine began as early as the 1920s, significant progress remained elusive for many decades due to various obstacles.

Our dengue vaccine journey traces back to 1978 at Mahidol University in Thailand. The World Health Organisation (WHO) Regional Office for Southeast Asia proposed a project for dengue vaccine research. Mahidol University was selected as a partner. The university led the dengue vaccine research and development and later in 1986 discovered a live-attenuated vaccine that prevents DENV-2. This became the crucial foundation for our current tetravalent vaccine. After 12 years of research, this effort culminated in creating a tetravalent vaccine capable of providing broad protection against all four dengue virus serotypes.

Over the past 11 years, under Takeda's leadership, the vaccine successfully completed a clinical development programme involving 19 clinical trials with a total of 28,000 participants across 13 dengue-endemic and non-endemic countries. Recently, our vaccine has been recommended by WHO's Strategic Advisory Group of Experts (SAGE) for introduction in countries with high dengue burden and high transmission intensity to maximise public health impact.

In addition to that, the vaccine has been included in the WHO's List of Prequalified Vaccines, underscoring its quality and reliability as an important dengue prevention method suitable for public programmes. We are proud that our dengue vaccine is approved and endorsed for the protection of communities and people against dengue, both those that have had dengue previously and those that have not.

These global recommendations of Takeda's dengue vaccine represent a major step forward in our mission to develop innovative vaccines that address the toughest public health challenges. The WHO's recommendations affirm the vaccine's potential as an important tool within an integrated strategy to help reduce the global threat of dengue.

What are the key challenges you and your team have faced during the development phase and production of this dengue vaccine? How did Takeda overcome these barriers?

There were numerous challenges throughout the research process, one of which was the highly complex nature of the dengue virus, with its four distinct serotypes. Achieving an immune response that provides protection against all four serotypes without increasing the risk of severe disease due to antibody-dependent enhancement (ADE) was a significant challenge which we were able to overcome.

Additionally, the vaccine needed to ensure efficacy and safety across diverse populations.

Beyond the research phase, the production, especially large-scale manufacturing required for commercialising the vaccine globally, was no simple task. The tetravalent dengue vaccine demands a high-tech, complex, and modern process for production, storage, preservation, and transportation. That is why we have been working closely with partners in Việt Nam and other countries to devise efficient transportation and storage strategies that can ensure smooth management of dengue vaccine administration.

Could you share about Takeda's high-quality standards in the entire dengue vaccine manufacturing process, from production to supply chain and distribution worldwide? Could you share about Takeda's high-quality standards in the entire dengue vaccine manufacturing process, from production to supply chain and distribution worldwide?

Takeda's dengue vaccine manufacturing facility in Germany. — Photo Courtesy of Takeda

Takeda's first dengue manufacturing building at our Singen, Germany facility opened in November, 2019 to support formulation, fill, finish and secondary packaging of our dengue vaccine. In 2023, we expanded these capabilities with a state-of-the-art drug substance manufacturing building, making Singen the only Takeda facility worldwide capable of producing both the drug substance and drug product for our dengue vaccine.

The inclusion of Takeda's dengue vaccine in WHO's List of Prequalified Vaccines confirms its quality and suitability for public vaccination programmes. This is an important step in broadening global access to Takeda's dengue vaccine, especially in regions heavily impacted by dengue.

Recognising the need for an integrated, multi-pronged response to this global health threat and the current demand for dengue vaccines, Takeda is committed to working closely with partners, along with governments and health authorities in countries where the dengue vaccine has been licensed, to maximise the impact of our available vaccine supply.

Building upon existing manufacturing capabilities in Germany, Takeda made a strategic partnership with Biological E. Limited in India last year to accelerate access of the company's dengue vaccine in multi-dose vials, which will be made available for procurement by governments in endemic countries to support national immunisation programmes.

We are on track to significantly increase our supply year over year and aim to achieve an annual supply capacity of 100 million doses per year by 2030 through in-house and strategic external investments to meet the growing demand for protection against this rising public health threat.

With millions of doses of dengue vaccines distributed worldwide, we remain committed to making a dengue vaccine that meets the highest standards of safety and efficacy accessible. At Takeda, we uphold stringent quality standards at every stage of our medicine and vaccine journey.

How do you foresee the dengue vaccine impacting public health outcomes, particularly in endemic countries like Việt Nam?

The dengue vaccine is expected to have a significant impact on public health outcomes, especially in endemic countries like Việt Nam. Dengue vaccines can help protect people who have never had dengue before, reduce new cases in people that have previously had dengue and reduce hospitalisation, which can result in significant economic benefits by alleviating the financial burden on healthcare systems and families, contributing to greater economic stability.

The WHO's Dengue Vaccines Position Paper emphasised the prioritisation of all available dengue prevention methods, including vaccination, and we need to remember that, in order to effectively prevent dengue and improve public health outcomes, integrated dengue management, covering vector control, case management, and community education, need to go hand in hand with dengue vaccine introduction.

Based on its assessment, the WHO determined that Takeda's dengue vaccine will have the greatest public health impact in areas with a high dengue transmission. The vaccine introduction should be accompanied by a well-designed communication strategy and community engagement. Individuals will still need to take additional steps to protect themselves and their loved ones, thereby improving the implementation of preventive measures, strengthening public health efforts, and reducing the impact of dengue on communities.

At the end of this September, Dr. Derek Wallace, President of the Global Vaccine Business Unit (VBU) and Mr. Dion Warren, Area Head of India & Southeast Asia (I-SEA), will be in Việt Nam.

During the visit, Dr. Derek Wallace and Mr. Dion Warren will spend time with Takeda's local team, initiating the official launch of Takeda's dengue vaccine in Việt Nam, following its approval by the Ministry of Health in May, 2024. Takeda is currently the only manufacturer and importer of dengue vaccine to Việt Nam.

The presence and participation of these global leaders underscore Takeda's effort to provide solutions that help address the significant global burden of dengue, especially in endemic countries like Việt Nam.

Fuente: Viêt Nam News. Disponible en https://acortar.link/ZhbZn6

Addressing vaccine misconceptions essential to increasing vaccination rates during respiratory virus season

Sep 26. An even greater number of Americans than last year say they don't plan to vaccinate themselves against COVID-19 or flu this year despite warnings from health experts about severe risks, according to the results of a new survey. Addressing misconceptions about vaccines and vaccination is critical to addressing health needs, especially for older adults and other at-risk populations, they said.

"We must build trust by enhancing our support for people in using science and evidence to make personally appropriate decisions regarding vaccines and other health choices," Reed V. Tuckson, MD, co-founder of the Black Coalition Against COVID and chair of the board of the Coalition for Trust in Health & Science, said in a statement.

Evidence-based messaging from familiar, trusted healthcare professionals is essential to building people's confidence in vaccines, he added.

The National Foundation for Infectious Diseases released the results of its annual survey of US adults on Wednesday, along with sharing previously announced vaccination recommendations from the Centers for Disease Control and Prevention. The survey revealed that fewer than one in five US adults are concerned about flu, COVID-19, respiratory syncytial virus or pneumococcal disease, and many don't plan to get vaccinated.

"Vaccines are not just a shield against illness. They are an important tool in our public health efforts," said NFID Medical Director Robert H. Hopkins Jr., MD.

RSV vaccination rates for older adults was only 24% during the 2023-2024 respiratory season. According to the NFID survey, only 21% of adults aged 75 or more years and adults aged 60 to 74 years with certain risk factors indicated that they intend to get that vaccine this year.

RSV vaccines currently are recommended for all adults aged 75 or more years as well as adults aged 60 to 74 years who have certain risk factors.

Among older adults and people with other risk factors for whom pneumococcal vaccinations are recommended, 25% said they already have been vaccinated this year, and 44% said they planned to get vaccinated. Pneumococcal vaccines are recommended for all adults aged 65 or more years as well those with certain chronic health conditions, including heart disease, lung disease (asthma or chronic obstructive pulmonary disease), kidney or liver disease, diabetes, sickle cell disease, or other conditions and treatments that weaken the immune system.

The numbers were more promising for the flu vaccine. Seventy-six percent of adults aged 65 or more years said they plan to get a flu vaccine, compared with 48% of adults aged 18 to 64 years. Older adults are more likely than younger adults to report that they will get a flu vaccine because they want to protect themselves (87% versus 72%), because their doctor recommends it (70% versus 39%), and to avoid severe complications, including hospitalization and death (70% versus 44%)

Half of adults aged 65 or more years said they would get a flu and COVID-19 vaccine at the same time, an increase from 41% in 2023.

"Flu and COVID-19 can be serious diseases with potentially life-threatening consequences and long-term risks," said Demetre C. Daskalakis, MD, MPH, director of the National Center for Immunization and Respiratory Diseases at CDC. "Flu and COVID-19 vaccines are now available and are the best protection we have, and it's safe to get both vaccines at the same time."

Of survey respondents at higher risk for COVID-19-related complications, including adults aged 65 or more years and those with a chronic health condition, 51% said they planned to get an updated COVID-19 vaccine.

Few concerned

After a summer wave of COVID-19 activity and a record number of flu deaths during the 2023-2024 respiratory season, the new NFID survey results show that, overall, only 38% of adults plan to get a flu vaccine, despite 67% agreeing that annual vaccination is the most effective way to prevent hospitalizations and deaths from flu.

Overall, few US adults said they are concerned about themselves or a family member getting infected with flu (17%), COVID-19 (20%), RSV (16%) or pneumococcal disease (17%).

The NFID survey data showed that vaccine confidence plays a major role in vaccination intent for flu, COVID-19, RSV and pneumococcal disease. Many who said they do not plan to get vaccinated said they are worried about potential side effects or have a general distrust of vaccines, demonstrating an “urgent need” for greater awareness and education about vaccines, the experts said.

