VacCiencia

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EN ESTE NÚMERO

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

- Noticias más recientes en la Web sobre vacunas.
- Artículos científicos más recientes de Medline sobre vacunas Covid-19.
- Patentes más recientes en Patentscope sobre vacunas.

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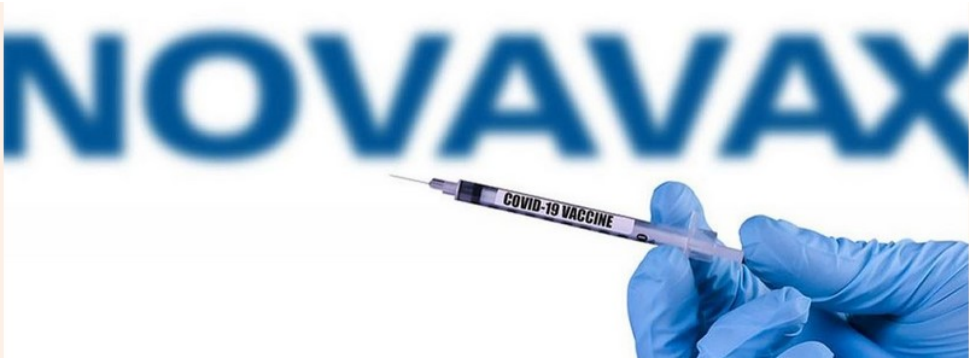
Noticias en la Web

Canadá pagará 315 millones de euros a Novavax por pedidos cancelados de vacunas COVID-19



11 jul. La estrecha relación que han llevado durante los meses más duros de pandemia Novavax y Canadá parece que se está empezando a deteriorar. El país americano ha anunciado la cancelación de ciertas entregas de vacunas contra la COVID-19 y pagará por ello 349,6 millones de dólares (316 millones de euros) para compensar por completo las dosis no utilizadas.

En cuanto al propio pago, han comunicado que se realizará en dos lotes, con la segunda entrega supeditada a la venta de las dosis contratas restantes en la segunda mitad de 2023. Un empuje económico momentáneo que supone una inyección muy necesaria para la empresa, ya que, en febrero, la dirección advirtió que existía la posibilidad de que Novavax desapareciera en 2023.

Las cifras de la compañía con sede en Maryland muestran la realidad en la que se encontraban, ya que finalizaron el mes de marzo con 637 millones de dólares (578 millones de euros) en efectivo, muy por debajo de los 1.300 (1.180 millones de euros) registrados a finales de 2022. Las autoridades canadienses aprobaron la vacuna de proteína recombinante de Novavax, Nuvaxovid, primero como serie primaria y luego como refuerzo en 2022. El acuerdo entre ambas partes llegó a principios de 2021, afianzando así, el trabajo con el gobierno canadiense para fabricar la vacuna localmente en el Consejo Nacional de Investigación de Canadá.

El país americano ha anunciado la cancelación de ciertas entregas de vacunas contra la COVID-19 y pagará por ello 316 millones de euros para compensar por completo las dosis no utilizadas

Ahora, en 2023, concretamente en el 30 de junio, firmaron un nuevo acuerdo que permite a Canadá rescindir de la compra anticipada si Novavax no recibe la aprobación de producción del centro de fabricación de productos biológicos para finales de 2024. Desde Novavax han señalado que su objetivo en este país pasa por mantenerse y "brindar aún más beneficios de salud, económicos y de preparación de futuras pandemias, esto implica la firma de una colaboración por 15 años.

El problema principal en esta operación es la caída de la demanda de vacunas contra la COVID-19, llegando al punto incluso de que el año pasado se desecharan unas 13 millones de dosis de la vacuna de Astrazeneca al no encontrar interesados, según recoge Fierce Pharma.

Después de dar a conocer su plan de despedir al 25% de su personal, cerca de 500 personas, y el posible final de sus relaciones con Canadá, Novavax se encuentra en una situación muy difícil. Su supervivencia depende de la entrega de su vacuna actualizada en otoño y su plan de solicitar la aprobación de venta en la segunda mitad del año.

Fuente: ConSalud.es. Disponible en https://www.consalud.es/salud35/internacional/canada-pagara-300-millones-euros-novavax-pedidos-cancelados-vacunas-covid_132094_102.html

VAX-24 Pneumococcal Conjugate Vaccine

Jul 12. VAX-24 is an investigational 24-valent PCV candidate designed to prevent IPD, which can be most serious for infants, young children, older adults, and those with immune deficiencies or certain chronic health conditions. The public health community affirms the need for vaccines that offer broader protection to prevent IPD. VAX-24 is intended to improve the standard-of-care PCVs for children and adults by covering the serotypes responsible for most of the pneumococcal disease currently in circulation. Vaxcyte aims to efficiently create and deliver high-fidelity, broad-spectrum vaccines, such as VAX-24, by using modern synthetic techniques, including advanced chemistry and the XpressCF™ cell-free protein synthesis platform. Vaxcyte is deploying this approach with VAX-24 to add more pneumococcal strains without compromising the overall immune response.

Vaxcyte is re-engineering the way highly complex vaccines are made through modern synthetic techniques, including advanced chemistry and the XpressCF™ cell-free protein synthesis platform, exclusively licensed from Sutro Biopharma, Inc. Unlike conventional cell-based approaches, the Company's system for producing difficult-to-make proteins and antigens is intended to accelerate its ability to efficient create and deliver high-fidelity vaccines with enhanced immunological benefits efficientlyccal disease (PD) is an infection caused by Streptococcus pneumoniae (pneumococcus) bacteria. It can result in IPD, including meningitis and bacteremia, and non-invasive PD, including pneumonia, otitis media, and sinusitis. In the United States, approximately 320,000 people get pneumococcal pneumonia yearly, which is estimated to result in about 150,000 hospitalizations and 5,000 deaths. Pneumococci also cause over 50% of all cases of bacterial meningitis in the United States. Antibiotics are used to treat PD, but some strains of the bacteria have developed resistance to treatments. The morbidity and mortality due to PD are significant, particularly for young children and older adults, underscoring the need for a more broad-spectrum vaccine.

The FDA awarded Breakthrough Therapy Designation on January 5, 2023, and cleared the Company's infant Investigational New Drug application for VAX-24 on February 21, 2023. The first participants were dosed in the Phase 2 study of VAX-24 in healthy infants on March 30, 2023. On April 17, 2023, the Company announced positive clinical trial results.

Vaxcyte (Nasdaq: PCVX) is a vaccine innovation company engineering high-fidelity vaccines to protect humankind from the consequences of bacterial diseases.

Fuente: Precision Vaccinations. Disponible en https://www.precisionvaccinations.com/vaccines/vax-24-pneumococcal-conjugate-vaccine

Colombia participa en estudio clínico mundial para encontrar vacunas adicionales contra la COVID-19 seguras y efectivas

12 jul. Como parte de las acciones que se implementaron para superar la emergencia de salud pública generada por la Covid-19, la Organización Mundial de la Salud (OMS) intensificó esfuerzos y desarrolló un protocolo internacional, llamado Solidaridad, para encontrar nuevas vacunas y nuevos medicamentos contra esta enfermedad. En el estudio de medicamentos participan 52 países del mundo, entre ellos Brasil, Chile, Colombia, El Salvador, México y Perú. Colombia es el único país de la Región de las Américas que participa en el Estudio Clínico Solidaridad para Vacunas, en el cual también participaron países de África y Asia.

En el caso de Colombia, la investigación – que tiene el respaldo del Ministerio de Salud y Protección Social y

se desarrolla con financiación de la OMS – es dirigida por Carlos Álvarez Moreno, quien es médico cirujano e infectólogo y doctor en Ciencias Biológicas, y cuenta con la participación de cinco coordinadores científicos en los territorios.

Durante una rueda de prensa en el Hospital Nacional de Colombia, el pasado 15 de junio, el Doctor Álvarez Moreno destacó la capacidad técnica y de investigación que tiene el país, así como la importancia de la participación de diferentes ciudades principales e intermedias. “Se investigó con los estándares de la más alta calidad”, sostuvo.

En Colombia el estudio se llevó a cabo en Cali, Armenia, Ibagué, Tunja, Duitama, Villavicencio y Bogotá, donde colombianos y personas migrantes accedieron a vacunarse voluntariamente y asisten a los seguimientos necesarios para evaluar la efectividad de las vacunas objeto del estudio.

El trabajo unificado de los Centros de Investigación participantes – el Hospital Nacional de Colombia en Bogotá, el Centro de Estudios de Infectología CEIP en Cali, el Centro de investigación CAIMED en Armenia e Ibagué, la Universidad del Quindío, el laboratorio de salud pública del Tolima y Sánitas en Bogotá como centro eje de la investigación, todos certificados en Buenas Prácticas Clínicas – fue determinante, al igual que el apoyo del Instituto Nacional de Salud INS en el proceso de secuenciación genómica y procesamiento de muestras sanguíneas.

El estudio en Colombia incluye dos vacunas. La primera de ellas es Medigen, una vacuna de proteína recombinante cuya vía de administración es una inyección intramuscular, de la cual se requieren dos dosis. Se aplicaron un total de 1.311 en Bogotá, Cali, Armenia, Tunja, Duitama e Ibagué. La segunda es Codagenix, una vacuna de virus vivos atenuados, de administración nasal. Se aplicaron 196 dosis en Bogotá Tunja y Villavicencio.

El estudio cuenta con acciones de buenas Prácticas Participativas recomendadas por la OMS y apoyadas por la Representación Colombia de las OPS/OMS. Estas intervenciones comunitarias buscan garantizar que la investigación se adapte al conocimiento de las estructuras sociales de la comunidad local y a sus relaciones con el sector de la salud.

El equipo investigador refiere que el estudio concluirá en marzo de 2024, cuando se cumpla un año de seguimiento a todos los participantes de esta iniciativa mundial. Para entonces se realizarán publicaciones globales y nacionales de los resultados encontrados.

Desarrollar nuevas vacunas es importante para prevenir enfermedades infecciosas y proteger la salud pública. El proceso de desarrollo de vacunas puede ser complejo y requiere tiempo, inversión de recursos y colaboración entre empresas, universidades, instituciones de investigación y organizaciones gubernamentales. El apoyo a la investigación científica también es importante para el desarrollo de nuevas vacunas y para avanzar en la comprensión de enfermedades infecciosas. La investigación científica debe tratar de responder preguntas y obtener conocimientos, y la observación cuidadosa y controlada debe ser la base para recopilar información. Para Colombia este esfuerzo significa volver a buscar la soberanía sanitaria que tuvo en los años 80s y que le ha valido el reconocimiento internacional por sus esfuerzos en la prevención de enfermedades.

Fuente: Organización Panamericana de la Salud. Disponible en https://www.paho.org/es/noticias/12-7-2023-colombia-participa-estudio-clinico-mundial-para-encontrar-vacunas-adicionales

COVID-19: INVIMA aprueba la aplicación de la vacuna bivalente para grupos priorizados

12 jul. Por medio de la Autorización Sanitaria de Uso de Emergencia (ASUE), que permite el uso de medicamentos o productos biológicos en situaciones de emergencia para proteger la salud pública, el Instituto de Vigilancia de Medicamentos y Alimentos (INVIMA), aprobó la autorización de la vacuna bivalente de Moderna.

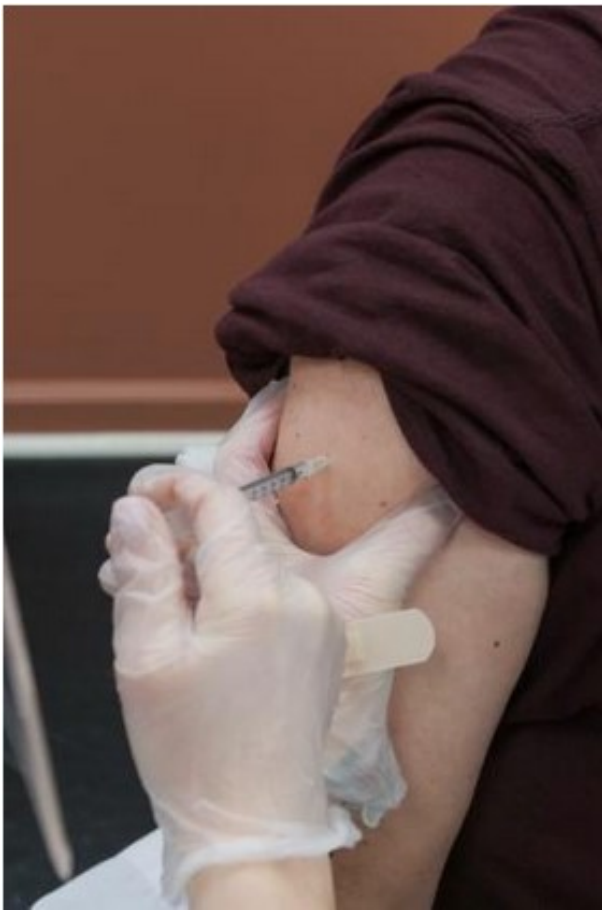
La situación es oportuna dado el aumento de infecciones por este virus en el cierre de la temporada de vacaciones e inicio de jornadas laborales y estudiantiles.

Según el reporte del Instituto Nacional de Salud (INS) con corte al pasado 7 de junio, desde que la COVID-19 llegó a Colombia se han reportado más de 6,3 millones de contagios y 142 mil muertes.

Es importante destacar que, según el mismo informe, durante la primera semana de junio se reportaron un total de 420 casos nuevos de coronavirus; siendo Bogotá, Antioquia, Santander, Cali y Barranquilla las principales zonas que han reportado un mayor número de casos activos.

Otro factor que ha generado preocupación sobre este panorama es la última semana del mes de mayo y la primera semana de junio, en donde se reportó al INS un total de 32 fallecimientos por COVID-19 en Colombia.

Además, en el mismo periodo de tiempo, al menos 82 personas requirieron unidad de cuidado intensivo por complicaciones de la COVID-19.



Según la resolución del Invima, el esquema de vacunación consiste en una sola dosis y debe ser al menos 12 meses después la última aplicación. Foto: Archivo Particular.

Es importante recordar que según la Administración de Alimentos y Medicamentos de Estados Unidos (FDA), la vacuna bivalente se caracteriza por contener “un componente de la cepa del virus original para brindar una amplia protección contra el covid-19 y un componente de la variante ómicron para brindar una mejor protección contra el virus causado por dicha variante. Estas se llaman vacunas bivalentes contra la COVID-19 porque contienen estos dos componentes”.

Según la resolución del INVIMA (con fecha de 2022), el esquema de vacunación consiste en una sola dosis y debe ser al menos 12 meses después la última aplicación. Esta actualización de la vacunación será para mayores de 18 años con alto riesgo de complicaciones, que hayan recibido al menos la primera vacuna frente a la COVID-19.

Es importante destacar que esta autorización es una herramienta de política de salud pública que fortalece la capacidad de acción del Estado en situaciones epidemiológicas como esta.

Expertos añaden que en materia de salud pública esta decisión puede interpretarse como una medida para afrontar el pico respiratorio que se está evidenciando en el país y en ciudades como Bogotá, Medellín y Barranquilla.

“Agradecemos al INVIMA por la gestión para tener en Colombia la vacuna bivalente contra la COVID-19 para la población de alto riesgo, los cuales son los mayores de edad y las personas con enfermedades

crónicas. Esto es una excelente noticia para el país, ya que estamos cruzando un nuevo pico epidemiológico de COVID-19; el cual está presente no solo en Colombia, sino que también a nivel internacional", añadió Javier Arango, presidente de la Asociación Colombiana de Medicina Interna (ACMI).

Y es que es importante resaltar que esta excelente medida anticipada del gobierno está destinada a proteger a la población mayor de 60 años, quienes han sido una de las más afectadas, al punto de tener una "mayor probabilidad de enfermar gravemente si se infectan, (…) muriendo a una tasa cinco veces mayor que la media".

Todas las personas mayores de edad que presenten enfermedades subyacentes, como enfermedades cardiovasculares, diabetes, condiciones respiratorias crónicas o cáncer, tienen más probabilidades de desarrollar una enfermedad grave.

Esta autorización por parte del Instituto, además de ser oportuna, era muy necesaria para que los colombianos continúen manteniendo el cuidado de los más vulnerables, actualizando sus esquemas de vacunación e informando a su comunidad sobre la disponibilidad de vacunas, para seguir con el control a largo plazo de las infecciones respiratorias, como lo han recomendado la Organización Panamericana de la Salud y la Organización Mundial de la Salud.

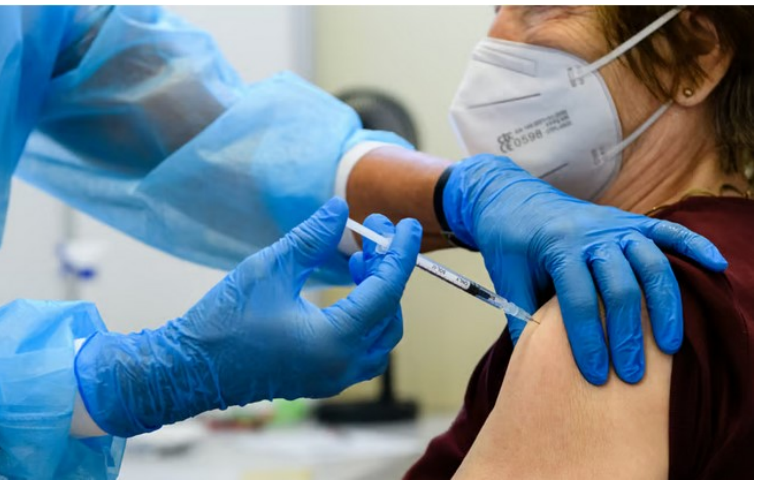
Fuente: El Tiempo. Disponible en https://www.eltiempo.com/salud/covid-19-invima-aprueba-la-aplicacion-de-la-vacuna-bivalente-para-grupos-priorizados-783980

Germany on track to bin 200M COVID-19 vaccine doses

Jul 12. Germany has thrown out 83 million doses of coronavirus vaccines at a rough cost of €1.6 billion and has 120 million more doses sitting unused in stock, even as it is set to receive more jabs at a time when vaccination has flatlined.

According to data provided by the country's health ministry, Germany scrapped 54 million COVID-19 vaccine doses by the end of 2022 and another 29 million in the first quarter of 2023.

However, the real tally is likely to be higher. The ministry didn't provide waste figures for the second quarter of this year and also stressed that federal states and health care providers aren't required to report vaccine waste. "Accordingly, a total volume of total disposed COVID-19 vaccine doses acquired by the Federal Republic of Germany cannot be quantified," it said in an email to POLITICO.



Germany has a population of 83 million people and has administered a total of 192 million jabs over the course of the whole pandemic | Jens Schlueter/Getty Images

Meanwhile, another 120 million doses are still in stock as the number of people getting vaccines has plummeted. The EU's disease control agency's most recent data shows that a total of 268 doses were administered in Germany in the week of June 5. And 1,462 people were jabbed in the three weeks before that.

While vaccination rates are likely to pick up in the fall as health systems brace for seasonal infections, this is unlikely to make a dent in the 120 million vaccines sitting unused. Germany has a population of 83 million people and has administered a total of 192 million jabs over the course of the whole pandemic.

The cost of this waste is almost certain to run into the billions of euros.

While the ministry didn't provide a breakdown of the type of vaccines wasted, it did say that of the 29 million vaccines that had expired by the end of the first quarter of 2023, 5 million were Moderna, 18 million were BioNTech/Pfizer, and another 6 million were Novavax.

Assuming a similar breakdown for the doses that expired at the end of 2022, as well as the remaining 120 million that are unused, that would put the total value of the unused vaccines at roughly €4 billion based on leaked prices of €19 ($20.90) per dose for Novavax, €23 ($25.50) for Moderna and €19.50 for BioNTech/ Pfizer.

EU countries, including Germany, are still on the hook for even more doses after a recent deal negotiated between the Commission and U.S. pharmaceutical Pfizer. The exact number of deliveries that the bloc is set to receive isn't public, but one participant of a confidential meeting where details of the revised contract were shared with a select group of MEPs told POLITICO that the figure is 260 million doses spread out over the course of the next four years — or 65 million doses per year.

Fuente: POLITICO. Disponible en https://www.politico.eu/article/germany-bin-200-million-covid-19-vaccine-doses/

Cocoon Bioscience abrirá su planta de producción de enzimas y proteínas en el parque tecnológico de Bizkaia en 2024

15 jul. La red de parques tecnológicos vascos ha anunciado esta semana algunas incorporaciones y entre ellas destaca la de Cocoon Bioscience, una startup que dispone de una tecnología pionera y disruptiva para producir encimas y proteínas a partir de insectos vivos, que pueden utilizarse en múltiples aplicaciones según ha explicado en una entrevista en Hora 14 Euskadi su directora de operaciones Romy Dalton.

Es una tecnología madura que ya existía pero su desarrollo ha permitido reducir notablemente los costes y ha abierto las puertas a su industrialización. Una de las aplicaciones principales es la elaboración de proteínas necesarias para el crecimiento de carne cultivada en laboratorio, un negocio en alza, o para su uso en aplicaciones biomédicas.

Coccon Bioscienci nació a finales del año pasado con 5 personas y ha ampliado su plantilla hasta las 16 en estos meses, pero espera alcanzar las 50 o 60 cuando se ponga en funcionamiento, en el primer trimestre del año que viene, la planta industrial que están construyendo en el parque tecnológico de Bizkaia, en Zamudio. Allí podrán producir hasta 15 kilos de proteína recombinante.

Cocoon
PROTEINS FOR SUSTAINABILITY

Instalarse en el parque tecnológico les ha servido para establecer contacto con proveedores y con otras empresas con intereses comunes, según ha explicado Dalton. Entre el personal especializado que tendrán que contratar menciona los entomólogos con experiencia en gestionar el crecimiento de insectos a nivel industrial.

Fuente: SER. Disponible en https://cadenaser.com/euskadi/2023/07/15/cocoon-bioscience-abrira-su-planta-de-produccion-de-enzimas-y-proteinas-en-el-parque-tecnologico-de-bizkaia-en-2024-radio-bilbao/

Is it time to get yet another COVID-19 shot?

Jul 18. More than three years after the pandemic began, the question is still important. Is it time to get another COVID-19 vaccination?

While summer is in full swing, the virus is still out there, lurking at low levels, and people continue to get sick. And when colder weather comes, it's going to be crucial to stay protected.

Health officials are expected to roll out a new shot in the fall but advise that everyone right now be "up to date" on their vaccinations.

Here are the current recommendations of the US Centers for Disease Control and Prevention, and comments from some experts who believe the CDC advice may in some cases be too cautious.

The CDC says that everyone age 6 and up should get an updated, bivalent booster vaccine. It's as simple as that.

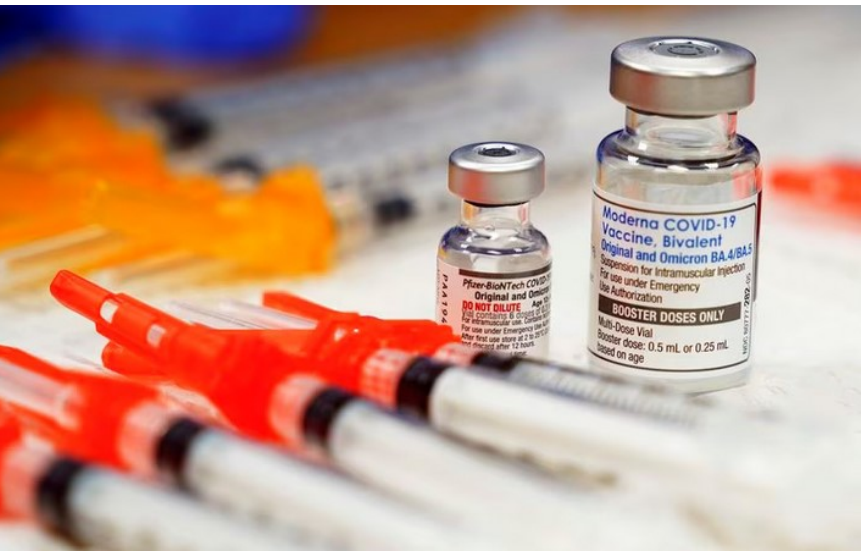
Forget about what type of vaccine you got previously. It doesn't matter how many shots you received so far. There's no need to play catch-up before you get the bivalent shot. The original shots and boosters from Moderna, Pfizer, and Johnson & Johnson are no longer even authorized.

The CDC recommends that everyone get the bivalent shot, which was first offered to people in September, "regardless of whether they previously completed their (monovalent) primary series."

In Massachusetts, the state Department of Public Health says about about 2.1 million people got boosters after Sept. 1, 2022, nearly all of which were the bivalent shots. That's about 30 percent of the state's population of about 7 million. Nationally, about 17 percent of people have gotten the bivalent shots, the CDC says.

People who are 65 and older can also get a second bivalent shot, and people who are immunocompromised can receive even more, according to the CDC.

Children from 6 months to 5 years old should get at least one bivalent shot, and maybe more depending on the number of original shots they've received previously, the vaccine types, and their age, the CDC said.



Pfizer, left, and Moderna bivalent COVID-19 vaccines are readied for use at a clinic, Nov. 17, 2022, in Richmond, Va.Steve Helber/Associated Press

Dr. Philip Landrigan, director of Boston College's Program for Global Public Health and the Common Good, said people should follow the CDC guidelines. And he suggested that people 65 and older and people who are immunocompromised sign up for their additional bivalent shots.

"It's important to remind people that even though you can get a respiratory infection, the big thing about the COVID-19 vaccines is they keep you out of the hospital and they keep you alive," he said. You may get sick, he said, but "you're going to be alive to work and play next week."

While it's steamy outside now, "as soon as the weather gets chilly and people start moving indoors ... we're going to have an uptick in infections so it's good to get vaccinated before that time comes," he said.

(While on the topic of avoiding COVID-19, he noted that "everybody's tired of masks," but they continue to be useful. If you have a cough or a cold or are going to be around someone with a cough or a cold, or are in a crowded public place, "slip on a mask," he said.)

Other experts said their current advice on booster shots would vary from the CDC's.

They pointed, among other things, to the current low levels of the pandemic, widespread immunity in the population, and the arrival of what's expected to be a better vaccine, possibly as soon as September.

Federal regulators last month advised vaccine manufacturers to reformulate their COVID-19 shots to target an Omicron subvariant to provide the best protection as the weather turns colder and more people gather indoors. Pfizer, Moderna, and Novavax have said that updated vaccines could be developed and manufactured in time for a rollout in the fall.

Dr. David Hamer, a professor of global health and medicine at Boston University, said that he didn't think that people who got the first bivalent shot needed to get the second. "I favor having my patients wait until either the new booster is available and/or there is a new wave of SARS-CoV-2," he said by e-mail.

"My current advice is wait," he said. "It makes sense to get this vaccine closer to the time there's actually an outbreak."

Hamer also said that many people who have gotten their original shots and boosters don't even need the first bivalent shot, "although the exception would be those who are at high risk based on advanced age, serious underlying immunocompromising conditions, etc."

Dr. Paul Sax, clinical director of the Division of Infectious Diseases at Brigham and Women's Hospital, said people who've gotten the first bivalent booster don't need a second one "unless they're over 80, medically fragile, or immunocompromised."

Like Hamer, he said he would recommend a first bivalent shot for those at high risk of severe disease, such as older people or those with comorbidities. But for younger, healthy adults, he said, the first bivalent shot may not be needed.

He cited a hypothetical case of a completely healthy 25-year-old man who has had three shots and had COVID-19 twice already. "Does it really make sense to have him get an extra vaccination now? It really doesn't," he said.

In the fall, "the monovalent vaccine that will likely be recommended should be a better match to the circulating variants," he said. "Also, while COVID is still very much circulating (just saw another person with it today), disease levels are lower than they'll likely be in the fall and winter, which has been the case the last three winters."

The decision to get a bivalent shot should consider a person's age, their immune status, and their previous exposure to COVID-19, either through shots or infections, he said.

