VacCiencia

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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.

- Resumen de la información publicada por la OMS sobre los candidatos vacunales en desarrollo contra la COVID-19 a nivel mundial.
- Noticias más recientes en la Web sobre vacunas.
- Artículos científicos más recientes de Medline sobre vacunas.
- Patentes más recientes en Patentscope sobre vacunas.
- Patentes más recientes en USPTO sobre vacunas.

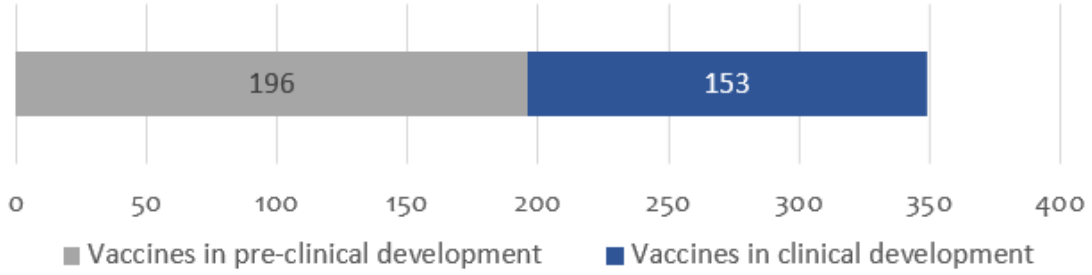
IFV INSTITUTO FINLAY DE VACUNAS SiViFinlay VaCyT

Resumen de la información publicada por la OMS sobre los candidatos vacunales contra la COVID-19 en desarrollo a nivel mundial

Última actualización por la OMS: 29 de marzo de 2022.

Fuente de información utilizada: World Health Organization | R&DBlueprint Powering research to prevent epidemics

153 candidatos vacunales en evaluación clínica y 196 en evaluación preclínica



Candidatos vacunales en evaluación clínica por plataforma

Platform		Candidate vaccines (no. and %)	
PS	Protein subunit	51	34%
VVnr	Viral Vector (non-replicating)	21	14%
DNA	DNA	16	11%
IV	Inactivated Virus	21	14%
RNA	RNA	28	18%
VVr	Viral Vector (replicating)	4	3%
VLP	Virus Like Particle	6	4%
VVr + APC	VVr + Antigen Presenting Cell	2	1%
LAV	Live Attenuated Virus	2	1%
VVnr + APC	VVnr + Antigen Presenting Cell	1	1%
BacAg-SpV	Bacterial antigen-spore expression vector	1	1%
		153	

Candidatos vacunales mucosales en evaluación clínica

Desarrollador de la vacuna/fabricante/país	Plataforma de la vacuna	Vía de administración	Fase
University of Oxford/Reino Unido	Vector viral no replicativo	Intranasal	1
CanSino Biological Inc./Beijing Institute of Biotechnology/China	Vector viral no replicativo	Inhalación	3
Vaxart/Estados Unidos	Vector viral no replicativo	Oral	2
Univ. Hong Kong, Xiamen Univ./Beiging Wantai Biol. Pharm./China	Vector viral replicativo	Intranasal	3
Symvivo/Canadá	ADN	Oral	1
ImmunityBio, Inc./Estados Unidos	Vector viral no replicativo	Oral o SL	1/2
Codagenix/Serum Institute of India	Virus vivo atenuado	Intranasal	3
Center for Genetic Engineering and Biotechnology (CIGB)/Cuba	Subunidad proteica	Intranasal	1/2
Razi Vaccine and Serum Research Institute/India	Subunidad proteica	IM e IN	3
Bharat Biotech International Limited/India	Vector viral no replicativo	Intranasal	3
Meissa Vaccines, Inc./Estados Unidos	Virus vivo atenuado	Intranasal	1
Laboratorio Avi-Mex/México	Virus inactivado	IM o IN	2/3
USSF + VaxForm/Estados Unidos	Subunidad proteica	Oral	1
CyanVac LLC/Estados Unidos	Vector viral no replicativo	Intranasal	1
DreamTec Research Limited/Hong Kong	BacAg-SpV	Oral	NA
Sean Liu, Icahn School of Medicine at Mount Sinai	Vector viral replicativo	IN/IM	1
Hannover Medical School/Alemania	Vector viral no replicativo	Inhalación	1

CUBA

Candidatos vacunales más avanzados a nivel global

Desarrollador de la vacuna/fabricante/país	Plataforma de la vacuna	Fase
Sinovac/China	Virus Inactivado	4
Sinopharm/Wuhan Institute of Biological Products/China	Virus Inactivado	4
Sinopharm/Beijing Institute of Biological Products/China	Virus Inactivado	4
University of Oxford/AstraZeneca/Reino Unido	Vector viral no replicativo	4
CanSino Biological Inc./Beijing Institute Biotechnology/China	Vector viral no replicativo	4
CanSino Biological Inc./Beijing Institute Biotechnology/China	Vector viral no replicativo (IH)	3
Gamaleya Research Institute/Rusia	Vector viral no replicativo	3
Janssen Pharmaceutical Companies/Estados Unidos	Vector viral no replicativo	4
Novavax/Estados Unidos	Subunidad proteica	3
Moderna/NIAID/Estados Unidos	ARN	4
Pfizer/BioNTech Fosun Pharma/Estados Unidos	ARN	4
Anhui Zhifei Longcom Biopharmac./Inst. Microbiol, Chin Acad Sci/China	Subunidad proteica	3
CureVac AG/Alemania	ARN	3
Institute of Medical Biology/Chinese Academy of Medical Sciences	Virus inactivado	3
Research Institute for Biological Safety Problems, Kazakhstan	Virus inactivado	3
Inovio Pharmac. + Intern. Vacc Inst. + Advaccine Biopharm Co., Ltd	ADN	3
Zydus Cadila Healthcare Ltd./India	ADN	3
Bharat Biotech International Limited/India	Virus Inactivado	3
Sanofi Pasteur + GSK/Francia/Gran Bretaña	Subunidad proteica	3
Shenzhen Kangtai Biological Products Co., Ltd./China	Virus Inactivado	3
Clover Biopharmaceuticals Inc./GSK/Dynavax/China/Reino Unido/EE.UU	Subunidad proteica	3
Vaxine Pty Ltd. + CinnaGen Co./Australia, Irán	Subunidad proteica	3
Medigen Vaccine Biol./Dynavax/NIAID/Taiwán/EE.UU	Subunidad proteica	4
Instituto Finlay de Vacunas/Cuba	Subunidad proteica	3
Federal Budget Res Inst State Res Cent Virol Biotechnol "Vector"/Rusia	Subunidad proteica	3
West China Hospital + Sichuan University/China	Subunidad proteica	3
Univ. Hong Kong, Xiamen Univ. & Beijing Wantai Biological Pharm./China	Vector viral replicativo	3
Acad Milit Sci (AMS) Walvax Biotechnol, Suzhou Abogen Biosci/China	ARN	3
Medicago Inc./Canadá	Partícula similar a virus	3
Codagenix/Serum Institute of India	Virus vivo atenuado	3
Center for Genetic Engineering and Biotechnology (CIGB)/Cuba	Subunidad proteica	3
Valneva, National Institute for Health Research, Reino Unido	Virus inactivado	3
Biological E. Limited/India	Subunidad proteica	3
Nanogen Pharmaceutical Biotechnology/Vietnam	Subunidad proteica	3
Shionogi/Japón	Subunidad proteica	3
Erciyes University/Turquía	Virus inactivado	3
SK Bioscience Co., Ltd./CEPI/Corea del Sur/Noruega	Subunidad proteica	3
Razi Vaccine and Serum Research Institute/Irán, India	Subunidad proteica	3
Bharat Biotech International Limited/India	Vector viral no replicativo (IN)	3
Arcturus Therapeutics, Inc./Estados Unidos	ARN	3
Livzon Pharmaceutical/China	Subunidad proteica	3
Bagheiat-allah University of Medical Sciences/AmitisGen/Irán	Subunidad proteica	3
Laboratorios Hipra, S.A.	Subunidad proteica	3

Noticias en la Web

Inglaterra inicia campaña de vacunación de refuerzo contra la COVID-19 para los más vulnerables

21 mar. Las autoridades sanitarias de Inglaterra habilitaron a partir del lunes 21 de marzo la plataforma para agendar vacunas de refuerzo contra el coronavirus (COVID-19) para las personas de 75 años o más, los residentes de hogares de ancianos y las personas en grupos de riesgo.

En el marco del programa de vacunación, denominado "refuerzo de primavera", se enviará la invitación a unas 600.000 personas en la primera semana para recibir las vacunas de refuerzo como medida preventiva.

"Los refuerzos de primavera ayudarán a reforzar la inmunidad de los ancianos y los más vulnerables para garantizar que estén protegidos y nos ayudarán a seguir combatiendo este virus", señaló el secretario de Salud, Sajid Javid.

En declaraciones para el medio británico BBC, Javid señaló que el nivel de preocupación del Gobierno no es mayor a pesar del aumento de casos del virus.

El funcionario agregó que las autoridades de salud están analizando la posibilidad de aumentar la inmunidad pública con una dosis adicional en otoño.

Más de 500.000 personas dieron positivo en la última semana a exámenes de coronavirus en el país, según datos oficiales.

El Reino Unido tiene el número de muertes más alto de Europa por el virus, con más de 164.000 muertes por coronavirus hasta la fecha.

Se han eliminado todas las restricciones de COVID-19 en el país y las personas que dan positivo ya no están obligadas a autoaislarse en todo el Reino Unido. Todas las restricciones de viaje también se eliminaron la semana pasada.

Más de 49 millones de personas han recibido la vacunación completa, mientras que 38,5 millones han recibido una vacuna de refuerzo en el Reino Unido.

Fuente: Agencia Anadolu AA. Disponible en https://bit.ly/3iSabFT

México aplica 90,722 nuevas dosis de vacunas COVID; van 188.8 millones

21 mar. La Secretaría de Salud reportó que este lunes 21 de marzo se aplicaron 90 mil 722 nuevas vacunas, dejando el total de dosis aplicadas en 188 millones 854 mil 049 hasta el momento, mientras que se estima que el 87 por ciento de la población en el país cuenta con al menos una dosis.

Son 85 millones 531 mil 580 mexicanos vacunados hasta el momento, de los cuales se estima que 79 millones 546 mil 420 cuentan con el esquema completo de vacunación, siendo el equivalente al 93 por ciento de las personas vacunadas.

Por otro parte, 5 millones 985 mil 160 son las personas vacunadas en un nuevo esquema, lo que representa a un 7 por ciento de la población.

Se estima que el total de personas mayores de edad en nuestro país son 89 millones 484 mil 507 de los cuales 80 millones 731 mil 120 cuentan con al menos una dosis, lo que representa al 90 por ciento de los mexicanos en este grupo de edad.

Mientras que el grupo de edad de 14 a 17 años son 8 millones 894 mil 016 personas; sin embargo, tan solo 4 millones 800 mil 460 cuentan con al menos una vacuna, lo que representa al 53 por ciento de los mexicanos menores de edad vacunados.

El estado con la mayoría de su población mayor de 18 años vacunada con al menos una dosis es la CDMX con el 100 por ciento, mientras que el estado de Chiapas es el que cuenta con la menor población vacunada hasta el momento con un 71 por ciento. El estado de Quintana Roo es el segundo con más dosis aplicadas con un 100 por ciento.

Son 224 millones 349 mil 035 total de dosis recibidas desde el 23 de diciembre de 2020.

Hoy se dieron por perdidas un total de 116 mil 601 dosis, por no ser aplicadas.

De los 5 millones 913 mil 103 casos de COVID que ha tenido México, 4 millones 931 mil 741 personas se han recuperado mientras que 322 mil 107 han muertos.

Fuente: El Financiero. Disponible en https://bit.ly/3Lwo8pd

Sinovac busca en Quito y Guayaquil espacios para su fábrica de vacunas

22 mar. Su más reciente vacuna fue la de COVID-19 pero desde el 2001, la farmacéutica china Sinovac ha desarrollado biológicos contra la hepatitis A y B, influenza estacional, gripe porcina y gripe aviar.

En el 2009, la compañía con base en Pekín, fue la primera en el mundo en recibir aprobación para una vacuna contra la gripe porcina y es la única proveedora de una inmunización contra la gripe aviar, publica la BBC.

Desde finales de enero de este 2022, una delegación de la empresa china llegó a Ecuador con el objetivo de armar un plan para construir una planta de fabricación de vacunas en el país.

Este se concretó en febrero con la firma del compromiso de cooperación entre Ecuador y China para la producción de vacunas contra la COVID-19 y otras del cuadro regular de inmunización.