The NFID surveyor attitudes and behaviors toward respiratory vaccinations was conducted by NORC at the University of Chicago among 1,100 adults aged 18 or more years.

Fuente: McKnights Senior Living. Disponible en https://acortar.link/CyxWTz

Preocupante descenso en la vacunación de niños en Bahía Blanca, Buenos Aires Argentina

26 sep. Un informe revela que, hasta agosto de 2024, la ciudad no ha logrado alcanzar el 67 % de cobertura en ninguna de las vacunas del calendario nacional. Esta situación se ha agravado tras la pandemia de COVID-19.

La alarmante caída en las tasas de vacunación en Bahía Blanca ha puesto en alerta al sistema sanitario local. Un informe reciente de Región Sanitaria I revela que, hasta agosto de 2024, la ciudad no ha logrado alcanzar el objetivo de inmunización del 67 % en ninguna de las vacunas del calendario nacional.

Esta tendencia, que comenzó en 2015, se agudizó tras la pandemia de COVID-19, impulsada por la desinformación, el miedo y una creciente desconfianza hacia las vacunas.

"Son más las vidas que salvan las vacunas, que las que no", aseguró Jorgelina Scuffi, referente de epidemiología de la Región Sanitaria I.

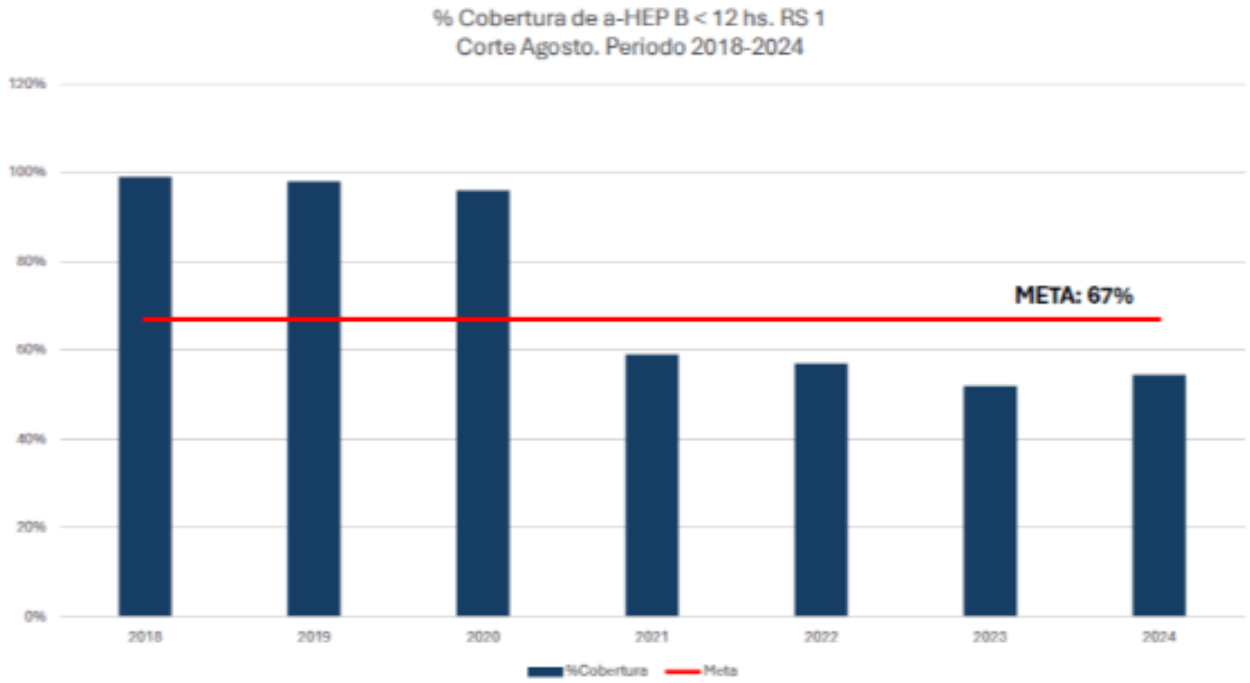
Una tendencia alarmante desde la pandemia

Entre los casos más preocupantes, se encuentra la vacuna contra la Hepatitis B, donde Bahía Blanca apenas logró un 60 % de cobertura, comparado con el 74 % alcanzado en Coronel Suárez, el único distrito que superó, aunque mínimamente, la meta para esta altura del año. Hacia fin de año, el objetivo, siempre, es acercarse al 100 %.

La baja en la vacunación ha sido particularmente notoria desde el 2020, año en el que la cobertura en la región alcanzó un 98 %. Sin embargo, a partir de entonces, los niveles han ido cayendo drásticamente: al 59 % en 2021 y un 50 % en 2023, según el mismo informe.

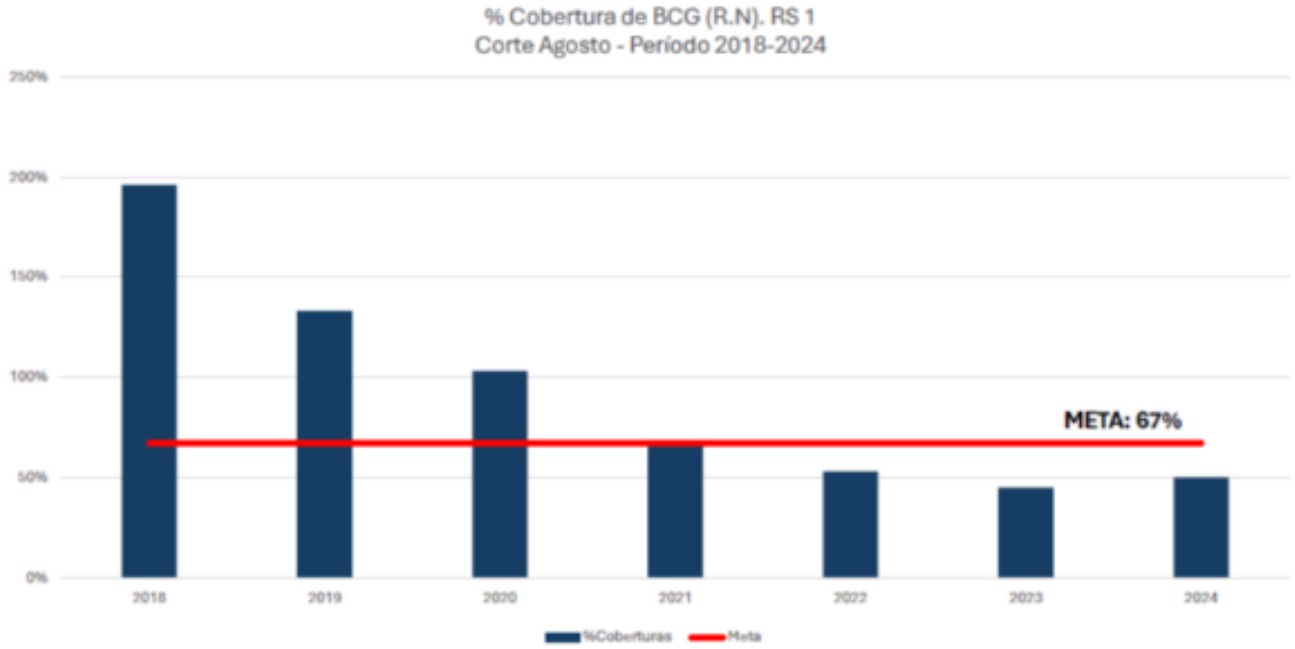
HEPATITIS B

El patrón de descenso se replica en varias vacunas críticas. La BCG, clave para prevenir la tuberculosis en recién nacidos, no alcanzó las metas en ninguna localidad de la región en 2024. Bahía Blanca solo logró un 57 %, mientras que Coronel Pringles encabezó la lista con un modesto 59 %, y Adolfo Gonzales Chaves quedó rezagado con apenas un 15 %.



BCG

El déficit de cobertura es especialmente alarmante en vacunas fundamentales para los niños. La Quíntuple, que protege contra enfermedades graves como la difteria y la tos convulsa, registró coberturas críticas en nuestra ciudad, con niveles que oscilaron entre el 25 % y el 32 %. No obstante, Monte Hermoso destacó con un 80 % en la primera dosis, aunque luego mostró un descenso con un 60 % en la segunda y tercera.

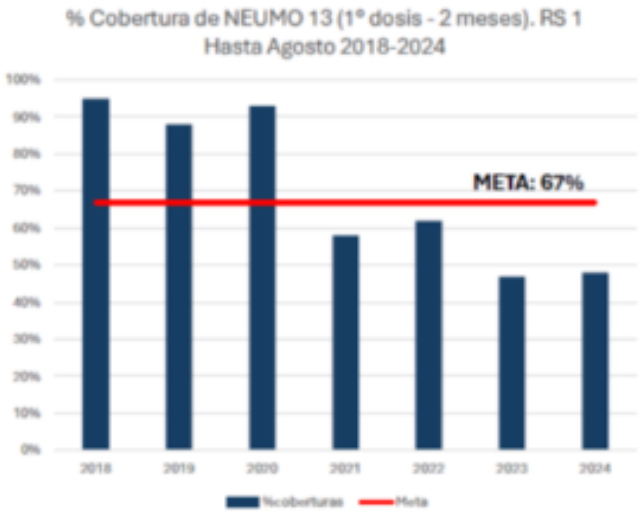


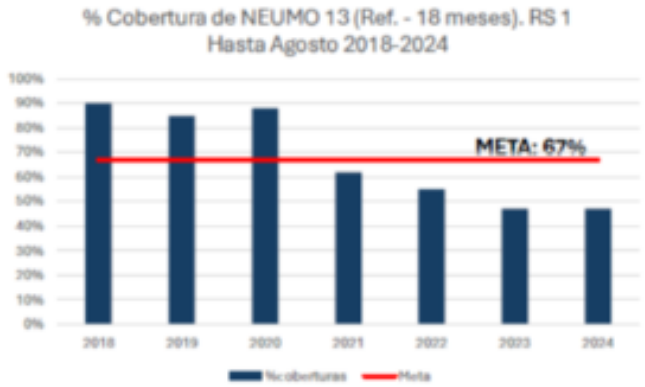
A nivel regional, las caídas en la cobertura de la Quíntuple desde 2020 son pronunciadas, con reducciones de hasta un 35 % en algunas dosis, sin lograr recuperar la meta establecida para ninguna de las fases del esquema de vacunación, incluidas las dosis de refuerzo de los 18 meses.