"People who are highly vulnerable should choose to be maximally vaccinated," he said. But for "intermediate-risk people, it depends on degree of immunity."

If people have questions, they should contact their doctors, he said, because it's not easy to "figure this out from the guidelines."

The bivalent shots were formulated to protect against both the original virus strain and the Omicron strain. The new shots this fall will be monovalent again, targeting a single Omicron subvariant.

The US Food and Drug Administration told vaccine manufacturers last month to develop shots tailored to fight the XBB.1.5 subvariant, after experts determined that the subvariant appeared to be the best target for future vaccines. The CDC is expected to update its vaccine recommendations in mid- to late September once FDA approves the shots.

Early studies have shown that vaccines targeting XBB.1.5 also help protect against other XBB subvariants, such as XBB.1.16 and XBB.2.3.

Fuente: Boston Globe. Disponible en https://www.bostonglobe.com/2023/07/18/nation/is-it-time-get-yet-another-covid-19-shot/

Myocarditis and COVID Vaccination: Yale Researchers Reveal New Insights

Jul 18. Two years ago, as COVID-19 vaccines first started to be rolled out, there was a surge in myocarditis cases, a condition characterized by inflammation of the heart muscle. This was particularly noticeable in young males who received mRNA vaccines. It was unclear, however, what exactly was causing this reaction.

However, Yale researchers have now shed light on this issue through a recent study, where they identified the immune signature of these heart inflammation cases.

These findings, published May 5 in the journal Science Immunology, rule out some of the theorized causes of the heart inflammation and suggest potential ways to further reduce the incidence of a still rare side effect of vaccination, the authors say.

Myocarditis is a generally mild inflammation of heart tissue that can cause scarring but is usually resolved within days. The increased incidence of myocarditis during vaccination was seen primarily in males in their teens or early 20s, who had been vaccinated with mRNA vaccines, which are designed to elicit immune responses specifically to the SARS-CoV-2 virus.

According to the Centers for Disease Control and Prevention (CDC), among males aged 12 to 17, about 22 to 36 per 100,000 experienced myocarditis within 21 days after receiving a second vaccine dose. Among unvaccinated males in this age group, the incidence of myocarditis was 50.1 to 64.9 cases per 100,000 after infection with the COVID-19 virus.

For the new study, the Yale research team conducted a detailed analysis of immune system responses in those rare cases of myocarditis among vaccinated individuals. The team was led by Carrie Lucas, associate professor of immunobiology, Akiko Iwasaki, Sterling Professor of Immunobiology, and Inci Yildirim, associate professor of pediatrics and epidemiology.

They found that the heart inflammation was not caused by antibodies created by the vaccine, but rather by a more generalized response involving immune cells and inflammation.

“The immune systems of these individuals get a little too revved up and over-produce cytokine and cellular responses,” Lucas said.

Earlier research had suggested that increasing the time between vaccination shots from four to eight weeks may reduce the risk of developing myocarditis.

Lucas noted that, according to CDC findings, the risk of myocarditis is significantly greater in unvaccinated individuals who contract the COVID-19 virus than in those who receive vaccines. She emphasized that vaccination offers the best protection from COVID-19-related diseases.

"I hope this new knowledge will enable further optimizing mRNA vaccines, which, in addition to offering clear health benefits during the pandemic, have a tremendous potential to save lives across numerous future applications," said Anis Barmada, an M.D./Ph.D. student at Yale School of Medicine, who is a co-first author of the paper with Jon Klein, also a Yale M.D./Ph.D. student.

Fuente: Sci Tech Daily. Disponible en https://scitechdaily.com/myocarditis-and-covid-vaccination-yale-researchers-reveal-new-insights/

China's Stemirna halts work at planned mRNA vaccine factory, cites lack of demand

Jul 19. China's Stemirna Therapeutics said on Wednesday it had suspended work at a factory it had planned to use to manufacture its COVID-19 vaccine candidate that uses messenger RNA (mRNA) technology, citing a lack of demand.

Stemirna, whose backers include private equity firm HongShan, previously known as Sequoia Capital China, said in a statement it had only been testing production and would now focus on research instead. It did not give more details on the trial operations.

The company had planned to have the capacity to produce 400 million doses of its vaccine candidate a year via two factories, the second of which had not started operations.

Stemirna said in May it had raised a "few hundred million" yuan in a capital raise to accelerate the development of its vaccine pipelines, which include ones for tumor treatments and infectious diseases. In 2021, it raised $200 million to finance production and clinical trials.

Stemirna was among a handful of domestic companies in China racing to develop mRNA vaccines, after the country throughout the pandemic declined to use mRNA vaccines from abroad.

But demand for COVID-19 vaccines in the country has plummeted after China lifted its COVID curbs abruptly in December, prompting a wave of infections.

Fuente: Reuters. Disponible en https://www.reuters.com/business/healthcare-pharmaceuticals/chinas-stemirna-halts-work-planned-mrna-vaccine-factory-cites-lack-demand-2023-07-19/

Novavax working on updated vaccine for the fall, combination vaccine still being developed

Jul 20. Novavax was the fourth COVID-19 vaccine available in the United States, a proud moment for Montgomery County leaders in the summer of 2021.

"We are encouraged that this will further boost our economic development efforts," said Montgomery County Executive Marc Elrich in 2021.

Now two years later, the company is making tough financial decisions.

“We released about a quarter of our staff globally,” said Dr. Filip Dubovsky, Novavax’s President of Research and Development.

According to the CNBC, Novavax’s next hurdle will be competing against Pfizer and Moderna.

Despite the challenges, Novavax says they are making progress.

“We are on track to have our updated vaccine available, in time for the fall vaccination season, here in the U.S.,” said Dubovsky.

The biotech company, which produces a protein-based COVID-19 vaccine, is also working on a combination vaccine for the flu and COVID-19.

“So when you go to your CVS…you’ll only need one jab,” said Dubovsky. “That’s still several years away.”

Fuente: DC NEWS NOW. Disponible en https://www.dcnewsnow.com/news/health/novavax-working-on-updated-vaccine-for-the-fall-combination-vaccine-could-be-available-in-a-few-years/

A Q&A with Gavi’s Seth Berkley on vaccines, Covid, and challenges ahead

Jul 20. Seth Berkley — one of the highest-profile proponents of vaccination on the planet — was under a denial-of-service attack. It was not his first, likely the handiwork of people who object to Gavi’s efforts to help lower-income countries purchase vaccines at affordable prices. “It is not fun when it happens, but it happens from time to time. I usually can tell because I get locked out of my email,” he said matter-of-factly.

Berkley has headed the Geneva-based organization for the past dozen years, overseeing an ambitious expansion of the number of vaccines Gavi helps countries purchase, and the number of doses delivered globally with its assistance. Originally set up to ensure children the world over had access to seven essential vaccines, it now supports purchase of 19 vaccines, including the enormously effective human papillomavirus vaccine (HPV), and helps maintain a stockpile of Ebola Zaire vaccine doses.

Kate O’Brien, director of the World Health Organization’s department of immunization, vaccines, and biologicals, calls Gavi “maybe the most successful program of supporting low-income countries for essential public health tools.” Gavi’s estimate of the number of deaths averted by its vaccines jumped from 4.5 million in its first decade of operation to 11.8 million over the past 12 years — the period of Berkley’s leadership.

“You kind of have to point to Seth in his personal capacity as the CEO… as having led the secretariat of the alliance through a very successful period, with increasing the breadth of protection that kids and adolescents have access to because of the vaccine introductions and because of scale-up of performance of the immunization programs to deliver those vaccines to anybody anywhere in the countries where children exist,” O’Brien said in an interview.

As he gets ready to leave Gavi, Berkley is both proud of many of the alliance’s accomplishments and a bit frustrated by the speed at which progress unspools in the international immunization sphere at times. He also wishes critics would acknowledge not just the failings of COVAX — the international collaboration set up to secure Covid-19 vaccine doses for countries that couldn’t buy their way to the front of vaccine queues — but also the astonishing amounts of vaccine it helped those countries obtain. In the 92 countries eligible to buy Covid vaccines through COVAX, an average of 55% of people have had a primary series of Covid vaccines.

By the time the 2009 H1N1 flu pandemic — the last pandemic pre-Covid — was declared over, the corresponding figure was effectively nil. “I mean, this is an amazing accomplishment,” Berkley said.

STAT spoke to Berkley about his tenure over two recent Zoom calls. The conversations have been edited for length and clarity.

When do you finish at Gavi?

August 2nd. And August 3rd, I go on vacation.

What’s next for you?

My son has two more years in high school. I think right now I’m going to try and stay in Geneva to allow him to finish high school. And what I’m looking at doing is a series of things around these areas — new technologies, vaccines, some venture capital activities. As an adviser and a consultant to people in these adjacent spaces.

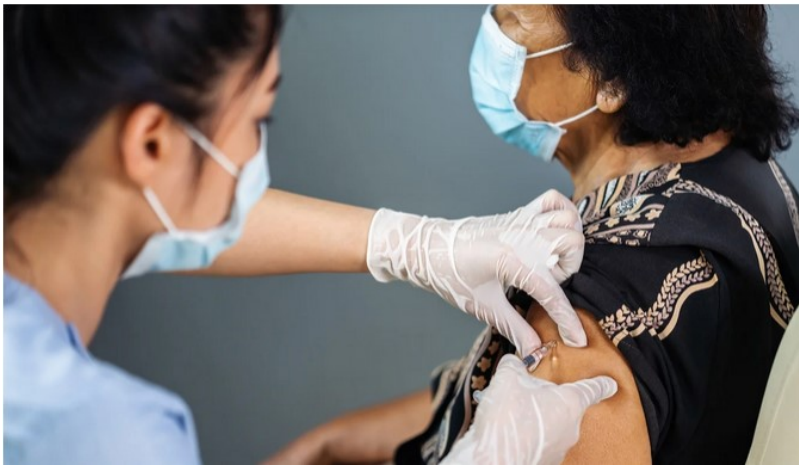
I cannot get over what happened in the pandemic in terms of the number of doses of vaccine that got delivered and the fact that they weren’t all delivered in upper-income countries. It was inequitable, certainly. But it was just far better than anybody anticipated, and I think we just write that off.

Obviously I’m a little defensive about this. But the idea that [some people] say COVAX was a complete failure — it isn’t. It wasn’t. And a lot of the things that happened, of course, were outside of our control, and those are things that can be mitigated in the future by creating different systems and ways of working. And there were some things that just didn’t work, and we need to be honest about that as well.

So let’s learn from the lessons, and let’s improve going forward, so the next time we do even better.

Fuente: STAT News. Disponible en https://www.statnews.com/2023/07/20/seth-berkley-gavi-vaccines-covid-interview/

GeoVax initiates Phase II trial of new COVID-19 vaccine GEO-CM04S1



Jul 21. GeoVax Labs has initiated a Phase II clinical trial to compare its COVID-19 vaccine GEO-CM04S1 against Pfizer-BioNTech’s Bivalent vaccine in patients with chronic lymphocytic leukemia.

The randomised, observer-blinded, investigator-initiated study will be carried out at City of Hope National Medical Center, and Alexey Danilov will act as principal investigator.

A total of 40 severely immunocompromised patients will be randomised to receive two boosters with either the COVID-19 vaccine GEO-CM04S1 or Pfizer-BioNTech’s bivalent vaccine as the control arm.

Patients will initially receive the first booster dose. Three months apart, a second booster dose will be given to assess immune responses in these vulnerable patients.

Immune responses will be assessed at the interim and final analyses in each arm.

GeoVax chief medical officer Kelly McKee said: “Unpublished clinical data recently presented at several medical conferences confirmed our earlier findings in healthy adults that GEO-CM04S1 stimulated a robust, durable, and broad-based humoral and cellular immune response against multiple SARS-CoV-2 variants, and by extension, to immunocompromised patients.

“Validation of these findings in additional patients with hematologic malignancies, who have received CAR-T and stem cell transplants, is underway as we seek to provide a vaccine solution to those individuals unable to mount adequate protective responses with currently available Covid-19 vaccines.

“We expect the CLL trial will further confirm the potential benefit of CM04S1 in another population of immunocompromised individuals.”

Built on MVA viral vector platform, the new Covid-19 vaccine induces both antibody and T cell responses to non-variable parts of the virus. It targets the spike (S) and nucleocapsid (N) proteins of SARS-CoV-2.

The vaccine will be used as a universal heterologous booster in healthy adults.

Fuente: Clinical Trials Arena. Disponible en https://www.clinicaltrialsarena.com/news/geovax-trial-new-covid-19-vaccine/

Artículos científicos publicados en Medline

Filters activated: (vaccine[Title/Abstract]) AND (("2023/07/11"[Date - Publication] : "2023/07/21"[Date - Publication])) 320 records

COVID-19 Vaccines.
[No authors listed] 2023 Jul 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–. PMID: 33355732

Influenza Vaccines.
[No authors listed] 2023 Jul 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–. PMID: 30000049

Hepatitis B **Vaccine**.
[No authors listed] 2023 Jul 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–. PMID: 30000002

Tenofovir.
[No authors listed] 2023 Jul 15. Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006–. PMID: 30000609

Vaccine efficacy at a point in time.
Follmann DA, Fay MP. Biostatistics. 2023 Jul 14;24(3):603-617. doi: 10.1093/biostatistics/kxac008. PMID: 35296878

Effect of DMARDs on the immunogenicity of vaccines.
van Sleen Y, van der Geest KSM, Huckriede ALW, van Baarle D, Brouwer E. Nat Rev Rheumatol. 2023 Jul 12. doi: 10.1038/s41584-023-00992-8. Online ahead of print. PMID: 37438402

The association between **vaccine** hesitancy and pertussis: a systematic review and meta-analysis.
Wang Y, Shi N, Wang Q, Yang L, Cui T, Jin H. Ital J Pediatr. 2023 Jul 13;49(1):81. doi: 10.1186/s13052-023-01495-8. PMID: 37443026

Vaccine Value profiles.
Giersing B, Karron R, Tufet-Bayona M, Trotter C, Lambach P, Jit M. Vaccine. 2023 Jul 14:S0264-410X(23)00786-7. doi: 10.1016/j.vaccine.2023.06.083. Online ahead of print. PMID: 37455159

20-Valent Pneumococcal Conjugate **Vaccine**: Pediatric First Approval.
Shirley M. Paediatr Drugs. 2023 Jul 13. doi: 10.1007/s40272-023-00584-9. Online ahead of print. PMID: 37440125

Correlates of and barriers to COVID-19 **vaccine** initiation and intention among US college students.
Kollath-Cattano C, Hatteberg SJ, Petillo S, Giancaterini M. J Am Coll Health. 2023 Jul 12:1-9. doi: 10.1080/07448481.2023.2222843. Online ahead of print. PMID: 37437183

Insights into dengue immunity from **vaccine** trials.
Ooi EE, Kalimuddin S. Sci Transl Med. 2023 Jul 12;15(704):eadh3067. doi: 10.1126/scitranslmed.adh3067. Epub 2023 Jul 12. PMID: 37437017

Vaccine adjuvants: mechanisms and platforms.
Zhao T, Cai Y, Jiang Y, He X, Wei Y, Yu Y, Tian X. Signal Transduct Target Ther. 2023 Jul 19;8(1):283. doi: 10.1038/s41392-023-01557-7. PMID: 37468460

Vaccine Hesitancy and Factors Related to **Vaccine** Hesitancy in COVID-19 Vaccination among a Tribal Community of Meghalaya: A Mixed Methods Study.
Sundaram SP, Devi NJ, Lyngdoh M, Medhi GK, Lynrah W. J Patient Exp. 2023 Jul 12;10:23743735231183673. doi: 10.1177/23743735231183673. eCollection 2023. PMID: 37457232

Immunogenicity of poxvirus-based vaccines against Nipah virus.
Medina-Magües ES, Lopera-Madrid J, Lo MK, Spiropoulou CF, Montgomery JM, Medina-Magües LG, Salas-Quinchucua C, Jiménez-Mora AP, Osorio JE. Sci Rep. 2023 Jul 14;13(1):11384. doi: 10.1038/s41598-023-38010-2. PMID: 37452062

Beginning to address **vaccine** reluctance and refusal.
Myers MG. Vaccine. 2023 Jul 14:S0264-410X(23)00851-4. doi: 10.1016/j.vaccine.2023.07.030. Online ahead of print. PMID: 37455162

Determinants of COVID-19 **vaccine** readiness and hesitancy among adults in sub-Saharan Africa.
Abubakari SW, Workneh F, Asante KP, Hemler EC, Madzorera I, Wang D, Ismail A, Assefa N, Azemraw T, Lankoande B, Nuhu AR, Chukwu A, Mapendo F, Millogo O, Olufemi AA, Okpara D, Boudo V, Mwanyika-Sando M, Berhane Y, Baernighausen T, Oduola A, Vuai S, Sie A, Soura A, Killewo J, Tajudeen R, Fawzi WW, Smith ER. PLOS Glob Public Health. 2023 Jul 14;3(7):e0000713. doi: 10.1371/journal.pgph.0000713. eCollection 2023. PMID: 37450441

Human papillomavirus **vaccine** knowledge and conspiracy beliefs among secondary school students in Lebanon.
Khalil J, Boutros S, Hassoun A, Hallit S, Barakat H. BMC Pediatr. 2023 Jul 15;23(1):363. doi: 10.1186/s12887-023-04177-w. PMID: 37454098

Vaccine related crowdfunding on a 'Freedom Fundraising' platform.
Snyder J, Zenone M. PLoS One. 2023 Jul 12;18(7):e0288539. doi: 10.1371/journal.pone.0288539. eCollection 2023. PMID: 37437064

Assessing Trust in Physician and **Vaccine** Hesitancy Among Hispanic/Latinx Parents.
Gonzalez H Jr, Burke RV, Patel MS, Pehlivanova M. Hisp Health Care Int. 2023 Jul 12:15404153231187379. doi: 10.1177/15404153231187379. Online ahead of print. PMID: 37438967

Real-world effectiveness of HPV vaccination against cervical neoplasia among birth cohorts ineligible for routine vaccination.
Dong L, Nygård M, Støer NC, Klungsøyr O, Hansen BT. Int J Cancer. 2023 Jul 15;153(2):399-406. doi: 10.1002/ijc.34489. Epub 2023 Mar 9. PMID: 36866965

Peste des Petits Ruminants (PPR) **vaccine** R&D investment: financial assessment of **vaccine** development and administration in India.
Govindaraj GN, Gs N, Balamurugan V, Shome BR, Roy P. J Vet Med Sci. 2023 Jul 17;85(7):755-762. doi: 10.1292/jvms.23-0021. Epub 2023 May 31. PMID: 37258128

Do peer-based education interventions effectively improve vaccination acceptance? a systematic review.
Gobbo ELS, Hanson C, Abunnaja KSS, van Wees SH. BMC Public Health. 2023 Jul 14;23(1):1354. doi: 10.1186/s12889-023-16294-3. PMID: 37452295

A prospective CSFV-PCV2 bivalent **vaccine** effectively protects against classical swine fever virus and porcine circovirus type 2 dual challenge and prevents horizontal transmission.
Chen JY, Wu CM, Chia MY, Huang C, Chien MS. Vet Res. 2023 Jul 11;54(1):57. doi: 10.1186/s13567-023-01181-x. PMID: 37434231

Changing Characteristics of Children With COVID-19 in Colorado Admitted During Different Variant Periods.
Jelic M, Silveira L, Lang S, Curran-Hays S, Boyer S, Carter B, Choi YJ, Fresia J, Maeda LC, Nerguizian D, Graff K, Abuogi L, Smith C; Children and COVID-19 in Colorado study. Pediatr Infect Dis J. 2023 Aug 1;42(8):679-684. doi: 10.1097/INF.0000000000003944. Epub 2023 Jul 13. PMID: 37079565

Research progress in methods for detecting neutralizing antibodies against SARS-CoV-2.
Chen C, Liang J, Hu H, Li X, Wang L, Wang Z. Anal Biochem. 2023 Jul 15;673:115199. doi: 10.1016/j.ab.2023.115199. Epub 2023 May 29. PMID: 37257735

Hit 'em Where It Hurts: Gram-Negative Bacterial Lipopolysaccharide as a **Vaccine** Target.
Cross AS. Microbiol Mol Biol Rev. 2023 Jul 11:e0004522. doi: 10.1128/mmbr.00045-22. Online ahead of print. PMID: 37432116

COVID-19 Severity and Waning Immunity After up to 4 mRNA **Vaccine** Doses in 73 608 Patients With Cancer and 621 475 Matched Controls in Singapore: A Nationwide Cohort Study.
Tan WC, Tan JYJ, Lim JSJ, Tan RYC, Lee ARYB, Leong FL, Lee SC, Chai LYA, Tan TT, Malek MIBA, Ong B, Lye DC, Chiew CJ, Chng WJ, Lim ST, Bharwani LD, Tan IB, Sundar R, Tan KB. JAMA Oncol. 2023 Jul 13:e232271. doi: 10.1001/jamaoncol.2023.2271. Online ahead of print. PMID: 37440245

Ocular posterior segment complications following COVID-19 vaccination.
Sadeghi E, Mahmoudzadeh R, Garg SJ, Nowroozzadeh MH. Int Ophthalmol. 2023 Jul 11. doi: 10.1007/s10792-023-02795-y. Online ahead of print. PMID: 37432598

rWTC-MBTA: autologous **vaccine** prevents metastases via antitumor immune responses.
Ye J, Wang H, Medina R, Chakraborty S, Sun M, Valenzuela A, Sang X, Zhang Y, Uher O, Zenka J, Pacak K, Zhuang Z. J Exp Clin Cancer Res. 2023 Jul 12;42(1):163. doi: 10.1186/s13046-023-02744-8. PMID: 37434263

mRNA vaccines against respiratory viruses.
Whitaker JA, Sahly HME, Healy CM. Curr Opin Infect Dis. 2023 Jul 19. doi: 10.1097/QCO.0000000000000948. Online ahead of print. PMID: 37462930

A simple method for enrichment of phase I Coxiella burnetii.
Anderson MW, Binette P, Richards C, Beare PA, Heinzen RA, Long CM. J Microbiol Methods. 2023 Jul 13:106787. doi: 10.1016/j.mimet.2023.106787. Online ahead of print. PMID: 37453478

Enhanced productivity and stability of PRV in recombinant ST-Tret1 cells.
Xu Y, Bao X, Chen L, Zhuang T, Xu Y, Feng L. Biologicals. 2023 Jul 11;83:101692. doi: 10.1016/j.biologicals.2023.101692. Online ahead of print. PMID: 37442044

Characterization of **vaccine** confidence among teachers in British Columbia, Canada: A population-based survey.
Racey CS, Donken R, Fox E, Porter I, Bettinger JA, Mark J, Bonifacio L, Dawar M, Gagel M, Kling R, Mema S, Mitchell H, Roe I, Ogilvie G, Sadarangani M. PLoS One. 2023 Jul 12;18(7):e0288107. doi: 10.1371/journal.pone.0288107. eCollection 2023. PMID: 37437041

Genome-wide association studies of response and side effects to the BNT162b2 **vaccine** in Italian healthcare workers: Increased antibody levels and side effects in carriers of the HLA-A*03:01 allele.
Magri C, Marchina E, Sansone E, D'Adamo AP, Cappellani S, Bonfanti C, Terlenghi L, Biasiotto G, Zanella I, Sala E, Caruso A, Lombardo M, Gasparini P, De Palma G, Gennarelli M. HLA. 2023 Jul 19. doi: 10.1111/tan.15157. Online ahead of print. PMID: 37469131

Group B Streptococcal **Vaccine** - Sisyphus Reconciled.
Baker CJ. N Engl J Med. 2023 Jul 20;389(3):275-277. doi: 10.1056/NEJMe2306234. PMID: 37467503

Fears and misconceptions toward COVID-19 vaccination among Syrian population: A cross-sectional study.
Klib M, Ghandour M, Alazki O, Nabhan AI, Idres FA, Alolabi H, Khaddour MS, Zahlout J, Albakkar F, Hamoud HMM, Houri HNA, Alafandi BZ; Data Collection Group. Health Sci Rep. 2023 Jul 12;6(7):e1426. doi: 10.1002/hsr2.1426. eCollection 2023 Jul. PMID: 37448732

Factors influencing uptake of the COVID-19 vaccination among pregnant women in Australia: A cross-sectional survey.
Javid N, Phipps H, Homer C, de Vries B, Kaufman J, Danchin M, Hyett J. Birth. 2023 Jul 11. doi: 10.1111/birt.12741. Online ahead of print. PMID: 37431957

Role Of Vaccines Against COVID-19 Pandemic.
Mahdi PDBM, Almukhtar DM. SLAS Discov. 2023 Jul 18:S2472-5552(23)00051-5. doi: 10.1016/j.slasd.2023.07.002. Online ahead of print. PMID: 37473842

Ethical and legal race-responsive **vaccine** allocation.
Steuwer B, Eyal N. Bioethics. 2023 Jul 13. doi: 10.1111/bioe.13203. Online ahead of print. PMID: 37448097

Psychological profiles of anti-vaccination argument endorsement.
Holford DL, Fasce A, Costello TH, Lewandowsky S. Sci Rep. 2023 Jul 17;13(1):11219. doi: 10.1038/s41598-023-30883-7. PMID: 37460585

COVID-19 Conceptual Modeling: Single-Center Cross-Sectional Study.