Con la suscripción de este acuerdo de cooperación, los dos países trabajarán conjuntamente en tres ejes de acción: el primero es la realización de ensayos clínicos, el segundo es el fortalecimiento y transferencia técnica, científica y tecnológica, y, finalmente, la capacitación y transmisión de conocimientos.

En el marco de ese acuerdo, el 21 de marzo de 2022, representantes del laboratorio Sinovac y autoridades del Ministerio de Salud Pública (MSP) recorrieron un terreno ubicado en Pifo, en el nororiente de Quito, que fue considerado para la construcción de este proyecto.

Inspecciones a lugares para la fábrica

En los próximos días está prevista la visita a otros terrenos. Dos son propiedad del Instituto Nacional de Investigación en Salud Pública (Inspi), ubicados en Guayaquil. Otros, del Municipio de Quito, se encuentran en la zona franca del aeropuerto Mariscal Sucre, dijo Miguel Moreira, viceministro de Atención Integral en Salud.

El tiempo que tome la construcción y su inversión todavía se desconoce. “Esperamos que esto no lleve mucho tiempo, que podamos ver los resultados lo más pronto posible”, señaló Moreira. El funcionario agregó que cuando se tengan los estudios y el sitio en donde arrancará el proyecto, se sabrá con precisión.

El Viceministro recalcó, además, que la empresa Sinovac es la encargada del diseño, construcción, inversión e implementación de la fábrica.

Las vacunas que podría producir Sinovac en el país

Según Moreira, la planta de vacunas pondrá al Ecuador en el primer mundo de la industria farmacéutica ya que posteriormente también se podrían fabricar medicamentos para enfermedades catastróficas, para el cáncer o enfermedades raras.

El plan inicial, aseguró la ministra Ximena Garzón en declaraciones pasadas, es que se hagan dosis contra el covid-19, pero también la pentavalente, fórmulas contra varicela, polio.

La meta de arranque es cubrir el mercado local con dosis del cuadro regular de vacunación y, a largo plazo, exportar los biológicos.

Washington Cárdenas, jefe del laboratorio de la Escuela Superior Politécnica del Litoral (Espol), que desarrolla un prototipo de vacuna contra el covid-19, considera que la instalación de una fábrica de vacunas es positiva, siempre y cuando se apoye el desarrollo de científicos locales y se dé entrada a iniciativas como las de la institución.

De lo contrario, dice, el país seguirá dependiendo de tecnología extranjera. “Esperemos que haya cabida para que trabajen con universidades en todo el país y puedan ayudar a desarrollar sus propios productos”.

Con el desarrollo del prototipo de vacuna Cárdenas resalta que Ecuador sí tiene potencial. “Podemos diseñar algo que funciona, el resto es apoyo. Siempre se requiere financiamiento”, sostiene.

El especialista menciona que para el trabajo que realizan durante dos años han recibido el apoyo de la Corporación Ecuatoriana para el Desarrollo de la Investigación y la Academia (Cedia) y de universidades como la Espe.

Fuente: El Comercio. Disponible en https://bit.ly/3J56Q0w

Moderna dice que su vacuna contra la COVID-19 funciona tan bien en niños como en adultos

23 Mar. Moderna anunció este miércoles los resultados provisionales de su vacuna contra la COVID-19 para niños menores de 6 años.

La compañía dijo que dos dosis de 25 µg de su vacuna para niños de entre 6 meses a 5 años proporcionaron una respuesta inmune similar a dos dosis de 100 microgramos para adultos de los 18 a los 25 años. Lo que indica que el beneficio de la vacuna en los adultos jóvenes también se refleja a los niños pequeños.

Las dos dosis de la vacuna se administran a los niños con 28 días de diferencia.

Los datos mostraron "una sólida respuesta de anticuerpos neutralizantes" y "un perfil de seguridad favorable", según un comunicado de prensa que la compañía emitió este miércoles.

Con base en los datos, Moderna dijo que solicitará a la Administración de Alimentos y Medicamentos de Estados Unidos (FDA, por sus siglas en inglés) que autorice el uso de la vacuna en este grupo de edad más joven en las próximas semanas.

"Debido la necesidad de una vacuna contra la COVID-19 en bebés y niños pequeños, estamos trabajando con la FDA de EE.UU. y los reguladores a nivel mundial para enviar estos datos lo antes posible", dijo el CEO de Moderna, Stéphane Bancel. "Creemos que estos últimos resultados... son buenas noticias para los padres de niños menores de 6 años".

La vacuna no fue igual de efectiva para prevenir las infecciones de covid-19 que causa la variante ómicron, la cual predominó en EE.UU. durante el estudio. Para niños de 6 meses a 1 año de edad, la eficacia fue del 43,7 %. Mientras que para niños de 2 a 5 años, la eficacia fue del 37,5 %. En ese sentido, Moderna dijo que la menor eficacia seguía siendo estadísticamente significativa y consistente con el desempeño de los adultos vacunados con la variante Ómicron.

La compañía también dijo que se prepara para evaluar el potencial de una vacuna de refuerzo en todos los niños de 6 meses en adelante, que apuntaría contra la cepa original del virus y contra la variante Ómicron.

Los datos se basan en un grupo de 6.900 niños de 6 meses a 5 años de edad. La mayoría de las reacciones adversas fueron leves o moderadas. También, fueron más frecuentes después de la segunda dosis. Moderna dijo que no se reportaron muertes ni casos de miocarditis o pericarditis. La miocarditis es la inflamación del músculo cardíaco y la pericarditis es la inflamación del revestimiento del corazón.

Moderna también anunció que comenzó el proceso para solicitar a la FDA la autorización de uso de emergencia de su vacuna contra la COVID-19 para niños de 6 a 11 años. Los menores en ese grupo de edad recibirían dos dosis en una mayor cantidad de 50 microgramos de la vacuna. Moderna también dijo que proporcionó a la FDA datos de seguimiento adicionales sobre su vacuna para niños de 12 a 17 años. Las dosis para los adolescentes de esa edad serían de 100 microgramos de la vacuna.

El mes pasado, la FDA aplazó una reunión de sus asesores de vacunas para considerar la vacuna contra la COVID-19 de Pfizer/BioNTech para niños menores de 5 años y solicitó datos adicionales sobre terceras dosis. Las empresas han dicho que esperan que la información esté lista a principios de abril.

Fuente: CNN. Disponible en https://cnn.it/3qVx3IH

What to know about the Moderna vaccine for young children

Mar 23. Drugmaker Moderna announced Wednesday it would soon seek authorization for its coronavirus vaccine for young children, toddlers and babies after a clinical trial showed the vaccine was safe and triggered an immune response against the virus.

Some families of young children have eagerly anticipated coronoavirus vaccines. (Matt Roth for The Washington Post)

But the results, presented in a news release, were more complicated to interpret than previous trials — a reflection of how the emergence of variants has complicated the pandemic.

Coronavirus vaccines performed spectacularly well against the original version of the virus circulating in 2020, preventing most illness and infections in adults. But the virus has evolved, and those same shots provide far less protection against omicron infections in adults. The same was true for the children in Moderna's trial, who were between 6 months and 5 years old.

Regulators will spend the coming weeks scrutinizing data and details, and will make the call on whether the vaccine is safe and effective in children. Here's what we know about the vaccine so far and the next steps.

What did the trial say about safety of the vaccine for children 6 months to 5 years old?

The trial showed the vaccine is safe and tolerable, according to Moderna. Most adverse events occurred after the second dose and were mild or moderate. More details will be available after regulators review the data and post their findings, but here is what the company presented:

Fevers were relatively common. About 1 in 6 children under 2 years old experienced fevers greater than 100.4 degrees. The fever rate was slightly lower (1 in 7 children) among 2-to-5-year-olds. Severe fevers, above 104 degrees, were seen in 0.2 percent of children in each age group. Clarence Buddy Creech, a pediatrician at Vanderbilt University Medical Center and a leader of the trial, said the rate of serious fevers appeared similar to Prevnar, a pneumococcal vaccine given to children.

Close to 7,000 children younger than 6 were in the trial, and no cases were reported of the rare heart inflammation myocarditis. That condition has been a concern with coronavirus vaccines from Moderna and Pfizer-BioNTech that use messenger RNA technology. The myocarditis cases have generally been mild, and people recover and do well.

Rare cases of myocarditis in other age groups were detected after large-scale use of the vaccines began, so the clinical trial in the youngest children would not necessarily detect cases. If the vaccine is authorized, surveillance to detect cases of myocarditis will be important. It is thought that puberty may contribute to increasing the risk of myocarditis, with the highest prevalence in young adult males and a potentially lower risk in young children.

The Pfizer-BioNTech vaccine has been shown safe in children 5 to 11. A Centers for Disease Control and Prevention study found 11 verified cases of myocarditis after Pfizer-BioNTech vaccination. All the children had recovered or were recovering.

What did the trial say about whether the vaccine is effective in young children?

The vaccine's effectiveness was murkier than in past vaccine trials, likely reflecting that the study was conducted during the surge of cases caused by the highly transmissible omicron variant.

The first thing to note is the children's trial was not designed to measure whether the vaccines prevented illness. Instead, following a regulatory path often used to expand vaccine eligibility into younger age groups, scientists measured the levels of virus-blocking antibodies in children's blood and compared those measurements to the levels that were protective in young adults.

By that metric, the trial was a success, according to Moderna. The antibody levels matched or exceeded those that protected young adults pre-omicron.

But the pandemic has grown more complex in the last few months. The antibody levels that were used as a benchmark were protective for most of 2020 and 2021 but have not proved similarly effective against infections from the omicron variant.

Moderna said the vaccine was 43.7 percent effective in preventing illness in children younger than 2. It was 37.5 percent effective in 2-to-5-year-olds. The company did not disclose the statistical uncertainties around those numbers, but they are likely to be wide given the way the trial was designed.

There were no cases of severe illness or hospitalization in the trial, so it was not possible to detect the vaccine's ability to protect against those outcomes. In adults, vaccines have proved most effective at preventing serious outcomes, and the same is expected to be true of the vaccines in children.

What happens next?

Moderna said it will submit the data to the Food and Drug Administration in the coming weeks. The FDA will then review the application. A committee of outside experts will meet to discuss the data and make a recommendation to the agency. If the FDA authorizes the vaccine, advisers to the CDC will then meet to advise the agency before it issues a recommendation for how the vaccine should be used.

How soon might the FDA authorize the Moderna vaccine?

Moderna executives told government officials the company expects to file for an emergency use authorization in mid-April, according to a senior Biden administration official, who spoke on the condition of anonymity to discuss the sensitive matter. Regulatory review has typically taken a few weeks, but it is difficult to make predictions — and will depend on whether regulators agree with the company's assessment of its data.

Jacqueline Miller, Moderna's senior vice president for infectious diseases, declined to make a firm prediction on the timeline, saying only it would be before children go back to school in the fall.

What's happening with other vaccines for young children?

To the intense frustration of many parents and pediatricians, coronavirus vaccines for young children have undergone delays and confusing twists and turns.

In December, Pfizer and BioNTech announced their two-shot vaccine regimen failed in 2- to 4-year-olds to create an immune response equivalent to what was found in young adults. They added a third shot to their trial, delaying vaccine availability by months.

In late January, federal officials indicated there could be a path forward for two doses of Pfizer-BioNTech. Even if the vaccine just missed the immune response target, which is measured in the laboratory, there was hope the vaccine still was protecting children from infections. But when that data was disappointing, in part because of omicron, the FDA and the companies decided to wait for results from a third dose.

Pfizer and BioNTech have predicted that data could be ready in April.

Fuente: The Washington Post. Disponible en https://wapo.st/3qVUMsA

Nueva vacuna de COVID llega antes a países ricos que pobres

24 mar. La compañía que está detrás de la vacuna contra la COVID-19 presentada como una herramienta clave para el mundo en desarrollo ha enviado decenas de millones de dosis a los países adinerados, pero todavía no ha aportado ninguna al programa respaldado por Naciones Unidas para abastecer a los más pobres, un indicio de la desigualdad que persiste en la respuesta global a la pandemia.

COVAX había planeado distribuir 250 millones de dosis de la fórmula de Novavax para marzo, pero la agencia de la ONU a cargo de las entregas dice que los primeros envíos podrían realizarse en abril o mayo.

Esto no debería haber sido así. Cuando estalló la pandemia hace dos años, CEPI, una de las organizaciones que dirige el COVAX, dio a Novavax 388 millones de dólares para acelerar el desarrollo de su fórmula con el objetivo de que estuviese disponible en los países pobres.

La inversión garantizó a COVAX el "derecho de tanteo" sobre las primeras dosis de la farmacéutca, pero el acuerdo se aplicaba solo a las plantas de República Checa, Corea del Sur y España, señaló el vocero de CEPI, Bjorg Dystvold Nilsson.