Monte Hermoso se ha destacado en el cumplimiento de ciertos esquemas vacunales, como la Neumo 13, que protege contra el neumococo, alcanzando un 91 % en la primera dosis y un 65 % en la segunda.

En contraste, Bahía mantuvo niveles muy bajos, oscilando entre el 35 % y el 40 %.

NEUMO 13

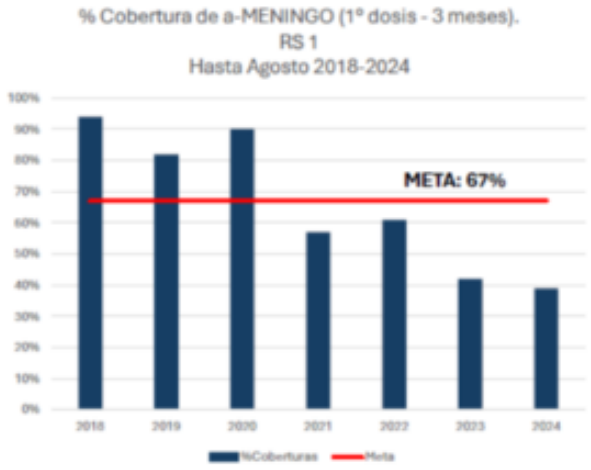




La vacuna Salk, que previene la poliomielitis, también presentó una preocupante baja en la ciudad, con apenas un 40 % de cobertura en la primera dosis, un 31 % en la segunda y un crítico 20 % en la tercera. Este descenso es evidente en toda la región, particularmente desde la pandemia, con caídas de hasta el 50 % en las dosis finales.

A-MENINGO

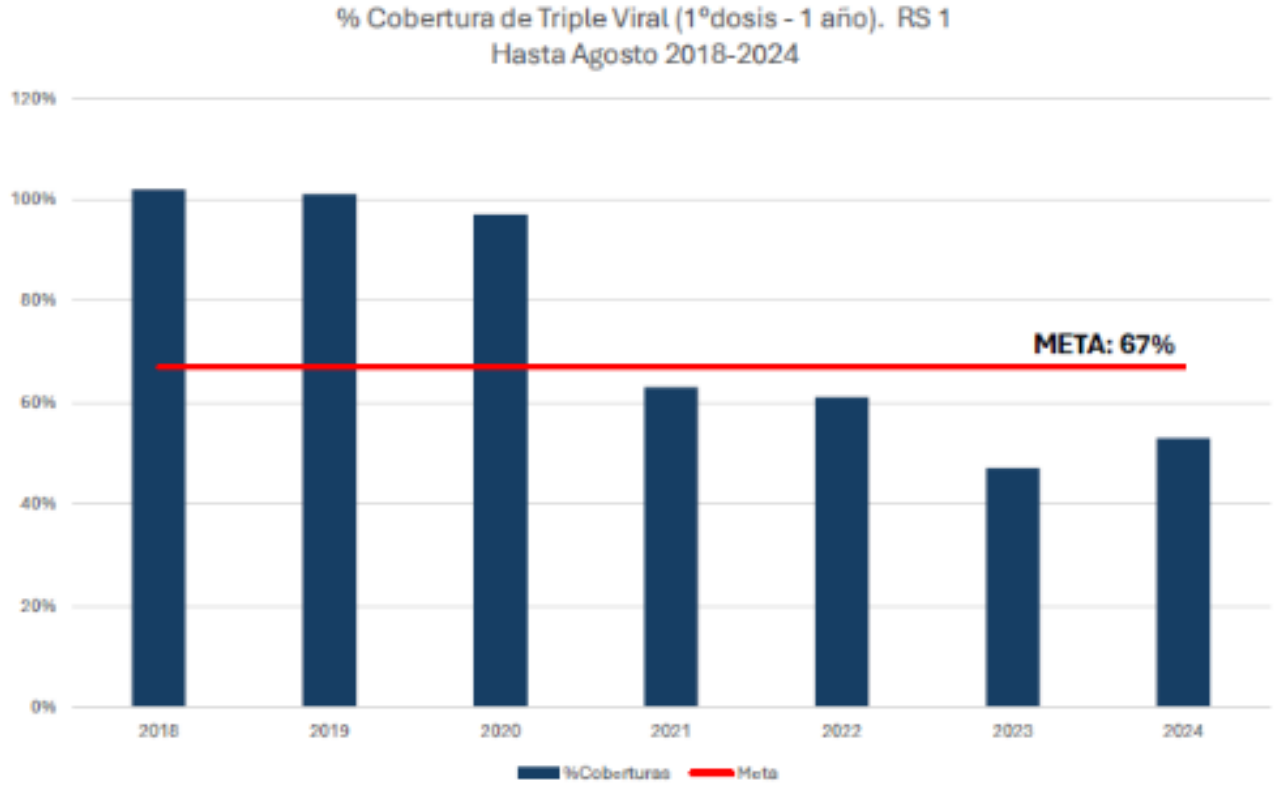
El panorama se repite con otras vacunas esenciales como la Meningocócica y la vacuna contra el Rotavirus, que en Bahía y en la región han mostrado caídas de hasta un 40 % entre 2020 y 2021. Aunque la disminución ha sido menos abrupta en años posteriores, el nivel de vacunación sigue siendo insuficiente.



En lo que respecta a la Hepatitis A, la cobertura pasó del 97 % en 2020 a un 60 % en 2021, para descender nuevamente a un 45 % en 2023 en toda la Región Sanitaria I. En nuestra ciudad, este año la cobertura ha sido del 41 %, muy por debajo de los niveles recomendados.

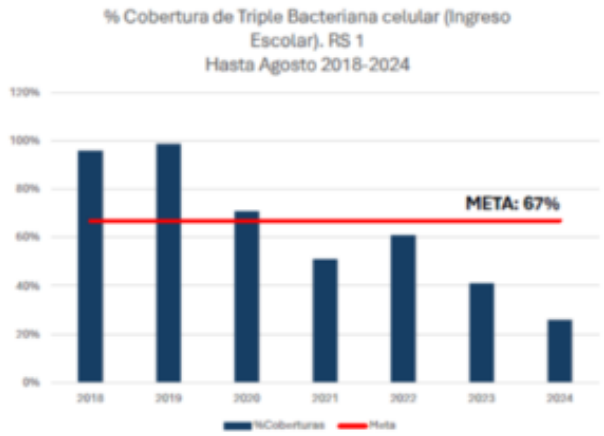
TRIPLE VIRAL

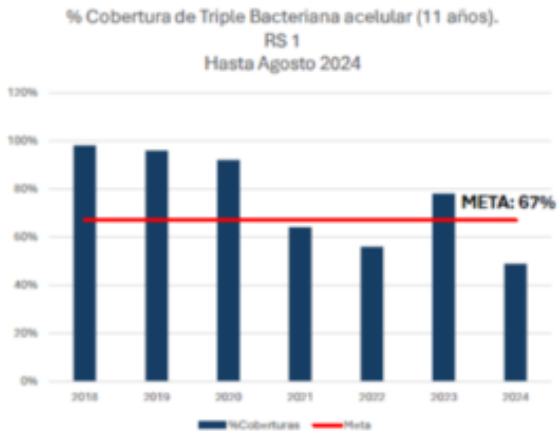
Por su parte, la Triple Viral, fundamental para prevenir sarampión, rubéola y paperas, también evidenció un declive: del 98 % en 2020 a un 61 % en 2021. Para 2024, Bahía registró un 50 % en la primera dosis y un 30 % en el refuerzo, cifras preocupantes que exponen a la población a posibles brotes de estas enfermedades.



TRIPLE BACTERIANA

La situación más grave se da con la Triple Bacteriana Acelular, esencial para el ingreso escolar. En Bahía, apenas se alcanzó un 20 % de cobertura en 2024, lo que deja a un número significativo de niños sin la protección necesaria contra enfermedades prevenibles. En el resto de la región, el escenario es similar, con coberturas que rondan el 25 %.





La vacuna contra la varicela también ha sufrido un marcado descenso: del 90 % en 2020, cayó al 60 % en 2021 y llegó al 50 % en 2023. Este año, nuestra ciudad registró cifras preocupantes con solo un 50 % de cobertura para los 15 meses y un 30 % para el ingreso escolar.

Finalmente, la vacuna contra el Virus del Papiloma Humano (HPV), clave en la prevención del cáncer de cuello uterino, presentó una caída constante, alcanzando un 48 % en Bahía Blanca en 2024, muy por debajo de lo esperado.

Un llamado urgente a la acción

El descenso en las tasas de vacunación no solo expone a la población, especialmente a los niños, a enfermedades prevenibles, sino que también pone en jaque la inmunidad colectiva, esencial para proteger a la comunidad en su conjunto.

"Lo que va a suceder es que enfermedades absolutamente controladas, pero no erradicadas, se van a descontrolar: tétanos, difteria, meningitis, sarampión. Algunas pueden ocasionar muerte y, otras, secuelas", sostuvo Scuffi.