Abuauf M, Raboe EH, Alshareef M, Rabie N, Zailaie R, Alharbi A, Felemban W, Alnasser I, Shalaby H. JMIR Form Res. 2023 Jul 11;7:e41376. doi: 10.2196/41376. PMID: 37256829

An X-ray inactivated **vaccine** against Pseudomonas aeruginosa Keratitis in mice.
Jiang B, Luo Y, Yan N, Shen Z, Li W, Hou C, Xiao L, Ma C, Zhang L, Chen Y, Cheng X, Lian M, Ji C, Zhu Z, Wang Z. Vaccine. 2023 Jul 19;41(32):4700-4709. doi: 10.1016/j.vaccine.2023.05.066. Epub 2023 Jun 21. PMID: 37353454

Hypersensitivity reactions to anti-SARS-CoV-2 vaccines: Basophil reactivity to excipients.
Pignatti P, Ramirez GA, Russo M, Marraccini P, Nannipieri S, Asperti C, Torre FD, Tiri A, Gatti BM, Gurrado A, Meriggi A, Benanti G, Cilona MB, Pigatto P, Burastero SE, Dagna L, Yacoub MR. Vaccine. 2023 Jul 19;41(32):4693-4699. doi: 10.1016/j.vaccine.2023.06.039. Epub 2023 Jun 15. PMID: 37349223

In silico designing and immunoinformatics analysis of a novel peptide **vaccine** against metallo-beta-lactamase (VIM and IMP) variants.
Motamedi H, Alvandi A, Fathollahi M, Ari MM, Moradi S, Moradi J, Abiri R. PLoS One. 2023 Jul 20;18(7):e0275237. doi: 10.1371/journal.pone.0275237. eCollection 2023. PMID: 37471423

Self-perception and COVID-19 vaccination self-efficacy among Chinese adults: A moderated mediation model of mental health and trust.
Wu J, Xia Q, Miao Y, Yu C, Tarimo CS, Yang Y. J Affect Disord. 2023 Jul 15;333:313-320. doi: 10.1016/j.jad.2023.04.047. Epub 2023 Apr 20. PMID: 37084973

Features of Isoforms of Human Soluble TACI.
Fichtner ML, Rübsamen H, Smolle M, Schaller J, Feederle R, Bültmann A, Kümpfel T, Schneider P, Thaler FS, Meinl E. J Immunol. 2023 Jul 15;211(2):199-208. doi: 10.4049/jimmunol.2101107. PMID: 37272840

Pathophysiology, current therapeutic options, **vaccine** candidates, and drug targets for human brucellosis.
Pritam M, Kumar R. Curr Mol Pharmacol. 2023 Jul 13. doi: 10.2174/1874467217666230713093802. Online ahead of print. PMID: 37448359

Immunogenicity of quadrivalent meningococcal conjugate **vaccine** in frequent platelet donors.
Desjardins M, Cunningham P, Mitre X, Pierre D, Montesano C, Woods T, Oganezova K, Krauss JH, Von SS, Kupelian JA, Li X, Gothing JA, Kleinjan JA, Zhou G, Piantadosi S, Sherman AC, Walsh SR, Issa NC, Kaufman RM, Baden LR. Blood. 2023 Jul 13;142(2):202-209. doi: 10.1182/blood.2022019482. PMID: 37172200

"Live IBD **vaccine** exacerbates disease and pathological effects of Asian lineage H9N2 LPAIV in chickens.".
Khalil NW, Elshorbagy MA, Elboraay EM, Helal AM. Avian Pathol. 2023 Jul 13:1-25. doi: 10.1080/03079457.2023.2236994. Online ahead of print. PMID: 37439655

Reduced polymorphism of Plasmodium vivax early transcribed membrane protein (PvETRAMP) 11.2.
Perrotti E, L'Episcopia M, Menegon M, Soares IS, Rosas-Aguirre A, Speybroeck N, LLanos-Cuentas A, Menard D, Ferreira MU, Severini C. Parasit Vectors. 2023 Jul 17;16(1):238. doi: 10.1186/s13071-023-05851-9. PMID: 37461081

Hepatitis B status and associated factors among participants screened for simulated HIV **vaccine** efficacy trials in Kenya and Uganda.
Mayanja Y, Rida W, Kimani J, Ssetala A, Mpendo J, Nanvubya A, Mutua G, Anzala O, Price MA. PLoS One. 2023 Jul 17;18(7):e0288604. doi: 10.1371/journal.pone.0288604. eCollection 2023. PMID: 37459311

Assessment of tetanus revaccination regimens in horses not vaccinated in the previous year.
Kinoshita Y, Yamanaka T, Kodaira K, Niwa H, Uchida-Fujii E, Ueno T. J Vet Med Sci. 2023 Jul 17;85(7):751-754. doi: 10.1292/jvms.23-0158. Epub 2023 Jun 1. PMID: 37258221

Differential impacts of **vaccine** scandal by ethnic and socioeconomic factors: Evidence from China.
Luan M, Qi Q, Shi W, Tao Z, Bao Y, Zhou J. PLoS One. 2023 Jul 19;18(7):e0288841. doi: 10.1371/journal.pone.0288841. eCollection 2023. PMID: 37467255

Opportunities to accelerate immunization progress in middle-income countries.
Zhu J, Cole CB, Fihman J, Adjagba A, Dasic M, Cernuschi T. Vaccine. 2023 Jul 15:S0264-410X(23)00782-X. doi: 10.1016/j.vaccine.2023.06.079. Online ahead of print. PMID: 37460357

Netnography: A novel methodology for nursing research.
Smith SE, Sivertsen N, Lines L, De Bellis A. J Adv Nurs. 2023 Jul 18. doi: 10.1111/jan.15798. Online ahead of print. PMID: 37464735

A single dose intranasal combination panebolavirus **vaccine**.
Malherbe DC, Kimble JB, Atyeo C, Fischinger S, Meyer M, Cody SG, Hyde M, Alter G, Bukreyev A. J Infect Dis. 2023 Jul 20:jiad266. doi: 10.1093/infdis/jiad266. Online ahead of print. PMID: 37469133

Safety of simultaneous vaccination with COVID-19 vaccines in the **Vaccine** Safety Datalink.
Kenigsberg TA, Hanson KE, Klein NP, Zerbo O, Goddard K, Xu S, Yih WK, Irving SA, Hurley LP, Glanz JM, Kaiser R, Jackson LA, Weintraub ES. Vaccine. 2023 Jul 19;41(32):4658-4665. doi: 10.1016/j.vaccine.2023.06.042. Epub 2023 Jun 15. PMID: 37344264

Structural and componential design: new strategies regulating the behavior of lipid-based nanoparticles *in vivo*.
Zhong Q, Zheng C, Yi K, Mintz RL, Lv S, Tao Y, Li M. Biomater Sci. 2023 Jul 12;11(14):4774-4788. doi: 10.1039/d3bm00387f. PMID: 37249402

Mpox **vaccine** and infection-driven human immune signatures: an immunological analysis of an observational study.
Cohn H, Bloom N, Cai GY, Clark JJ, Tarke A, Bermúdez-González MC, Altman DR, Lugo LA, Lobo FP, Marquez S; PVI study group; Chen JQ, Ren W, Qin L, Yates JL, Hunt DT, Lee WT, Crotty S, Krammer F, Grifoni A, Sette A, Simon V, Coelho CH. Lancet Infect Dis. 2023 Jul 17:S1473-3099(23)00352-3. doi: 10.1016/S1473-3099(23)00352-3. Online ahead of print. PMID: 37475115

Protective immunity induced by an inhaled SARS-CoV-2 subunit **vaccine**.
Elder E, Bangalore Revanna C, Johansson C, Wallin RPA, Sjödahl J, Winqvist O, Mirazimi A. Vaccine. 2023 Jul 19;41(32):4743-4751. doi: 10.1016/j.vaccine.2023.06.015. Epub 2023 Jun 6. PMID: 37353452

Credibility of **vaccine**-related content on Twitter during COVID-19 pandemic.
Yousefinaghani S, Dara R, Wang A, MacKay M, Papadopoulos A, Sharif S. PLOS Glob Public Health. 2023 Jul 19;3(7):e0001385. doi: 10.1371/journal.pgph.0001385. eCollection 2023. PMID: 37467276

Statement: Multisectoral actions to build trust at the local and community level to promote **vaccine** acceptance.
Bolio A, Goldstein I, Rauh L, Ratzan S. Vaccine. 2023 Jul 19;41(32):4771-4776. doi: 10.1016/j.vaccine.2023.06.027. Epub 2023 Jun 23. PMID: 37357074

Vaccinations in children with hematologic malignancies and those receiving hematopoietic stem cell transplants or cellular therapies.
Neemann KA, Sato AI. Transpl Infect Dis. 2023 Jul 12:e14100. doi: 10.1111/tid.14100. Online ahead of print. PMID: 37436808

Waning and boosting of antibody Fc-effector functions upon SARS-CoV-2 vaccination.
Tong X, McNamara RP, Avendaño MJ, Serrano EF, García-Salum T, Pardo-Roa C, Bertera HL, Chicz TM, Levican J, Poblete E, Salinas E, Muñoz A, Riquelme A, Alter G, Medina RA. Nat Commun. 2023 Jul 13;14(1):4174. doi: 10.1038/s41467-023-39189-8. PMID: 37443074

Enhancing effect of chitosan nanoparticles on the immune efficacy of Bordetella bronchiseptica outer membrane vesicles.
Li X, Huang Y, Sun J, Yu X, Xu X, Cui X, Li K, Ji Q, Liu Y, Bao G. Int Immunopharmacol. 2023 Jul 12;122:110612. doi: 10.1016/j.intimp.2023.110612. Online ahead of print. PMID: 37451023

CHO-produced RBD-Fc subunit vaccines with alternative adjuvants generate immune responses against SARS-CoV-2.
Laotee S, Duangkaew M, Jivapetthai A, Tharakhet K, Kaewpang P, Prompetchara E, Phumiamorn S, Sapsutthipas S, Trisiriwanich S, Somsaard T, Roytrakul S, Duangkhae P, Ongpipattanakul B, Limpikirati P, Pornputtapong N, Arunmanee W. PLoS One. 2023 Jul 14;18(7):e0288486. doi: 10.1371/journal.pone.0288486. eCollection 2023. PMID: 37450510

Vaccine Effectiveness Against Influenza-Associated Urgent Care, Emergency Department, and Hospital Encounters During the 2021-2022 Season, VISION Network.
Tenforde MW, Weber ZA, DeSilva MB, Stenehjem E, Yang DH, Fireman B, Gaglani M, Kojima N, Irving SA, Rao S, Grannis SJ, Naleway AL, Kirshner L, Kharbanda AB, Dascomb K, Lewis N, Dalton AF, Ball SW, Natarajan K, Ong TC, Hartmann E, Embi PJ, McEvoy CE, Grisel N, Zerbo O, Dunne MM, Arndorfer J, Goddard K, Dickerson M, Patel P, Timbol J, Griggs EP, Hansen J, Thompson MG, Flannery B, Klein NP. J Infect Dis. 2023 Jul 14;228(2):185-195. doi: 10.1093/infdis/jiad015. PMID: 36683410

Vaccine-Boosted CAR T-cell Therapy Elicits Antigen Spreading.
[No authors listed] Cancer Discov. 2023 Jul 14:OF1. doi: 10.1158/2159-8290.CD-RW2023-112. Online ahead of print. PMID: 37449732

Attitudes Toward COVID-19 Vaccination Among Behavioral Health Service Clients.
Grove LR, Emerson KR, Merola LS, Andries S, Cohen DA. Psychiatr Serv. 2023 Jul 18:appips20230019. doi: 10.1176/appi.ps.20230019. Online ahead of print. PMID: 37461817

Real-world assessment of immunogenicity in immunocompromised individuals following SARS-CoV-2 mRNA vaccination: a one-year follow-up of the prospective clinical trial COVAXID.
Chen P, Bergman P, Blennow O, Hansson L, Mielke S, Nowak P, Söderdahl G, Österborg A, Smith CIE, Vesterbacka J, Wullimann D, Cuapio A, Akber M, Bogdanovic G, Muschiol S, Åberg M, Loré K, Sällberg Chen M, Buggert M, Ljungman P, Aleman S, Ljunggren HG. EBioMedicine. 2023 Jul 13;94:104700. doi: 10.1016/j.ebiom.2023.104700. Online ahead of print. PMID: 37453361

BA.1 Bivalent COVID-19 **Vaccine** Use and Stroke in England.
Andrews N, Stowe J, Miller E, Ramsay M. JAMA. 2023 Jul 11;330(2):184-185. doi: 10.1001/jama.2023.10123. PMID: 37318811

Muslim parents' beliefs and factors influencing complete immunization of children aged 0-5 years in a Thai rural community: a qualitative study.
Jinarong T, Chootong R, Vichitkunakorn P, Songwathana P. BMC Public Health. 2023 Jul 13;23(1):1348. doi: 10.1186/s12889-023-15273-y. PMID: 37442996

Structural immunoinformatics approach for rational design of a multi-epitope **vaccine** against triple negative breast cancer.
T D, Kamaraj B, Vasudevan K, Gopikrishnan M, K R D, Rambabu M, C GPD. Int J Biol Macromol. 2023 Jul 15;243:125209. doi: 10.1016/j.ijbiomac.2023.125209. Epub 2023 Jun 2. PMID: 37271264

CDC: RSV **Vaccine** Recommended for Older People.
Harris E. JAMA. 2023 Jul 12. doi: 10.1001/jama.2023.12537. Online ahead of print. PMID: 37436784

Psychometric validation of the Korean versions of the **Vaccine** Hesitancy Scale and Vaccination Attitudes Examination Scale.
Kim J, Han K, Chung SJ, Kim C. Vaccine. 2023 Jul 19;41(32):4685-4692. doi: 10.1016/j.vaccine.2023.06.046. Epub 2023 Jun 21. PMID: 37353453

Zinc-Organometallic Framework **Vaccine** Controlled-Release Zn^{2+} Regulates Tumor Extracellular Matrix Degradation Potentiate Efficacy of Immunotherapy.
Ding L, Liang M, Li Y, Zeng M, Liu M, Ma W, Chen F, Li C, Reis RL, Li FR, Wang Y. Adv Sci (Weinh). 2023 Jul 13:e2302967. doi: 10.1002/advs.202302967. Online ahead of print. PMID: 37439462

Temporal and spatial distribution trends of polio **vaccine** coverage in less than one-year old children in Brazil, 2011-2021.
da Silva TMR, Sá ACMGN, Prates EJS, Freitas Saldanha R, da Silva TPR, Silva Teixeira AMD, Beinner MA, de Oliveira SR, de Sá ATN, Matozinhos FP, Vieira EWR. BMC Public Health. 2023 Jul 14;23(1):1359. doi: 10.1186/s12889-023-16192-8. PMID: 37452296

Role of Spillover and Spillback in SARS-CoV-2 Transmission and the Importance of One Health in Understanding the Dynamics of the COVID-19 Pandemic.
Sparrer MN, Hodges NF, Sherman T, VandeWoude S, Bosco-Lauth AM, Mayo CE. J Clin Microbiol. 2023 Jul 20;61(7):e0161022. doi: 10.1128/jcm.01610-22. Epub 2023 Apr 26. PMID: 37098970 Free PMC article.

Insights into the structure, functional perspective, and pathogenesis of ZIKV: an updated review.
Bhat EA, Ali T, Sajjad N, Kumar R, Bron P. Biomed Pharmacother. 2023 Jul 18;165:115175. doi: 10.1016/j.biopha.2023.115175. Online ahead of print. PMID:

Human papillomavirus **vaccine** acceptance among adolescent girls in Ethiopia: a systematic review and meta-analysis.
Zewdie A, Kasahun AW, Habtie A, Gashaw A, Ayele M. BMC Public Health. 2023 Jul 17;23(1):1369. doi: 10.1186/s12889-023-16305-3. PMID: 37461006

Vaccinating the German Population Aged 60 Years and Over with a Quadrivalent High-Dose Inactivated Influenza **Vaccine** Compared to Standard-Dose Vaccines: A Transmission and Budget Impact Model.
Pahmeier K, Speckemeier C, Neusser S, Wasem J, Biermann-Stallwitz J. Pharmacoeconomics. 2023 Jul 11. doi: 10.1007/s40273-023-01299-y. Online ahead of print. PMID: 37434014

A novel adaptation of spatial interpolation methods to map health attitudes related to COVID-19.
Behal R, Davis K, Doering J. BMC Proc. 2023 Jul 17;17(Suppl 7):17. doi: 10.1186/s12919-023-00264-z. PMID: 37461011

Estimating long-term **vaccine** effectiveness against SARS-CoV-2 variants: a model-based approach.
Hogan AB, Doohan P, Wu SL, Mesa DO, Toor J, Watson OJ, Winskill P, Charles G, Barnsley G, Riley EM, Khoury DS, Ferguson NM, Ghani AC. Nat Commun. 2023 Jul 19;14(1):4325. doi: 10.1038/s41467-023-39736-3. PMID: 37468463

CASCADIA: a prospective community-based study protocol for assessing SARS-CoV-2 **vaccine** effectiveness in children and adults using a remote nasal swab collection and web-based survey design.
Babu TM, Feldstein LR, Saydah S, Acker Z, Boisvert CL, Briggs-Hagen M, Carone M, Casto A, Cox SN, Ehmen B, Englund JA, Fortmann SP, Frivold CJ, Groom H, Han PD, Kuntz JL, Lockwood T, Midgley CM, Mularski RA, Ogilvie T, Reich SL, Schmidt MA, Smith N, Starita L, Stone J, Vandermeer M, Weil AA, Wolf CR, Chu HY, Naleway AL. BMJ Open. 2023 Jul 14;13(7):e071446. doi: 10.1136/bmjopen-2022-071446. PMID: 37451722

Delivering COVID-19 **Vaccine** via Trusted Social Services: Program Evaluation Results from the Chicagoland CEAL Program.
Martin MA, Cook S, Spring B, Echeverria Garcia JC, Moskowitz D, Delaughter-Young J, Silva A, Hartstein M, De Pablo M, Peek M, Lynch E, Battalio S, Vu M; Chicagoland CEAL Program. J Community Health. 2023 Jul 12. doi: 10.1007/s10900-023-01242-4. Online ahead of print. PMID: 37438456

Polymeric epitope-based **vaccine** induces protective immunity against group A Streptococcus.
Chen S, Ozberk V, Sam G, Gonzaga ZJC, Calcutt A, Pandey M, Good MF, Rehm BHA. NPJ Vaccines. 2023 Jul 14;8(1):102. doi: 10.1038/s41541-023-00695-x. PMID: 37452052

"She vaccinated my baby and that's all..." Immunisation decision-making and experiences among refugee mothers resettled in Aotearoa New Zealand.
Charania NA. BMC Public Health. 2023 Jul 13;23(1):1349. doi: 10.1186/s12889-023-16266-7. PMID: 37442991

Recent Updates on Peptide Molecules in Drug and **Vaccine** Development.
Sarfraz M, Anjum F, Zahra D, Maqsood A, Ali Ashfaq U. Curr Pharm Des. 2023 Jul 17. doi: 10.2174/1381612829666230717121632. Online ahead of print. PMID: 37461342

Public Officials' Engagement on Social Media During the Rollout of the COVID-19 **Vaccine**: Content Analysis of Tweets.
Marani H, Song MY, Jamieson M, Roerig M, Allin S. JMIR Infodemiology. 2023 Jul 20;3:e41582. doi: 10.2196/41582. PMID: 37315194

Tracking B cell responses to the SARS-CoV-2 mRNA-1273 **vaccine**.
Lopes de Assis F, Hoehn KB, Zhang X, Kardava L, Smith CD, El Merhebi O, Buckner CM, Trihemasava K, Wang W, Seamon CA, Chen V, Schaughency P, Cheung F, Martins AJ, Chiang CI, Li Y, Tsang JS, Chun TW, Kleinstein SH, Moir S. Cell Rep. 2023 Jul 12;42(7):112780. doi: 10.1016/j.celrep.2023.112780. Online ahead of print. PMID: 37440409

Scaling and sustaining COVID-19 vaccination through meaningful community engagement and care coordination for underserved communities: hybrid type 3 effectiveness-implementation sequential multiple assignment randomized trial.
Rabin BA, Cain KL, Watson P Jr, Oswald W, Laurent LC, Meadows AR, Seifert M, Munoz FA, Salgin L, Aldous J, Diaz EA, Villodas M, Vijaykumar S, O'Leary ST, Stadnick NA. Implement Sci. 2023 Jul 14;18(1):28. doi: 10.1186/s13012-023-01283-2. PMID: 37443044

Messenger RNA-Based Therapeutics and Vaccines: What's beyond COVID-19?
Li D, Liu C, Li Y, Tenchov R, Sasso JM, Zhang D, Li D, Zou L, Wang X, Zhou Q. ACS Pharmacol Transl Sci. 2023 Jul 3;6(7):943-969. doi: 10.1021/acsptsci.3c00047. eCollection 2023 Jul 14. PMID: 37470024

Comparison of the local safety of two multi-component feline vaccines, adjuvanted (1 mL) versus non-adjuvanted at reduced volume (0.5 mL), using computed tomography imaging.
Haist V, Bellebeau-Barbier F, Montange C, Lemaitre L, Diawara A, Guiot AL, Nicolier A, Latronico E, Chereul E, Brunet S, Tronel JP. Vaccine. 2023 Jul 19;41(32):4752-4761. doi: 10.1016/j.vaccine.2023.06.045. Epub 2023 Jun 23. PMID: 37355451

Blood transcriptional correlates of BCG-induced protection against tuberculosis in rhesus macaques.
Liu YE, Darrah PA, Zeppa JJ, Kamath M, Laboune F, Douek DC, Maiello P, Roederer M, Flynn JL, Seder RA, Khatri P. Cell Rep Med. 2023 Jul 18;4(7):101096. doi: 10.1016/j.xcrm.2023.101096. Epub 2023 Jun 29. PMID: 37390827

Testing for Human Papillomaviruses in Urine, Blood, and Oral Specimens: an Update for the Laboratory.
Poljak M, Cuschieri K, Alemany L, Vorsters A. J Clin Microbiol. 2023 Jul 13:e0140322. doi: 10.1128/jcm.01403-22. Online ahead of print. PMID: 37439692

Uninsured and Not Immune - Closing the **Vaccine**-Coverage Gap for Adults.
Wallender E, Peacock G, Wharton M, Walensky RP. N Engl J Med. 2023 Jul 20;389(3):193-195. doi: 10.1056/NEJMp2306200. Epub 2023 Jun 21. PMID: 37342958

Coxsackievirus and Type 1 Diabetes: Diabetogenic Mechanisms and Implications for Prevention.
Carré A, Vecchio F, Flodström-Tullberg M, You S, Mallone R. Endocr Rev. 2023 Jul 11;44(4):737-751. doi: 10.1210/endrev/bnad007. PMID: 36884282

Immunization with lytic polysaccharide monooxygenase CbpD induces protective immunity against *Pseudomonas aeruginosa* pneumonia.
Askarian F, Tsai CM, Cordara G, Zurich RH, Bjånes E, Golten O, Vinther Sørensen H, Kousha A, Meier A, Chikwati E, Bruun JA, Ludviksen JA, Choudhury B, Trieu D, Davis S, Edvardsen PKT, Mollnes TE, Liu GY, Krengel U, Conrad DJ, Vaaje-Kolstad G, Nizet V. Proc Natl Acad Sci U S A. 2023 Jul 25;120(30):e2301538120. doi: 10.1073/pnas.2301538120. Epub 2023 Jul 17. PMID: 37459522

Quantitation of strain-specific hemagglutinin trimers in mosaic quadrivalent influenza nanoparticle **vaccine** by ELISA.
Alabanza C, Gavrilov V, Scott T, Yang RS, Gowetski DB, Gall JG, Paula Lei Q. Vaccine. 2023 Jul 12:S0264-410X(23)00821-6. doi: 10.1016/j.vaccine.2023.07.009. Online ahead of print. PMID: 37451877

Duration of protection of ancestral-strain monovalent vaccines and effectiveness of bivalent BA.1 boosters against COVID-19 hospitalisation in England: a test-negative case-control study.
Kirsebom FCM, Andrews N, Stowe J, Ramsay M, Lopez Bernal J. Lancet Infect Dis. 2023 Jul 12:S1473-3099(23)00365-1. doi: 10.1016/S1473-3099(23)00365-1. Online ahead of print. PMID: 37453440

Intranasal influenza-vectored COVID-19 **vaccine** restrains the SARS-CoV-2 inflammatory response in hamsters.
Zhang L, Jiang Y, He J, Chen J, Qi R, Yuan L, Shao T, Zhao H, Chen C, Chen Y, Wang X, Lei X, Gao Q, Zhuang C, Zhou M, Ma J, Liu W, Yang M, Fu R, Wu Y, Chen F, Xiong H, Nie M, Chen Y, Wu K, Fang M, Wang Y, Zheng Z, Huang S, Ge S, Cheng SC, Zhu H, Cheng T, Yuan Q, Wu T, Zhang J, Chen Y, Zhang T, Li C, Qi H, Guan Y, Xia N. Nat Commun. 2023 Jul 11;14(1):4117. doi: 10.1038/s41467-023-39560-9. PMID: 37433761

Immunogenicity, effectiveness, and safety of SARS-CoV-2 vaccination in people with HIV.
Griffin DWJ, Pai Mangalore R, Hoy JF, McMahon JH. AIDS. 2023 Jul 15;37(9):1345-1360. doi: 10.1097/QAD.0000000000003579. Epub 2023 Apr 13. PMID: 37070539

Vaccine delivery by zwitterionic polysaccharide-based hydrogel microparticles showing enhanced immunogenicity and suppressed foreign body responses.
Chung JT, Lau CML, Chung CHY, Rafiei M, Yao S, Chau Y. Biomater Sci. 2023 Jul 12;11(14):4827-4844. doi: 10.1039/d2bm01960d. PMID: 37326611

The potential impact of novel tuberculosis **vaccine** introduction on economic growth in low- and middle-income countries: A modeling study.
Portnoy A, Arcand JL, Clark RA, Weerasuriya CK, Mukandavire C, Bakker R, Patouillard E, Gebreselassie N, Zignol M, Jit M, White RG, Menzies NA. PLoS Med. 2023 Jul 11;20(7):e1004252. doi: 10.1371/journal.pmed.1004252. eCollection 2023 Jul. PMID: 37432972

Safety and Immunogenicity of a Delayed Heterologous Avian Influenza A(H7N9) **Vaccine** Boost Following Different Priming Regimens: A Randomized Clinical Trial.