Hay otras fábricas que no forman parte del pacto, y sus vacunas se mandan a otras partes.

El Serum Institute of India, el mayor fabricante de vacunas del mundo, ha elaborado millones de dosis de Novavax. Según el Ministerio de Exteriores indio y el centro, más de 28,9 millones se enviaron a Holanda en enero y febrero, mientras que Australia recibió alrededor de seis millones. A Indonesia llegaron también unos nueve millones en diciembre.

Miles de dosis más se enviaron desde una planta holandesa a otros países de la Unión Europea.

"Por el motivo que sea, una vacuna que se creía que era muy adecuada para los países pobres está yendo ahora en gran parte a los ricos", dijo Zain Rizvi, experto en política farmacéutica en el grupo activista estadounidense Public Citizen. "Es trágico que en el tercer año de la pandemia sigamos sin poder obtener los recursos, la atención y la voluntad política

En esta imagen de archivo, varias bandejas con jeringas con vacunas contra la COVID-19 (de arriba a abajo) de Novavax, Biontech y Moderna, en un refrigerador en un centro de vacunación, listas para ser administradas, en Prisdorf, Alemania, el 26 de febrero de 2022. (Georg Wendt/dpa vía AP, archivo). (Georg Wendt / Associated Press)

para solucionar la desigualdad en las vacunas".

La demora es el último revés para el COVAX, que se ha visto afectado repetidamente por problemas de suministro y ha incumplido varios objetivos de reparto de dosis.

El director general de la Organización Mundial para la Salud, Tedros Adhanom Ghebreyesus, criticó el año pasado el abismo existente entre los suministros que reciben los países pobres y los ricos, calificándolo de "fracaso moral catastrófico".

La disponibilidad del fármaco ha mejorado recientemente en las regiones más pobres, pero los problemas logísticos persisten.

De acuerdo con los datos de la Universidad de Oxford, solo alrededor de un 14% de la población de las naciones de bajos ingresos tienen al menos una dosis de la vacuna. Más de 680 millones de las distribuidas por COVAX siguen sin administrarse o han caducado, según datos gubernamentales.

Incluso con la mejora del reparto, algunos funcionarios esperaban ansiosos la fórmula desarrollada por Novavax en concreto porque es más fácil de transportar y almacenar que otras. También confiaban en que fuese más atractiva para los escépticos a la de AstraZeneca, que enfrentó problemas en Europa.

Países como Zimbabue, República Centroafricana y Kiribati esperaban recibir en marzo las dosis de Novavax a través de COVAX.

Antes de la pandemia, Novavax era una pequeña farmacéutica estadounidense que nunca había comercializado una vacuna. Su fórmula ha resultado ser altamente eficaz, pero tiene una gran dependencia de otras empresas para su fabricación.

La compañía, con problemas para aumentar la producción, ha retrasado también las entregas a otros países, incluyendo algunos en la UE. Y a COVAX debe destinar de 1.000 millones de dosis.

En un comunicado, la farmacéutica de Gaithersburg, Maryland, reconoció que todavía no había compartido ninguna dosis con la alianza para la vacunación Gavi, que encabeza los esfuerzos de COVAX, pero apuntó que está lista para hacerlo.

"Seguimos trabajando con Gavi para alcanzar nuestro objetivo compartido de garantizar el acceso global a nuestra vacuna basada en proteínas donde más se necesita", afirmó Novavax.

Gavi sugirió que la demora se debe en parte a que la fórmula no recibió el visto bueno de la OMS hasta diciembre, y dijo que tiene previsto distribuirla en el futuro y está "en contacto estrecho con el fabricante y espera que el suministro esté libre para su distribución cuando los países lo necesiten".

A los funcionarios de salud les preocupa también que haya desaparecido la urgencia de vacunar a la población contra el COVID-19, en especial mientras muchos países retiran sus medidas de salud pública y la atención mundial se centra en otros asuntos.

"Las naciones ricas han dejado a un lado el COVID y todo el mundo está obsesionado con la guerra en Ucrania, pero el COVID-19 sigue suponiendo una grave crisis para la mayoría de la población mundial", dijo Ritu Sharma, vicepresidenta de la organización benéfica CARE.

COVAX sigue sufriendo una escasez de vacunas desesperante y, en base al ritmo actual de vacunación, el mundo está aún a "años y años" de inmunizar a un porcentaje de población suficiente para frenar nuevas olas de la pandemia, agregó.

Otros expertos apuntaron que corresponde a las agencias de salud pública garantizar que sus inversiones en vacunas beneficien a los países pobres, así como ser más transparente sobre los fallos.

“Sea cual sea la explicación, no es satisfactoria”, afirmó Brook Baker, experto en acceso a medicamentos de la Universidad de Northeastern. “La conclusión es que en los países pobres sigue habiendo mucha gente sin vacunar y que, una vez más, están los últimos en la fila”.

Fuente: Los Angeles Times. Disponible en https://lat.ms/3x1dXF5

Reconocimiento mundial para vacunas cubanas anti COVID-19

25 mar. Un reconocimiento de relevancia constituye la decisión de la Organización Mundial de la Propiedad Intelectual (OMPI) de premiar con su Medalla para Inventores a los autores de cuatro vacunas cubanas contra la pandemia de la COVID-19.

La Soberana 01, la Soberana 02, Abdala y Mambisa son las seleccionadas para su estimulación, informó en exclusiva a la Agencia Cubana de Noticias la Máster en Ciencia María de los Ángeles Sánchez Torres, Directora General de la Oficina Cubana de Propiedad Industrial (OCPI).

Explicó que la estimulación obedece a sus aportes al desarrollo nacional económico y tecnológico y que serán entregadas próximamente por Daren Tang (Singapur), Director General de la OMPI, una agencia de la ONU con sede en Ginebra, Suiza.

Anunció que Tang viajará a La Habana al frente de una comitiva de su agrupación para entregar las medallas el próximo lunes a los principales creadores de los inmunógenos cubanos anti COVID-19.

Entonces serán premiados las invenciones y sus colectivos de Soberana 01, del Instituto Finlay de Vacunas y del Centro de Inmunología Molecular; al igual que los de Soberana 02, del Instituto Finlay de Vacunas, del Centro de Inmunología Molecular y de la Universidad de La Habana.

Además, de Abdala y Mambisa, del Centro de Ingeniería Genética y Biotecnología, cuyos cuatro candidatos en su totalidad habían obtenido o solicitado anteriormente una patente o modelo de utilidad.

Pese al asedio enfermizo de gobiernos de Estados Unidos hace más de 60 años y acentuado cada vez más, 10 productos de la ciencia cubana poseen la Medalla de Oro de la Organización Mundial de la Propiedad Intelectual, desde el primero en 1989 hasta el último en 2015.

La historia de esta última organización se remonta a 1883 con el Convenio de París para la Protección de la Propiedad Industrial y en 1974 ingresó en las Naciones Unidas en calidad de organismo especializado.

La Oficina Cubana de la Propiedad Industrial confiere el registro de los derechos de Propiedad Industrial en Cuba y presta servicios científico-tecnológicos especializados a fin de contribuir con el desarrollo de la ciencia, la tecnología, la innovación, la inversión nacional y extranjera, la industria y el comercio.

Fuente: ACN Agencia Cubana de Noticias. Disponible en https://bit.ly/3DEKrGC

WHO rejects Medicago's COVID-19 vaccine due to ties to tobacco giant

Mar 25. The first Canadian-made COVID-19 vaccine by Medicago has been rejected by the World Health Organization (WHO) due to its ties to tobacco giant Philip Morris.

"We are aware that the WHO updated Medicago's vaccine status to 'not accepted.' We have received an email which indicated the WHO's preliminary decision and informed us that official communication outlining the details and rationale would follow," wrote Medicago President and CEO Takashi Nagao in a statement to Global News on Friday. "Once we receive this, we will review the rationale and continue to discuss next steps with our partners and shareholders."

"It is our understanding that this decision is linked to Medicago's minority shareholder and not the demonstrated safety and efficacy profile of our COVID-19 vaccine. Covifenz was approved by Health Canada on February 24, 2022."

Philip Morris, the biggest tobacco company in the world, owns one-third of Quebec-based Medicago. The government of Canada invested $173-million in Medicago and its efforts to create a viable COVID-19 vaccine.

A spokesperson for François-Philippe Champagne, Minister of Innovation, Science and Industry, said that "the ownership structure" with Philip Morris having stake in Medicago "was determined not to prevent investment in the project." The person added that Medicago's presence in Canada contributes to the health and wellness of Canadians.

"Our government is in contact with the company, and is working with them to find a solution," said a statement from the ministry.

WHO said in a statement Friday it is now reviewing its policy that says it cannot engage with companies that promote tobacco and is exploring different policy options for health products linked to the tobacco industry.

"WHO is currently holding discussions on how to address a general trend of the tobacco industry investing in the health industry," the organization said.

In a Friday news conference, Minister of Health Jean-Yves Duclos said that while the initial news of Medicago's rejection is not ideal, it's important their technology and vaccine platform is able to be used in the future. He added that just because they were denied on an emergency-use basis, doesn't mean the buck stops there.

"So we can move beyond that initial decision, this was a decision based on emergency use…there is other avenues that Medicago that we can use to head in the right direction," he said.

Duclos called Medicago's COVID-19 vaccine "an extraordinary example of success that we've seen in Canada in biomanufacturing, research and development."

Medicago's COVID-19 vaccine, Covifenz, received approval from Health Canada on Feb. 24. The home-grown vaccine is the world's first-ever plant-based jab authorized for human use and is also the first Canadian shot to be approved in over 20 years.

Health Canada has approved for people aged between 18 and 64 after clinical trials showed a 71 per cent

rate in protecting trial participants against COVID-19. The jab was also 100 per cent effective against severe disease caused by COVID-19.

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Documents from the WHO's website on Mar. 2 show Medicago's COVID-19 vaccine was listed as "not accepted" in the organization's expression of interest phase. In a press conference on Mar. 16, Dr. Mariângela Simão, WHO's assistant director-general for access to medicines and health products said it was "very likely" Medicago's vaccine would not get the green light for emergency use.

"Due to its connections — it's owned by tobacco company Philip Morris International — so the process is put on hold because it's well known that the WGO and UN have a very strict policy regarding engagement with tobacco and arms industries," she said. "So the process is on hold."

In July 2020, the Medicago had announced plans to distance itself from Philip Morris International. The association has been a source of roadblocks and criticism for Medicago.

Canada, which has mainly used Pfizer and Moderna's mRNA vaccines, had secured a deal for 76 million doses of the Covifenz vaccine. The rejection by the WHO would stop Canada from being able to donate the Covifenz vaccine to other countries and limit their donations to the global-equity vaccine equity program known as COVAX.

Canada has promised to donate 200 million doses to COVAX by the end of this year, but so far only 37 million doses of the AstraZeneca, Moderna and Johnson & Johnson vaccines have been delivered. A financial commitment of more than $500 million has been promised to COVAX to buy vaccines from other producers.

Fuente: Global News. Disponible en https://bit.ly/3LI3uTb

Vietnam suministrará vacunas contra el COVID-19 a niños de cinco a 11 años en abril

27 mar. Vietnam desplegará el plan de vacunación contra el COVID-19 a niños de cinco a 11 años a principios de abril próximo, con más de 13,7 millones de dosis de vacunas Pfizer y Moderna, que serán proporcionadas por el Gobierno de Australia, informó hoy el Programa Nacional de Inmunización ampliado.

De acuerdo con la fuente, Australia acordó con la propuesta del Ministerio de Salud de Vietnam de enviar esos fármacos al país la próxima semana.

En marzo de este año, la cartera ha desplegado clases de capacitación especializada al personal en centros de salud en todo el país sobre el suministro de vacunas a los niños de cinco a 11 años, y a la vez, ha guiado a las localidades en la elaboración de sus propios planes de inmunización a ese grupo poblacional, apuntó.

Especificó que tan pronto cuando las sustancias antivirales lleguen a Vietnam y se prueben su calidad y seguridad, se distribuirán en abril los antídotos a las provincias y ciudades vietnamitas.

Además de las vacunas contra el COVID-19 que serán administradas por el Gobierno australiano, el Ministerio vietnamita también ha buscado activamente otras fuentes de apoyo de organizaciones internacionales como la Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) y el mecanismo COVAX, y de gobiernos de otros países, con el fin de obtener entre ocho y 10 millones de dosis adicionales para vacunar a los infantes.

Fuente: Vietnam plus. Disponible en https://bit.ly/3KaOvk2

Big Pharma vs. Little Cuba: Por qué los cubanos confían en las vacunas y cómo están ayudando a vacunar al mundo

28 mar. Las vacunas podrían estar salvando al mundo de la COVID-19, pero no es así. Casi en todas partes, el acceso a la vacuna o la vacilación sobre la vacuna son nuestros talones de Aquiles.