Ante esta situación, es fundamental intensificar las campañas de concientización para combatir la desinformación y restablecer la confianza en la seguridad y eficacia de las vacunas.

De no tomarse medidas inmediatas, Bahía Blanca corre el riesgo de enfrentarse a un resurgimiento de enfermedades que se creían erradicadas.

Fuente: La Nueva. Disponible en https://acortar.link/QbYXLi

La vacuna argentina ARVAC contra el COVID recibió un premio por su calidad y seguridad

28 sep. El desarrollo científico obtuvo el Primer Premio de la Sociedad Argentina de Infectología. Infobae habló con las investigadoras Karina Pasquevich y Juliana Cassataro, dos de las mentes brillantes detrás de este hito de la medicina argentina.

Una prestigiosa distinción sumó la vacuna argentina ARVAC contra el coronavirus, que fue premiada por parte de la Sociedad Argentina de Infectología (SADI) esta tarde durante su congreso nacional que celebra en la ciudad de Neuquén.

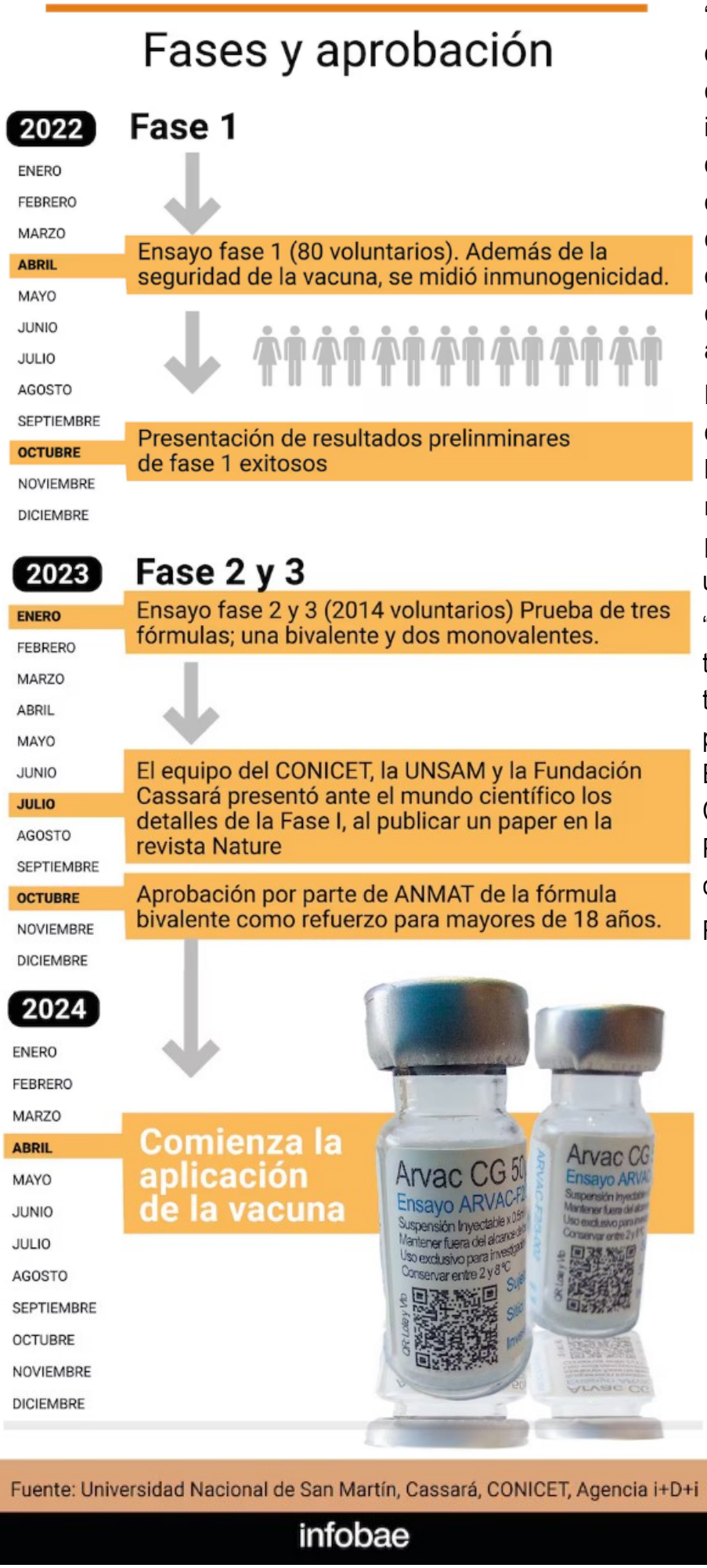
Con la presencia de cientos de infectólogos y expertos en la materia, los desarrolladores de la vacuna ARVAC recibieron la distinción después de que expertos internacionales evaluaran los resultados de los nuevos datos de inmunogenicidad del estudio de Fase III presentados ante la Administración Nacional de Medicamentos, Alimentos y Tecnología Médica (ANMAT) para obtener su aprobación.

"Es un reconocimiento muy lindo por parte de la SADI y de millones de personas que depositan su confianza en la vacuna argentina, que cumple con todos los estándares internacionales para hacerle frente al coronavirus y sus nuevas cepas", explicó a Infobae la investigadora Karina Pasquevich, bioquímica inmunóloga recibida en la Universidad Nacional de la Plata y con un doctorado en la Universidad de Buenos Aires.

Además, es reconfortante presentar los resultados antes los mejores expertos en distintos patógenos de todo el país e inclusive de países vecinos y España, ya que te permite recibir preguntas, responderlas e intercambiar nuevos conocimientos", agregó Pasquevich, que actualmente trabaja en la Universidad Nacional de San Martín con el grupo de Juliana Cassataro, otra de las investigadoras principales detrás del desarrollo científico argentino.

Cassataro que es directora del proyecto ARVAC e investigadora del CONICET y de la UNSAM también destacó ante Infobae la importancia del reconocimiento por parte de la SADI a esta vacuna tan importante contra el coronavirus.

"Es muy emocionante recibir el premio y también reconfortante después de tanto trabajo para obtener esta formulación que es muy efectiva y casi no tiene efectos adversos. Además, su costo es muy accesible en farmacias y vacunatorios privados, e incluso las obras sociales la cubren en un 40%", sostuvo Cassataro.



"Si bien es un reconocimiento importante, ya que el premio es entregado por pares en este congreso de infectología de la SADI, lo más importante es que la vacuna ya está disponible para que la gente se la aplique y esté protegida. Además, al estar desarrollada con tecnología de proteínas recombinantes, es segura y adaptable a nuevas cepas del coronavirus que se puedan desarrollar", agregó la experta.

El médico infectólogo Pablo Bonvehí también dialogó con Infobae desde Neuquén donde se hoy terminó el congreso médico que nucleó a más de 1600 especialistas y precisó que este premio entregado por la SADI en realidad es un reconocimiento internacional.

"Se trata de un premio que la SADI otorga todos los años en su congreso anual, pero los trabajos presentados primero son evaluados por un jurado internacional de la Sociedad Española de Infectología y Microbiología Clínica. Y ARVAC este año recibió el Primer Premio, por lo que es un orgullo para la ciencia argentina".

Respecto a esto, los jurados que evaluaron los datos de la vacuna observaron que el suero de los voluntarios del estudio realizado permite continuar evaluando la capacidad de la vacuna de neutralizar a las últimas variantes circulantes del virus.

Es que la vacuna argentina, basada en la tradicional tecnología de proteína recombinante, demostró una muy amplia protección frente a las distintas variantes del SARS-COV-2, induciendo anticuerpos neutralizantes contra la variante JN1 de mayor circulación actual en Argentina.

La investigación y el desarrollo de la vacuna ARVAC-Cecilia Grierson es producto del trabajo conjunto de científicos del CONICET, la Universidad Nacional de San Martín

(UNSAM) y el Laboratorio Cassará. El inmunizante integra las llamadas vacunas de segunda generación o dosis de refuerzo destinadas a personas ya inmunizadas porque aparece en una etapa en la que la mayoría de las personas han recibido una o dos dosis contra la COVID-19.

Se trata del fruto del trabajo articulado de 24 instituciones públicas y privadas, y de más de 10 sitios de investigación clínica. Más de 600 científicos y profesionales, y más de 2 mil voluntarios de todo el país, fueron parte de este desarrollo.

Según destacaron desde el congreso de infectología, lo más novedoso presentado en este aspecto, es el resultado de un nuevo estudio realizado en colaboración con el laboratorio italiano VisMederi de la red CEPI, que demuestra que ARVAC genera protección incluso contra el virus SARS-COV-1, auspiciando el potencial desarrollo de ARVAC como una Pan-Coronavirus Vaccine generando protección contra todos los virus de la familia Corona.

La amplia capacidad de protección de ARVAC se logra con la tecnología tradicional y segura de antígeno recombinante con hidróxido de aluminio como adyuvante, el mismo diseño de la vacuna contra Hepatitis B que el mismo laboratorio Cassará desarrollo hace 30 años y que desde entonces se utiliza en niños recién nacidos.

Respecto a la vacuna ARVAC, los resultados de seguridad del estudio de Fase III demuestran no solo la muy baja incidencia de eventos adversos sistémicos reportados, sino además que en la mayoría de casos la vacuna no se diferencia del placebo.

Los resultados de amplia protección y excelente seguridad de la vacuna fueron muy valorados por los especialistas en el contexto actual de circulación del virus y baja cobertura de vacunación.

Los estudios clínicos realizados sobre la vacuna argentina contra la COVID-19 demostraron que ARVAC genera seroconversión —desarrollo de anticuerpos específicos— en más del 90% de los vacunados. En el 92% de los adultos mayores de 60 años, esa seroconversión se produce con un nivel de títulos de anticuerpos neutralizantes que correlacionan con un 90% de protección contra la enfermedad sintomática, según datos de los investigadores.