El Sahly HM, Yildirim I, Frey SE, Winokur P, Jackson LA, Bernstein DI, Creech CB, Chen WH, Rupp RE, Whitaker JA, Phadke V, Hoft DF, Ince D, Brady RC, Edwards KM, Ortiz JR, Berman MA, Weiss J, Wegel A; DMID 17-0090 Study Group. J Infect Dis. 2023 Jul 19:jiad276. doi: 10.1093/infdis/jiad276. Online ahead of print. PMID: 37466221

COVID-19 mRNA vaccines as hypothetical epigenetic players: Results from an in silico analysis, considerations and perspectives.
Talotta R. Vaccine. 2023 Jul 13:S0264-410X(23)00819-8. doi: 10.1016/j.vaccine.2023.07.007. Online ahead of print. PMID: 37453842

Artificial Dendritic Cells: A New Era of Promising Antitumor Immunotherapy.
Mateus D, Sebastião AI, Frasco MF, Carrascal MA, Falcão A, Gomes CM, Neves B, Sales MGF, Cruz MT. Small. 2023 Jul 19:e2303940. doi: 10.1002/smll.202303940. Online ahead of print. PMID: 37469192

Knowledge, perceptions and uptake of human papilloma virus **vaccine** among adolescent girls in Kampala, Uganda; a mixed-methods school-based study.
Bitariho GK, Tuhebwe D, Tigaiza A, Nalugya A, Ssekamatte T, Kiwanuka SN. BMC Pediatr. 2023 Jul 17;23(1):368. doi: 10.1186/s12887-023-04174-z. PMID: 37461002

Prevalence and utility of pharmacokinetic data in preclinical studies of mRNA cancer vaccines.
Roth GA, Vora B, Kim C, Wu M, Kuruvilla D. Clin Transl Sci. 2023 Jul 15. doi: 10.1111/cts.13586. Online ahead of print. PMID: 37452560

Adjuvant physiochemistry and advanced nanotechnology for **vaccine** development.
Ren H, Jia W, Xie Y, Yu M, Chen Y. Chem Soc Rev. 2023 Jul 18. doi: 10.1039/d2cs00848c. Online ahead of print. PMID: 37462107

Community-based organization perspectives on participating in state-wide community canvassing program aimed to reduce COVID-19 **vaccine** disparities in California.
Mansfield LN, Carson SL, Sunku N, Troutt A, Jackson S, Santillan D, Vassar SD, Slaughter D, Kim G, Norris KC, Brown AF. BMC Public Health. 2023 Jul 14;23(1):1356. doi: 10.1186/s12889-023-16210-9. PMID: 37452299

Association between Covid-19 sources of information, beliefs, and vaccination rates: an EU-wide survey.
De la Cruz-Sánchez E, Moreno-Llamas A, Mendiola Olivares J, García-Mayor J, Torres-Cantero A, Devine EB. Eur J Public Health. 2023 Jul 17:ckad115. doi: 10.1093/eurpub/ckad115. Online ahead of print. PMID: 37459132

The impact of pre-existing influenza antibodies and inflammatory status on the influenza **vaccine** responses in older adults.
Kang M, Lin F, Jiang Z, Tan X, Lin X, Liang Z, Xiao C, Xia Y, Guan W, Yang Z, Yu G, Zanin M, Tang S, Wong SS. Influenza Other Respir Viruses. 2023 Jul 12;17(7):e13172. doi: 10.1111/irv.13172. eCollection 2023 Jul. PMID: 37457646

How misinformation exposure influences **vaccine** status.
Fox S. Evid Based Nurs. 2023 Jul 12:ebnurs-2021-103505. doi: 10.1136/ebnurs-2021-103505. Online ahead of print. PMID: 37438086

Development of a fast and precise potency test for BCG **vaccine** viability using flow cytometry compared to MTT and colony-forming unit assays.
Moghawry HM, Rashed ME, Gomaa K, AbdelGhani S, Dishisha T. Sci Rep. 2023 Jul 18;13(1):11606. doi: 10.1038/s41598-023-38657-x. PMID: 37464014

Safety, Immunogenicity, and Regimen Selection of Ad26.RSV.preF-based **Vaccine** Combinations: A Randomized, Double-blind, Placebo-Controlled, Phase 1/2a Study.
Comeaux CA, Bart S, Bastian AR, Klyashtornyy V, De Paepe E, Omoruyi E, van der Fits L, van Heesbeen R, Heijnen E, Callendret B, Sadoff J. J Infect Dis. 2023 Jul 11:jiad220. doi: 10.1093/infdis/jiad220. Online ahead of print. PMID: 37433021

Sex-specific differences in myocardial injury incidence after COVID-19 mRNA-1273 Booster Vaccination.
Buergin N, Lopez-Ayala P, Hirsiger JR, Mueller P, Median D, Glarner N, Rumora K, Herrmann T, Koechlin L, Haaf P, Rentsch K, Battegay M, Banderet F, Berger CT, Mueller C. Eur J Heart Fail. 2023 Jul 20. doi: 10.1002/ejhf.2978. Online ahead of print. PMID: 37470105

Effectiveness of previous infection-induced and **vaccine**-induced protection against hospitalisation due to omicron BA subvariants in older adults: a test-negative, case-control study in Quebec, Canada.
Carazo S, Skowronski DM, Brisson M, Sauvageau C, Brousseau N, Fafard J, Gilca R, Talbot D, Ouakki M, Febriani Y, Deceuninck G, De Wals P, De Serres G. Lancet Healthy Longev. 2023 Jul 14:S2666-7568(23)00099-5. doi: 10.1016/S2666-7568(23)00099-5. Online ahead of print. PMID: 37459879

Vaccine hesitancy comes in waves: Longitudinal evidence on willingness to vaccinate against COVID-19 from seven European countries.
Sabat I, Neumann-Böhme S, Barros PP, Torbica A, van Exel J, Brouwer W, Stargardt T, Schreyögg J. Vaccine. 2023 Jul 15:S0264-410X(23)00829-0. doi: 10.1016/j.vaccine.2023.07.017. Online ahead of print. PMID: 37460356

Randomized Trial of a Personalized Dendritic Cell **Vaccine** after Autologous Stem Cell Transplant for Multiple Myeloma.
Chung DJ, Shah N, Wu J, Logan B, Bisharat L, Callander N, Cheloni G, Anderson K, Chodon T, Dhakal B, Devine S, Somaiya Dutt P, Efebera Y, Geller N, Ghiasuddin H, Hematti P, Holmberg L, Howard A, Johnson B, Karagkouni D, Lazarus HM, Malek E, McCarthy P, McKenna D, Mendizabal A, Nooka A, Munshi N, O'Donnell L, Rapoport AP, Reese J, Rosenblatt J, Soiffer R, Stroopinsky D, Uhl L, Vlachos IS, Waller EK, Young JW, Pasquini MC, Avigan D. Clin Cancer Res. 2023 Jul 18:CCR-23-0235. doi: 10.1158/1078-0432.CCR-23-0235. Online ahead of print. PMID: 37463058

Amid Paraguay Chikungunya Outbreak, **Vaccine** Candidate Safe, Immunogenic.
Harris E. JAMA. 2023 Jul 11;330(2):111. doi: 10.1001/jama.2023.10738. PMID: 37342059

Assessing the stability-indicating properties of alternative potency assays for inactivated influenza **vaccine**.
Ekimov A, Arunachalam AB, Blake T, Bodle J, Couzens L, Dubey S, Eichelberger M, Engelhardt OG, Gubinelli F, Joshi M, Melnyk D, Palladino G, Rigsby P, Rockman S, Savina N, Smith E, Gilchrist SAN; World Health Organization's Pandemic Influenza preparedness, Vaccine Response's Alternative Potency, Reagents Technical Working Group. Vaccine. 2023 Jul 19;41(32):4639-4647. doi: 10.1016/j.vaccine.2023.06.051. Epub 2023 Jun 19. PMID: 37344260

Booster vaccinations and Omicron: the effects on SARS-CoV-2 antibodies in Dutch blood donors.
Quee FA, Hogema BM, Slot E, Kruijer S, Molier M, van den Hurk K, Zaaijer HL. BMC Infect Dis. 2023 Jul 12;23(1):464. doi: 10.1186/s12879-023-08448-w. PMID: 37438703

Understanding Stakeholders' Perspectives to Increase COVID-19 **Vaccine** and Booster Uptake: Comment.
Kleebayoon A, Wiwanitkit V. Arthritis Care Res (Hoboken). 2023 Jul 17. doi: 10.1002/acr.25194. Online ahead of print. PMID: 37458092

Lessons From an Implementation Evaluation of a Real-World Multi-City Initiative to Address COVID-19 Vaccination Inequities.
Perez LG, Williams MV, Dopp AR, Ringel JS, Faherty LJ. Community Health Equity Res Policy. 2023 Jul 14:2752535X231189434. doi: 10.1177/2752535X231189434. Online ahead of print. PMID: 37451848

'They've all endorsed it…but I'm just not there:' a qualitative exploration of COVID-19 **vaccine** hesitancy reported by Black and Latinx individuals.
Scales D, Gorman S, Windham S, Sandy W, Gregorian N, Hurth L, Radhakrishnan M, Akunne A, Gorman JM. BMJ Open. 2023 Jul 20;13(7):e072619. doi: 10.1136/bmjopen-2023-072619. PMID: 37474192

Delivery of gold nanoparticle-conjugated M2e influenza **vaccine** in mice using coated microneedles.
Nesovic LD, Roach CJ, Joshi G, Gill HS. Biomater Sci. 2023 Jul 17. doi: 10.1039/d3bm00305a. Online ahead of print. PMID: 37455612

COVID-19 **Vaccine** Seroresponse Based on The Timing of The Primary Series; Pre- versus Post-Renal Transplantation.
Weinberg AR, Caeg CO, DePalma R, Hernandez F, Rogers JH, Ibrahim HN, Bynon SJ, Nigo M. Clin Transplant. 2023 Jul 11:e15072. doi: 10.1111/ctr.15072. Online ahead of print. PMID: 37434417

Restoring Trust: The Need for Precision Medicine in Infectious Diseases, Public Health and Vaccines.
Equils O, Bakaj A, Wilson-Mifsud B, Chatterjee A. Hum Vaccin Immunother. 2023 Aug 1;19(2):2234787. doi: 10.1080/21645515.2023.2234787. Epub 2023 Jul 19. PMID: 37465958

High Lethality of *Mycobacterium tuberculosis* Infection in Mice Lacking the Phagocyte Oxidase and Caspase1/11.
Thomas SM, Olive AJ. Infect Immun. 2023 Jul 18;91(7):e0006023. doi: 10.1128/iai.00060-23. Epub 2023 Jun 14. PMID: 37314361

Attenuation hotspots in neurotropic human astroviruses.
Ali H, Lulla A, Nicholson AS, Hankinson J, Wignall-Fleming EB, O'Connor RL, Vu DL, Graham SC, Deane JE, Guix S, Lulla V. PLoS Biol. 2023 Jul 17;21(7):e3001815. doi: 10.1371/journal.pbio.3001815. Online ahead of print. PMID: 37459343

Breeding for disease resistance is an effective way to solve PRRSV.
You X, Li G, Yang Y. Microb Pathog. 2023 Jul 14;182:106251. doi: 10.1016/j.micpath.2023.106251. Online ahead of print. PMID: 37453481

Characterization of the cellular lipid composition during SARS-CoV-2 infection.
Abdel-Megied AM, Monreal IA, Zhao L, Apffel A, Aguilar HC, Jones JW. Anal Bioanal Chem. 2023 Jul 13. doi: 10.1007/s00216-023-04825-1. Online ahead of print. PMID: 37438564

Clostridium perfringens epsilon prototoxin mutant rpETX$_{Y30A/Y71A/H106P/Y196A}$ as a **vaccine** candidate against enterotoxemia.
Du J, Wang T, Xu L, Wang C, Liu Y, Pan C, Chen X, Zhu Z, Luo Y, Yin C. Vaccine. 2023 Jul 19;41(32):4762-4770. doi: 10.1016/j.vaccine.2023.06.044. Epub 2023 Jun 23. PMID: 37357076

Molecular characterization of the *HMTp210* gene of *Avibacterium paragallinarum* and the proposition of a new genotyping method as alternative for classical serotyping.
Buter R, Feberwee A, Wit S, Heuvelink A, Silva AD, Gallardo R, Vargas ES, Swanepoel S, Jung A, Tödte M, Dijkman R. Avian Pathol. 2023 Jul 20:1-34. doi: 10.1080/03079457.2023.2239178. Online ahead of print. PMID: 37470411

Comparative evaluation of cell-mediated immune response in calves immunized with live-attenuated and killed Theileria annulata vaccines.
Ramzan MS, Suleman M, Rashid MI, Akbar H, Avais M. Parasitol Res. 2023 Jul 19. doi: 10.1007/s00436-023-07912-5. Online ahead of print. PMID: 37466666

Immunity of Heterologously and Homologously Boosted or Convalescent Individuals Against Omicron BA.1, BA.2, and BA.4/5 Variants.
Jäger M, Diem G, Sahanic S, Fux V, Griesmacher A, Lass-Flörl C, Wilflingseder D, Tancevski I, Posch W. J Infect Dis. 2023 Jul 14;228(2):160-168. doi: 10.1093/infdis/jiad057. PMID: 36869832

Obesity accelerates age defects in B cells, and weight loss improves B cell function.
Frasca D, Romero M, Diaz A, Blomberg BB. Immun Ageing. 2023 Jul 17;20(1):35. doi: 10.1186/s12979-023-00361-9. PMID: 37460937

Immunogenicity and efficacy of **vaccine** boosters against SARS-CoV-2 Omicron subvariant BA.5 in male Syrian hamsters.
Machado RRG, Walker JL, Scharton D, Rafael GH, Mitchell BM, Reyna RA, de Souza WM, Liu J, Walker DH, Plante JA, Plante KS, Weaver SC. Nat Commun. 2023 Jul 17;14(1):4260. doi: 10.1038/s41467-023-40033-2. PMID: 37460536

Structure of a transmission blocking antibody in complex with Outer surface protein A from the Lyme disease spirochete, Borreliella burgdorferi.

Rudolph MJ, Davis SA, Haque HME, Ejemel M, Cavacini LA, Vance DJ, Willsey GG, Piazza CL, Weis DD, Wang Y, Mantis NJ. Proteins. 2023 Jul 16. doi: 10.1002/prot.26549. Online ahead of print. PMID: 37455569

Breed, smaller weight, and multiple injections are associated with increased adverse event reports within three days following canine **vaccine** administration.
Moore GE, Morrison J, Saito EK, Spofford N, Yang M. J Am Vet Med Assoc. 2023 Jul 14:1-7. doi: 10.2460/javma.23.03.0181. Online ahead of print. PMID: 37451674

Immunogenicity and safety of inactivated SARS-CoV-2 **vaccine** in haemodialysis patients: a prospective cohort study.
Puspitasari M, Sattwika PD, Rahari DS, Wijaya W, Hidayat ARP, Kertia N, Purwanto B, Thobari JA. Sci Rep. 2023 Jul 18;13(1):11557. doi: 10.1038/s41598-023-38628-2. PMID: 37463975

Global landscape of encephalitis: key priorities to reduce future disease burden.
Granerod J, Huang Y, Davies NW, Sequeira PC, Mwapasa V, Rupali P, Michael BD, Solomon T, Easton A. Clin Infect Dis. 2023 Jul 12:ciad417. doi: 10.1093/cid/ciad417. Online ahead of print. PMID: 37436770

Interventions to increase **vaccine** uptake among people who live and work in prisons: A global multistage scoping review.
Moazen B, Agbaria N, Ismail N, Mazzilli S, Klankwarth UB, Amaya A, Rosello A, D'Arcy J, Plugge E, Stöver H, Tavoschi L. J Community Psychol. 2023 Jul 18. doi: 10.1002/jcop.23077. Online ahead of print. PMID: 37462954

Stability studies for the identification of critical process parameters for a pharmaceutical production of the Orf virus.
Eilts F, Labisch JJ, Orbay S, Harsy YMJ, Steger M, Pagallies F, Amann R, Pflanz K, Wolff MW. Vaccine. 2023 Jul 19;41(32):4731-4742. doi: 10.1016/j.vaccine.2023.06.047. Epub 2023 Jun 21. PMID: 37353451

Surveillance for Multisystem Inflammatory Syndrome in US Children Aged 5-11 Years Who Received Pfizer-BioNTech COVID-19 **Vaccine**, November 2021 through March 2022.
Cortese MM, Taylor AW, Akinbami LJ, Thames-Allen A, Yousaf AR, Campbell AP, Maloney SA, Harrington TA, Anyalechi EG, Munshi D, Kamidani S, Curtis CR, McCormick DW, Staat MA, Edwards KM, Creech CB, Museru O, Marquez P, Thompson D, Su JR, Schlaudecker EP, Broder KR. J Infect Dis. 2023 Jul 14;228(2):143-148. doi: 10.1093/infdis/jiad051. PMID: 36821777

Letter to the Editor from Kleebayoon and Wiuwanikit: 'Subacute THYROiditis Related to SARS-CoV-2 **VAccine** and Covid-19 (THYROVAC Study): A Multicenter Nationwide Study'.
Kleebayoon A, Wiwanitkit V. J Clin Endocrinol Metab. 2023 Jul 18:dgad428. doi: 10.1210/clinem/dgad428. Online ahead of print. PMID: 37463482

Effect of COVID-19 inactivated **vaccine** on peripheral blood anti-β_2-GPI antibody and outcomes in vitro fertilization-embryo transplantation.
Zhou H, Zou Y, Guo Y, Lv X, Chen J, Guo X, Liu Q. Int Immunopharmacol. 2023 Jul 11;122:110596. doi: 10.1016/j.intimp.2023.110596. Online ahead of print. PMID: 37441812

Advances in bio-immunotherapy for castration-resistant prostate cancer.
Lin C, Chen Y, Shi L, Lin H, Xia H, Yin W. J Cancer Res Clin Oncol. 2023 Jul 18. doi: 10.1007/s00432-023-05152-9. Online ahead of print. PMID: 37460807

Exclusion of pregnant people from emergency **vaccine** clinical trials: A systematic review of clinical trial protocols and reporting from 2009 to 2019.
Minchin J, Harris GH, Baumann S, Smith ER. Vaccine. 2023 Jul 11:S0264-410X(23)00776-4. doi: 10.1016/j.vaccine.2023.06.073. Online ahead of print. PMID: 37442686

Vaccination with *Plasmodium vivax* Duffy-binding protein inhibits parasite growth during controlled human malaria infection.
Hou MM, Barrett JR, Themistocleous Y, Rawlinson TA, Diouf A, Martinez FJ, Nielsen CM, Lias AM, King LDW, Edwards NJ, Greenwood NM, Kingham L, Poulton ID, Khozoee B, Goh C, Hodgson SH, Mac Lochlainn DJ, Salkeld J, Guillotte-Blisnick M, Huon C, Mohring F, Reimer JM, Chauhan VS, Mukherjee P, Biswas S, Taylor IJ, Lawrie AM, Cho JS, Nugent FL, Long CA, Moon RW, Miura K, Silk SE, Chitnis CE, Minassian AM, Draper SJ. Sci Transl Med. 2023 Jul 12;15(704):eadf1782. doi: 10.1126/scitranslmed.adf1782. Epub 2023 Jul 12. PMID: 37437014

Randomised controlled trials of behavioural nudges delivered through text messages to increase influenza and COVID-19 vaccines among pregnant women (the EPIC study): study protocol.
Andraweera PH, Wang B, Danchin M, Blyth C, Vlaev I, Ong J, Dodd J, Couper J, Sullivan TR, Karnon J, Spurrier N, Cusack M, Mordaunt D, Simatos D, Dekker G, Carlson S, Tuckerman J, Wood N, Whop L, Marshall HS. Trials. 2023 Jul 12;24(1):454. doi: 10.1186/s13063-023-07485-9. PMID: 37438776

Vaccine effectiveness of recombinant and standard dose influenza vaccines against influenza related hospitalization using a retrospective test-negative design.
Zimmerman RK, Patricia Nowalk M, Dauer K, Clarke L, Raviotta JM, Balasubramani GK. Vaccine. 2023 Jul 18:S0264-410X(23)00741-7. doi: 10.1016/j.vaccine.2023.06.056. Online ahead of print. PMID: 37474406

RSV: A **vaccine** is coming, time to educate providers.
Ciemins EL, Gillen A, Tallam M. Vaccine. 2023 Jul 19;41(32):4636-4638. doi: 10.1016/j.vaccine.2023.06.033. Epub 2023 Jun 14. PMID: 37328353

Antibody Responses to the SARS-CoV-2 Ancestral Strain and Omicron Variants in Moderna mRNA-1273 Vaccinated Active-Duty US Navy Sailors and Marines.
Sun P, Balinsky CA, Jiang L, Jani V, Long TK, Cheng Y, Serote MA, Smith AB, Fears BF, Gatrell SK, Sugiharto VA, Chen H, Zhang Z, Belinskaya T, Qiu Q, Graham WD, Schilling MA, Jones AR, Corson KS, Martin NJ, Letizia AG, Hontz RD. J Infect Dis. 2023 Jul 14;228(2):149-159. doi: 10.1093/infdis/jiad054. PMID: 36861215

Position statement on infection screening, prophylaxis, and vaccination in pediatric patients with rheumatic diseases and immunosuppressive therapies, part 2: infection prophylaxis.
Clemente Garulo D, Núñez-Cuadros E, Camacho Lovillo M, Calzada-Hernández J, Guillén Martín S, Fernández Silveira L, Lirola Cruz MJ, Tagarro A, Alcobendas Rueda RM, López López A, Satrustegi Aritziturri M, Calvo C. Eur J Pediatr. 2023 Jul 13. doi: 10.1007/s00431-023-05080-3. Online ahead of print. PMID: 37439850

Characterization of cysteine proteases from poultry red mite, tropical fowl mite, and northern fowl mite to assess the feasibility of developing a broadly efficacious **vaccine** against multiple mite species.
Win SY, Murata S, Fujisawa S, Seo H, Sato J, Motai Y, Sato T, Oishi E, Taneno A, Htun LL, Bawm S, Okagawa T, Maekawa N, Konnai S, Ohashi K. PLoS One. 2023 Jul 13;18(7):e0288565. doi: 10.1371/journal.pone.0288565. eCollection 2023. PMID: 37440547

Profound structural conservation of chemically cross-linked HIV-1 envelope glycoprotein experimental **vaccine** antigens.
Martin GM, Russell RA, Mundsperger P, Harris S, Jovanoska L, Trajano LF, Schiffner T, Fabian K, Tolazzi M, Scarlatti G, McFarlane L, Cheeseman H, Aldon Y, Schermer EE, Breemen M, Sliepen K, Katinger D, Kunert R, Sanders RW, Shattock R, Ward AB, Sattentau QJ. NPJ Vaccines. 2023 Jul 13;8(1):101. doi: 10.1038/s41541-023-00696-w. PMID: 37443366

YF17D-vectored Ebola **vaccine** candidate protects mice against lethal surrogate Ebola and yellow fever virus challenge.
Lemmens V, Kelchtermans L, Debaveye S, Chiu W, Vercruysse T, Ma J, Thibaut HJ, Neyts J, Sanchez-Felipe L, Dallmeier K. NPJ Vaccines. 2023 Jul 11;8(1):99. doi: 10.1038/s41541-023-00699-7. PMID: 37433816

Impact of coronavirus disease 2019 on patients with primary adrenal insufficiency: a cross-sectional study.
Knowles G, Warmington E, Shepherd LM, Hazlehurst JM, de Bray A, Gleeson H, Arlt W, Prete A. Endocr Connect. 2023 Jul 12;12(8):e230122. doi: 10.1530/EC-23-0122. PMID: 37253239

IgM nephropathy in a patient with dermatomyositis following COVID-19 vaccination: A case report.
Zarafshani M, Loghman M, Hakemi MS, Nili F, Hezaveh SB, Nejad MT, Faezi ST. Int J Rheum Dis. 2023 Jul 11. doi: 10.1111/1756-185X.14824. Online ahead of print. PMID: 37432024

Beta, Delta, and Omicron, Deadliest Among SARS-CoV-2 Variants: A Computational Repurposing Approach.
Alam MM, Hannan SB, Saikat TA, Limon MBH, Topu MR, Rana MJ, Salauddin A, Bosu S, Rahman MZ. Evol Bioinform Online. 2023 Jul 11;19:11769343231182258. doi: 10.1177/11769343231182258. eCollection 2023. PMID: 37457042

Racial residential segregation and COVID-19 **vaccine** uptake: an analysis of Georgia USA county-level data.
Medcalfe SK, Slade CP. BMC Public Health. 2023 Jul 20;23(1):1392. doi: 10.1186/s12889-023-16235-0. PMID: 37468835

A protocol for high-throughput screening for immunomodulatory compounds using human primary cells.
Chew K, Lee B, Ozonoff A, Smith JA, Levy O, Dowling DJ, Van Haren S. STAR Protoc. 2023 Jul 13;4(3):102405. doi: 10.1016/j.xpro.2023.102405. Online ahead of print. PMID: 37453068

Superior boosting of neutralizing titers against Omicron SARS-CoV-2 variants by heterologous SCB-2019 **vaccine** vs a homologous booster in CoronaVac-primed adults.
Roa CC, de Los Reyes MRA, Plennevaux E, Smolenov I, Hu B, Gao F, Ilagan H, Ambrosino D, Siber G, Clemens R. J Infect Dis. 2023 Jul 13:jiad262. doi: 10.1093/infdis/jiad262. Online ahead of print. PMID: 37439701

Miller Fischer syndrome after COVID-19 infection and **vaccine**: a systematic review.
Neophytou P, Artemiadis A, Hadjigeorgiou GM, Zis P. Acta Neurol Belg. 2023 Jul 19. doi: 10.1007/s13760-023-02336-5. Online ahead of print. PMID: 37468803

Pregnancy, fetal, and neonatal outcomes after a first booster dose of covid-19 **vaccine** during pregnancy in Ontario, Canada: population based, retrospective cohort study.
Fell DB, Dimanlig-Cruz S, Török E, Håberg SE, Regan AK, Kaufman JS, Platt RW, Gravel CA, Bruce L, Shah PS, Wilson K, Sprague AE, Alton GD, Dhinsa T, El-Chaâr D, Buchan SA, Kwong JC, Wilson SE, Dunn SI, MacDonald SE, Barrett J, Okun N, Walker MC. BMJ Med. 2023 Jul 11;2(1):e000632. doi: 10.1136/bmjmed-2023-000632. eCollection 2023. PMID: 37456362

Synthesis of oligosaccharides to identify an immunologically active epitope against *Candida auris* infection.
Singh RK, Reuber EE, Bruno M, Netea MG, Seeberger PH. Chem Sci. 2023 Jun 23;14(27):7559-7563. doi: 10.1039/d3sc01242e. eCollection 2023 Jul 12. PMID: 37449061

Safety and efficacy of the FAKHRAVAC compared with BBIBP-Corv2 against SARS-CoV-2 in adults: a non-inferiority multi-center trial.
Solaymani-Dodaran M, Basiri P, Moradi M, Gohari K, Sheidaei A, Ahi M, Ghafoori Naeeni F, Ansarifar A, Rahimi Z, Gholami F, Karimi Rahjerdi A, Hamidi Farahani R, Naderi Saffar K, Ghasemi S, Shooshtari A, Honari M, Mozafari A, Khodaverdloo S, Forooghizadeh M. Virol J. 2023 Jul 18;20(1):154. doi: 10.1186/s12985-023-02121-z. PMID: 37464440

Immunogenicity and reactogenicity of heterologous COVID-19 vaccination in pregnant women.
Chayachinda C, Watananirun K, Phatihattakorn C, Anuwutnavin S, Niyomnaitham S, Phongsamart W, Lapphra K, Wittawatmongkol O, Rungmaitree S, Jansarikit L, Boonnak K, Wongprompitak P, Senawong S, Upadhya A, Toh ZQ, Licciardi PV, Chokephaibulkit K. Hum Vaccin Immunother. 2023 Aug 1;19(2):2228670. doi: 10.1080/21645515.2023.2228670. Epub 2023 Jul 13. PMID: 37439770

12 countries to get first doses of malaria **vaccine**.
Devi S. Lancet. 2023 Jul 15;402(10397):172. doi: 10.1016/S0140-6736(23)01456-3. PMID: 37454658

Single-dose VSV-based **vaccine** protects cynomolgus macaques from disease after Taï Forest virus infection.
Fletcher P, O'Donnell KL, Doratt BM, Malherbe DC, Clancy CS, Rhoderick JF, Feldmann F, Hanley PW, Ksiazek TG, Geisbert TW, Messaoudi I, Marzi A. Emerg Microbes Infect. 2023 Jul 20:2239950. doi: 10.1080/22221751.2023.2239950. Online ahead of print. PMID: 37470396

Modification of bacterial microcompartments with target biomolecules *via* post-translational SpyTagging.
Beal DM, Liang M, Brown I, Budge JD, Burrows ER, Howland K, Lee P, Martin S, Morrell A, Nemoto-Smith E, Roobol J, Stanley M, Smales CM, Warren MJ. Mater Adv. 2023 Jun 12;4(14):2963-2970. doi: 10.1039/d3ma00071k. eCollection 2023 Jul 17. PMID: 37465645

Maternal and neonatal outcomes of COVID-19 vaccination during pregnancy, a systematic review and meta-analysis.
Marchand G, Masoud AT, Grover S, King A, Brazil G, Ulibarri H, Parise J, Arroyo A, Coriell C, Goetz S, Moir C, Govindan M, Moberly A, Proctor A, Sainz K, Blumrick R. NPJ Vaccines. 2023 Jul 15;8(1):103. doi: 10.1038/s41541-023-00698-8. PMID: 37454153

Social inequalities and the early provision and dispersal of COVID-19 vaccinations in the United States: A population trends study.
Clouston SAP, Hanes DW, Link BG. Vaccine. 2023 Jul 15:S0264-410X(23)00833-2. doi: 10.1016/j.vaccine.2023.07.022. Online ahead of print. PMID: 37460352

A microfluidic electrophoretic dual dynamic staining method for the identification and relative quantitation of dsRNA contaminants in mRNA vaccines.
Coll De Peña A, Li N, Vaduva M, Bwanali L, Tripathi A. Analyst. 2023 Jul 13. doi: 10.1039/d3an00281k. Online ahead of print. PMID: 37439498

Proteomic characterization of Opisthorchis felineus exosome-like vesicles and their uptake by human cholangiocytes.
Pakharukova MY, Savina E, Ponomarev DV, Gubanova NV, Zaparina O, Zakirova EG, Cheng G, Tikhonova OV, Mordvinov VA. J Proteomics. 2023 Jul 15;283-284:104927. doi: 10.1016/j.jprot.2023.104927. Epub 2023 May 22. PMID: 37225040

Doubts about the COVID-19 **vaccine** against pregnancy: public trust and government issues in Indonesia.
Saputra R, Lidyawati Y, Suhardita K, Ramadhani E, Situmorang DDB. J Public Health (Oxf). 2023 Jul 13:fdad113. doi: 10.1093/pubmed/fdad113. Online ahead of print. PMID: 37442555

In-vivo functions and regulation of polyphosphate in the vascular system.
Huang WC, Mailer RK, Renné T. Curr Opin Hematol. 2023 Jul 18. doi: 10.1097/MOH.0000000000000771. Online ahead of print. PMID: 37459301

The impact of implementing the 10-valent pneumococcal conjugate **vaccine** on hospitalizations for pneumonia among children.
de Melo Araujo AC, da Silva Aragão J, de Souza WV, Rodrigues LC, de Barros Miranda-Filho D. Vaccine. 2023 Jul 19;41(32):4719-4725. doi: 10.1016/j.vaccine.2023.06.049. Epub 2023 Jun 21. PMID: 37353456

Barriers experienced by families new to Alberta, Canada when accessing routine-childhood vaccinations.
Fullerton MM, Pateman M, Hasan H, Doucette EJ, Cantarutti S, Koyama A, Weightman AM, Tang T, Coakley A, Currie GR, Fabreau G, Constantinescu C, Marshall DA, Hu J. BMC Public Health. 2023 Jul 12;23(1):1333. doi: 10.1186/s12889-023-16258-7. PMID: 37438796

Induced protection from a CCHFV-M DNA **vaccine** requires $CD8^+$ T cells.
Golden JW, Fitzpatrick CJ, Suschak JJ, Clements TL, Ricks KM, Sanchez-Lockhart M, Garrison AR. Virus Res. 2023 Jul 15:199173. doi: 10.1016/j.virusres.2023.199173. Online ahead of print. PMID: 37459918

Parental acceptance of typhoid conjugate **vaccine** for children aged 6 months to 15 years in an outbreak setting of Lyari Town Karachi, Pakistan.
Batool R, Yousafzai MT, Qureshi S, Muhammad S, Qazi I, Sadaf T, Ashorn P, Qamar FN. Vaccine. 2023 Jul 16:S0264-410X(23)00806-X. doi: 10.1016/j.vaccine.2023.07.003. Online ahead of print. PMID: 37463829

Comb-structured mRNA **vaccine** tethered with short double-stranded RNA adjuvants maximizes cellular immunity for cancer treatment.