El acceso a las vacunas se correlaciona con el PIB , y los países de mayores ingresos pueden llegar a acuerdos con las empresas farmacéuticas. Los programas de vacunación también utilizan menos de los presupuestos de atención médica de estos países: 0.8% frente al 56.6% para los países de bajos ingresos .

Al desarrollar y administrar sus propias vacunas , Cuba ha asegurado una cobertura asequible (0.84% de los costos de atención médica), a pesar de que el embargo de Estados Unidos bloquea los suministros médicos , incluso durante la pandemia .

Ese mismo bloqueo impide la exportación de vacunas desde Cuba y corre el riesgo de frustrar la importación de vacunas a la isla . A pesar de estos desafíos, Cuba es ahora uno de los países más vacunados del mundo .

La salud pública de Cuba

La reticencia a la vacunación es rara en Cuba. Sus políticas y prácticas de COVID-19 están fundamentalmente basadas en la ciencia. El Gobierno cubano está obteniendo el apoyo público al proteger a sus ciudadanos de enfermedades graves y la muerte, uno de los principales mandatos de los Gobiernos .

Esta pequeña nación bloqueó un pico de Ómicron a través de sus vacunas y medidas de higiene social.

Sin fines de lucro y universal, la salud pública de Cuba incorpora calendarios de vacunación estandarizados y robustos que han sido la norma durante décadas . Muchas medicinas y vacunas en el país son creadas

por laboratorios nacionales financiados con fondos públicos .

Los análisis fácticos y positivos sobre Cuba generalmente atraen críticas a nivel internacional, y los críticos objetan que su gobierno controla la información .

Por qué los cubanos confían en las vacunas

En diciembre de 2021 y enero de 2022, hice preguntas abiertas directamente a 40 cubanos residentes: conocidos, colegas y amigos de mis más de 20 años estudiando la cultura cubana y, desde 2020, la respuesta de Cuba a la COVID-19.

En enero y febrero recolecté 40 respuestas anónimas a través de una encuesta de VoIP con la ayuda de mi colega Alejandro Mestre. Si bien no es estadísticamente representativo, este estudio es indicativo. Todos los encuestados, incluso los detractores del gobierno, querían vacunarse.

Mientras se frotaba las venas de la parte interna del antebrazo, un oficinista bromeó: “Sí, todos tienen confianza en las vacunas. Sabes, a veces pienso, porque los médicos cubanos nos conocen, las vacunas tienen un componente de nosotros”.

Esta confianza popular generalizada se basa en la experiencia vivida.

Desde la década de 1960, los cubanos han seguido un sólido esquema de vacunación desde la infancia, con la experiencia posterior de protección contra enfermedades contagiosas. En palabras de uno de los encuestados, “no estoy seguro de la efectividad de esta vacuna, sin embargo, sé que en mi país hemos estado fabricando vacunas reconocidas a nivel mundial durante muchos años”.

Los residentes a menudo comparan a Cuba con otros países. Muchos han viajado al extranjero, incluidos los del contingente internacional Henry Reeve , un grupo de profesionales médicos cubanos, desplegados en todo el mundo durante las principales crisis de salud con la misión de solidaridad médica internacional, y se han enfrentado a brotes mortales como la COVID-19.

Muchos también tienen seres queridos en el extranjero y ven la diferencia entre las bajas tasas de contagio en su país y las tasas más altas en países sin vacunación generalizada .

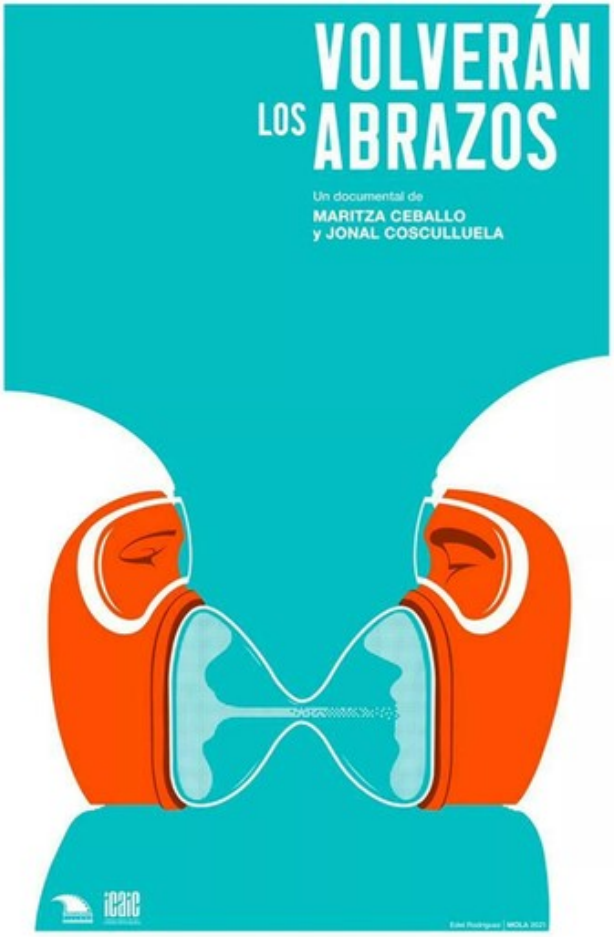
Los habitantes de esta isla tropical de ingresos medios tienen experiencias personales con enfermedades infecciosas, como la meningitis (Cuba desarrolló una vacuna) y el dengue (Cuba desarrolló medidas de salud pública y un medicamento, el interferón alfa-2b).

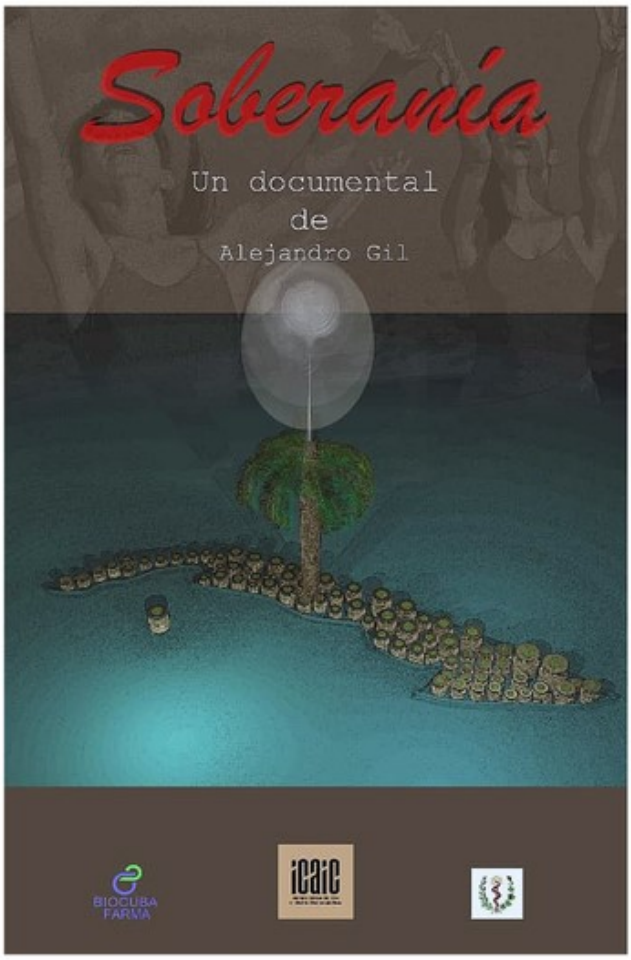
Por qué los cubanos confían en las vacunas: mensaje claro

Los mensajes sobre los beneficios de la vacunación y otras prácticas de salud pública para el bien individual y social son claros y constantes en Cuba.

Incluye notas informativas del director nacional de epidemiología, el Dr. Francisco Duran, infomerciales, canciones y vallas publicitarias populares y documentales centrados en humanos sobre médicos en salas de COVID-19 como “Volverán los abrazos” y sobre los científicos que desarrollan vacunas, como “Soberanía”. Además, los encuestados de mi consulta creen que los cubanos no prestan mucha atención a las noticias falsas sobre vacunas que llegan del exterior a través de las redes sociales.

Aunque no es obligatorio, la vacunación es la norma. Los proveedores de atención primaria deben obtener una exención de consentimiento informado de los pacientes que rechazan la inoculación y hay presión de grupo.





Un entrevistado escribió: “En la situación en la que esta pandemia ha puesto al mundo, no hay espacio para no vacunarse. Es muy egoísta”. Otro agregó: “La libertad de cada persona no debe restringir la libertad de los demás”.

La mayoría de los cubanos confían en la experiencia de su red de servicios de salud densamente tejida e interconectada. “En Cuba, uno puede morir por falta de máquinas o medicamentos especializados, pero no por falta de atención humana especializada”, dijo un encuestado.

Incluso los cubanos que son escépticos de su gobierno en otras áreas afirmaron que la única razón para que los expertos médicos cubanos hagan su trabajo es salvar vidas. Por el contrario, muchos hablaron sobre cómo los intereses financieros influyen en la atención médica en otros países, haciéndola potencialmente menos confiable.

Lanzamiento de la vacuna en Cuba

En Cuba continúa la campaña de inmunización. Cuba comenzó a vacunar a niños de dos años o más en septiembre de 2021, mucho antes que la mayoría de los demás países, y mucho más ricos. Ahora está ejecutando ensayos clínicos de fase 2 con niños menores de dos años .

Cuba no está poniendo en riesgo a sus niños, está utilizando investigaciones comprobadas (plataformas de vacunas utilizadas anteriormente para otras vacunas) para garantizar que todos se vacunen de la manera más rápida y segura posible.

Y, aunque se considera que las vacunas de subunidades son lentas de crear y el embargo de EE.UU. retrasó el desarrollo y la implementación, Cuba venció a otras vacunas de subunidades de proteínas hasta el final .

Los desarrolladores de Corbevax, con sede en EE.UU., se apresuraron a buscar inversores para permitir la investigación y el desarrollo, mientras que los laboratorios nacionales cubanos simplemente giraron para satisfacer la necesidad.

Las vacunas de subunidades son increíblemente prometedoras como caballos de batalla. Aunque son más difíciles de modificar que el ARNm, son más baratos, menos quisquillosos y tienen un historial mucho más largo , el último de los cuales es particularmente relevante para vacunar a los niños .

Si bien los cubanos confían en sus expertos en salud , el historial de la industria farmacéutica internacional, recientemente con su papel en la crisis de los opioides, está alimentando el escepticismo popular hacia las vacunas, también entre los grupos minoritarios .

La idea de que la innovación impulsada por el mercado facilitó la tecnología de ARNm es engañosa. La bioquímica húngaro-estadounidense Katalin Kariko , cuya investigación permitió vacunas de ARNm y que es candidata al Premio Nobel, luchó por obtener financiación, al igual que otros innovadores .

Cuba continúa trabajando para frenar la pandemia, exportando vacunas y transfiriendo tecnología de producción a países como Argentina, Bolivia, Irán, México, Nicaragua, Siria, Venezuela y Vietnam.

Está actuando sobre el hecho científico de que la humanidad estará más segura cuando todos los que pueden vacunarse estén vacunados. Cuba está siguiendo la ciencia y ganándose su reputación de confianza .

Fuente: Cubadebate. Disponible en https://bit.ly/35E4U1v

La EMA empieza a analizar la eficacia y seguridad de la vacuna española, paso previo para autorizarla en la UE

29 mar. La Agencia Europea del Medicamento (EMA) ha dado este martes el primer paso hacia una eventual autorización en la UE de la 'vacuna española', la que desarrolla el laboratorio Hipra. Según ha anunciado, ha empezado a analizar su seguridad y su eficacia, en base todavía a estudios preliminares en laboratorio y de los ensayos humanos. "La revisión continua seguirá hasta que haya suficiente evidencia para una solicitud de autorización de comercialización formal", ha informado la EMA.

La vacuna de Hipra se encuentra en estos momentos en la tercera y última fase de ensayos en humanos y el laboratorio y el Gobierno esperan que pueda estar distribuyéndose en verano. De momento, estos laboratorios, con sede en Girona, no han presentado una solicitud de autorización a la EMA.

Para eso ocurra y que la vacuna de Hipra pueda ser distribuida e inyectada por toda Europa, antes es necesario que la EMA la autorice en la UE y el primer paso para ello es el inicio del "*rolling review*", la evaluación continua que ha empezado este martes.