Es por eso que en la reunión de la Comisión Nacional de Inmunización (CoNaIn) del 11 de abril de este año, se recomendó la incorporación de la vacuna contra COVID-19 al Calendario Nacional de Vacunación (CNV) y considerar el uso de ARVAC según análisis programático. También consideró conveniente unificar las indicaciones de la vacuna antigripal y la vacuna contra coronavirus.

“La vacuna ARVAC contra el coronavirus debería estar en el Calendario Nacional de Vacunación, ya que es una vacuna es muy buena, producida en nuestro país, con costos menores a las importadas y con resultados muy robustos, efectivos y seguros. Además, tiene una formulación muy conocida y puede ayudar a tener más confianza en las vacunas por parte de la sociedad”, precisó la investigadora Pasquevich.

“Confiamos en que la nueva gestión del Ministerio de Salud pueda decidir con mayor celeridad sobre esta recomendación de CONAIN, para que la vacuna pueda ser aprovechada por todos los argentinos, y no solo por aquellos que hoy pueden elegir pagando en vacunatorios y farmacias la vacuna COVID de tecnología tradicional y segura”, comentó Jorge Cassará director del Laboratorio que produce la vacuna ARVAC.

La presencia en farmacias de esta vacuna argentina se produce en un contexto en el que la Organización Mundial de la Salud (OMS) declara que a pesar del fin de la emergencia de salud pública por la COVID-19, esta patología sigue siendo una prioridad de salud pública global y recomienda una dosis de refuerzo

para grupos de riesgo (personas con múltiples comorbilidades, inmunosuprimidas y otros casos) y también para personas mayores de 50 años.

La vacuna argentina en el podio mundial

A comienzos de este mes, Juan Manuel Rodríguez, jefe del Área de I+D en Biofármacos del Laboratorio Pablo Cassará, recibió el Premio a la Investigación en Vacunas en la Conferencia sobre Salud Mundial del Américas 2024.

El evento, organizado por el Consorcio de Salud Mundial y el Departamento de Salud Global de la Facultad de Salud Pública y Trabajo Social Robert Stempel, de la Universidad Internacional de Florida (FUI, por sus siglas en inglés), busca premiar plataformas innovadoras y colaborativas para el intercambio de conocimientos y la creación de capacidades.

La Universidad Internacional de Florida (FIU) ha sido reconocida como la mejor universidad del estado de Florida, según el Washington Monthly. En su Guía y Clasificación Universitaria anual, la FIU se sitúa en el tercer lugar a nivel nacional entre las mejores universidades públicas de Estados Unidos.

Fuente: infobae. Disponible en https://acortar.link/rMOTDO

Malaysia to produce halal vaccines by 2027

Sep 30. Malaysia is set to produce its first two types of halal local vaccines by 2027, under an initiative and funding by the Science, Technology and Innovation Ministry (Mosti).

Utusan Malaysia reported the Secretary-General of Mosti, Datuk Dr Aminuddin Hassim, said the two vaccines will be able to prevent six types of diseases through the Hexavalent Vaccine Development project, which contains Novel Acellular Pertussis & Inactivated Polio Antigens.

Another vaccine will protect humans from 13 serotypes (types) of the Streptococcus pneumoniae bacteria, the main cause of pneumonia, through the Development and Technology Transfer for Malaysia's First Pneumococcal Conjugate Vaccine project.

"Both vaccines will be developed by local companies in collaboration with international strategic partners through technology transfer.

The vaccines can protect against six types of diseases including Diphtheria, Tetanus, Pertussis, Poliomyelitis, Haemophilus type b (Hib) and Hepatitis B.

"These two vaccines are listed in the National Immunization Plan (NIP)," he said as quoted by Utusan.

Aminuddin added that halal vaccine development research in Malaysia is still low and needs greater exposure.

Thus, to strengthen this effort, Mosti is enhancing initiatives by providing research and development grants and promoting strategic collaborations between universities and industries.

Fuente: The Malaysian Reserve. Disponible en https://acortar.link/OnEKSC

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Estrategia de búqueda: (Vaccine) AND DP:([23.09.2024 TO 30.09.2024]) *as the publication date 48 records.*

1.WO/2024/195963INFLUENZA VACCINE COMPOSITION FOR PULMONARY DELIVERY

WO - 26.09.2024

Clasificación Internacional A61K 39/145Nº de solicitud PCT/KR2023/019718Solicitante NA VACCINE INSTITUTEInventor/a KIM, Dong Ho

Provided is a vaccine composition for pulmonary delivery for preventing or treating influenza virus infection, comprising a nucleic acid adjuvant and an influenza virus antigen.

2.WO/2024/195868NOROVIRUS VACCINE COMPOSITION

WO - 26.09.2024

Clasificación Internacional A61K 39/125Nº de solicitud PCT/JP2024/011464Solicitante DENKA COMPANY LIMITEDInventor/a KANDA, Asumi

Provided is a norovirus vaccine composition having high thermal stability that uses VLP composed of norovirus VP1 protein as a vaccine antigen. The norovirus vaccine composition contains norovirus VP1 protein, histidine or a salt thereof, and one or more amino acids selected from lysine and glutamic acid or a salt thereof.

3.20240316180ATTENUATED MUMPS VACCINE AND USES THEREOF

US - 26.09.2024

Clasificación Internacional A61K 39/165Nº de solicitud 18516257Solicitante Korea National Institute of HealthInventor/a Tae-young LEE

The present invention relates to an attenuated mumps virus and a live vaccine comprising the same. The attenuated mumps virus vaccine of the present invention can be effectively used for additional vaccination to control the occurrence of breakthrough infection and the epidemic of mumps due to differences in genotypes of existing vaccine strains and epidemic strains and decreased immunity.

4.WO/2024/193380VACCINE AGAINST RESPIRATORY SYNCYTIAL VIRUS INFECTION

WO - 26.09.2024

Clasificación Internacional C12N 15/45Nº de solicitud PCT/CN2024/081009Solicitante WESTVAC BIOPHARMA CO., LTD.Inventor/a WEI, Xiawei

Provided is a vaccine against respiratory syncytial virus infection. In view of the lack of effective prevention and treatment drugs for respiratory syncytial virus infection for the elderly, infants, and people with low immunity, a vaccine against respiratory syncytial virus infection is provided. The vaccine is based on adenovirus as a vector, and the antigen gene expressed is optimized based on the sequence of respiratory syncytial virus F protein. The adenovirus vector vaccine can help a host resist respiratory syncytial virus infection and has a good preventive and therapeutic effect.

5.WO/2024/193513UNIVERSAL INFLUENZA MRNA VACCINE AND USE THEREOF

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2024/082249Solicitante SHANGHAI INSTITUTE OF BIOLOGICAL PRODUCTS CO., LTD.Inventor/a LUO, Jian

Provided is a universal influenza mRNA vaccine. The protein encoded by the universal influenza mRNA vaccine comprises a matrix protein 2 extracellular domain (M2e), a hemagglutinin (HA) stem LAH region and a nucleoprotein (NP) of an influenza A virus. In addition, further provided is the use of the universal influenza mRNA vaccine in a mouse animal model. The universal influenza mRNA vaccine can induce strong humoral immune and cellular immune responses, and can protect animal model mice against various influenza A viruses. The universal influenza mRNA vaccine is safe and effective, and has a rapid production platform.

6.4433079VERFAHREN ZUR HERSTELLUNG EINES IMPFSTOFFS GEGEN STREPTOCOCCUS SUIS UND BESAGTER IMPFSTOFF

EP - 25.09.2024

Clasificación Internacional A61K 39/09Nº de solicitud 22818340Solicitante INTERVET INT BVInventor/a JACOBS ANTONIUS ARNOLDUS CHRISTIAAN

The invention pertains to a method to produce a vaccine to protect a pig against a pathogenic infection with Streptococcus suis, the method comprising recombinantly expressing an IgM protease antigen in E. coli bacteria, subjecting the E. coli bacteria to a high pressure homogenisation operation at a pressure of at least 500 bar to induce lysis of the E. coli bacteria and release of the IgM protease antigen into the supernatant of the lysate, separating the supernatant from the pellet and mixing the supernatant comprising the IgM protease antigen with a pharmaceutically acceptable carrier to constitute the vaccine. The invention also pertains to a vaccine produced with this method.

7.20240316191HALOGENATED XANTHENES AS VACCINE ADJUVANTS

US - 26.09.2024

Clasificación Internacional A61K 39/39Nº de solicitud 18581095Solicitante Provectus Pharmatech, Inc.Inventor/a Aru Narendran

A method of inducing a Type I interferon response in a mammalian subject that presents with a microbial infection, cancerous tumor or hematological malignancy that comprises administering an amount of a halogenated xanthene as discussed above, effective to induce the Type I interferon response. A method of enhancing a mammalian immunogen-specific immune response that comprises contacting mammalian cells, in vivo or present in a mammalian cell growth supporting medium, with an adjuvant-effective amount of a halogenated xanthene, and an immunogen to which that response is to be enhanced. A mammalian HX compound-adjuvanted vaccine composition that contains an immunogen present in a vaccine-effective amount along with an adjuvant-effective amount of a halogenated xanthene (HX) compound and one or more excipients present at about 0.001% by weight to 10% by weight of the vaccine composition dissolved or dispersed in a pharmaceutically acceptable diluent.