Tockary TA, Abbasi S, Matsui-Masai M, Hayashi A, Yoshinaga N, Boonstra E, Wang Z, Fukushima S, Kataoka K, Uchida S. Proc Natl Acad Sci U S A. 2023 Jul 18;120(29):e2214320120. doi: 10.1073/pnas.2214320120. Epub 2023 Jul 10. PMID: 37428918

Exploring Health Information Seeking Among Participants from a Black Ethnic Group in the UK: a Qualitative Study.
Ndungu A, Nellums L, Bramley L. J Racial Ethn Health Disparities. 2023 Jul 14. doi: 10.1007/s40615-023-01713-3. Online ahead of print. PMID: 37450252

Coronavirus Disease 2019 (COVID-19) Vaccination and Assisted Reproduction Outcomes: A Systematic Review and Meta-analysis.
Chamani IJ, Taylor LL, Dadoun SE, McKenzie LJ, Detti L, Ouellette L, McCulloh DH, Licciardi FL. Obstet Gynecol. 2023 Jul 13. doi: 10.1097/AOG.0000000000005310. Online ahead of print. PMID: 37441788

Exploring parents' views of the use of narratives to promote childhood vaccination online.
Dubé E, Trottier ME, Gagnon D, Bettinger JA, Greyson D, Graham J, MacDonald NE, MacDonald SE, Meyer SB, Witteman HO, Driedger SM. PLoS One. 2023 Jul 19;18(7):e0284107. doi: 10.1371/journal.pone.0284107. eCollection 2023. PMID: 37467300

Memory-like innate response to booster vaccination with MF-59 adjuvanted influenza **vaccine** in children.
Kazmin D, Clutterbuck EA, Napolitani G, Wilkins AL, Tarlton A, Thompson AJ, Montomoli E, Lapini G, Bihari S, White R, Jones C, Snape MD, Galal U, Yu LM, Rappuoli R, Del Giudice G, Pollard AJ, Pulendran B. NPJ Vaccines. 2023 Jul 13;8(1):100. doi: 10.1038/s41541-023-00702-1. PMID: 37443176

Novel mouse monoclonal antibodies against Bordetella pertussis pertactin antigen with versatile applications.
Imani D, Bahadori T, Ghourchian S, Golsaz-Shirazi F, Douraghi M, Jeddi-Tehrani M, Amiri MM, Shokri F. J Microbiol Methods. 2023 Jul 14:106786. doi: 10.1016/j.mimet.2023.106786. Online ahead of print. PMID: 37454935

Rapid detection of Nipah virus using the one-pot RPA-CRISPR/Cas13a assay.
Miao J, Zuo L, He D, Fang Z, Berthet N, Yu C, Wong G. Virus Res. 2023 Jul 15;332:199130. doi: 10.1016/j.virusres.2023.199130. Epub 2023 May 14. PMID: 37178792

In Vitro and *In Vivo* Cysticidal Effects of *Carica Papaya* Cell Suspensions.
Guzmán C, Villalobos N, Ortiz Caltempa A, Hernández M, Núñez G, Salazar J, Bobes RJ, Fragoso G, Sciutto E, Villarreal ML. Infect Immun. 2023 Jul 18;91(7):e0051722. doi: 10.1128/iai.00517-22. Epub 2023 Jun 21. PMID: 37341599

Oral human papillomavirus (HPV) infection and HPV vaccination in an Australian cohort.
de Souza MMA, Hartel G, Olsen CM, Whiteman DC, Antonsson A. Int J Cancer. 2023 Jul 15;153(2):417-426. doi: 10.1002/ijc.34517. Epub 2023 Mar 25. PMID: 36943030

Potential for Maternally Administered **Vaccine** for Infant Group B Streptococcus.
Madhi SA, Anderson AS, Absalon J, Radley D, Simon R, Jongihlati B, Strehlau R, van Niekerk AM, Izu A, Naidoo N, Kwatra G, Ramsamy Y, Said M, Jones S, Jose L, Fairlie L, Barnabas SL, Newton R, Munson S,

Jefferies Z, Pavliakova D, Silmon de Monerri NC, Gomme E, Perez JL, Scott DA, Gruber WC, Jansen KU. N Engl J Med. 2023 Jul 20;389(3):215-227. doi: 10.1056/NEJMoa2116045. PMID: 37467497

Influenza H3 hemagglutinin **vaccine** with scrambled immunodominant epitopes elicits antibodies directed toward immunosubdominant head epitopes.
Chiba S, Kong H, Neumann G, Kawaoka Y. mBio. 2023 Jul 19:e0062223. doi: 10.1128/mbio.00622-23. Online ahead of print. PMID: 37466314

Interventional hydrogel microsphere **vaccine** as an immune amplifier for activated antitumour immunity after ablation therapy.
Liu X, Zhuang Y, Huang W, Wu Z, Chen Y, Shan Q, Zhang Y, Wu Z, Ding X, Qiu Z, Cui W, Wang Z. Nat Commun. 2023 Jul 11;14(1):4106. doi: 10.1038/s41467-023-39759-w. PMID: 37433774

Mucosal SARS-CoV-2 Nanoparticle **Vaccine** Based on Mucosal Adjuvants and Its Immune Effectiveness by Intranasal Administration.
Xiao L, Yu W, Shen L, Yan W, Qi J, Hu T. ACS Appl Mater Interfaces. 2023 Jul 19. doi: 10.1021/acsami.3c05456. Online ahead of print. PMID: 37466148

Clinical benefit and safety associated with mRNA vaccines for advanced solid tumors: A meta-analysis.
Zhang TY, Xu H, Zheng XN, Xiong XY, Zhang SY, Yi XY, Li J, Wei Q, Ai JZ. MedComm (2020). 2023 Jul 18;4(4):e286. doi: 10.1002/mco2.286. eCollection 2023 Aug. PMID: 37470066

Understanding the Global Burden of Influenza in Adults Aged 18-64 years: A Systematic Literature Review from 2012 to 2022.
Maleki F, Welch V, Lopez SMC, Cane A, Langer J, Enstone A, Markus K, Wright O, Hewitt N, Whittle I. Adv Ther. 2023 Jul 20. doi: 10.1007/s12325-023-02610-1. Online ahead of print. PMID: 37470942

Vaccine utilization and overwhelming post-splenectomy infection risk factors in two asplenia cohorts.
Soderstrom MA, Miller MA, Wang Q, Hennrikus WP, Watson NL, Costantino RC, Bradley MJ, Rao VK, Boggs NA. Haematologica. 2023 Jul 20. doi: 10.3324/haematol.2023.283419. Online ahead of print. PMID: 37470143

First Ever Malaria **Vaccine** to Be Distributed in Africa.
Harris E. JAMA. 2023 Jul 19. doi: 10.1001/jama.2023.12549. Online ahead of print. PMID: 37467002

Single Ad26.COV2.S booster dose following two doses of BBIBP-CorV **vaccine** against SARS-CoV-2 infection in adults: Day 28 results of a phase 1/2 open-label trial.
Muangnoicharoen S, Wiangcharoen R, Nanthapisal S, Kamolratakul S, Lawpoolsri S, Jongkaewwattana A, Thitithanyanont A, Luvira V, Chinwangso P, Thanthamnu N, Chantratita N, Lim JK, Anh Wartel T, Excler JL, Ryser MF, Leong C, Mak TK, Pitisuttithum P. Vaccine. 2023 Jul 19;41(32):4648-4657. doi: 10.1016/j.vaccine.2023.06.043. Epub 2023 Jun 15. PMID: 37344265

Myocardial Infarction Across COVID-19 Pandemic Phases: Insights From the Veterans Health Affairs System.
Yong CM, Graham L, Beyene TJ, Sadri S, Hong J, Burdon T, Fearon WF, Asch SM, Turakhia M, Heidenreich P. J Am Heart Assoc. 2023 Jul 18;12(14):e029910. doi: 10.1161/JAHA.123.029910. Epub 2023 Jul 8. PMID: 37421288

Is COVID-19 **vaccine** really protective in pregnancy against low birth Weight?
Khan N, Kamal MA. Am J Obstet Gynecol MFM. 2023 Jul 12:101092. doi: 10.1016/j.ajogmf.2023.101092. Online ahead of print. PMID: 37451367

Effectiveness of BNT162b2 **vaccine** against symptomatic SARS-CoV-2 infection in children aged 5-11 years in Japan during Omicron variant predominate periods.
Hara M, Ohta Y, Fusazaki N, Hirota Y. J Epidemiol. 2023 Jul 15. doi: 10.2188/jea.JE20230093. Online ahead of print. PMID: 37460294

Increased neutralization potency and breadth elicited by a SARS-CoV-2 mRNA **vaccine** forming virus-like particles.
Zhang P, Falcone S, Tsybovsky Y, Singh M, Gopan V, Miao H, Seo Y, Rogers D, Renzi I, Lai YT, Narayanan E, Stewart-Jones G, Himansu S, Carfi A, Fauci AS, Lusso P. Proc Natl Acad Sci U S A. 2023 Jul 18;120(29):e2305896120. doi: 10.1073/pnas.2305896120. Epub 2023 Jul 10. PMID: 37428933

Revisiting the measurement of **vaccine** hesitancy: Comparison between routine immunization and supplementary immunization activity in Nigeria.
Sato R. Vaccine. 2023 Jul 19;41(32):4633-4635. doi: 10.1016/j.vaccine.2023.06.026. Epub 2023 Jun 12. PMID: 37316408

Effectiveness of the strain 919 bovine ephemeral fever virus **vaccine** in the face of a real-world outbreak: A field study in Israeli dairy herds.
Gleser D, Spinner K, Klement E. Vaccine. 2023 Jul 12:S0264-410X(23)00747-8. doi: 10.1016/j.vaccine.2023.06.062. Online ahead of print. PMID: 37451879

Sex differences in cerebral venous sinus thrombosis after adenoviral vaccination against COVID-19.
Scutelnic A, van de Munckhof A, Krzywicka K, van Kammen MS, Lindgren E, Cordonnier C, Kleinig TJ, Field TS, Poli S, Lemmens R, Middeldorp S, Aaron S, Borhani-Haghighi A, Arauz A, Kremer Hovinga JA, Günther A, Putaala J, Wasay M, Conforto AB, de Sousa DA, Jood K, Tatlisumak T, Ferro JM, Coutinho JM, Arnold M, Heldner MR; Cerebral Venous Sinus Thrombosis with Thrombocytopenia Syndrome Study Group**. Eur Stroke J. 2023 Jul 11:23969873231185213. doi: 10.1177/23969873231185213. Online ahead of print. PMID: 37434312

Complications of SARS-CoV-2 Infection During Cardiac Rehabilitation: A Case Series.
Zappa M, Verdecchia P, Andolina A, Spanevello A, Angeli F. Cardiol Ther. 2023 Jul 15. doi: 10.1007/s40119-023-00325-6. Online ahead of print. PMID: 37453974

Establishing immunogenicity and safety of needle-free intradermal delivery by nanoporous ceramic skin patch of mRNA SARS-CoV-2 **vaccine** as a revaccination strategy in healthy volunteers.
Prins MLM, Prins C, de Vries JJC, Visser LG, Roukens AHE. Virus Res. 2023 Jul 18:199175. doi: 10.1016/j.virusres.2023.199175. Online ahead of print. PMID: 37473964

A design strategy to generate a SARS-CoV-2 RBD **vaccine** that abrogates ACE2 binding and improves neutralizing antibody responses.

Ratswohl C, García CV, Ahmad AU, Gonschior H, Lebedin M, Silvis C, Spatt L, Gerhard C, Lehmann M, Sander LE, Kurth F, Olsson S, de la Rosa K. Eur J Immunol. 2023 Jul 12:e2350408. doi: 10.1002/eji.202350408. Online ahead of print. PMID: 37435628

Community centred co-design methodology for designing and implementing socio-behavioural interventions to counter COVID-19 related misinformation among marginalized population living in the squatter settlements of Karachi, Pakistan: a methodology paper.
Qasim R, Farooqui WA, Rahman A, Haroon R, Saleem M, Rafique M, Noor F, Ghani A, Yaqoob M, Yadav UN, Yousafzai MT. BMC Proc. 2023 Jul 12;17(Suppl 7):15. doi: 10.1186/s12919-023-00265-y. PMID: 37438805

Vaccination with mycobacterial lipid loaded nanoparticle leads to lipid antigen persistence and memory differentiation of antigen-specific T cells.
Morgun E, Zhu J, Almunif S, Bobbala S, Aguilar MS, Wang J, Conner K, Cui Y, Cao L, Seshadri C, Scott EA, Wang CR. bioRxiv. 2023 Jul 13:2023.03.07.531489. doi: 10.1101/2023.03.07.531489. Preprint. PMID: 36945395

Impact of COVID **vaccine** and comorbidities in patients receiving casirivimab-imdevimab monoclonal antibody during SARS-CoV-2 B.1.617.2 (Delta) surge: A real-world study.
Agrawal P, Damania D, Cseh A, Grab J, Strom L, Frank B, Patel D, Clyatt G. Vaccine. 2023 Jul 12:S0264-410X(23)00822-8. doi: 10.1016/j.vaccine.2023.07.011. Online ahead of print. PMID: 37451874

A two-protein cocktail elicits a protective immune response against Acinetobacter baumannii in a murine infection model.
Mirali M, Jahangiri A, Nadoushan MJ, Rasooli I. Microb Pathog. 2023 Jul 18:106262. doi: 10.1016/j.micpath.2023.106262. Online ahead of print. PMID: 37474079

Spatial analysis of **vaccine** coverage in children under the age of 1 year by mesoregions in Paraíba a northeastern Brazilian state.
Cunha NSP, de Olinda RA, Fahrat SCL, Barbieri CLA, Braga ALF, Pamplona YAP, Martins LC. PLoS One. 2023 Jul 18;18(7):e0288651. doi: 10.1371/journal.pone.0288651. eCollection 2023. PMID: 37463166

Measuring behavioral and social drivers of COVID-19 vaccination in health workers in Eastern and Southern Africa.
Bon HB, Brouwers SA, Mote J, de Almeida S, Markle L, Sommariva S, Fol N. BMC Proc. 2023 Jul 12;17(Suppl 7):14. doi: 10.1186/s12919-023-00262-1. PMID: 37438751

Comprehensive analysis of neoantigens derived from structural variation across whole genomes from 2528 tumors.
Shi Y, Jing B, Xi R. Genome Biol. 2023 Jul 17;24(1):169. doi: 10.1186/s13059-023-03005-9. PMID: 37461029

Cost-effectiveness analysis of introducing rotavirus **vaccine** into immunization program in Zhejiang province, China: A decision tree-Markov model study.
Lv H, Chen F, Wang Y, Chen Y, Hu Y. Hum Vaccin Immunother. 2023 Aug 1;19(2):2217075. doi: 10.1080/21645515.2023.2217075. Epub 2023 Jul 16. PMID: 37455405

Kinetics of humoral immune response and severity of infection after three doses of SARS-CoV-2 mRNA **vaccine** in a large cohort of kidney transplant recipients.
Simone S, Pesce F, Fontò G, Pronzo V, Pontrelli P, Conserva F, Schirinzi A, Casanova A, Gallo P, Rossini M, Lucarelli G, Spilotros M, Rendina M, Stallone G, Di Serio F, Di Leo A, Tafuri S, Ditonno P, Gesualdo L. J Nephrol. 2023 Jul 17. doi: 10.1007/s40620-023-01650-8. Online ahead of print. PMID: 37458909

Evaluation of Children with Cow's Milk Allergy Who Received Measles or Measles, Mumps, and Rubella Vaccines Containing Alpha-Lactalbumin.
Ulusoy Severcan E, Ertugrul A, Ozmen S. Pediatr Allergy Immunol Pulmonol. 2023 Jul 11. doi: 10.1089/ped.2023.0035. Online ahead of print. PMID: 37433203

Immune response to pertussis **vaccine** in COPD patients.
Feredj E, Wiedemann A, Krief C, Maitre B, Derumeaux G, Chouaid C, Le Corvoisier P, Lacabaratz C, Gallien S, Lelièvre JD, Boyer L. Sci Rep. 2023 Jul 19;13(1):11654. doi: 10.1038/s41598-023-38355-8. PMID: 37468500

An Advax-CpG55.2™ adjuvanted recombinant spike protein **vaccine** protects cynomolgus macaques from a homologous SARS-CoV-2 virus challenge.
Honda-Okubo Y, Li L, André G, Leong KH, Howerth EW, Bebin-Blackwell AG, Ross TM, Petrovsky N. Vaccine. 2023 Jul 19;41(32):4710-4718. doi: 10.1016/j.vaccine.2023.06.063. Epub 2023 Jun 19. PMID: 37355452

Multimodeling approach to evaluating the efficacy of layering pharmaceutical and nonpharmaceutical interventions for influenza pandemics.
Prasad PV, Steele MK, Reed C, Meyers LA, Du Z, Pasco R, Alfaro-Murillo JA, Lewis B, Venkatramanan S, Schlitt J, Chen J, Orr M, Wilson ML, Eubank S, Wang L, Chinazzi M, Pastore Y Piontti A, Davis JT, Halloran ME, Longini I, Vespignani A, Pei S, Galanti M, Kandula S, Shaman J, Haw DJ, Arinaminpathy N, Biggerstaff M. Proc Natl Acad Sci U S A. 2023 Jul 11;120(28):e2300590120. doi: 10.1073/pnas.2300590120. Epub 2023 Jul 3. PMID: 37399393

Two MP2CL5 Antigen Vaccines from Naegleria fowleri Stimulate the Immune Response against Meningitis in the BALB/c Model.
Gutiérrez-Sánchez M, Carrasco-Yépez MM, Correa-Basurto J, Ramírez-Salinas GL, Rojas-Hernández S. Infect Immun. 2023 Jul 18;91(7):e0018123. doi: 10.1128/iai.00181-23. Epub 2023 Jun 5. PMID: 37272791

Enhanced immunogenicity induced by mRNA vaccines with various lipid nanoparticles as carriers for SARS-CoV-2 infection.
Zhang Y, Wang J, Xing H, Liu C, Zha W, Dong S, Jiang Y, Li X. J Mater Chem B. 2023 Jul 14. doi: 10.1039/d3tb00303e. Online ahead of print. PMID: 37448376

Reply letter to "Cost-effectiveness of influenza vaccination with a high dose quadrivalent **vaccine** of the elderly population in Belgium, Finland, and Portugal".
Hadigal S, Colombo L, Cook J. J Med Econ. 2023 Jul 14:1-3. doi: 10.1080/13696998.2023.2237379. Online ahead of print. PMID: 37450279

Off target toxicities and links with physicochemical properties of medicinal products, including antibiotics, oligonucleotides, lipid nanoparticles (with cationic and/or anionic charges). Data review suggests an emerging pattern.
Gould S, Templin MV. Toxicol Lett. 2023 Jul 15;384:14-29. doi: 10.1016/j.toxlet.2023.07.011. Online ahead of print. PMID: 37454775

Prevalence of and risk factors for self-reported menstrual changes following COVID-19 vaccination: a Danish cohort study.
Bisgaard Jensen C, Bech BH, Hansen SN, Rask CU, Fink P, Nielsen H, Meinertz Dantoft T, Thysen SM, Rytter D. Hum Reprod. 2023 Jul 12:dead144. doi: 10.1093/humrep/dead144. Online ahead of print. PMID: 37437904

Herpes zoster **vaccine** safety in the Aotearoa New Zealand population: a self-controlled case series study.
Mbinta JF, Wang AX, Nguyen BP, Paynter J, Awuni PMA, Pine R, Sporle AA, Bowe S, Simpson CR. Nat Commun. 2023 Jul 19;14(1):4330. doi: 10.1038/s41467-023-39595-y. PMID: 37468475

mRNA **vaccine** against malaria tailored for liver-resident memory T cells.
Ganley M, Holz LE, Minnell JJ, de Menezes MN, Burn OK, Poa KCY, Draper SL, English K, Chan STS, Anderson RJ, Compton BJ, Marshall AJ, Cozijnsen A, Chua YC, Ge Z, Farrand KJ, Mamum JC, Xu C, Cockburn IA, Yui K, Bertolino P, Gras S, Le Nours J, Rossjohn J, Fernandez-Ruiz D, McFadden GI, Ackerley DF, Painter GF, Hermans IF, Heath WR. Nat Immunol. 2023 Jul 20. doi: 10.1038/s41590-023-01562-6. Online ahead of print. PMID: 37474653

Immunogenicity and safety in pigs of PHH-1V, a SARS-CoV-2 RBD fusion heterodimer **vaccine** candidate.
Moros A, Prenafeta A, Barreiro A, Perozo E, Fernández A, Cañete M, González L, Garriga C, Pradenas E, Marfil S, Blanco J, Cebollada Rica P, Sisteré-Oró M, Meyerhans A, Prat Cabañas T, March R, Ferrer L. Vaccine. 2023 Jul 15:S0264-410X(23)00820-4. doi: 10.1016/j.vaccine.2023.07.008. Online ahead of print. PMID: 37460353

Efficacy of a Dual-Epitope Dendritic Cell **Vaccine** as Part of Combined Immunotherapy for HER2-Expressing Breast Tumors.
Vincent BG, File DM, McKinnon KP, Moore DT, Frelinger JA, Collins EJ, Ibrahim JG, Bixby L, Reisdorf S, Laurie SJ, Park YA, Anders CK, Collichio FA, Muss HB, Carey LA, van Deventer HW, Dees EC, Serody JS. J Immunol. 2023 Jul 15;211(2):219-228. doi: 10.4049/jimmunol.2300077. PMID: 37204246

IEPAPI: a method for immune epitope prediction by incorporating antigen presentation and immunogenicity.
Deng J, Zhou X, Zhang P, Cheng W, Liu M, Tian J. Brief Bioinform. 2023 Jul 20;24(4):bbad171. doi: 10.1093/bib/bbad171. PMID: 37232386

Head-to-head immunogenicity comparison of an Escherichia coli-produced 9-valent human papillomavirus **vaccine** and Gardasil 9 in women aged 18-26 years in China: a randomised blinded clinical trial.
Zhu FC, Zhong GH, Huang WJ, Chu K, Zhang L, Bi ZF, Zhu KX, Chen Q, Zheng TQ, Zhang ML, Liu S, Xu JB, Pan HX, Sun G, Zheng FZ, Zhang QF, Yi XM, Zhuang SJ, Huang SJ, Pan HR, Su YY, Wu T, Zhang J, Xia NS. Lancet Infect Dis. 2023 Jul 17:S1473-3099(23)00275-X. doi: 10.1016/S1473-3099(23)00275-X. Online ahead of print. PMID: 37475116

The contribution of rural primary health care to the coronavirus (COVID-19) vaccination program.
McIntosh K, Hyett N. Aust Health Rev. 2023 Jul 11. doi: 10.1071/AH23044. Online ahead of print. PMID: 37429818

Macro-microporous ZIF-8 MOF complexed with lysosomal pH-adjusting hexadecylsulfonylfluoride as tumor **vaccine** delivery systems for improving anti-tumor cellular immunity.
Zuo Q, Li T, Huang L, Liu Z, Xue W. Biomater Sci. 2023 Jul 12;11(14):5025-5045. doi: 10.1039/d3bm00306j. PMID: 37335287

Whole-Genome Sequencing of Three M. gallisepticum Isolates Similar to the 6/85 **Vaccine** Strain.
Leigh SA, Evans JD. Microbiol Resour Announc. 2023 Jul 18;12(7):e0033923. doi: 10.1128/mra.00339-23. Epub 2023 Jun 22. PMID: 37347196

Research article antibody induction and immune response in nasal cavity by third dose of SARS-CoV-2 mRNA vaccination.
Ishizaka A, Koga M, Mizutani T, Uraki R, Yamayoshi S, Iwatsuki-Horimoto K, Yamamoto S, Imai M, Tsutsumi T, Suzuki Y, Kawaoka Y, Yotsuyanagi H. Virol J. 2023 Jul 13;20(1):146. doi: 10.1186/s12985-023-02113-z. PMID: 37443091

A complex intervention on vaccination uptake among older adults (≥ 60 years) in Germany - a study protocol with a mixed methods design.
Uthoff SAK, Zinkevich A, Franiel D, Below M, Splieth H, Iwen J, Biedermann M, Heinemeier D, Ansmann L. BMC Prim Care. 2023 Jul 15;24(1):148. doi: 10.1186/s12875-023-02101-w. PMID: 37452283

Response: COVID-19 **vaccine** hesitancy among pregnant women attending tertiary care centre: A cross-sectional study.
Gupta N, Sharma S, Nigam A. Int J Gynaecol Obstet. 2023 Jul 14. doi: 10.1002/ijgo.15002. Online ahead of print. PMID: 37450288

Longitudinal analysis of anti-SARS-CoV-2 neutralizing antibody (NAb) titers in vaccinees using a novel giant magnetoresistive (GMR) assay.
Ng E, Choi C, Wang SX. Sens Actuators B Chem. 2023 Jul 15;387:133773. doi: 10.1016/j.snb.2023.133773. Epub 2023 Apr 5. PMID: 37056483

Poliovirus outbreak in New York State, August 2022: Qualitative assessment of immediate public health responses and priorities for improving **vaccine** coverage.
Kasstan B, Mounier-Jack S, Chantler T, Masters N, Flores SA, Stokley S, Meek H, Easton D, De Luna-Evans T, Souto M, Punjabi C, Ruppert P, Rosenberg E, Routh J. Epidemiol Infect. 2023 Jul 12:1-25. doi: 10.1017/S0950268823001127. Online ahead of print. PMID: 37435800

Type I Interferon Signaling on Antigen-Presenting Cells Blunts Cell-Mediated Immunity toward Listeria monocytogenes.
Morrow ZT, Sauer JD. Infect Immun. 2023 Jul 18;91(7):e0054022. doi: 10.1128/iai.00540-22. Epub 2023 Jun 12. PMID: 37306593

Pneumococcal **vaccine** uptake among Medicare Beneficiaries aged ≥65 years following the shared clinical decision-making recommendation for 13-valent pneumococcal conjugate **vaccine** in 2019.
Vietri J, Sato R, Averin A, Weycker D, Kumar M, Prasad S, Chilson E. Vaccine. 2023 Jul 18:S0264-410X(23)00855-1. doi: 10.1016/j.vaccine.2023.07.034. Online ahead of print. PMID: 37474408

Study protocol for a cluster-randomised controlled trial of hybrid parents and health workers adaptive intervention for optimal routine childhood immunisation coverage in the communities of Ebonyi state, Nigeria: the AGINTOPIC trial protocol.
Omale UI, Ewah RL, Amuzie CI, Ikegwuonu CO, Nkwo GE, Iwegbulam CC, Ekwuazi LC. BMJ Open. 2023 Jul 12;13(7):e068953. doi: 10.1136/bmjopen-2022-068953. PMID: 37438066