Este análisis lo hará el comité de la EMA de fármacos de uso humano (CHMP, por sus siglas, en inglés), que estudiará "el cumplimiento de la vacuna contra la COVID-19 de Hipra con los niveles habituales de la UE sobre efectividad, seguridad y calidad", ha informado en un comunicado, en el que ha precisado que la denominada 'vacuna española' está basada en la tecnología de proteína recombinante y se utilizará como dosis de refuerzo para adultos que ya han recibido su pauta completa con una vacuna distinta contra la COVID-19.

"Aunque la EMA no puede predecir un plazo, debería tomar menos tiempo de lo normal evaluar cualquier aplicación eventual debido al trabajo que se ha hecho durante el *rolling review*", añade.

Fuente: 20 Minutos. Disponible en https://bit.ly/3r3pfot

Tres posibles evoluciones para el coronavirus que provoca la COVID-19

30 mar. La Organización Mundial de la Salud presentó su tercera actualización del Plan Estratégico de Preparación, Preparación y Respuesta para la COVID-19, en la que observa tres posibles evoluciones del coronavirus SARS-CoV-2, una la más probable, otra la más benigna y la última la más temida.

La actualización, que se espera sea la última según el director de la Organización, el doctor Tedros Adhanom Gebreysus, señala que el escenario más probable sobre la evolución de la pandemia es que el coronavirus siga mutando y cause una enfermedad menos grave.

“Basándonos en lo que sabemos ahora, el escenario más probable es que el virus siga evolucionando, pero que la gravedad de la enfermedad que causa se reduzca con el tiempo a medida que aumenta la inmunidad debido a la vacunación y la infección”, explicó Tedros en la rueda de prensa semanal sobre el estado de la pandemia en el mundo.

Es posible que se produzcan picos periódicos de casos y muertes cuando la inmunidad disminuya, lo que puede requerir un refuerzo cíclico para las poblaciones vulnerables.

La segunda posibilidad es el mejor de los casos posibles: el surgimiento de variantes menos graves contra las que no sean necesarios dosis de refuerzos o nuevas fórmulas de vacunas.

Sin embargo, la actualización señala que no es descartable el peor escenario, la aparición de una variante más virulenta y altamente transmisible. Frente a esta nueva amenaza, la protección contra los casos de enfermedad grave y de muerte, ya sea debido a la vacunación previa o por la infección, disminuirá rápidamente.

Para hacer frente a esta situación habría que modificar considerablemente las vacunas actuales y garantizar su aplicación a las personas más vulnerables ante las formas graves de la enfermedad.

Cómo acabar con la fase aguda de la pandemia

Ante este trío de posibilidades, el director de la OMS se preguntó a si mismo ¿cómo podemos avanzar y

acabar con la fase aguda de la pandemia este año? Y su respuesta fue que los países inviertan en cinco componentes básicos

Primero: mantener la vigilancia, el trabajo de los laboratorios y la recopilación de información de salud pública

Segundo: vacunar, continuar con las medidas sociales y de salud pública, y sostener el compromiso de las comunidades

Tercero: ofrecer atención clínica para el COVID-19, e invertir en sistemas de salud resistentes

Cuarto: avanzar en la investigación y el acceso equitativo a las herramientas y los suministros

Quinto: una coordinación a medida que la respuesta pasa del modo de emergencia a la gestión de la enfermedad respiratoria a largo plazo

"Tenemos todas las herramientas necesarias para controlar esta pandemia: podemos prevenir la transmisión con mascarillas, distanciamiento, higiene de manos y ventilación. Y podemos salvar vidas asegurando que todo el mundo tenga acceso a las pruebas, los tratamientos y las vacunas", indicó Tedros.

Debe mantenerse el objetivo mínimo del 70% de vacunación

Por ese motivo, aseguró que vacunar al 70% de la población de cada país sigue siendo esencial para controlar la pandemia, priorizando a los trabajadores sanitarios, a las personas mayores y a otros grupos de riesgo.

A este respecto, el director de la OMS se mostró sorprendido de que haya personas en la comunidad sanitaria mundial que consideren que el objetivo del 70% ya no es pertinente.

"Muchos países de ingresos altos y medios han alcanzado este objetivo, y han visto una disociación entre casos y muertes. Aunque algunos países de ingresos altos están desplegando la cuarta dosis para sus poblaciones, un tercio de la población mundial aún no ha recibido una sola dosis, incluido el 83% de la población de África. Esto no es aceptable para mí, y no debería serlo para nadie", aseguró antes de remachar: "Si los ricos del mundo disfrutan de los beneficios de una alta cobertura vacunal, ¿por qué no deberían hacerlo los pobres del mundo? ¿Acaso algunas vidas valen más que otras?"

Acción frente a otras pandemias

El responsable de la Organización Mundial de la Salud comentó que, al mismo tiempo que su Organización sigue respondiendo a la pandemia, también está poniendo en marcha nuevas medidas para ayudar a mantener el mundo a salvo de futuras epidemias.

"Hoy lanzamos una nueva estrategia para ampliar la vigilancia genómica a nivel mundial de los patógenos con potencial epidémico y pandémico. Y mañana pondremos en marcha una nueva estrategia mundial contra los arbovirus, la familia de virus propagados por los mosquitos que incluye el dengue, el zika, el chikungunya y la fiebre amarilla, y que suponen una amenaza para más de la mitad de la población mundial", anunció.

Fuente: Noticias ONU. Disponible en https://bit.ly/3u6EJKj

Final phase of Mambisa clinical trials about to end

Mar 31. The final stage of the clinical trial of the Mambisa Covid-19 vaccine candidate, the only homegrown devised to be nasally administered, is about to end, media reported Thursday.

According to Gerardo Guillen, director of Biomedical Research at the Center of Genetic Engineering and Biotechnology, the institution that created this vaccine, the results obtained in the first phase of the trial have been confirmed so far.

He told Granma daily that they will meet the plan of presenting the report of this research to the National Regulatory Authority.

He said that the final goal is to be granted the authorization for the emergency use of this vaccine candidate and Abdala vaccine as a booster shot for convalescents, that is, that either of them can be used for this purpose.

He added that this will happen if both groups meet the success criteria, meaning that volunteers increase their antibody titers at least four-fold or the ability of those antibodies to inhibit the SARS-COV-2 coronavirus by 20 percent in an analytic laboratory test.

The scientist said that they will have the results of the analyses in a couple of weeks, which will be announced at the International Biotechnology Congress (BioHabana 2022), slated in this capital from April 25 to 29.

The second phase of the clinical trial of Mambisa, carried out in Havana's Hermanos Almejeiras Hospital, is about to end, its leading researcher, Iglemis Figueroa, said.

According to her, a total of 1,040 convalescing subjects were included in the trial, who were distributed in four gorups: two of them made up of those vaccinated with a Mambisa booster shot and another two with a single dose of Abdala.

Although this hospital was the only clinical place prepared for the trial, other places in the provinces of Pinar del Rio, Camagüey and Santiago de Cuba had to be set up as well, she said.

Fuente: Prensa Latina en inglés. Disponible en https://bit.ly/3j5CroI

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Patentes registradas en Patentscope

Estrategia de búqueda: *Vaccine in the title or abstract AND 20220321:20220331 as the publication date 54 records.*

1.WO/2022/062687COMBINED TUMOR ANTIGEN, MULTIVALENT DENDRITIC CELL VACCINE AND USE THEREOF
WO - 31.03.2022
Clasificación Internacional C12N 5/0781 Nº de solicitud PCT/CN2021/110455 Solicitante LIU, Helen Inventor/a LIU, Helen
Disclosed are a combined tumor antigen, a multivalent dendritic cell vaccine and the use thereof. Dendritic cells from a patient himself are stimulated in vitro and a variety of tumor cell lysates having a super strong immunogenicity against different EBV-associated tumors are loaded, and mature dendritic cells are formed under the induction of a variety of cytokines and specific agonists, thereby forming a whole DC vaccine with a corresponding cancer antigen. The DC vaccine is reinfused into the human body to activate the immune system, stimulate natural immunity (for example, induce NK cells), stimulate lymphocytes to generate acquired immune response, and produce cytotoxic T cells to kill cancer cells, so as to accurately kill cancer cells together. Compared with radiotherapy and chemotherapy, the DC vaccine is particularly safe and has almost no side effects; and the preparation period of the dendritic cell vaccine is approximately one week, and thus the time is short, and the cost is low.

2.WO/2022/059023TOLL-LIKE RECEPTOR (TLR) AGONIST VACCINE FORMULATION
WO - 24.03.2022
Clasificación Internacional A61K 39/39 Nº de solicitud PCT/IN2021/050909 Solicitante BHARAT BIOTECH INTERNATIONAL LIMITED Inventor/a VADREVU, Krishna Mohan

The invention relates to novel agonist vaccine formulation, wherein the agonist is novel TLR7/8 agonist which is used as an adjuvant or an immunomodulator. More particularly, the invention relates to the preparation of vaccine formulations against viral infections using Algel-IMDG as an adjuvant. The invention also relates to development of vaccine formulations for severe viral infections using the novel Algel-IMDG as an adjuvant that comprises TLR 7/8 agonist chemisorbed on to surface of Aluminium hydroxide gel. The invention also relates to the use of novel Algel-IMDG formulation as an adjuvant in Vaccine composition against several other viral diseases like Covid-19 caused by SARS-CoV-2 either wild type or its variants, Japanese Encephalitis, recombinant Hepatitis B surface antigen etc.

3.20220088167VACCINE COMPOSITION FOR PREVENTING TUBERCULOSIS, COMPRISING GLYCOSYLATED AG85A PROTEIN AND METHOD FOR PREPARING SAME
US - 24.03.2022
Clasificación Internacional A61K 39/04 Nº de solicitud 17426275 Solicitante BIOAPPLICATIONS INC. Inventor/a Yong Jik Lee
The present invention relates to a vaccine composition for preventing tuberculosis comprising a glycosylated Ag85A protein, a vector for preparing the protein, a transformant using the vector, and a method for producing the glycosylated Ag85A protein by using the transformant. A vaccine composition comprising a glycosylated Ag85A protein of the present invention has the effect of inducing an increase in multifunctional T cells simultaneously secreting IFN-γ, TNF-α, and IL-2 which are important in regard to a protective effect against tuberculosis, and thus can be usefully used as a vaccine for preventing tuberculosis. Furthermore, the glycosylated Ag85A protein can be effectively expressed in plants and separated with high yield by means of a vector optimized for protein production, and thus can be mass produced at low cost.

4.3970739VERFAHREN ZUR BESTIMMUNG DER EIGNUNG VON KREBSPATIENTEN FÜR EINE PEPTIDIMPFSTOFFTHERAPIE
EP - 23.03.2022
Clasificación Internacional A61K 39/00 Nº de solicitud 20806866 Solicitante ITOH KYOGO Inventor/a NOGUCHI MASANORI
The present disclosure provides a method for determining whether a cancer patient is eligible for peptide vaccine therapy. The method comprises determining whether a cancer patient is eligible for peptide vaccine therapy, based on the neutrophil ratio and/or lymphocyte ratio in blood collected from the cancer patient approximately 7 to 35 days prior to the scheduled date of administration of a peptide vaccine agent.

5.20220092529END-TO-END VACCINE DELIVERY SYSTEM AND METHOD OF DELIVERY AND POST-DELIVERY TRACKING
US - 24.03.2022
Clasificación Internacional G06Q 10/08 Nº de solicitud 17479476 Solicitante Tina Posey Inventor/a Tina Posey
An end-to-end vaccine supply chain for distribution, tracking, delivery, implementation, and post-delivery data collection and processing. A supply chain is monitored by ensuring proper cold-chain distribution protects the vaccine from manufacturer all the way to delivery to a patient. Equipment would include a cold box integrated with sensors for monitoring temperature and ensuring that the box is not tampered with anywhere in the delivery chain. Back-end delivery tracking and post-delivery monitoring software systems provide up to date notifications to relevant parties of vaccine safety and other information.

6.WO/2022/061297TARGETED ANTIGEN DELIVERY SYSTEM AND USES THEREOF
WO - 24.03.2022

Clasificación Internacional A61K 9/127 Nº de solicitud PCT/US2021/051332 Solicitante BROWN, Kathlynn, C. Inventor/a BROWN, Kathlynn, C.
Disclosed are antigen delivery systems comprising a nanoparticle, wherein the nanoparticle is surface-modified with a cancer-specific cell targeting peptide and comprises an immunogenic HLA class I restricted peptide, wherein the HLA class I restricted peptide is a vaccine-dependent, immunogenic HLA class I restricted peptide, and wherein the cancer-specific cell targeting peptide comprises the sequence LQWRRNFGVWARYRL (SEQ ID NO: 1). Disclosed are methods of treating a subject having cancer comprising administering one of the antigen delivery systems disclosed herein to a subject having cancer. Disclosed are methods of killing cancer cells comprising contacting cancer cells with any of the antigen delivery systems disclosed herein, wherein upon entry of the liposome into the cancer cells, the cancer cells present the vaccine-dependent, immunogenic HLA class I restricted peptide from the antigen delivery system, wherein the cancer cells generate an immune response to the vaccine-dependent, immunogenic HLA class I restricted peptide, and wherein the immune response to the vaccine-dependent, immunogenic HLA class I restricted peptide targets and kills the cancer cells presenting the vaccine-dependent, immunogenic HLA class I restricted peptide. Disclosed are methods of generating a non-cancer secondary immune response that targets cancer cells comprising administering one of the antigen delivery systems disclosed herein to a subject having cancer cells.