8.20240316183SARS-COV-2 SUBUNIT VACCINE

US - 26.09.2024

Clasificación Internacional A61K 39/215Nº de solicitud 18558875Solicitante HIPRA SCIENTIFIC, S.L.U.Inventor/a Antonio BARREIRO VAZQUEZ

The present invention relates to a protein subunit vaccine comprising at least one antigen characterized in that it comprises at least one monomer from at least one variant of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), wherein the at least one monomer is selected from the group consisting of the S1 subunit of the Spike protein or the receptor-binding domain (RBD) of the Spike protein. In an aspect of the present invention, the protein subunit vaccine comprises at least one antigen characterized in that it comprises two monomers from at least one variant of SARS-CoV-2, wherein each of the monomers are selected from the group consisting of the S1 subunit or RBD protein, and wherein the monomers are chemically bound to each other, optionally through a linker, forming fusion dimers or non-fusion dimers. The protein subunit vaccine may further comprise at least an adjuvant and at least an immunostimulant.

9.20240317830MULTI-DOMAIN PROTEIN VACCINE

US - 26.09.2024

Clasificación Internacional C07K 14/47Nº de solicitud 17767791Solicitante Edward FritschInventor/a Edward Fritsch

Disclosed herein is a protein fusion technology that allows the combination of one or more cancer vaccine epitopes with scaffold domains. Also disclosed herein are polypeptide and polynucleic acid compositions encompassed by the protein fusion technology and the methods of using the same.

10.WO/2024/197167A COLD-ADAPTED, LIVE ATTENUATED SARS-COV-2 VACCINE

WO - 26.09.2024

Clasificación Internacional A61K 39/12Nº de solicitud PCT/US2024/020952Solicitante WISCONSIN ALUMNI RESEARCH FOUNDATIONInventor/a KAWAOKA, Yoshihiro

An isolated nucleic acid comprising a recombinant coronavirus genome having a genetic modification that provides cold-adapted growth relative to a parent virus that is not cold-adapted and a vaccine comprising the recombinant genome and methods of using the vaccine are provided.

11.WO/2024/193624CASTRATION TMV PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 7/23Nº de solicitud PCT/CN2024/082871Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

A castration TMV virus-like particle subunit vaccine and a preparation method therefor. A GnRH-I-TMV recombinant protein has high purity and good specificity. A vaccine antigen prepared from the GnRH-I-TMV recombinant protein has high purity, good safety and a good castration effect.

12.WO/2024/196177TUMOR ANTIGEN CANCER VACCINE PLATFORM AND USE THEREOF

WO - 26.09.2024

Clasificación Internacional C07K 14/005Nº de solicitud PCT/KR2024/003573Solicitante VIROCURE, INC.Inventor/a PARK, Dong Guk

The present invention relates to a reovirus-based tumor antigen cancer vaccine platform, and it has been confirmed that a recombinant reovirus comprising the Sigma 1 protein (δ1 protein) of a reovirus whose head part is substituted with a tumor antigen targets and infects cancer cells to induce the expression of the tumor antigen, and thus not only can lyse cancer cells, but can also induce an immune response through immune mechanism activation. Therefore, the reovirus-based vaccine platform of the present invention can be used to produce a cancer vaccine that carries various tumor antigens, through relatively simple genetic manipulation technology, and can be administered in various ways, including orally, and thus is expected to be effectively used in the field of cancer prevention and treatment.

13.20240316166VACCINE COMPOSITIONS AND METHODS OF USING THE SAME

US - 26.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud 18368505Solicitante The Board of Supervisors of Louisiana State University and Agricultural and Mechanical CollegeInventor/a Hong Xin

This invention is directed to vaccine compositions and methods of using the same to prevent infection.

14.WO/2024/193713BIVALENT IL-17 THERAPEUTIC VACCINE, PREPARATION METHOD THEREFOR, AND USE THEREOF

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2024/083559Solicitante SHANGHAI HUIMMUTECH BIOTECHNOLOGY CO., LTDInventor/a ZHANG, Wenyao

Provided are an IL-17 therapeutic vaccine, a preparation method therefor, and a use thereof. Specifically, provided is a bivalent IL-17 therapeutic vaccine targeting to IL-17A and IL-17F, comprising a vaccine antigen formed after IL-17A and IL-17F antigenically active fragments are separately expressed in fusion to or coupled to a carrier protein. The combined use of the IL-17 therapeutic vaccine and a liquid adjuvant can induce the generation of a high-titer IL-17A and IL-17F neutralizing antibody in a mouse body and a rhesus monkey body, to block an IL-17 signal pathway, thereby inhibiting autoimmune inflammations, and achieving the purpose of treating autoimmune diseases such as psoriasis, ankylosing spondylitis, and rheumatoid arthritis.

15.WO/2024/193294CASTRATED CMV VIRUS-LIKE PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 7/23Nº de solicitud PCT/CN2024/078385Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

A castrated CMV virus-like particle subunit vaccine and a preparation method therefor. Provided is GnRH-I-CMV recombinant protein, which has high purity and good specificity. The vaccine prepared from the GnRH-I-CMV recombinant protein has high antigen purity, good safety and a good castration effect.

16.WO/2024/193292CASTRATION FHV VIRUS-LIKE PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2024/078354Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTD.Inventor/a ZHA, Lisha

A castration FHV virus-like particle subunit vaccine and a preparation method therefor. Provided is a GnRH-I-FHV recombinant protein, having high purity and good specificity. A vaccine antigen prepared from the GnRH-I-FHV recombinant protein has high purity, good safety and good castration effect.

17.WO/2024/193291CASTRATION PAPMV VIRUS-LIKE PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2024/078337Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

The present invention relates to the technical field of biology, and in particular to a castration PapMV virus-like particle subunit vaccine and a preparation method therefor. Provided is a GnRH-I-PapMV recombinant protein which has high purity and good specificity. A vaccine prepared from the GnRH-I-PapMV recombinant protein has high antigen purity, good safety and a good castration effect.

18.WO/2024/193290CASTRATION CPMV VIRUS-LIKE PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2024/078314Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

The present invention relates to the field of biotechnology, and in particular to a castration CPMV virus-like particle subunit vaccine and a preparation method therefor. Provided is a GnRH-I-CPMV recombinant protein, which has high purity and good specificity. A vaccine antigen prepared from the GnRH-I-CPMV recombinant protein has high purity, good safety, and a good castration effect.

19.WO/2024/193620CASTRATION T4 VIRUS-LIKE PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2024/082855Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

The present invention relates to the field of biotechnology, and in particular to a castration T4 virus-like particle subunit vaccine and a preparation method therefor. The present invention provides GnRH-I-T4 virus-like particles, which have high purity and good specificity. A vaccine antigen prepared by using the GnRH-I-T4 virus-like particles has high purity, good safety, and a good castration effect.

20.WO/2024/196133H3 SUBTYPE INFLUENZA VIRUS WITH CROSS-IMMUNOGENICITY AND VACCINE COMPRISING SAME

WO - 26.09.2024

Clasificación Internacional C12N 15/86Nº de solicitud PCT/KR2024/003462Solicitante KOREA UNIVERSITY RESEARCH AND BUSINESS FOUNDATIONInventor/a PARK, Man-Seong

The present invention relates to an H3 subtype influenza virus with cross-immunogenicity and a vaccine comprising same. The recombinant influenza virus of the present invention glycosylates specific amino acid residues of hemagglutinin (HA) derived from the H3 subtype and thus can be advantageously used as a vaccine with cross-immunogenicity against various H3 subtype influenza viruses (H3N1, H3N2, H3N3, H3N4, H3N5, H3N6, H3N7, H3N8, and H3N9).

21.WO/2024/193293CASTRATED HBSAG VIRUS-LIKE PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 7/23Nº de solicitud PCT/CN2024/078375Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

The present invention relates to the technical field of biology, in particular to a castrated HBsAg virus-like particle subunit vaccine and a preparation method therefor. Provided is a GnRH-I-HBsAg recombinant protein, which has high purity and good specificity. The vaccine prepared from the GnRH-I-HBsAg recombinant protein has high antigen purity, good safety and a good castration effect.

22.20240316185CORONAVIRUS VACCINE COMPRISING A MOSAIC PROTEIN

US - 26.09.2024

Clasificación Internacional A61K 39/215Nº de solicitud 18733545Solicitante Vaxthera SASInventor/a Jorge E. OSORIO

Disclosed herein are mosaic coronavirus (MoCoV) spike(S) proteins or antigenic fragments thereof. Also disclosed herein are nucleic acid constructs comprising one or more nucleic acid sequences encoding a MoCoV S protein or antigenic fragment thereof. Also disclosed herein are coronavirus vaccine vectors comprising one or more polynucleotides encoding a MoCoV S protein or antigenic fragment thereof. Also disclosed herein are coronavirus vaccines comprising one or more MoCoV S proteins or antigenic fragments thereof and one or more carriers. Also disclosed herein are pharmaceutical compositions, host cells, and kits comprising one or more of the MoCoV S proteins or antigenic fragments thereof, nucleic acid constructs, coronavirus vaccine vectors, and/or coronavirus vaccines. Also disclosed herein are methods of eliciting an immune response in a subject against one or more coronavirus antigens and methods of preventing, reducing the incidence of, attenuating, or treating coronavirus infection in a subject in need thereof.

23.WO/2024/192914CASTRATION MS2 VIRUS-LIKE PARTICLE SUBUNIT VACCINE, AND PREPARATION METHOD THEREFOR

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/CN2023/103137Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

Disclosed are a GNRH-I-MS2 fusion protein, a castration MS2 virus-like particle subunit vaccine, and a preparation method therefor.

24.WO/2024/193295CASTRATING M1 VIRUS-LIKE-PARTICLE SUBUNIT VACCINE AND PREPARATION METHOD THEREOF

WO - 26.09.2024

Clasificación Internacional C07K 7/23Nº de solicitud PCT/CN2024/078397Solicitante SHENZHEN HERZ LIFE SCIENCE TECHNOLOGY CO., LTDInventor/a ZHA, Lisha

A GnRH-I-M1 recombinant protein. A vaccine antigen prepared using the GnRH-I-M1 recombinant protein is high purity, safe, and has a good castration effect.