The malaria blood stage antigen PfCyRPA formulated with the TLR-4 agonist adjuvant GLA-SE elicits parasite growth inhibitory antibodies in experimental animals.
Tamborrini M, Schäfer A, Hauser J, Zou L, Paris DH, Pluschke G. Malar J. 2023 Jul 15;22(1):210. doi: 10.1186/s12936-023-04638-8. PMID: 37454145

Timing of Hepatitis B **Vaccine** Birth Dose in Exposed Newborns, Southwest Ethiopia: A Cross-Sectional Study.
Demissie M, Weldekidan HA, Yosef Y, Sori SA, Tsega D, Jiru HD, Derribow AB, Tetema MD, Jima GB, Zeleke FT, Endeshew F, Abeje S. SAGE Open Nurs. 2023 Jul 12;9:23779608231187258. doi: 10.1177/23779608231187258. eCollection 2023 Jan-Dec. PMID: 37457619

Persistently raised blood pressure following coronavirus disease 2019 vaccines: Implication for future systematic research and monitoring.
Patamatamkul S, Potongcamphan M. Eur J Intern Med. 2023 Jul 13:S0953-6205(23)00237-6. doi: 10.1016/j.ejim.2023.07.006. Online ahead of print. PMID: 37453846

How the case counting window affected **vaccine** efficacy calculations in randomized trials of COVID-19 vaccines.
Doshi P, Fung K. J Eval Clin Pract. 2023 Jul 15. doi: 10.1111/jep.13900. Online ahead of print. PMID: 37452751

Biogeographic regionalization of human infectious diseases in Brazil based on geographically explicit data.
Löwenberg-Neto P, Winkelmann S, Verzotto ÁK. Trop Med Int Health. 2023 Jul 11. doi: 10.1111/tmi.13914. Online ahead of print. PMID: 37433750

Delaying the third dose of Japanese aluminum-free hepatitis A **vaccine** Aimmugen elicits effective immune responses against hepatitis A in adults.
Fukushima S, Kiyohara T, Nakano T, Tada Y, Hamada A. Vaccine. 2023 Jul 19;41(32):4726-4730. doi: 10.1016/j.vaccine.2023.06.048. Epub 2023 Jun 21. PMID: 37353455

Genotype profiles of high-risk human papillomavirus in women of reproductive age: A community-based study.
Wulandari D, Meidyandra RW, Andrijono. PLoS One. 2023 Jul 17;18(7):e0287399. doi: 10.1371/journal.pone.0287399. eCollection 2023. PMID: 37459332

Contribution of Vaccinations to Reducing Socioeconomic Disparities in COVID-19 Deaths Across US counties.
Goto R, Kawachi I, Kondo N, Inoue K. Ann Epidemiol. 2023 Jul 14:S1047-2797(23)00140-0. doi: 10.1016/j.annepidem.2023.07.003. Online ahead of print. PMID: 37454832

Humoral Response to the Acetalated Dextran M2e **Vaccine** is Enhanced by Antigen Surface Conjugation.
Batty CJ, Pena ES, Amouzougan EA, Moore KM, Ainslie KM, Bachelder EM. Bioconjug Chem. 2023 Jul 17. doi: 10.1021/acs.bioconjchem.3c00223. Online ahead of print. PMID: 37458383

Infection dynamics and incidence of wild-type porcine reproductive and respiratory syndrome virus in growing pig herds in the U.S. Midwest.
Angulo J, Yang M, Rovira A, Davies PR, Torremorell M. Prev Vet Med. 2023 Jul 13;217:105976. doi: 10.1016/j.prevetmed.2023.105976. Online ahead of print. PMID: 37467679

Why ethical frameworks fail to deliver in a pandemic: Are proposed alternatives an improvement?
Degeling C, Williams J, Gilbert GL, Johnson J. Bioethics. 2023 Jul 13. doi: 10.1111/bioe.13202. Online ahead of print. PMID: 37448131

Protection of inactivated **vaccine** against SARS-CoV-2 infections in patients with comorbidities: a prospective cohort study.
Ngaosuwan K, Soonklang K, Warakul C, Auewarakul C, Mahanonda N. Front Med. 2023 Jul 12. doi: 10.1007/s11684-023-0995-9. Online ahead of print. PMID: 37434065

Additive effects of booster mRNA vaccination and SARS-CoV-2 Omicron infection on T cell immunity across immunocompromised states.
Müller TR, Sekine T, Trubach D, Niessl J, Chen P, Bergman P, Blennow O, Hansson L, Mielke S, Nowak P, Vesterbacka J, Akber M, Olofsson A, Amaya Hernandez SP, Gao Y, Cai C, Söderdahl G, Smith CIE, Österborg A, Loré K, Sällberg Chen M, Ljungman P, Ljunggren HG, Karlsson AC, Saini SK, Aleman S, Buggert M. Sci Transl Med. 2023 Jul 12;15(704):eadg9452. doi: 10.1126/scitranslmed.adg9452. Epub 2023 Jul 12. PMID: 37437015

Unveiling a New Perspective on Distinguishing Omicron Breakthrough Cases and Postimmune COVID-19-Naive Individuals: Insights from Antibody Profiles.
Zhang S, Dong C, Zhen Q, Shi C, Tian H, Li C, Kong X, Dai Q, Huang H, Simayi A, Zhu F, Xu Y, Hu J, Xu K, Chen L, Bao C, Jin H, Zhu L. Microbiol Spectr. 2023 Jul 11:e0180823. doi: 10.1128/spectrum.01808-23. Online ahead of print. PMID: 37432106

Evaluation of the roche MagNA pure 96 nucleic acid extraction platform for the SPF10 line probe assay system.
Peng S, Yin J, Liu Y, Bi Z, Wu T, Qiao Y. J Appl Microbiol. 2023 Jul 13:lxad151. doi: 10.1093/jambio/lxad151. Online ahead of print. PMID: 37442630

Severe hyponatremia with consciousness disturbance after receiving SARS-CoV-2 mRNA vaccination.
Kumagai T, Koyama S, Yorozu H, Kokita A, Shimizu N, Suganuma Y, Goto T. Endocrinol Diabetes Metab Case Rep. 2023 Jul 17;2023(3):23-0004. doi: 10.1530/EDM-23-0004. PMID: 37458570

Development of a Gold Nanoparticle-Based Immunochromatographic Strip for Rapid Detection of Porcine Circovirus Type 2.
Jiang M, Wang A, Sun Y, Li Y, Chen Y, Zhou J, Liu H, Ding P, Qi Y, Li N, Zhang G. Microbiol Spectr. 2023 Jul 19:e0195322. doi: 10.1128/spectrum.01953-22. Online ahead of print. PMID: 37466437

Evaluation of potential adverse events following COVID-19 mRNA vaccination among adults aged 65 years and older: Two self-controlled studies in the U.S.
Shoaibi A, Lloyd PC, Wong HL, Clarke TC, Chillarige Y, Do R, Hu M, Jiao Y, Kwist A, Lindaas A, Matuska K, McEvoy R, Ondari M, Parulekar S, Shi X, Wang J, Lu Y, Obidi J, Zhou CK, Kelman JA, Forshee RA, Anderson SA. Vaccine. 2023 Jul 19;41(32):4666-4678. doi: 10.1016/j.vaccine.2023.06.014. Epub 2023 Jun 14. PMID: 37344261

Uptake of the COVID-19 Vaccination and Associated Factors Among Health Care Providers in Addis Ababa, Ethiopia.
Fikadu W, Addissie A, Kifle A. Infect Drug Resist. 2023 Jul 11;16:4519-4534. doi: 10.2147/IDR.S416781. eCollection 2023. PMID: 37457793

Nonepisodic Angioedema with Eosinophilia Following Receipt of the BNT162b2 mRNA COVID-19 **Vaccine**.
Koda T, Natsumoto B, Shoda H, Fujio K. Intern Med. 2023 Jul 19. doi: 10.2169/internalmedicine.1788-23. Online ahead of print. PMID: 37468248

Establishment of a robust rat hepatitis E virus fecal-oral infection model and validation for antiviral studies.
Zhang X, Cremers N, Hendrickx S, Debing Y, Roskams T, Coelmont L, Neyts J, Kaptein SJF. Antiviral Res. 2023 Jul 13;216:105670. doi: 10.1016/j.antiviral.2023.105670. Online ahead of print. PMID: 37451630

HBV Infection Is an Intermediate-Risk Disease, Whereas Anaemia Is a Mild-to-Moderate Public Health Problem in Young Ghanaian Adults: A Four-Year Retrospective Analysis of Students' Medical Records.
Amoah S, Yartey AN, Fosu Adjei P, Owusu-Akyaw M, Boachie J, Simpong DL, Adu P. Biomed Res Int. 2023 Jul 12;2023:9318984. doi: 10.1155/2023/9318984. eCollection 2023. PMID: 37475793

Identifiability of causal effects in test-negative design studies.
Shrier I, Stovitz SD, Textor J. Int J Epidemiol. 2023 Jul 14:dyad102. doi: 10.1093/ije/dyad102. Online ahead of print. PMID: 37451683

Vaccination against coronavirus disease 2019 in patients with pulmonary hypertension: a national prospective cohort study.
Wu X, Li J, Ma J, Liu Q, Wang L, Zhu Y, Cui Y, Wang A, Wen C, Qiu L, Yang Y, Lu D, Xu X, Zhu X, Cheng C, Wang D, Jing Z. Chin Med J (Engl). 2023 Jul 13. doi: 10.1097/CM9.0000000000002767. Online ahead of print. PMID: 37439342

Safety Signal Generation for Sudden Sensorineural Hearing Loss Following Messenger RNA COVID-19 Vaccination: Postmarketing Surveillance Using the French Pharmacovigilance Spontaneous Reporting Database.
Thai-Van H, Valnet-Rabier MB, Anciaux M, Lambert A, Maurier A, Cottin J, Pietri T, Destère A, Damin-Pernik M, Perrouin F, Bagheri H. JMIR Public Health Surveill. 2023 Jul 14;9:e45263. doi: 10.2196/45263. PMID: 37071555

Timeliness in the uptake of hepatitis B birth dose among Indian children under age five: A population-based study.
Das SK, Khan J. Vaccine. 2023 Jul 17:S0264-410X(23)00827-7. doi: 10.1016/j.vaccine.2023.07.015. Online ahead of print. PMID: 37468388

Meningococcal ACWY conjugate **vaccine** immunogenicity in adolescents with primary or secondary immune deficiencies, a prospective observational cohort study.
Ohm M, van Straalen JW, de Joode-Smink G, van Montfrans J, Bartels M, van Wildenbeest JG, Lindemans CA, Wennink RA, de Boer JH, Sanders EA, Verduyn-Lunel FM, Berbers GA, Wulffraat NM, Jansen MHA. Pediatr Rheumatol Online J. 2023 Jul 20;21(1):73. doi: 10.1186/s12969-023-00846-3. PMID: 37475057

Diagnostic accuracy of extended HPV DNA genotyping and its application for risk-based cervical cancer screening strategy.
Xie H, Rao X, Li J, Yao L, Ji Y, Zhang J, Wang H, Wang X, Li X. Clin Chem Lab Med. 2023 Jul 13. doi: 10.1515/cclm-2023-0440. Online ahead of print. PMID: 37441737

Identification of a second glycoform of the clinically prevalent O1 antigen from *Klebsiella pneumoniae*.
Kelly SD, Ovchinnikova OG, Müller F, Steffen M, Braun M, Sweeney RP, Kowarik M, Follador R, Lowary TL, Serventi F, Whitfield C. Proc Natl Acad Sci U S A. 2023 Jul 18;120(29):e2301302120. doi: 10.1073/pnas.2301302120. Epub 2023 Jul 10. PMID: 37428935

Intravenous BCG Vaccination of Diversity Outbred Mice Results in Moderately Enhanced Protection against Challenge with Mycobacterium tuberculosis Compared to Intradermal Vaccination.
Kurtz SL, Mittereder LR, Lehman CC, Khan H, Gould VA, Elkins KL. Infect Immun. 2023 Jul 18;91(7):e0016823. doi: 10.1128/iai.00168-23. Epub 2023 Jun 20. PMID: 37338410

Letter to the editor: COVID-19 **vaccine** hesitancy among pregnant women attending tertiary care centre: A cross-sectional study.
Kleebayoon A, Wiwanitkit V. Int J Gynaecol Obstet. 2023 Jul 14. doi: 10.1002/ijgo.14996. Online ahead of print. PMID: 37450289

Synergistic immunoprotection by Oma87 and Bap against Acinetobacter baumannii sepsis model.
Mansouri M, Sadeghpoor M, Abdollahi M, Vafaei AJ, Jalali Nadoushan M, Rasooli I. Int Immunopharmacol. 2023 Jul 14;122:110650. doi: 10.1016/j.intimp.2023.110650. Online ahead of print. PMID: 37454632

Viral persistence in the Gut-Associated Lymphoid Tissue and barriers to HIV cure.
Cossarini F, Aberg J, Chen BK, Mehandru S. AIDS Res Hum Retroviruses. 2023 Jul 14. doi: 10.1089/AID.2022.0180. Online ahead of print. PMID: 37450338

Prevalence of five treatable sexually transmitted infections among women in Lower River region of The Gambia.
Butcher R, Jarju S, Obayemi D, Bashorun AO, Vasileva H, Bransbury-Hare H, Agboghoroma O, Drammeh L, Holland M, Harding-Esch E, Clarke E. BMC Infect Dis. 2023 Jul 13;23(1):471. doi: 10.1186/s12879-023-08399-2. PMID: 37442966

Human papillomavirus genotype distribution by cytological status and associated risk factors in the general population of Congolese women living in urban and rural areas: Implications for cervical cancer prevention.
Candyse Lemba Tsimba P, Magloire Anicet Boumba L, Péré H, Christy Nganga P, Veyer D, Puech J, Mboumba Bouassa RS, Malanda-Kiminou P, Moukassa D, Bélec L. Infect Dis Now. 2023 Jul 14:104762. doi: 10.1016/j.idnow.2023.104762. Online ahead of print. PMID: 37454761

Kinetics of specific anti-SARS-CoV-2 IgM, IgA, and IgG responses during the first 12 months after SARS-CoV-2 infection: A prospective longitudinal study.
Amellal H, Assaid N, Charoute H, Akarid K, Maaroufi A, Ezzikouri S, Sarih M. PLoS One. 2023 Jul 12;18(7):e0288557. doi: 10.1371/journal.pone.0288557. eCollection 2023. PMID: 37437051

Progress in the evaluation of modified vaccinia Ankara **vaccine** against mpox.
Mazzotta V, Matusali G, Oliva A, Maggi F, Antinori A. Lancet Infect Dis. 2023 Jul 17:S1473-3099(23)00369-9. doi: 10.1016/S1473-3099(23)00369-9. Online ahead of print. PMID: 37475114

Incorporation of a Toll-like receptor 2/6 agonist potentiates mRNA vaccines against cancer and infectious diseases.
Gu Y, Yang J, He C, Zhao T, Lu R, Liu J, Mo X, Wen F, Shi H. Signal Transduct Target Ther. 2023 Jul 17;8(1):273. doi: 10.1038/s41392-023-01479-4. PMID: 37455272

The immunogenicity and reactogenicity of four COVID-19 booster vaccinations against SARS-CoV-2 variants following CoronaVac or ChAdOx1 nCoV-19 primary series.
Angkasekwinai N, Niyomnaitham S, Sewatanon J, Phumiamorn S, Sukapirom K, Senawong S, Toh ZQ, Umrod P, Somporn T, Chumpol S, Ritthitham K, Jantraphakorn Y, Srisutthisamphan K, Chokephaibulkit K, Chatchatee P. Asian Pac J Allergy Immunol. 2023 Jul 16. doi: 10.12932/AP-160123-1533. Online ahead of print. PMID: 37466962

How Does Physician (Non)accommodation Affect Patient Behavioral Intention? Using a Web-Based Experiment to Examine Indirect Effects of Language Type on Behavioral Intention Through Goal Inferences and Source Appraisals.
Liao D, Yan J, Wilson SR. J Health Commun. 2023 Jul 20:1-10. doi: 10.1080/10810730.2023.2237435. Online ahead of print. PMID: 37470681

Reply to letter to Editor by Hadigal et al. regarding the cost-effectiveness of high dose quadrivalent **vaccine** in three European countries.
Alvarez FP, Bricout H, Marques C, Soininen A, Sainio T, Petit C, de Courville C, Chevalier P. J Med Econ. 2023 Jul 17:1-3. doi: 10.1080/13696998.2023.2237378. Online ahead of print. PMID: 37455595

Attitudes of vaccination service providers to the SARS-CoV-2 intranasal spray **vaccine** during the SARS-CoV-2 pandemic in China: A cross-sectional study.
Cao Y, Li J, Ma Y, Suo L, Li X, Xu M, Wu J, Yang W, Feng L. Chin Med J (Engl). 2023 Jul 14. doi: 10.1097/CM9.0000000000002777. Online ahead of print. PMID: 37455330

Duration of Protection From Pneumonia After Pneumococcal Vaccination in Hemodialysis Patients (DOPPIO): Protocol for a Prospective Multicenter Study.

Mellinghoff S, von Gersdorff G, Bruns C, Albus K, Dimitriou V, Steinbach A, Schaller M, Vehreschild JJ, Cornely OA, Liss BJ. JMIR Res Protoc. 2023 Jul 12;12:e45712. doi: 10.2196/45712. PMID: 37436797

Correction: Social network analysis of COVID-19 **vaccine** YouTube videos in Odisha, India: mapping the channel network and analyzing comment sentiment.
Alperstein N, Pascual-Ferrá P, Ganjoo R, Bhaktaram A, Burleson J, Barnett DJ, Jamison AM, Kluegel E, Mohanty S, Orton PZ, Parida M, Rath S, Rimal R. BMC Proc. 2023 Jul 13;17(1):16. doi: 10.1186/s12919-023-00267-w. PMID: 37443025

B cell-intrinsic TLR7 signaling is required for neutralizing antibody responses to SARS-CoV-2 and pathogen-like COVID-19 vaccines.
Miquel CH, Abbas F, Cenac C, Foret-Lucas C, Guo C, Ducatez M, Joly E, Hou B, Guéry JC. Eur J Immunol. 2023 Jul 12:e2350437. doi: 10.1002/eji.202350437. Online ahead of print. PMID: 37438976

Kukaa Salama (Staying Safe): a pre-post trial of an interactive informational mobile health intervention for increasing COVID-19 prevention practices with urban refugee youth in Uganda.
Logie CH, Okumu M, Berry I, Kortenaar JL, Hakiza R, Musoke DK, Katisi B, Nakitende A, Kyambadde P, Lester R, Perez-Brumer AG, Admassu Z, Mbuagbaw L. Int Health. 2023 Jul 17:ihad051. doi: 10.1093/inthealth/ihad051. Online ahead of print. PMID: 37458073

Perspectives in Immunotherapy: meeting report from Immunotherapy Bridge (Naples, November 30th-December 1st, 2022).
Ascierto PA, Avallone A, Bifulco C, Bracarda S, Brody JD, Emens LA, Ferris RL, Formenti SC, Hamid O, Johnson DB, Kirchhoff T, Klebanoff CA, Lesinski GB, Monette A, Neyns B, Odunsi K, Paulos CM, Powell DJ Jr, Rezvani K, Segal BH, Singh N, Sullivan RJ, Fox BA, Puzanov I. J Transl Med. 2023 Jul 20;21(1):488. doi: 10.1186/s12967-023-04329-7. PMID: 37475035

Autoreactive T cells of ankylosing spondylitis elicited by COVID-19 infection: A snapshot of autoimmune imprinting and immunological host defense.
Zheng M. Autoimmun Rev. 2023 Jul 14:103392. doi: 10.1016/j.autrev.2023.103392. Online ahead of print. PMID: 37455010

Potential "Healthy Vaccinee Bias" in a Study of BNT162b2 **Vaccine** against Covid-19.
Høeg TB, Duriseti R, Prasad V. N Engl J Med. 2023 Jul 20;389(3):284-285. doi: 10.1056/NEJMc2306683. PMID: 37470285

Expedited Evaluation of Conformational Stability-Heterogeneity Associations for Crude Polyclonal Antibodies in Response to Conjugate Vaccines.
Zheng Z, Ma M, Jia Y, Cui Y, Zhao R, Li S, Wenthur C, Li L, Li G. Anal Chem. 2023 Jul 11. doi: 10.1021/acs.analchem.3c00223. Online ahead of print. PMID: 37433088

The relationship of maternal hepatitis B e antigen and response to vaccination of infants born to women with chronic infection.
Jiang H, Chen C, Yuan D, Ye X, Chen Y, Han G, Zhou G, Ju Y, Cao M. BMC Pregnancy Childbirth. 2023 Jul 15;23(1):518. doi: 10.1186/s12884-023-05815-y. PMID: 37454068

Highly Resistant Serotype 19A Streptococcus pneumoniae of the GPSC1/CC320 Clone from Invasive Infections in Poland Prior to Antipneumococcal Vaccination of Children.
Puzia W, Gawor J, Gromadka R, Żuchniewicz K, Wróbel-Pawelczyk I, Ronkiewicz P, Gołębiewska A, Hryniewicz W, Sadowy E, Skoczyńska A. Infect Dis Ther. 2023 Jul 13. doi: 10.1007/s40121-023-00842-w. Online ahead of print. PMID: 37442903

Potential "Healthy Vaccinee Bias" in a Study of BNT162b2 **Vaccine** against Covid-19. Reply.
Arbel R, Sergienko R, Netzer D, Hammerman A, Friger M, Peretz A, Razi T, Duskin-Bitan H, Yaron S. N Engl J Med. 2023 Jul 20;389(3):285-286. doi: 10.1056/NEJMc2306683. PMID: 37470347

Human papillomavirus spectrum of HPV-infected women in Nigeria: an analysis by next-generation sequencing and type-specific PCR.
Dom-Chima N, Ajang YA, Dom-Chima CI, Biswas-Fiss E, Aminu M, Biswas SB. Virol J. 2023 Jul 11;20(1):144. doi: 10.1186/s12985-023-02106-y. PMID: 37434253

Approaching coronavirus disease 2019 (COVID-19) **vaccine** hesitancy among healthcare personnel: The importance of cultural competency.
Wiley ZE, Weber DJ. Infect Control Hosp Epidemiol. 2023 Jul 18:1-2. doi: 10.1017/ice.2022.305. Online ahead of print. PMID: 37462096

Counter-stereotypical messaging and partisan cues: Moving the needle on vaccines in a polarized United States.
Larsen BJ, Ryan TJ, Greene S, Hetherington MJ, Maxwell R, Tadelis S. Sci Adv. 2023 Jul 21;9(29):eadg9434. doi: 10.1126/sciadv.adg9434. Epub 2023 Jul 19. PMID: 37467319

PrEP awareness, willingness, and likelihood to use future HIV prevention methods among undergraduate college students in an ending the HIV epidemic jurisdiction.
Zarwell M, Patton A, Gunn LH, Benziger A, Witt B, Robinson PA, Terrell DF. J Am Coll Health. 2023 Jul 18:1-10. doi: 10.1080/07448481.2023.2232885. Online ahead of print. PMID: 37463522

Exploiting big data survival information to unify risk-stratification related, adaptive immune receptor parameters for multiple myeloma.
Wolmarans HJ, Barker VR, Chobrutskiy A, Chobrutskiy BI, Huda TI, Blanck G. Genes Immun. 2023 Jul 13. doi: 10.1038/s41435-023-00212-z. Online ahead of print. PMID: 37443300

Comparison of anti-spike IgG, anti-spike IgA levels and neutralizing antibody activity induced by CoronaVac and BNT162b2 vaccines in patients with inflammatory rheumatic diseases receiving immunosuppressive therapy.
Cosan F, Demirel OU, Yalcin D, Sonkaya MM, Uluisik IE, Cecen O, Furuncuoglu Y, Celikmen DM, Kara O, Ceylan E, Avsar T. BMC Rheumatol. 2023 Jul 19;7(1):20. doi: 10.1186/s41927-023-00342-x. PMID: 37468956

Optimization of infectious bronchitis virus-like particle expression in Nicotiana benthamiana as potential poultry vaccines.
Sepotokele KM, O'Kennedy MM, Wandrag DBR, Abolnik C. PLoS One. 2023 Jul 20;18(7):e0288970. doi: 10.1371/journal.pone.0288970. eCollection 2023. PMID: 37471377

De Novo Design of a β-Helix Tau Protein Scaffold: An Oligomer-Selective **Vaccine** Immunogen Candidate for Alzheimer's Disease.
Aina A, Hsueh SCC, Gibbs E, Peng X, Cashman NR, Plotkin SS. ACS Chem Neurosci. 2023 Jul 17. doi: 10.1021/acschemneuro.3c00007. Online ahead of print. PMID: 37458595

Induction of bronchus-associated lymphoid tissue is an early life adaptation for promoting human B cell immunity.
Matsumoto R, Gray J, Rybkina K, Oppenheimer H, Levy L, Friedman LM, Khamaisi M, Meng W, Rosenfeld AM, Guyer RS, Bradley MC, Chen D, Atkinson MA, Brusko TM, Brusko M, Connors TJ, Luning Prak ET, Hershberg U, Sims PA, Hertz T, Farber DL. Nat Immunol. 2023 Jul 17. doi: 10.1038/s41590-023-01557-3. Online ahead of print. PMID: 37460638

Vestibular disorders following BNT162b2 mRNA COVID-19 vaccination: A retrospective case series.
Ammar H, Le Beller C, Bouccara D, Malinvaud D, Jouffroy R, Lillo-Le Louet A. Fundam Clin Pharmacol. 2023 Jul 20. doi: 10.1111/fcp.12942. Online ahead of print. PMID: 37473782

Relationship Between Fear of COVID-19, Conspiracy Beliefs About Vaccines and Intention to Vaccinate Against COVID-19: A Cross-National Indirect Effect Model in 13 Latin American Countries.
Caycho-Rodríguez T, Tomás JM, Yupanqui-Lorenzo DE, Valencia PD, Carbajal-León C, Vilca LW, Ventura-León J, Paredes-Angeles R, Arias Gallegos WL, Reyes-Bossio M, Delgado-Campusano M, Gallegos M, Rojas-Jara C, Polanco-Carrasco R, Cervigni M, Martino P, Lobos-Rivera ME, Moreta-Herrera R, Palacios Segura DA, Samaniego-Pinho A, Buschiazzo Figares A, Puerta-Cortés DX, Camargo A, Torales J, Monge Blanco JA, González P, Smith-Castro V, Petzold-Rodriguez O, Corrales-Reyes IE, Calderón R, Matute Rivera WY, Ferrufino-Borja D, Ceballos-Vásquez P, Muñoz-Del-Carpio-Toia A, Palacios J, Burgos-Videla C, Florez León AME, Vergara I, Vega D, Shulmeyer MK, Barria-Asenjo NA, Urrutia Rios HT, Lira Lira AE. Eval Health Prof. 2023 Jul 13:1632787231186621. doi: 10.1177/01632787231186621. Online ahead of print. PMID: 37439361

Loss of amino acids 67-76 in the neuraminidase protein under antibody selection pressure alters the tropism, transmissibility and innate immune response of H9N2 avian influenza virus in chickens.
Zhang J, Li Q, Zhu R, Xu S, Wang S, Shi H, Liu X. Vet Microbiol. 2023 Jul 17;284:109832. doi: 10.1016/j.vetmic.2023.109832. Online ahead of print. PMID: 37473515

Metabolites profiling and cheminformatics bioprospection of selected medicinal plants against the main protease and RNA-dependent RNA polymerase of SARS-CoV-2.
Lanrewaju AA, Enitan-Folami AM, Nyaga MM, Sabiu S, Swalaha FM. J Biomol Struct Dyn. 2023 Jul 18:1-21. doi: 10.1080/07391102.2023.2236718. Online ahead of print. PMID: 37464870