7.20220088174GENOMIC VARIANTS IN IG GENE REGIONS AND USES OF SAME
US - 24.03.2022
Clasificación Internacional A61K 39/145 Nº de solicitud 17288684 Solicitante Dana-Farber Cancer Institute, Inc. Inventor/a Wayne A. Marasco
The present invention is directed to methods for mining genotype-repertoire-disease associations. Aspects of the disclosure are also drawn to methods of preparing a vaccine composition. For example, the vaccine composition can be specific to a subject or a group of subjects with a genotype responsive to the vaccine composition. Aspects of the disclosure are further drawn towards methods of vaccinating a subject or a population of subjects.

8.WO/2022/057540SARS-COV-2 VACCINE BASED ON LENTIVIRAL COAT MODIFICATION AND MRNA DELIVERY AND PREPARATION METHOD THEREFOR
WO - 24.03.2022
Clasificación Internacional C12N 7/01 Nº de solicitud PCT/CN2021/112661 Solicitante SHANGHAI JIAO TONG UNIVERSITY Inventor/a CAI, Yujia
The present invention provides a SARS-CoV-2 vaccine and a preparation method therefor. The vaccine is obtained by using lentiviral particles as a coat to wrap mRNA of a spike protein of SARS-CoV-2, wherein the coat (lentiviral particles) is modified with a spike protein antigen of SARS-CoV-2.

9.20220090134Enhancing Immunity Using Chimeric CD40 Ligand and Coronavirus Vaccine
US - 24.03.2022
Clasificación Internacional C12N 15/86 Nº de solicitud 17472268 Solicitante Memgen, Inc. Inventor/a Mark J. CANTWELL
The present disclosure provides methods and compositions for enhancing immunity by administering a coronavirus vaccine and a chimeric CD40L polypeptide. The coronavirus vaccine can be comprised of inactivated coronaviral particles or an antigenic polypeptide, preferably the coronavirus spike protein. The coronavirus antigenic polypeptide can be a purified antigenic polypeptide or a nucleic acid expression construct that encodes the antigenic polypeptide. The chimeric CD40L polypeptide in compositions of the invention can be a purified chimeric CD40L polypeptide or a nucleic acid expression construction that encodes the chimeric CD40L polypeptide.

10.20220088186SAMRNA VACCINE AND PREPARATION METHOD THEREFOR

US - 24.03.2022
Clasificación Internacional A61K 39/25 Nº de solicitud 17420608 Solicitante CANSINO BIOLOGICS INC . Inventor/a Tao ZHU
Disclosed is an SamRNA vaccine, including a recombinant viral vector which includes: i) a viral gene replication complex including nucleotide sequences encoding viral gene replication-related proteins nsP1, nsP2, nsP3, and nsP4; and ii) a nucleotide sequence encoding at least one antigen. According to the SamRNA vaccine of the present invention, in addition to that a promoter of a modified adenoviral vector itself can transcribe an antigen gene to form mRNA, the viral gene replication-related proteins nsP1-4 use RNA as a template to synthesize a large amount of mRNAs, and the immune effect of a target antigen is greatly improved.

11.WO/2022/061439USE OF THE INFECTIOUS BRONCHITIS VIRUS (IBV), VACCINE FOR IMMUNIZING MAMMALS AGAINST CORONAVIRUS AND METHOD FOR IMMUNIZING MAMMALS AGAINST CORONAVIRUS
WO - 31.03.2022
Clasificación Internacional A61K 39/215 Nº de solicitud PCT/BR2021/050410 Solicitante FUNDAÇÃO UNIVERSIDADE ESTADUAL DO CEARÁ - FUNECE Inventor/a GUEDES, Maria Izabel Florindo
The present invention pertains to the fields of biotechnology, immunology and the world effort against COVID-19. Caused by a recently discovered virus from the Coronaviridae family, known as SARS-CoV-2 and the cause of the current coronavirus (COVID-19) pandemic, the disease is characterized by severe acute respiratory syndrome as the main pathological process. In the present invention, avian coronavirus (IBV), which causes infectious bronchitis (IBV) in chickens, a disease with a certain degree of similarity to COVID-19 and which has been studied for some time, was used for preparing vaccines for immunizing mammals against SARS-CoV-2/COVID-19, with surprising results. In the present invention, the vaccine against SARS-CoV-2 comprises IBV in any state (live attenuated, killed, or only isolated or combined molecular structures thereof) and has proven effective in the immunization of mammals against SARS-CoV-2, whether humoral or cellular. The results obtained in mammals immunized with the vaccine comprising IBV have shown satisfactory neutralizing/inhibitory activity of antibodies against the SARS-CoV-2 virus in cell culture, indicating that anti-IBV antibodies surprisingly also protect against COVID-19.

12.3970740ZELLFUSIONSINDUZIERENDES VACCINIA-VIRUS UND SEINE VERWENDUNG
EP - 23.03.2022
Clasificación Internacional A61K 39/002 Nº de solicitud 20806805 Solicitante NAT UNIV CORP TOTTORI UNIV Inventor/a NAKAMURA TAKAFUMI
This invention provides a vaccinia virus that induces cell fusion between infected cells and a method for producing the same. Such vaccinia virus is deprived of the K2L gene or the HA gene or functions of the K2L gene and the HA gene and is mutated to induce cell fusion between infected cells and induce cell death.

13.20220088162Heterologous Prime Boost Vaccine
US - 24.03.2022
Clasificación Internacional A61K 39/00 Nº de solicitud 17474240 Solicitante Boehringer Ingelheim International GmbH Inventor/a Guido WOLLMANN
The present invention pertains to the provision of a vaccine comprising a first component (K) and a second component (V), wherein the first component (K) comprises a complex in which a cell penetrating peptide, an antigenic domain and a TLR agonist are functionally linked and the second component (V) comprises an oncolytic recombinant vesicular stomatitis virus expressing an antigenic domain. The invention further pertains to the use of the inventive vaccine in the treatment of cancer. The invention also

provides a recombinant vesicular stomatitis virus expressing an antigenic domain and its use in cancer vaccines.

14.3969044GLEICHZEITIGE VERABREICHUNG EINES SAISONALEN GRIPPEIMPFSTOFFS UND EINES ADENOVIRUS-BASIERTEN IMPFSTOFFS GEGEN DAS RESPIRATORISCHE SYNZYTIALVIRUS
EP - 23.03.2022
Clasificación Internacional A61K 39/12 Nº de solicitud 20724730 Solicitante JANSSEN VACCINES & PREVENTION BV Inventor/a CALLENDRET BENOIT CHRISTOPHE STEPHAN
Methods of inducing a protective immune response against respiratory syncytial virus (RSV) and against influenza virus, without inducing a severe adverse event in human subjects are described. The methods include administering to the subjects an effective amount of an adenoviral vector encoding a recombinant RSV F polypeptide that is stabilized in a prefusion conformation, along with an effective amount of an influenza vaccine.

15.20220087930SARS-CoV-2 Subunit Vaccine and Microneedle Array Delivery System
US - 24.03.2022
Clasificación Internacional A61K 9/00 Nº de solicitud 17538412 Solicitante University of Pittsburgh - Of the Commonwealth System of Higher Education Inventor/a Andrea Gambotto
A recombinant coronavirus vaccine is provided. Methods of making and delivering the coronavirus vaccine also are provided. A microneedle array is provided, along with methods of making and using the microneedle array.

16.WO/2022/067273VACCINE COMPOSITIONS FOR MUCOSAL IMMUNE RESPONSE
WO - 31.03.2022
Clasificación Internacional A61K 39/215 Nº de solicitud PCT/US2021/056184 Solicitante NANT HOLDINGS IP, LLC Inventor/a SOON-SHIONG, Patrick
Vaccine compositions are provided that comprise a lyophilized, adenovirus-based expression vector, and a stabilizing compound, such as such as aragonite. Further provided are compositions that include a solid dosage form made from aragonite for loading and delivery of a vaccine composition.

17.3558351KOMBINATIONSVACCINE TIL SVIN
DK - 21.03.2022
Clasificación Internacional A61K 39/04 Nº de solicitud 17828754 Solicitante Intervet International B.V. Inventor/a JANSEN, Theodorus
The present invention relates to a combination vaccine for swine, comprising non-replicating antigen from porcine circovirus type 2 (PCV2), and live porcine reproductive and respiratory syndrome virus (PRRSV); the combination vaccine is formulated as an oil-in-water emulsion, and is adjuvated with squalane and vitamin E-acetate. This combination vaccine was found to be immunologically effective against all pathogens: PCV2, and PRRSV.

18.20220088161NOVEL TRYPANOSOMAL VACCINE
US - 24.03.2022
Clasificación Internacional A61K 39/005 Nº de solicitud 17420993 Solicitante GENOME RESEARCH LIMITED Inventor/a Gavin WRIGHT
The invention relates to a trypanosomalvaccine, to pharmaceutical compositions comprising said vaccine and to their uses in vaccination to prevent trypanosomal infection in a mammal.

19.WO/2022/067255VARIANT STAPHYLOCOCCUS AUREUS LUKA AND LUKB POLYPEPTIDES AND VACCINE COMPOSITIONS
WO - 31.03.2022

Clasificación Internacional A61K 39/085 Nº de solicitud PCT/US2021/052418 Solicitante JANSSEN PHARMACEUTICALS, INC. Inventor/a MORROW, Brian
The present disclosure relates to Staphylococcus aureus leukocidin A (LukA) and leukocidin B (LukB) variant polypeptides, and polynucleotides encoding the LukA, LukB and LukAB variant polypeptides. The present disclosure further relates to vaccine compositions comprising these LukA and LukB variants, and methods of generating an immune response against Staphylococcus aureus in a subject.

20.20220088176ADJUVANTED NANOPARTICULATE INFLUENZA VACCINE
US - 24.03.2022
Clasificación Internacional A61K 39/145 Nº de solicitud 17543353 Solicitante Peter BLACKBURN Inventor/a Peter BLACKBURN
Vaccine compositions comprising influenza antigens formulated as nanoparticulate water in oil miniemulsions. The vaccines may be formulated at the point of use and are useful in emergency response conditions.

21.3969447CYANO-CYCLOBUTYL-VERBINDUNGEN ZUR INHIBIERUNG VON CBL-B UND DEREN VERWENDUNGEN
EP - 23.03.2022
Clasificación Internacional C07D 401/14 Nº de solicitud 20730876 Solicitante NURIX THERAPEUTICS INC Inventor/a SANDS ARTHUR
Compounds, compositions, and methods for use in inhibiting the E3 enzyme Cbl-b in the ubiquitin proteasome pathway are disclosed. The compounds, compositions, and methods can be used to modulate the immune system, to treat diseases amenable to immune system modulation, and for treatment of cells in vivo, in vitro, or ex vivo. Also disclosed are pharmaceutical compositions comprising a Cbl-b inhibitor and a cancer vaccine, as well as methods for treating cancer using a Cbl-b inhibitor and a cancer vaccine; and pharmaceutical compositions comprising a Cbl-b inhibitor and an oncolytic virus, as well as methods for treating cancer using a Cbl-b inhibitor and an oncolytic virus.

22.20220088185PASSIVE TRANSFER OF IMMUNITY USING RECOMBINANT HERPES SIMPLEX VIRUS 2 (HSV-2) VACCINE VECTORS
US - 24.03.2022
Clasificación Internacional A61K 39/245 Nº de solicitud 17420529 Solicitante Albert Einstein College of Medicine Inventor/a Betsy HEROLD
Methods for passive transfer of immunity using recombinant herpes simplex virus 2 (HSV-2) vaccine vectors, virions thereof, compositions and vaccines comprising such.

23.WO/2022/061811PHARMACEUTICAL COMPOSITION, AND PREPARATION METHOD THEREFOR AND APPLICATION THEREOF
WO - 31.03.2022
Clasificación Internacional A61K 39/12 Nº de solicitud PCT/CN2020/118108 Solicitante BGI SHENZHEN Inventor/a GE, Yuping
A method for activating an adaptive immune response by adding allogeneic dendritic cells (DCs) and/or viral antigen peptides into traditional DC vaccines to expand the DC vaccine antigen spectrum with the aid of exogenous DC effect, thereby enhancing the anti-tumor effect of the DC vaccine.