25.WO/2024/194885VACCINE COMPOSITIONS AND METHODS FOR CONTROL OF FOOT AND MOUTH DISEASE

WO - 26.09.2024

Clasificación Internacional A61K 39/135Nº de solicitud PCT/IN2024/050264Solicitante INDIAN COUNCIL OF AGRICULTURAL RESEARCHInventor/a HOSAMANI, Madhusudan

This disclosure provides a method of preventing foot lesions caused by FMD virus infection in ruminants through the use of vaccine presented as emulsion containing one or several adjuvants and viral antigens.

26.20240316103COMPOSITIONS AND METHODS OF TREATING PLASMA CELL DISORDERS INCLUDING MULTIPLE MYELOMA WITH A VACCINE COMPOSITION AND MYELOMA-SPECIFIC CAR-T CELLS

US - 26.09.2024

Clasificación Internacional A61K 35/17Nº de solicitud 18574224Solicitante MERIDIAN THERAPEUTICS, INC.Inventor/a Ivan M. Borrello

A multiple myeloma-specific CAR+ T-cell composition and a vaccine composition composed of 3 cells lines, the U266, H929, and K562 are described. Methods are described for using the vaccine composition in conjunction with the MM-specific CAR+ T cell composition in methods of immunizing against plasma cell disorders, including multiple myeloma and related disorders.

27.WO/2024/196664DNA VACCINE TARGETING OVEREXPRESSED ANTIGENS IN COLORECTAL CANCER

WO - 26.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud PCT/US2024/019713Solicitante UNIVERSITY OF WASHINGTONInventor/a DISIS, Mary L.

A vaccine in the form of a five-antigen poly-epitope DNA plasmid and related molecules designed to optimize antigenicity, immunogenicity and physicochemical properties of the encoded fusion protein. All proteins in the construct were confirmed to be expressed and vaccination generated high magnitude IFN-γ in the majority of

animals evaluated. No toxicities attributable to vaccination were observed. Anti-tumor efficacy of vaccination is confirmed in treated mice. The epitopes include certain portions of CDC25B; COX2; HIF-1alpha; CDH3; and EGFR.

28.20240316181CONJUGATED PROTEIN MONOMER CARRYING PEPTIDE DERIVED FROM PATHOGENIC MICROORGANISM COMPATIBLE WITH MHC MOLECULE, AGGREGATE OF SAID MONOMERS, COMPONENT VACCINE CONTAINING SAID AGGREGATE AS ACTIVE INGREDIENT, AND METHOD FOR ACQUIRING INFORMATION ON SECRETION OF PHYSIOLOGICALLY ACTIVE SUBSTANCE AFTER IMMUNIZATION

US - 26.09.2024

Clasificación Internacional A61K 39/215Nº de solicitud 18271078Solicitante TOKYO INSTITUTE OF TECHNOLOGYInventor/a Takafumi UENO

An object of the present invention is to establish means for providing a component vaccine which can selectively or intensively induce cell-mediated immunity mainly attributable to MHC class I, and humoral immunity mainly attributable to MHC class II. The inventors have found that the object can be attained by providing a component vaccine containing, as an active ingredient, a trimer and/or a hexamer of a molecular needle carrying a peptide binding to MHC class I and/or a peptide binding to MHC class II. The inventors have also found an information acquisition method that can determine the MHC class or the like of a test peptide or a similar substance by detecting a change in secretion of a physiologically active substance such as a cytokine in a test animal which has been infected with a target microorganism.

29.20240316178RECOMBINANT PROTEIN VACCINES FORMULATED WITH ENANTIO-SPECIFIC CATIONIC LIPID R-DOTAP AND METHODS OF USE THEREOF

US - 26.09.2024

Clasificación Internacional A61K 39/145Nº de solicitud 18382979Solicitante PDS BIOTECHNOLOGY CORPORATIONInventor/a Frank Bedu-Addo

Provided herein are vaccine compositions including recombinant protein antigens derived from computationally optimized broadly reactive influenza antigen (COBRA) proteins and an immunomodulator, and methods of use thereof. The vaccine compositions include one or more COBRA proteins, and the immunomodulator is a cationic lipid. The cationic lipid includes R-DOTAP. The methods of use of the vaccine compositions includes methods of inducing a humoral immune response against influenza viruses, methods of inducing polyfunctional CD8+ and CD4+ effector T cells against influenza viruses, methods of inducing memory T cells against influenza viruses, methods of enhancing immunity against influenza viruses, and methods of inducing balanced Th1/Th2 immune response against influenza viruses in a subject.

30.WO/2024/197156BROADENING T CELL HELP BY ANTIGEN CROSS-LINKING ON A MULTIVALENT SCAFFOLD

WO - 26.09.2024

Clasificación Internacional C07K 14/005Nº de solicitud PCT/US2024/020935Solicitante THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITYInventor/a DAVIS, Mark M.

B cells expressing subtype-specific surface antibodies will only bind the cognate epitope in a vaccine formulation comprising a mixture of distinct antigenic polypeptides, and thus will only present

peptides to T cells that correspond to that cognate epitope. However, linking multiple antigenic polypeptides to a substrate allows B cells to internalize the entire complex, and in turn to recruit a much broader array of T cells. This broadens the T cell help in response to the vaccine to encompass multiple distinct antigenic polypeptides, and can result in a more-balanced antibody response to multiple antigens after vaccination.

31.20240317828T CELL ACTIVATING IMMUNOTHERAPEUTIC FOR TREATMENT OF MUCIN 1 PROTEIN EXPRESSING HUMAN CANCERS

US - 26.09.2024

Clasificación Internacional C07K 14/47Nº de solicitud 18381979Solicitante PDS BIOTECHNOLOGY CORPORATIONInventor/a Frank Bedu-Addo

Provided herein are multiepitope peptides including at least one mucin 1 (MUC1) peptide, the multiepitope peptides have MHC affinity for at least one of HLA serotype and are recognized by a CD4+ T cell receptor and/or by a CD8+ T cell receptor. Also provided herein are compositions comprising the multiepitope peptides and a cationic lipid, including vaccine compositions. In various aspects, the cationic lipid is R-DOTAP. The invention also provides methods of use of the multiepitope peptides and of the compositions and vaccine compositions. The methods of use include methods of treating cancer and method of inducing a MUC-specific polyfunctional cytolytic T cell response in a subject.

32.WO/2024/197134CORONAVIRUS SPIKE PROTEIN-BASED VACCINES

WO - 26.09.2024

Clasificación Internacional C07K 19/00Nº de solicitud PCT/US2024/020889Solicitante PRESIDENT AND FELLOWS OF HARVARD COLLEGEInventor/a PALANDJIAN, Charis

Described herein are polypeptides and nanoparticles that display polypeptide sequences, e.g., spike protein domains. In some embodiments, the polypeptides and/or nanoparticles can be used to raise or stimulate an immune response, e.g., as a vaccine.

33.20240316175METHOD OF CONFERRING A PROTECTIVE IMMUNE RESPONSE TO NOROVIRUS

US - 26.09.2024

Clasificación Internacional A61K 39/12Nº de solicitud 18490157Solicitante Takeda Vaccines, Inc.Inventor/a Charles RICHARDSON

The present invention relates to vaccine compositions comprising Norovirus antigens and adjuvants, in particular, mixtures of monovalent VLPs and mixtures of multivalent VLPs, and to methods of conferring protective immunity to Norovirus infections in a human subject.

34.WO/2024/196771LIPID GB3 AS ADJUVANT FOR VACCINATION

WO - 26.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud PCT/US2024/020170Solicitante THE CHILDREN'S MEDICAL CENTER CORPORATIONInventor/a WINAU, Florian

Provided herein are uses for an immunostimulatory compound for stimulating an immune response when administered either alone or as an adjuvant in a vaccine. Also provided herein are kits, compositions, and methods of administration for the compound described.

35.WO/2024/193905HBV ANTIGEN FORMULATION FOR TREATING HEPATITIS B

WO - 26.09.2024

Clasificación Internacional A61K 39/29Nº de solicitud PCT/EP2024/053631Solicitante HELMHOLTZ ZENTRUM MÜNCHEN - DEUTSCHES FORSCHUNGSZENTRUM FÜR GESUNDHEIT UND UMWELT (GMBH)Inventor/a PROTZER, Ulrike

The disclosure provides methods and compositions for treating HBV. Disclosed is an HBcAg particle, comprising HBV core proteins from at least two different HBV genotypes, and a vaccine vector comprising a nucleotide sequence having ≥90% sequence identity to SEQ ID NO: 5. Disclosed are respective pharmaceutical compositions and their uses in therapy, for medicament manufacture and a vaccination method. Said vaccination method comprises administering to a human (i) a first dose and (ii) a second dose of an HBcAg particle and of an HBsAg, and (iii) a dose of a vaccine vector that expresses a HBsAg from HBV genotype A, a HBcAg from HBV genotype D, a HBsAg having ≥90% sequence identity to SEQ ID NO: 7, a HBcAg having ≥90% sequence identity to SEQ ID NO: 8 or 17, and an RT domain having ≥90% sequence identity to SEQ ID NO: 9.

36.20240316167TREATMENT OF URTICARIA

US - 26.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud 18505699Solicitante EVAX AGInventor/a Antonia GABRIEL

The present invention relates to compositions, immunogenic or vaccine compositions and pharmaceutical compositions for the prevention or treatment of urticaria of equine mammals, preferably of horses. Furthermore, the invention provides methods for preventing or treating urticaria of equine mammals, preferably of horses.