Immunomodulatory Effects of Subacute Inhalation Exposure to Copper Oxide Nanoparticles in House Dust Mite-Induced Asthma.
Areecheewakul S, Adamcakova-Dodd A, Zacharias ZR, Jing X, Meyerholz DK, Legge KL, Houtman JCD, O'Shaughnessy PT, Thorne PS, Salem AK. ACS Nano. 2023 Jul 18. doi: 10.1021/acsnano.3c01668. Online ahead of print. PMID: 37463491

A semi-Markov multistate cure model for estimating intervention effects in stepped wedge design trials.
Sundin PT, Aralis H, Glenn B, Bastani R, Crespi CM. Stat Methods Med Res. 2023 Jul 14:9622802231176123. doi: 10.1177/09622802231176123. Online ahead of print. PMID: 37448319

Trends in severe outcomes in SARS-CoV-2-positive hospitalized patients with rheumatic diseases: a monocentric observational and case-control study in northern Italy.
Ughi N, Bernasconi DP, Gagliardi C, Del Gaudio F, Dicuonzo A, Maloberti A, Giannattasio C, Rossetti C, Valsecchi MG, Epis OM. Reumatismo. 2023 Jul 17;75(2). doi: 10.4081/reumatismo.2023.1542. PMID: 37462130

How did Chinese public health authorities promote COVID-19 vaccination on social media? A content analysis of the vaccination promotion posts.
Luo C, Dai R, Deng Y, Chen A. Digit Health. 2023 Jul 16;9:20552076231187474. doi: 10.1177/20552076231187474. eCollection 2023 Jan-Dec. PMID: 37469960

Vaccination with a *ZNF2*^{OE} Strain of Cryptococcus Provides Long-Lasting Protection against Cryptococcosis and Is Effective in Immunocompromised Hosts.
Pham T, Li Y, Watford W, Lin X. Infect Immun. 2023 Jul 18;91(7):e0019823. doi: 10.1128/iai.00198-23. Epub 2023 Jun 20. PMID: 37338404

The interaction of macrophages and CD8 T cells in bronchoalveolar lavage fluid is associated with latent tuberculosis infection.
Yang Q, Qi F, Ye T, Li J, Xu G, He X, Deng G, Zhang P, Liao M, Qiao K, Zhang Z. Emerg Microbes Infect. 2023 Jul 20:2239940. doi: 10.1080/22221751.2023.2239940. Online ahead of print. PMID: 37470432

Spontaneous Interconversion between Different Narrowly Defined Shapes of Rotavirus Double-Layered Particles Studied in Real Time by High-Resolution Mobility Analysis.
Fernandez de la Mora J, Almazán F, Rodríguez JM. Anal Chem. 2023 Jul 18. doi: 10.1021/acs.analchem.3c01994. Online ahead of print. PMID: 37463035

Patentes registradas en Patentscope

Estrategia de búqueda: *Vaccine in the title or abstract AND DP:([11.07.2023 TO 21.07.2023]) 66 records*

1.WO/2023/130852SILICON DIOXIDE VACCINE DELIVERY SYSTEM TAKING VIRUS-LIKE PARTICLES AS TEMPLATE, AND CONSTRUCTION METHOD AND APPLICATION OF SILICON DIOXIDE VACCINE DELIVERY SYSTEM
WO - 13.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud PCT/CN2022/134208 Solicitante DALIAN UNIVERSITY OF TECHNOLOGY Inventor/a SUN, Bingbing
The present invention relates to construction and an application of a silicon dioxide vaccine delivery system taking virus-like particles as a template. The particle morphology of the silicon dioxide vaccine system is 50-500 nm of nano-particles, wherein an antigenic component is 20-200 nm of virus-like particles, an adjuvant component is nano silicon dioxide, the silicon dioxide component is wrapped on the surface of the virus-like particle, and a mass ratio of a silicon element to an antigen is 50-0.5:1. The construction of the silicon dioxide

vaccine delivery system taking the virus-like particles as the template comprises the following steps: (1) adding a proper amount of 3-aminopropyltriethoxysilane into an aqueous solution containing the virus-like particles, and stirring; (2) adding a proper amount of tetraethoxysilane into a dispersion system in step (1), and stirring; (3) centrifuging a product in step (2), removing a supernatant, centrifugally washing with ultrapure water, and then storing. A vaccine constructed by means of the vaccine system can trigger a host to generate humoral and cellular immune levels.

2.4212173IMPFSTOFFZUSAMMENSETZUNG FÜR HÜHNERPOCKEN ODER VARICELLA ZOSTER UND VERFAHREN ZU IHRER VERWENDUNG
EP - 19.07.2023
Clasificación Internacional A61K 39/25 Nº de solicitud 21867042 Solicitante EUBIOLOGICS CO LTD Inventor/a LEE CHAN KYU
Provided are a vaccine composition for Varicella Zoster virus (VZV) including a glycoprotein E (gE) antigen of VZV and monophosphoryl lipid A (MLA), and a method of using the same. The vaccine composition according to an aspect of the invention may significantly improve a production yield by including the gE antigen having an optimized signal peptide sequence, may enhance immunogenicity by including MLA, and may further enhance the immunogenicity enhanced by MLA by further adding saponin such as QS-21, and may be prepared in a form of CoPoP liposomes so that vaccine antigens may be presented on the surface of the liposomes for better absorption by antigen-presenting cells, and vaccine efficacy may be maximized by inclusion of the vaccine antigens and immune adjuvants in a formulation. Therefore, the vaccine composition may be useful as an alternative to current vaccines in the art for prevention or treatment of VZV infection.

3.20230218729RECOMBINANT PROTEIN FOR NEUTERING OR SPAYING ANIMAL, AND VACCINE COMPOSITION COMPRISING SAME
US - 13.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 17759740 Solicitante BIOAPPLICATIONS INC. Inventor/a Eun-Ju SOHN

The present invention relates to a vaccine composition which is form neutering or spaying an animal and comprises a recombinant protein in which cholera toxin B subunit (CTB) and gonadotropin-releasing hormone (GnRH) are fused. More specifically, provided are: a recombinant protein for neutering or spaying an animal and for inducing antibodies against GnRH; a recombinant vector for producing the recombinant protein; a vaccine composition for neutering or spaying an animal, the vaccine composition comprising the recombinant protein; and a method for neutering or spaying an animal by using the vaccine composition. The vaccine composition according to the present invention induces antibodies against GnRH in an individual, thereby atrophying the ovaries or testes thereof. Therefore, the present invention can, at low cost, a high level of safety, and with minimal side effects, replace surgical procedures for neutering and spaying, and be beneficially used to neuter or spay an animal.

4.WO/2023/134783ALUMINUM NANOCRYSTAL DELIVERY SYSTEM, AND SELF-ASSEMBLED PARTICLE ADJUVANT VACCINE BASED ON BINDING OF ALUMINUM NANOCRYSTAL DELIVERY SYSTEM AND VACCINE ANTIGEN MOLECULE
WO - 20.07.2023
Clasificación Internacional B82Y 5/00 Nº de solicitud PCT/CN2023/080897 Solicitante THE GBA NATIONAL INSTITUTE FOR NANOTECHNOLOGY INNOVATION Inventor/a WANG, Yaling
The present invention relates to the technical field of biomedicine technology and vaccines, and particularly relates to an aluminum nanocrystal delivery system with a surface covered with an Fc affinity protein and a

preparation method for a self-assembled particle adjuvant vaccine. An aluminum nanocrystal is used as a carrier, the surface of the aluminum nanocrystal is covered with an Fc affinity protein molecular layer and an antigen molecule, and the antigen of a recombinant Fc Tag specifically binds to an Fc affinity protein, so that antigen self-assembly is realized, a virus-like particle vaccine is formed, and the antigen density is improved. The vaccine is small in stimulation to an inoculation part and high in safety, and can generate a high-titer specific antibody by inducing a body fluid and cell immunity; and the present invention relates to an efficient and convenient self-assembled particle vaccine preparation method.

5.WO/2023/135333BOOSTING SARS-COV-2 IMMUNITY WITH A LENTIVIRAL-BASED NASAL VACCINE
WO - 20.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud PCT/EP2023/051025 Solicitante INSTITUT PASTEUR Inventor/a CHARNEAU, Pierre
The invention relates to the field of immunity against coronaviruses. In this respect, the invention provides a lentiviral-based immunogenic agent that is suitable for use in boost or target immunization treatment in a subject, in particular a human subject, who had previously developed an immunity against Severe Acute Respiratory Syndrome coronavirus 2 (SARS- CoV-2) based on: (i) vaccination with the first generation of vaccines against SARS-CoV-2 infection or disease such as a protein, an mRNA, an adenovirus, an inactivated virus or a protein subunit vaccine composition against SARS-CoV-2 infection or disease, in particular a protein- or an mRNA-based vaccine, or (ii) SARS-CoV-2-induced or correlated disease. The invention accordingly concerns a lentiviral-based immunogenic agent that in particular may help overcome the deficiencies of available vaccines against SARS-CoV-2, especially may be efficient in overcoming the waning immune response or insufficient cellular memory response observed after immunization with available first generation of vaccines such as a protein, an mRNA, an adenovirus, an inactivated virus or a protein subunit vaccine, in particular protein or mRNA vaccine, by triggering a mucosal humoral and cellular immune response against coronaviruses, including a long-lasting immune response.

6.WO/2023/133227A SARS-COV-2 HUMAN PARAINFLUENZA VIRUS TYPE 3-VECTORED VACCINE
WO - 13.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud PCT/US2023/010245 Solicitante BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM Inventor/a BUKREYEV, Alexander
Certain embodiments are directed to a new human parainfluenza virus (HPIV)/SARS-CoV-2 vaccine or vaccine construct/polynucleotide. In certain aspects the vaccine or vaccine construct is administered via intranasal administration.

7.WO/2023/135439BOOSTING SARS-COV-2 IMMUNITY WITH A LENTIVIRAL-BASED NASAL VACCINE
WO - 20.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud PCT/IB2022/000035 Solicitante INSTITUT PASTEUR Inventor/a CHARNEAU, Pierre
The invention relates to the field of immunity against coronaviruses. In this respect, the invention provides a lentiviral-based immunogenic agent that is suitable for use in boost or target immunization treatment in a subject, in particular a human subject, who had previously developed an immunity against Severe Acute Respiratory Syndrome coronavirus 2 (SARS- CoV-2) based on: (i) vaccination with the first generation of vaccines against SARS-CoV-2 infection or disease such as a protein, an mRNA, an adenovirus, an inactivated virus or a protein subunit vaccine composition against SARS-CoV-2 infection or disease, in particular a protein- or an mRNA-based vaccine, or (ii) SARS-CoV-2-induced or correlated disease. The invention accordingly concerns a lentiviral-based immunogenic agent that in particular may help overcome the deficiencies of available vaccines against SARS-CoV-2, especially may be efficient in overcoming the waning immune response or insufficient cellular memory response observed after immunization with

available first generation of vaccines such as a protein, an mRNA, an adenovirus, an inactivated virus or a protein subunit vaccine, in particular protein or mRNA vaccine, by triggering a mucosal humoral and cellular immune response against coronaviruses, including a long-lasting immune response.

8.WO/2023/131613FOWL ADENOVIRUS SUBUNIT VACCINE AND PRODUCTION METHOD THEREOF
WO - 13.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud PCT/EP2023/050093 Solicitante VETERINÄRMEDIZINISCHE UNIVERSITÄT WIEN Inventor/a HESS, Michael
The present invention provides a fowl adenovirus (FAdV) subunit vaccine, comprising at least a chimeric FAdV fiber protein and an adjuvant. This vaccine may be used to ameliorate or prevent adenoviral gizzard erosion (AGE), inclusion body hepatitis (IBH) or hepatitis-hydropericardium syndrome (HHS) in birds. The invention further relates to a method of producing an FAdV subunit vaccine, comprising the steps of expressing a chimeric FAdV fiber protein in an expression system, purifying the fiber protein, and combining the fiber protein with an adjuvant to obtain the FAdV subunit vaccine.

9.20230218733RAPID VACCINE PLATFORM
US - 13.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 18190838 Solicitante CYTONUS THERAPEUTICS, INC. Inventor/a Remo MOOMIAIE

Provided are methods of making and delivering vaccine compositions using an enucleated cell-based platform. Methods of clearing pathogenic infections in a subject using the enucleated cell-based platform is also provided. Such enucleated cell-based platform reduces the vaccine development timeline as compared with conventional biological vaccines, and improves vaccine efficacy.

10.20230218736Cocktail Vaccine of Recombinant African Swine Fever Virus (ASFV) Antigen and Use Thereof
US - 13.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud 17948752 Solicitante Lanzhou Veterinary Research Institute, Chinese Academy of Agricultural Sciences Inventor/a Junjun SHAO

The present disclosure relates to a cocktail vaccine of a recombinant African swine fever virus (ASFV) antigen and use thereof, and belongs to the field of biotechnology pharmacy. The cocktail vaccine is prepared by combination of recombinant proteins p30-modified p54, p72 epitope-N-segment amino acid sequence of pE248R, and N-terminal amino acid sequence of CD2v-C-terminal amino acid sequence of pEP153R with an adjuvant. The present disclosure provides a method for expressing and purifying the three recombinant proteins, as well as a ratio of each recombinant protein and the adjuvant for preparing the cocktail vaccine.

11.WO/2023/134600DENDRITIC CELL TUMOR VACCINE AND USES THEREOF
WO - 20.07.2023
Clasificación Internacional C12N 15/867 Nº de solicitud PCT/CN2023/071170 Solicitante SHENZHEN FRONTIERGATE BIOTECHNOLOGY CO., LTD Inventor/a XU, Yang
The present disclosure provides a dendric cell tumor vaccine comprising a chimeric antigen receptor for activating the dendritic cell and a tumor antigen. The present disclosure also provides compositions and methods of making the dendritic cell tumor vaccine, and the methods of using the dendritic cell tumor vaccine to treat cancer.

12.20230226164VACCINE COMBINATION AND METHOD FOR USING THE SAME
US - 20.07.2023

Clasificación Internacional A61K 39/12 Nº de solicitud 17578312 Solicitante Papivax Biotech Inc. Inventor/a YUNG-NIEN CHANG

A vaccine combination may include first and second vaccines. The first vaccine may include a first fusion protein or a first polynucleotide encoding the first fusion protein. The first fusion protein may include an E7 protein of HPV-16; an E7 protein of HPV-18; an E6 protein of HPV-16; an E6 protein of HPV-18; and a heat shock protein. The second vaccine may include second and third fusion proteins, or a second polynucleotide encoding the second and third fusion proteins. The second fusion protein may include an E6 protein of HPV-16 and an E7 protein of HPV-16. The third fusion protein may include an E6 protein of HPV-18 and an E7 protein of HPV-18. A functional variant may be employed for one or more of the proteins. An amino acid sequence of junction regions in the first fusion protein may be different from those in the second and third fusion proteins.

13.4210740HA-STAMM-IMPFSTOFF FÜR HA-ANTIKÖRPER-POSITIVE TARGETS
EP - 19.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud 21773074 Solicitante INTERVET INT BV Inventor/a LANGEREIS MARTIJN ALEXANDER
The present invention relates to vaccines against influenza virus infection or disease for targets with pre-existing antibodies against influenza virus HA head domain. The invention regards a recombinant vector expressing a HA stem polypeptide, a vaccine comprising the vector or a host cell with said vector, uses of the vector, the host cell, or the vaccine, and methods for reducing influenza virus infection or disease.The recombinant vector can be a nucleic acid such as a eukaryotic expression plasmid or an RNA, a virus, or a replicon particle (RP).This vaccination allows for the induction of an early- and effective immune-response against Influenza virus induced infection or disease, not hindered by pre-existing anti-HA head domain antibodies.

14.20230220012HIGH-POTENCY SARS CORONAVIRUS 2 ANTIGEN AND VACCINE COMPOSITION COMPRISING SAME
US - 13.07.2023
Clasificación Internacional C07K 14/005 Nº de solicitud 17998729 Solicitante KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY Inventor/a Seong Jun KIM

Provided are a recombinant antigen comprising a cell membrane permeation domain comprising a polypeptide of any one of SEQ ID NOs: 1 to 22 derived from human LRRC24 and a SARS-CoV-2 antigen or a fragment thereof, a vaccine composition comprising the recombinant antigen, a gene construct comprising a polynucleotide encoding the recombinant antigen, a recombinant vector comprising the gene construct, a method for producing the SARS-CoV-2 recombinant antigen, and a kit for preventing or treating SARS-CoV-2 infection comprising the vaccine composition and users' instruction thereof, wherein the antigen exhibited higher immunogenicity against SARS-CoV-2 the neutralizing antibody was better formed in actual animal experiments, excellent protective immunity was induced, and toxicity did not appear in the toxicity test.

15.20230226163INORGANIC NANOPARTICLE-BASED VACCINE COMPOSITIONS FOR CANCER TREATMENT
US - 20.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 17928806 Solicitante Centro de Inmunología Molecular Inventor/a Gustavo González Ruiz

The present invention is related to biotechnology, particularly to the field of human health. It provides new vaccine compositions that comprise as active principle a system that contains the recombinant human EGF,

or peptides thereof, and a carrier protein or peptide, bound to a nucleus constituted by inorganic nanoparticles, with nanometric or submicrometric scale dimensions. These vaccine compositions are useful for the chronic treatment of cancer and have as advantages that their administration does not result in the appearance of adverse effects at the injection site and that they do not accumulate in the body.

16.4210734HETEROLOGE PRIME-BOOST-VAKZINE
EP - 19.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 21773815 Solicitante BOEHRINGER INGELHEIM INT Inventor/a WOLLMANN GUIDO
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.

17.20230226173PAN-CORONAVIRUS VACCINE COMPOSITIONS
US - 20.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 18046462 Solicitante THE REGENTS OF THE UNIVERSITY OF CALIFORNIA Inventor/a Lbachir BenMohamed

Pan-coronavirus recombinant vaccine compositions featuring whole proteins or sequences of proteins encompassing all mutations in variants of human and animal Coronaviruses (e.g., 36 mutations in spike protein) or a combination of mutated B cell epitopes, mutated combination of B cell epitopes, mutated CD4+ T cell epitopes, and mutated CD8+ T cell epitopes, at least one of which is derived from a non-spike protein. The mutated epitopes may comprise one or more mutations. The present invention also describes using several immuno-informatics and sequence alignment approaches to identify several human B cell, CD4+ and CD8+ T cell epitopes that are highly mutated. The vaccine compositions herein have the potential to provide long-lasting B and T cell immunity regardless of human and animal Coronaviruses mutations.

18.20230226172Inactivation of Genome Enveloped within Coronavirus Spherical or Pleomorphic Particles or Shells to Form a Vaccine
US - 20.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 18009851 Solicitante Schossau M. Tom Inventor/a Schossau M. Tom

Vaccine based on ethanol inactivated pathogens, or part thereof, are described herein. Also disclosed are certain vaccines for treating COVID-19 or other coronavirus related diseases is created by deactivating the genome, genetic material or RNA encapsulated within the shell of virus without eliminating the spikes or spike protein, which both attaches the virus to a host cell and is detected by the body to produce antibodies. Treatment of an active coronavirus with a material such as an effective amount of ethanol will both penetrate the shell and deactivate the genetic material which causes the disease, for preparation of a vaccine.

19.4210724ERHÖHUNG DER IMMUNITÄT MIT CHIMÄREM CD40-LIGANDEN UND CORONAVIRUS-IMPFSTOFF
EP - 19.07.2023
Clasificación Internacional A61K 38/00 Nº de solicitud 21867703 Solicitante MEMGEN INC Inventor/a CANTWELL MARK J

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.

20.20230226176NOVEL IMMUNE ADJUVANT AND VACCINE COMPOSITION INCLUDING THE SAME
US - 20.07.2023
Clasificación Internacional A61K 39/39 Nº de solicitud 18002231 Solicitante REPUBLIC OF KOREA (ANIMAL AND PLANT QUARANTINE AGENCY) Inventor/a Minja LEE

The present inventors have found that innate immune response and T cell exhaustion pathway are more greatly over-expressed in pigs than cattle, such that the pigs are less likely to form adaptive and humoral immune responses than cattle. It would be suggested herein an innovative strategy for improvement of abnormal immune responses in pigs by simultaneously inducing potent cellular and humoral immune responses and applying T cell agonists as a new vaccine adjuvant. This result may provide an important clue for understanding a difference in the immune response between the cattle and pigs, while suggesting a method for maximizing the immune response and vaccine efficacy, which are less expressed in pigs than cattle.

21.4211147AUSSENMEMBRANVESIKEL
EP - 19.07.2023
Clasificación Internacional C07K 14/22 Nº de solicitud 21773104 Solicitante GLAXOSMITHKLINE BIOLOGICALS SA Inventor/a DELANY ISABEL
The present invention relates to the field of neisserial vaccine compositions (particularly gonococcal vaccine compositions) and the use of such compositions in medicine. More particularly, the present invention relates to genetically modified gonococci of strain FA1090 and outer membrane vesicles obtained therefrom. The invention also provides a process for preparing the genetically modified gonococci of the invention as well as immunogenic compositions and vaccines comprising the outer membrane vesicles of the invention.

22.20230218739VACCINE COMPOSITIONS, METHODS, AND USES THEREOF
US - 13.07.2023
Clasificación Internacional A61K 39/205 Nº de solicitud 18009714 Solicitante Sichuan Clover Biopharmaceuticals, Inc. Inventor/a Peng LIANG

Provided are immunogenic compositions comprising a secreted fusion protein, wherein the secreted fusion protein comprises a soluble influenza or rabies viral antigen joined by in-frame fusion to a C-terminal portion of a collagen which is capable of self-trimerization to form a disulfide bond-linked trimeric fusion protein. Also provided are uses of the immunogenic compositions for generating an immune response against influenza or rabies infection and in a vaccine composition. Also provided are methods for producing the recombinant peptides and proteins, prophylactic, therapeutic, and/or diagnostic methods, and related kits.

23.20230218684ENGINEERED BACTERIA FOR USE IN VACCINE COMPOSITIONS
US - 13.07.2023
Clasificación Internacional A61K 35/744 Nº de solicitud 17995069 Solicitante NORTH CAROLINA STATE UNIVERSITY Inventor/a Rodolphe Barrangou

The present disclosure provides materials and methods related to engineered bacteria for use in vaccines. In particular, the present disclosure provides novel compositions and methods for generating vaccine compositions comprising bacteria (e.g., *Lactobacillus*) engineered to express immunogenic polypeptides and immunogenicity-enhancing adjuvant polypeptides to treat and/or prevent infection from a pathogenic organism (e.g., coronavirus).

24.20230226171RECOMBINANT VACCINE AGAINST COVID-19 BASED ON A PARAMYXOVIRUS VIRAL VECTOR
US - 20.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 17998737 Solicitante LABORATORIO AVI-MEX, S.A. DE C.V. Inventor/a Bernardo LOZANO-DUBERNARD

An active or inactivated recombinant vaccine against COVID-19 is described that comprises a Newcastle disease viral vector and a pharmaceutically acceptable carrier, adjuvant and/or excipient, characterized in that the viral vector is a virus capable of generating a cellular immune response that has a SARS-CoV-2 exogenous nucleotide sequence inserted,

25.20230226167HENIPAVIRUS VACCINE
US - 20.07.2023
Clasificación Internacional A61K 39/155 Nº de solicitud 18052541 Solicitante CureVac SE Inventor/a Edith JASNY

The present invention is directed to an artificial nucleic acid and to polypeptides suitable for use in treatment or prophylaxis of an infection with Henipavirus, particularly Hendra virus and/or Nipah virus or a disorder related to such an infection. In particular, the present invention concerns a Hendra virus and/or Nipah virus vaccine. The present invention is directed to an artificial nucleic acid, polypeptides, compositions and vaccines comprising the artificial nucleic acid or the polypeptides. The invention further concerns a method of treating or preventing a disorder or a disease, first and second medical uses of the artificial nucleic acid, polypeptides, compositions and vaccines. Further, the invention is directed to a kit, particularly to a kit of parts, comprising the artificial nucleic acid, polypeptides, compositions and vaccines.

26.20230220356COMPOSITIONS AND METHODS FOR PRODUCING A VIRAL VACCINE WITH REDUCED PARTICLE SIZE
US - 13.07.2023
Clasificación Internacional C12N 7/06 Nº de solicitud 17771625 Solicitante Seqirus UK Limited Inventor/a Christopher DADD

Disclosed herein are methods and composition producing a viral vaccine with reduced particle size, particularly for use in the production of influenza virus vaccines.

27.4208172IMPFSTOFF MIT EINEM ANTIGEN UND EINEM TLR2-AGONISTEN
EP - 12.07.2023
Clasificación Internacional A61K 31/7048 Nº de solicitud 21773061 Solicitante ISR IMMUNE SYSTEM REGULATION HOLDING AB PUBL Inventor/a WINQVIST OLA
The present invention provides vaccine kits and a method for vaccination using such vaccination kits.

28.20230227844CELL-MEDIATED SARS-COV-2 VACCINES, AND PREPARATION AND USE THEREOF
US - 20.07.2023

Clasificación Internacional C12N 15/85 Nº de solicitud 18010407 Solicitante Xiushan YIN Inventor/a Xiushan YIN

Provided are a cell-mediated SARS-COV-2 vaccine and a preparation method therefor, the steps therefor including: the construction of a SARS-COV-2 specific antigen vector presented by stem cells, and the modification and assembly with the stem cells. Two weeks after mouse immunization, approximately 50% of the mice have in vivo antibodies that show a strong positive expression, and the most significant of which being an N-gene modified stem cell vaccine.

29.WO/2023/131356USE OF TRIMANGANESE TETRAOXIDE PARTICLES IN PREPARATION OF VACCINE ADJUVANT
WO - 13.07.2023
Clasificación Internacional A61K 39/39 Nº de solicitud PCT/CN2023/079905 Solicitante THE GBA NATIONAL INSTITUTE FOR NANOTECHNOLOGY INNOVATION Inventor/a WANG, Yaling
Disclosed is a use of trimanganese tetraoxide particles in preparation of a vaccine adjuvant. The adjuvant is a particle adjuvant, the particle adjuvant is trimanganese tetraoxide particles externally wrapped with or without an excipient, and the particle size of the particle adjuvant is 5 nm to 3000 nm. The trimanganese tetraoxide particle adjuvant provided in the present invention can be effectively combined with a single-stranded nucleotide adjuvant and can effectively carry an immune antigen, and a more excellent immunotherapy effect can be achieved when a fewer antigen dose and a relatively low injection amount are used; immune cells are efficiently activated, and body fluid balance and cellular immunity are achieved.

30.20230226170ENGINEERING CORONAVIRUS SPIKE PROTEINS AS VACCINE ANTIGENS, THEIR DESIGN AND USES
US - 20.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 17998607 Solicitante Greffex, Inc. Inventor/a Uwe D. STAERZ

A vaccine for preventing CoV infection includes at least one DNA, RNA or protein sequence for S protein with at least one modification which is a full deletion or partial deletion of the SI region or a partial or full replacement of the SI region. A method of vaccinating a mammal subject against infection from at least one group of CoV includes separating a broad group of CoV into homology groups, creating a modified S protein containing at least one modification at its S1 region, and identifying at least one consensus sequence for each homology group which has a sequence identity of greater than 60% to all other members of the homology group. The consensus sequence is a protein sequence for the modified S protein, a DNA sequence encoding the modified S protein, and an RNA sequence encoding the modified S protein.

31.20230227848CORONAVIRUS VACCINE CONSTRUCTS AND METHODS OF MAKING AND USING SAME
US - 20.07.2023
Clasificación Internacional C12N 15/86 Nº de solicitud 18007677 Solicitante Washington University Inventor/a DAVID CURIEL

Compositions and methods for treating a viral infection may comprise use of an adenoviral vector. An adenoviral vector of the present disclosure may comprise a non-human adenoviral genome with one or more gene locus functionally removed and a transgene. A method of treating a viral infection may comprise administering a composition comprising an adenoviral vector of the present disclosure, to a subject and reducing the infectivity or transmission of the virus. Intranasal administration provides enhance protection of the upper respiratory tract of a subject relative to intramuscular administration.