24.20220088134CD200AR LIGANDS FOR CANCER IMMUNOTHERAPY
US - 24.03.2022
Clasificación Internacional A61K 38/17 Nº de solicitud 17422641 Solicitante REGENTS OF THE UNIVERSITY OF MINNESOTA Inventor/a Michael OLIN
The present invention in certain embodiments provides a method of inhibiting PD-1 in a cell by administering a CD200 activation receptor ligand (CD200AR-L) to the cell. The present invention in

certain embodiments provides a method of enhancing efficacy of a tumor lysate vaccine in a mammal comprising administering a CD200 activation receptor ligand (CD200AR-L) to the mammal prior to the administration of the tumor lysate vaccine.

25.20220088168PREPARATION OF LIVE VACCINES
US - 24.03.2022
Clasificación Internacional A61K 39/02 Nº de solicitud 16985458 Solicitante Elanco Tiergesundheit AG Inventor/a Klaus LINDE
Described is a method for the generation of a live vaccine containing stable bacteria carrying at least three attenuating mutations and a vaccine containing bacteria obtained by said method.

26.20220088169VIRUS VACCINE
US - 24.03.2022
Clasificación Internacional A61K 39/12 Nº de solicitud 17285045 Solicitante Griffith University Inventor/a Surendran Mahalingam
This invention relates to a vaccine comprising live attenuated Zika virus comprising a partly codon deoptimized viral genome, a Zika virus comprising a partly codon deoptimized viral genome, as well as their use in methods of treatment and prevention of viral infection. is deoptimized along the nonstructural ZIKV coding region. In some embodiments, the non-structural region of the viral genome is codon deoptimized, and preferably one or more of the genes NS1, NS2A, NS2B, NS3, NS4A, NS4B and NS5 are codon deoptimized.

27.20220088172Poxvirus Vectors Encoding HIV Antigens, and Methods of Use Thereof
US - 24.03.2022
Clasificación Internacional A61K 39/12 Nº de solicitud 17643606 Solicitante Janssen Vaccines & Prevention B.V. Inventor/a Frank Wegmann
Poxvirus vectors encoding a synthetic HIV envelope antigen and other HIV antigens, as well as compositions containing such poxvirus vectors and uses of such poxvirus vectors as vaccines to provide improved immunity against HIV, are provided. Also provided are vaccine combinations containing the disclosed poxvirus vectors, adenovirus vectors encoding one or more HIV antigens, and one or more isolated HIV antigenic polypeptides, and methods of using the vaccine combinations to provide improved immunity against HIV.

28.20220090136SIN NOMBRE VIRUS FULL-LENGTH M SEGMENT-BASED DNA VACCINES
US - 24.03.2022
Clasificación Internacional C12N 15/86 Nº de solicitud 17492291 Solicitante The Government of The United States, as represented by The Secretary of The Army Inventor/a Jay HOOPER
The invention contemplates a new synthetic, codon-optimized Sin Nombre virus (SNV) full-length M gene open reading frame (ORF) that encodes a unique consensus amino acid sequence. The SNV ORF was cloned into a plasmid to form the first stable recombinant SNV full-length M gene that elicits neutralizing antibodies. The gene can be engineered into a vaccine system, and is useful to protect mammals against infection with Sin Nombre virus.

29.20220088173FOOT-AND-MOUTH DISEASE VACCINE
US - 24.03.2022
Clasificación Internacional A61K 39/135 Nº de solicitud 17180223 Solicitante Zoetis Services LLC Inventor/a Paul Joseph Dominowski
Compositions for prevention of Foot and Mouth Disease (FMD) are provided, comprising an antigen component in the amount equivalent to 0.5-20 µg FMD virus and an adjuvant component comprising oil, an immunostimulatory oligonucleotide, and a polycationic carrier. Methods of using the composition, as well as the methods of reducing FMD persistence are also provided.

30.3969045PROPHYLAKTISCHE BEHANDLUNG EINER RESPIRATORISCHEN SYNCYTIALVIRUS-INFEKTION MIT EINEM VAKZIN AUF ADENOVIRUSBASIS
EP - 23.03.2022
Clasificación Internacional A61K 39/12 Nº de solicitud 20724731 Solicitante JANSSEN VACCINES & PREVENTION BV Inventor/a CALLENDRET BENOIT CHRISTOPHE STEPHAN
Methods of inducing a protective immune response against respiratory syncytial virus (RSV) and methods of preventing infection and/or replication of RSV, without inducing a severe adverse event in human subjects are described. The methods include administering to the subjects an effective amount of an adenoviral vector encoding a recombinant RSV F polypeptide that is stabilized in a pre-fusion conformation.

31.20220087956COMBINATION THERAPIES WITH DISULFIRAM
US - 24.03.2022
Clasificación Internacional A61K 31/145 Nº de solicitud 17340684 Solicitante Spring Discovery, Inc. Inventor/a Rachel JACOBSON

Disclosed herein are compositions and methods for increasing lifespan, for preventing or treating a disease including an aging-related disorder, for reducing a symptom of aging, and/or boosting an immune system in a mammal. Also disclosed herein are compositions and methods for improving effectiveness of a vaccine in a mammal. The compositions comprise, at least, a therapeutically effective amount of disulfiram and one or more additional ingredients.

32.WO/2022/065889VACCINE COMPOSITION COMPRISING RECOMBINANT PROTEIN FOR PREVENTION OR TREATMENT OF SARS-CORONA VIRUS-2 INFECTION
WO - 31.03.2022
Clasificación Internacional C07K 14/005 Nº de solicitud PCT/KR2021/012981 Solicitante SK BIOSCIENCE CO., LTD. Inventor/a SEO, Ki-weon
The present invention provides a recombinant SARS-corona virus-2 antigen protein in which a polypeptide including the amino acid sequence of SEQ ID NO: 1 or a functional fragment thereof is linked with at least one exogenous protein selected from the group consisting of i) a foldon domain, ii) a P2 domain, or (iii) a domain having a foldon domain and a P2 domain linked to each other, and a pharmaceutical composition comprising same for prevention or treatment of SARS-corona virus-2 infection.

33.WO/2022/060488MULTIEPITOPE VACCINE FOR THE TREATMENT OF ALZHEIMER'S DISEASE
WO - 24.03.2022
Clasificación Internacional A61P 25/00 Nº de solicitud PCT/US2021/045058 Solicitante OTHAIR PROTHENA LIMITED Inventor/a BARBOUR, Robin
The disclosure provides peptide compositions and immunotherapy compositions comprising an amyloid-beta (Aβ) peptide and an alpha-synuclein peptide. The disclosure also provides methods of treating or effecting prophylaxis of Alzheimer's disease or other diseases with beta-amyloid deposition in a subject, including methods of clearing deposits, inhibiting or reducing aggregation of Aβ and/or alpha-synuclein, blocking the uptake by neurons, clearing amyloid, and inhibiting propagation of alpha-synuclein seeds in a subject having or at risk of developing Alzheimer's disease or other diseases containing alpha-synuclein and/or amyloid-beta accumulations. The methods include administering to such patients the compositions comprising an amyloid-beta (Aβ) peptide and an alpha-synuclein peptide.

34.WO/2022/064202NUCLEIC ACID NANOSTRUCTURES FOR DELIVERY OF NUCLEIC ACID SEQUENCES TO CELLS
WO - 31.03.2022

Clasificación Internacional C12N 15/11 Nº de solicitud PCT/GB2021/052479 Solicitante UCL BUSINESS LTD Inventor/a HOWORKA, Stefan
Improved nucleic acid nanostructures provide a platform for stable and effective intra-cellular delivery of nucleic acids, suitably coding nucleic acids such as mRNA or ssDNA. A nucleic acid nanostructure is provided that comprises a first single stranded nucleic acid sequence that defines a scaffold sequence, wherein the scaffold sequence comprises at least one open reading frame that encodes a first gene product; and a plurality of single stranded nucleic acid sequences that define a plurality of staple sequences, wherein the plurality of staple sequences are capable of hybridising with one or more regions of the scaffold sequence in order to induce the formation of a geometrically defined higher order structure. The nanostructure may further comprise at least one membrane binding moiety, wherein the membrane binding moiety is configured to associate with a cell membrane. The nanostructures may be used in pharmaceutical compositions, such as vaccine compositions, and in methods of treating subjects in need thereof.

35.20220090092ARTIFICIAL NUCLEIC ACID MOLECULES FOR IMPROVED PROTEIN EXPRESSION
US - 24.03.2022
Clasificación Internacional C12N 15/67 Nº de solicitud 17542430 Solicitante CureVac AG Inventor/a Andreas THESS
The invention relates to an artificial nucleic acid molecule comprising an open reading frame and a 3'-UTR comprising at least one poly(A) sequence or a polyadenylation signal. The invention further relates to a vector comprising the artificial nucleic acid molecule comprising an open reading frame and a 3'-UTR comprising at least one poly(A) sequence or a polyadenylation signal, to a cell comprising the artificial nucleic acid molecule or the vector, to a pharmaceutical composition comprising the artificial nucleic acid molecule or the vector and to a kit comprising the artificial nucleic acid molecule, the vector and/or the pharmaceutical composition. The invention also relates to a method for increasing protein production from an artificial nucleic acid molecule and to the use of a 3'-UTR for a method for increasing protein production from an artificial nucleic acid molecule. Moreover, the invention concerns the use of the artificial nucleic acid molecule, the vector, the kit or the pharmaceutical composition as a medicament, as a vaccine or in gene therapy.

36.20220088165MULTIVALENT VACCINE COMPOSITIONS AND USES THEREOF
US - 24.03.2022
Clasificación Internacional A61K 39/108 Nº de solicitud 17478584 Solicitante Janssen Pharmaceuticals, Inc. Inventor/a Jan Theunis POOLMAN
Compositions and methods are described for inducing an immune response against extra-intestinal pathogenic *Escherichia coli* (ExPEC) to thereby provide immune protection against diseases associated with ExPEC. In particular, compositions and methods are described for using conjugates of *E. coli* polysaccharide antigen O75 covalently bound to a carrier protein for the prevention of invasive ExPEC disease.

37.WO/2022/067062RAPID DEVELOPMENT OF PROPHYLACTIC BROAD SPECTRUM VACCINE FOR SARS-COV-2 USING PHAGE MEDIATED ANTIGEN DELIVERY SYSTEM
WO - 31.03.2022
Clasificación Internacional A61K 39/215 Nº de solicitud PCT/US2021/051988 Solicitante EPIVAX, INC. Inventor/a MARTIN, William
The present disclosure concerns recombinant bacteriophage designed to generate an immune response in a subject to provide for recognition and/or protection against SARS-CoV-2. The phage compositions can include phage display or phage DNA with algorithm optimized SARS-CoV-2 T cell epitopes to interact with a broad spectrum of HLA in the human population.

38.WO/2022/058945MULTIVALENT VACCINE COMPOSITIONS AND USES THEREOF
WO - 24.03.2022
Clasificación Internacional A61K 39/108 Nº de solicitud PCT/IB2021/058485 Solicitante JANSSEN PHARMACEUTICALS, INC. Inventor/a POOLMAN, Jan, Theunis
Compositions and methods are described for inducing an immune response againstextra-intestinal pathogenic Escherichia coli (ExPEC) to thereby provide immune protection against diseases associated with ExPEC. In particular, compositions and methods are described for using conjugates of E. coli polysaccharide antigen O75 covalently bound to a carrier protein for the prevention of invasive ExPEC disease.

39.20220087955COMBINATION THERAPIES WITH DISULFIRAM
US - 24.03.2022
Clasificación Internacional A61K 31/145 Nº de solicitud 17198157 Solicitante Spring Discovery, Inc. Inventor/a Rachel JACOBSON
Disclosed herein are compositions and methods for increasing lifespan, for preventing or treating a disease including an aging-related disorder, for reducing a symptom of aging, and/or boosting an immune system in a mammal. Also disclosed herein are compositions and methods for improving effectiveness of a vaccine in a mammal. The compositions comprise, at least, a therapeutically effective amount of disulfiram and one or more additional ingredients.