37.20240317810PREFUSION-STABILIZED CHIMERIC HMPV-RSV F PROTEINS

US - 26.09.2024

Clasificación Internacional C07K 14/005Nº de solicitud 18578966Solicitante BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEMInventor/a Jason MCLELLAN

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

38.20240316169UTILIZATION OF ANTIBODIES TO SHAPE ANTIBODY RESPONSES TO AN ANTIGEN

US - 26.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud 18576623Solicitante Regeneron Pharmaceuticals, Inc.Inventor/a Andrew J. Murphy

Described herein are methods and compositions for directing an antibody response in a subject away from one or more first epitopes of an antigen (e.g., immunodominant epitopes of a vaccine antigen) and towards one or more second epitopes of the antigen by administering one or more antibodies targeting the one or more first epitopes of the antigen.

39.20240316176NOROVIRUS S PARTICLE BASED VACCINES AND METHODS OF MAKING AND USING SAME

US - 26.09.2024

Clasificación Internacional A61K 39/12Nº de solicitud 18490287Solicitante Children's Hospital Medical CenterInventor/a Ming Tan

Disclosed herein are vaccine compositions, in particular, polyvalent icosahedral compositions for antigen presentation. The disclosed compositions may contain an S particle made up of recombinant fusion proteins. The recombinant fusion proteins may include a norovirus (NoV) S domain protein, a linker protein domain operatively connected to the norovirus S domain protein, and an antigen protein domain operatively connected to said linker.

40.20240317846METHODS FOR TREATING CORONAVIRUS INFECTION AND RESULTING INFLAMMATION-INDUCED LUNG INJURY

US - 26.09.2024

Clasificación Internacional C07K 16/24Nº de solicitud 18280642Solicitante HUMANIGEN, INC.Inventor/a Cameron DURRANT

The present invention provides methods for treating a subject infected with 2019 coronavirus (SARS-CoV-2) comprising administering to the subject a therapeutically effective amount of a GM-CSF antagonist or a therapeutically effective amount of a GM-CSF antagonist and a second drug, including an anti-viral agent, an anti-SARS-CoV-2 vaccine, and serum containing human polyclonal antibodies to SARS-CoV-2.

41.4433081LENTIVIRALE VEKTOREN ZUR EXPRESSION VON ANTIGENEN DES HUMANEN PAPILLOMAVIRUS (HPV) UND DEREN IMPLEMENTIERUNG BEI DER BEHANDLUNG VON HPV-INDUZIERTEN KREBSARTEN

EP - 25.09.2024

Clasificación Internacional A61K 39/12Nº de solicitud 22823328Solicitante THERAVECTYSInventor/a CHARNEAU PIERRE

The present invention relates to a lentiviral vector, in particular a non-integrative lentiviral vector, comprising at least four distinct nucleic acid sequences encoding HPV antigens, to a lentiviral vector particle comprising said vector, to an isolated cell comprising the same, and to a vaccine composition comprising the said lentiviral vector, lentiviral vector particle or cell. The present invention further relates to their implementation in the treatment or prevention of an HPV induced cancer.

42.4433016AMPULLE ZUR ORALEN IMPFSTOFFVERABREICHUNG UND VERFAHREN ZUR VERWENDUNG

EP - 25.09.2024

Clasificación Internacional A61J 1/06Nº de solicitud 22896350Solicitante MERCK SHARP & DOHME LLCInventor/a HALTHORE RAMPRASAD

An ampoule includes a body having a cavity for storing a medicament, a neck coupled to the body and defining a nozzle in communication with the cavity of the body, a removable cap coupled to the nozzle, and an anti-choking miter coupled to the removable cap, the anti-chocking miter being wider than the removable cap.

43.3732293OPTIMERET VÆRT/VEKTOR-SYSTEM TIL FREMSTILLING AF BESKYTTENDE MONO- OG MULTIVALENTE SUBUNIT-VACCINER BASERET PÅ GÆREN KLUYVEROMYCES LACTIS

DK - 23.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud 18857443Solicitante VEROVACCiNES GmbHInventor/a HÜHRLIMANN, Hans Caspar

Die Erfindung betrifft rekombinante *Kluyveromyces lactis (K. lactis)* Hefen, die zur hocheffizienten Expression eines oder mehrerer Fremdproteine befähigt sind und zur Verwendung als Vakzin für die Erzeugung einer protektiven Immunantwort gegen Pathogene geeignet sind. Die Erfindung stellt insbesondere K. *lactis* Stämme zur gezielten Klonierung Fremdantigen-codierender Nukleinsäuren in das Hefegenom des *K. lactis* Stammes bereit, die dadurch gekennzeichnet ist, dass der K. *lactis* Stamm alternativ oder zusätzlich zum *KILAC4*-Locus am *KIURA3-20*-Locus (*KLLA0E22771g*) und/oder am *KIMET5-1*-Locus (*KLLA0B03938g*) integrierte Expressionskassetten für Fremdantigene aufweist. Die Erfindung betrifft weiterhin integrative Expressionsvektoren und Verfahren zur Erzeugung der *K. lactis* Stämme der Erfindung sowie deren Verwendung als Vakzine.

44.20240316182EXOSOMES COMPRISING CORONAVIRUS-DERIVED ANTIGEN PROTEIN OR GENE ENCODING SAME PROTEIN, AND USE OF SAME

US - 26.09.2024

Clasificación Internacional A61K 39/215Nº de solicitud 18351512Solicitante EXOLLENCE CO., LTD.Inventor/a Ki Hwan Kwon

The present invention relates to an extracellular vesicle including a coronavirus-derived antigen protein or a gene encoding the protein, and a use of the extracellular vesicle. According to the present invention, when mice are immunized by administering an activated immune cell-derived extracellular vesicle loaded with an antigen protein or mRNA, excellent antigen-specific neutralizing antibody production and T cell response induction effects are confirmed. When the extracellular vesicle is stored under room-temperature and refrigerated conditions after freeze-drying, high stability and an excellent antibody production effect are experimentally confirmed. From these results, the extracellular vesicle according to the present invention or a vaccine composition including the same may serve as a platform applicable to various diseases with an excellent antigen-specific immune response induction effect and excellent stability, and thus is expected to be effectively used for the development of vaccines for preventing or treating various diseases including infectious diseases, particularly coronavirus infections.

45.WO/2024/194498CROSS REACTIVE MICROBIAL PEPTIDE CANCER VACCINE AND T CELL RECEPTORS REACTIVE THERETO

WO - 26.09.2024

Clasificación Internacional A61K 39/00Nº de solicitud PCT/EP2024/057967Solicitante UNIVERSITÄT ZÜRICHInventor/a MARTIN, Roland

The invention relates to immunopeptidome-derived bacterial peptides (IPdBPs), microbe-derived peptides capable of stimulating tumour-associated lymphocytes and eliciting an anti-tumour immune response. The

invention further discloses T cell receptors capable of recognizing such peptides in the context of patient HLA. The invention further relates to the use of the peptides and TCRs in treatment of tumour patients.

46.4433579GEGEN IMPFSTOFFINDUZIERTE NEUTRALISIERUNG RESISTENTE, RETARGETIERTE RETROVIRALE VEKTOREN SOWIE ZUSAMMENSETZUNGEN ODER VERFAHREN ZUR VERWENDUNG DAVON

EP - 25.09.2024

Clasificación Internacional C12N 7/04Nº de solicitud 22896772Solicitante BROAD INST INCInventor/a MEARS KEPLER

In vivo approaches for altering cells would benefit from effective methods for retargeting vectors to be specific for particular cell types in a subject. However, such methods remain inefficient and/or poorly developed. Thus, there is a need for improved methods for in vivo delivery of vectors to a target cell. The invention features pseudotyped viral particles (e.g., lentiviral or gammaretroviral particles) and compositions and methods of use thereof, where the viral particles comprise a VHH domain.

47.20240317833NON-HLA RESTRICTED T CELL VACCINE FOR TCR GAMMA ALTERNATE READING FRAME PROTEIN (TARP) PROTEIN EXPRESSING CANCERS

US - 26.09.2024

Clasificación Internacional C07K 14/725Nº de solicitud 18381081Solicitante PDS BIOTECHNOLOGY CORPORATIONInventor/a Frank Bedu-Addo

Novel compositions of TCR Gamma Alternate Reading Frame Protein (TARP) peptides combined with cationic lipids such as the DOTAP and specifically R-DOTAP, induce high levels of TARP-specific polyfunctional cytolytic T-cells. Compositions and methods of use are provided. The compositions comprise N-terminal and C-terminal overlapping peptide sequence pairs duplicating the critical central antigenic region of TARP and encompassing the entire protein selected and designed to be effectively processed by antigen-presenting cells to prime cytotoxic T cells specific for TARP-derived T cell peptide antigens when delivered in combination with immunostimulatory nanoparticles composed of R-DOTAP cationic lipids.

48.WO/2024/196683VSV-BASED SARS-COV-2 VACCINE CANDIDATES AND IGY ANTIBODIES AS PROPHYLACTIC AND THERAPEUTIC AGENTS AGAINST SARS-COV-2 AND VARIANTS OF CONCERN

WO - 26.09.2024

Clasificación Internacional A61K 39/215Nº de solicitud PCT/US2024/019853Solicitante RESEARCH INSTITUTE AT NATIONWIDE CHILDREN'S HOSPITALInventor/a PEEPLES, Mark

Provided here a recombinant vesicular stomatitis virus (rVSV) vectors that comprise a coronavirus prefusion spike (preS) protein, where the preS protein is from a SARS-CoV-1, SARS-CoV-2, or Middle East Respiratory Syndrome (MERS-CoV). The prefusion spike proteins are mutated to express 6 prolines in place of their native S sequences to prevent cleavage and to make the preS protein more immunogenic than an S protein lacking those mutations. Compositions comprising the rVSV encoding preS proteins and methods of their use are provided. Also provided are methods and compositions for producing isolated IgY antibodies against the 6-proline preS proteins and methods of using the isolated IgY antibodies for treatment and prophylaxis to a coronavirus exposure or infection.

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