32.20230218730VACCINE THERAPY FOR RAN PROTEIN DISEASES
US - 13.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 17762543 Solicitante University of Florida Research Foundation, Incorporated Inventor/a Laura Ranum

Aspects of the disclosure relate to compositions and methods for eliciting (or enhancing) anti-repeat-associated non-ATG (RAN) protein antibody expression or production in a subject. Administration of the compositions according to the methods of the present disclosure may in some embodiments result in decreased levels of RAN protein expression and/or aggregation. Such compositions and methods may therefore be useful for the treatment of diseases and disorders known to be associated with RAN proteins.

33.20230218742MULTIPLE ANTIGENIC PEPTIDE AGAINST CORONAVIRUS AND IMMUNOSTIMULATING COMPOSITION CONTAINING THE SAME
US - 13.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 17926975 Solicitante RIKEN Inventor/a Kenichi MASUDA

The present invention provides a vaccine against a coronavirus. According to the present invention, there is provided a peptide consisting of the amino acid sequence set forth in SEQ ID NO: 1 or a partial peptide of a coronavirus spike protein consisting of the amino acid sequence corresponding to the amino acid sequence of SEQ ID NO: 1 and a multiple antigen peptide containing a plurality of any of these peptides.

34.20230226174SARS-COV-2 RECEPTOR BINDING DOMAIN IN NATIVE OUTER MEMBRANE VESICLES
US - 20.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 18160835 Solicitante Omvax, Inc. Inventor/a Gregory MOE

The disclosure provides native outer membrane vesicle (NOMV) vaccines containing a coronavirus receptor binding domain (RBD) modified to be a lipoprotein. Also provided are compositions comprising a meningococcal strain having a plasmid-borne gene encoding the SARS-CoV-2 RBD modified to be a lipoprotein. Also provided are a meningococcal strain and a NOMV vaccine containing a plasmid coding for the SARS-CoV-2 RBD with a promoter/enhancer and polyA sequence that provide for expression of the RBD in mammalian cells.

35.20230218746COMPOSITIONS AND METHODS RELATING TO ANTIVIRAL THERAPEUTICS
US - 13.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 18001561 Solicitante NORTH CAROLINA STATE UNIVERSITY Inventor/a Ke Cheng

The present disclosure provides compositions and methods related to antiviral therapeutics. In particular, the present disclosure provides novel compositions and methods for treating and/or preventing viral infections using vesicles derived from lung spheroid cells (LSCs). LSC-derived vesicles can be used as viral decoy nanoparticles for therapeutic applications, as virus-like particles (VLPs) for vaccine production, and as an antiviral drug delivery platform.

36.20230218526COLD FILTRATION OF OIL-IN-WATER EMULSION ADJUVANTS
US - 13.07.2023
Clasificación Internacional A61K 9/107 Nº de solicitud 18001802 Solicitante Seqirus UK Limited Inventor/a Stephen HUNN

The present disclosure relates to the method of filtering emulsions at cold temperatures. Specifically, cold filtration of emulsion adjuvants for vaccine manufacture is discussed.

37.20230220045NOVEL PEPTIDES AND COMBINATION OF PEPTIDES FOR USE IN IMMUNOTHERAPY AND METHODS FOR GENERATING SCAFFOLDS FOR THE USE AGAINST PANCREATIC CANCER AND OTHER CANCERS
US - 13.07.2023
Clasificación Internacional C07K 14/74 Nº de solicitud 18154098 Solicitante Immatics Biotechnologies GmbH Inventor/a Andrea MAHR

The present invention relates to peptides, proteins, nucleic acids and cells for use in immunotherapeutic methods. In particular, the present invention relates to the immunotherapy of cancer. The present invention furthermore relates to tumor-associated T-cell peptide epitopes, alone or in combination with other tumor-associated peptides that can for example serve as active pharmaceutical ingredients of vaccine compositions that stimulate anti-tumor immune responses, or to stimulate T cells ex vivo and transfer into patients. Peptides bound to molecules of the major histocompatibility complex (MHC), or peptides as such, can also be targets of antibodies, soluble T-cell receptors, and other binding molecules.

38.4208198REKOMBINANTE SARS-COV-2-SPIKE-PROTEINUNTEREINHEITEN, EXPRESSION UND VERWENDUNGEN DAVON
EP - 12.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 21865072 Solicitante HAWAII BIOTECH INC Inventor/a CLEMENTS DAVID E
The present invention is directed to the expression and secretion recombinant SARS-CoV-2 spike protein subunits. Various subunits have been designed and expressed as secreted products into the culture medium of transformed insect cell lines. The design of subunits is focused on the production of products that provide the ability to induce focused immune responses without inducing immune enhancing responses. The expressed and purified products are suitable as vaccine candidates to protect against disease caused by SARS-CoV-2.

39.20230226162A*03 RESTRICTED PEPTIDES FOR USE IN IMMUNOTHERAPY AGAINST CANCERS AND RELATED METHODS
US - 20.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 18160420 Solicitante Immatics Biotechnologies GmbH Inventor/a Colette SONG

The present invention relates to peptides, proteins, nucleic acids and cells for use in immunotherapeutic methods. In particular, the present invention relates to the immunotherapy of cancer. The present invention furthermore relates to tumor-associated T-cell peptide epitopes, alone or in combination with other tumor-associated peptides that can for example serve as active pharmaceutical ingredients of vaccine compositions that stimulate anti-tumor immune responses, or to stimulate T cells ex vivo and transfer into patients. Peptides bound to molecules of the major histocompatibility complex (MHC), or peptides as such, can also be targets of antibodies, soluble T-cell receptors, and other binding molecules.

40.4210741IMPFSTOFF GEGEN VIRALE PATHOGENE
EP - 19.07.2023
Clasificación Internacional A61K 39/385 Nº de solicitud 21865442 Solicitante UNIV BRITISH COLUMBIA Inventor/a JEFFERIES WILFRED

The present invention provides vaccines against respiratory viruses including coronavirus, such as SARS-CoV-2, and influenza viruses. In particular, the present invention provides vaccines against SARS-CoV-2 which encode a targeting domain and a SARS-CoV-2 spike protein or fragment thereof.

41.20230226113Vaccine and Uses thereof in Cell Therapy
US - 20.07.2023
Clasificación Internacional A61K 35/17 Nº de solicitud 18194349 Solicitante Innovative Cellular Therapeutics Holdings, Ltd. Inventor/a Yang Li

The present disclosure relates to compositions and methods for enhancing T cell response in vivo. For example, a method of enhancing T cell response in a subject or treating a subject having cancer, the method comprising: administering an effective amount of a composition comprising modified cells to the subject having a form of cancer associated with or expressing an antigen, for example, a solid tumor antigen; and administering (1) a nucleic acid encoding the antigen, (2) additional modified cells comprising the nucleic acid or the antigen, or (3) microorganisms, for example cold viruses, comprising the nucleic acid or the antigen. In embodiments, the modified cells comprise mixed cells targeting a solid tumor antigen and a white blood cell (WBC) antigen. In embodiments, the modified cells comprise a dominant negative form of an immune checkpoint molecule (e.g., PD-1). In embodiments, the modified cells comprise an exogenous polynucleotide encoding a therapeutic agent, such as IL-12 and IFNγ.

42.4211232GENTECHNISCH HERGESTELLTE AAV-VEKTOREN
EP - 19.07.2023
Clasificación Internacional C12N 7/00 Nº de solicitud 21777282 Solicitante UNIV MUENCHEN LUDWIG MAXIMILIANS Inventor/a MICHALAKIS STYLIANOS
The present invention relates to an adeno-associated virus (AAV) or an adeno-associated virus-like particle (AAVLP), comprising an insert of about 75-400 amino acids in the viral proteins (VPs) VP1, VP2 and/or VP3 at an insertion site (I) at the top of variable region VIII and/or variable region IV (VR-VIII and/or VR-IV) of the VP, wherein the insert is an immunogenic protein or a portion thereof and/or wherein the insert is a protein comprising a binding domain, such as an antigen-binding domain specific for a target antigen. The present invention also relates to pharmaceutical compositions comprising said AAV or AAVLP and to the pharmaceutical composition or the AAV or AAVLP for use in therapy, particularly for use as a vaccine, for use in the treatment or the prevention of a diseases and/or for use in gene therapy. Also concerned is a method for producing the AAV of AAVLP of the present invention.

43.20230226169MULTILAMELLAR RNA NANOPARTICLE VACCINE AGAINST SARS-COV-2
US - 20.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 17914894 Solicitante UNIVERSITY OF FLORIDA RESEARCH FOUNDATION INCORPORATED Inventor/a Elias Sayour

The present disclosure provides a nanoparticle comprising a positively-charged surface and an interior comprising (i) a core and (ii) at least two nucleic acid layers, wherein each nucleic acid layer is positioned between a cationic lipid bilayer, wherein the nanoparticle comprises RNA molecules encoding a SARS-CoV-2 protein. Methods of making such nanoparticles are further provided herein. Additionally, related cells, populations of cells, pharmaceutical compositions comprising the presently disclosed nanoparticles are provided. Methods of increasing an immune response against a tumor in a subject, methods of delivering RNA molecules to an intra-tumoral microenvironment, lymph node, and/or a reticuloendothelial organ in a subject, and methods of treating a subject with a disease are furthermore provided.

44.2946332Un ARNg dirigido a HPK1 y un método para editar el gen HPK1

ES - 17.07.2023
Clasificación Internacional C07K 14/725 Nº de solicitud 18859478 Solicitante Beijing Synthetic Vaccine Biosciences Co., Ltd Inventor/a LIAO, Xuebin

45.20230226166Immunogenic Antigens
US - 20.07.2023
Clasificación Internacional A61K 39/145 Nº de solicitud 18162032 Solicitante Longhorn Vaccines and Diagnostics, LLC Inventor/a Jeffrey D. Fischer

The invention relates to immunogenic compositions comprising an antigen obtained or derived from an antigenic epitope of one or more pathogens that induces an immune response in a mammal, an antigen obtained or derived from bacterial cell wall or viral material that induces an immune response in a mammal such as LTA, PNG or LPS, and a T cell stimulating antigen such as CRM. Preferably the immunogenic composition is a vaccine that is effective against a pathogenic infection or can generate antibodies that can be collected that are protective against infection by the pathogen. In addition, the invention relates to vaccines comprising antigens and to method for treating and preventing an infection.

46.WO/2023/137320COMPOSITIONS AND METHODS FOR TREATING BACTERIAL DISEASE
WO - 20.07.2023
Clasificación Internacional A61K 39/095 Nº de solicitud PCT/US2023/060468 Solicitante ARIZONA BOARD OF REGENTS ON BEHALF OF THE UNIVERSITY OF ARIZONA Inventor/a SO, Magdalene
The present invention relates to compositions and methods for preventing and/or treating bacterial disease (e.g., disease caused by *Neisseria sp*. such as gonorrhea). In particular, the present invention provides vaccine compositions and agents targeting *Neisseria* host interaction genes.

47.20230226165ZIKA VIRUS VACCINE
US - 20.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud 18178638 Solicitante Valneva Austria GmbH Inventor/a Jana Barbero Calzado

Described herein are Zika virus vaccines and compositions and methods of producing and administering said vaccines to subjects in need thereof.

48.20230227505IDENTIFICATION AND APPLICATION OF ALV-J MHC-B2 RESTRICTIVE EPITOPE PEPTIDE
US - 20.07.2023
Clasificación Internacional C07K 14/005 Nº de solicitud 17831388 Solicitante South China Agricultural University Inventor/a MANMAN DAI

An identification and an application of an ALV-J MHC-B2 restrictive epitope peptide are provided, which belong to the field of genetic engineering. An amino acid sequence of the provided ALV-J MHC-B2 restrictive epitope peptide is selected from SEQ ID NO:1, SEQ ID NO:2 and SEQ ID NO:3. An application of the ALV-J MHC-B2 restrictive epitope peptide in preparing an ALV epitope-based vaccine is provided. Restrictive motif of B2-haplotype chicken MHC class I molecule binding peptides is identified by in vitro elution assay. Potential epitopes in four proteins expressed by ALV-J are systematically screened by motif. The immunogenic B2-haplotype chicken ALV-J T-cell epitope peptides are identified by functional validation. It provides a material and theoretical basis for the research and development of ALV epitope-based vaccines.

49.WO/2023/130637VACCINES AND COMPOSITIONS BASED ON SARS-COV-2 S PROTEIN
WO - 13.07.2023

Clasificación Internacional A61K 39/12 Nº de solicitud PCT/CN2022/091986 Solicitante GUANGZHOU RIBOBIO CO., LTD. Inventor/a ZHANG, Bill Biliang
This disclosure provides vaccines and compositions based on SARS-CoV-2 S protein, and specifically relates to recombinant SARS-CoV-2 spike protein (Sprotein) and mRNA and DNA coding thereof. This disclosure also relates to recombinant plasmid comprising DNA sequence encoding recombinant S protein. This disclosure further relates to composition comprising the recombinant S protein and/or mRNA mentioned above, mRNA-carrier particle such as lipid nanoparticle (LNP), and composition such as a vaccine composition.

50.WO/2023/133617CHIMERIC PROTEIN PRODUCTION PROCESS, CHIMERIC PROTEIN, GENE, IMMUNOGENIC COMPOSITION AND USES
WO - 20.07.2023
Clasificación Internacional C07K 19/00 Nº de solicitud PCT/BR2022/050527 Solicitante UNIVERSIDADE FEDERAL DE MINAS GERAIS Inventor/a TOSTES GAZZINELI, Ricardo
The present technology discloses the production process for a chimeric protein with SEQ ID no. 1, using the nucleotide sequence with SEQ ID no. 2. It also discloses the chimeric protein defined by SEQ ID no. 1, the gene in SEQ ID no. 2 used for its production, immunogenic compositions containing said protein, and the use thereof to prepare vaccines for prophylaxis and prevention of infection and moderate and severe forms of COVID-19. The present technology falls within the field of human health, specifically in the field of preventive measures against infection with SARS-CoV2. It involves the production of a vaccine composition comprising a chimeric protein that prevents high viral loads and moderate and severe clinical forms of the disease by stimulating the immune system.

51.4210727ZUSAMMENSETZUNGEN UND VERFAHREN ZUR VERWENDUNG DAVON ZUR VORBEUGUNG UND BEHANDLUNG VON INFLUENZAINFEKTIONEN
EP - 19.07.2023
Clasificación Internacional A61K 38/17 Nº de solicitud 21867770 Solicitante UNIV GEORGIA Inventor/a VINCENT AMY L
Recombinant constructs, influenza viral genomes including the recombinant constructs, influenza viruses including the constructs, and vaccine formulations formed thereof for inducing or increasing an immune response against influenza virus are provided. The compositions typically include a nucleic acid having a nucleic acid sequence encoding IgA-inducing protein (IGIP) polypeptide that can positively regulate IgA expression operably linked to expression of a hemagglutinin or a neuraminidase. When the nucleic acid is expressed by recombinant influenza virus in infected cells, it preferably enhances IgA production against influenza virus. Live attenuated virus expressing IGIP, and methods of use thereof for treating and preventing influenza infections are also provided.

52.4211154RÜCKGEFALTETES MENSCHLICHES SERUMALBUMIN UND VERWENDUNG DAVON FÜR ANTITUMORMITTEL
EP - 19.07.2023
Clasificación Internacional C07K 14/765 Nº de solicitud 21867658 Solicitante ACADEMIA SINICA Inventor/a LIANG CHI-MING
Re-folded human serum albumin (rfHSA) and use thereof for anti-tumor are disclosed. The rfHSA comprises the primary amino acid sequence of naive human serum albumin, in which the rfHSA in a solution is oval shape, not fibrillar, and the naive HSA is globular. The rfHSA is used for treating cancer or a tumor in a subject in need thereof The rfHSA may also be used as a reagent for detecting the presence of a cancer ceil associated with integnn βΐ' or serine/threonine protein kinase Akt and extracellular signal-regulated kinase 1/2 (ERK1/2) in a tumor sample or as a reagent for inhibiting phosphorylation of Akt and ERK 1/2 in a cancer

cell sample. A cell lysate of a cancer cell treated with rfHSA, a vaccine composition comprising the cancer cell lysate, and use thereof are also disclosed. Also disclosed is a method tor preparing rfHSA.

53.WO/2023/133684CIRCULAR RNA VACCINES AGAINST SARS-COV-2 VARIANTS AND METHODS OF USE THEREOF
WO - 20.07.2023
Clasificación Internacional C12N 15/11 Nº de solicitud PCT/CN2022/071347 Solicitante PEKING UNIVERSITY Inventor/a WEI, Wensheng
Provided are circular RNAs (circRNAs) encoding an antigenic polyeptide of a SARS-CoV-2 variant. Provided are circRNA vaccines against a SARS-CoV-2 variant, such as a Delta or Omicron variant. The circRNA vaccine comprises a circRNA comprising a nucleic acid sequence encoding an antigenic polypeptide comprising a Spike (S) protein or a fragment thereof of a SARS-CoV-2 variant. Also provided are methods of treating or preventing a SARS-CoV-2 infection using the circRNAs or compositions thereof.

54.4212544VON CORONAVIRUS ABGELEITETE REZEPTORBINDUNGSDOMÄNENVARIANTE MIT REDUZIERTER ACE2-BINDUNGSKAPAZITÄT UND IMPFSTOFFZUSAMMENSETZUNG DAMIT
EP - 19.07.2023
Clasificación Internacional C07K 14/005 Nº de solicitud 21864487 Solicitante GI CELL INC Inventor/a JANG MYOUNG HO
Disclosed are a novel coronavirus-derived receptor-binding domain variant having reduced ACE2-binding affinity, a fusion protein comprising the same, and the use thereof. It is possible to overcome the drawbacks of conventional vaccines using the coronavirus spike protein or receptor-binding domain thereof, wherein the reduced ACE2 expression due to binding to ACE2 and negative feedback may lead to side effects of the lungs or heart, and in particular, may be fatal to patients suffering from underlying diseases of the lungs or heart. In particular, the fusion protein constructed by fusing the coronavirus receptor-binding domain with the Fc domain is imparted with a greatly improved in-vivo half-life, and has superior efficacy by further combining N protein, M protein, ORF protein, or the like of SARS-CoV-2 therewith through additional modification and thus is highly applicable to a multivalent immunogenic composition. Therefore, the coronavirus receptor-binding domain variant is useful for the prevention and treatment of coronavirus infections comprising SARS-CoV-2.

55.4212543FUSIONSPROTEIN MIT EINER VON CORONAVIRUS ABGELEITETEN REZEPTORBINDUNGSDOMÄNE UND EINEM NUKLEOKAPSIDPROTEIN SOWIE VERWENDUNG DAVON
EP - 19.07.2023
Clasificación Internacional C07K 14/005 Nº de solicitud 21864486 Solicitante GI CELL INC Inventor/a JANG MYOUNG HO
The present invention relates to a fusion protein comprising a SARS-CoV-2-derived receptor-binding domain and a nucleocapsid protein, and the use thereof. The fusion protein comprising a coronavirus-derived receptor-binding domain and a nucleocapsid protein is highly applicable to a multivalent vaccine composition having greatly improved in-vivo half-life and remarkably superior efficacy compared to an immunogenic composition comprising only a receptor-binding domain. In particular, the fusion protein can greatly improve the titer of the coronavirus-specific antibody formation and T-cell immune response, and is thus useful for the prevention and treatment of coronaviruses comprising SARS-CoV-2.

56.4208195HYBRIDE LEBEND ABGESCHWÄCHTE RNA IMPFSTOFFTECHNOLOGIE
EP - 12.07.2023
Clasificación Internacional A61K 39/12 Nº de solicitud 21748730 Solicitante ACCESS TO ADVANCED HEALTH INST Inventor/a VOIGT EMILY

This disclosure provides ribonucleic acid (RNA) polynucleotides encoding replication-competent viral genomes that, when introduced to a subject, induce an active viral replication. The RNA may be provided naked or with an artificial RNA delivery system. The viral genome may be a full-length genome of an attenuated viral strain. For example, the RNA may encode an attenuated Chikungunya or yellow fever virus. The artificial RNA delivery system may be a lipid particle such as a lipid nanoparticle (LNP), a nanostructure lipid carrier (NLC), or a cationic nanoemulsion (CNE). This disclosure also provides methods of inducing an immune response, including protective immunity, by administering to a subject an RNA polynucleotide that encodes a replication-competent viral genome in an amount sufficient to cause viral replication in the subject. The immune response may include inducing the production of neutralizing antibodies at a level comparable to inoculation with a live-attenuated virus.

57.2023204017Human immunodeficiency virus (HIV) -neutralizing antibodies
AU - 13.07.2023
Clasificación Internacional C07K 16/10 Nº de solicitud 2023204017 Solicitante International Aids Vaccine Initiative Inventor/a BURTON, Dennis R.

58.20230226161PEPTIDES AND T CELLS FOR USE IN IMMUNOTHERAPEUTIC TREATMENT OF VARIOUS CANCERS
US - 20.07.2023
Clasificación Internacional A61K 39/00 Nº de solicitud 18158606 Solicitante Immatics Biotechnologies GmbH Inventor/a Andrea MAHR

The present invention relates to peptides, proteins, nucleic acids and cells for use in immunotherapeutic methods. In particular, the present invention relates to the immunotherapy of cancer. The present invention furthermore relates to tumor-associated T-cell peptide epitopes, alone or in combination with other tumor-associated peptides that can for example serve as active pharmaceutical ingredients of vaccine compositions that stimulate anti-tumor immune responses, or to stimulate T cells ex vivo and transfer into patients. Peptides bound to molecules of the major histocompatibility complex (MHC), or peptides as such, can also be targets of antibodies, soluble T-cell receptors, and other binding molecules.

59.20230223126Digital Health Platform with Prescription Management and Integrated E-Commerce Curation
US - 13.07.2023
Clasificación Internacional G16H 20/10 Nº de solicitud 18046126 Solicitante Azova, Inc. Inventor/a Cheryl Lee Eberting

A digital health platform enables the creation of a curated selection of products available for recommendation by healthcare providers and/or purchase by patients. The digital health platform may further facilitate electronic medical record management, physician-customizable online portals, patient services, health-related online marketplaces, secure messaging services, vaccine management, on-demand translations, real-time sales support, and the like. The selection of a product for recommendation or purchase may be linked to the scheduling of a telemedicine consultation related to the selected product. A healthcare practitioner may provide immediate click-to-buy links to various products and services to facilitate an improved user-experience and increase compensation available to healthcare providers.

60.4210739HAEMOPHILUS-FULUENZAE-IMPFSTOFF UND VERFAHREN ZUR VERWENDUNG
EP - 19.07.2023
Clasificación Internacional A61K 39/102 Nº de solicitud 21867634 Solicitante THE ROCHESTER GENERAL HOSPITAL Inventor/a PICHICHERO MICHAEL

The present disclosure is directed to a fusion protein comprising all or part of two or more Haemophilus influenzae (Hi) proteins selected from the group consisting of Omp26, P6, P4, PD and PF, wherein at least one of the Hi proteins thereof comprises a lipid moiety, and vaccines and immunogenic compositions comprising such fusion proteins. Methods of treating or preventing a disorder associated with an Hi infection in a subject are also provided.

61.20230223108PROGNOSTIC PATHWAYS FOR VIRAL INFECTIONS
US - 13.07.2023
Clasificación Internacional G16B 25/10 Nº de solicitud 17996176 Solicitante InnoSIGN B.V. Inventor/a Anja Van De Stolpe

The invention relates to a method for determining whether a subject with an infection has a viral infection. The invention further relates to method for determining the cellular immune response to a viral infection or a vaccine. The methods may be performed on a blood sample obtained from a subject, and is based on the finding that specific cellular signaling pathways are active. The invention further relates to components for performing the methods and use of those components in a method of diagnosis.

62.20230218752POLYMERIC NANOPARTICLES AS VACCINE ADJUVANTS
US - 13.07.2023
Clasificación Internacional A61K 39/39 Nº de solicitud 17787051 Solicitante THE PROVOST, FELLOWS, SCHOLARS AND OTHER MEMBERS OF THE BOARD OF TRINITY COLLEGE DUBLIN Inventor/a Ed LAVELLE

Provided by the current invention is a biocompatible polymeric particle having a diameter of from 50nm to 65nm and methods for use thereof. A method to induce antigen specific CD8 T cells and Thl response is also provided.

63.20230218745MODIFIED ALPHAVIRUS FOR USE AS COVID-19 VACCINE
US - 13.07.2023
Clasificación Internacional A61K 39/215 Nº de solicitud 18000772 Solicitante New York University Inventor/a Daniel MERUELO

Modified alphaviruses encoding a SARS-CoV-2 spike protein or antigenic segment of the SARS-CoV-2 spike protein are provided. The modified alphaviruses include replicative defective Sindbis viruses. The modified viruses express or are administered with an immunomodulatory agent that is an agonist antibody or antigenbinding fragment thereof, or a cytokine, or a combination thereof. Pharmaceutical compositions that include the modified alphaviruses and methods of using the modified alphaviruses and compositions that contain them are provided. The compositions are used to stimulate a therapeutic or protective effect against SARS-CoV-2 infection that includes humoral and cell mediated responses.

64.20230227517NOVEL PEPTIDES AND COMBINATION OF PEPTIDES FOR USE IN IMMUNOTHERAPY AGAINST OVARIAN CANCER AND OTHER CANCERS
US - 20.07.2023
Clasificación Internacional C07K 14/47 Nº de solicitud 18158734 Solicitante IMMATICS BIOTECHNOLOGIES GMBH Inventor/a Andrea MAHR

The present invention relates to peptides, proteins, nucleic acids and cells for use in immunotherapeutic methods. In particular, the present invention relates to the immunotherapy of cancer. The present invention furthermore relates to tumor-associated T-cell peptide epitopes, alone or in combination with other tumor-associated peptides that can for example serve as active pharmaceutical ingredients of vaccine compositions

that stimulate anti-tumor immune responses, or to stimulate T cells ex vivo and transfer into patients. Peptides bound to molecules of the major histocompatibility complex (MHC), or peptides as such, can also be targets of antibodies, soluble T-cell receptors, and other binding molecules.

65.20230227518PEPTIDES FOR USE IN IMMUNOTHERAPY AGAINST CANCERS
US - 20.07.2023
Clasificación Internacional C07K 14/47 Nº de solicitud 18161423 Solicitante Immatics Biotechnologies GmbH Inventor/a Colette SONG

The present invention relates to peptides, proteins, nucleic acids and cells for use in immunotherapeutic methods. In particular, the present invention relates to the immunotherapy of cancer. The present invention furthermore relates to tumor-associated T-cell peptide epitopes, alone or in combination with other tumor-associated peptides that can for example serve as active pharmaceutical ingredients of vaccine compositions that stimulate anti-tumor immune responses, or to stimulate T cells ex vivo and transfer into patients. Peptides bound to molecules of the major histocompatibility complex (MHC), or peptides as such, can also be targets of antibodies, soluble T-cell receptors, and other binding molecules.

66.WO/2023/134611CIRCULAR RNA VACCINES AGAINST SARS-COV-2 VARIANTS AND METHODS OF USE THEREOF
WO - 20.07.2023
Clasificación Internacional C12N 15/11 Nº de solicitud PCT/CN2023/071196 Solicitante PEKING UNIVERSITY Inventor/a WEI, Wensheng
Provided are circular RNAs (circRNAs) encoding an antigenic polypeptide of a SARS-CoV-2 variant. Provided are circRNA vaccines against a SARS-CoV-2 variant, such as a Delta or Omicron variant. The circRNA vaccine comprises a circRNA comprising a nucleic acid sequence encoding an antigenic polypeptide comprising a Spike (S) protein or a fragment thereof of a SRAS-CoV-2 variant. Also provided are methods of treating or preventing a SARS-CoV-2 infection using the circRNAs or compositions thereof.

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