40.20220088166Modulation of Immunity to Drug Resistant and Latent MTB
US - 24.03.2022
Clasificación Internacional A61K 39/04 Nº de solicitud 17022893 Solicitante Longhorn Vaccines and Diagnostics, LLC Inventor/a Gerald W. Fischer
The invention is directed to compositions and methods for stimulating, enhancing or modulating the immune system of a patient before or after infection by a pathogen, and in particular multidrug resistant (MDR) MTB and extremely drug resistant (XDR) MTB. Compositions of the invention contain non-naturally occurring antigens that generate an effective cellular and/or humoral immune response to MTB and/or antibodies that are specifically reactive to MTB antigens. The greater activity of the immune system generated by a vaccine of the invention increases generation of memory T cells that provide for a greater and/or extended response to an MTB infection. Responses involve an increased generation of antibodies that enhance immunity against MTB infection and promote an enhanced phagocytic response. Monoclonal antibodies produced by the non-naturally occurring antigens enhance phagocytosis and killing of mycobacteria by phagocytic cells, enhance clearance of MTB from the blood and modulate immunity and cytokine responses.

41.20220090005Supplemented Serum-Containing Culture Medium for Enhanced Arpe-19 Growth and Human Cytomegalovirus Vaccine Production
US - 24.03.2022
Clasificación Internacional C12N 5/00 Nº de solicitud 17420177 Solicitante Sianny CHRISTANTI Inventor/a Sianny Christanti
The present invention relates to supplemented serum-containing cell culture media that provides enhances ARPE-19 cell growth and/or improves the yield of human cytomegalovirus (HCMV) grown in ARPE-19 cell cultures. The media of the invention includes two additives, a hormone (e.g., a glucocorticoid hormone such as dexamethasone) and a growth factor (e.g., EGF). The invention further provides methods of producing HCMV in such growth media.

42.WO/2022/066926BCG VACCINATIONS FOR PREVENTION OF COVID-19 AND OTHER INFECTIOUS DISEASES
WO - 31.03.2022

Clasificación Internacional A61P 31/06 Nº de solicitud PCT/US2021/051775 Solicitante THE GENERAL HOSPITAL CORPORATION Inventor/a FAUSTMAN, Denise, L.
The invention relates, in part, to a method for the prophylactic treatment of a coronavirus infection in a human adult subject comprising administering at least two doses of a Bacillus Calmette-Guerin (BCG) vaccine to the subject, wherein the subject is a type I diabetic.

43.20220090097REGULATED EXPRESSION OF ANTIGEN AND/OR REGULATED ATTENUATION TO ENHANCE VACCINE IMMUNOGENICITY AND/OR SAFETY
US - 24.03.2022
Clasificación Internacional C12N 15/74 Nº de solicitud 17500940 Solicitante The Arizona Board of Regents for and on Behalf of Arizona State University Inventor/a Roy Curtiss, III
The invention relates to compositions and methods for making and using recombinant bacteria that are capable of regulated attenuation and/or regulated expression of one or more antigens of interest.

44.20220088175OPTIMIZED VACCINE COMPOSITIONS AND METHODS FOR MAKING THE SAME
US - 24.03.2022
Clasificación Internacional A61K 39/145 Nº de solicitud 17399041 Solicitante Centivax, Inc. Inventor/a Jacob GLANVILLE
Described herein are compositions of and methods of making vaccines which can provide broad serological reactivity an inverse dose response, and a swarm effect.

45.20220088177RETROVIRAL VECTOR FOR THE ADMINISTRATION AND EXPRESSION OF REPLICON RNA EXPRESSING HETEROLOGOUS NUCLEIC ACIDS
US - 24.03.2022
Clasificación Internacional A61K 39/21 Nº de solicitud 17466605 Solicitante Immune Design Corp. Inventor/a Peter Lars Aksel Berglund

The present disclosure relates generally to gene delivery using a chimeric, retroviral-RNA replicon vector particle for increased expression of transgenes in a host cell. In particular, the chimeric vectors described herein can be used in any of a variety of settings including gene therapy and vaccine settings.

46.WO/2022/060424β-AMYLOID VACCINE FOR THE TREATMENT OF ALZHEIMER'S DISEASE
WO - 24.03.2022
Clasificación Internacional A61P 25/28 Nº de solicitud PCT/US2021/033180 Solicitante OTHAIR PROTHENA LIMITED Inventor/a BARBOUR, Robin
The disclosure provides peptide compositions and immunotherapy compositions comprising an amyloid-beta (Aβ) peptide. The disclosure also provides methods of treating or effecting prophylaxis of Alzheimer's disease or other diseases with beta-amyloid deposition in a subject, including methods of clearing deposits, inhibiting or reducing aggregation of Aβ, blocking the uptake by neurons, and clearing amyloid in a subject having or at risk of developing Alzheimer's disease or other diseases containing amyloid-beta accumulations. The methods include administering to such patients the compositions comprising an. amyloid-beta (Aβ) peptide.

47.WO/2022/061264PIV5-BASED COVID-19 VACCINE
WO - 24.03.2022
Clasificación Internacional A61K 39/215 Nº de solicitud PCT/US2021/051196 Solicitante UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC. Inventor/a HE, Biao
The present invention provides constructs of the parainfluenza virus type-5 (PIV5) virus expressing the SARS-CoV-2 envelope spike (S) protein for use as safe, stable, efficacious, and cost-effective vaccines against COVID-19.

48.3969046VERFAHREN ZUR INDUZIERUNG EINER SICHEREN IMMUNANTWORT GEGEN DAS POLIOVIRUS
EP - 23.03.2022
Clasificación Internacional A61K 39/12 Nº de solicitud 20725175 Solicitante JANSSEN VACCINES & PREVENTION BV Inventor/a CAHILL CONOR
The present invention relates to methods and vaccine compositions for inducing a safe immune response against polio virus in a human subject in need thereof, comprising administering to the subject a composition comprising inactivated Sabin poliovirus (sIPV) strains, wherein the sIPV strains have been produced on PER.C6® cells.

49.WO/2022/061248IDENTIFICATION OF SARS-COV-2 EPITOPES DISCRIMINATING COVID-19 INFECTION FROM CONTROL AND METHODS OF USE
WO - 24.03.2022
Clasificación Internacional G01N 33/68 Nº de solicitud PCT/US2021/051143 Solicitante WISCONSIN ALUMNI RESEARCH FOUNDATION Inventor/a ONG, Irene
The present invention is directed to peptides for use in the detection of antibodies against SARS-CoV-2, which are indicative of past SARS-CoV-2 infections. Additionally, assays and methods of distinguishing patients having had a prior infection from those vaccinated patients are also provided. Additionally, vaccine compositions for use in eliciting anti-SARS-CoV-2 immune response are provided along with methods of producing antibodies and methods of eliciting an immune response.

50.WO/2022/063892COMPOUND FOR INCREASING EFFICACY OF VIRAL VECTORS
WO - 31.03.2022
Clasificación Internacional A61K 47/64 Nº de solicitud PCT/EP2021/076193 Solicitante ABLEVIA BIOTECH GMBH Inventor/a SMRZKA, Oskar
The present invention provides a compound for the sequestration of undesirable neutralizing antibodies against viral vectors (as used in vaccines and in gene therapy) in a patient. The compound comprises an inert biopolymer scaffold and at least a first peptide n-mer of the general formula P (— S — P)(n-1) and a second peptide n-mer of the general formula P (— S — P)(n-1); wherein, independently for each occurrence, P is a peptide with a sequence length of 2-13 amino acids and S is a non-peptide spacer, wherein, independently for each of the peptide n-mers, n is an integer of at least 1, wherein each of the peptide n-mers is bound to the biopolymer scaffold. Independently for each occurrence, P has an amino-acid sequence comprising a sequence fragment with a length of at least six amino acids of a capsid protein sequence of a viral vector. Also provided are pharmaceutical compositions comprising the compound, as well as a method of sequestering one or more antibodies present in an individual and a method of inhibiting an undesirable immune reaction to a treatment with a vaccine or a gene therapy composition.

51.20220090004LIVE-ATTENUATED LISTERIA MONOCYTOGENES AND METHODS FOR USING THE SAME
US - 24.03.2022
Clasificación Internacional C12N 1/20 Nº de solicitud 17289180 Solicitante ZHEJIANG A&F UNIVERSITY Inventor/a Houhui SONG
The present invention provides a construction method and application of a live-attenuated *Listeria monocytogenes*, in which a wild-type strain of *Listeria monocytogenes* EGD-e is used as construction parental strains, and the residues N478 and V479 of LLO are respectively mutated into plasmid free alanine. The live-attenuated strain of *Listeria monocytogenes* in the present invention can be used as a live vaccine vector and an immunologic adjuvant.

52.20220088182ANTIGEN SPECIFIC IMMUNOTHERAPY FOR COVID-19 FUSION PROTEINS AND METHODS OF USE
US - 24.03.2022
Clasificación Internacional A61K 39/215 Nº de solicitud 17544293 Solicitante Akston Biosciences Corporation Inventor/a Todd C. Zion
The present disclosure provides recombinantly manufactured fusion proteins comprising a SARS-CoV-2 Receptor Binding Domain (SARS-CoV-2-RBD) fragment or an analog thereof linked to a human Fc fragment for use in relation to the 2019 Novel Coronavirus (COVID-19). Embodiments include the administration of the fusion proteins to patients that have recovered from COVID-19 as a booster vaccination, to antibody naïve patients to produce antibodies to the SARS-CoV-2 virus to enable the patients to become convalescent plasma donors, to patients who have been infected by the SARS-CoV-2 virus and have contracted COVID-19 in order to limit the scope of the infection and ameliorate the disease, and as a prophylactic COVID-19 vaccine. Exemplary Fc fusion proteins and pharmaceutical formulations of exemplary Fc fusion proteins are provided, in addition to methods of use and preparation.

53.3971215KÜNSTLICHES MULTI-ANTIGEN-FUSIONSPROTEIN SOWIE HERSTELLUNG UND VERWENDUNG DAVON
EP - 23.03.2022
Clasificación Internacional C07K 19/00 Nº de solicitud 21181903 Solicitante OXFORD VACMEDIX UK LTD Inventor/a XIA XIAOBING
Provided are an artificial multi-antigen fusion protein and a preparation method thereof. The fusion protein can effectively stimulate CD8+T and CD4+ T cell immunities, and can be applied to immunodiagnostics or serve as a prophylactic or therapeutic vaccine.

54.WO/2022/060487ALPHA-SYNUCLEIN VACCINE FOR THE TREATMENT OF SYNUCLEINOPATHIES
WO - 24.03.2022
Clasificación Internacional A61K 38/08 Nº de solicitud PCT/US2021/045055 Solicitante PROTHENA BIOSCIENCES LIMITED Inventor/a BARBOUR, Robin
The disclosure provides peptide compositions and immunotherapy compositions comprising alpha-synuclein peptide. The disclosure also provides methods of treating or effecting prophylaxis of neurodegenerative diseases, such as Parkinson's disease, dementia with Lewy bodies (DLB), Alzheimer's disease or other synucleinopathies, with alpha-synuclein deposition in a subject, including methods of clearing deposits, inhibiting or reducing aggregation of alpha-synuclein, blocking the uptake by neurons and inhibiting propagation of alpha-synuclein seeds in a subject having or at risk of developing a neurodegenerative disease containing alpha-synuclein accumulations. The methods include administering to such patients the compositions comprising alpha-synuclein peptide.

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

Results Search in US Patent Collection db for: (ABST/vaccine AND ISD/20220321->20220331), 17 records.

	PAT. NO.	Title
1	11,286,492	Artificial nucleic acid molecules for improved protein expression
2	11,286,464	Viral vaccines and methods of forming the same
3	11,286,282	Methods of detection and removal of rhabdoviruses from cell lines
4	11,285,206	Heat-resistant recombinant Newcastle Disease Virus vaccine strain capable of expressing truncated Fiber 2 protein of Fowl Adenovirus serotype 4, preparation method and application thereof
5	11,285,205	Influenza antigens
6	11,285,201	Attenuated Bordetella strains
7	11,285,199	Vaccine composition comprising recombinant protein of Staphylococcus aureus attenuated enterotoxin and cytotoxin
8	11,279,753	Use of TGF-alpha polypeptide or anti-TGF-alpha antibodies for the treatment of diseases and disorders
9	11,279,741	Peptides and combination of peptides for use in immunotherapy against lung cancer, including NSCLC, SCLC and other cancers
10	11,279,740	Peptides and combination of peptides for use in immunotherapy against lung cancer, including NSCLC, SCLC and other cancers
11	11,278,617	Immunogenic composition forming a SARS-CoV-2 vaccine, and a method for its manufacture
12	11,278,616	Immunity induction promoting composition, and vaccine pharmaceutical composition
13	11,278,613	Lyssavirus antigen constructs
14	11,278,612	Multivalent influenza nanoparticle vaccines
15	11,278,609	Polypeptides derived from Enterococcus and their use for vaccination and the generation of therapeutic antibodies
16	11,278,604	Mesoporous silica compositions comprising inflammatory cytokines comprising inflammatory cytokines for modulating immune responses
17	11,278,571	Peptides and combination of peptides for use in immunotherapy against epithelial ovarian cancer and other cancers

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